OROVILLE CITY COUNCIL
Council Chambers
1735 Montgomery Street
Oroville, CA. 95965

April 18, 2023
REGULAR MEETING
CLOSED SESSION 4:00 PM
OPEN SESSION 4:30 PM
AGENDA

PUBLIC ACCESS AND PARTICIPATION

Please review the options below for ways to participate in or observe the Council Meetings.

To Observe the Meeting:

1. Live Feed: https://www.youtube.com/channel/UCAoRW34swYl85UBfYqT7IbQ/
2. Zoom Link: https://zoom.us/j/96870319529?pwd=dW9kMGRZSFo5MFFNQk5wVDUzRkRrZz09
3. Zoom Application: Meeting ID: 968 7031 9529 Passcode: 67684553
4. By Phone: Telephone: 1-669-900-6833 Meeting ID: 968 7031 9529 Passcode: 67684553

To Provide Comment to the Council:

1. Attend the meeting in person.
2. Send an Email by 2:00 PM the day of the meeting to publiccomment@cityoforoville.org. All comments emailed will be provided to the Council Members for their consideration.

If you would like to address the Council at this meeting, you are requested to complete the blue speaker request form (located on the wall by the agendas) and hand it to the City Clerk, who is seated on the right of the Council Chamber. The form assists the Clerk with minute taking and assists the Mayor or presiding chair in conducting an orderly meeting. Providing personal information on the form is voluntary. For scheduled agenda items, *please submit the form prior to the conclusion of the staff presentation for that item.* The council has established time limitations of three (3) minutes per speaker on all items and an overall time limit of thirty minutes for non-agenda items. If more than 10 speaker cards are submitted for an item, the time limitation would be reduced to one and a half (1.5) minutes per speaker for that item. If more than 15 speaker cards are submitted for non-agenda items, the first 15 speakers will be randomly selected to speak at the beginning of the meeting, with the remaining speakers given an opportunity at the end. **(California Government Code §54954.3(b))**. Pursuant to Government Code Section 54954.2, the Council is prohibited from taking action except for a brief response from the Council or staff to statements or questions relating to a non-agenda item.

CALL TO ORDER / ROLL CALL

Council Members: Tracy Johnstone, Krysi Riggs, Scott Thomson, Janet Goodson, Shawn Webber, Vice Mayor Eric Smith, Mayor David Pittman

CLOSED SESSION

The Council will hold a Closed Session on the following:

1. Pursuant to Government Code Section 54957(b), the Council will meet with the Personnel Officer and City Attorney related to the following positions: Public Works Director and Community Development Director.

OPEN SESSION

1. Announcement from Closed Session
2. Pledge of Allegiance
3. Adoption of Agenda

PUBLIC COMMUNICATION – HEARING OF NON-AGENDA ITEMS

This is the time to address the Council about any item not listed on the agenda. If you wish to address the Council on an item listed on the agenda, please follow the directions listed above.

CONSENT CALENDAR

Consent calendar **items 1 – 6** are adopted in one action by the Council. Items that are removed will be discussed and voted on immediately after adoption of consent calendar items.

1. APPROVAL OF THE MINUTES

The Council may approve the minutes of March 28, 2023 and April 4, 2023

RECOMMENDATION

Approve the minutes of March 28, 2023 and April 4, 2023

2. SANK PARK FEE WAIVER REQUEST BY AMERICAN ASSOCIATION OF UNIVERSITY WOMEN

The Council will consider a fee waiver request for the use of the Lott Home – Sank Park by the Oroville chapter of the American Association of University Woman (AAUW), in the amount of $400 on May 12, 2023.

RECOMMENDATION

Approve the fee waiver request for the use of the Lott Home – Sank Park by the Oroville branch of AAUW, in the amount of $400 on May 12, 2023.

3. TASK ORDER AMENDEMENT - WASHINGTON AVENUE

The Council may consider amending existing Task Order 7. The amendment would authorize a geotechnical investigation of the Washington Avenue roadway structure and increase the Task Order by $19,780.

RECOMMENDATION

Staff recommends that the Council direct the City Administrator to approve the amendment.

4. TASK ORDER 17: SEWEER MASTER PLAN PROJECTS 3-B ALTERNATIVE AND 3C FEASIBILITY STUDY

The Council may direct staff to issue a task order to NorthStar to conduct a feasibility study on the constructability of Sewer Master Plan Project 3-B Alternative and 3C.

RECOMMENDATION

Staff recommends that the Council direct the City Administrator to proceed with the issuing of Task Order 17 discussed above to NorthStar.

5. AUTHORIZATION TO PURCHASE (1) KENWORTH T880 DUMP TRUCK

The Council may approve the purchase of (1) Kenworth T880 10-wheel dump truck in the amount of $251,998.23 as budgeted in the 22/23 Fiscal Year budget.

RECOMMENDATION

Approve the purchase of (1) Kenworth T880 10-wheel dump truck.

6. INSTALLATION OF 28 APX8500 PORTABLE VEHICLE RADIOS, AND NECESSARY INSTALLATION HARDWARE AND ATTENNAS

The Council will consider authorizing an installation contract with Sutter Buttes Communication for the installation of 28-APX8500 vehicle radios, and antennas in existing fleet police vehicles, in an amount not to exceed $22,224.55

RECOMMENDATION

Authorize the Police Department to contract with Sutter Buttes Communication for the installation of 28 APX8500 Motorola radios and Antennas in the existing fleet of Police Vehicles, in an amount not to exceed $22,224.55, as outlined in the attached quotes.

REGULAR BUSINESS

7. CONSIDER ENTERING INTO A MEMORANDUM OF UNDERSTANDING (MOU) WITH THE CITIES OF BIGGS, CHICO, GRIDLEY, PARADISE, AND BUTTE COUNTY FOR SB 1383 EDIBLE FOOD RECOVERY REGULATORY REQUIREMENTS

Authorize the City Administrator to enter into an agreement with the Cities of Biggs, Chico, Gridley, Paradise, and Butte County for SB 1383 Edible Food Recovery Regulatory Requirements.

RECOMMENDATION

Authorize the City Administrator to sign the MOU agreement with the Cities of Biggs, Chico, Gridley, Paradise, and Butte County for SB 1383 Edible Food Recovery Regulatory Requirements.

8. CONTRACT FOR INSTALLATION AND MAINTENANCE OF AUTOMATED LICENSE PLATE READER CAMERAS WITH ADVANCED AUDIO DETECTION

The Council will consider authorizing the lease of an automated license plate reader (ALPR) camera system (40 cameras) with enhanced audio detection from the Flock Group, for 24 months in an amount not to exceed $333,750.00. The cost is all inclusive to include installation, maintenance, cloud storage and all software updates as necessary.

RECOMMENDATION

Authorize and direct the mayor to sign an agreement with Flock Systems for the installation of a 40 camera Automated License Plate Reader system with advance listening capabilities.

9. AUTHORIZATION TO PURCHASE (1) SALSCO TP-44 MINI-ASPHALT PAVER

At the request of Council Member Johnstone and Council Member Webber, the Council may consider and approve the purchase of (1) Salsco TP-44 Mini-Asphalt Paver to aid the efficiency of repairs and repaving in the amount of $69,465.25 and the surplus of a 1988 Mauldin paver.

RECOMMENDATION

Authorize staff to purchase (1) Salsco TP-44 Mini Asphalt Paver and surplus the 1988 Mauldin Paving Machine and send to the next surplus auction.

10. REVIEW OF LEASE AND PURCHASE OPTIONS FOR A TYPE 1 FIRE ENGINE

At the request of Council Member Riggs and Council Member Thomson, the Council will review lease and purchase options for one new Pierce Type 1 Fire Engine for Oroville Fire Department.

RECOMMENDATION

Provide staff direction.

PUBLIC HEARINGS

The Public Hearing Procedure is as follows:

- The Mayor or Chairperson opens the public hearing and staff will present the item and answer Council questions.
- The hearing is opened for public comment and limited to three (3) minutes per speaker. In the event of more than ten (10) speakers, time will be limited to one and a half (1.5) minutes. Under Government Code 54954.3, the time for each presentation may be limited.
- Speakers are requested to provide a speaker card to the City Clerk
- Public comment session is closed and then the Council will debate and take action
- Those wishing to speak at the public hearings below, but unable to attend before 5pm, may request that the council consider holding the public hearing after 5pm by emailing cityclerk@cityoforoville.org or calling 530-538-2535. Please submit your request 24 hours before the meeting.
- Individuals may email comments for council consideration to publiccomment@cityoforoville.org

11. HOUSING ELEMENT UPDATE (2022-2030) FINAL DRAFT

The City Council will conduct a public hearing to consider adopting the final draft of the 2022 General Plan Housing Element Update.

RECOMMENDATION

Staff recommends the following actions:

1. Conduct a public hearing regarding the final Housing Element
2. Re-adopt the July 19, 2022 Notice of Exemption as the appropriate environmental document.
3. Adopt the February 6, 2023 Revised Draft Housing Element as the Final draft
4. Authorize submittal to the California Department of Housing and Community Development (HCD) for their certification.
5. Adopt Resolution 9132.

PUBLIC COMMUNICATION – HEARING OF NON-AGENDA ITEMS

This is the time to address the Council about any item not listed on the agenda. If you wish to address the Council on an item listed on the agenda, please follow the directions listed above.

REPORTS / DISCUSSIONS / CORRESPONDENCE

1. Council Announcements and Reports

2. Future Agenda Items

3. Administration Reports

   i. Departmental Reports for Council Update
   ii. Police Department Monthly Report March 2023

4. Correspondence

   i. Visual Arts and Performing Arts Showcase Information

ADJOURN THE MEETING

The meeting will be adjourned. A regular meeting of the Oroville City Council will be held on May 2, 2023 at 4:00 p.m.

Accommodating Those Individuals with Special Needs – In compliance with the Americans with Disabilities Act, the City of Oroville encourages those with disabilities to participate fully in the public meeting process. If you have a special need in order to allow you to attend or participate in our public meetings, please contact the City Clerk at (530) 538-2535, well in advance of the regular meeting you wish to attend, so that we may make every reasonable effort to accommodate you. Documents distributed for public session items, less than 72 hours prior to meeting, are available for public inspection at City Hall, 1735 Montgomery Street, Oroville, California.

Recordings - All meetings are recorded and broadcast live on cityoforoville.org and YouTube.

OROVILLE CITY COUNC
Table Mountain Golf Club
2700 Oro Dam Blvd W.
Oroville, CA. 95965

March 28, 2023
SPECIAL MEETING
MINUTES

This meeting agenda was posted on March 24, 2023. This meeting was recorded and may be viewed at Cityoforoville.org

CALL TO ORDER / ROLL CALL

Mayor Pittman called the meeting to order at 11:00 am.

Present: Council Members: Tracy Johnstone, Krysi Riggs, Scott Thomson, Janet Goodson (Left at 12:43pm), Shawn Webber, Vice Mayor Eric Smith, and Mayor David Pittman

OPEN SESSION

1. Pledge of Allegiance – Led by Code Enforcement Director Ron Belser

2. Adoption of the Agenda – Motion by Council Member Goodson and seconded by Vice Mayor Smith to adopt the agenda. Motion passed unanimously.

REGULAR BUSINESS – Action Calendar

1. GOALS AND PRIORITIES WORKSHOP

The Council participated in a workshop to establish Council goals and priorities and provided staff direction.

ADJOURNMENT

Mayor Pittman adjourned the meeting at 2:01pm.

APPROVED: ATTESTED:

Mayor David Pittman Assistant City Clerk Jackie Glover

03/28/23- Meeting Notes

1. **Staffing/ recruitment/ Training (4)**
    a. Hire OPD HR Manager
    b. Hire two electricians (2)
    c. Hire a Street Superintendent and a Public Works Director
    d. Fully Staff Building Department (2)
        i. Hire Building Official
    e. Fully Staff Administration Departments (3)
        i. Hr Assistant and Clerk Assistant
    f. Money for Recruitment and Retention
        i. Recruitment (3)
    g. Code Enforcement Outreach Team (2)
    h. Police Training on Crime reporting, patrols and reports
    i. Address staffing Needs
    j. Have Multiple Mechanics on Duty
    k. Higher wage job opportunities
    l. Post Jobs on Govjobs.com
    m. Open Enrollment Software
2. **Process Improvements (3)**
    a. PIO – Community Liaison to Communicate /Report City Successes
    b. City Hall Intercom for back area staff
    c. Public Records Request Distribution Process for Staff
    d. Revamp Building and Planning from the Ground Up
    e. Efficient Permit Process
    f. Electronic Permit Process - EASIER
3. Market Rate Housing INC (1)
    a. Market rate and higher end housing
    b. Housing incentive (LIHTC)
    c. Housing incentives
4. **Customer Service (4)**
    a. Customer Service Training
    b. Customer Service Training for Building and Planning
    c. Customer Service Training for Administration
5. Community improvements
    a. General Beautification of the Community
    b. Improve Vacant Building/Lots
        i. Improve Downtown Vacant Buildings
    c. Higher wage job opportunities
    d. South Oroville improvements – housing, streets and sidewalks
    e. Community reputation and self esteem
    f. Pre- application meetings
6. Airport Hangers (0)
    a. More Airport Hangers (3)

7. **Road Repairs (5)**
    a. **Paving/Road Repair (3)**
    b. Road equipment
    c. Road plan
    d. Priority list of roads, and repair, keep and maintain them
8. **Park Safety/ Security (2)**
    a. Increase Park Safety
    b. Blue Light Safety
    c. Lighting
    d. Fences
    e. Enhanced Patrol
9. Park /Rec Enhancements (1)
    a. Park Improvement
    b. Develop Bedrock Park
    c. Upgrade playground equipment at rotary
    d. Tree replacement program pro-active
    e. Dam Licensing FERC
    f. Improve Levee/ river recreation.
    g. Funding for pool
10. Fiscal Resp (0)
    a. Be fiscally sustainable and responsible.
    b. Lease Land for Police Department
    c. Capital Equipment Purchases
    d. Non-Grant Funding for BAHD (2)
    e. Administration Fiscal Stability
11. Patrol Expansion (1)
    a. Patrols around parks more often (2)
12. Crime Reporting (0)
    a. Training on Crime Reporting
    b. More Tech for crime solving and prevention.
        i. Cameras
        ii. Drones
13. **Fire Equipment (3)**
    a. Updated Trucks and Equipment (2)
    b. New 1 Ladder, 2 Fire Engines (2)
    c. Fire Trucks (4)
14. IT Improvements (0)

- **Council Top Priorities**
- **Multiple People Suggested**

OROVILLE CITY COUNC
Council Chambers
1735 Montgomery Street
Oroville, CA. 95965

April 04, 2023
REGULAR MEETING
MINUTES

This agenda was posted on March 31, 2023. This meeting was recorded and may be viewed at cityoforoville.org or on YouTube.

CALL TO ORDER / ROLL CALL

PRESENT: Council Members: Tracy Johnstone, Krysi Riggs, Scott Thomson, Janet Goodson, Shawn Webber, Vice Mayor Eric Smith, Mayor David Pittman

STAFF: Brian, Jackie, Bill, Ron, Ruth, Amy, Dawn, Scott, Karolyn, Wes, Liz

Added Item: The following item came to the attention of the City Staff subsequent to the posting of the agenda for this April 4, 2023 meeting. Pursuant to Government Code Section 54954.2, staff is requesting the council take action to add this item.

Amend the Agenda to Add Item No. 2.5 to Open session as follows:

Pursuant to the Brown Act, as amended by AB2449, the Council will consider approving the emergency circumstances for two council members to attend this meeting virtually.

Motion to add item as stated above by Council Member Johnstone and seconded by Council Member Webber. Motion passed with 5 yeses and 2 absent.

AYES: Johnstone, Riggs, Thomson, Webber, Pittman
NOES: None
ABSTAIN: None
ABSENT: Smith, Goodson

CLOSED SESSION

The Council held a Closed Session on the following:

1. Pursuant to Government Code Section 54957(b), the Council will meet with the Personnel Officer and City Attorney related to the following positions: Public Works Director and Community Development Director.

OPEN SESSION

1. Announcement from Closed Session – Mayor Pittman announced that direction was given; no action was taken.

2. Pledge of Allegiance – Led by students from Ophir Student Body Council

2.5 Pursuant to the Brown Act, as amended by AB2449, the Council will consider approving the emergency circumstances for two council members to attend this meeting virtually.

Motion by Council Member Johnstone and seconded by Council Member Thomson to approve item 2.5. Motion passed with 5 yeses and 2

AYES: Johnstone, Riggs, Thomson, Webber, Pittman
NOES: None
ABSTAIN: None
ABSENT: Smith, Goodson

3. Adoption of Agenda – Motion by Council Member Riggs and seconded by Council Member Thomson to adopt the agenda. Motion passed.

AYES: Johnstone, Riggs, Thomson, Webber, Smith, Goodson, Pittman
NOES: None
ABSTAIN: None
ABSENT: None

PRESENTATIONS AND PROCLAMATIONS

1. The City Attorney provided a presentation on Sober Living Environments.

PUBLIC COMMUNICATION – HEARING OF NON-AGENDA ITEMS

The following individuals spoke on agenda items:

- Eric Schanke – Presentations
- Susannah Wedgwood - Presentations
- Natalie Sheard - Presentations
- Julie Miller - Presentations
- Shara Sheard - Presentations
- Tj Jensen - Presentations
- Joseph Sanders - Presentations
- Annie Terry - Presentations
- Bill Speer – Presentations
- Celia Hirschman – Presentations
- Don Noble – Item 11

The following individuals spoke on non-agenda items:

- Bill Speer
- Shannon Tomlin and Brianna

CONSENT CALENDAR

Motion by Council Member Riggs and seconded by Council Member Johnstone to approve the consent calendar items 1-9 excluding item 5. Motion passed.

AYES: Johnstone, Riggs, Thomson, Webber, Smith, Goodson, Pittman
NOES: None
ABSTAIN: None
ABSENT: None

1. APPROVAL OF THE MINUTES

The council approved the minutes of March 21, 2023

2. CONSIDER AND APPROVE NEWLY CREATED JOB DESCRIPTIONS FOR HUMAN RESOURCE/RISK MANAGER, HUMAN RESOURCE ANALYST, AND HUMAN RESOURCE TECHNICIAN

The City Council approved the attached job descriptions for Human Resource/Risk Manager, Human Resource Analyst, and Human Resource Technician.

3. AWARD OF CONTRACT; YARD AND BRIDGE STREET INTERSECTION IMPROVEMENT PROJECT

The Council awarded a contract to All-American Construction, Inc for $174,773.00, and allocating $18,000.00 for contingencies. And authorized the City Administrator to execute the contract.

4. AWARD OF CONTRACT; PORTLAND LOOS PROJECT

The Council awarded a contract to R&R Horn Contractors, Inc. for $460,169.00 and allocating $47,000.00 for contingencies, for a total of $507,169, and authorized the City Administrator to execute the contract; and approved spending $407,169 and a reallocation of $100,000 from the Veterans Project.

6. TRANSFER OF BEDROCK PARK PARCEL FROM FEATHER RIVER RECREATION AND PARKS DISTRICT TO THE CITY OF OROVILLE: APN 035-290-019

The Council **adopted Resolution No. 9131 –** A RESOLUTION OF THE OROVILLE CITY COUNCIL AUTHORING AND DIRECTING THE MAYOR TO EXECUTE ALL TITLE AND ESCROW DOCUMENTS RELATED TO THE TRANSFER OF ONE FEATHER RIVER RECREATION AND PARKS DISTRICT PROPERTY; APN: 035-290-019, TO THE CITY OF OROVILLE

7. RATIFICATION OF ADDITIONAL REMEDIATION AND REPAIRS AT 33 CANYON HIGHLANDS DRIVE

The City Council ratified the expenditures that were made for this emergency remediation at 33 Canyon Highlands Dr.

8. CONTRACT FOR ADMINISTRATIVE HEARING OFFICER SERVICES RELATED TO CODE ENFORCEMENT

The Council approved an agreement for Administrative Hearing Officer services for the City of Oroville by approving Agreement No. 3452

9. VOICE FOR THE ARTS AWARD SELECTION

The Council approved the Arts Commission recommendation and awarded the Voice of the Arts Award to Community Individual Don Remley.

5. AGREEMENT FOR AS NEEDED PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES WITH RUSSELL, GALLAWAY ASSOCIATES, INC.

The Council considered authorizing the Mayor to execute an agreement for as needed professional architectural and engineering services with Russell, Gallaway Associates, Inc.

Motion by Council Member Goodson and seconded by Council Member Riggs to authorize the Mayor to contract with Russell, Gallaway Associates, Inc. for as needed

professional architectural and engineering and design services and approve Task Orders 1 & 2 but to hold off on starting the contracts until after the Council Architectural Ad hoc committee meets.

REGULAR BUSINESS

10. SELECTION OF THE 2023 SAMUEL J. NORRIS AWARD FOR EXCELLENCE RECIPIENT

The Council considered the selection of a recipient for the 2023 Samuel J. Norris Award for Excellence.

Council selected a recipient for the 2023 Samuel J. Norris Award for Excellence.

Bud Bolt – Smith, Johnstone, Pittman, Thomson, Webber

Jan Hill – Riggs, Goodson

This award will be awarded at the State of the City on April 25, 2023.

11. LETTER FROM YMCA REQUESTING CITY PARTNERSHIP IN BUILDING DOWNTOWN SWIMMING POOL/ATTRACTION

At the request of Council Member Johnstone and Council Member Webber, the Council will discussed the letter received from the YMCA of Superior California (YMCA) requesting to partner with the City to discuss bringing a pool to the downtown area of Oroville.

Council provided staff direction and recommended that this topic be initially discussed at the Council Executive Committee.

12. RE-ESTABLISHMENT OF THE COMMUNITY ENHANCEMENT BUDGET UNIT

At the March 21, 2023 regularly scheduled City Council meeting, Council Member Thomson and Council Member Webber discussed putting on the agenda the concept of providing some City funding for a 4th of July fireworks show. In addition, there were conversations of budgeting for funding to potentially help fund other projects that impacted the quality of life of our residents or provided a community benefit. In response to these discussions, staff brought forward for Council consideration of the re-establishment of the Community Enhancement budget unit.

Motion by Council Member x and seconded by Council Member x to

Direct staff to re-establish the Community Enhancement budget unit with $15,000 budgeted; or

Thomson/Webber 100,000 , 20,000 for fireworks and 5,000 in matching donations

Riggs/Goodson – Motion to establish a Community Enhancement budget unit of $20,000, an appropriate use would be matching funds.

Smith/Thomson/Webber - No

13. FORMATION OF ARCHITECTURAL DESIGN WORK AD HOC COMMITTEE

At the March 21, 2023 regularly scheduled City Council meeting, Council Member Thomson and Council Member Webber requested an item be placed on the agenda to consider the establishment of an ad hoc committee to review architectural design work being performed on City buildings and property.

Webber/Thomson – Make a stand-alone committee.

Pittman, Riggs, Goodson - No

PUBLIC COMMUNICATION – HEARING OF NON-AGENDA ITEMS

The following individuals spoke on non-agenda items:

- Bill Speer

REPORTS / DISCUSSIONS / CORRESPONDENCE

1. Council Announcements and Reports
    a. Riggs – Spoke about First Friday Event
    b. Webber – Spoke about road work ideas coming soon and upcoming events
    c. Pittman – Spoke about the Butte County Housing Authority
2. Future Agenda Items
    a. Webber – Architectural Design Committee Appointments
    b. Riggs/Thomson/Pittman – Fire Engine
3. Administration Reports
    a. Nevers – Spoke about current work of the department.
    b. Duncan – Spoke about the LAIF Correspondence
    c. Belser – Spoke about March activity in the department, spoke about City Works
    d. Bergstrand – Spoke about a Grant XXXXXXXXXXXXXXX
    e. Ring – Spoke about the Goals and Priorities Workshop, Spoke about the Budget, Chamber Dinner

4. Correspondence

    i. LAIF Correspondence

    ii. Haven of Hope on Wheels Bi-Annual Report

    iii. Feather River Recreation and Park District Activity Center Closure

ADJOURN THE MEETING

Meeting adjourned at 8:17pm

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **DAWN NEVERS, ASST COMMUNITY DEVELOPMENT DIRECTOR**

RE: **SANK PARK FEE WAIVER REQUEST BY AMERICAN ASSOCIATION OF UNIVERSITY WOMEN**

DATE: **APRIL 18, 2023**

SUMMARY

The Council will consider a fee waiver request for the use of the Lott Home – Sank Park by the Oroville chapter of the American Association of University Woman (AAUW), in the amount of $400 on May 12, 2023.

DISCUSSION

The applicant, Kristin Sherrock, has applied for a fee waiver for the rental fees associated with the Lott Home – Sank Park located at 1067 Montgomery Street, Oroville. The applicant is a representative of the Oroville branch of AAUW, which is seeking to hold their annual Tech Trek Picnic for the selected Tech Trek girls and their parents on May 12, 2023. AAUW selects several girls throughout the area to attend a weeklong Math and Science camp in Davis. The purpose of this event is to celebrate the selection of the camp attendees, so the girls attending can meet one another, and to inform the girls and their parents on what their camp experience will entail.

To avoid detracting from the Tech Trek scholarship funds, the applicant is requesting a fee waiver for this event. Waiver of the fees ($400.00) would cover $150.00 for the cleaning deposit and $250.00 for the rental of the kitchen and patio. The allotted 4-hour rental of the Lott Home – Sank Park includes set-up and clean-up time, which would also be covered with this waiver.

FISCAL IMPACT

The City will see a loss in revenue for a 4-hour rental fee for the Lott Home – Sank Park in the amount of $400.00.

RECOMMENDATION

Approve the fee waiver request for the use of the Lott Home – Sank Park by the Oroville branch of AAUW, in the amount of $400 on May 12, 2023.

ATTACHMENTS

Facility Use Fee Waiver Application – Sank Park
Application & Agreement for Use
Facilities Rental Agreement

Reserv2303-010

Application & Agreement for Use

Oroville Parks & Facilities

Various Locations, Oroville, CA 95965

Mail to: 1735 Montgomery St. Oroville, CA 95965

Date Received:	
Check List:	
	Scheduled
	Deposit Paid
	ABC License
	Alcohol Permit
	Insurance
	Rental Paid
	Business License
	Deposit Returned

Applicant Name: Kristin Shorrock Phone: 530-521-3239

Applicant Address: 1310 MT IDA RD

City / State / Zip: OROVILLE, CA 95966

Park/Facility Requested: Lott Home Patio & Kitchen

Event Type: PICNIC for TECH TREK GIRLS & families

Organization AAUW American Association of University Women Use Time 3:30-5:00pm

Insurance Company FOX & ASSOC. Cert. No.

Alcohol Permit ☐ No. of Guests (Separate Application along with an ABC License)

Date of event: May 12th, 2023

Park Rental Times
9AM - 1PM
2PM - 6PM

FACILITY REQUESTED

- [x] Lott Home / Sank Park
- [ ] Centennial Plaza
- [ ] Feather River Nature Center
- [ ] Other
- [ ] Hammon Park
- [ ] Hewitt Park
- [ ] Rotary Park

SERVICES REQUESTED

- [x] Electricity
- [ ] Water Spigot
- [ ] BBQ
- [ ] Bocce Ball Courts
- [x] Patio
- [x] Kitchen
- [ ] Gazebo
- [ ] Coach Room
- [ ] Heat/Cool ON
- [ ] Irrigation System Off —?
- [ ] Other

TYPE OF FUNCTION

- [ ] Wedding / Reception
- [ ] Lunch / Dinner
- [ ] Birthday Party
- [ ] Concert
- [x] Picnic / BBQ
- [ ] Other

The City does hereby grant to User, permission to use the above stated park or facility for the time and purpose specified, and subject to, the conditions and limitations appearing on the attached sheets which are part of this Agreement. The User agrees to indemnify, defend and hold harmless the City of Oroville, its officers, employees, or agents for any claims arising out of the use of the facility and equipment.

IN WITNESS THEREOF the parties hereto, or their duly authorized agents, have caused this agreement to be executed this Mar **day of** 29 2023

(Checks or Purchase Orders made out to **City of Oroville**)

City Authorized agent Jennifer Mena **User authorized agent:**

Rev: 07.27.2016, (1)

Oroville PARKS AND FACILITIES Contract Addendum
Page 2 of 2

The City of Oroville grants the privilege and right to use the Oroville PARKS & FACILITIES under the terms, conditions, and limitations herein specified.

1. Should an alcoholic beverage be served, an Alcoholic Beverage Concession license (ABC License) and City Permit must be submitted and approved by the City prior to serving said alcoholic beverages. Completing the City Permit takes a few days; plan ahead. According to the Department of Alcoholic Beverage Control, ABC532 *"This license authorizes the temporary sale of beer or wine, for consumption on the premises designated on the license. Sales may be made only on the day or days shown on the license certificate, and said certificate should be conspicuously posted at the licensed location"*. Please refer to the Department of Alcoholic Beverage Control for information pertaining to Special Daily Licenses. www.abc.ca.gov

2. Parks & Facilities Fees

FEES & PERMITS	ACCOUNT NO.	AMOUNT
Park Use Fee		$
Cleaning Deposit	620-2525	$
Alcohol Permit		$
Amplification Permit		$
	TOTAL AMOUT	$ 0.00

3. Equipment Check-in / Check-out

	EQUIPMENT ISSUE	Date		EQUIPMENT RETURNED	Date
	Keys No. _____			Keys No. _____	
	Water Spigot			Water Spigot	
	Bocce Ball Set			Bocce Ball Set	

Signature: _____ DEPOSIT (CHECK / CASH) $ _____

Date: _____ DATE: _____

Signature: _____ DEPOSIT RETURNED _____

Date: _____ DATE: INITIALS _____

PLEASE READ THE ATTACHED PARK USE FEE PROCEDURES & POLICY: Intl._____

Thank you for your cooperation!

Facilities Rental Agreement

LOTT HOME in SANK PARK

1067 Montgomery St., Oroville, CA 95965

Mail to: 1735 Montgomery St. Oroville, CA 95965

The undersigned is aware of, and accepts the following: DATE OF EVENT: May 12, 2023

1. The use of Lott / Sank Park is limited to eight (8) hours except by special arrangements.
2. It is understood that in the event of cancellation, ONLY **50%** of the use fee will be refunded. (A cancellation must be requested by completing the Reservation Cancellation form)
3. That the undersigned is responsible for the actions, noise, and conduct of all the guests attending this function.
4. That the undersigned is responsible and will see that no damage occurs to structures, utilities, or landscaping.
5. That the rental of the kitchen, patio, and gazebo does not include access to the Lott Home.
6. That the use of amplified sound equipment is prohibited except by authorized permit from the Parks Department. Permits may be obtained from the Department of Parks and Trees at City Hall. **AMPLIFIED MUSIC IS TO BE LIMITED TO A FOUR-HOUR PERIOD AND MUST TERMINATE BY 8:30 p.m. ON WEEKDAYS AND SATURDAYS, and 8:00 p.m. ON SUNDAYS.**
7. That no events or the setting up for events shall start before 9:00 a.m.
8. That the CLOSING TIME for Lott-Sank Park is 9:00 p.m. on weekdays and Saturdays and **8:30 p.m. on Sundays**. This means that all decorations, equipment, and other materials are to be removed before the conclusion of events, and lights are to be out, doors locked, and gates closed.
9. That public access to the front entrance and porch of the home shall not be blocked; the walkways and front porch shall not be used in any way that would impede public access to the home.
10. That in the event any of the aforementioned conditions are not met, the paid deposit may be forfeited.
11. That the Lott Home and Sank Park are owned by the citizens of Oroville and maintained by the City of Oroville.
12. A **$75.00 key deposit** is required the Friday before the function and will be returned the following Monday.

SIGNED Kristin L Shorrock PRINT NAME Kristin Shorrock

CONTACT PHONE NO. 530-521-3239 TODAY'S DATE 3-28-23

LOTT HOME in SANK PARK – GUIDELINES AND PROCEDURES

Rules and Guidelines:

Public Park Sank Park is a City owned Public Park and open from 9:00 am to 9:00 pm. The Lott Home is open for tours on Mondays, Fridays, and Sundays between 11:30 am and 3:30. Group tours can be arranged during a private event at the group-tour rate. The group-tour must be scheduled prior to your event by calling the Department of Parks and Trees' Staff Assistant at (530) 538-2415.

Reservations Reservations are made on a first-come, first-served basis. They are effective upon full payment of the Use Fee and Cleaning Deposit. Reservations may be made up to one year prior to the event.

Rehearsals Arrangements for rehearsals must be made in advance by contacting the Department of Parks and Trees' Staff Assistant. There is no charge for the rehearsal only. However, a rehearsal dinner is considered a separate event; therefore, it is subject to additional Use Fee charges.

Cancellations In the event of cancellation, the renter will forfeit 50% of the Use Fee paid. The entire (100%) amount paid will be refunded for inclement weather only, there are no other exceptions. The Cleaning Deposit will be refunded upon any cancellation.

Responsible The person making the reservation shall be responsible for dealing with the Park Technician and the conduct of the guests at the event. The Park Technician will not be at the park until 12:00 pm.

Amplified Music Music is limited to a 4-hour period and must terminate by 8:30 pm on Monday through Saturday and by 8:00 pm on Sunday. Renters must obtain an approved sound permit from the Department of Parks and Trees.

Alcohol Permit Required for all events serving any form of alcohol.

Rice Throwing Rice throwing is not permitted.

Initial KS

Available to Renter:

Rental Kitchen Included in rental: 2 electric cook tops and ovens, 1 commercial refrigerator – freezer, 1 microwave, 2 dishwashers, 2 warming ovens, 3 large coffee pots (2-30 cup and 1-60 cup), and 2 double sinks.

Patio Lighting, space heaters, and ceiling fans are installed under a covered patio area. Tables and chairs are available. Please inquire for current availability. — Key opens kitchen & Table/chair storage ??

Not Available to Renter:

Supplies Renters must bring their own brooms, ladders, scissors, tacks, tape, extension cords, hammers, food servicing utensils, rags, wipe cloths, additional chairs or tables needed.

Lott Home Not included within rental agreement is the public area in the southwest corner of the Park or the Lott Home itself.

Initial KS

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **MATT THOMPSON, ACTING CITY ENGINEER**

RE: **TASK ORDER AMENDMENT – WASHINGTON AVENUE**

DATE: **APRIL 18, 2023**

SUMMARY

The Council may consider amending existing Task Order 7. The amendment would authorize a geotechnical investigation of the Washington Avenue roadway structure and increase the Task Order by $19,780.

DISCUSSION

The Council previously approved Task Order 7 to NorthStar Engineering of Chico for design of the Washington Avenue pavement reconstruction project from Oro Dam Blvd to the railroad overcrossing. This project would include reconstruction of the roadway, bringing all existing non-ADA compliant curb ramps to compliance, and adding curb ramps wherever necessary.

This amendment would authorize NorthStar's subcontractor Bajada Geosciences, Inc to conduct a geotechnical survey of the Washington Avenue pavement structure. This investigation would provide NorthStar with recommended pavement thicknesses based on ground conditions and traffic conditions.

FISCAL IMPACT

NorthStar will complete the amended Task Order for $159,620 which includes the $19,780 increase for Geotechnical Investigation by Bajada Geosciences, Inc. Funds for this project will come from fund 5021-6360, Local Transportation Fund – Outside Services.

RECOMMENDATION

Staff recommends that the Council direct the City Administrator to approve the amendment.

ATTACHMENTS

Amendment 1 Task Order 7 Northstar.pdf

SCOPE OF WORK – WASHINGTON AVENUE

SERVICES PROVIDED

NorthStar has prepared the following scope of services to develop the project design and subsequent construction bid documents that best supports the successful implementation of this project. This scope is based on our understanding of the project at the time of this proposal, a recent site visit, and the Design Team's collective experience with similar improvement projects. We appreciate the opportunity to discuss the scope of this project and the respective level of effort during the proposal process.

PROJECT DESCRIPTION

The scope of work for the Washington Avenue Project is to provide pavement replacement, restriping, and ADA ramp design along Washington Avenue. The project extents range from the northwest side of Oro Dam Blvd E and Washington Ave intersection through the bridge abutment directly after Orange Avenue, please see Attachment A for the Project Extents Exhibit. This scope includes pavement replacement for the entire stretch of Washington Ave within the project limits. In addition, NorthStar will provide a design for all ramps that do not currently comply with ADA standards and a design to add ramps at curb returns if necessary.

Task 1 Project Management

NorthStar will perform the numerous services and activities associated with management of the construction contract. Diligent contract management for state funded contracts is a critical component in successfully managing public funds and maintaining the City's positive standing with funding agencies.

Project Administration and Overhead

Project Administration and Overhead includes front office and project administration including, but not limited to, contract management, managing insurance policies, packaging, mailing and deliveries, billing, Ajera billing software setup, certified payroll invoicing, etc.

Project Coordination

Explicit and thorough communications with the City and with the sub consultants is vital to the success of any project, and as such the NorthStar Design Team segregates this as a separate scope and budget component to acknowledge and account for this element during the life of the project development. To effectively manage the project NorthStar anticipates to have a weekly one-hour meeting for the duration of the design process with the City to review project progress and activities.

Quality Assurance / Quality Control

NorthStar approach to quality assurance and control program has been developed over the course of performing consulting services for a variety of clients and complex projects over the past 40 years. Two primary methods for consistently delivering a quality product on-time and within

budget; internal communications that established a clear level of expectations, and peer review for clarity and accuracy for salient deliverables.

Task 2 Topographic Survey and Basemapping

NorthStar will retain the services of an Aerial Photogrammetrist to perform a topographic survey and provide a base map suitable for the design of the new roadway rehabilitation projects. The survey will include the limits as depicted in Attachment A falling between the road right-of-way. The topographic map shall include:

- Surface improvements
- Underground utilities compiled from utility surface features, as-built plans and franchise utility system maps (research performed by NorthStar). Invert elevations are excluded from this scope.
- Fence Lines
- Existing striping
- Tree canopy lines
- Right-of-way Lines compiled from record information
- Surface Roadway Features, tops, toes, center of railroad tracks in the area of the railroad bridge. It is assumed that a detailed topographic survey of the bridge will not be required.

The aerial photogrammetric map shall be prepared at a 1” = 20’ scale with 1’ contours. An analysis shall be made on the existing handicap ramps to determine compliance with ADA slopes. Where it is determined that any ramp is not in ADA compliance, ground survey data shall be collected in that area and incorporated in the aerial base map.

The vertical control will be on the North American Vertical Datum of 1988 (NAVD88). The topographic survey will be compiled in AutoCAD Civil 3D 2018. A signed pdf file of the Topographic Base Map and the AutoCAD drawing file will be provided for the project teams use.

Preliminary research of existing record mapping along Washington Avenue within the project area shows that not all right-of-ways have been mapped. Right-of-way lines shown on existing maps within the project area will be depicted on the topographic survey where sufficient monuments can be found based on said record mapping.

Task 3 Design

Right of Way & Utility Coordination

NorthStar will identify the right of way to establish temporary construction signage, proposed fence relocation(s), tree removal, and other related permits and improvements if necessary.

NorthStar will coordinate with utility companies to identify utility conflicts and collaborate on appropriate avoidance or relocation solutions.

Civil Design: 35%, 60%, & 90% Plans

The 35% design completion serves multiple functions in the design process such identifying and resolving site specific prospective challenges. Utilizing this phase of development for problem solving and iterative design prevents unnecessarily expenditure of resources on an errant design trajectory. NorthStar has included a limited amount of time to investigate surface drainage within the project limits. If significant drainage issues are found, NorthStar will coordinate with the City to determine the new scope of work, project extents, and corresponding AWA.

Next, 60% design task will progress the 35% preliminary design by incorporation of discussed refinements and preferred alternatives. This task is intended to perform the bulk of the design effort, and will include developing the bid item list, quantities, engineer's estimate, special provisions and technical specifications.

Based on the City technical review and comments to the 60% documents, the project plans, specifications, and estimate will be progressed to a 90% level of completion including preparation and inclusion of applicable bid documents. Additionally, this level of design will be developed to support submittal for the Request for Allocation for the construction phase of the project. The project plans will include label detailing, notes, and design refinements to support implementation of the project by any contractor. Similarly, project specifications and engineer's estimate will be refined to support successful implementation of the project.

DELIVERABLES:

- 90% Complete Civil Design
- Engineers Estimate
- technical specifications

Final Design and Contract Documents

After receiving comments from the 90% level of design, the Contract and Construction Documents will be refined to address applicable comments and best support constructability of the project.

DELIVERABLES:

- One set of hard copy (letter size) and digital copy (pdf and MS Word) 100% level of project Bid Book including; Bid Requirements, Bid Documents, Contract Forms, General Conditions, and Technical Specifications.
- One set of 100% hard copy and digital copy of (24x36) documents

Task 4 Storm Drain MS4

It is our understanding that the City of Oroville does not follow MS4 standards and specifications. It is assumed that storm drain MS4 management system complying with Post Construction Standards will not be required for this project and is not included in the proposal.

Although MS4 is not required, time has been included in the estimate to provide a clarification letter and supporting documentation to the City of Oroville.

Task 5 Bidding

NorthStar will route for signatures and deliver the Final (100%) Contract Documents for bidding purposes after completion of full review and subsequent modifications.

Additionally, NorthStar will aid the City during the construction bidding and awarding process. Specifically, NorthStar will provide technical support to the City by answering and documenting questions from potential bidders and staff. NorthStar will also provide written responses to contractor requests for information (RFI's) during the bidding process and draft addendums as applicable.

NorthStar will coordinate and assist the Client with the following:

- Answer any questions from contractors and/or bidders
- Responses to questions will be provided via phone and/or email to the city. A formal response to any questions asked will be done with and addendum that will be released to all bidders

Task 6 Geotechnical investigation

Bajada Geosciences will perform a geotechnical investigation of Washington Avenue's existing structural section from north of Orange Avenue to Oro Dam Boulevard. This investigation will also include recommendations for roadway section based on site and traffic conditions. A detailed proposal by Bajada Geosciences can be found in Attachment B.

PROJECT EXCLUSIONS

- Environmental Review: including preparation of a Notice of Exemption (NOE) for the proposed project pursuant to CEQA Guidelines Section 15062 and Appendix E
- Landowner coordination: including right of way appraisals and acquisitions when necessary
- SWPPP can be provided for additional cost
- Construction staking can be provided for an additional cost
- Traffic control can be provided for an additional cost
- Prebid meetings
- Utility improvements including sewer and storm drain invert elevations
- Sidewalk extensions or replacement
- Driveway improvements including noncompliant ADA sidewalks adjacent to driveway approaches

COST PROPOSAL

CONSULTANT FEE: The estimated fee to complete the Scope of Services is: **$** 159,620

Task 1: Project Management	$11,480
Task 2: Topographic Survey & Base Map	$35,780
Task 3: Design	$85,400
Task 4: MS4	$1,120
Task 5: Bidding	$6,060
Task 6: Geotechnical Investigation	$19,780

IN WITNESS WHEREOF, the parties hereby execute this Agreement upon the terms and conditions stated above and on the date first above written.

CLIENT:		**CLIENT:**	
BY:		**BY:**	
TITLE:		**TITLE:**	
SIGNED:		**SIGNED:**	
DATE:		**DATE:**	

CONSULTANT:		**CONSULTANT:**	
BY:	**Fritz Mckinley**	**BY:**	**Lambert O. Lowe**
TITLE:	**Senior Engineer**	**TITLE:**	**Senior Engineer**
LICENSE NO.	**RCE 59574**	**LICENSE NO.**	**RCE 59077**
SIGNED:		**SIGNED:**	
DATE:		**DATE:**	

NORTHSTAR

STANDARD HOURLY RATES

Effective July 1, 2022 through June 30, 2023*

Engineering/Surveying	**Hourly Rate**
Principal Engineer/Surveyor	$230.00
Senior Managing Engineer/Surveyor	$210.00
Senior Engineer/Surveyor	$188.00
Associate Engineer/Surveyor	$166.00
Assistant Engineer/Surveyor	$145.00
Junior Engineer	$125.00
Senior Designer/Technician	$136.00
Associate Designer/Technician	$115.00
Assistant Designer/Technician	$ 95.00
One Person with GPS/Robotic (Party Chief)	$185.00
Two-Person Survey Crew	$250.00
Party Chief (Prevailing Wage)	$205.00
Two-Person Survey Crew (Prevailing Wage)	$325.00
Architecture	**Hourly Rate**
Senior Architect	$175.00
Project Architect	$160.00
Assistant Architect	$145.00
Architectural Job Captain	$130.00
Architectural Drafter	$110.00
Planning/Environmental/GIS	**Hourly Rate**
Principal Planner	$175.00
Administrative	**Hourly Rate**
Project Management	$165.00
Administrative	$100.00
Other	**Rate**
Litigation Support – Expert Witness Testimony	$500.00 per hour
Mileage	Current Federal Rate
Reproduction, Materials, Fees, Special Mail, etc.	Cost + 15%
Subcontractors	Cost + 15%

*Rates typically increase 4-5% per year

Attachment A: Project Extents



NORTHSTAR
... Designing Solutions
111 MISSION RANCH BLVD. SUITE 100, CHICO, CA 95926
PHONE: (530) 893-1600 www.northstareng.com

CITY OF OROVILLE
1735 MONTGOMERY ST
OROVILLE, CALIFORNIA

PROJECT EXTENTS

WASHINGTON AVE

Job Number	Scale		Date: 4/25/2022
21-103	1"= 400' Horz.	N/A Vert.	Sheet 1 Of 1

Attachment B: Geotechnical Proposal

BAJADA Geosciences, Inc.
1003 Market Street, Suite 2
Redding, CA 96001
(530) 638-5263
DBE #46532

March 16, 2023
Proposal P23.0108

Ms. Mekena Galka, P.E.
NORTHSTAR ENGINEERING
111 Mission Ranch Blvd, Ste. 100
Chico, CA 95926

Subject: Proposal for Geotechnical Services
Washington Avenue Improvements
City of Oroville, California

Dear Ms. Galka:

Bajada Geosciences, Inc. (BAJADA), is pleased to present this proposal to Northstar Engineering (Northstar), to provide geotechnical engineering services for the City of Oroville's (City) Washington Avenue Improvement Project. The following proposal presents our understanding of the project, a scope of services, estimated costs, and schedule to complete our studies.

PROJECT UNDERSTANDING

We understand that the City would like to rehabilitate approximately 3,400 feet of Washington Avenue from the railroad overcrossing to Oro Dam Boulevard East. We understand that the improvements do not include widening of the road but consist of improvement of the structural roadway section.

SCOPE OF SERVICES

Based on our understanding of the project, we have prepared the following scope of services for the project.

Task 1 – Pre-Exploration and Pavement Conditions Evaluation

Prior to subsurface exploration, BAJADA will obtain an encroachment permit from the City. We assume it will be issued with no fee since this is a City project.

As part of this task, BAJADA personnel will walk the roadway segment to assess and map existing pavement surface conditions. It is assumed that plans showing the roadway with stationing will be provided to us prior to initiation of this task so that our observations can be recorded on project baseline documents.

We will also mark proposed subsurface exploration locations and contact Underground Service Alert (USA) as required by California law.

Task 2 – Coring & Sampling

Coring will be performed at up to 7 locations along the project alignment. All cores will penetrate the roadway structural pavement section and will expose roadway subgrade soils. A bulk sample of subgrade soils will be obtained at each of the coring locations along the roadway during the field exploration. The core holes will be backfilled using excavated cuttings and AC patched using cold-patch or quickset concrete dyed black.

It is anticipated that coring and sampling will occur over the course one working day. Traffic control will be provided by a licensed traffic control subcontractor and will include a lane closure while we are performing our work. It is assumed that our exploration can be performed between 8 am and 5 pm and will not include any night work.

Task 3 – Laboratory Testing

Soil samples obtained during Task 2 will be delivered to BAJADA's office for assignment of laboratory testing. It is anticipated that the following laboratory tests will be performed during the course of this study:

ANTICIPATED LABORATORY TESTING SCHEDULE

Test	Standard Test Method	Number of Tests
In situ Moisture/Dry Density	ASTM D2937	7
Atterberg Limits	ASTM D4318	7
Grain Size Analysis	ASTM D422	7
Maximum Density/Optimum Moisture	ASTM D1557	2
R-Value	Cal 301	3
Soil Chemistry	AASHTO T290/291	2

The actual types and numbers of tests that will be performed may vary from those presented in the above table and will be determined after the field exploration has been performed.

Task 4 – Analysis

Upon completion of the above-noted tasks, we will perform evaluations for the project. Those evaluations will include alternative methods of pavement rehabilitation that could include:

- Pavement overlay;
- Dig-outs with pavement overlays;
- Pavement pulverization and overlay;

- Full depth reclamation;
- Cold in-place recycling;
- Chip seals; and
- Microsurfacing.

Task 5 – Reporting

Results of the field investigation, laboratory tests, and analyses will be summarized and concluded in a written letter-report. That report that will contain, at a minimum, the following:

- A description of the proposed project including a site plan showing approximate locations of explorations advanced for this study;
- A description of the field exploration and sampling program;
- A table showing structural pavement sections measured during the field exploration;
- Results of laboratory testing;
- Maps showing pavement conditions;
- Recommendations for rehabilitation methods along the study roadways; and
- Appendices presenting laboratory data and slope stability analyses.

Unless otherwise directed, we will submit a draft copy of the letter-report in a *.pdf format for review and comment. Upon receipt of comments, we will edit the report then submit the finalized report for Northstar's use.

ESTIMATE OF FEES

Our services will be performed on a time and expenses basis in accordance with the fees presented on our attached Fee Schedule. For the scope of work outlined above, we estimate that our fees will be $17,200. Those fees will not be exceeded without written authorization from Northstar.

SCHEDULE

We are prepared to initiate our services immediately upon receipt of authorization to proceed with the study. We estimate that our geotechnical studies can be completed within 8 to 10 weeks following receipt of authorization to proceed with those services. The field exploration services schedule will be influenced by the availability of exploration equipment, site access, permit acquisition, and inclement weather, all of which are out of BAJADA's control.

ASSUMPTIONS

A number of critical assumptions were made in preparation of this proposal. Those assumptions are as follows:

- Our field exploration can be performed between 8 am and 5 pm M – F and will not include any night work;

- An encroachment permit will be issued by the City at no fee to BAJADA; and
- By contacting USA regarding utility locations on-site, BAJADA will have performed the standard of care and due diligence to avoid encountering buried utilities during exploration. If mislocated or unlocated utilities are encountered during exploration, BAJADA cannot be held responsible for the adverse effects caused by encountering those utilities.

If these assumptions are incorrect, modification to this proposal may be necessary.

CLOSURE

We appreciate the opportunity to propose on this project and look forward to working with you on this study. If you have questions regarding this proposal or require additional information, please contact me at (530) 638-5263 at your convenience.

Regards,
BAJADA GEOSCIENCES, INC.

James A. Bianchin, C.E.G.
Principal Engineering Geologist

2023 Fee Schedule

BAJADA
Geosciences, Inc.

1300 Market Street, Suite 201
Redding, CA 96001
(530) 638-5263

DBE #46532

2023 FEE SCHEDULE

PROFESSIONAL STAFF	HOURLY RATE
Administrative	$ 70
Illustrator	$ 85
Technician	$ 90
Staff Professional	$ 110
Project Professional	$ 125
Senior Professional	$ 135
Principal Professional	$ 150
Principal Consultant	$ 150

Overtime & Prevailing Wage Rates for Technical and Office Staff:

a. Saturday or over 8 hours/day during weekdays..... 1.3 x straight time
b. Sundays/holidays..... 1.5 x straight time
c. Swing or graveyard shift premium..... 1.3 x straight time
d. Prevailing Wage rates..... Quoted relative to Project

OTHER DIRECT CHARGES

Subcontracted Services	Cost Plus 15%
Outside Reproduction	Cost Plus 15%
Laboratory Testing	Cost Plus 15%
Outside Equipment	Cost Plus 15%
Out-of-Pocket Expenses	Cost Plus 15%
Travel and Subsistence	Cost Plus 15%
Field Vehicle	$25/day
Unmanned Aerial System	$250/day
Vehicle Mileage	$0.80/mile
Specialized Software Applications	$40/hr

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CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **MATT THOMPSON, P.E. ACTING CITY ENGINEER**

RE: **TASK ORDER 17; SEWER MASTER PLAN PROJECTS 3-B ALTERNATIVE AND 3C FEASIBILITY STUDY**

DATE: **APRIL 18, 2023**

SUMMARY

The Council may direct staff to issue a task order to NorthStar to conduct a feasibility study on the constructability of Sewer Master Plan Project 3-B Alternative and 3C.

DISCUSSION

Staff is proposing to issue a Task Order to NorthStar to develop a feasibility report on the constructability of a sewer system extension in anticipation of the Ophir Road Warehouse Project and Georgia Pacific Way Roadway Reconstruction Project. This sewer system extension is based on Sewer Project 3-B Alternative and 3C in the City' Sewer Master Plan developed in 2013 by Carollo Engineers.

This project would involve extending the current sewer system from the intersection of 5th Street and Georgia Pacific Way to across Ophir Rd and down Baggett Palermo Rd.

FISCAL IMPACT

The funds in the amount of $29,340.00 for the Sewer Master Plan Project Feasibility Study by NorthStar will come from Fund 400, Sewer Fund – Outside Services.

RECOMMENDATION

Staff recommends that the Council direct the City Administrator to proceed with the issuing of Task Order 17 discussed above to NorthStar.

ATTACHMENTS

City of Oroville Sewer Master Plan Projects 3-B-Alternative and 3C.

Services Agreement

NorthStar Proposal

TASK ORDER #17
FOR PROFESSIONAL SERVICES

This Task Order is made and entered into as of _____, 2023, by and between the City of Oroville ("City") and **NorthStar** ("Consultant").

RECITALS

A. The Consultant is licensed, trained, experienced and competent to provide Professional Services for as required by this Task Order, specifically production of a feasibility report of the constructability of sewer master plan project 3-B Alternative and 3C from 5th Avenue and Georgia Pacific Way to Baggett Palermo Rd; and

B. The Consultant possesses the skill, experience, ability, background, license, certification, and knowledge to provide the services described in this Task Order on the terms and conditions described herein.

C. City desires the Consultant to render professional services as set forth in this Task Order and in accordance with City Contract Number **3387** between the City and the Consultant.

TASK ORDER

1. Scope of Services. The Consultant shall complete all services in a professional manner. Consultant shall complete the services described in Consultant's proposal attached as Exhibit "A" which is incorporated herein by reference.

2. Time of Performance. The services of Consultant shall commence upon execution of this Task Order and shall be completed at the end of Project close out.

3. Compensation. Compensation to be paid to Consultant shall be in accordance with the fee **budget/schedule** set forth in Exhibit "B," which is attached hereto and incorporated herein by reference. **In no event shall Consultant's compensation exceed the amount of $29,340.00 without additional written authorization from the City.** Payment by City under this Task Order shall not be deemed a waiver of defects in Consultant's services, even if such defects were known to the City at the time of payment.

4. Method of Payment. Consultant shall submit monthly billings to City describing the work performed during the preceding month. Consultant's bills shall include a brief description of the services performed, the date the services were performed, the number of hours spent and by whom, a description of any reimbursable expenditures, the contract number, and the Task Order number. City shall pay Consultant no later than 30 days after approval of the monthly invoice by City staff.

5. Extra Work. At any time during the term of this Task Order, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of Consultant's services, but which the parties did not reasonably anticipate would be necessary at the execution of this Task

Order. Consultant shall not perform, nor be compensated for, Extra Work without prior written authorization from City.

6. Termination. This Task Order may be terminated by the City immediately for cause or by either party without cause upon fifteen days' written notice of termination. Upon termination, Consultant shall be entitled to compensation for services properly performed up to the effective date of termination.

7. Ownership of Documents. All plans, studies, documents and other writings prepared by and for Consultant, its officers, employees and agents and subcontractors in the course of implementing this Task Order, except working notes and internal documents, shall become the property of the City upon payment to Consultant for such work, and the City shall have the sole right to use such materials in its discretion without further compensation to Consultant or to any other party. Consultant shall, at Consultant's expense, provide such reports, plans, studies, documents, and other writings to City within three (3) days after written request.

8. Licensing of Intellectual Property. This Task Order creates a nonexclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in documents or works of authorship fixed in any tangible medium of expression, including but not limited to, data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Task Order ("Documents and Data").

Consultant shall require all subcontractors to agree in writing that City is granted a nonexclusive and perpetual license for any Documents and Data the subcontractor prepares under this Task Order. Consultant represents and warrants that Consultant has the legal right to license any and all Documents and Data. Consultant makes no such representation and warranty in regard to Documents and Data which may be provided to Consultant by City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Task Order shall be at City's sole risk.

9. Confidentiality. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other Documents and Data either created by or provided to Consultant in connection with the performance of this Task Order shall be held confidential by Consultant. Such materials shall not, without the prior written consent of City, be used by Consultant for any purposes other than the performance of the services under this Task Order. Nor shall such materials be disclosed to any person or entity not connected with the performance of the services under this Task Order. Nothing furnished to Consultant which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs relating to project for which Consultant's services are rendered, or any publicity pertaining to the Consultant's services under

this Task Order in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.

10. Consultant's Books and Records.

a. Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services, expenditures and disbursements charged to City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant to this Task Order.

b. Consultant shall maintain all documents and records which demonstrate performance under this Task Order for a minimum of three (3) years, or for any longer period required by law, from the date of termination or completion of this Task Order.

c. Any records or documents required to be maintained pursuant to this Task Order shall be made available for inspection or audit, at any time during regular business hours, upon written request by the City Administrator, City Attorney, City Finance Director, or a designated representative of these officers. Copies of such documents shall be provided to the City for inspection at City Hall when it's practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at Consultant's address indicated for receipt of notices in this Task

Order.

d. Where City has reason to believe that such records or documents may be lost or discarded due to dissolution, disbandment or termination of Consultant's business, City may, by written request by any of the above-named officers, require that custody of the records be given to the City and that the records and documents be maintained by City Hall.

11. Independent Contractor. It is understood that Consultant, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and shall not act as an agent or employee of the City. Consultant shall obtain no rights to retirement benefits or other benefits which accrue to City's employees, and Consultant hereby expressly waives any claim it may have to any such rights.

12. Interest of Consultant. Consultant (including principals, associates, and professional employees) covenants and represents that it does not now have any investment or interest in real property and shall not acquire any interest, direct or indirect, in the area covered by this Task Order or any other source of income, interest in real property or investment which would be affected in any manner or degree by the performance of Consultant's services hereunder. Consultant further covenants and represents that in the performance of its duties hereunder no person having any such interest shall perform any services under this Task Order. Consultant is

not a designated employee within the meaning of the Political Reform Act because Consultant:

a. will conduct research and arrive at conclusions with respect to its rendition of information, advice, recommendation, or counsel independent of the control and direction of the City or any City official, other than normal Task Order monitoring; and

b. possesses no authority with respect to any City decision beyond rendition of information, advice, recommendation or counsel. (FPPC Reg. 18700(a)(2).)

13. Professional Ability of Consultant. City has relied upon the professional training and ability of Consultant to perform the services hereunder as a material inducement to enter into this Task Order. All work performed by Consultant under this Task Order shall be in accordance with applicable legal requirements and shall meet the standard of quality ordinarily to be expected of competent professionals in Consultant's field of expertise.

14. Compliance with Laws. Consultant shall use the standard of care in its profession to comply with all applicable federal, state and local laws, codes, ordinances and regulations.

15. Licenses. Consultant represents and warrants to City that it has all licenses, permits, qualifications, insurance and approvals of whatsoever nature which are legally required of Consultant to practice its profession. Consultant represents and warrants to City that Consultant shall, at its sole cost and expense, keep in effect or obtain at all times during the term

of this Task Order, any licenses, permits, insurance and approvals which are required by the City for its business.

16. Indemnity. Consultant agrees to indemnify and hold harmless the City, its officers, officials, employees and volunteers from and against any and all claims, demands, actions, losses, damages, injuries, and liability, direct or indirect (including reimbursement of reasonable costs and expenses in connection therein), arising from its negligent performance of this Task Order or its failure to comply with any of its obligations contained in this Task Order, except for any such claim arising from the negligence or willful misconduct of the City, its officers, agents, employees or volunteers. With regard to any claim alleging Consultant's negligent performance of professional services, Consultant's defense obligation under this indemnity paragraph means only the reimbursement of reasonable defense costs to the proportionate extent of its actual indemnity obligation hereunder.

17. Insurance Requirements, Incorporation and Conflicts. Consultant, at Consultant's own cost and expense, shall procure and maintain insurance, for the duration of the Task Order, as required under Contract Number 3387 between the City and the Consultant. The terms of Contract Number 3387 between the City and the Consultant are incorporated by reference as if fully set forth herein. To the extent that any conflict exists between Contract Number 3387 and this Task Order, the terms of Contract Number 3387 shall control.

18. Notices. Any notice required to be given under this Task Order shall be in writing and either served personally or sent prepaid, first class mail. Any such notice shall be addressed to the other party at the address set forth below. Notice shall be deemed communicated within 48 hours from the time of mailing if mailed as provided in this section:

If to City: **City Administrator**
City of Oroville
1735 Montgomery Street
Oroville, CA 95965-4897

If to Consultant: **Ross Simmons, Senior Managing Engineer**
111 Mission Ranch Blvd., Suite 100
Chico, CA 95926
rsimmons@northstareng.com

19. Entire Task Order. This Task Order constitutes the complete and exclusive statement of agreement between the City and Consultant for this Task Order. All prior written and oral communications, including correspondence, drafts, memoranda, and representations are superseded in total by this Task Order in regard to professional services specifically provided under this Task Order. Other task orders issued to the Consultant by the City under Contract Number 3387 stand alone and are unaffected by this Task Order.

20. Amendments. This Task Order may be modified or amended only by a written document executed by both Consultant and City and approved as to form by the City Attorney.

21. Assignment and Subcontracting. The parties recognize that a substantial

inducement to City for entering into this Task Order is the professional reputation, experience and competence of Consultant. Assignments of any or all rights, duties or obligations of the Consultant under this Task Order will be permitted only with the express prior written consent of the City. Consultant shall not subcontract any portion of the work to be performed under this Task Order without the prior written authorization of the City. If City consents to such subcontract, Consultant shall be fully responsible to City for all acts or omissions of the subcontractor. Nothing in this Task Order shall create any contractual relationship between City and subcontractor nor shall it create any obligation on the part of the City to pay or to see to the payment of any monies due to any such subcontractor other than as otherwise required by law.

22. Waiver. Waiver of a breach or default under this Task Order shall not constitute a continuing waiver of a subsequent breach of the same or any other provision under this Task Order.

23. Severability. If any term or portion of this Task Order is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Task Order shall continue in full force and effect.

24. Controlling Law Venue. This Task Order and all matters relating to it shall be governed by the laws of the State of California and any action brought relating to this Task Order shall be held exclusively in Butte County Superior Court or the United States District Court, Eastern District of

California.

25. Litigation Expenses and Attorney's Fees. If either party to this Task Order commences any legal action against the other part arising out of this Task Order, the prevailing party shall be entitled to recover its reasonable litigation expenses, including court costs, expert witness fees, discovery expenses, and attorneys' fees.

26. Execution. This Task Order may be executed in several counterparts, each of which shall constitute one and the same instrument and shall become binding upon the parties when at least one copy hereof shall have been signed by both parties hereto. In approving this Task Order, it shall not be necessary to produce or account for more than one such counterpart.

27. Authority to Enter Task Order. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Task Order. Each party warrants that the individuals who have signed this Task Order have the legal power, right, and authority to make this Task Order and to bind each respective party.

28. Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Task Order. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift

or other consideration contingent upon or resulting from the award or making of this Task Order. For breach or violation of this warranty, City shall have the right to rescind this Task Order without liability. For the term of this Task Order, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Task Order, or obtain any present or anticipated material benefit arising therefrom.

29. Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subcontractor, employee or applicant for employment because of race, religion, color, national origin, disability, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

IN WITNESS WHEREOF, the parties have caused this Task Order to be executed on the date first written above.

CITY OF OROVILLE

By: _____
Brian Ring, City Administrator

By: _____
Jay Lowe, Department Manager

APPROVED AS TO FORM:
By: Scott E. Huber, City Attorney
Standard Task Order Form January 26, 2021

Attachments:
Exhibit A - Consultant Scope
Exhibit B – **Fee Proposal/Schedule**

SCOPE OF WORK – OPHIR SANITARY SEWER FEASIBILITY

SERVICES PROVIDED

NorthStar has prepared the following scope of services to develop a feasibility assessment to construct approximately 1.75 miles of sewer facilities in South Oroville. The purpose of this assessment is to evaluate the feasibility of constructing the proposed sewer line extension. The outcome of this scope of work will be a feasibility report that discusses the constructability of the project identifying any obstacles or challenges that are anticipated during construction and the projected cost for construction. This scope is based on our understanding of the project at the time of this proposal and the Design Team's collective experience with similar improvement projects. We appreciate the opportunity to discuss the scope of this project and the respective level of effort during the proposal process.

PROJECT DESCRIPTION

The scope of work for the project would begin on Georgia Pacific Way at the intersection of 5th Avenue, continue down Baggett Marysville Road, and half way down Baggett Palermo Road (see Attachment A for project extents). The feasibility assessment will review the January 2013 Sanitary Sewer Master Plan prepared by Carollo Engineers and current zoning to determine the size of sewer facilities necessary for the area based on potential development. Potential constraints and constructability challenges will also be identified and included in the assessment to provide a clear understanding of the feasibility of constructing the project.

Task 1 Project Management

NorthStar will perform the numerous services and activities associated with management of the contract.

Project Administration and Overhead

Project Administration and Overhead includes front office and project administration including, but not limited to, managing insurance policies, packaging, mailing and deliveries, billing, software setup, certified payroll invoicing, etc.

Project Coordination

To effectively manage the project NorthStar expects to have a weekly meeting with the City of Oroville to review project progress and activities. It is assumed one (1) half hour (1/2) meeting and an additional hour of coordination tasks a week for a four (4) month period.

Quality Assurance / Quality Control

NorthStar approach to quality assurance and control program has been developed over the course of performing engineering consulting services for a variety of clients and complex projects over the past 40 years. Two primary methods for consistently delivering a quality product on-time and within budget; internal communications that established a clear level of expectations, and peer review for clarity and accuracy for salient deliverables.

Task 2 Master Plan Review

NorthStar will perform a review of the January 2013 Sanitary Sewer Master Plan design for the section of sewer facilities designated as 3A Alt and 3C to ensure the pipe sizes estimated in the master plan meet the needs of the current zoning. The review will include:

- GIS exhibits to determine the area tributary to the proposed sewer line
- Calculations, based on City of Oroville Master Plan methodology, to determine Average Daily Flow and Peak Daily Flow
- Verify existing master plan layout and collection piping network to provide sanitary sewer services to the area is sufficient

Deliverables:

- One set of hard copy (letter size) and digital copy (pdf) of the Master Plan Review exhibits for review by the City of Oroville

Task 3 Pre-Evaluation

Pre-Evaluation

We will conduct a meeting with the City to discuss the findings of our preliminary research and to identify additional constraints or alternative project limits.

We will establish baseline criteria for evaluating the proposed improvements. The baseline criteria will be agreed upon with the City and will include at least the following:

- Project extents based on constraints or environmental limitations
- Environmental documentation and permitting costs
- Environmental documentation and permitting duration
- Geotechnical suitability
- Land rights/acquisition limits/requirements
- Construction cost basis
- Construction duration
- Public impacts during construction

Deliverables:

- One set of hard copy (letter size) and digital copy (pdf) of the Pre-Evaluation meeting agenda and notes

Task 4 Right of Way Review

Right of Way Review

- NorthStar will identify the existing City Right of Way from recorded maps and determine if obtaining additional Right of Way is necessary for installation of the proposed facilities. If

additional Right of Way is necessary, recommendations for possible acquisitions will be made to provide adequate Right of Way to construct the proposed project.
- Identification of potential environmental constraints and possible mitigation measures
- Determination of all current government agency approvals and permitting required to complete the recommended servicing scheme
- Create a right of way exhibit that shows the size and location of proposed facilities.

DELIVERABLES:
- One set of hard copy (letter size) and digital copy (pdf) of the Right of Way exhibits for review by the City of Oroville

Task 5 Feasibility Report

Engineers Opinion of Cost

Based on the information gathered in Tasks 2 and 3 an Engineers Opinion of Construction Costs will be developed for the proposed sewer facilities. The Engineers Opinion of Construction Costs will include, but is not limited to, engineering/design costs, environmental permitting, geotechnical investigation, and construction costs.

DELIVERABLES:
- One set of hard copy (letter size) and digital copy (pdf and MS Word) of the Engineers Opinion of Construction Costs for review by the City of Oroville

Draft Feasibility Report

Incorporating the work performed under previous tasks, we will prepare a draft Feasibility Report for review and comment. This report will outline the information collected in the review of the Sanitary Sewer Master Plan, the existing zoning, flow calculations, Right-of-Way determinations, potential land acquisitions and any projected environmental constraints.

DELIVERABLES:
- One set of hard copy (letter size) and digital copy (pdf and MS Word) of the draft feasibility report

Final Feasibility Report

After receiving comments from City of Oroville on the Draft Feasibility Report, the report will be refined to address applicable comments and the document will be finalized.

DELIVERABLES:
- One set of hard copy (letter size) and digital copy (pdf and MS Word) of the final feasibility report

PROJECT EXCLUSIONS

- Environmental Review: including preparation of a Notice of Exemption (NOE) for the proposed project pursuant to CEQA Guidelines Section 15062 and Appendix E
- Environmental Permitting
- Landowner coordination: including right of way appraisals and acquisitions when necessary
- Right-of-way/ Boundary Survey
- Geotechnical Survey

COST PROPOSAL

CONSULTANT FEE: The estimated fee to complete the Scope of Services is: **$** 29,340.00

Task 1: Project Management	$ 6,636
Task 2: Master Plan Review	$ 4,824
Task 3: Pre-Evaluation	$ 3,960
Task 4: Right-of-Way Review	$ 4,824
Task 5: Feasibility Report	$ 9,996
Reimbursable Expenses (permit copies, FedEx postage, etc.)	$ 100

IN WITNESS WHEREOF, the parties hereby execute this Agreement upon the terms and conditions stated above and on the date first above written.

CLIENT:	**CLIENT:**		
BY:		**BY:**	
TITLE:		**TITLE:**	
SIGNED:		**SIGNED:**	
DATE:		**DATE:**	

CONSULTANT:	**CONSULTANT:**		
BY:	**Fritz Mckinley**	**BY:**	**Lambert O. Lowe**
TITLE:	**Senior Engineer**	**TITLE:**	**Senior Engineer**
LICENSE NO.	**RCE 59574**	**LICENSE NO.**	**RCE 59077**
SIGNED:		**SIGNED:**	
DATE:		**DATE:**	

NORTHSTAR

CITY CONTRACT NO. 3387
TASK ORDER 17

EXHIBIT B

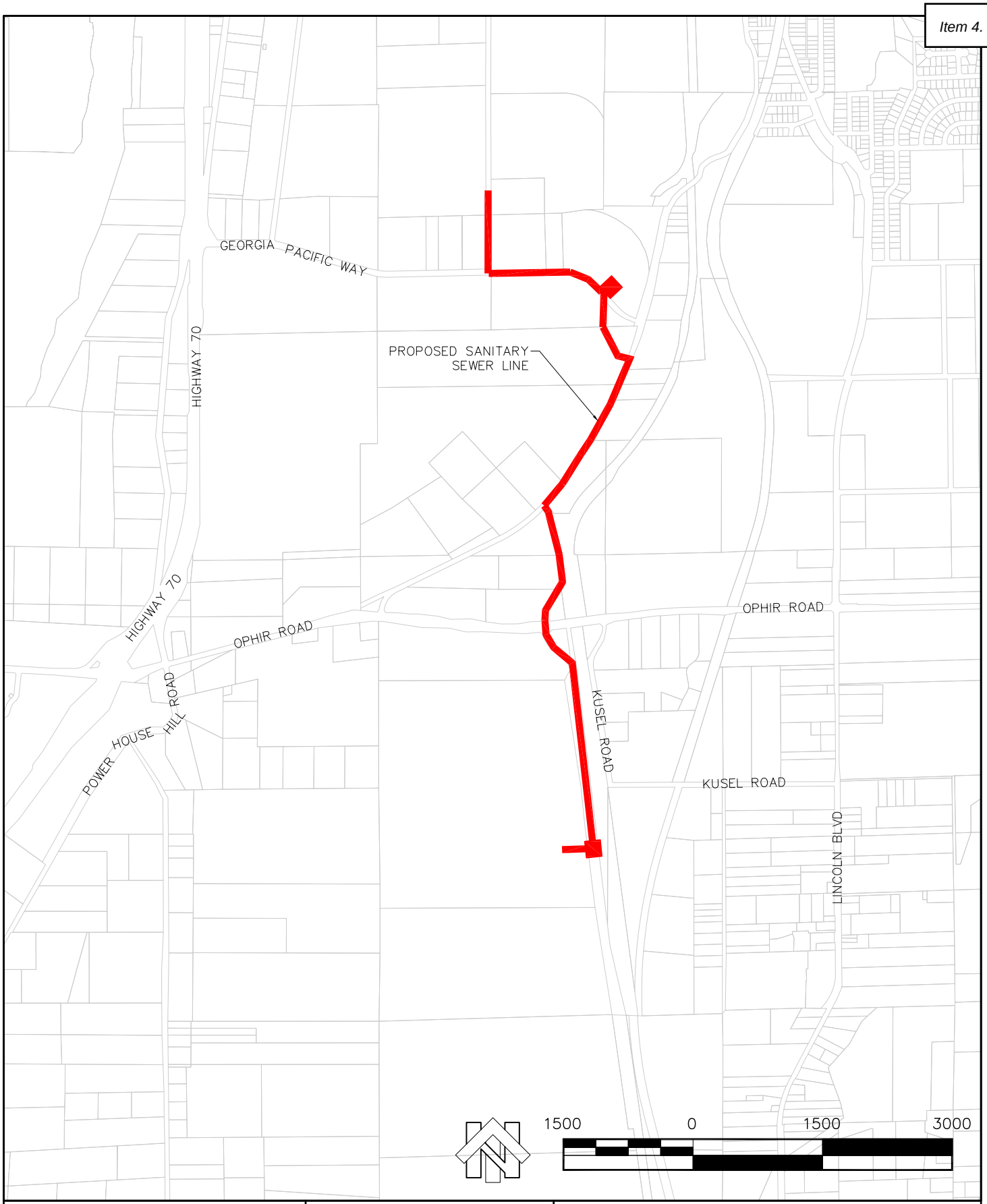
STANDARD HOURLY RATES

Effective July 1, 2022 through June 30, 2023*

Engineering/Surveying	**Hourly Rate**
Principal Engineer/Surveyor	$230.00
Senior Managing Engineer/Surveyor	$210.00
Senior Engineer/Surveyor	$188.00
Associate Engineer/Surveyor	$166.00
Assistant Engineer/Surveyor	$145.00
Junior Engineer	$125.00
Senior Designer/Technician	$136.00
Associate Designer/Technician	$115.00
Assistant Designer/Technician	$ 95.00
One Person with GPS/Robotic (Party Chief)	$185.00
Two-Person Survey Crew	$250.00
Party Chief (Prevailing Wage)	$205.00
Two-Person Survey Crew (Prevailing Wage)	$325.00
Architecture	**Hourly Rate**
Senior Architect	$175.00
Project Architect	$160.00
Assistant Architect	$145.00
Architectural Job Captain	$130.00
Architectural Drafter	$110.00
Planning/Environmental/GIS	**Hourly Rate**
Principal Planner	$175.00
Administrative	**Hourly Rate**
Project Management	$165.00
Administrative	$100.00
Other	**Rate**
Litigation Support – Expert Witness Testimony	$500.00 per hour
Mileage	Current Federal Rate
Reproduction, Materials, Fees, Special Mail, etc.	Cost + 15%
Subcontractors	Cost + 15%

*Rates typically increase 4-5% per year

Attachment A: Project Extents Exhibit



NORTHSTAR
111 MISSION RANCH BLVD. SUITE 100, CHICO, CA 95926
PHONE: (530) 893-1600 www.northstareng.com

CITY OF OROVILLE
1735 MONTGOMERY STREET
OROVILLE, CALIFORNIA

PROJECT EXTENTS

OPHIR SANITARY SEWER FEASIBILITY

Job Number	Scale		Date: MARCH 2023
22-008	1"= 1500' Horz.	N/A Vert.	Sheet 1 Of 1

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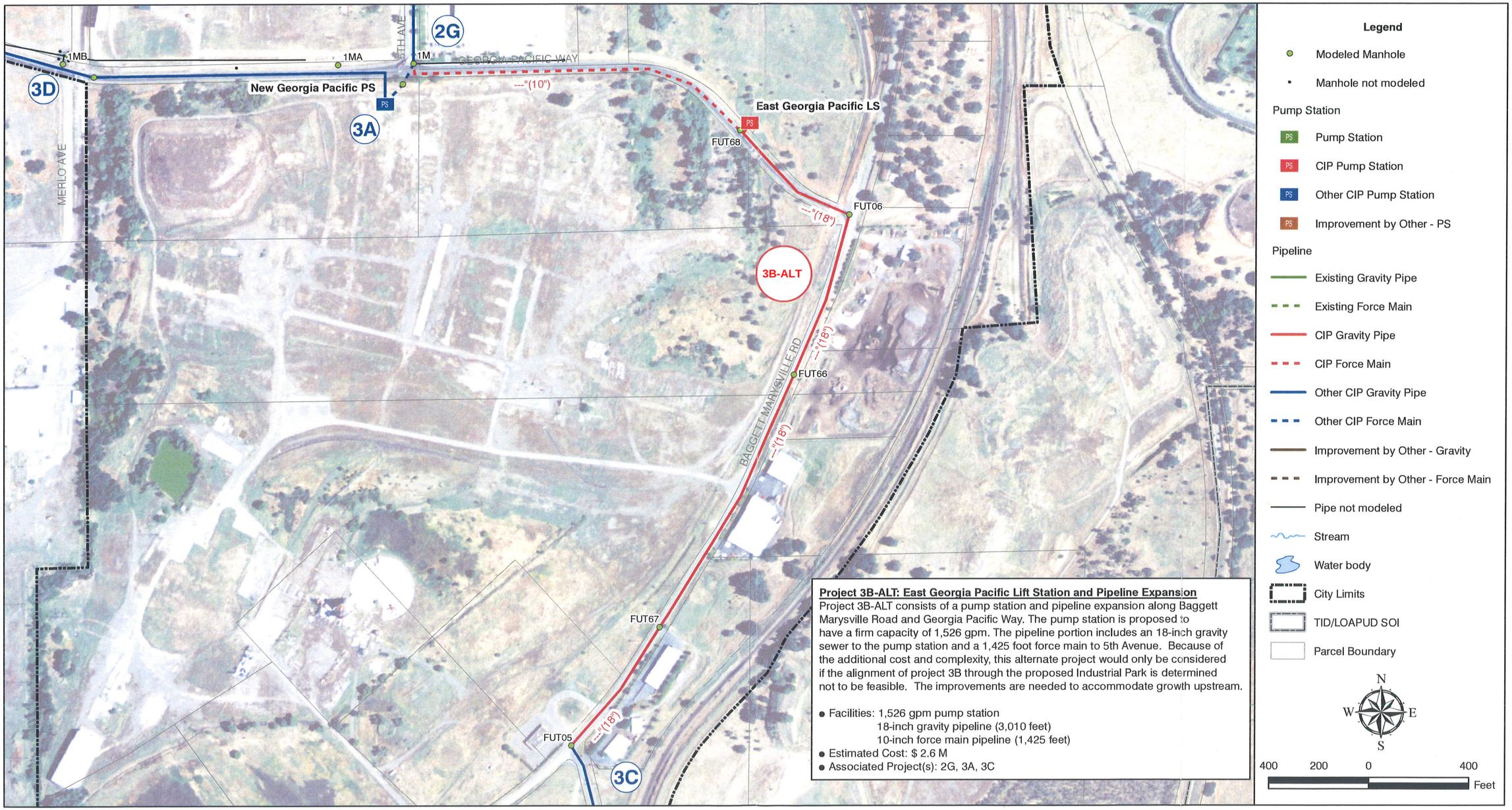
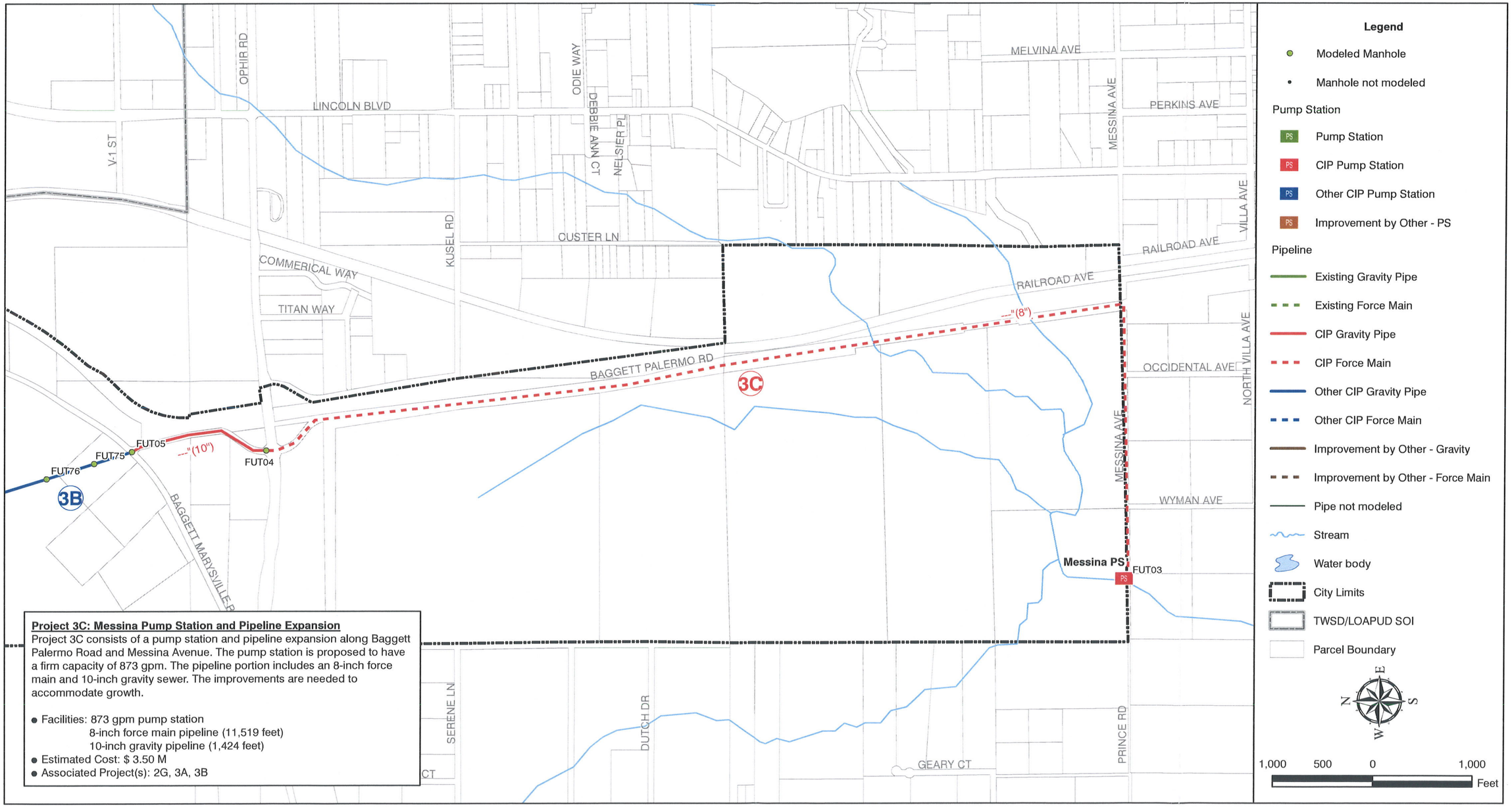


Figure 7.39
PROJECT 3B-ALTERNATE
SANITARY SEWER MASTER PLAN
CITY OF OROVILLE

E:\Carollo\7674A00 - Sewage Disposal Mstr Plan\GIS\report\Projects\Current\Project3B-alt.mxd
9/18/2012



Project 3C: Messina Pump Station and Pipeline Expansion

Project 3C consists of a pump station and pipeline expansion along Baggett Palermo Road and Messina Avenue. The pump station is proposed to have a firm capacity of 873 gpm. The pipeline portion includes an 8-inch force main and 10-inch gravity sewer. The improvements are needed to accommodate growth.

- Facilities: 873 gpm pump station
  8-inch force main pipeline (11,519 feet)
  10-inch gravity pipeline (1,424 feet)
- Estimated Cost: $ 3.50 M
- Associated Project(s): 2G, 3A, 3B

Figure 7.17
PROJECT 3C
SANITARY SEWER MASTER PLAN
CITY OF OROVILLE

carollo
Engineers...Working Wonders With Water™

E:\Carollo\7674A00 - Sewage Disposal Mstr Plan\GIS\report\Projects\Current\Project3C.mxd
7/24/2012

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **DAWN NEVERS, ASSISTANT COMMUNITY DEVELOPMENT DIRECTOR**

RE: **AUTHORIZATION TO PURCHASE (1) KENWORTH T880 DUMP TRUCK**

DATE: **APRIL 18, 2023**

SUMMARY

The Council may approve the purchase of (1) Kenworth T880 10-wheel dump truck in the amount of $251,998.23 as budgeted in the 22/23 Fiscal Year budget.

DISCUSSION

On October 4, 2022, the Council approved the updated Capital Asset purchases for the 22/23 fiscal year, including the purchase of (1) Kenworth T880 10-wheel dump truck. The new 10-wheel dump truck will have the ability to transport almost twice as much material as our current 5-yard dump trucks, increasing our haul capabilities from 8 tons to 15 tons. As staffing levels are increased in recent years, there is a need for more material at any given jobsite to complete more and larger projects.

The vehicle will be purchased from Pape Kenworth and the quote was obtained through Source Well (attached).

FISCAL IMPACT

This Kenworth T880 10-wheel dump truck is budgeted in the 22/23 fiscal year Capital Asset Replacement Fund 300 in the amount of $252,000.00.

RECOMMENDATION

Approve the purchase of (1) Kenworth T880 10-wheel dump truck.

ATTACHMENTS

Kenworth T880 quote
Kenworth T880 overview

PAPÉ KENWORTH

CUSTOMER TRUCK SALES ORDER

SIC Code:

INVOICE ADDRESS		DELIVERY ADDRESS	
Buyer Name	CITY OF OROVILLE	Name	PAPE KENWORTH
Address	1735 MONTGOMERY ST	Address	
City	OROVILLE	State CA Zip 95965	City State Zip
Phone	530	Fax	Phone Fax
PO No.		Delivery/F.O.B.	Est. Delivery Date

EQUIPMENT				NEW	USED
	Yr/Make	2024 KENWORTH	Mileage		
	Model	T880	VIN No. TBD	☑	☐

Description:	
	178608.8
ENOVEN BODY	50675
DOC FEE	85
SOURCEWELL CONTRACT #060920-KTC	
☐ See attached Kenworth Vehicle Summary or Addendum	
Additional Equipment/Accessories — Cost	

		Add'l Equipment Sales Price	0
		Transportation Charges	
		Federal Excise Tax	
		State Sales Tax 0.0825%	18922.926
TRADE Yr/Make None	☐ See attached Addendum	Misc. Document/License Fee	3706.50
Model		Less Net Trade-In Allowance	0
VIN No.		Total Differential Price	251998.226
Lienholder	Mileage	Less Deposit with Order	
Trade In Allowance	Less (Est.) Payoff	Balance Due on Delivery	251998.226

* The Sales Price shown in this order will be adjusted by the same increase or decrease as any increase or decrease in Dealer's factory list prices and any increase or decrease in transportation costs between today's date and the date of delivery.

WARRANTY	
	☑ NEW STANDARD KENWORTH CHASSIS
	☐ VENDOR NEW EXTENDED (describe)
	☐ VENDOR NEW EXTENDED (describe)
	☐ USED (describe)
	☐ AS IS / NO WARRANTY Buyer Initial: _____

A heavy-duty tractor and 53-foot or longer box-type trailer operated in California may be subject to the California Air Resources Board Heavy-Duty Vehicle Greenhouse Gas Emission Reduction measure. These vehicles may be required to use low-rolling resistance tires and meet aerodynamic equipment requirements to reduce greenhouse gas emissions. For more information, please visit the California Air Resources Board website at http://www.arb.ca.gov/cc/hdghg/hdghg.htm.

If trade-in, Buyer certifies that there is no lien of any kind and that the Trade is free and clear and is his sole and absolute property except as noted above. The undersigned Buyer places a firm order.

PAPÉ KENWORTH	BUYER
Store _____	
City _____ State _____ Zip _____	By _____ Title _____
By _____ Title _____	By _____ Title _____
Date	Date

TERMS AND CONDITIONS OF SALE

TERMS AND CONDITIONS OF SALE: Sales Orders are based on the terms and conditions stated herein. Unless otherwise provided on the face hereof, offers are good for acceptance for a period of 30 days from the date hereof. An order by the Buyer shall constitute an acceptance of the terms and conditions herein proposed. If, and only if, no offer of sale is issued by Seller, then the invoice shall be deemed: an acceptance of the Buyer's order; a written confirmation; and a final, complete, and exclusive written expression of the agreement between Seller and Buyer. Buyer is hereby notified that additional or different terms from those contained herein are objectionable.

1. **Taxes.** Buyer shall pay all local, state, and federal taxes arising from or related to any sale or lease to which this document relates, except for taxes upon or measured by net income of Seller.

2. **Delivery.** Stated or promised delivery dates are estimates only based upon Seller's best judgment and Seller shall not be responsible for deliveries later than promised regardless of the cause. Delivery periods are projected from the date of receipt of any order by Seller, but if equipment to be furnished by Seller is to be manufactured specifically to fill a particular order, delivery periods will be projected from the date of Seller's receipt of complete manufacturing information. If the furnishing of equipment on orders accepted by Seller is hindered or prevented by public authority or by the existence of war or other contingencies, including, but not limited to, shortage of materials, fires, labor difficulties, accidents, delays in manufacture or transportation, acts of God, embargoes, inability to ship, inability to insure against war risks or substantially increased prices or freight rates, or other causes beyond Seller's control, the obligation to fill or complete such orders shall be excused by Seller's option.

3. **Transportation and Claims.** Prices quoted are net F.O.B. point designated in writing by Seller. When no F.O.B. point is designated in writing by Seller, prices for new equipment shall be deemed to be net F.O.B. point of manufacture and prices for all other equipment shall be deemed to be F.O.B. Seller's place of business at which the order for the equipment is accepted. Seller's responsibility for the equipment shall cease and all risk of loss shall become the Buyer's upon delivery of the equipment to the first carrier for shipment to the Buyer or his consignee, even though such delivery shall be made prior to the arrival of the equipment at the F.O.B. point designated, and any and all claims for shortages, deliveries, damages or non-delivery must be made by the Buyer or his consignee to the carrier. Seller shall in no event be responsible for shortages in shipments unless notice of such shortage is given in writing to Seller within 15 days after receipt of shipment.

4. **Payment and Security.** Buyer agrees to pay in full for the equipment at time of delivery. Buyer agrees to pay the late charge on any past due balance at the rate of 18% per annum. The signator warrants that he/she has authority to execute this order on behalf of any party for whom he/she signs, and that such party has the power to enter into this agreement and perform its terms. As security for all of Buyer's obligations to Seller, Buyer grants to Seller a security interest in the equipment and authorizes Seller to file all documents necessary to perfect Seller's security interest. The security interest granted hereunder is in addition to any other rights available to Seller, and Seller shall have all of the rights and remedies available to a secured party under the Uniform Commercial Code, all of which are cumulative. Throughout the duration of Seller's security interest. Buyer shall keep the equipment fully insured against theft and loss or damage by fire and other casualty as Seller may from time to time require in accordance with such terms as Seller may require.

5. **Buyer to Furnish.** Performance by Seller is subject to the Buyer furnishing a satisfactory credit rating certificate, letter of credit, evidence of financing, or any other similar papers necessary for the satisfactory completion of such order.

6. **Assignment.** The right to any monies due or to become due hereunder may be assigned by Seller, and Buyer, upon receiving notice of such assignment, shall make payment as directed.

7. **Limitations of Warranties.** If "NEW" warranty is indicated on the reverse side or if new equipment is purchased hereunder, all warranties are strictly given only by the manufacturer. Copies of manufacturer's warranty can be obtained from Seller. If "USED" warranty is indicated on the reverse side. Seller hereby warrants to Buyer that the equipment or components thereof designated on the reverse side, shall be free under normal use and service from defects in material and workmanship for the period shown, commencing on the date of delivery. Buyer's exclusive remedy for breach of the limited warranty shall be the repair or replacement of the warranted equipment without charge to Buyer when returned at Buyer's expense to the Seller's facility where the equipment was purchased, with proof of purchase. Buyer must give notice of any warranty claim not later than 7 days after the expiration of the warranty period and must return the equipment to Seller for repair or replacement no later than 30 days after expiration of the warranty period. Any action against Seller for breach of the limited warranty must be commenced within one year after the date of delivery of the equipment. Seller's warranty does not extend to any defect, claim, or damage attributable to the failure to operate and/or maintain the equipment in accordance with the manufacturer's specifications, or due to the failure to operate or maintain the equipment in accordance with any recommendations of Seller. If "AS IS" is indicated on the reverse side, no warranty of any kind is being given and the equipment is being sold with all faults. THE WARRANTIES IN THIS PARAGRAPH AND ON THE REVERSE SIDE ARE THE EXCLUSIVE WARRANTIES GIVEN BY SELLER AND SUPERSEDE ANY PRIOR. CONTRARY, OR ADDITIONAL REPRESENTATIONS, WHETHER ORAL OR WRITTEN. SELLER HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED, OR STATUTORY, **INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE,** AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR USAGE OF TRADE. SELLER SHALL NOT BE LIABLE FOR ANY LOSS, INJURY, OR DAMAGE TO PERSONS OR PROPERTY RESULTING FROM THE FAILURE OR DEFECTIVE OPERATION OF THE EQUIPMENT; NOR WILL SELLER BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND SUSTAINED FROM ANY CAUSE. This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence, or strict liability in tort or under any other legal theory.

8. **Notice.** This paragraph shall serve as notice that The Papé Group, Inc. has assigned its rights to sell its rental equipment (as may be described in this sales order) and its rights to sales proceeds (including "trade-in assets" related thereto) to North Star Deferred Exchange as part of an IRC Sec. 1031 exchange.

9. **Attorneys Fees.** In the event suit or action is instituted against Buyer on account of or in connection with or based upon the terms hereof, the Buyer agrees to pay, in addition to the costs and disbursements provided by law, such sum as the court may adjudge reasonable attorney's fees in both the trial and appellate courts, or in connection with any bankruptcy proceeding.

10. **Entire Agreement.** The foregoing and any addendum shall constitute the complete and exclusive agreement between the parties, and it is expressly understood and agreed that no promises, provisions, terms, warranties, conditions, guarantees, or obligations whatsoever, either expressed or implied, other than as herein set forth or provided for shall be binding on either party. Each party may transmit its signature by facsimile to the other party and such facsimile signatures shall have the same force and effect as an original signature.

I have read, understand and am bound by the above Terms and Conditions of Sale.

Buyer Initial Here

ADDENDUM TO CUSTOMER TRUCK SALES ORDER

Customer Name: _____

Sales Order: _____

☐ **ADDITIONAL PURCHASES**

Yr/Make	Model	VIN	Description

☐ **ADDITIONAL TRADE-INS**

Yr/Make	Model	VIN	Description

If trade-in, Buyer certifies that there is no lien of any kind and that the Trade is free and clear and is his sole and absolute property except as noted above. The undersigned Buyer places a firm order.

PAPÉ KENWORTH

Store _____

City _____ **State** _____ **Zip** _____

By _____ **Title** _____

Date

BUYER

By _____ **Title** _____

By _____ **Title** _____

Date



T880

90 YEARS 1923 2013

KENWORTH.
The World's B



T880 Concrete Mixer powered by the PACCAR MX-13 engine

KENWORTH. The World's Best.

T880



INSPIRED

VERSATILE

RUGGED

INTELLIGENT

PRODUCTIVE

CONNECTED

REWARDING

THE HEAVY-DUTY, ALL-BUSINESS WORK TRUCK YOU CAN COUNT ON.

The work you do requires everything you've got and then some. True too for your trucks and the people who drive them. With the T880, you've got a dependable, versatile vehicle capable of performing your toughest jobs productively and efficiently. Day in, day out. A truck designed at its core with the strength, stamina and operating economy you need to move your business ahead.

Bulk tractor. Tanker. Dump truck. Mixer. Heavy hauler. Refuse truck. Logger. Lightweight line-haul tractor. The next time your job requires maximum effort, dispatch the one truck that's equipped to handle it: your Kenworth T880.

It's the world's best way to get work done.



T880 Six Axle Dump Truck pow
by the PACCAR MX-13 engine



INSPIRED

VERSATILE

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REWARDING

THE PERFECT BALANCE OF FORM, FUNCTION AND FLEXIBILITY

Custom-engineered from bumper to taillight, the T880 is the most versatile vehicle to ever roll off an assembly line. Distinctively Kenworth, this bold new truck is as comfortable hauling 140,000 pounds over the Rockies as it is navigating city streets with a tanker full of fuel. It's the tough-minded choice as a dump truck, lowboy, logger, concrete mixer, refuse transporter, construction or oil field service vehicle. You name it. The T880 cuts all the big jobs down to size.

With a low sloped hood and wide open visibility, the T880 sports a do-anything, go-anywhere attitude that takes it easy on the driver. Available in 122.6-inch and 116.7-inch BBC models, you can select from a myriad of specialized options to get exactly what you need for your specific payload and operating requirements. There's even a sleeper option to enhance your flexibility, comfort and lifestyle.



T880 Four Axle Dump Truck pow
by the PACCAR MX-13 engine



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VERSATILE

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REWARDING

ENGINEERED TO TAKE A WORLD OF PUNISHMENT.

When you're making tracks down an 8 percent grade with 10 yards of mud on your back, you want to be riding on the ironclad foundation of Kenworth dependability. Ninety years of putting it on the line, Kenworth has learned a great deal about how to design and build trucks that will endure in the real world. Trucks with the strength and endurance to work harder and last longer. Trucks that can shoulder maximum payload with minimum tare weight and move that burden over terrain and through job sites you'd never want to negotiate with lesser vehicles. The T880 is all Kenworth, all the way through. Be assured: You can trust this truck.


72°F
12:39
PM
Trip A 1,526.8 Mi
Trip Info:
Summary: Trip A
Fuel Econ = 5.8 MPG
Avg Speed = 48 mph
Eng Hours = 31.8 hrs
Fuel Used = 263 gals
VOLTS
OIL
WATER
x100 RPM
km/h MPH
BRAKE APP
PRIM AIR SEC
DEF
HOME
TRUCK
PHONE
OK
Voice
Cancel
VOL
SEEK
MUTE
MODE
ON OFF
CANCL
SET
RES





Virtual gauges provide real-time information on truck operation. Oil and transmission temperatures, manifold boost, present and average fuel economy, DPF status and engine torque come pre-loaded.



NavPlus is the first system in the industry to offer optimized routes customized to your truck parameters and your load.



NavPlus audio features AM/FM/ Weather bands, Sirius satellite capability, CD player, USB port, auxiliary MP3 player hookup and Bluetooth-capable wireless audio streaming.



Pair your compatible Bluetooth phone with Bluetooth-capable NavPlus – which includes a built-in microphone and speaker – to talk hands-free.

INSPIRED

VERSATILE

RUGGED

INTELLIGENT

PRODUCTIVE

CONNECTED

REWARDING

KEEPING THE DRIVER INFORMED, IN TOUCH, IN CONTROL AND ON SCHEDULE.

If knowledge is power, this is the most powerful work truck you've ever seen, featuring groundbreaking technology that clarifies and enriches the driving experience like never before. Kenworth's exclusive leather-wrapped SmartWheel® multifunction steering wheel puts the most frequently used controls right under the driver's fingertips. High-definition instrumentation includes crisply detailed virtual gauges that deliver real-time information at a glance in all lighting conditions. And Kenworth NavPlus® -- a revolutionary driver interface and productivity tool -- seamlessly integrates vehicle navigation, entertainment, diagnostics and cutting-edge communication into a single intuitive full-color touchscreen. Now that's powerful.





GOING TO WORK HAS NEVER FELT LESS LIKE WORK.

No matter how many trucks you own, this is the one your drivers will line up for. Inside the handsome exterior of the T880 is a quiet, spacious, state-of-the-art control center that fits professionals of every shape and size. The superior quality, craftsmanship, fit and finish of the wide and wide-open interior is easy to see, but it's the driving experience that truly distinguishes the T880 from every other work truck you've ever known.

INTERIOR COLORS AND OPTIONS

The T880 is available in two interior trim levels, the Vantage and the Diamond VIT. Both are available in either Slate Gray or Tan and come with three colors of vinyl plus a complementary trim color.

Vantage Interior

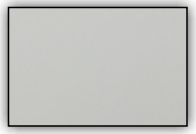


Diamond VIT Interior



Interior Vinyl

Slate Gray



Light Slate Gray

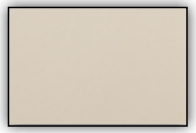


Medium Slate Gray



Dark Slate Gray

Tan



Light Tan



Medium Tan



Dark Tan

Trim Colors



Smoked Rosewood - Diamond VIT



Bright Gyro Wave - Vantage



Bastogne Burl - Diamond VIT



Dark Gyro Wave - Vantage

Floor Coverings



Dark Gray Carpet



Dark Gray Rubber Mat



Dark Tan Carpet

KENWORTH SEATS

As a true driver's truck, the T880 offers The World's Best seating arrangements – superior in comfort, adjustability, ride suspension and personal climate control. Upholstery choices include durable vinyl, cloth, Ultraleather and premium leather coverings.

*Key Features and Options**

	Feature	Benefit
Advanced Suspension	Micro Adjustable Damping	Set exactly the ride feel you want.
	Suspension Travel Protection Zone	Avoid harsh bump stops
	Base Extension with Independent Full Tilt	Optimize both leg comfort and recline angle.
	Weight Compensating Auto Level and Memory	No need to readjust for different size drivers.
	Height Independent Adjustability	Maximum comfort at all heights.
	Upper Back Adjustability	An OEM industry first providing spine-matching contouring.
	Adjustable Side Bolsters	Customizable side-to-side support.
Climate	Heating	Warmth in the winter.
	Cooling	Cooling comfort in the summer.
Longevity	Replaceable Cushions	Keep your seats looking new without extra cost.

Extensive Adjustability and Outstanding Comfort Features



Seat Covering Options



* Not all options available with all seat trim levels

Ultraleather Is a Registered Trademark of Ultrafabr

DESIGNED TO GET MORE OUT OF A TRUCK

The Kenworth T880 has been designed to keep your operation running on all cylinders, all the time. At peak efficiency. With minimum downtime. You need that kind of commitment from your truck. And you need a manufacturer who knows how to make it easy for your body builder to do his job fast. How to make daily service checks a walk in the park. How to speed your stay in the service bay with ingenious new ways to save time and cost. How to make sure your truck comes out of the factory job-ready with whatever your need.



Troubleshooting air and electrical systems has never been easier. A centralized passthrough on the firewall provides ready access. Just open the hood and reach up.



The firewall-mounted brake pedal reduces leg strain - an ergonomic difference that means less driver fatigue at the end of the day.



A new angled steering gear design provides up to 9 degrees of additional wheel cut. This allows for a tighter turning radius, for superior maneuverability at the job site.



Made of durable Metton, the 5-piece T880 hood offers bolt-on fenders for quick replacement to get you back on the work site. Each fender can be replaced in less than two hours.



Keep dirt, mud and spray at bay with Kenworth's optional forward fender close-out accessory, a great idea when you're running off the beaten path or with bigger tires.



Electric Over Air dash switches (replace flip valves in the dash) provides improved reliability and eliminates air leaks and noise in the cab. Additional functionality and driver interfacing is now possible with the new switches, which provide feedback through the driver performance center in the dash.



The T880 is available with five new Watson Chalin lift axles, including a new 10k lift axle and a redesigned 20k lift axle that cuts over 200 pounds off the previous 20k design.



Complex reflector halogen headlights offer the lighting performance of projector beam systems without the extra cost. Designed with extra thick polycarbonate lens and UV inhibitor, the headlamps will stand up to years of service without any complaints.



Kenworth offers many factory options to streamline body installation, from a 12-pin remote engine harness interface to a J1939 CAN bus harness. Both available at the back of the cab or the end of the frame.



Optional lower chrome exhaust elbows are just one of the ways to dress up your T880. It may be a work truck, but it's a Kenworth after all.

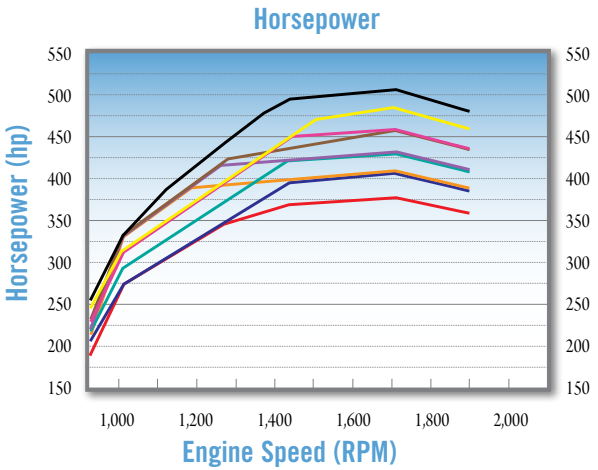
PACCAR MX-13
Powered By Quality

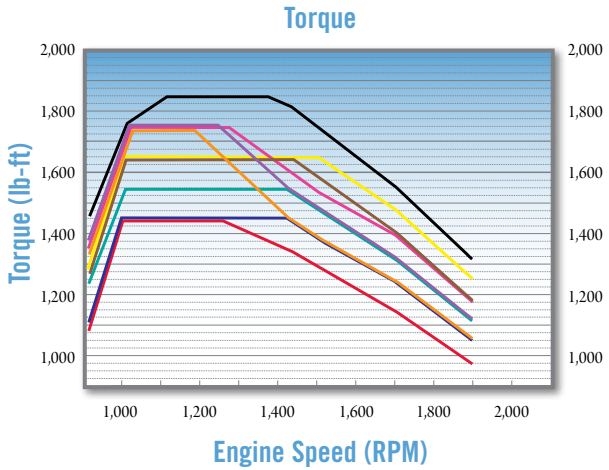


At the heart of the T880 is a fully optimized and integrated drivetrain featuring the quality and proven reliability of the PACCAR MX-13 engine. These highly efficient, clean running engines deliver up to 500 hp and 1,850 lb-ft of torque – all the muscle you need to do the job.

In addition to industry-leading fuel economy, the PACCAR MX-13 employs innovative high-strength yet lightweight components and premium materials to achieve superior durability and power-to-weight performance. The technologically advanced design reduces in-cab noise levels significantly for a more comfortable driving environment. Selective Catalytic Reduction (SCR) in combination with exhaust gas recirculation (EGR) enables the PACCAR MX-13 to boast near-zero emissions.

Bottom line: Expect longer service intervals, increased uptime, lower operating costs and higher resale value.





Ratings

Engine Horsepower	Peak Torque lb-ft @ rpm	
380	1,450 @ 1,000	
405	1,450 @ 1,000	
405	1,550/1,750 @ 1,000*	
430	1,550 @ 1,000	
430	1,550/1,750 @ 1,000*	
455	1,650 @ 1,000	
455	1,550/1,750 @ 1,000*	
485	1,650 @ 1,000	
500	1,850 @ 1,100	

**Multi Torque Rating*

Specifications

Configuration	inline 6-cylinder
Bore x Stroke (mm)	130 x 162
Displacement	12.9 liters
Dry Weight	2,600 lbs.
Oil System Capacity	42 U.S. quarts
Horsepower	380-500 hp
Peak Torque	1,450-1,850 lb.-ft.
Governed Speed	2,200 rpm
Clutch Engagement Torque†	973 lb.-ft. @ 800 rpm
B10 Design Life	1,000,000 miles/ 1,600,000 km
Base Warranty§	2 Years/250,000 miles/400,000 km

†Determined By Engine Horsepower And Idle Setting
§Extended Protection Plans Available

Maintenance Intervals

Maintenance Item	Miles	Kilometers
Fuel Filter - Vocational Duty	25,000	40,000
- Standard Duty	40,000	64,000
Oil and Filter - Vocational Duty	25,000	40,000
- Std. Duty > 20% Idle Time	40,000	64,000
- Std. Duty < 20% Idle Time	60,000	96,000
Coolant Filter (if equipped)	160,000	256,000
DEF Filter	300,000	480,000

T880 SPECIFICATIONS

Power / Drivetrain

- **PACCAR MX-13 Engine, 12.9 Liter, 380-500 HP, 1450 – 1850 lb-ft of Torque**
- *Cummins ISX15 Engine, 14.9 Liter, 450-600 HP, 1450 – 2050 lb-ft of Torque*
- *CARB Emission Reduction Feature Available*

Starting & Charging

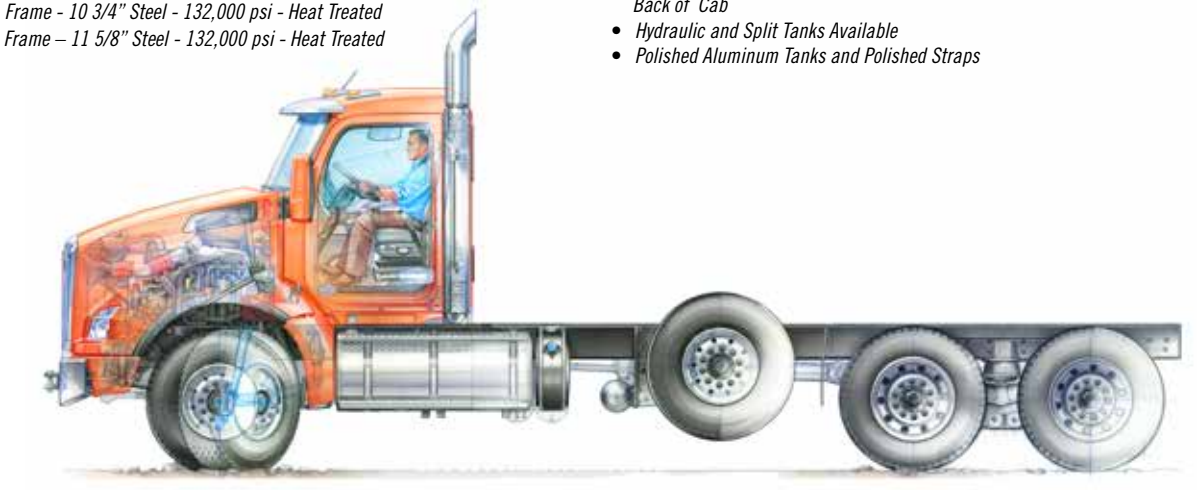
- **Multiplex Electrical System With Centralized Power Distribution Incorporating Plug-In Style Relays & Circuit Protection For Serviceability**
- **12 Volt Lighting System With Circuit Protection**
- **Circuits Numbered & Color Coded**
- **Key Switch Start & Shutdown**
- **160 Amp Alternator**
- **PACCAR 12 Volt Starter**
- **Three PACCAR Dual Purpose Batteries**
- *Two or four PACCAR Dual Purpose Batteries*
- *Two or Three AGM Deep Cycle Batteries*
- **Horizontal Muffler/DPF/SCR and Tailpipe**
- *RH Under DPF/SCR with Side of Cab Tailpipe*
- *Horizontal Muffler DPF/SCR with Back of Sleeper Vertical Tailpipe*
- *Vertical Independent DPF/SCR with Back of Cab Single Tailpipe*

Transmission Options

- **Eaton Fuller FRO16210C 10-Speed**
- **Clutch - Eaton Fuller**
- *Eaton Fuller 9, 10, 13, 15 & 18 Speed Manual and Automated Transmissions*
- *Allison 5, 6 & 7 Speed Automatic Transmissions*
- *PTO Options: REPTO and Factory Installed Transmission Mounted PTOs*

Frame / Axle / Suspension / Brakes

- **Frame - 10 5/8" Steel - 120,000 psi - Heat Treated**
- *Frame - 10 3/4" Steel - 132,000 psi - Heat Treated*
- *Frame – 11 5/8" Steel - 132,000 psi - Heat Treated*



- **Front Axles - Dana Spicer, 12,000 lb.**
- *Front Axles - Dana Spicer 12,000 to 22,000 lbs.*
- **Front Springs - Taperleaf w/Shocks, 12,000 lb.**
- *Front Springs - Taperleaf w/Shocks, 12,000, 13,200, 14,600, 16,000, 18,0000, 20,000 and 22,000 lb.*
- **Rear Axle - Dana Spicer, 40,000 lb. Tandem**
- *Single Rear Axles - Dana Spicer from 16,000 to 30,000 lb.*
- *Tandem Rear Axles - Dana Spicer, 40,000 and 52,000 lb.*
- *Tandem Rear Axles - Meritor, 40,000 and 44,000 lb.*
- *Tridem Rear Axles - Dana Spicer, 69,000 and 78,000 lb.*
- **Rear Suspension - Reyco 102, 38,000 lb. Tandem**
- *Single Rear Axle Suspensions - Kenworth, Reyco and Hendrickson with capacities from 20,000 to 31,000 lbs.*
- *Dual Rear Axle Suspensions - Kenworth, Reyco, Hendrickson, Chalmers and Neway with capacities up to 52,000 lbs.*
- *Tridem Rear Axle Suspensions - Kenworth, Hendrickson,and Neway with capacities up to 69,000 lbs.*
- **Brakes - Air**
- *Brakes - Air Disc*
- **ABS System - Bendix**
- *ACT and ESP available*

Wheels / Tires

- **Wheels - Steel 22.5"**
- **Tires - Bridgestone Ecopia 295/75R22.5 R283**
- *Michelin and Goodyear tries available.*
- *Polished and Non-Polished Alcoa Aluminum Wheels*
- *24.5" Tires and Wheels*

Fuel Tanks

- **24.5" Round Aluminum - 100 Gallon Capacity**
- *22" Round Aluminum - 56 to 120 Gallon Capacity Under and Back of Cab*
- *24.5" Round Aluminum – 60 to 150 Gallon Capacity Under and Back of Cab*
- *Hydraulic and Split Tanks Available*
- *Polished Aluminum Tanks and Polished Straps*

DEF Tanks

- **Small Round DEF Tank – 11 Usable Gallons**
- *Medium Round DEF Tank – 21 Usable Gallons*
- *Large Round DEF Tank – 31 Usable Gallons*
- *Extra Large Round DEF Tank – 38 Usable Gallons*
- *Polished Tank Cover and Polished Straps*

Battery Boxes / Bumpers

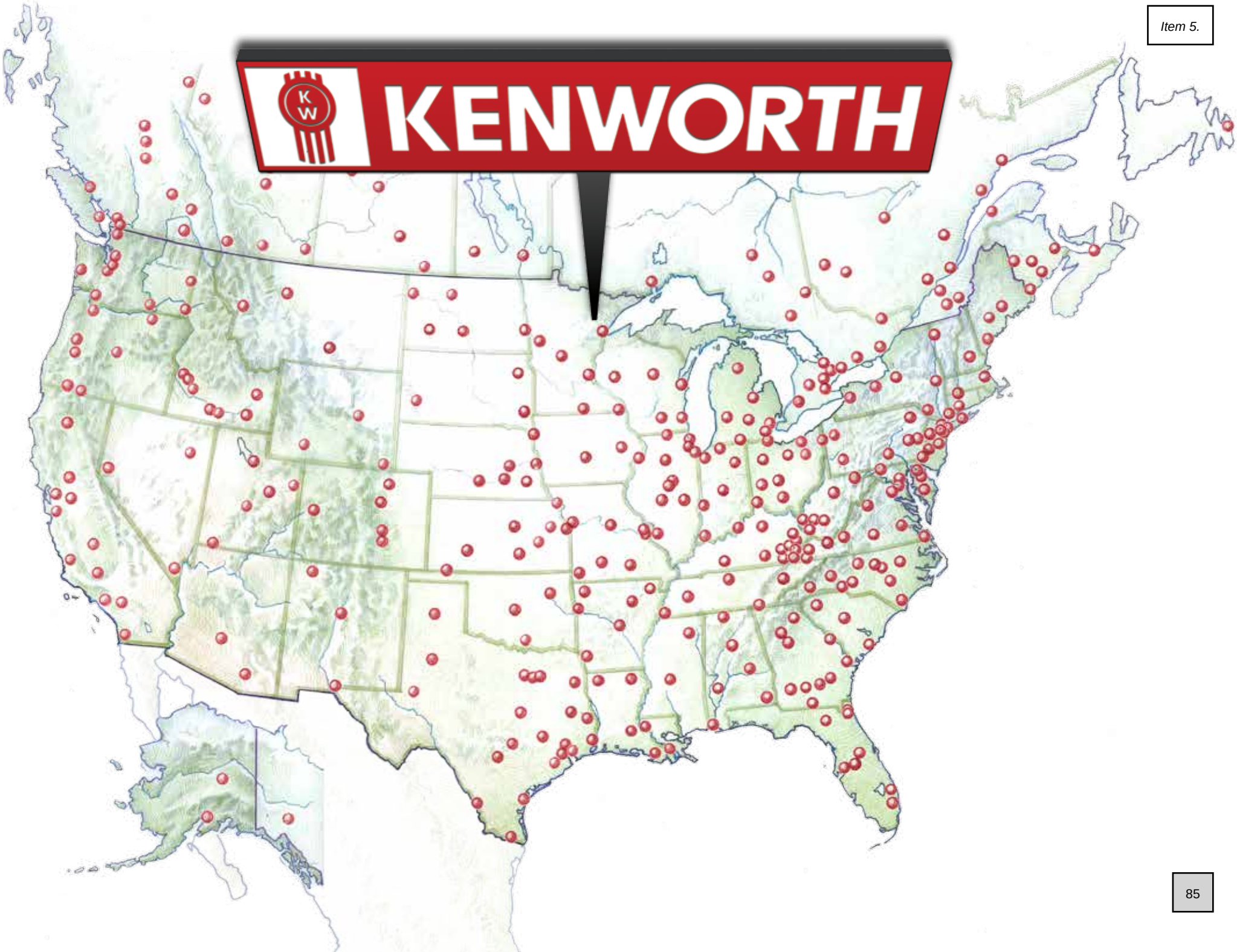
- **Steel Battery Box with Aluminum Step Cover**
- *Aluminum Battery Box*
- *Cantilever Back of Cab Battery Box*
- *In Cab Battery Box*
- **Steel Painted Channel Bumper**
- *Tapered Channel in Brushed or Polished Aluminum*
- *Stainless Clad Aluminum Channel Bumper*
- *HD Steel Box Bumper*

Cab / Hood / Interior

- **Cab – Stamped Aluminum**
- **Hood - 5-Piece Metton - Sloped Vocational Hood**
  T880 Hood (122.5" BBC) - 5-Piece with Bolt on Fenders
  T880MX Hood (116.5" BBC) – 5-Piece with Bolt on Fenders
- **Complex Reflector Halogen Headlamps**
- **Aerodynamic Heated Mirrors**
- **Adjustable Telescoping Tilt Steering Column**
- **Standard Vantage Vinyl Headliner and Cab Back Panel**
- *Diamond VIT Deluxe Interior*
- **Kenworth GT702 Air-Cushion Plus High Back Driver Seat**
- **Kenworth GT701 High Back Toolbox Plus Rider Seat**
- **Power Door Locks**
- **Passenger-side Electric Window**
- *3-Window Back of Cab Window Option*
- *Full Burl Wood Dash Panels*
- *Workstation Between Seats*

Special Equipment & Options

- *Back-up Alarm*
- *Daytime Running Lights*
- *Multi-function Engine Connector For Body Builder Interface*
- *Bodybuilder Harness to End of Frame*
- *Custom Frame Drilling and Frame Layout*
- *Factory Installed Transmission PTO's -Muncie and Chelsea*
- *Factory Installed Watson Chalin Lift Axles -8K, 10K, 13.5K, 20K and 22K -Pusher and Tag Axle configurations -Steerable and Non-Steerable Options*


KENWORTH



INSPIRED

VERSATILE

RUGGED

INTELLIGENT

PRODUCTIVE

CONNECTED

REWARDING

NOBODY BACKS UP A TRUCK LIKE KENWORTH

In a 24/7 world, where customers rightfully expect to have it all, the reliability and money-making potential of your business relies on the dependability of your support system. Another great reason to invest in a Kenworth. From the moment you turn the key on your new T880, you're connected to a rock-solid organization that's dedicated to your success 24/7. With instant access to heavy truck professionals who can show you innovative new ways to manage and control operating costs. Provide quick turnaround services at standard prices anywhere you go. Suggest preventive maintenance programs that pay off in peace of mind. And keep you running nonstop. When you buy a Kenworth, a great truck is just the beginning. Great follow-through is also part of the deal.



90 YEARS OF VOCATIONAL LEADERSHIP

The Kenworth legend reads like a history of progress in Class 8 truck design -- each chapter marked by remarkable vehicles so forward thinking and so right they didn't just lead, but inspired the industry to turn in whole new directions. Like you, Kenworth learned a long time ago. You can't get ahead by standing still. Only by moving forward. Case in point: The Kenworth T880.



INSPIRED

VERSATILE

RUGGED

INTELLIGENT

PRODUCTIVE

CONNECTED

REWARDING

THE EASY CHOICE IN A TOUGH-JOB TRUCK

You're not in business to run trucks, but to profit from them. An investment in the Kenworth T880 pays off in greater fuel economy, driver satisfaction, productivity and resale value. You also gain the pure pleasure of putting your name on the door of a truck that commands attention and respect wherever it goes -- an honest reflection of your commitment to excellence. Whether you purchase or lease, in the long run you will be glad you own The World's Best.

KENWORTH T880. IT'S THE WORLD'S BEST WAY TO GET WORK DONE.

Note: Photography and illustrations in this brochu may depict optional equipment. All equipment an specifications shown in this brochure are subject to change without notice. Please consult with your Kenworth dealer at the time of ordering for actual standard and optional equipment. PACCAR MX and MX are registered trademarks of PACCAR Inc

The minute you take delivery of your Kenworth, you gain 24/7 access to one of the most extensive and reliable parts and service organizations in the trucking industry. People who know your truck inside out and can show you how to lower operating expenses, maximize uptime, optimize truck performance and profit from your investment. Comprehensive preventive maintenance programs, expedited servicing, complimentary roadside assistance and cost management service cards are among the valuable programs available through Kenworth PremierCare®.

KENWORTH PremierCare® Parts & Service

Perhaps you'd prefer to focus your attention and resources on your core business, save interest expense and improve cash flow. PacLease offers a number of truck rental and leasing programs that can be tailored to fit your operating requirements precisely. www.paclease.com

PacLease

Start with a lender who understands your business. PACCAR Financial has served owner-operators and fleets for over 40 years, matching individual requirements with customized financing packages at attractive and competitive rates. Financing and insuring your new truck has never been this easy. www.paccarfinancial.com

PACCAR FINANCIAL

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KENWORTH TRUCK COMPANY

P.O. Box 1000

Kirkland, Washington 98083-1000

(425) 828-5000

CANADIAN KENWORTH COMPANY

6711 Mississauga Road, Suite 500

Mississauga, Ontario L5N 4J8

(905) 858-7000

www.kenworth.com

T880/13

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CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **BILL LAGRONE, CHIEF OF POLICE**

RE: **INSTALLATION OF 28 APX8500 PORTABLE VEHICLE RADIOS, AND NECESSARY INSTALLATION HARDWARE AND ATTENNAS.**

DATE: **APRIL 18, 2023**

SUMMARY

The Council will consider authorizing an installation contract with Sutter Buttes Communication for the installation of 28-APX8500 vehicle radios, and antennas in existing fleet police vehicles, in an amount not to exceed $22,224.55

DISCUSSION

The primary radio infrastructure for the Oroville Police Department is Motorola equipment. Based on the proven record of reliability and durability, and our prior commitment to this radio infrastructure, Motorola equipment is identified as the preferred radio manufacturer for the Oroville Police Department.

The Police department would like to move to Butte County's County wide radio system in efforts to consolidate and streamline communications. In September of 2022 the Council authorized the Police Department to purchase 50 APX8500 Motorola radios, and software for radios. The new equipment has arrived, and the radios are ready for installation. 28 of the new radios will be installed in our existing fleet of vehicles. The other 22 radios will be installed in the new vehicles that have recently arrived. Those installations will occur once the building of the new vehicles has been completed.

A quote was obtained from two authorized installers of Motorola products. Sutter Buttes was the low bidder for this project, at $22,224.55. The Oroville Police Department has previously worked with Sutter Buttes Communication and always received professional and complete work.

Once these installations are complete the move to the county wide radio network will then only require a signed agreement with Butte County to utilize the county wide system. Once an agreement is made the city would pay a onetime license fee of $20,000. This fee would be to

license a channel specifically for the Oroville Police Department on Butte County's radio network.

FISCAL IMPACT

$22,224.55 from Fund 153 Police Supplemental Law Enforcement 5231-6360.

RECOMMENDATION

Authorize the Police Department to contract with Sutter Buttes Communication for the installation of 28 APX8500 Motorola radios and Antennas in the existing fleet of Police Vehicles, in an amount not to exceed $22,224.55, as outlined in the attached quotes.

ATTACHMENTS

1. Quote from Sutter Buttes Communications
2. Quote from Lehr

Sales Quote

631 North Market Blvd, Suite N Sacramento, CA 95834
Phone: 916-407-1888 Fax: 916-646-6656

Quote Number: 38662
Document Date: 12/1/2022
Terms: Net 30
Payment Method:

Sell To: City of Oroville
Tyson Pardee
1735 Montgomery St
Oroville, CA 95965
Phone:

Ship To: City of Oroville
Tyson Pardee
1735 Montgomery St
Oroville, CA 95965
Phone:

Ship Via
Tax Ident. Type Legal Entity

Customer ID 55155
SalesPerson Steve Adair

Vehicle Information:

PRICES ARE VALID FOR 30 DAYS FROM DATE OF QUOTE UNLESS OTHERWISE SPECIFIED

Item No.	Description	Manufacturer Name	Quantity	Unit Price	Total Price
	Ford Utility 17 units Remove XTL Radio INSTALL MOTOROLA APX 8500 Radio and remote head Install Multiplexor and antennas for APX 8500 (VHF,UHF,700/800) Axon Triggers - Lightbar, speed, Gun release Axon Triggers - Three vehicels will get K-9 Door Pop				
L	LABOR CHARGES onsite Labor Rate estimate 8 hours per vehicle	Labor Items	17	1,200.00	20,400.00
	_____ F-150 2 units Remove XTL Radio INSTALL MOTOROLA APX 8500 Radio and remote head Install Multiplexor and antennas for APX 8500 (VHF,UHF,700/800)				
L	LABOR CHARGES	Labor Items	2	900.00	1,800.00
	_____ Ford Fusion 1 Unit INSTALL MOTOROLA APX 8500 Radio and remote head Install Multiplexor and antennas for APX 8500 (VHF,UHF,700/800)				
L	LABOR CHARGES	Labor Items	1	750.00	750.00
	_____ Crown Vic 3 Units Remove XTL Radio INSTALL MOTOROLA APX 8500 Radio and remote head Install Multiplexor and antennas for APX 8500 (VHF,UHF,700/800)				

Sales Quote

631 North Market Blvd, Suite N Sacramento, CA 95834
Phone: 916-407-1888 Fax: 916-646-6656

Quote Number: 38662
Document Date: 12/1/2022
Terms: Net 30
Payment Method:

Sell To: City of Oroville
Tyson Pardee
1735 Montgomery St
Oroville, CA 95965
Phone:

Ship To: City of Oroville
Tyson Pardee
1735 Montgomery St
Oroville, CA 95965
Phone:

Ship Via
Tax Ident. Type Legal Entity

Customer ID 55155
SalesPerson Steve Adair

Vehicle Information:

PRICES ARE VALID FOR 30 DAYS FROM DATE OF QUOTE UNLESS OTHERWISE SPECIFIED

Item No.	Description	Manufacturer Name	Quantity	Unit Price	Total Price
L	LABOR CHARGES _____ Travel Per Tech	Labor Items	3	900.00	2,700.00
TT	TRAVEL TIME / FIELD SERVICE CHARGE Travel quote above for one tech for one day. Vehicle avaiablility and project timline will determin total travel time estimated 12-15 days to complete project	Labor Items	1	375.00	375.00
INSTALL	INSTALL MATERIALS	Service Items	23	25.00	575.00

Agency Approval

Name: _____

Auth. Signature: _____

Amount Subject to Sales Tax
575.00
Amount Exempt from Sales Tax
26,025.00

Subtotal: **26,600.00**
Total Sales Tax: 47.44
Total: **26,647.44**

PLEASE READ: No returns without approval and an RMA# will be accepted. All shortages, damage, or return claims must be made within 10 days of invoice date. NO EXCEPTIONS. A copy of the invoice and RMA paperwork must be shipped with returns. All return orders or cancellations are subject to a 25% restocking fee plus freight. Any change orders made 60 days prior to the installation date may be subject to a production delay and pricing changes. PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Sutter Buttes Communications, Inc.

Proposal

445 Palora Avenue
Yuba City, Ca. 95991
Ofc. (530) 673-3475

Fax: (530) 673-1085
Toll Free: (800) 300-0054

Customer: Oroville Police
Attention: Tyson
Re: Equipment Removal and Installs
Fax:
Phone:
Email:

Proposal Date	2/13/2023
QUOTE #	AW21323-1
TERMS	Net 10
SALES REP	Andrew Welch
SHIPPED VIA	
F.O.B.	
Proposal Valid For:	30 Days

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	Parts List		
28	Laird Black VHF Antenna	14.00	$392.00
28	Laird Black UHF Antenna	14.00	$392.00
28	Laird Black 700 Antenna	13.00	$364.00
56	Laird Coax Kit	19.00	$1,064.00
84	RF Industries QMA Connector	10.00	$840.00
3	Gamber Johnson Faceplate	38.00	$114.00
25	Misc. Wire, Loom, Hardware, Connectors, Fuses, Etc.	25.00	$625.00
3	Misc. Wire, Loom, Hardware, Connectors, Fuses, Etc.	40.00	$120.00
	Labor Breakdown (Totaled in the Labor Column)		
	25 Installs with XTL Removals/APX Installs $480/Unit = $12,000.00		
	3 Installs with Kenwood Removals/XTL Installs $720/Unit = $2,160.00		
	18 Axon Trigger Box Install $180 = $3,240.00		
	2 Axon Trigger Box Install for K9 Units $240 = $480.00		

Notes: This proposal covers the removal of an XTL/Kenwood radio and installing an APX8500 radio with 3 antennas and a multiplexer. This will also include installing an Axon trigger box in 20 units. Scope of work to be done in Oroville on site. Vehicles with XTL radios will keep existing cables for ease of R&I with the idea of SBC coming back later to take care of any issues that come up.

SUBTOTAL	3,911.00
TAX @7.25%	283.55
LABOR	17,880.00
EST. FREIGHT	150.00
	$22,224.55
	PAY THIS AMOUNT

Please note that freight is estimated. Invoice will reflect actual shipping charges.

DIRECT ALL INQUIRIES TO:
Name Andrew Welch
Phone 530-673-3475
e-mail: awelch@sutterbuttescomm.com

THANK YOU FOR YOUR BUSINESS!

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **DAWN NEVERS, ASST. COMMUNITY DEVELOPMENT DIRECTOR**

RE: **CONSIDER ENTERING INTO A MEMORANDUM OF UNDERSTANDING (MOU) WITH THE CITIES OF BIGGS, CHICO, GRIDLEY, PARADISE, AND BUTTE COUNTY FOR SB 1383 EDIBLE FOOD RECOVERY REGULATORY REQUIREMENTS**

DATE: **APRIL 18, 2023**

SUMMARY

Authorize the City Administrator to enter into an agreement with the Cities of Biggs, Chico, Gridley, Paradise, and Butte County for SB 1383 Edible Food Recovery Regulatory Requirements.

DISCUSSION

In 2016, SB 1383 Short-Lived Climate Pollutants (Lara) was adopted which requires the state to reduce organic waste (food waste, green waste, paper products, etc.) disposal by 75% by January 1, 2025. The law also includes a target to increase food recovery by 20% of currently disposed edible food for human consumption by January 1, 2025.

To meet the mandated statewide goal, the law requires each jurisdiction in California to establish and monitor a robust food recovery program, which will strengthen the relationships between commercial edible food generators and food recovery organizations within their communities, requiring certain food businesses to send the maximum amount of edible food they would otherwise dispose to food recovery organizations.

SB 1383 places commercial edible food generators into two tiers to allow businesses and jurisdictions time to expand or build new food recovery infrastructure and capacity to donate foods that are harder to safely store and distribute.

Tier One Donors, of which Oroville has nine, were required to send surplus food to food organizations starting January 1, 2022. Those businesses include:

- Supermarkets with revenue > $2M
- Grocery stores with facilities > 10,000 sq ft.
- Food service providers
- Food distributors
- Wholesale food vendors

Tier Two Donors are required to begin sending surplus food to food organizations starting January 1, 2024. Those businesses include:

- Restaurants with facilities > 5,000 sq ft or 250+ seats
- Hotels with an on-site food facility and 200+ rooms
- Health facilities with an on-site food facility and 100+ beds
- Large venues and events
- State agency cafeterias with facilities > 5,000 sq ft or 250+ seats
- Local education agency with an on-site food facility (PUSD already donates their surplus food to the 530 Food Rescue Coalition)

Butte County has been working with a consultant, R3 Consulting Group, for their edible food recovery capacity study, which involved coordination with each local jurisdiction. This segment of SB 1383 is about identifying eligible food generators/providers/distributors/wholesale vendors and capturing food that is recoverable for donation to hunger relief programs.

The draft implementation schedule that came out of the edible food recovery capacity study was:

APRIL 2023:
- Draft and execute an MOU between member jurisdictions that will establish Program goals and objectives, establish who will be responsible for coordinating the Program, and establish responsibilities for individual jurisdictions and other relevant stakeholders.
- Establish individual jurisdiction funding mechanisms for their proportionate support of the Program.
- Coordination with food recovery organizations and services regarding capacity and reporting.

JUNE 2023:
- Develop Tier 2 outreach and implementation plans for each individual Tier 2 business category (e.g. restaurants, hotels, health facilities, etc.).

Mid-Late 2024:
- Roll out recovery services to Tier 2 commercial edible food generators.

ANALYSIS:

Following up on the County's consultant's work, staff from the member agencies of the CA Integrated Waste Management Local Task Force (Biggs, Chico, Gridley, Oroville, Paradise, & Butte County) have continued to work on the creation of a regional edible food recovery working group (EFRWG) to manage the edible food recovery portion of SB 1383.

The MOU between all Butte County jurisdictions and managed under the EFRWG strengthens the local food recovery ecosystem by spurring funding and innovation in the fight against food waste; propagating waste prevention and recovery strategies; and supporting local food recovery programs that can manage the increase food recovery and data collection needed to support countywide SB 1383 compliance for the foreseeable future.

Under SB 1383, cities are required to help connect food generators with local organizations, to track the donations, and to enforce the mandates. In Butte County, the Community Action Agency had already established a pilot app-based food recovery program (530 Food Rescue Coalition, https://www.buttecaa.com/foodrescue/). This pilot program has the needed food recovery capacity to address edible food recovery requirements under SB 1383 and has proven

to be the best local option for Tier 2 generator food recovery and data collection requirements. Providing the funding to assure that 530 Food Rescue Coalition remains a permanent part out our local food recovery program is the responsibility of all jurisdictions and ensures the needed capacity to be in full compliance with SB 1383 and provide a reliable and expandable food recovery infrastructure to assure food security for our community.

The regional coordination of efforts to fulfill portions of SB 1383, such as edible food recovery, is a benefit to the individual jurisdictions as a cost sharing mechanism and it allows the work efforts to be shared among a jointly funded Program Manager and jurisdictional staff members alleviating the burden of a full project roll-out on any one person or jurisdiction. Butte County would act as the lead jurisdiction in submittal of countywide SB 1383 reporting pertaining to edible food recovery.

The cost of jurisdictional participation in the food recovery program is allocated according to CA Dept of Finance population numbers. The proposed budget for the first year of Program funding is $367,000 with a 9% budget allocation ($34,338) assigned to Oroville which is commensurate with the City's percentage of the County's population. The budget will cover a Program Manager, Capacity Grants for the food rescue organizations, and Lead Jurisdiction funding (see Attachment B). As the Town's population grows, future years' budget allocations will be adjusted accordingly.

This MOU works to create an equitable, economical, and effective means by which all the member jurisdictions can comply with SB 1383 edible food recovery requirements.

FISCAL IMPACT

As part of the 2023/24 FY budget, $34,338 in solid waste franchise tax fees will be budgeted towards 530 Food Rescue Coalition. The City currently receives sufficient solid waste franchise tax fees, in addition to a 10% Host Fee, to cover the proposed Program allocations to Oroville. During the previous twelve months, the City collected over $670,000 in Franchise and Host Fees.

RECOMMENDATION

Authorize the City Administrator to sign the MOU agreement with the Cities of Biggs, Chico, Gridley, Paradise, and Butte County for SB 1383 Edible Food Recovery Regulatory Requirements.

ATTACHMENTS:

- Attachment A – Votes per jurisdiction and population counts
- Attachment B – Budget and jurisdictional per capita contributions
- Draft MOU

EXHIBIT A

Votes per jurisdiction and population counts.

	Population 1/1/2022	Percent of Total	1 Vote / 50,000 Pop or portion thereof
			# Votes
Biggs	1,939	1%	1
Chico	102,892	51%	3
Gridley	7,205	4%	1
Oroville	18,863	9%	1
Paradise	7,705	4%	1
Balance of County	63,004	31%	2
Butte County Total	**201,608**	**100%**	**9**

EXHIBIT B

Proposed Year 1 Program Budget

FY1 Budget	
Program Manager	$ 30,000
Capacity Grants	
530 FRC 1-Year Tier 1 + Tier 2 Pilot Program	$ 275,000
Other Capacity Grants	$ 50,000
Year 1 Work Plan Task Funding	$ 0
Lead Jurisdiction Funding	$ 12,000
DEH Inspection/Enforcement Funding	TBD
Total	**$ 367,000**

Program Budget Allocations

FY 1 Budget Allocation			
Jurisdiction	**Population 1/1/2022**	**Percent of Total**	**FY 1 Budget Allocation**
Biggs	1,939	1%	$ 3,530
Chico	102,892	51%	$ 187,301
Gridley	7,205	4%	$ 13,116
Oroville	18,863	9%	$ 34,338
Paradise	7,705	4%	$ 14,026
Balance of County	63,004	31%	$ 114,690
Total	**201,608**	**100%**	**$ 367,000**

MEMORANDUM OF UNDERSTANDING BETWEEN THE CITIES OF BIGGS, CHICO, GRIDLEY, AND PARADISE, THE CITY OF OROVILLE, AND BUTTE COUNTY, FOR MEETING CERTAIN SB 1383 EDIBLE FOOD RECOVERY REGULATORYREQUIREMENTS

RECITALS

ARTICLE 1: PURPOSE OF THE MOU

ARTICLE 2: DEFINITIONS

ARTICLE 3: EDIBLE FOOD RECOVERY PROGRAM GOAL

ARTICLE 4: EDIBLE FOOD RECOVERY PROGRAM ELEMENTS

- **4.1 General Elements**
- **4.2 Program Management and Administration**
- **4.3 Grant Funding for Commercial Edible Food Recovery Capacity**
- **4.4 Tier 1 and Tier 2 Edible Food Recovery Capacity**
- **4.5 Allocation of Annual Funding Requirements Among the Jurisdictions**

ARTICLE 5: RESPONSIBILITIES OF THE INDIVIDUAL JURISDICTIONS

- **5.1 Designated Representative and Surrogate**
- **5.2 Jurisdictional Contact**
- **5.3 Funding**
- **5.4 Updating List of Food Recovery Organizations**
- **5.5 Public Education and Outreach**
- **5.6 Inspection and Enforcement**
- **5.7 Recordkeeping and Reporting**

ARTICLE 6: STRUCTURE AND RESPONSIBILITIES OF THE EDIBLE FOOD RECOVERY WORKING GROUP

- **6.1 EFRWG Composition**
- **6.2 EFRWG Meetings**
- **6.3 Overall Program Responsibilities**
- **6.4 Voting**
- **6.5 Develop and Approve Annual Program Work Plan and Annual Program Budget**
- **6.6 Program Funding Decisions**
- **6.7 Grant Funding Applications**
- **6.8 Capacity Planning**
- **6.9 Countywide Food Security Planning Coordination**

ARTICLE 7: JURISDICTION FUNDING RESPONSIBILITIES

7.1 Annual Program Budget

7.2 Allocation of Funding Requirements Among Individual Jurisdictions

ARTICLE 8: RESPONSIBILIES OF THE LEAD JURISDICTION

8.1 Overall Program Responsibilities

8.2 Contracting with the Program Manager

8.3 Managing of Program Related Funds

8.4 Countywide Reporting

8.5 Tracking and Reimbursement of Lead Jurisdiction Costs

ARTICLE 9: RESPONSIBILITIES OF THE PROGRAM MANAGER

9.1 Overall Program Development and Implementation

9.2 Administration of Tier 1 Edible Food Recovery

9.3 Administration of Tier 2 Edible Food Recovery

9.4 Develop Annual Program Work Plan and Annual Program Budget

9.5 Quarterly Meetings

9.6 Pursing Grant Funding Opportunities

9.7 Overseeing Capacity Grant Applications and Awards

ARTICLE 10: CAPACITY GRANTS

10.1 Capacity Grant Funding

10.2 Capacity Grant Application and Award Process

10.3 Equitable Distribution of Capacity Grant Monies

ARTICLE 11: RESPONSIBILIES OF THE COUNTY

11.1 Countywide Reporting

ARTICLE 12: TERM AND WITHDRAWL

12.1 Term

12.2 Withdrawal

Attachments:

A. Allocation of EFRWG Votes Among Jurisdictions

B. Allocation of Funding Responsibilities Among Jurisdictions

MEMORANDUM OF UNDERSTANDING BETWEEN THE CITIES OF BIGGS, CHICO, GRIDLEY, AND PARADISE, THE CITY OF OROVILLE, AND BUTTE COUNTY, FOR MEETING CERTAIN SB 1383 EDIBLE FOOD RECOVERY REGULATORYREQUIREMENTS

This Memorandum of Understanding (MOU) is entered into by and between the Cities of Biggs, Chico, Gridley and Paradise, the City of Oroville, and Butte County, individually referred to as a "Jurisdiction" and collectively referred to as the "Jurisdictions" on _____, 2023.

RECITALS

A. **WHEREAS**, the State of California passed Senate Bill 1383 (SB 1383) (Chapter 395, Statutes of 2016), which required the California Department of Resources Recycling and Recovery (CalRecycle) to adopt regulations to reduce organic waste by 50 percent from its 2014 baseline level by 2020 and 75 percent by 2025; and,

B. **WHEREAS**, CalRecycle has finalized regulations and revised Chapter 12 (Short-lived Climate Pollutants) of Division 7 of Title 14 of the California Code of Regulations ("SB 1383 Regulations"); and,

C. **WHEREAS**, SB 1383 establishes a goal that not less than 20% of edible food that is currently disposed is recovered for human consumption by 2025; and,

D. **WHEREAS**, SB 1383 Regulations require local agencies and jurisdictions to, among other things, ensure capacity for commercial edible food recovery and obtain funding for any additional required capacity, as necessary; and,

E. **WHEREAS**, jurisdictions may designate a public or private entity to fulfill their responsibilities of the SB 1383 Regulations, except that the jurisdictions shall remain ultimately responsible for compliance in accordance with Section 18981.2 of the SB 1383 Regulation; and,

F. **WHEREAS**, the Jurisdictions intend to meet SB 1383's requirement that jurisdictions implement an edible food recovery program through a coordinated county-wide program rather than individual jurisdiction-specific programs; and,

G. **WHEREAS**, the Jurisdictions are entering into this MOU to establish certain SB 1383 edible food recovery program roles and responsibilities that will be coordinated and implemented on a countywide basis under the terms and conditions set forth herein.

NOW, THEREFORE, the City Councils of the Cities of Biggs, Chico, Gridley, and Paradise, the City Council of the City of Oroville, and the Board of Supervisors of Butte County agree as follows:

ARTICLE 1: PURPOSE OF THE MOU

The purpose and intent of this MOU is to provide an equitable, economical, and effective means by which the Jurisdictions can comply with certain SB 1383 edible food recovery program requirements, as specified below.

ARTICLE 2: DEFINITIONS

Capacity Grants – Grants awarded by the Edible Food Recovery Working Group (EFRWG), to Food Recovery Organizations, Food Recovery Services, and/or other entities for expenses related to the provision of Tier 1 and Tier 2 Edible Food Recovery Capacity.

Edible Food Recovery Working Group (EFRWG) - Representatives of each of the Jurisdictions who shall have overall responsibility for Program management and oversight of, and coordination with, the Program Manager.

Effective Date – The date on which this MOU has been executed by all Jurisdictions.

Fiscal Year – The fiscal year is July 1st through June 30th.

Fiscal Year Annual Program Work Plan or **Annual Program Work Plan** -The Fiscal Year Annual Program Work Plan is the document that is prepared annually by the Program Manager with direction from the EFRWG that identifies planned tasks to be addressed during the next fiscal year. The Annual Program Work Plan includes associated task schedules, and the entities responsible for completing those tasks.

Fiscal Year Annual Program Budget or **Annual Program Budget** - The Fiscal Year Annual Program Budget provides line item Program Fund revenues and expenses, and Program Fund balances for the fiscal year starting July 1st.

Food Justice - Food justice is a holistic and structural view of the food system that sees healthy food as a human right and addresses structural barriers to that right.

Food Recovery Organization - An entity that engages in the collection or receipt of edible food from commercial edible food generators and distributes that edible food to the public for food recovery either directly or through other entities including, but not limited to: (A) A food bank as defined in Section 113783 of the Health and Safety Code; (B) A nonprofit charitable organization as defined in Section 113841 of the Health and Safety Code; and, (C) A nonprofit charitable temporary food facility as defined in Section 113842 of the Health and Safety Code.

Food Recovery Service – A person or entity that collects and transports edible food from a commercial edible food generator to a food recovery organization or other entities for food recovery.

Food Security - Means that all people at all times, have physical, social, and economic access to sufficient, safe, and nutritious foods that meets their food preferences and dietary needs for an active and healthy life.

Jurisdictional Contact – The member of the EFRWG with responsibility for working with the Program Manager on applicable Program issues and items on behalf of their respective Jurisdiction, as agreed to by the EFRWG. The Jurisdiction Contact may or may not be the Jurisdictional Designated Representative.

Jurisdictional Designated Representative - The member of the EFRWG who has voting authority for their respective Jurisdiction.

Lead Jurisdiction – The Jurisdiction that assumes the responsibilities listed in Article 8 of this MOU.

Program - The coordinated countywide edible food recovery program that the Jurisdictions intend to implement to comply with SB 1383 edible food recovery program requirements.

Program Expenses – All expenses related to the Program including but not limited to program management and administrative expenses, and funding for Capacity Grants.

Program Fund – The fund to which individual Jurisdictions remit agreed upon Annual Program Budget funding and from which Program Expenses are paid.

Program Manager - The person or third party entity the Lead Jurisdiction provides or contracts with to manage and administer the Program.

Real Time Donor and Recipient Matching Software - Software applications that allow businesses that have food available for donation to post the availability of that food on an actively managed website. Food distribution agencies or other neighborhood food programs can then claim that food for subsequent distribution to food insecure individuals and families. Collection of the food from the donor business and delivery to the receiving party is most commonly facilitated by volunteers, although the donating business or receiving party can also collect and deliver the food.

Tier 1 Commercial Edible Food Generator - A commercial edible food generator that is one of the following:

(A) Supermarket.
(B) Grocery store with a total facility size equal to or greater than 10,000 square feet.
(C) Food service provider.
(D) Food distributor.
(E) Wholesale food vendor.

Tier 1 Edible Food Recovery Capacity - The capacity (resources) needed to ensure that all Tier 1 Commercial Edible Food Generators have the ability to meet their regulatory requirement to arrange to recover the maximum amount of edible food that would otherwise be disposed.

Tier 2 Commercial Edible Food Generator - A commercial edible food generator that is one of the following:

(A) Restaurant with 250 or more seats, or a total facility size equal to or greater than 5,000 square feet.
(B) Hotel with an on-site food facility and 200 or more rooms.
(C) Health facility with an on-site food facility and 100 or more beds.

(D) Large venue.
(E) Large event.
(F) A state agency with a cafeteria with 250 or more seats or a total cafeteria facility size equal to or greater than 5,000 square feet.
(G) A local education agency with an on-site food facility.

Tier 2 Edible Food Recovery Capacity - The capacity needed to ensure that all Tier 2 Commercial Edible Food Generators have the ability to meet their regulatory requirement to arrange to recover the maximum amount of edible food that would otherwise be disposed.

ARTICLE 3: EDIBLE FOOD RECOVERY PROGRAM GOAL

To develop and implement a coordinated countywide SB 1383 edible food recovery program (Program) that is fully compliant with SB 1383 Regulations, and that provides cost effective edible food recovery capacity so that all Tier 1 and Tier 2 Commercial Edible Food Generators have access to the recovery capacity needed to arrange to recover the maximum amount of edible food that would otherwise be disposed.

ARTICLE 4: EDIBLE FOOD RECOVERY PROGRAM ELEMENTS

4.1 General Elements - The Program, as envisioned, will require developing, implementing, and, as necessary, funding additional Tier 1 and Tier 2 Edible Food Recovery Capacity, and developing other required and/or agreed upon Program components.

4.2 Program Management and Administration – The Lead Jurisdiction may contract with a third-party Program Manager, on behalf of the Jurisdictions, as specified in **Article 9**.

4.3 Funding of Commercial Edible Food Recovery Capacity – The EFRWG will secure required Tier 1 and Tier 2 commercial edible food recovery capacity through various methods, including providing Capacity Grants to local edible food recovery organizations or service providers.

4.4 Tier 1 and Tier 2 Edible Food Recovery Capacity - It is envisioned that any additional required Tier 1 and Tier 2 Edible Food Recovery Capacity will be provided through existing non-profit recovery capacity, and new recovery capacity developed by existing non-profits or other organizations, as required, with funding provided by the Jurisdictions, as necessary and agreed to.

4.5 Real-time Donor/Recipient Software - It is envisioned that establishing the required Tier 1 and Tier 2 Edible Food Recovery Capacity may be achieved through a Real-time Donor and Recipient Matching Software application.

4.6 Allocation of Annual Funding Requirements Among the Jurisdictions - Agreed upon annual funding requirements will be distributed among the Jurisdictions based on population. The populations of the Jurisdictions, and associated funding requirements, will be reviewed and adjusted annually based on the then current

populations, as reported by the California Department of Finance. Attachment A contains the calculated Funding Requirements by Jurisdiction, as of January 1, 2022.

ARTICLE 5: RESPONSIBILITIES OF THE INDIVIDUAL JURISDICTIONS

5.1 Jurisdictional Designated Representative and Alternate – Each Jurisdiction shall assign a Jurisdictional Designated Representative who will have voting authority on behalf of the Jurisdiction, and an alternate who will have voting authority in the event the Jurisdictional Designated Representative is not available.

5.2 Jurisdictional Contact - Each Jurisdiction shall designate the primary jurisdictional point of contact with responsibility for working with the Program Manager on applicable Program issues and items, as directed by the EFRWG. The Jurisdictional Contact may or may not be a Jurisdictional Designated Representative.

5.3 Funding - Each Jurisdiction shall establish funding mechanism(s) and remit their portion of the Annual Program Budget to the Lead Jurisdiction on a monthly, quarterly or annual basis, as agreed to.

5.4 Updating List of Food Recovery Organizations - Each Jurisdiction shall identify any known changes to the then current list of Food Recovery Organizations in their respective jurisdictions and report that information to the Program Manager by January 31st of each year.

5.5 Public Education and Outreach - The Jurisdictions will seek to develop a uniformly branded, multi-lingual edible food recovery public education and outreach program and associated education and outreach materials. Each Jurisdiction shall be responsible for SB 1383 public education and outreach requirements as they apply to their respective Jurisdiction, unless otherwise agreed to by the Jurisdictions.

5.6 Inspection and Enforcement – Each Jurisdiction shall be responsible for SB 1383 inspection and enforcement requirements as they apply to their respective Jurisdiction, unless otherwise agreed to by the Jurisdictions.

5.7 Recordkeeping and Reporting – Each Jurisdiction shall be responsible for SB 1383 recordkeeping and reporting requirements as they apply to their respective Jurisdiction, unless otherwise agreed to by the Jurisdictions.

ARTICLE 6: STRUCTURE AND RESPONSIBILITIES OF THE EDIBLE FOOD RECOVERY WORKING GROUP (EFRWG)

6.1 EFRWG Composition - The EFRWG is to be comprised of each Jurisdictional Designated Representative and Jurisdictional Contact.

6.2 EFRWG Meetings - The EFRWG shall meet no less than quarterly with the Program Manager to receive quarterly updates, conduct Program planning and take any other necessary or desired actions. In addition to each Jurisdictional Designated Representative and Jurisdictional Contact, other staff of the jurisdictions, and consultants to the Jurisdictions, may attend EFRWG meetings. Other relevant parties may also attend

EFRWG meetings, as agreed to by the EFRWG. EFRWG meetings will be held on-line unless otherwise agreed to.

6.3 Overall Program Responsibilities - The EFRWG will have overall responsibility for overseeing the Program, and for oversight of the Program Manager and his/her implementation of the approved Annual Program Work Plan, and other agreed upon short-, medium-, and long-term tasks.

6.4 Voting - As necessary, Program decisions of the EFRWG will be based on the votes cast by each Jurisdictional Designated Representative. Voting results shall be based on majority rule, unless another benchmark has been established for determining the results of voting on a particular item (e.g., a unanimous decision), as agreed to by the EFRWG by a vote of the majority.

Each Jurisdiction shall receive one weighted vote for every 50,000 residents, or portion thereof. The number of votes per Jurisdiction shall be reviewed annually and adjusted, if and as necessary, based on the then current populations of the Jurisdictions. Based on the population figures reported by the California Department of Finance. **Attachment A** contains the calculated number of votes by Jurisdiction as of May 2, 2022.

6.5 Develop and Approve Annual Program Work Plan and Annual Program Budget – The EFRWG shall develop and approve an Annual Program Work Plan and Annual Program Budget, in coordination with the Program Manager each year.

6.6 Program Funding Decisions - The EFRWG will be responsible for Program funding decisions.

6.7 Grant Funding Applications – The EFRWG shall make decisions as to any grant funds to be pursued and shall help facilitate grant applications, as necessary.

6.8 Capacity Planning – The EFRWG shall coordinate future required capacity planning, including the preparation of required implementation schedules and associated reporting as required by SB 1383 Regulations Section 18992.3.

6.9 Countywide Food Security Planning Coordination – The EFRWG shall coordinate with broader Food Security and Food Justice planning in Butte County as it deems appropriate.

ARTICLE 7: JURISDICTION FUNDING RESPONSIBILITIES

7.1 Allocation of Funding Requirements Among Individual Jurisdictions - The Annual Program Budget shall be allocated among the individual jurisdictions based on their percentage of the overall Countywide population, as of January 1st of each year, as reported by the California Department of Finance at: https://dof.ca.gov/forecasting/demographics/estimates-e1/. **Attachment B** contains the jurisdictional per capita contributions as of April 1, 2023.

ARTICLE 8: RESPONSIBILITIES OF THE LEAD JURISDICTION

8.1 Overall Program Responsibilities – The Lead Jurisdiction shall manage the Program Fund.

8.2 Program Manager - It shall be the responsibility of the Lead Jurisdiction to provide a Program Manager or contract with the third party Program Manager on behalf of the Jurisdictions. The Program Manager shall be funded by Program Funds.

8.3 Managing of Program Related Funds - The Lead Jurisdiction shall create and maintain the Program Fund, fund centers, and cost centers necessary to support the Program's revenues, expenditures, and fund balance. Tasks associated with the management of the Program Fund include initial fund set-up, collection of funds, distribution of funds, and annual reporting of account activities to the EFRWG.

8.4 Tracking and Reimbursement of Lead Jurisdiction Costs - The Lead Jurisdiction shall track its administrative costs associated with its responsibilities as listed above and may be reimbursed for such expenses out of the Program Fund. If needed, the Lead Jurisdiction will invoice the EFRWG on a quarterly basis. Billing shall be based on a billing rate schedule that will be approved and updated annually by the EFRWG.

ARTICLE 9: RESPONSIBILITIES OF THE PROGRAM MANAGER

9.1 Overall Program Development and Implementation – The Program Manager shall have overall responsibility for the development and implementation of the Program as documented in the Annual Program Work Plan tasks, and/or as otherwise directed by the EFRWG.

9.2 Administration of Tier 1 Edible Food Recovery – The Program Manager, in coordination with the Jurisdictional Contacts, shall be responsible for facilitating the provision of any required Tier 1 Edible Food Recovery Capacity to Tier 1 Commercial Edible Food Generators.

9.3 Administration of Tier 2 Edible Food Recovery - The Program Manager, in coordination with the Jurisdictional Contacts, shall be responsible for facilitating the provision of any required Tier 2 Edible Food Recovery Capacity to Tier 2 Commercial Edible Food Generators.

9.4 Develop Fiscal Year Annual Program Work Plan and Fiscal Year Annual Program Budget - The Program Manager, along with the EFRWG, shall develop a draft Annual Program Work Plan and Annual Program Budget each year. The Program Manager may make changes to the Annual Program Work Plan and Annual Program Budget and prepare and submit a final Annual Program Work Plan and Annual Program Budget to the EFRWG each year. Each Jurisdiction will approve their contribution to the Annual Program Budget as part of their established annual budget development process.

9.5 EFRWG Meetings – The Program Manager shall facilitate meetings with the EFRWG quarterly, as needed or directed by the EFRWG. The Program Manager shall be responsible for preparing meeting agendas, which may include Program updates and provide for Program planning and any other appropriate Program actions.

9.6 Pursuing Grant Funding Opportunities – The Program Manager, in coordination with the Jurisdictional Contacts, shall be responsible for tracking and identifying grant funding opportunities, and shall prepare or otherwise facilitate EFRWG approved grant applications, as directed by the EFRWG.

9.7 Managing Capacity Grant Applications and Awards – The Lead Jurisdiction and Program Manager shall be responsible for developing and managing the Capacity Grant application and award process in conjunction with the EFRWG.

ARTICLE 10: CAPACITY GRANTS

10.1 Capacity Grant Funding – Funding for Capacity Grants shall be provided in the Annual Program Budget, as determined by the EFRWG. Unless otherwise directed by the EFRWG, any Capacity Grants that are not awarded in the fiscal year they were budgeted shall be made available for Capacity Grant funding in future years.

10.2 Capacity Grant Application and Award Process – The EFRWG shall develop and administer a Capacity Grant application, award, agreement, and monitoring process to be managed by the Program Manager. It is anticipated that Capacity Grants may be awarded for both additional Tier 1 and Tier 2 Edible Food Recovery Capacity, as well as for costs related to existing Tier 1 and Tier 2 Edible Food Recovery Capacity in support of maintaining the ongoing viability of that existing capacity.

10.3 Equitable Distribution of Capacity Grant Monies - It is the intention of the Jurisdictions that Capacity Grant monies will be distributed among Food Recovery Organizations, Food Recovery Services and/or other entities that recover and/or distribute food from Tier 1 or Tier 2 Commercial Edible Food Generators in a manner that best supports optimizing commercial edible food recovery and distribution in the County, with consideration for equitably distributing Capacity Grant monies among those entities that apply for Capacity Grants.

ARTICLE 11: RESPONSIBILITIES OF THE COUNTY

11.1 Countywide SB 1383 Reporting – The Jurisdictions agree to allow the County to submit agreed upon Program related records and/or other information to CalRecycle and/or other entities on behalf of the individual Jurisdictions as directed by the EFRWG.

ARTICLE 12: TERM AND WITHDRAWAL

12.1 Term - This MOU shall commence on the Effective Date and remain in full force and effect unless or until terminated as specified in **Section 12.2** below.

12.2 Withdrawal - Any Jurisdiction may withdraw as a party to this MOU upon giving one hundred and eighty (180) calendar days' prior written notice to the EFRWG.

Any Jurisdiction withdrawing as a party to this MOU shall assume all applicable SB 1383 edible food recovery regulatory requirements, and all other responsibilities otherwise provided for through this MOU.

Any Jurisdiction withdrawing as a party to this MOU shall be reimbursed for that portion of any Program Fund balance provided by the Jurisdiction that exists at the end of the then current fiscal year. Any such then existing balance will be reimbursed to a Jurisdiction consistent with that Jurisdiction's Allocation of Annual Funding Requirements, as established in Section 4.6.

CITY OF BIGGS

_____
By:
City Administrator

CITY OF CHICO

_____
By: Mark Sorensen
City Manager

*Authorized pursuant to City of Chico Budget Policy G.6.c, and City Council approval on _____.

APPROVED AS TO FORM:

_____
Vincent C. Ewing, City Attorney*

APPROVED AS TO CONTENT:

_____
Erik Gustafson, Public Works Director – Operations & Maintenance

*Approved pursuant to The Charter of the City of Chico § 906(D)

REVIEWED AS TO CONTENT:

_____
Barbara Martin, Administrative Services Director*

*Reviewed by Finance and Information Systems

CITY OF GRIDLEY

_____

By: Cliff Wagner
City Administrator

CITY OF OROVILLE

_____

By: Brian Ring
City Administrator

ATTEST:

By: _____
Jackie Glover, City Clerk

APPROVED AS TO FORM:

By: _____
Scott Huber, City Attorney

COUNTY OF BUTTE

_____

By: Andy Pickett
Chief Administrative Officer

TOWN OF PARADISE

_____

By: Kevin Phillips
Town Manager

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **BILL LAGRONE, CHIEF OF POLICE**

RE: **CONTRACT FOR INSTALLATION AND MAINTENANCE OF AUTOMATED LICENSE PLATE READER CAMERAS WITH ADVANCED AUDIO DETECTION**

DATE: **APRIL 18, 2023**

SUMMARY

The Council will consider authorizing the lease of an automated license plate reader (ALPR) camera system (40 cameras) with enhanced audio detection from the Flock Group, for 24 months in an amount not to exceed $333,750.00. The cost is all inclusive to include installation, maintenance, cloud storage and all software updates as necessary

DISSCUSSION

The City continues to experience an increase in property crimes along with the entire county and State. This increase in criminal activity has led to community inquiries about the Police Department's efforts to deter crime within the city. The increase in crime, coupled with the limited personnel and the Oroville Police Department's commitment to providing an excellent level of service to the community necessitates the use of additional technological options to detect, solve, prevent, and deter crime.

The implementation of an ALPR program will aid the Oroville Police Department in its investigative efforts in the following ways: locate stolen, wanted and subject of investigation vehicles; provide leads to assist with investigation into crimes committed within the city; detect vehicles associated with missing persons and at-risk persons, including those on active Amber Alerts; and detect vehicles associated with subjects with outstanding arrest warrants or otherwise lawfully sought by law enforcement.

ALPR technology captures digital images of license plates on vehicles as they pass cameras located throughout the city. The license plate is automatically scanned at a high rate of speed and cross-checked against a database. If a vehicle is identified as stolen or wanted, an OPD employee is notified. The ALPR system stores the location, time, vehicle information, and photos of the vehicle and license plate. All of this data can be retrieved and used for investigative purposes. This technology is expected to

be extremely successful in assisting OPD in apprehending criminals committing crimes both in Oroville and surrounding jurisdictions.

Oroville is the hub for many smaller outlying communities, where criminals may traverse, making Oroville an opportune target. Most of these criminals use vehicles to enter and exit Oroville. These cases can often be solved using ALPR's because they capture suspect vehicle information which often provides critical information to further investigations

With the advent and advancement in technology, ALPR's are becoming common tools for numerous law enforcement agencies in northern California (Chico, Elk Grove, Rocklin and Roseville). This advanced and ever evolving technology can assist the Oroville Police Department in providing a professional level of public service, ensuring personal safety, protection of property, and continued enhancement of the quality of life for those who live, work, and visit in the community. ALPR cameras can be effectively placed in strategic locations to monitor all vehicles entering and leaving Oroville. ALPR's will assist in identifying crime trends and help to better protect our Industrial areas as these areas are isolated and quite often targeted. Staff believes that Flock ALPR cameras placed at strategic locations around Oroville will add a significant investigative option that will help solve/deter crime in Oroville.

In addition, this system will include the Flock Raven listening system. This system is primarily designed to detect gunshots but can also be programed to listen for metal sawing noise and glass breaking noise. The Gunshot detection units capture short audio clips of their surroundings, interpret that audio to detect specific sound patterns, and, ultimately, alert an officer when the system has captured the sound of a potential gunshot. The automated process of capture, analysis, and comparison typically takes seconds, and officers are alerted to the vicinity of the gunshots.

The process of gunshot detection works like this:

1. Each Gunshot Detection unit is equipped with a microphone that gathers audio for five seconds at a time.

2. The unit processes the audio to determine if a gun has been fired.

3. Audio suspected to be gunfire is uploaded to Flock Group, Inc. processing systems. These systems reprocess the audio to ensure that the sound was a gunshot and not a similar sound like fireworks or a car backfiring.

4. If the sound is determined to be gunfire, the unit sends an initial detection alert to Police Officers.

5. Simultaneously, the system cross-references detections from other nearby gunshot detection units. Using calculations based upon the time delays between units hearing the sound, the system is able to determine the

approximate location of the incident. The vendor asserts that this automated process determines the location with a 90% accuracy to within 90 feet.

6. As the cross reference is completed, an updated alert is relayed to Champaign Police with a narrowed geographical location, and available officers are immediately dispatched to the specified location to investigate.

The Flock system is an all-inclusive model for deploying and using ALPR cameras. Flock provides a controlled, searchable database that is accessible by authorized law enforcement personnel. Flock is the sole provider of comprehensive monitoring, processing and machine vision services which integrate with the Flock Safety camera. The Flock system is a one-stop solution that is currently used by more than 200 law enforcement agencies throughout the United States. Agencies utilizing Flock have seen positive results with crime suppression and as an investigative tool that assists with criminal apprehension (reductions in vehicle theft and an increase in making an arrest when thefts do occur).

The ALPR system does not identify any individual or access anyone's personal information through its analysis of license plate characters. The date captured by the ALPR unit itself is entirely anonymous. Officers can only identify the registered owner of a vehicle by querying separate secure state government data base of vehicle license plate records, such as DMV, to obtain the owner information. The government data base is restricted, controlled and audited for its inquiry. Information obtained by ALPR cameras will be closely safeguarded and protected by both procedural and technological means. The information will be stored in a private data base which is only accessible to authorized Brisbane Police Department personnel for the reasons mentioned above. The information will only be shared with other law enforcement agencies if there is an active criminal investigation or other law enforcement need.

Senate Bill 34, codified at California Civil Code section 1798.90.51 – 1798.90.55, requires that all law enforcement agencies utilizing ALPRs, implement and maintain security procedures as well as usage and privacy policies to protect the data collected. The Oroville Police Department has already drafted a potential policy to be in compliance with the law. The proposed draft policy is attached to the staff report.

Additionally, Senate Bill 34 requires that public agencies intending to operate an ALPR system, must allow an opportunity for public comment at a regularly scheduled public meeting of the governing body of the public agency, which we are complying with by presenting at tonight's meeting.

Flock Safety contracts with over 1,000 cities and 1,500 law enforcement agencies across the country. Flock Safety operates a subscription-based model of $3,500 per camera per year, which includes all hardware, software, and LTE connectivity, together with a one-time fee of $650 implementation fee. The cost of installation of this system and operation for two years is $269,750.00. For additional details see attached quote.

If the City desires to have the advanced listening functions of the camera system an additional cost will be incurred. The cost for this advanced feature would be and additional $64,000.00. For additional details see attached quote.

FISCAL IMPACT

This is a two-year contract. Amount due for the first year of the contract for Automated License Plate Reader camera system $146,250.00. The Second year of the contract for Automated License Plate Reader camera system is $123,500.00 for a total of $269,750.00. Subsequent years would be approximately $123,500.00 per year depending on a new contract agreement.

If the Council desires to add on the Advance listening system, the amount due for the first year $32,000.00. The Second year of contract for Advance listening system is $32,000.00.

Staff recommends the funding for this purchase to be funded by the District Sales Tax Fund.

RECOMMENDATION

Authorize and direct the mayor to sign an agreement with Flock Systems for the installation of a 40 camera Automated License Plate Reader system with advance listening capabilities.

ATTACHMENTS

1. Quote for ALPRS
2. Quote for Advance Listening system
3. Flock Sole Source Letter
4. Flock FAQ’s
5. Flock Group proof of Insurance
6. Proposed Draft policy

Flock Safety + Oroville PD

Flock Group Inc.
1170 Howell Mill Rd, Suite 210
Atlanta, GA 30318

MAIN CONTACT:
Kyle Egkan
kyle.egkan@flocksafety.com
7144690389

flock safety

flock safety

EXHIBIT A
ORDER FORM

Customer:	Oroville PD	Initial Term:	24 Months
Legal Entity Name:	Oroville PD	Renewal Term:	24 Months
Address:	2055 Lincoln St Oroville, California 95966	Payment Terms:	Net 30
		Billing Frequency:	Annual Plan - First Year Invoiced at Signing.
		Retention Period:	30 Days

Hardware and Software Products

Annual recurring amounts over subscription term

Item	Cost	Quantity	Total
Flock Safety Platform			**$32,000.00**
Flock Safety Flock OS			
FlockOS	Included	1	Included

Professional Services and One Time Purchases

Item	Cost	Quantity	Total
One Time Fees			

Subtotal Year 1:	$32,000.00
Annual Recurring Subtotal:	$32,000.00
Estimated Tax:	$0.00
Contract Total:	$64,000.00

*Taxes shown above are provided as an estimate. Actual taxes are the responsibility of the Customer. This Agreement will automatically renew for successive renewal terms of the greater of one year or the length set forth on the Order Form (each, a "**Renewal Term**") unless either Party gives the other Party notice of non-renewal at least thirty (30) days prior to the end of the then-current term.*

Billing Schedule

Billing Schedule	Amount (USD)
Year 1	
At Contract Signing	$32,000.00
Annual Recurring after Year 1	$32,000.00
Contract Total	$64,000.00

*Tax not included

Product and Services Description

Flock Safety Platform Items	Product Description	Terms

One-Time Fees	Service Description
Installation on existing infrastructure	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.
Professional Services - Standard Implementation Fee	One-time Professional Services engagement. Includes site and safety assessment, camera setup and testing, and shipping and handling in accordance with the Flock Safety Standard Implementation Service Brief.
Professional Services - Advanced Implementation Fee	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.

By executing this Order Form, Customer represents and warrants that it has read and agrees to all of the terms and conditions contained in the Master Services Agreement attached. The Parties have executed this Agreement as of the dates set forth below.

FLOCK GROUP, INC.	**Customer: Oroville PD**
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____
	PO Number: _____

Master Services Agreement

This Master Services Agreement (this "***Agreement***") is entered into by and between Flock Group, Inc. with a place of business at 1170 Howell Mill Road NW Suite 210, Atlanta, GA 30318 ("***Flock***") and the entity identified in the signature block ("***Customer***") (each a "***Party***," and together, the "***Parties***") on this the 06 day of April 2023. This Agreement is effective on the date of mutual execution ("***Effective Date***"). Parties will sign an Order Form ("**Order Form**") which will describe the Flock Services to be performed and the period for performance, attached hereto as **Exhibit A**. The Parties agree as follows:

RECITALS

WHEREAS, Flock offers a software and hardware situational awareness solution through Flock's technology platform that upon detection is capable of capturing audio, video, image, and recording data and provide notifications to Customer ("***Notifications***");

WHEREAS, Customer desires access to the Flock Services (defined below) on existing devices, provided by Customer, or Flock provided Flock Hardware (as defined below) in order to create, view, search and archive Footage and receive Notifications, via the Flock Services;

WHEREAS, Customer shall have access to the Footage in Flock Services. Pursuant to Flock's standard Retention Period (defined below) Flock deletes all Footage on a rolling thirty (30) day basis, except as otherwise stated on the Order Form. Customer shall be responsible for extracting, downloading and archiving Footage from the Flock Services on its own storage devices; and

WHEREAS, Flock desires to provide Customer the Flock Services and any access thereto, subject to the terms and conditions of this Agreement, solely for the awareness, prevention, and prosecution of crime, bona fide investigations and evidence gathering for law enforcement purposes, ("***Permitted Purpose***").

NOW, THEREFORE, Flock and Customer agree that this Agreement, and any Order Form, purchase orders, statements of work, product addenda, or the like, attached hereto as exhibits and incorporated by reference, constitute the complete and exclusive statement of the Agreement of the Parties with respect to the subject matter of this Agreement, and replace and supersede all prior agreements, term sheets, purchase orders, correspondence, oral or written communications and negotiations by and between the Parties.

1. DEFINITIONS

Certain capitalized terms, not otherwise defined herein, have the meanings set forth or cross-referenced in this Section 1.

1.1 "***Anonymized Data***" means Customer Data permanently stripped of identifying details and any potential personally identifiable information, by commercially available standards which irreversibly alters data in such a way that a data subject (i.e., individual person or entity) can no longer be identified directly or indirectly.

1.2 "***Authorized End User(s)***" means any individual employees, agents, or contractors of Customer accessing or using the Services, under the rights granted to Customer pursuant to this Agreement.

1.3 "***Customer Data***" means the data, media and content provided by Customer through the Services. For the avoidance of doubt, the Customer Data will include the Footage.

1.4. "***Customer Hardware***" means the third-party camera owned or provided by Customer and any other physical elements that interact with the Embedded Software and the Web Interface to provide the Services.

1.5 "***Embedded Software***" means the Flock proprietary software and/or firmware integrated with or installed on the Flock Hardware or Customer Hardware.

1.6 "***Flock Hardware***" means the Flock device(s), which may include the pole, clamps, solar panel, installation components, and any other physical elements that interact with the Embedded Software and the Web Interface, to provide the Flock Services as specifically set forth in the applicable product addenda.

1.7 "***Flock IP***" means the Services, the Embedded Software, and any intellectual property or proprietary information therein or otherwise provided to Customer and/or its Authorized End Users. Flock IP does not include Footage (as defined below).

1.8 "***Flock Network End User(s)***" means any user of the Flock Services that Customer authorizes access to or receives data from, pursuant to the licenses granted herein.

1.9 "***Flock Services***" means the provision of Flock's software and hardware situational awareness solution, via the Web Interface, for automatic license plate detection, alerts, audio detection, searching image records, video and sharing Footage.

1.10 "***Footage***" means still images, video, audio and other data captured by the Flock Hardware or Customer Hardware in the course of and provided via the Flock Services.

1.11 *"**Hotlist(s)***" means a digital file containing alphanumeric license plate related information pertaining to vehicles of interest, which may include stolen vehicles, stolen vehicle license plates, vehicles owned or associated with wanted or missing person(s), vehicles suspected of being involved with criminal or terrorist activities, and other legitimate law enforcement purposes. Hotlist also includes, but is not limited to, national data (i.e., NCIC) for similar categories, license plates associated with AMBER Alerts or Missing Persons/Vulnerable Adult Alerts, and includes manually entered license plate information associated with crimes that have occurred in any local jurisdiction.

1.12 "***Installation Services***" means the services provided by Flock for installation of Flock Services.

1.13 "***Retention Period***" means the time period that the Customer Data is stored within the cloud storage, as specified in the product addenda.

1.14 "***Vehicle Fingerprint*™**" means the unique vehicular attributes captured through Services such as: type, make, color, state registration, missing/covered plates, bumper stickers, decals, roof racks, and bike racks.

1.15 "***Web Interface***" means the website(s) or application(s) through which Customer and its Authorized End Users can access the Services.

2. SERVICES AND SUPPORT

2.1 **Provision of Access.** Flock hereby grants to Customer a non-exclusive, non-transferable right to access the features and functions of the Flock Services via the Web Interface during the Term, solely for the Authorized End Users. The Footage will be available for Authorized End Users to access and download via the Web Interface for the data retention time defined on the Order Form ("***Retention Period***"). Authorized End Users will be required to sign up for an account and select a password and username ("***User ID***"). Customer shall be responsible for all acts and omissions of Authorized End Users, and any act or omission by an Authorized End User which, including any acts or omissions of authorized End user which would constitute a breach of this agreement if undertaken by customer. Customer shall undertake reasonable efforts to make all Authorized End Users aware of all applicable provisions of this Agreement and shall cause Authorized End Users to comply with such provisions. Flock may use the services of one or more third parties to deliver any part of the Flock Services, (such as using a third party to host the Web Interface for cloud storage or a cell phone provider for wireless cellular coverage).

2.2 **Embedded Software License.** Flock grants Customer a limited, non-exclusive, non-transferable, non-sublicensable (except to the Authorized End Users), revocable right to use the Embedded Software as it pertains to Flock Services, solely as necessary for Customer to use the Flock Services.

2.3 **Support Services.** Flock shall monitor the Flock Services, and any applicable device health, in order to improve performance and functionality. Flock will use commercially reasonable efforts to respond to requests for support within seventy-two (72) hours. Flock will provide Customer with reasonable technical and on-site support and maintenance services in-person, via phone or by email at support@flocksafety.com (such services collectively referred to as ***"Support Services"***).

2.4 **Upgrades to Platform.** Flock may make any upgrades to system or platform that it deems necessary or useful to (i) maintain or enhance the quality or delivery of Flock's products or services to its agencies;the competitive strength of, or market for, Flock's products or services;such platform or system's cost efficiency or performance, or (ii) to comply with applicable law. Parties understand that such upgrades are necessary from time to time and will not

diminish the quality of the services or materially change any terms or conditions within this Agreement.

2.5 **Service Interruption.** Services may be interrupted in the event that: (a) Flock's provision of the Services to Customer or any Authorized End User is prohibited by applicable law; (b) any third-party services required for Services are interrupted; (c) if Flock reasonably believe Services are being used for malicious, unlawful, or otherwise unauthorized use; (d) there is a threat or attack on any of the Flock IP by a third party; or (e) scheduled or emergency maintenance ("***Service Interruption***"). Flock will make commercially reasonable efforts to provide written notice of any Service Interruption to Customer,to provide updates, and to resume providing access to Flock Services as soon as reasonably possible after the event giving rise to the Service Interruption is cured. Flock will have no liability for any damage, liabilities, losses (including any loss of data or profits), or any other consequences that Customer or any Authorized End User may incur as a result of a Service Interruption. To the extent that the Service Interruption is not caused by Customer's direct actions or by the actions of parties associated with the Customer, the time will be tolled by the duration of the Service Interruption (for any continuous suspension lasting at least one full day). For example, in the event of a Service Interruption lasting five (5) continuous days, Customer will receive a credit for five (5) free days at the end of the Term.

2.6 **Service Suspension.** Flock may temporarily suspend Customer's and any Authorized End User's access to any portion or all of the Flock IP or Flock Service if (a) there is a threat or attack on any of the Flock IP by Customer; (b) Customer's or any Authorized End User's use of the Flock IP disrupts or poses a security risk to the Flock IP or any other customer or vendor of Flock; (c) Customer or any Authorized End User is/are using the Flock IP for fraudulent or illegal activities; (d) Customer has violated any term of this provision, including, but not limited to, utilizing Flock Services for anything other than the Permitted Purpose; or (e) any unauthorized access to Flock Services through Customer's account ("***Service Suspension***"). Customer shall not be entitled to any remedy for the Service Suspension period, including any reimbursement, tolling, or credit. If the Service Suspension was not caused by Customer, the Term will be tolled by the duration of the Service Suspension.

2.7 **Hazardous Conditions.** Flock Services do not contemplate hazardous materials, or other hazardous conditions, including, without limit, asbestos, lead, toxic or flammable substances. In the event any such hazardous materials are discovered in the designated locations in which Flock

is to perform services under this Agreement, Flock shall have the right to cease work immediately.

3. CUSTOMER OBLIGATIONS

3.1 **Customer Obligations.** Flock will assist Customer Authorized End Users in the creation of a User ID. Authorized End Users agree to provide Flock with accurate, complete, and updated registration information. Authorized End Users may not select as their User ID, a name that they do not have the right to use, or any other name with the intent of impersonation. Customer and Authorized End Users may not transfer their account to anyone else without prior written permission of Flock. Authorized End Users shall not share their account username or password information and must protect the security of the username and password. Unless otherwise stated and defined in this Agreement, Customer shall not designate Authorized End Users for persons who are not officers, employees, or agents of Customer. Authorized End Users shall only use Customer-issued email addresses for the creation of their User ID. Customer is responsible for any Authorized End User activity associated with its account. Customer shall ensure that Customer provides Flock with up to date contact information at all times during the Term of this agreement. Customer shall be responsible for obtaining and maintaining any equipment and ancillary services needed to connect to, access or otherwise use the Flock Services. Customer shall (at its own expense) provide Flock with reasonable access and use of Customer facilities and Customer personnel in order to enable Flock to perform Services (such obligations of Customer are collectively defined as ***"Customer Obligations"***).

3.2 **Customer Representations and Warranties.** Customer represents, covenants, and warrants that Customer shall use Flock Services only in compliance with this Agreement and all applicable laws and regulations, including but not limited to any laws relating to the recording or sharing of data, video, photo, or audio content.

4. DATA USE AND LICENSING

4.1 **Customer Data.** As between Flock and Customer, all right, title and interest in the Customer Data, belong to and are retained solely by Customer. Customer hereby grants to Flock a limited, non-exclusive, royalty-free, irrevocable, worldwide license to use the Customer Data and perform

all acts as may be necessary for Flock to provide the Flock Services to Customer. Flock does not own and shall not sell Customer Data.

4.2 **Customer Generated Data.** Flock may provide Customer with the opportunity to post, upload, display, publish, distribute, transmit, broadcast, or otherwise make available, messages, text, illustrations, files, images, graphics, photos, comments, sounds, music, videos, information, content, ratings, reviews, data, questions, suggestions, or other information or materials produced by Customer (**"*Customer Generated Data"***). Customer shall retain whatever legally cognizable right, title, and interest in Customer Generated Data. Customer understands and acknowledges that Flock has no obligation to monitor or enforce Customer's intellectual property rights of Customer Generated Data. Customer grants Flock a non-exclusive, irrevocable, worldwide, royalty-free, license to use the Customer Generated Data for the purpose of providing Flock Services. Flock does not own and shall not sell Customer Generated Data.

4.3 **Anonymized Data.** Flock shall have the right to collect, analyze, and anonymize Customer Data and Customer Generated Data to the extent such anonymization renders the data non-identifiable to create Anonymized Data to use and perform the Services and related systems and technologies, including the training of machine learning algorithms. Customer hereby grants Flock a non-exclusive, worldwide, perpetual, royalty-free right to use and distribute such Anonymized Data to improve and enhance the Services and for other development, diagnostic and corrective purposes, and other Flock offerings. Parties understand that the aforementioned license is required for continuity of Services. Flock does not own and shall not sell Anonymized Data.

5. CONFIDENTIALITY; DISCLOSURES

5.1 **Confidentiality.** To the extent required by any applicable public records requests, each Party (the "***Receiving Party***") understands that the other Party (the "***Disclosing Party***") has disclosed or may disclose business, technical or financial information relating to the Disclosing Party's business (hereinafter referred to as "***Proprietary Information***" of the Disclosing Party). Proprietary Information of Flock includes non-public information regarding features, functionality and performance of the Services. Proprietary Information of Customer includes non-public data provided by Customer to Flock or collected by Flock via Flock Services, which includes but is not limited to geolocation information and environmental data collected by sensors. The Receiving

Party agrees: (i) to take the same security precautions to protect against disclosure or unauthorized use of such Proprietary Information that the Party takes with its own proprietary information, but in no event less than commercially reasonable precautions, and (ii) not to use (except in performance of the Services or as otherwise permitted herein) or divulge to any third person any such Proprietary Information. The Disclosing Party agrees that the foregoing shall not apply with respect to any information that the Receiving Party can document (a) is or becomes generally available to the public; or (b) was in its possession or known by it prior to receipt from the Disclosing Party; or (c) was rightfully disclosed to it without restriction by a third party; or (d) was independently developed without use of any Proprietary Information of the Disclosing Party. Nothing in this Agreement will prevent the Receiving Party from disclosing the Proprietary Information pursuant to any judicial or governmental order, provided that the Receiving Party gives the Disclosing Party reasonable prior notice of such disclosure to contest such order. At the termination of this Agreement, all Proprietary Information will be returned to the Disclosing Party, destroyed or erased (if recorded on an erasable storage medium), together with any copies thereof, when no longer needed for the purposes above, or upon request from the Disclosing Party, and in any case upon termination of the Agreement. Notwithstanding any termination, all confidentiality obligations of Proprietary Information that is trade secret shall continue in perpetuity or until such information is no longer trade secret.

5.2 **Usage Restrictions on Flock IP.** Flock and its licensors retain all right, title and interest in and to the Flock IP and its components, and Customer acknowledges that it neither owns nor acquires any additional rights in and to the foregoing not expressly granted by this Agreement. Customer further acknowledges that Flock retains the right to use the foregoing for any purpose in Flock's sole discretion. Customer and Authorized End Users shall not: (i) copy or duplicate any of the Flock IP; (ii) decompile, disassemble, reverse engineer, or otherwise attempt to obtain or perceive the source code from which any software component of any of the Flock IP is compiled or interpreted, or apply any other process or procedure to derive the source code of any software included in the Flock IP; (iii) attempt to modify, alter, tamper with or repair any of the Flock IP, or attempt to create any derivative product from any of the foregoing; (iv) interfere or attempt to interfere in any manner with the functionality or proper working of any of the Flock IP; (v) remove, obscure, or alter any notice of any intellectual property or proprietary right appearing on or contained within the Flock Services or Flock IP; (vi) use the Flock Services for anything other

than the Permitted Purpose; or (vii) assign, sublicense, sell, resell, lease, rent, or otherwise transfer, convey, pledge as security, or otherwise encumber, Customer's rights. There are no implied rights.

5.3 **Disclosure of Footage.** Subject to and during the Retention Period, Flock may access, use, preserve and/or disclose the Footage to law enforcement authorities, government officials, and/or third parties, if legally required to do so or if Flock has a good faith belief that such access, use, preservation or disclosure is reasonably necessary to comply with a legal process, enforce this Agreement, or detect, prevent or otherwise address security, privacy, fraud or technical issues, or emergency situations.

6. PAYMENT OF FEES

6.1 **Billing and Payment of Fees**. Customer shall pay the fees set forth in the applicable Order Form based on the billing structure and payment terms as indicated in the Order Form. If Customer believes that Flock has billed Customer incorrectly, Customer must contact Flock no later than thirty (30) days after the closing date on the first invoice in which the error or problem appeared to receive an adjustment or credit. Customer acknowledges and agrees that a failure to contact Flock within this period will serve as a waiver of any claim. If any undisputed fee is more than thirty (30) days overdue, Flock may, without limiting its other rights and remedies, suspend delivery of its service until such undisputed invoice is paid in full. Flock shall provide at least thirty (30) days' prior written notice to Customer of the payment delinquency before exercising any suspension right.

6.2 **Notice of Changes to Fees.** Flock reserves the right to change the fees for subsequent Renewal Terms by providing sixty (60) days' notice (which may be sent by email) prior to the end of the Initial Term or Renewal Term (as applicable).

6.3 **Late Fees.** If payment is not issued to Flock by the due date of the invoice, an interest penalty of 1.0% of any unpaid amount may be added for each month or fraction thereafter, until final payment is made.

6.4 **Taxes.** Customer is responsible for all taxes, levies, or duties, excluding only taxes based on Flock's net income, imposed by taxing authorities associated with the order. If Flock has the legal obligation to pay or collect taxes, including amount subsequently assessed by a taxing

authority, for which Customer is responsible, the appropriate amount shall be invoice to and paid by Customer unless Customer provides Flock a legally sufficient tax exemption certificate and Flock shall not charge customer any taxes from which it is exempt. If any deduction or withholding is required by law, Customer shall notify Flock and shall pay Flock any additional amounts necessary to ensure that the net amount that Flock receives, after any deduction and withholding, equals the amount Flock would have received if no deduction or withholding had been required.

7. TERM AND TERMINATION

7.1 **Term.** The initial term of this Agreement shall be for the period of time set forth on the Order Form (the "***Term***"). Following the Term, unless otherwise indicated on the Order Form, this Agreement will automatically renew for successive renewal terms of the greater of one year or the length set forth on the Order Form (each, a "***Renewal Term***") unless either Party gives the other Party notice of non-renewal at least thirty (30) days prior to the end of the then-current term.
7.2 **Termination.** Upon termination or expiration of this Agreement, Flock will remove any applicable Flock Hardware at a commercially reasonable time period. In the event of any material breach of this Agreement, the non-breaching Party may terminate this Agreement prior to the end of the Term by giving thirty (30) days prior written notice to the breaching Party; provided, however, that this Agreement will not terminate if the breaching Party has cured the breach prior to the expiration of such thirty (30) day period ("Cure Period"). Either Party may terminate this Agreement (i) upon the institution by or against the other Party of insolvency, receivership or bankruptcy proceedings, (ii) upon the other Party's making an assignment for the benefit of creditors, or (iii) upon the other Party's dissolution or ceasing to do business. In the event of a material breach by Flock, and Flock is unable to cure within the Cure Period, Flock will refund Customer a pro-rata portion of the pre-paid fees for Services not received due to such termination.
7.3 Survival. The following Sections will survive termination: 1, 3, 5, 6, 7, 8.3, 8.4, 9, 10.1 and 10.6.

8. REMEDY FOR DEFECT; WARRANTY AND DISCLAIMER

8.1 **Manufacturer Defect.** Upon a malfunction or failure of Flock Hardware or Embedded Software (a **"*Defect*"**), Customer must notify Flock's technical support team. In the event of a Defect, Flock shall make a commercially reasonable attempt to repair or replace the defective Flock Hardware at no additional cost to the Customer. Flock reserves the right, in its sole discretion, to repair or replace such Defect, provided that Flock shall conduct inspection or testing within a commercially reasonable time, but no longer than seven (7) business days after Customer gives notice to Flock.

8.2 **Replacements.** In the event that Flock Hardware is lost, stolen, or damaged, Customer may request a replacement of Flock Hardware at a fee according to the reinstall fee schedule (https://www.flocksafety.com/reinstall-fee-schedule). In the event that Customer chooses not to replace lost, damaged, or stolen Flock Hardware, Customer understands and agrees that (1) Flock Services will be materially affected, and (2) that Flock shall have no liability to Customer regarding such affected Flock Services, nor shall Customer receive a refund for the lost, damaged, or stolen Flock Hardware.

8.3 **Warranty.** Flock shall use reasonable efforts consistent with prevailing industry standards to maintain the Services in a manner which minimizes errors and interruptions in the Services and shall perform the Installation Services in a professional and workmanlike manner. Services may be temporarily unavailable for scheduled maintenance or for unscheduled emergency maintenance, either by Flock or by third-party providers, or because of other causes beyond Flock's reasonable control, but Flock shall use reasonable efforts to provide advance notice in writing or by e-mail of any scheduled service disruption.

8.4 **Disclaimer.** THE REMEDY DESCRIBED IN SECTION 8.1 ABOVE IS CUSTOMER'S SOLE REMEDY, AND FLOCK'S SOLE LIABILITY, WITH RESPECT TO DEFECTS. FLOCK DOES NOT WARRANT THAT THE SERVICES WILL BE UNINTERRUPTED OR ERROR FREE; NOR DOES IT MAKE ANY WARRANTY AS TO THE RESULTS THAT MAY BE OBTAINED FROM USE OF THE SERVICES. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION, THE SERVICES ARE PROVIDED "AS IS" AND FLOCK DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A

PARTICULAR PURPOSE AND NON-INFRINGEMENT. THIS DISCLAIMER ONLY APPLIES TO THE EXTENT ALLOWED BY THE GOVERNING LAW OF THE STATE MENTIONED IN SECTION 10.6.

8.5 **Insurance.** Flock will maintain commercial general liability policies as stated in Exhibit B.

8.6 **Force Majeure.** Parties are not responsible or liable for any delays or failures in performance from any cause beyond their control, including, but not limited to acts of God, changes to law or regulations, embargoes, war, terrorist acts, pandemics (including the spread of variants), issues of national security, acts or omissions of third-party technology providers, riots, fires, earthquakes, floods, power blackouts, strikes, supply chain shortages of equipment or supplies, financial institution crisis, weather conditions or acts of hackers, internet service providers or any other third party acts or omissions.

9. LIMITATION OF LIABILITY; INDEMNITY

9.1 **Limitation of Liability.** NOTWITHSTANDING ANYTHING TO THE CONTRARY, FLOCK, ITS OFFICERS, AFFILIATES, REPRESENTATIVES, CONTRACTORS AND EMPLOYEES SHALL NOT BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT OR TERMS AND CONDITIONS RELATED THERETO UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY, PRODUCT LIABILITY, OR OTHER THEORY: (A) FOR LOSS OF REVENUE, BUSINESS OR BUSINESS INTERRUPTION; (B) INCOMPLETE, CORRUPT, OR INACCURATE DATA; (C) COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY; (D) FOR ANY INDIRECT, EXEMPLARY, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES; (E) FOR ANY MATTER BEYOND FLOCK'S ACTUAL KNOWLEDGE OR REASONABLE CONTROL INCLUDING REPEAT CRIMINAL ACTIVITY OR INABILITY TO CAPTURE FOOTAGE; OR (F) FOR ANY AMOUNTS THAT, TOGETHER WITH AMOUNTS ASSOCIATED WITH ALL OTHER CLAIMS, EXCEED THE FEES PAID AND/OR PAYABLE BY CUSTOMER TO FLOCK FOR THE SERVICES UNDER THIS AGREEMENT IN THE TWELVE (12) MONTHS PRIOR TO THE ACT OR OMISSION THAT GAVE RISE TO THE LIABILITY, IN EACH CASE, WHETHER OR NOT FLOCK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF

LIABILITY OF SECTION ONLY APPLIES TO THE EXTENT ALLOWED BY THE GOVERNING LAW OF THE STATE REFERENCED IN SECTION 10.6. NOTWITHSTANDING ANYTHING TO THE CONTRARY, THE FOREGOING LIMITATIONS OF LIABILITY SHALL NOT APPLY (I) IN THE EVENT OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, OR (II) INDEMNIFICATION OBLIGATIONS.

9.2 **Responsibility.** Each Party to this Agreement shall assume the responsibility and liability for the acts and omissions of its own employees, officers, or agents, in connection with the performance of their official duties under this Agreement. Each Party to this Agreement shall be liable for the torts of its own officers, agents, or employees.

9.3 **Flock Indemnity.** Flock shall indemnify and hold harmless Customer, it's agents and employees, from liability of any kind, including claims, costs (including defense) and expenses, on account of: (i) any copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this Agreement; or (ii) any damage or injury to property or person directly caused by Flock's installation of Flock Hardware, except for where such damage or injury was caused solely by the negligence of the Customer or its agents, officers or employees.

10. INSTALLATION SERVICES AND OBLIGATIONS

10.1 **Ownership of Hardware**. Flock Hardware is owned and shall remain the exclusive property of Flock. Title to any Flock Hardware shall not pass to Customer upon execution of this Agreement, except as otherwise specifically set forth in this Agreement. Except as otherwise expressly stated in this Agreement, Customer is not permitted to remove, reposition, re-install, tamper with, alter, adjust or otherwise take possession or control of Flock Hardware. Customer agrees and understands that in the event Customer is found to engage in any of the foregoing restricted actions, all warranties herein shall be null and void, and this Agreement shall be subject to immediate termination for material breach by Customer. Customer shall not perform any acts which would interfere with the retention of title of the Flock Hardware by Flock. Should Customer default on any payment of the Flock Services, Flock may remove Flock Hardware at Flock's discretion. Such removal, if made by Flock, shall not be deemed a waiver of Flock's

rights to any damages Flock may sustain as a result of Customer's default and Flock shall have the right to enforce any other legal remedy or right.

10.2 **Deployment Plan**. Flock shall advise Customer on the location and positioning of the Flock Hardware for optimal product functionality, as conditions and locations allow. Flock will collaborate with Customer to design the strategic geographic mapping of the location(s) and implementation of Flock Hardware to create a deployment plan ("***Deployment Plan***"). In the event that Flock determines that Flock Hardware will not achieve optimal functionality at a designated location, Flock shall have final discretion to veto a specific location, and will provide alternative options to Customer.

10.3 **Changes to Deployment Plan.** After installation of Flock Hardware, any subsequent requested changes to the Deployment Plan, including, but not limited to, relocating, re-positioning, adjusting of the mounting, removing foliage, replacement, changes to heights of poles will incur a fee according to the reinstall fee schedule located at (https://www.flocksafety.com/reinstall-fee-schedule). Customer will receive prior notice and confirm approval of any such fees.

10.4 **Customer Installation Obligations**. Customer is responsible for any applicable supplementary cost as described in the Customer Implementation Guide, attached hereto as Exhibit C ("***Customer Obligations***"). Customer represents and warrants that it has, or shall lawfully obtain, all necessary right title and authority and hereby authorizes Flock to install the Flock Hardware at the designated locations and to make any necessary inspections or maintenance in connection with such installation.

10.5 **Flock's Obligations**. Installation of any Flock Hardware shall be installed in a professional manner within a commercially reasonable time from the Effective Date of this Agreement. Upon removal of Flock Hardware, Flock shall restore the location to its original condition, ordinary wear and tear excepted. Flock will continue to monitor the performance of Flock Hardware for the length of the Term. Flock may use a subcontractor or third party to perform certain obligations under this agreement, provided that Flock's use of such subcontractor or third party shall not release Flock from any duty or liability to fulfill Flock's obligations under this Agreement.

11. MISCELLANEOUS

11.1 **Compliance With Laws.** Parties shall comply with all applicable local, state and federal laws, regulations, policies and ordinances and their associated record retention schedules, including responding to any subpoena request(s).

11.2 **Severability.** If any provision of this Agreement is found to be unenforceable or invalid, that provision will be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect.

11.3 **Assignment.** This Agreement is not assignable, transferable or sublicensable by either Party, without prior consent. Notwithstanding the foregoing, either Party may assign this Agreement, without the other Party's consent, (i) to any parent, subsidiary, or affiliate entity, or (ii) to any purchaser of all or substantially all of such Party's assets or to any successor by way of merger, consolidation or similar transaction.

11.4 **Entire Agreement.** This Agreement, together with the Order Form(s), the reinstall fee schedule (https://www.flocksafety.com/reinstall-fee-schedule), and any attached exhibits are the complete and exclusive statement of the mutual understanding of the Parties and supersedes and cancels all previous or contemporaneous negotiations, discussions or agreements, whether written and oral , communications and other understandings relating to the subject matter of this Agreement, and that all waivers and modifications must be in a writing signed by both Parties, except as otherwise provided herein. None of Customer’s purchase orders, authorizations or similar documents will alter the terms of this Agreement, and any such conflicting terms are expressly rejected. Any mutually agreed upon purchase order is subject to these terms. In the event of any conflict of terms found in this Agreement or any other terms and conditions, the terms of this Agreement shall prevail. Customer agrees that Customer’s purchase is neither contingent upon the delivery of any future functionality or features nor dependent upon any oral or written comments made by Flock with respect to future functionality or feature.

11.5 **Relationship.** No agency, partnership, joint venture, or employment is created as a result of this Agreement and Parties do not have any authority of any kind to bind each other in any respect whatsoever. Flock shall at all times be and act as an independent contractor to Customer.

11.6 **Governing Law; Venue.** This Agreement shall be governed by the laws of the state in which the Customer is located. The Parties hereto agree that venue would be proper in the chosen courts of the State of which the Customer is located. The Parties agree that the United Nations Convention for the International Sale of Goods is excluded in its entirety from this Agreement.

11.7 **Special Terms.** Flock may offer certain special terms which are indicated in the proposal and will become part of this Agreement, upon Customer's prior written consent and the mutual execution by authorized representatives ("***Special Terms***"). To the extent that any terms of this Agreement are inconsistent or conflict with the Special Terms, the Special Terms shall control.

11.8 **Publicity.** Flock has the right to reference and use Customer's name and trademarks and disclose the nature of the Services in business and development and marketing efforts.

11.9 **Feedback.** If Agency or Authorized End User provides any suggestions, ideas, enhancement requests, feedback, recommendations or other information relating to the subject matter hereunder, Agency or Authorized End User hereby assigns to Flock all right, title and interest (including intellectual property rights) with respect to or resulting from any of the foregoing.

11.10 **Export.** Customer may not remove or export from the United States or allow the export or re-export of the Flock IP or anything related thereto, or any direct product thereof in violation of any restrictions, laws or regulations of the United States Department of Commerce, the United States Department of Treasury Office of Foreign Assets Control, or any other United States or foreign Customer or authority. As defined in Federal Acquisition Regulation ("FAR"), section 2.101, the Services, the Flock Hardware and Documentation are "commercial items" and according to the Department of Defense Federal Acquisition Regulation ("DFAR") section 252.2277014(a)(1) and are deemed to be "commercial computer software" and "commercial computer software documentation." Flock is compliant with FAR Section 889 and does not contract or do business with, use any equipment, system, or service that uses the enumerated banned Chinese telecommunication companies, equipment or services as a substantial or essential component of any system, or as critical technology as part of any Flock system. Consistent with DFAR section 227.7202 and FAR section 12.212, any use, modification, reproduction, release, performance, display, or disclosure of such commercial software or commercial software documentation by the U.S. Government will be governed solely by the terms of this Agreement and will be prohibited except to the extent expressly permitted by the terms of this Agreement.

11.11 **Headings.** The headings are merely for organization and should not be construed as adding meaning to the Agreement or interpreting the associated sections.

11.12 **Authority.** Each of the below signers of this Agreement represent that they understand this Agreement and have the authority to sign on behalf of and bind the Parties they are representing.

11.13 **Conflict.** In the event there is a conflict between this Agreement and any applicable statement of work, or Customer purchase order, this Agreement controls unless explicitly stated otherwise.

11.14 **Public Disrepute.** In the event Customer or its employees become the subject of an indictment, arrest, public disrepute, contempt, scandal or behaves in a manner that, in the reasonable judgment of Flock, reflects unfavorably upon Flock, and/or their officers or principals, licensees, such act(s) or omission(s) shall constitute a material breach of this Agreement and Flock shall, in addition to any other rights and remedies available to it hereunder, whether at law or in equity, have the right to elect to terminate this Agreement.

11.15 **Notices.** All notices under this Agreement will be in writing and will be deemed to have been duly given when received, if personally delivered; when receipt is electronically confirmed, if transmitted by email; the day after it is sent, if sent for next day delivery by recognized overnight delivery service; and upon receipt, if sent by certified or registered mail, return receipt requested.

FLOCK NOTICES ADDRESS:

1170 HOWELL MILL ROAD, NW SUITE 210

ATLANTA, GA 30318

ATTN: LEGAL DEPARTMENT

EMAIL: legal@flocksafety.com

Customer NOTICES ADDRESS:

ADDRESS: _____

ATTN: _____

EMAIL: _____

EXHIBIT B

INSURANCE

Required Coverage. Flock shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the services under this Agreement and the results of that work by Flock or its agents, representatives, employees or subcontractors. Insurance shall be placed with insurers with a current A. M. Best rating of no less than "A" and "VII". Flock shall obtain and, during the term of this Agreement, shall maintain policies of professional liability (errors and omissions), automobile liability, and general liability insurance for insurable amounts of not less than the limits listed herein. The insurance policies shall provide that the policies shall remain in full force during the life of the Agreement.

Types and Amounts Required. Flock shall maintain, at minimum, the following insurance coverage for the duration of this Agreement:

(i) **Commercial General Liability** insurance written on an occurrence basis with minimum limits of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) in the aggregate for bodily injury, death, and property damage, including personal injury, contractual liability, independent contractors, broad-form property damage, and product and completed operations coverage;

(ii) **Umbrella or Excess Liability** insurance written on an occurrence basis with minimum limits of Ten Million Dollars ($10,000,000) per occurrence and Ten Million Dollars ($10,000,000) in the aggregate;

(iii) **Professional Liability/Errors and Omissions** insurance with minimum limits of Five Million Dollars ($5,000,000) per occurrence and Five Million Dollars ($5,000,000) in the aggregate;

(iv) **Commercial Automobile Liability** insurance with a minimum combined single limit of One Million Dollars ($1,000,000) per occurrence for bodily injury, death, and property coverage, including owned and non-owned and hired automobile coverage; and

(v) **Cyber Liability** insurance written on an occurrence basis with minimum limits of Five Million Dollars ($5,000,000).

Flock Safety + Oroville PD

Flock Group Inc.
1170 Howell Mill Rd, Suite 210
Atlanta, GA 30318

MAIN CONTACT:
Kyle Egkan
kyle.egkan@flocksafety.com
7144690389

flock safety

flock safety

EXHIBIT A
ORDER FORM

Customer:	Oroville PD	Initial Term:	24 Months
Legal Entity Name:	Oroville PD	Renewal Term:	24 Months
Address:	2055 Lincoln St Oroville, California 95966	Payment Terms:	Net 30
		Billing Frequency:	Annual Plan - First Year Invoiced at Signing.
		Retention Period:	30 Days

Hardware and Software Products

Annual recurring amounts over subscription term

Item	Cost	Quantity	Total
Flock Safety Platform			**$123,500.00**
Flock Safety Flock OS			
FlockOS	Included	1	Included
Flock Safety LPR Products			
Falcon	Included	40	Included
Flock Safety FlockOS Add Ons			
Flock Safety Advanced Search	$7,000.00	1	$7,000.00

Professional Services and One Time Purchases

Item	Cost	Quantity	Total
One Time Fees			
Flock Safety Professional Services			
Professional Services - Standard Implementation Fee	$650.00	30	$19,500.00
Professional Services - Advanced Implementation Fee	$1,900.00	1	$1,900.00
Professional Services - Existing Infrastructure Implementation Fee	$150.00	9	$1,350.00

Subtotal Year 1:	$146,250.00
Annual Recurring Subtotal:	$123,500.00
Estimated Tax:	$0.00
Contract Total:	$269,750.00

*Taxes shown above are provided as an estimate. Actual taxes are the responsibility of the Customer. This Agreement will automatically renew for successive renewal terms of the greater of one year or the length set forth on the Order Form (each, a "**Renewal Term**") unless either Party gives the other Party notice of non-renewal at least thirty (30) days prior to the end of the then-current term.*

Billing Schedule

Billing Schedule	Amount (USD)
Year 1	
At Contract Signing	$146,250.00
Annual Recurring after Year 1	$123,500.00
Contract Total	$269,750.00

*Tax not included

Product and Services Description

Flock Safety Platform Items	Product Description	Terms
Flock Safety Falcon™	An infrastructure-free license plate reader camera that utilizes Vehicle Fingerprint® technology to capture vehicular attributes.	The Term shall commence upon first installation and validation of Flock Hardware.

One-Time Fees	Service Description
Installation on existing infrastructure	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.
Professional Services - Standard Implementation Fee	One-time Professional Services engagement. Includes site and safety assessment, camera setup and testing, and shipping and handling in accordance with the Flock Safety Standard Implementation Service Brief.
Professional Services - Advanced Implementation Fee	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.

By executing this Order Form, Customer represents and warrants that it has read and agrees to all of the terms and conditions contained in the Master Services Agreement attached. The Parties have executed this Agreement as of the dates set forth below.

FLOCK GROUP, INC.	**Customer: Oroville PD**
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____
	PO Number: _____

Master Services Agreement

This Master Services Agreement (this "***Agreement***") is entered into by and between Flock Group, Inc. with a place of business at 1170 Howell Mill Road NW Suite 210, Atlanta, GA 30318 ("***Flock***") and the entity identified in the signature block ("***Customer***") (each a "***Party***," and together, the "***Parties***") on this the 06 day of April 2023. This Agreement is effective on the date of mutual execution ("***Effective Date***"). Parties will sign an Order Form ("**Order Form**") which will describe the Flock Services to be performed and the period for performance, attached hereto as **Exhibit A**. The Parties agree as follows:

RECITALS

WHEREAS, Flock offers a software and hardware situational awareness solution through Flock's technology platform that upon detection is capable of capturing audio, video, image, and recording data and provide notifications to Customer ("***Notifications***");

WHEREAS, Customer desires access to the Flock Services (defined below) on existing devices, provided by Customer, or Flock provided Flock Hardware (as defined below) in order to create, view, search and archive Footage and receive Notifications, via the Flock Services;

WHEREAS, Customer shall have access to the Footage in Flock Services. Pursuant to Flock's standard Retention Period (defined below) Flock deletes all Footage on a rolling thirty (30) day basis, except as otherwise stated on the Order Form. Customer shall be responsible for extracting, downloading and archiving Footage from the Flock Services on its own storage devices; and

WHEREAS, Flock desires to provide Customer the Flock Services and any access thereto, subject to the terms and conditions of this Agreement, solely for the awareness, prevention, and prosecution of crime, bona fide investigations and evidence gathering for law enforcement purposes, ("***Permitted Purpose***").

NOW, THEREFORE, Flock and Customer agree that this Agreement, and any Order Form, purchase orders, statements of work, product addenda, or the like, attached hereto as exhibits and incorporated by reference, constitute the complete and exclusive statement of the Agreement of the Parties with respect to the subject matter of this Agreement, and replace and supersede all prior agreements, term sheets, purchase orders, correspondence, oral or written communications and negotiations by and between the Parties.

1. DEFINITIONS

Certain capitalized terms, not otherwise defined herein, have the meanings set forth or cross-referenced in this Section 1.

1.1 "***Anonymized Data***" means Customer Data permanently stripped of identifying details and any potential personally identifiable information, by commercially available standards which irreversibly alters data in such a way that a data subject (i.e., individual person or entity) can no longer be identified directly or indirectly.

1.2 "***Authorized End User(s)***" means any individual employees, agents, or contractors of Customer accessing or using the Services, under the rights granted to Customer pursuant to this Agreement.

1.3 "***Customer Data***" means the data, media and content provided by Customer through the Services. For the avoidance of doubt, the Customer Data will include the Footage.

1.4. "***Customer Hardware***" means the third-party camera owned or provided by Customer and any other physical elements that interact with the Embedded Software and the Web Interface to provide the Services.

1.5 "***Embedded Software***" means the Flock proprietary software and/or firmware integrated with or installed on the Flock Hardware or Customer Hardware.

1.6 "***Flock Hardware***" means the Flock device(s), which may include the pole, clamps, solar panel, installation components, and any other physical elements that interact with the Embedded Software and the Web Interface, to provide the Flock Services as specifically set forth in the applicable product addenda.

1.7 "***Flock IP***" means the Services, the Embedded Software, and any intellectual property or proprietary information therein or otherwise provided to Customer and/or its Authorized End Users. Flock IP does not include Footage (as defined below).

1.8 "***Flock Network End User(s)***" means any user of the Flock Services that Customer authorizes access to or receives data from, pursuant to the licenses granted herein.

1.9 "***Flock Services***" means the provision of Flock's software and hardware situational awareness solution, via the Web Interface, for automatic license plate detection, alerts, audio detection, searching image records, video and sharing Footage.

1.10 "***Footage***" means still images, video, audio and other data captured by the Flock Hardware or Customer Hardware in the course of and provided via the Flock Services.

1.11 *"**Hotlist(s)***" means a digital file containing alphanumeric license plate related information pertaining to vehicles of interest, which may include stolen vehicles, stolen vehicle license plates, vehicles owned or associated with wanted or missing person(s), vehicles suspected of being involved with criminal or terrorist activities, and other legitimate law enforcement purposes. Hotlist also includes, but is not limited to, national data (i.e., NCIC) for similar categories, license plates associated with AMBER Alerts or Missing Persons/Vulnerable Adult Alerts, and includes manually entered license plate information associated with crimes that have occurred in any local jurisdiction.

1.12 "***Installation Services***" means the services provided by Flock for installation of Flock Services.

1.13 "***Retention Period***" means the time period that the Customer Data is stored within the cloud storage, as specified in the product addenda.

1.14 "***Vehicle Fingerprint*™**" means the unique vehicular attributes captured through Services such as: type, make, color, state registration, missing/covered plates, bumper stickers, decals, roof racks, and bike racks.

1.15 "***Web Interface***" means the website(s) or application(s) through which Customer and its Authorized End Users can access the Services.

2. SERVICES AND SUPPORT

2.1 **Provision of Access.** Flock hereby grants to Customer a non-exclusive, non-transferable right to access the features and functions of the Flock Services via the Web Interface during the Term, solely for the Authorized End Users. The Footage will be available for Authorized End Users to access and download via the Web Interface for the data retention time defined on the Order Form ("***Retention Period***"). Authorized End Users will be required to sign up for an account and select a password and username ("***User ID***"). Customer shall be responsible for all acts and omissions of Authorized End Users, and any act or omission by an Authorized End User which, including any acts or omissions of authorized End user which would constitute a breach of this agreement if undertaken by customer. Customer shall undertake reasonable efforts to make all Authorized End Users aware of all applicable provisions of this Agreement and shall cause Authorized End Users to comply with such provisions. Flock may use the services of one or more third parties to deliver any part of the Flock Services, (such as using a third party to host the Web Interface for cloud storage or a cell phone provider for wireless cellular coverage).

2.2 **Embedded Software License.** Flock grants Customer a limited, non-exclusive, non-transferable, non-sublicensable (except to the Authorized End Users), revocable right to use the Embedded Software as it pertains to Flock Services, solely as necessary for Customer to use the Flock Services.

2.3 **Support Services.** Flock shall monitor the Flock Services, and any applicable device health, in order to improve performance and functionality. Flock will use commercially reasonable efforts to respond to requests for support within seventy-two (72) hours. Flock will provide Customer with reasonable technical and on-site support and maintenance services in-person, via phone or by email at support@flocksafety.com (such services collectively referred to as ***"Support Services"***).

2.4 **Upgrades to Platform.** Flock may make any upgrades to system or platform that it deems necessary or useful to (i) maintain or enhance the quality or delivery of Flock's products or services to its agencies;the competitive strength of, or market for, Flock's products or services;such platform or system's cost efficiency or performance, or (ii) to comply with applicable law. Parties understand that such upgrades are necessary from time to time and will not

diminish the quality of the services or materially change any terms or conditions within this Agreement.

2.5 **Service Interruption.** Services may be interrupted in the event that: (a) Flock's provision of the Services to Customer or any Authorized End User is prohibited by applicable law; (b) any third-party services required for Services are interrupted; (c) if Flock reasonably believe Services are being used for malicious, unlawful, or otherwise unauthorized use; (d) there is a threat or attack on any of the Flock IP by a third party; or (e) scheduled or emergency maintenance ("***Service Interruption***"). Flock will make commercially reasonable efforts to provide written notice of any Service Interruption to Customer,to provide updates, and to resume providing access to Flock Services as soon as reasonably possible after the event giving rise to the Service Interruption is cured. Flock will have no liability for any damage, liabilities, losses (including any loss of data or profits), or any other consequences that Customer or any Authorized End User may incur as a result of a Service Interruption. To the extent that the Service Interruption is not caused by Customer's direct actions or by the actions of parties associated with the Customer, the time will be tolled by the duration of the Service Interruption (for any continuous suspension lasting at least one full day). For example, in the event of a Service Interruption lasting five (5) continuous days, Customer will receive a credit for five (5) free days at the end of the Term.

2.6 **Service Suspension.** Flock may temporarily suspend Customer's and any Authorized End User's access to any portion or all of the Flock IP or Flock Service if (a) there is a threat or attack on any of the Flock IP by Customer; (b) Customer's or any Authorized End User's use of the Flock IP disrupts or poses a security risk to the Flock IP or any other customer or vendor of Flock; (c) Customer or any Authorized End User is/are using the Flock IP for fraudulent or illegal activities; (d) Customer has violated any term of this provision, including, but not limited to, utilizing Flock Services for anything other than the Permitted Purpose; or (e) any unauthorized access to Flock Services through Customer's account ("***Service Suspension***"). Customer shall not be entitled to any remedy for the Service Suspension period, including any reimbursement, tolling, or credit. If the Service Suspension was not caused by Customer, the Term will be tolled by the duration of the Service Suspension.

2.7 **Hazardous Conditions.** Flock Services do not contemplate hazardous materials, or other hazardous conditions, including, without limit, asbestos, lead, toxic or flammable substances. In the event any such hazardous materials are discovered in the designated locations in which Flock

is to perform services under this Agreement, Flock shall have the right to cease work immediately.

3. CUSTOMER OBLIGATIONS

3.1 **Customer Obligations.** Flock will assist Customer Authorized End Users in the creation of a User ID. Authorized End Users agree to provide Flock with accurate, complete, and updated registration information. Authorized End Users may not select as their User ID, a name that they do not have the right to use, or any other name with the intent of impersonation. Customer and Authorized End Users may not transfer their account to anyone else without prior written permission of Flock. Authorized End Users shall not share their account username or password information and must protect the security of the username and password. Unless otherwise stated and defined in this Agreement, Customer shall not designate Authorized End Users for persons who are not officers, employees, or agents of Customer. Authorized End Users shall only use Customer-issued email addresses for the creation of their User ID. Customer is responsible for any Authorized End User activity associated with its account. Customer shall ensure that Customer provides Flock with up to date contact information at all times during the Term of this agreement. Customer shall be responsible for obtaining and maintaining any equipment and ancillary services needed to connect to, access or otherwise use the Flock Services. Customer shall (at its own expense) provide Flock with reasonable access and use of Customer facilities and Customer personnel in order to enable Flock to perform Services (such obligations of Customer are collectively defined as ***"Customer Obligations"***).

3.2 **Customer Representations and Warranties.** Customer represents, covenants, and warrants that Customer shall use Flock Services only in compliance with this Agreement and all applicable laws and regulations, including but not limited to any laws relating to the recording or sharing of data, video, photo, or audio content.

4. DATA USE AND LICENSING

4.1 **Customer Data.** As between Flock and Customer, all right, title and interest in the Customer Data, belong to and are retained solely by Customer. Customer hereby grants to Flock a limited, non-exclusive, royalty-free, irrevocable, worldwide license to use the Customer Data and perform

all acts as may be necessary for Flock to provide the Flock Services to Customer. Flock does not own and shall not sell Customer Data.

4.2 **Customer Generated Data.** Flock may provide Customer with the opportunity to post, upload, display, publish, distribute, transmit, broadcast, or otherwise make available, messages, text, illustrations, files, images, graphics, photos, comments, sounds, music, videos, information, content, ratings, reviews, data, questions, suggestions, or other information or materials produced by Customer (**"*Customer Generated Data"***). Customer shall retain whatever legally cognizable right, title, and interest in Customer Generated Data. Customer understands and acknowledges that Flock has no obligation to monitor or enforce Customer's intellectual property rights of Customer Generated Data. Customer grants Flock a non-exclusive, irrevocable, worldwide, royalty-free, license to use the Customer Generated Data for the purpose of providing Flock Services. Flock does not own and shall not sell Customer Generated Data.

4.3 **Anonymized Data.** Flock shall have the right to collect, analyze, and anonymize Customer Data and Customer Generated Data to the extent such anonymization renders the data non-identifiable to create Anonymized Data to use and perform the Services and related systems and technologies, including the training of machine learning algorithms. Customer hereby grants Flock a non-exclusive, worldwide, perpetual, royalty-free right to use and distribute such Anonymized Data to improve and enhance the Services and for other development, diagnostic and corrective purposes, and other Flock offerings. Parties understand that the aforementioned license is required for continuity of Services. Flock does not own and shall not sell Anonymized Data.

5. CONFIDENTIALITY; DISCLOSURES

5.1 **Confidentiality.** To the extent required by any applicable public records requests, each Party (the "***Receiving Party***") understands that the other Party (the "***Disclosing Party***") has disclosed or may disclose business, technical or financial information relating to the Disclosing Party's business (hereinafter referred to as "***Proprietary Information***" of the Disclosing Party). Proprietary Information of Flock includes non-public information regarding features, functionality and performance of the Services. Proprietary Information of Customer includes non-public data provided by Customer to Flock or collected by Flock via Flock Services, which includes but is not limited to geolocation information and environmental data collected by sensors. The Receiving

Party agrees: (i) to take the same security precautions to protect against disclosure or unauthorized use of such Proprietary Information that the Party takes with its own proprietary information, but in no event less than commercially reasonable precautions, and (ii) not to use (except in performance of the Services or as otherwise permitted herein) or divulge to any third person any such Proprietary Information. The Disclosing Party agrees that the foregoing shall not apply with respect to any information that the Receiving Party can document (a) is or becomes generally available to the public; or (b) was in its possession or known by it prior to receipt from the Disclosing Party; or (c) was rightfully disclosed to it without restriction by a third party; or (d) was independently developed without use of any Proprietary Information of the Disclosing Party. Nothing in this Agreement will prevent the Receiving Party from disclosing the Proprietary Information pursuant to any judicial or governmental order, provided that the Receiving Party gives the Disclosing Party reasonable prior notice of such disclosure to contest such order. At the termination of this Agreement, all Proprietary Information will be returned to the Disclosing Party, destroyed or erased (if recorded on an erasable storage medium), together with any copies thereof, when no longer needed for the purposes above, or upon request from the Disclosing Party, and in any case upon termination of the Agreement. Notwithstanding any termination, all confidentiality obligations of Proprietary Information that is trade secret shall continue in perpetuity or until such information is no longer trade secret.

5.2 **Usage Restrictions on Flock IP.** Flock and its licensors retain all right, title and interest in and to the Flock IP and its components, and Customer acknowledges that it neither owns nor acquires any additional rights in and to the foregoing not expressly granted by this Agreement. Customer further acknowledges that Flock retains the right to use the foregoing for any purpose in Flock's sole discretion. Customer and Authorized End Users shall not: (i) copy or duplicate any of the Flock IP; (ii) decompile, disassemble, reverse engineer, or otherwise attempt to obtain or perceive the source code from which any software component of any of the Flock IP is compiled or interpreted, or apply any other process or procedure to derive the source code of any software included in the Flock IP; (iii) attempt to modify, alter, tamper with or repair any of the Flock IP, or attempt to create any derivative product from any of the foregoing; (iv) interfere or attempt to interfere in any manner with the functionality or proper working of any of the Flock IP; (v) remove, obscure, or alter any notice of any intellectual property or proprietary right appearing on or contained within the Flock Services or Flock IP; (vi) use the Flock Services for anything other

than the Permitted Purpose; or (vii) assign, sublicense, sell, resell, lease, rent, or otherwise transfer, convey, pledge as security, or otherwise encumber, Customer's rights. There are no implied rights.

5.3 **Disclosure of Footage.** Subject to and during the Retention Period, Flock may access, use, preserve and/or disclose the Footage to law enforcement authorities, government officials, and/or third parties, if legally required to do so or if Flock has a good faith belief that such access, use, preservation or disclosure is reasonably necessary to comply with a legal process, enforce this Agreement, or detect, prevent or otherwise address security, privacy, fraud or technical issues, or emergency situations.

6. PAYMENT OF FEES

6.1 **Billing and Payment of Fees**. Customer shall pay the fees set forth in the applicable Order Form based on the billing structure and payment terms as indicated in the Order Form. If Customer believes that Flock has billed Customer incorrectly, Customer must contact Flock no later than thirty (30) days after the closing date on the first invoice in which the error or problem appeared to receive an adjustment or credit. Customer acknowledges and agrees that a failure to contact Flock within this period will serve as a waiver of any claim. If any undisputed fee is more than thirty (30) days overdue, Flock may, without limiting its other rights and remedies, suspend delivery of its service until such undisputed invoice is paid in full. Flock shall provide at least thirty (30) days' prior written notice to Customer of the payment delinquency before exercising any suspension right.

6.2 **Notice of Changes to Fees.** Flock reserves the right to change the fees for subsequent Renewal Terms by providing sixty (60) days' notice (which may be sent by email) prior to the end of the Initial Term or Renewal Term (as applicable).

6.3 **Late Fees.** If payment is not issued to Flock by the due date of the invoice, an interest penalty of 1.0% of any unpaid amount may be added for each month or fraction thereafter, until final payment is made.

6.4 **Taxes.** Customer is responsible for all taxes, levies, or duties, excluding only taxes based on Flock's net income, imposed by taxing authorities associated with the order. If Flock has the legal obligation to pay or collect taxes, including amount subsequently assessed by a taxing

authority, for which Customer is responsible, the appropriate amount shall be invoice to and paid by Customer unless Customer provides Flock a legally sufficient tax exemption certificate and Flock shall not charge customer any taxes from which it is exempt. If any deduction or withholding is required by law, Customer shall notify Flock and shall pay Flock any additional amounts necessary to ensure that the net amount that Flock receives, after any deduction and withholding, equals the amount Flock would have received if no deduction or withholding had been required.

7. TERM AND TERMINATION

7.1 **Term.** The initial term of this Agreement shall be for the period of time set forth on the Order Form (the "***Term***"). Following the Term, unless otherwise indicated on the Order Form, this Agreement will automatically renew for successive renewal terms of the greater of one year or the length set forth on the Order Form (each, a "***Renewal Term***") unless either Party gives the other Party notice of non-renewal at least thirty (30) days prior to the end of the then-current term.
7.2 **Termination.** Upon termination or expiration of this Agreement, Flock will remove any applicable Flock Hardware at a commercially reasonable time period. In the event of any material breach of this Agreement, the non-breaching Party may terminate this Agreement prior to the end of the Term by giving thirty (30) days prior written notice to the breaching Party; provided, however, that this Agreement will not terminate if the breaching Party has cured the breach prior to the expiration of such thirty (30) day period ("Cure Period"). Either Party may terminate this Agreement (i) upon the institution by or against the other Party of insolvency, receivership or bankruptcy proceedings, (ii) upon the other Party's making an assignment for the benefit of creditors, or (iii) upon the other Party's dissolution or ceasing to do business. In the event of a material breach by Flock, and Flock is unable to cure within the Cure Period, Flock will refund Customer a pro-rata portion of the pre-paid fees for Services not received due to such termination.
7.3 Survival. The following Sections will survive termination: 1, 3, 5, 6, 7, 8.3, 8.4, 9, 10.1 and 10.6.

8. REMEDY FOR DEFECT; WARRANTY AND DISCLAIMER

8.1 **Manufacturer Defect.** Upon a malfunction or failure of Flock Hardware or Embedded Software (a **"*Defect*"**), Customer must notify Flock's technical support team. In the event of a Defect, Flock shall make a commercially reasonable attempt to repair or replace the defective Flock Hardware at no additional cost to the Customer. Flock reserves the right, in its sole discretion, to repair or replace such Defect, provided that Flock shall conduct inspection or testing within a commercially reasonable time, but no longer than seven (7) business days after Customer gives notice to Flock.

8.2 **Replacements.** In the event that Flock Hardware is lost, stolen, or damaged, Customer may request a replacement of Flock Hardware at a fee according to the reinstall fee schedule (https://www.flocksafety.com/reinstall-fee-schedule). In the event that Customer chooses not to replace lost, damaged, or stolen Flock Hardware, Customer understands and agrees that (1) Flock Services will be materially affected, and (2) that Flock shall have no liability to Customer regarding such affected Flock Services, nor shall Customer receive a refund for the lost, damaged, or stolen Flock Hardware.

8.3 **Warranty.** Flock shall use reasonable efforts consistent with prevailing industry standards to maintain the Services in a manner which minimizes errors and interruptions in the Services and shall perform the Installation Services in a professional and workmanlike manner. Services may be temporarily unavailable for scheduled maintenance or for unscheduled emergency maintenance, either by Flock or by third-party providers, or because of other causes beyond Flock's reasonable control, but Flock shall use reasonable efforts to provide advance notice in writing or by e-mail of any scheduled service disruption.

8.4 **Disclaimer.** THE REMEDY DESCRIBED IN SECTION 8.1 ABOVE IS CUSTOMER'S SOLE REMEDY, AND FLOCK'S SOLE LIABILITY, WITH RESPECT TO DEFECTS. FLOCK DOES NOT WARRANT THAT THE SERVICES WILL BE UNINTERRUPTED OR ERROR FREE; NOR DOES IT MAKE ANY WARRANTY AS TO THE RESULTS THAT MAY BE OBTAINED FROM USE OF THE SERVICES. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION, THE SERVICES ARE PROVIDED "AS IS" AND FLOCK DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A

PARTICULAR PURPOSE AND NON-INFRINGEMENT. THIS DISCLAIMER ONLY APPLIES TO THE EXTENT ALLOWED BY THE GOVERNING LAW OF THE STATE MENTIONED IN SECTION 10.6.

8.5 **Insurance.** Flock will maintain commercial general liability policies as stated in Exhibit B.

8.6 **Force Majeure.** Parties are not responsible or liable for any delays or failures in performance from any cause beyond their control, including, but not limited to acts of God, changes to law or regulations, embargoes, war, terrorist acts, pandemics (including the spread of variants), issues of national security, acts or omissions of third-party technology providers, riots, fires, earthquakes, floods, power blackouts, strikes, supply chain shortages of equipment or supplies, financial institution crisis, weather conditions or acts of hackers, internet service providers or any other third party acts or omissions.

9. LIMITATION OF LIABILITY; INDEMNITY

9.1 **Limitation of Liability.** NOTWITHSTANDING ANYTHING TO THE CONTRARY, FLOCK, ITS OFFICERS, AFFILIATES, REPRESENTATIVES, CONTRACTORS AND EMPLOYEES SHALL NOT BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT OR TERMS AND CONDITIONS RELATED THERETO UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY, PRODUCT LIABILITY, OR OTHER THEORY: (A) FOR LOSS OF REVENUE, BUSINESS OR BUSINESS INTERRUPTION; (B) INCOMPLETE, CORRUPT, OR INACCURATE DATA; (C) COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY; (D) FOR ANY INDIRECT, EXEMPLARY, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES; (E) FOR ANY MATTER BEYOND FLOCK'S ACTUAL KNOWLEDGE OR REASONABLE CONTROL INCLUDING REPEAT CRIMINAL ACTIVITY OR INABILITY TO CAPTURE FOOTAGE; OR (F) FOR ANY AMOUNTS THAT, TOGETHER WITH AMOUNTS ASSOCIATED WITH ALL OTHER CLAIMS, EXCEED THE FEES PAID AND/OR PAYABLE BY CUSTOMER TO FLOCK FOR THE SERVICES UNDER THIS AGREEMENT IN THE TWELVE (12) MONTHS PRIOR TO THE ACT OR OMISSION THAT GAVE RISE TO THE LIABILITY, IN EACH CASE, WHETHER OR NOT FLOCK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF

LIABILITY OF SECTION ONLY APPLIES TO THE EXTENT ALLOWED BY THE GOVERNING LAW OF THE STATE REFERENCED IN SECTION 10.6. NOTWITHSTANDING ANYTHING TO THE CONTRARY, THE FOREGOING LIMITATIONS OF LIABILITY SHALL NOT APPLY (I) IN THE EVENT OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, OR (II) INDEMNIFICATION OBLIGATIONS.

9.2 **Responsibility.** Each Party to this Agreement shall assume the responsibility and liability for the acts and omissions of its own employees, officers, or agents, in connection with the performance of their official duties under this Agreement. Each Party to this Agreement shall be liable for the torts of its own officers, agents, or employees.

9.3 **Flock Indemnity.** Flock shall indemnify and hold harmless Customer, it's agents and employees, from liability of any kind, including claims, costs (including defense) and expenses, on account of: (i) any copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this Agreement; or (ii) any damage or injury to property or person directly caused by Flock's installation of Flock Hardware, except for where such damage or injury was caused solely by the negligence of the Customer or its agents, officers or employees.

10. INSTALLATION SERVICES AND OBLIGATIONS

10.1 **Ownership of Hardware**. Flock Hardware is owned and shall remain the exclusive property of Flock. Title to any Flock Hardware shall not pass to Customer upon execution of this Agreement, except as otherwise specifically set forth in this Agreement. Except as otherwise expressly stated in this Agreement, Customer is not permitted to remove, reposition, re-install, tamper with, alter, adjust or otherwise take possession or control of Flock Hardware. Customer agrees and understands that in the event Customer is found to engage in any of the foregoing restricted actions, all warranties herein shall be null and void, and this Agreement shall be subject to immediate termination for material breach by Customer. Customer shall not perform any acts which would interfere with the retention of title of the Flock Hardware by Flock. Should Customer default on any payment of the Flock Services, Flock may remove Flock Hardware at Flock's discretion. Such removal, if made by Flock, shall not be deemed a waiver of Flock's

rights to any damages Flock may sustain as a result of Customer's default and Flock shall have the right to enforce any other legal remedy or right.

10.2 **Deployment Plan**. Flock shall advise Customer on the location and positioning of the Flock Hardware for optimal product functionality, as conditions and locations allow. Flock will collaborate with Customer to design the strategic geographic mapping of the location(s) and implementation of Flock Hardware to create a deployment plan ("***Deployment Plan***"). In the event that Flock determines that Flock Hardware will not achieve optimal functionality at a designated location, Flock shall have final discretion to veto a specific location, and will provide alternative options to Customer.

10.3 **Changes to Deployment Plan.** After installation of Flock Hardware, any subsequent requested changes to the Deployment Plan, including, but not limited to, relocating, re-positioning, adjusting of the mounting, removing foliage, replacement, changes to heights of poles will incur a fee according to the reinstall fee schedule located at (https://www.flocksafety.com/reinstall-fee-schedule). Customer will receive prior notice and confirm approval of any such fees.

10.4 **Customer Installation Obligations**. Customer is responsible for any applicable supplementary cost as described in the Customer Implementation Guide, attached hereto as Exhibit C ("***Customer Obligations***"). Customer represents and warrants that it has, or shall lawfully obtain, all necessary right title and authority and hereby authorizes Flock to install the Flock Hardware at the designated locations and to make any necessary inspections or maintenance in connection with such installation.

10.5 **Flock's Obligations**. Installation of any Flock Hardware shall be installed in a professional manner within a commercially reasonable time from the Effective Date of this Agreement. Upon removal of Flock Hardware, Flock shall restore the location to its original condition, ordinary wear and tear excepted. Flock will continue to monitor the performance of Flock Hardware for the length of the Term. Flock may use a subcontractor or third party to perform certain obligations under this agreement, provided that Flock's use of such subcontractor or third party shall not release Flock from any duty or liability to fulfill Flock's obligations under this Agreement.

11. MISCELLANEOUS

11.1 **Compliance With Laws.** Parties shall comply with all applicable local, state and federal laws, regulations, policies and ordinances and their associated record retention schedules, including responding to any subpoena request(s).

11.2 **Severability.** If any provision of this Agreement is found to be unenforceable or invalid, that provision will be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect.

11.3 **Assignment.** This Agreement is not assignable, transferable or sublicensable by either Party, without prior consent. Notwithstanding the foregoing, either Party may assign this Agreement, without the other Party's consent, (i) to any parent, subsidiary, or affiliate entity, or (ii) to any purchaser of all or substantially all of such Party's assets or to any successor by way of merger, consolidation or similar transaction.

11.4 **Entire Agreement.** This Agreement, together with the Order Form(s), the reinstall fee schedule (https://www.flocksafety.com/reinstall-fee-schedule), and any attached exhibits are the complete and exclusive statement of the mutual understanding of the Parties and supersedes and cancels all previous or contemporaneous negotiations, discussions or agreements, whether written and oral , communications and other understandings relating to the subject matter of this Agreement, and that all waivers and modifications must be in a writing signed by both Parties, except as otherwise provided herein. None of Customer’s purchase orders, authorizations or similar documents will alter the terms of this Agreement, and any such conflicting terms are expressly rejected. Any mutually agreed upon purchase order is subject to these terms. In the event of any conflict of terms found in this Agreement or any other terms and conditions, the terms of this Agreement shall prevail. Customer agrees that Customer’s purchase is neither contingent upon the delivery of any future functionality or features nor dependent upon any oral or written comments made by Flock with respect to future functionality or feature.

11.5 **Relationship.** No agency, partnership, joint venture, or employment is created as a result of this Agreement and Parties do not have any authority of any kind to bind each other in any respect whatsoever. Flock shall at all times be and act as an independent contractor to Customer.

11.6 **Governing Law; Venue.** This Agreement shall be governed by the laws of the state in which the Customer is located. The Parties hereto agree that venue would be proper in the chosen courts of the State of which the Customer is located. The Parties agree that the United Nations Convention for the International Sale of Goods is excluded in its entirety from this Agreement.

11.7 **Special Terms.** Flock may offer certain special terms which are indicated in the proposal and will become part of this Agreement, upon Customer's prior written consent and the mutual execution by authorized representatives ("***Special Terms***"). To the extent that any terms of this Agreement are inconsistent or conflict with the Special Terms, the Special Terms shall control.

11.8 **Publicity.** Flock has the right to reference and use Customer's name and trademarks and disclose the nature of the Services in business and development and marketing efforts.

11.9 **Feedback.** If Agency or Authorized End User provides any suggestions, ideas, enhancement requests, feedback, recommendations or other information relating to the subject matter hereunder, Agency or Authorized End User hereby assigns to Flock all right, title and interest (including intellectual property rights) with respect to or resulting from any of the foregoing.

11.10 **Export.** Customer may not remove or export from the United States or allow the export or re-export of the Flock IP or anything related thereto, or any direct product thereof in violation of any restrictions, laws or regulations of the United States Department of Commerce, the United States Department of Treasury Office of Foreign Assets Control, or any other United States or foreign Customer or authority. As defined in Federal Acquisition Regulation ("FAR"), section 2.101, the Services, the Flock Hardware and Documentation are "commercial items" and according to the Department of Defense Federal Acquisition Regulation ("DFAR") section 252.2277014(a)(1) and are deemed to be "commercial computer software" and "commercial computer software documentation." Flock is compliant with FAR Section 889 and does not contract or do business with, use any equipment, system, or service that uses the enumerated banned Chinese telecommunication companies, equipment or services as a substantial or essential component of any system, or as critical technology as part of any Flock system. Consistent with DFAR section 227.7202 and FAR section 12.212, any use, modification, reproduction, release, performance, display, or disclosure of such commercial software or commercial software documentation by the U.S. Government will be governed solely by the terms of this Agreement and will be prohibited except to the extent expressly permitted by the terms of this Agreement.

11.11 **Headings.** The headings are merely for organization and should not be construed as adding meaning to the Agreement or interpreting the associated sections.

11.12 **Authority.** Each of the below signers of this Agreement represent that they understand this Agreement and have the authority to sign on behalf of and bind the Parties they are representing.

11.13 **Conflict.** In the event there is a conflict between this Agreement and any applicable statement of work, or Customer purchase order, this Agreement controls unless explicitly stated otherwise.

11.14 **Public Disrepute.** In the event Customer or its employees become the subject of an indictment, arrest, public disrepute, contempt, scandal or behaves in a manner that, in the reasonable judgment of Flock, reflects unfavorably upon Flock, and/or their officers or principals, licensees, such act(s) or omission(s) shall constitute a material breach of this Agreement and Flock shall, in addition to any other rights and remedies available to it hereunder, whether at law or in equity, have the right to elect to terminate this Agreement.

11.15 **Notices.** All notices under this Agreement will be in writing and will be deemed to have been duly given when received, if personally delivered; when receipt is electronically confirmed, if transmitted by email; the day after it is sent, if sent for next day delivery by recognized overnight delivery service; and upon receipt, if sent by certified or registered mail, return receipt requested.

FLOCK NOTICES ADDRESS:

1170 HOWELL MILL ROAD, NW SUITE 210

ATLANTA, GA 30318

ATTN: LEGAL DEPARTMENT

EMAIL: legal@flocksafety.com

Customer NOTICES ADDRESS:

ADDRESS: _____

ATTN: _____

EMAIL: _____

EXHIBIT B

INSURANCE

Required Coverage. Flock shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the services under this Agreement and the results of that work by Flock or its agents, representatives, employees or subcontractors. Insurance shall be placed with insurers with a current A. M. Best rating of no less than "A" and "VII". Flock shall obtain and, during the term of this Agreement, shall maintain policies of professional liability (errors and omissions), automobile liability, and general liability insurance for insurable amounts of not less than the limits listed herein. The insurance policies shall provide that the policies shall remain in full force during the life of the Agreement.

Types and Amounts Required. Flock shall maintain, at minimum, the following insurance coverage for the duration of this Agreement:

(i) **Commercial General Liability** insurance written on an occurrence basis with minimum limits of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) in the aggregate for bodily injury, death, and property damage, including personal injury, contractual liability, independent contractors, broad-form property damage, and product and completed operations coverage;

(ii) **Umbrella or Excess Liability** insurance written on an occurrence basis with minimum limits of Ten Million Dollars ($10,000,000) per occurrence and Ten Million Dollars ($10,000,000) in the aggregate;

(iii) **Professional Liability/Errors and Omissions** insurance with minimum limits of Five Million Dollars ($5,000,000) per occurrence and Five Million Dollars ($5,000,000) in the aggregate;

(iv) **Commercial Automobile Liability** insurance with a minimum combined single limit of One Million Dollars ($1,000,000) per occurrence for bodily injury, death, and property coverage, including owned and non-owned and hired automobile coverage; and

(v) **Cyber Liability** insurance written on an occurrence basis with minimum limits of Five Million Dollars ($5,000,000).

Flock Safety + CA - Oroville PD

Flock Group Inc.
1170 Howell Mill Rd, Suite 210
Atlanta, GA 30318

MAIN CONTACT:
Kyle Egkan
kyle.egkan@flocksafety.com
7144690389

Created Date: 04/06/2023
Expiration Date: 05/06/2023
Quote Number: Q-19435
PO Number:

flock safety

flock safety

Budgetary Quote

This document is for informational purposes only. Pricing is subject to change.

Bill To: 2055 Lincoln St Oroville, California 95966

Ship To: 2055 Lincoln St Oroville, California 95966

Billing Company Name: CA - Oroville PD
Billing Contact Name:
Billing Email Address:
Billing Phone:

Subscription Term: 24 Months
Payment Terms: Net 30
Retention Period: 30 Days
Billing Frequency: Annual Plan - First Year Invoiced at Signing.

Hardware and Software Products

Annual recurring amounts over subscription term

Item	Cost	Quantity	Total
Flock Safety Platform			**$32,000.00**
Flock Safety Flock OS			
FlockOS	Included	1	Included
Flock Safety Audio Products			
Raven Audio Detection Device - 1/4mi	Included	1	Included
Raven Audio Detection Device - 1/2mi	Included	1	Included

Professional Services and One Time Purchases

Item	Cost	Quantity	Total
One Time Fees			

Subtotal Year 1:	$32,000.00
Annual Recurring Subtotal:	$32,000.00
Estimated Tax:	$0.00
Contract Total:	$64,000.00

Taxes shown above are provided as an estimate. Actual taxes are the responsibility of the Customer. This is not an invoice – this document is a non-binding proposal for informational purposes only. Pricing is subject to change.

Billing Schedule	Amount (USD)
Year 1	
At Contract Signing	$32,000.00
Year 2	$32,000.00
Contract Total	$64,000.00

*Tax not included

Product and Services Description

Flock Safety Platform Items	Product Description

One-Time Fees	Service Description
Installation on existing infrastructure	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.
Professional Services - Standard Implementation Fee	One-time Professional Services engagement. Includes site and safety assessment, camera setup and testing, and shipping and handling in accordance with the Flock Safety Standard Implementation Service Brief.
Professional Services - Advanced Implementation Fee	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.

Flock Safety + CA - Oroville PD

Flock Group Inc.
1170 Howell Mill Rd, Suite 210
Atlanta, GA 30318

MAIN CONTACT:
Kyle Egkan
kyle.egkan@flocksafety.com
7144690389

Created Date: 04/06/2023
Expiration Date: 05/05/2023
Quote Number: Q-12266
PO Number:

flock safety

flock safety

Budgetary Quote

This document is for informational purposes only. Pricing is subject to change.

Bill To: 2055 Lincoln St Oroville, California 95966

Ship To: 2055 Lincoln St Oroville, California 95966

Billing Company Name: CA - Oroville PD
Billing Contact Name:
Billing Email Address:
Billing Phone:

Subscription Term: 24 Months
Payment Terms: Net 30
Retention Period: 30 Days
Billing Frequency: Annual Plan - First Year Invoiced at Signing.

Hardware and Software Products

Annual recurring amounts over subscription term

Item	Cost	Quantity	Total
Flock Safety Platform			**$123,500.00**
Flock Safety Flock OS			
FlockOS	Included	1	Included
Flock Safety LPR Products			
Falcon	Included	40	Included
Flock Safety FlockOS Add Ons			
Flock Safety Advanced Search	$3,500.00	40	$3,500.00

Professional Services and One Time Purchases

Item	Cost	Quantity	Total
One Time Fees			
Flock Safety Professional Services			
Professional Services - Standard Implementation Fee	$650.00	30	$19,500.00
Professional Services - Advanced Implementation Fee	$1,900.00	1	$1,900.00
Professional Services - Existing Infrastructure Implementation Fee	$150.00	9	$1,350.00

Subtotal Year 1:	$146,250.00
Annual Recurring Subtotal:	$123,500.00
Estimated Tax:	$0.00
Contract Total:	$269,750.00

Taxes shown above are provided as an estimate. Actual taxes are the responsibility of the Customer. This is not an invoice – this document is a non-binding proposal for informational purposes only. Pricing is subject to change.

Billing Schedule	Amount (USD)
Year 1	
At Contract Signing	$146,250.00
Year 2	$123,500.00
Contract Total	$269,750.00

*Tax not included

Product and Services Description

Flock Safety Platform Items	Product Description
Flock Safety Falcon™	An infrastructure-free license plate reader camera that utilizes Vehicle Fingerprint™ technology to capture vehicular attributes.

One-Time Fees	Service Description
Installation on existing infrastructure	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.
Professional Services - Standard Implementation Fee	One-time Professional Services engagement. Includes site and safety assessment, camera setup and testing, and shipping and handling in accordance with the Flock Safety Standard Implementation Service Brief.
Professional Services - Advanced Implementation Fee	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.

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Sole Source Letter for Flock Safety™ ALPR Cameras and Solution

Flock Safety is the sole manufacturer and developer of the Flock Safety ALPR Camera. Flock Safety is also the sole provider of the comprehensive monitoring, processing, and machine vision services which integrate with the Flock Safety ALPR Camera.

The Flock Safety ALPR camera and devices are the only Law Enforcement Grade ALPR System to offer the following combination of proprietary features:

1. Vehicle Fingerprint Technology™:
    - Patented proprietary machine vision to analyze vehicle license plate, state recognition, and vehicle attributes such as color, type, make and objects (roof rack, bumper stickers, etc.) based on image analytics (not car registration data)
    - Machine vision to capture and identify characteristics of vehicles with a paper license plate and vehicles with the absence of a license plate
    - Ability to 'Save Search' based on description of vehicles using our patented Vehicle Fingerprint Technology without the need for a license plate, and set up alerts based on vehicle description
    - Only LPR provider with "Visual Search" which can transform digital images from any source into an investigative lead by finding matching vehicles based on the vehicle attributes in the uploaded photo
    - Falcon Flex™: an infrastructure-free, location-flexible license plate reader camera that is easy to self install. Falcon Flex ties seamlessly into the Flock ecosystem with a small and lightweight camera with the ability to read up to 30,000 license plates and vehicle attributes on a single battery charge

2. Integrated Cloud-Software & Hardware Platform:
    - Ability to capture two (2+) lanes of traffic simultaneously with a single camera from a vertical mass
    - Best in class ability to capture and process up to 30,000 vehicles per day with a single camera powered exclusively by solar power
    - Wireless deployment of solar powered license plate reading cameras with integrated cellular communication weighing less than 5lbs and able to be powered solely by a solar panel of 60W or less
    - Web based footage retrieval tool with filtering capabilities such as vehicle color, vehicle type, vehicle manufacturer, partial or full license plate, state of license plate, and object detection
    - Utilizes motion capture to start and stop recording without the need for a reflective plate

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- Motion detection allows for unique cases such as bicycle capture, ATV, motorcycle, etc.
- On device machine processing to limit LTE bandwidth consumption
- Cloud storage of footage
- Covert industrial design for minimizing visual pollution

3. Transparency & Ethical Product Design:
   - One-of-a-kind “Transparency Portal” public-facing dashboard that details the policies in place by the purchaser, as well as automatically updated metrics from the Flock system
   - Built-in integration with NCMEC to receive AMBER Alerts to find missing children
   - Privacy controls to enable certain vehicles to “opt-out” of being captured

4. Integrated Audio & Gunshot Detection:
   - Natively integrated audio detection capabilities utilizing machine learning to recognize audio signatures typical of crimes in progress (e.g., gunshots)

5. Live Video Integration:
   - Ability to apply computer vision to third-party cameras using Wing™ LPR, transforming them to evidence capture devices using the same Vehicle Fingerprint technology offered on the Flock Safety Falcon™ ALPR cameras
   - Wing™ Livestream integrates live stream traffic cameras, publicly or privately owned livestream security cameras into one cloud-based situational awareness dashboard to increase response time in mission-critical incidents
   - Manage various government intelligence including ALPR, livestream cameras, CAD, automatic vehicle location (AVL) on Flock Safety’s Wing™ Suite
   - Access Wing™ Replay to unlock enhanced situational awareness with 7-day footage retention, Hot List Live Video Instant Replay, and downloadable MP4

6. Partnerships:
   - Flock Safety is the only LPR provider to officially partner with AXON to be natively and directly integrated into Evidence.com
   - Flock Safety is the only LPR provider to be fully integrated into a dynamic network of Axon’s Fleet 3 mobile ALPR cameras for patrol cars and Flock Safety’s Falcon cameras
   - Access to additional cameras purchased by our HOA and private business partners, means an ever-increasing amount of cameras and data at no additional cost

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7. Warranty & Service:
    - Lifetime maintenance and support included in subscription price
    - Flock Safety is the only fully integrated ALPR one-stop solution from production of the camera to delivery and installation
    - Performance monitoring software to predict potential failures, obstructions, tilts, and other critical or minor issues

Thank you,



Garrett Langley CEO, Flock Safety

CERTIFICATE OF LIABILITY INSURANCE

DATE (M 8/26/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Tiffany Miller	
The Complete Insurance Source, Inc P.O. Box 1299 Fayetteville, GA 30214	PHONE (A/C, No, Ext): (770) 371-8257	FAX (A/C, No): (770) 371-1999
	E-MAIL ADDRESS: tiffany@complete-insurance.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Travelers Property Casualty Insurance Company	36161
INSURED	INSURER B :	
Flock Group Inc Dba Flock Safety 1170 Howell Mill Rd Northwest Atlanta, GA 30318	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR	X	X	630 6T343807	8/23/2022	8/23/2023	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO	X	X	810 6T343696	8/23/2022	8/23/2023	BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$ 5,000,000
	X EXCESS LIAB CLAIMS-MADE	X	X	CUP 6T386924	8/23/2022	8/23/2023	AGGREGATE	$ 5,000,000
	DED X RETENTION $ 10,000							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y (Mandatory in NH)	N / A	X	UB 6T346569	8/23/2022	8/23/2023	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Errors & Omissions			ZPL 91N55329	8/23/2022	8/23/2023	Per Occ/Agg	5,000,000
A	Cyber			ZPL 91N55329	8/23/2022	8/23/2023	Per Occ/Aggregate	5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate holder and their officers, directors, employees, divisions, subsidiaries, partners, members, managers, shareholders, affiliated companies, agents, and volunteers are included as additional insureds on General Liability and Commercial Auto when required by written contract per forms CGD4170219 and CAT3530215. Coverage is Primary and Noncontributory when required by written contract per form CGT1000219. Waiver of Subrogation applies in favor of Certificate holder on General Liability, Commercial Auto and Workers Compensation per forms CGD4170219, CAT3530215 and WC00031300. Umbrella follows form. All policies are subject to a 30-day notice of cancellation, 10 days for non-payment.

CERTIFICATE HOLDER

Proof of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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POLICY NUMBER: H-630-6T343807-TIL-22

EFFECTIVE DATE: 08-23-22

ISSUE DATE: 08-24-22

LISTING OF FORMS, ENDORSEMENTS AND SCHEDULE NUMBERS

THIS LISTING SHOWS THE NUMBER OF FORMS, SCHEDULES AND ENDORSEMENTS BY LINE OF BUSINESS.

IL T0 02 11 89	COMMON POLICY DECLARATIONS
IL T8 01 10 93	FORMS, ENDORSEMENTS AND SCHEDULE NUMBERS
IL T3 18 05 11	COMMON POLICY CONDITIONS-DELUXE
IL T0 03 04 96	LOCATION SCHEDULE

DELUXE PROPERTY

DX T0 00 11 12	DELUXE PROP COV PART DECLARATIONS
DX 00 03 07 94	DELUXE PROP COV PART SCHED-SPECIF LIMITS
DX 00 04 11 12	TABLE OF CONTENTS - DELUXE PROP COV PART
DX T1 00 11 12	DELUXE PROPERTY COVERAGE FORM
DX T1 01 11 12	DELUXE BI (AND EE) COVERAGE FORM
DX T4 15 11 12	CRIME ADDITIONAL COVERAGE
DX T4 16 11 12	TECH INDUSTRY DD AND COL EXTENSION
DX T4 17 11 12	TECH INDUSTRY BI AND EE EXTENSIONS
DX T3 01 11 12	CAUSES OF LOSS-EARTHQUAKE
DX T3 02 11 12	CAUSES OF LOSS - BROAD FORM FLOOD
DX T4 02 01 21	FEDERAL TERRORISM RISK INSURANCE ACT DIS
DX 01 94 01 20	GA CHANGES

COMMERCIAL GENERAL LIABILITY

CG T0 01 11 03	COML GENERAL LIABILITY COV PART DEC
CG T0 07 09 87	DECLARATIONS PREMIUM SCHEDULE
CG T0 08 11 03	KEY TO DECLARATIONS PREMIUM SCHEDULE
CG T0 34 02 19	TABLE OF CONTENTS - COM GEN LIAB COV
CG T1 00 02 19	COMMERCIAL GENERAL LIABILITY COV FORM
CG D4 37 09 21	AOCB-LIMTD PERS AND ADV INJ LIAB-TECH
CG D9 10 09 21	AMENDMENT OF INTELLECTUAL PROPERTY EXCL
CG D2 03 12 97	AMEND-NON CUMULATION OF EACH OCC
CG D4 17 02 19	XTEND END FOR TECHNOLOGY
CG D4 21 07 08	AMEND CONTRAC LIAB EXCL-EXC TO NAMED INS
CG D6 18 10 11	EXCL-VIOLATION OF CONSUMER FIN PROT LAWS
CG D1 42 02 19	EXCLUSION-DISCRIMINATION

EMPLOYEE BENEFITS LIABILITY

CG T0 09 09 93	EMPLOYEE BENEFITS LIAB COV PART DEC
CG T0 43 01 16	EMPLOYEE BENEFITS LIAB TABLE OF CONTENTS
CG T1 01 01 16	EMPLOYEE BENEFITS LIABILITY COV FORM

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

XTEND ENDORSEMENT FOR TECHNOLOGY

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to this Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

A. Non-Owned Watercraft – 75 Feet Long Or Less

B. Who Is An Insured – Unnamed Subsidiaries

C. Who Is An Insured – Employees – Supervisory Positions

D. Who Is An Insured – Newly Acquired Or Formed Limited Liability Companies

E. Who Is An Insured – Liability For Conduct Of Unnamed Partnerships Or Joint Ventures

F. Blanket Additional Insured – Persons Or Organizations For Your Ongoing Operations As Required By Written Contract Or Agreement

G. Blanket Additional Insured – Broad Form Vendors

H. Blanket Additional Insured – Controlling Interest

I. Blanket Additional Insured – Mortgagees, Assignees, Successors Or Receivers

J. Blanket Additional Insured – Governmental Entities – Permits Or Authorizations Relating To Premises

K. Blanket Additional Insured – Governmental Entities – Permits Or Authorizations Relating To Operations

L. Medical Payments – Increased Limit

M. Blanket Waiver Of Subrogation

N. Contractual Liability – Railroads

O. Damage To Premises Rented To You

PROVISIONS

A. NON-OWNED WATERCRAFT – 75 FEET LONG OR LESS

1. The following replaces Paragraph **(2)** of Exclusion **g.**, **Aircraft, Auto Or Watercraft**, in Paragraph **2.** of **SECTION I – COVERAGES – COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY**:

(2) A watercraft you do not own that is:

(a) 75 feet long or less; and

(b) Not being used to carry any person or property for a charge;

2. The following replaces Paragraph **2.e.** of **SECTION II – WHO IS AN INSURED**:

e. Any person or organization that, with your express or implied consent, either uses or is responsible for the use of a watercraft that you do not own that is:

(1) 75 feet long or less; and

(2) Not being used to carry any person or property for a charge.

B. WHO IS AN INSURED – UNNAMED SUBSIDIARIES

The following is added to **SECTION II – WHO IS AN INSURED**:

Any of your subsidiaries, other than a partnership or joint venture, that is not shown as a Named Insured in the Declarations is a Named Insured if:

a. You are the sole owner of, or maintain an ownership interest of more than 50% in, such subsidiary on the first day of the policy period; and

b. Such subsidiary is not an insured under similar other insurance.

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No such subsidiary is an insured for "bodily injury" or "property damage" that occurred, or "personal and advertising injury" caused by an offense committed:

a. Before you maintained an ownership interest of more than 50% in such subsidiary; or

b. After the date, if any, during the policy period that you no longer maintain an ownership interest of more than 50% in such subsidiary.

For purposes of Paragraph **1.** of Section **II – Who Is An Insured**, each such subsidiary will be deemed to be designated in the Declarations as:

a. A limited liability company;

b. An organization other than a partnership, joint venture or limited liability company; or

c. A trust;

as indicated in its name or the documents that govern its structure.

C. WHO IS AN INSURED – EMPLOYEES – SUPERVISORY POSITIONS

The following is added to Paragraph **2.a.(1)** of **SECTION II – WHO IS AN INSURED**:

Paragraphs **(1)(a)**, **(b)** and **(c)** above do not apply to "bodily injury" to a co-"employee" while in the course of the co-"employee's" employment by you arising out of work by any of your "employees" who hold a supervisory position.

D. WHO IS AN INSURED – NEWLY ACQUIRED OR FORMED LIMITED LIABILITY COMPANIES

The following replaces Paragraph **3.** of **SECTION II – WHO IS AN INSURED**:

3. Any organization you newly acquire or form, other than a partnership or joint venture, and of which you are the sole owner or in which you maintain an ownership interest of more than 50%, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

a. Coverage under this provision is afforded only:

(1) Until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier, if you do not report such organization in writing to us within 180 days after you acquire or form it; or

(2) Until the end of the policy period, when that date is later than 180 days after you acquire or form such organization, if you report such organization in writing to us within 180 days after you acquire or form it;

b. Coverage **A** does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and

c. Coverage **B** does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

For the purposes of Paragraph **1.** of Section **II – Who Is An Insured**, each such organization will be deemed to be designated in the Declarations as:

a. A limited liability company;

b. An organization, other than a partnership, joint venture or limited liability company; or

c. A trust;

as indicated in its name or the documents that govern its structure.

E. WHO IS AN INSURED – LIABILITY FOR CONDUCT OF UNNAMED PARTNERSHIPS OR JOINT VENTURES

The following replaces the last paragraph of **SECTION II – WHO IS AN INSURED**:

No person or organization is an insured with respect to the conduct of any current or past partnership or joint venture that is not shown as a Named Insured in the Declarations. This paragraph does not apply to any such partnership or joint venture that otherwise qualifies as an insured under Section **II – Who Is An Insured**.

F. BLANKET ADDITIONAL INSURED – PERSONS OR ORGANIZATIONS FOR YOUR ONGOING OPERATIONS AS REQUIRED BY WRITTEN CONTRACT OR AGREEMENT

The following is added to **SECTION II – WHO IS AN INSURED**:

Any person or organization that is not otherwise an insured under this Coverage Part and that you have agreed in a written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury" or "property damage" that:

a. Occurs subsequent to the signing of that contract or agreement; and

b. Is caused, in whole or in part, by your acts or omissions in the performance of your ongoing operations to which that contract or

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agreement applies or the acts or omissions of any person or organization performing such operations on your behalf.

The limits of insurance provided to such insured will be the minimum limits that you agreed to provide in the written contract or agreement, or the limits shown in the Declarations, whichever are less.

G. BLANKET ADDITIONAL INSURED – BROAD FORM VENDORS

The following is added to **SECTION II – WHO IS AN INSURED**:

Any person or organization that is a vendor and that you have agreed in a written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury" or "property damage" that:

a. Occurs subsequent to the signing of that contract or agreement; and

b. Arises out of "your products" that are distributed or sold in the regular course of such vendor's business.

The insurance provided to such vendor is subject to the following provisions:

a. The limits of insurance provided to such vendor will be the minimum limits that you agreed to provide in the written contract or agreement, or the limits shown in the Declarations, whichever are less.

b. The insurance provided to such vendor does not apply to:

(1) Any express warranty not authorized by you or any distribution or sale for a purpose not authorized by you;

(2) Any change in "your products" made by such vendor;

(3) Repackaging, unless unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;

(4) Any failure to make such inspections, adjustments, tests or servicing as vendors agree to perform or normally undertake to perform in the regular course of business, in connection with the distribution or sale of "your products";

(5) Demonstration, installation, servicing or repair operations, except such operations performed at such vendor's premises in connection with the sale of "your products"; or

(6) "Your products" that, after distribution or sale by you, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or on behalf of such vendor.

Coverage under this provision does not apply to:

a. Any person or organization from whom you have acquired "your products", or any ingredient, part or container entering into, accompanying or containing such products; or

b. Any vendor for which coverage as an additional insured specifically is scheduled by endorsement.

H. BLANKET ADDITIONAL INSURED – CONTROLLING INTEREST

1. The following is added to **SECTION II – WHO IS AN INSURED**:

Any person or organization that has financial control of you is an insured with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" that arises out of:

a. Such financial control; or

b. Such person's or organization's ownership, maintenance or use of premises leased to or occupied by you.

The insurance provided to such person or organization does not apply to structural alterations, new construction or demolition operations performed by or on behalf of such person or organization.

2. The following is added to Paragraph **4.** of **SECTION II – WHO IS AN INSURED**:

This paragraph does not apply to any premises owner, manager or lessor that has financial control of you.

I. BLANKET ADDITIONAL INSURED – MORTGAGEES, ASSIGNEES, SUCCESSORS OR RECEIVERS

The following is added to **SECTION II – WHO IS AN INSURED**:

Any person or organization that is a mortgagee, assignee, successor or receiver and that you have agreed in a written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to its

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liability as mortgagee, assignee, successor or receiver for "bodily injury", "property damage" or "personal and advertising injury" that:

a. Is "bodily injury" or "property damage" that occurs, or is "personal and advertising injury" caused by an offense that is committed, subsequent to the signing of that contract or agreement; and

b. Arises out of the ownership, maintenance or use of the premises for which that mortgagee, assignee, successor or receiver is required under that contract or agreement to be included as an additional insured on this Coverage Part.

The insurance provided to such mortgagee, assignee, successor or receiver is subject to the following provisions:

a. The limits of insurance provided to such mortgagee, assignee, successor or receiver will be the minimum limits that you agreed to provide in the written contract or agreement, or the limits shown in the Declarations, whichever are less.

b. The insurance provided to such person or organization does not apply to:

(1) Any "bodily injury" or "property damage" that occurs, or any "personal and advertising injury" caused by an offense that is committed, after such contract or agreement is no longer in effect; or

(2) Any "bodily injury", "property damage" or "personal and advertising injury" arising out of any structural alterations, new construction or demolition operations performed by or on behalf of such mortgagee, assignee, successor or receiver.

J. BLANKET ADDITIONAL INSURED – GOVERNMENTAL ENTITIES – PERMITS OR AUTHORIZATIONS RELATING TO PREMISES

The following is added to **SECTION II – WHO IS AN INSURED**:

Any governmental entity that has issued a permit or authorization with respect to premises owned or occupied by, or rented or loaned to, you and that you are required by any ordinance, law, building code or written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" arising out of the existence, ownership, use, maintenance, repair, construction, erection or removal of any of the following for which that governmental entity has issued such permit or authorization: advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoist away openings, sidewalk vaults, elevators, street banners or decorations.

K. BLANKET ADDITIONAL INSURED – GOVERNMENTAL ENTITIES – PERMITS OR AUTHORIZATIONS RELATING TO OPERATIONS

The following is added to **SECTION II – WHO IS AN INSURED**:

Any governmental entity that has issued a permit or authorization with respect to operations performed by you or on your behalf and that you are required by any ordinance, law, building code or written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" arising out of such operations.

The insurance provided to such governmental entity does not apply to:

a. Any "bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the governmental entity; or

b. Any "bodily injury" or "property damage" included in the "products-completed operations hazard".

L. MEDICAL PAYMENTS – INCREASED LIMIT

The following replaces Paragraph **7.** of **SECTION III – LIMITS OF INSURANCE**:

7. Subject to Paragraph **5.** above, the Medical Expense Limit is the most we will pay under Coverage **C** for all medical expenses because of "bodily injury" sustained by any one person, and will be the higher of:

a. $10,000; or

b. The amount shown in the Declarations of this Coverage Part for Medical Expense Limit.

M. BLANKET WAIVER OF SUBROGATION

The following is added to Paragraph **8.**, **Transfer Of Rights Of Recovery Against Others To Us,** of **SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS**:

If the insured has agreed in a contract or agreement to waive that insured's right of recovery against any person or organization, we

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waive our right of recovery against such person or organization, but only for payments we make because of:

a. "Bodily injury" or "property damage" that occurs; or

b. "Personal and advertising injury" caused by an offense that is committed;

subsequent to the execution of the contract or agreement.

N. CONTRACTUAL LIABILITY – RAILROADS

1. The following replaces Paragraph **c.** of the definition of "insured contract" in the **DEFINITIONS** Section:

c. Any easement or license agreement;

2. Paragraph **f.(1)** of the definition of "insured contract" in the **DEFINITIONS** Section is deleted.

O. DAMAGE TO PREMISES RENTED TO YOU

The following replaces the definition of "premises damage" in the **DEFINITIONS** Section:

"Premises damage" means "property damage" to:

a. Any premises while rented to you or temporarily occupied by you with permission of the owner; or

b. The contents of any premises while such premises is rented to you, if you rent such premises for a period of seven or fewer consecutive days.

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COMMERCIAL GENERAL LIABILITY COVERAGE FORM

Various provisions in this policy restrict coverage. Read the entire policy carefully to determine rights, duties and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the Named Insured shown in the Declarations, and any other person or organization qualifying as a Named Insured under this policy. The words "we", "us" and "our" refer to the company providing this insurance.

The word "insured" means any person or organization qualifying as such under Section **II** – Who **I**s An Insured.

Other words and phrases that appear in quotation marks have special meaning. Refer to Section **V** – Definitions.

SECTION I – COVERAGES

COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY

1. Insuring Agreement

a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:

(1) The amount we will pay for damages is limited as described in Section **III** – Limits Of Insurance; and

(2) Our right and duty to defend end when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages **A** or **B** or medical expenses under Coverage **C**.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments.

b. This insurance applies to "bodily injury" and "property damage" only if:

(1) The "bodily injury" or "property damage" is caused by an "occurrence" that takes place in the "coverage territory";

(2) The "bodily injury" or "property damage" occurs during the policy period; and

(3) Prior to the policy period, no insured listed under Paragraph **1.** of Section **II** – Who **I**s An Insured and no "employee" authorized by you to give or receive notice of an "occurrence" or claim knew that the "bodily injury" or "property damage" had occurred, in whole or in part. If such a listed insured or authorized "employee" knew, prior to the policy period, that the "bodily injury" or "property damage" occurred, then any continuation, change or resumption of such "bodily injury" or "property damage" during or after the policy period will be deemed to have been known prior to the policy period.

c. "Bodily injury" or "property damage" which occurs during the policy period and was not, prior to the policy period, known to have occurred by any insured listed under Paragraph **1.** of Section **II** – Who **I**s An **I**nsured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim, includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the policy period.

d. "Bodily injury" or "property damage" will be deemed to have been known to have occurred at the earliest time when any insured listed under Paragraph **1.** of Section **II** – Who **I**s An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim:

(1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;

(2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage"; or

(3) Becomes aware by any other means that "bodily injury" or "property damage" has occurred or has begun to occur.

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e. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

2. Exclusions

This insurance does not apply to:

a. Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the insured. This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

b. Contractual Liability

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

(1) That the insured would have in the absence of the contract or agreement; or

(2) Assumed in a contract or agreement that is an "insured contract", provided that the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. Solely for the purposes of liability assumed in an "insured contract", reasonable attorneys' fees and necessary litigation expenses incurred by or for a party other than an insured will be deemed to be damages because of "bodily injury" or "property damage", provided that:

(a) Liability to such party for, or for the cost of, that party's defense has also been assumed in the same "insured contract"; and

(b) Such attorneys' fees and litigation expenses are for defense of that party against a civil or alternative dispute resolution proceeding in which damages to which this insurance applies are alleged.

c. Liquor Liability

"Bodily injury" or "property damage" for which any insured may be held liable by reason of:

(1) Causing or contributing to the intoxication of any person;

(2) The furnishing of alcoholic beverages to a person under the legal drinking age or under the influence of alcohol; or

(3) Any statute, ordinance or regulation relating to the sale, gift, distribution or use of alcoholic beverages.

This exclusion applies only if you are in the business of manufacturing, distributing, selling, serving or furnishing alcoholic beverages. For the purposes of this exclusion, permitting a person to bring alcoholic beverages on your premises, for consumption on your premises, whether or not a fee is charged or a license is required for such activity, is not by itself considered the business of selling, serving or furnishing alcoholic beverages.

d. Workers' Compensation And Similar Laws

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

e. Employer's Liability

"Bodily injury" to:

(1) An "employee" of the insured arising out of and in the course of:

(a) Employment by the insured; or

(b) Performing duties related to the conduct of the insured's business; or

(2) The spouse, child, parent, brother or sister of that "employee" as a consequence of Paragraph **(1)** above.

This exclusion applies whether the insured may be liable as an employer or in any other capacity and to any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to liability assumed by the insured under an "insured contract".

f. Pollution

(1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants":

(a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, this subparagraph does not apply to:

(i) "Bodily injury" if sustained within a building and caused by smoke, fumes, vapor or soot produced by or originating from equipment that

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is used to heat, cool or dehumidify the building, or produced by or originating from equipment that is used to heat water for personal use by the building's occupants or their guests;

(ii) "Bodily injury" or "property damage" for which you may be held liable, if you are a contractor and the owner or lessee of such premises, site or location has been added to your policy as an additional insured with respect to your ongoing operations performed for that additional insured at that premises, site or location and such premises, site or location is not and never was owned or occupied by, or rented or loaned to, any insured, other than that additional insured; or

(iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";

(b) At or from any premises, site or location which is or was at any time used by or for any insured or others for the handling, storage, disposal, processing or treatment of waste;

(c) If such "pollutants" are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:

(i) Any insured; or

(ii) Any person or organization for whom you may be legally responsible;

(d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, this subparagraph does not apply to:

(i) "Bodily injury" or "property damage" arising out of the escape of fuels, lubricants or other operating fluids which are needed to perform the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids escape from a vehicle part designed to hold, store or receive them. This exception does not apply if the "bodily injury" or "property damage" arises out of the intentional discharge, dispersal or release of the fuels, lubricants or other operating fluids, or if such fuels, lubricants or other operating fluids are brought on or to the premises, site or location with the intent that they be discharged, dispersed or released as part of the operations being performed by such insured, contractor or subcontractor;

(ii) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by you or on your behalf by a contractor or subcontractor; or

(iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire"; or

(e) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are or were at any time performing operations to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

(2) Any loss, cost or expense arising out of any:

(a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or

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(b) Claim or suit by or on behalf of any governmental authority or any other person or organization because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

g. Aircraft, Auto Or Watercraft

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft owned or operated by or rented or loaned to any insured. Use includes operation and "loading or unloading".

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft that is owned or operated by or rented or loaned to any insured.

This exclusion does not apply to:

(1) A watercraft while ashore on premises you own or rent;

(2) A watercraft you do not own that is:

(a) 50 feet long or less; and

(b) Not being used to carry any person or property for a charge;

(3) Parking an "auto" on, or on the ways next to, premises you own or rent, provided the "auto" is not owned by or rented or loaned to you or the insured;

(4) Liability assumed under any "insured contract" for the ownership, maintenance or use of aircraft or watercraft;

(5) "Bodily injury" or "property damage" arising out of:

(a) The operation of machinery or equipment that is attached to, or part of, a land vehicle that would qualify as "mobile equipment" under the definition of "mobile equipment" if such land vehicle were not subject to a compulsory or financial responsibility law, or other motor vehicle insurance law, where it is licensed or principally garaged; or

(b) The operation of any of the machinery or equipment listed in Paragraph **f.(2)** or **f.(3)** of the definition of "mobile equipment"; or

(6) An aircraft that is:

(a) Chartered with a pilot to any insured;

(b) Not owned by any insured; and

(c) Not being used to carry any person or property for a charge.

h. Mobile Equipment

"Bodily injury" or "property damage" arising out of:

(1) The transportation of "mobile equipment" by an "auto" owned or operated by or rented or loaned to any insured; or

(2) The use of "mobile equipment" in, or while in practice for, or while being prepared for, any prearranged racing, speed, demolition, or stunting activity.

i. War

"Bodily injury" or "property damage" arising out of:

(1) War, including undeclared or civil war;

(2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

(3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

j. Damage To Property

"Property damage" to:

(1) Property you own, rent, or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;

(2) Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises;

(3) Property loaned to you;

(4) Personal property in the care, custody or control of the insured;

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(5) That particular part of real property on which you or any contractors or subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations; or

(6) That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraphs **(1)**, **(3)** and **(4)** of this exclusion do not apply to "premises damage". A separate limit of insurance applies to "premises damage" as described in Paragraph **6.** of Section **III –** Limits Of Insurance.

Paragraph **(2)** of this exclusion does not apply if the premises are "your work" and were never occupied, rented or held for rental by you.

Paragraphs **(3)**, **(4)**, **(5)** and **(6)** of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph **(6)** of this exclusion does not apply to "property damage" included in the "products-completed operations hazard".

k. Damage To Your Product

"Property damage" to "your product" arising out of it or any part of it.

l. Damage To Your Work

"Property damage" to "your work" arising out of it or any part of it and included in the "products-completed operations hazard".

This exclusion does not apply if the damaged work or the work out of which the damage arises was performed on your behalf by a subcontractor.

m. Damage To Impaired Property Or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

(1) A defect, deficiency, inadequacy or dangerous condition in "your product" or "your work"; or

(2) A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "your product" or "your work" after it has been put to its intended use.

n. Recall Of Products, Work Or Impaired Property

Damages claimed for any loss, cost or expense incurred by you or others for the loss of use, withdrawal, recall, inspection, repair, replacement, adjustment, removal or disposal of:

(1) "Your product";

(2) "Your work"; or

(3) "Impaired property";

if such product, work, or property is withdrawn or recalled from the market or from use by any person or organization because of a known or suspected defect, deficiency, inadequacy or dangerous condition in it.

o. Personal And Advertising Injury

"Bodily injury" arising out of "personal and advertising injury".

p. Electronic Data

Damages arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate "electronic data".

However, this exclusion does not apply to liability for damages because of "bodily injury".

q. Unsolicited Communication

"Bodily injury" or "property damage" arising out of any actual or alleged violation of any law that restricts or prohibits the sending, transmitting or distributing of "unsolicited communication".

r. Access Or Disclosure Of Confidential Or Personal Information

"Bodily injury" or "property damage" arising out of any access to or disclosure of any person's or organization's confidential or personal information.

s. Asbestos

(1) "Bodily injury" or "property damage" arising out of the actual or alleged presence or actual, alleged or threatened dispersal of asbestos, asbestos fibers or products containing asbestos, provided that the "bodily injury" or "property damage" is caused or contributed to by the hazardous properties of asbestos.

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(2) "Bodily injury" or "property damage" arising out of the actual or alleged presence or actual, alleged or threatened dispersal of any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapors, soot, fumes, acids, alkalis, chemicals and waste, and that are part of any claim or "suit" which also alleges any "bodily injury" or "property damage" described in Paragraph **(1)** above.

(3) Any loss, cost or expense arising out of any:

(a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, asbestos, asbestos fibers or products containing asbestos; or

(b) Claim or suit by or on behalf of any governmental authority or any other person or organization because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, asbestos, asbestos fibers or products containing asbestos.

t. Employment-Related Practices

"Bodily injury" to:

(1) A person arising out of any:

(a) Refusal to employ that person;

(b) Termination of that person's employment; or

(c) Employment-related practice, policy, act or omission, such as coercion, demotion, evaluation, reassignment, discipline, failure to promote or advance, harassment, humiliation, discrimination, libel, slander, violation of the person's right of privacy, malicious prosecution or false arrest, detention or imprisonment applied to or directed at that person, regardless of whether such practice, policy, act or omission occurs, is applied or is committed before, during or after the time of that person's employment; or

(2) The spouse, child, parent, brother or sister of that person as a consequence of "bodily injury" to that person at whom any of the employment-related practices described in Paragraph **(a)**, **(b)**, or **(c)** above is directed.

This exclusion applies whether the insured may be liable as an employer or in any other capacity and to any obligation to share damages with or repay someone else who must pay damages because of the "bodily injury".

Exclusions **c.** through **n.** do not apply to "premises damage". A separate limit of insurance applies to "premises damage" as described in Paragraph **6.** of Section **III** – Limits Of Insurance.

COVERAGE B – PERSONAL AND ADVERTISING INJURY LIABILITY

1. Insuring Agreement

a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "personal and advertising injury" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "personal and advertising injury" to which this insurance does not apply. We may, at our discretion, investigate any offense and settle any claim or "suit" that may result. But:

(1) The amount we will pay for damages is limited as described in Section **III** – Limits Of Insurance; and

(2) Our right and duty to defend end when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages **A** or **B** or medical expenses under Coverage **C**.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments.

b. This insurance applies to "personal and advertising injury" caused by an offense arising out of your business but only if the offense was committed in the "coverage territory" during the policy period.

2. Exclusions

This insurance does not apply to:

a. Knowing Violation Of Rights Of Another

"Personal and advertising injury" caused by or at the direction of the insured with the knowledge that the act would violate the rights of another and would inflict "personal and advertising injury".

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This exclusion does not apply to "personal injury" caused by malicious prosecution.

b. Material Published With Knowledge Of Falsity

"Personal and advertising injury" arising out of oral or written publication, including publication by electronic means, of material, if done by or at the direction of the insured with knowledge of its falsity.

c. Material Published Or Used Prior To Policy Period

(1) "Personal and advertising injury" arising out of oral or written publication, including publication by electronic means, of material whose first publication took place before the beginning of the policy period; or

(2) "Advertising injury" arising out of infringement of copyright, "title" or "slogan" in your "advertisement" whose first infringement in your "advertisement" was committed before the beginning of the policy period.

d. Criminal Acts

"Personal and advertising injury" arising out of a criminal act committed by or at the direction of the insured.

e. Contractual Liability

"Personal and advertising injury" for which the insured has assumed liability in a contract or agreement. This exclusion does not apply to liability for damages:

(1) That the insured would have in the absence of the contract or agreement; or

(2) Because of "personal injury" assumed by you in a contract or agreement that is an "insured contract", provided that the "personal injury" is caused by an offense committed subsequent to the execution of the contract or agreement. Solely for the purposes of liability assumed by you in an "insured contract", reasonable attorneys' fees and necessary litigation expenses incurred by or for a party other than an insured will be deemed to be damages because of "personal injury", provided that:

(a) Liability to such party for, or for the cost of, that party's defense has also been assumed by you in the same "insured contract"; and

(b) Such attorneys' fees and litigation expenses are for defense of that party against a civil or alternative dispute resolution proceeding in which damages to which this insurance applies are alleged.

f. Breach Of Contract

"Advertising injury" arising out of a breach of contract.

g. Quality Or Performance Of Goods – Failure To Conform To Statements

"Advertising injury" arising out of the failure of goods, products or services to conform with any statement of quality or performance made in your "advertisement".

h. Wrong Description Of Prices

"Advertising injury" arising out of the wrong description of the price of goods, products or services stated in your "advertisement".

i. Intellectual Property

"Personal and advertising injury" arising out of any actual or alleged infringement or violation of any of the following rights or laws, or any other "personal and advertising injury" alleged in any claim or "suit" that also alleges any such infringement or violation:

(1) Copyright;

(2) Patent;

(3) Trade dress;

(4) Trade name;

(5) Trademark;

(6) Trade secret; or

(7) Other intellectual property rights or laws.

This exclusion does not apply to:

(1) "Advertising injury" arising out of any actual or alleged infringement or violation of another's copyright, "title" or "slogan" in your "advertisement"; or

(2) Any other "personal and advertising injury" alleged in any claim or "suit" that also alleges any such infringement or violation of another's copyright, "title" or "slogan" in your "advertisement".

j. Insureds In Media And Internet Type Businesses

"Personal and advertising injury" caused by an offense committed by an insured whose business is:

(1) Advertising, "broadcasting" or publishing;

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(2) Designing or determining content of websites for others; or

(3) An Internet search, access, content or service provider.

However, this exclusion does not apply to Paragraphs **a.(1)**, **(2)** and **(3)** of the definition of "personal injury".

For the purposes of this exclusion:

(1) Creating and producing correspondence written in the conduct of your business, bulletins, financial or annual reports, or newsletters about your goods, products or services will not be considered the business of publishing; and

(2) The placing of frames, borders or links, or advertising, for you or others anywhere on the Internet will not, by itself, be considered the business of advertising, "broadcasting" or publishing.

k. Electronic Chatrooms Or Bulletin Boards

"Personal and advertising injury" arising out of an electronic chatroom or bulletin board the insured hosts or owns, or over which the insured exercises control.

l. Unauthorized Use Of Another's Name Or Product

"Personal and advertising injury" arising out of the unauthorized use of another's name or product in your e-mail address, domain name or metatag, or any other similar tactics to mislead another's potential customers.

m. Pollution

"Personal and advertising injury" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants" at any time.

n. Pollution-Related

Any loss, cost or expense arising out of any:

(1) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or

(2) Claim or suit by or on behalf of any governmental authority or any other person or organization because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

o. War

"Personal and advertising injury" arising out of:

(1) War, including undeclared or civil war;

(2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

(3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

p. Unsolicited Communication

"Personal and advertising injury" arising out of any actual or alleged violation of any law that restricts or prohibits the sending, transmitting or distributing of "unsolicited communication".

q. Access Or Disclosure Of Confidential Or Personal Information

"Personal and advertising injury" arising out of any access to or disclosure of any person's or organization's confidential or personal information.

r. Asbestos

(1) "Personal and advertising injury" arising out of the actual or alleged presence or actual, alleged or threatened dispersal of asbestos, asbestos fibers or products containing asbestos, provided that the "personal and advertising injury" is caused or contributed to by the hazardous properties of asbestos.

(2) "Personal and advertising injury" arising out of the actual or alleged presence or actual, alleged or threatened dispersal of any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapors, soot, fumes, acids, alkalis, chemicals and waste, and that are part of any claim or "suit" which also alleges any "personal and advertising injury" described in Paragraph **(1)** above.

(3) Any loss, cost or expense arising out of any:

(a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or

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assess the effects of, asbestos, asbestos fibers or products containing asbestos; or

(b) Claim or suit by or on behalf of any governmental authority or any other person or organization because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, asbestos, asbestos fibers or products containing asbestos.

s. Employment-Related Practices

"Personal injury" to:

(1) A person arising out of any:

(a) Refusal to employ that person;

(b) Termination of that person's employment; or

(c) Employment-related practice, policy, act or omission, such as coercion, demotion, evaluation, reassignment, discipline, failure to promote or advance, harassment, humiliation, discrimination, libel, slander, violation of the person's right of privacy, malicious prosecution or false arrest, detention or imprisonment applied to or directed at that person, regardless of whether such practice, policy, act or omission occurs, is applied or is committed before, during or after the time of that person's employment; or

(2) The spouse, child, parent, brother or sister of that person as a consequence of "personal injury" to that person at whom any of the employment-related practices described in Paragraph **(a)**, **(b)**, or **(c)** above is directed.

This exclusion applies whether the insured may be liable as an employer or in any other capacity and to any obligation to share damages with or repay someone else who must pay damages because of the "personal injury".

COVERAGE C – MEDICAL PAYMENTS

1. Insuring Agreement

a. We will pay medical expenses as described below for "bodily injury" caused by an accident:

(1) On premises you own or rent;

(2) On ways next to premises you own or rent; or

(3) Because of your operations;

provided that:

(a) The accident takes place in the "coverage territory" and during the policy period;

(b) The expenses are incurred and reported to us within one year of the date of the accident; and

(c) The injured person submits to examination, at our expense, by physicians of our choice as often as we reasonably require.

b. We will make these payments regardless of fault. These payments will not exceed the applicable limit of insurance. We will pay reasonable expenses for:

(1) First aid administered at the time of an accident;

(2) Necessary medical, surgical, X-ray and dental services, including prosthetic devices; and

(3) Necessary ambulance, hospital, professional nursing and funeral services.

2. Exclusions

We will not pay expenses for "bodily injury":

a. Any Insured

To any insured, except "volunteer workers".

b. Hired Person

To a person hired to do work for or on behalf of any insured or a tenant of any insured.

c. Injury On Normally Occupied Premises

To a person injured on that part of premises you own or rent that the person normally occupies.

d. Workers' Compensation And Similar Laws

To a person, whether or not an "employee" of any insured, if benefits for the "bodily injury" are payable or must be provided under a workers' compensation or disability benefits law or a similar law.

e. Athletics Activities

To a person injured while practicing, instructing or participating in any physical exercises or games, sports, or athletic contests.

f. Products-Completed Operations Hazard

Included within the "products-completed operations hazard".

g. Coverage A Exclusions

Excluded under Coverage **A**.

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SUPPLEMENTARY PAYMENTS

1. We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

a. All expenses we incur.

b. Up to $2,500 for the cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.

c. The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.

d. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to $500 a day because of time off from work.

e. All court costs taxed against the insured in the "suit". However, these payments do not include attorneys' fees or attorneys' expenses taxed against the insured.

f. Prejudgment interest awarded against the insured on that part of the judgment we pay. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.

g. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

These payments will not reduce the limits of insurance.

2. If we defend an insured against a "suit" and an indemnitee of the insured is also named as a party to the "suit", we will defend that indemnitee if all of the following conditions are met:

a. The "suit" against the indemnitee seeks damages for which the insured has assumed the liability of the indemnitee in a contract or agreement that is an "insured contract";

b. This insurance applies to such liability assumed by the insured;

c. The obligation to defend, or the cost of the defense of, that indemnitee, has also been assumed by the insured in the same "insured contract";

d. The allegations in the "suit" and the information we know about the "occurrence" or offense are such that no conflict appears to exist between the interests of the insured and the interests of the indemnitee;

e. The indemnitee and the insured ask us to conduct and control the defense of that indemnitee against such "suit" and agree that we can assign the same counsel to defend the insured and the indemnitee; and

f. The indemnitee:

(1) Agrees in writing to:

(a) Cooperate with us in the investigation, settlement or defense of the "suit";

(b) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the "suit";

(c) Notify any other insurer whose coverage is available to the indemnitee; and

(d) Cooperate with us with respect to coordinating other applicable insurance available to the indemnitee; and

(2) Provides us with written authorization to:

(a) Obtain records and other information related to the "suit"; and

(b) Conduct and control the defense of the indemnitee in such "suit".

So long as the above conditions are met, attorneys' fees incurred by us in the defense of that indemnitee, necessary litigation expenses incurred by us and necessary litigation expenses incurred by the indemnitee at our request will be paid as Supplementary Payments. Notwithstanding the provisions of Paragraph **2.b.(2)** of Section **I – Coverages – Coverage A – Bodily Injury And Property Damage Liability** or Paragraph **2.e.** of Section **I – Coverages – Coverage B – Personal And Advertising Injury Liability**, such payments will not be deemed to be damages for "bodily injury", "property damage" or "personal injury", and will not reduce the limits of insurance.

Our obligation to defend an insured's indemnitee and to pay for attorneys' fees and necessary litigation expenses as Supplementary Payments ends when:

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a. We have used up the applicable limit of insurance in the payment of judgments, settlements or medical expenses; or

b. The conditions set forth above, or the terms of the agreement described in Paragraph **f.** above, are no longer met.

SECTION II – WHO IS AN INSURED

1. If you are designated in the Declarations as:

a. An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.

b. A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds, but only with respect to the conduct of your business.

c. A limited liability company, you are an insured. Your members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.

d. An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.

e. A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.

2. Each of the following is also an insured:

a. Your "volunteer workers" only while performing duties related to the conduct of your business, or your "employees", other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company), but only for acts within the scope of their employment by you or while performing duties related to the conduct of your business. However, none of these "employees" or "volunteer workers" are insureds for:

(1) "Bodily injury" or "personal injury":

(a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited liability company), to a co-"employee" while in the course of his or her employment or performing duties related to the conduct of your business, or to your other "volunteer workers" while performing duties related to the conduct of your business;

(b) To the spouse, child, parent, brother or sister of that co-"employee" or "volunteer worker" as a consequence of Paragraph **(1)(a)** above;

(c) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraph **(1)(a)** or **(b)** above; or

(d) Arising out of his or her providing or failing to provide professional health care services.

Unless you are in the business or occupation of providing professional health care services, Paragraphs **(1)(a)**, **(b)**, **(c)** and **(d)** above do not apply to "bodily injury" arising out of providing or failing to provide first aid or "Good Samaritan services" by any of your "employees" or "volunteer workers", other than an employed or volunteer doctor. Any such "employees" or "volunteer workers" providing or failing to provide first aid or "Good Samaritan services" during their work hours for you will be deemed to be acting within the scope of their employment by you or performing duties related to the conduct of your business.

(2) "Property damage" to property:

(a) Owned, occupied or used by;

(b) Rented to, in the care, custody or control of, or over which physical control is being exercised for any purpose by;

you, any of your "employees", "volunteer workers", any partner or member (if you are a partnership or joint venture), or any member (if you are a limited liability company).

b. Any person (other than your "employee" or "volunteer worker"), or any organization, while acting as your real estate manager.

c. Any person or organization having proper temporary custody of your property if you die, but only:

(1) With respect to liability arising out of the maintenance or use of that property; and

(2) Until your legal representative has been appointed.

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d. Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.

e. Any person or organization that, with your express or implied consent, either uses or is responsible for the use of a watercraft that you do not own that is:

(1) 50 feet long or less; and

(2) Not being used to carry any person or property for a charge.

3. Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and of which you are the sole owner or in which you maintain an ownership interest of more than 50%, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

a. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

b. Coverage **A** does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and

c. Coverage **B** does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

For the purposes of Paragraph **1.** of Section **II – Who Is An Insured**, each such organization will be deemed to be designated in the Declarations as:

a. An organization, other than a partnership, joint venture or limited liability company; or

b. A trust;

as indicated in its name or the documents that govern its structure.

4. Any person or organization that is a premises owner, manager or lessor and that you have agreed in a written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" that:

a. Is "bodily injury" or "property damage" that occurs, or is "personal and advertising injury" caused by an offense that is committed, subsequent to the signing of that contract or agreement; and

b. Arises out of the ownership, maintenance or use of that part of any premises leased to you.

The insurance provided to such premises owner, manager or lessor is subject to the following provisions:

a. The limits of insurance provided to such premises owner, manager or lessor will be the minimum limits that you agreed to provide in the written contract or agreement, or the limits shown in the Declarations, whichever are less.

b. The insurance provided to such premises owner, manager or lessor does not apply to:

(1) Any "bodily injury" or "property damage" that occurs, or "personal and advertising injury" caused by an offense that is committed, after you cease to be a tenant in that premises; or

(2) Structural alterations, new construction or demolition operations performed by or on behalf of such premises owner, manager or lessor.

5. Any person or organization that is an equipment lessor and that you have agreed in a written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury", "property damage", or "personal and advertising injury" that:

a. Is "bodily injury" or "property damage" that occurs, or is "personal and advertising injury" caused by an offense that is committed, subsequent to the signing of that contract or agreement; and

b. Is caused, in whole or in part, by your acts or omissions in the maintenance, operation or use of equipment leased to you by such equipment lessor.

The insurance provided to such equipment lessor is subject to the following provisions:

a. The limits of insurance provided to such equipment lessor will be the minimum limits that you agreed to provide in the written contract or agreement, or the limits shown in the Declarations, whichever are less.

b. The insurance provided to such equipment lessor does not apply to any "bodily injury" or "property damage" that occurs, or "personal and advertising injury" caused by an offense that is committed, after the equipment lease expires.

No person or organization is an insured with respect to the conduct of any current or past partnership, joint

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venture or limited liability company that is not shown as a Named Insured in the Declarations. This paragraph does not apply to any such partnership, joint venture or limited liability company that otherwise qualifies as an insured under Section **II** – Who **I**s An **I**nsured.

SECTION III – LIMITS OF INSURANCE

1. The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:

a. Insureds;

b. Claims made or "suits" brought; or

c. Persons or organizations making claims or bringing "suits".

2. The General Aggregate Limit is the most we will pay for the sum of:

a. Medical expenses under Coverage **C**;

b. Damages under Coverage **A**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and

c. Damages under Coverage **B**.

3. The Products-Completed Operations Aggregate Limit is the most we will pay under Coverage **A** for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".

4. Subject to Paragraph **2.** above, the Personal And Advertising Injury Limit is the most we will pay under Coverage **B** for the sum of all damages because of all "personal injury" and "advertising injury" sustained by any one person or organization.

5. Subject to Paragraph **2.** or **3.** above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of:

a. Damages under Coverage **A**; and

b. Medical expenses under Coverage **C**;

because of all "bodily injury" and "property damage" arising out of any one "occurrence".

For the purposes of determining the applicable Each Occurrence Limit, all related acts or omissions committed in providing or failing to provide first aid or "Good Samaritan services" to any one person will be deemed to be one "occurrence".

6. Subject to Paragraph **5.** above, the Damage To Premises Rented To You Limit is the most we will pay under Coverage **A** for damages because of "premises damage" to any one premises. The Damage To Premises Rented To You Limit will be:

a. The amount shown for the Damage To Premises Rented To You Limit in the Declarations of this Coverage Part; or

b. $300,000 if no amount is shown for the Damage To Premises Rented To You Limit in the Declarations of this Coverage Part.

7. Subject to Paragraph **5.** above, the Medical Expense Limit is the most we will pay under Coverage **C** for all medical expenses because of "bodily injury" sustained by any one person.

The Limits of Insurance of this Coverage Part apply separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations, unless the policy period is extended after issuance for an additional period of less than 12 months. In that case, the additional period will be deemed part of the last preceding period for purposes of determining the Limits of Insurance.

SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS

1. Bankruptcy

Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part.

2. Duties In The Event Of Occurrence, Offense, Claim Or Suit

a. You must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:

(1) How, when and where the "occurrence" or offense took place;

(2) The names and addresses of any injured persons and witnesses; and

(3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

b. If a claim is made or "suit" is brought against any insured, you must:

(1) Immediately record the specifics of the claim or "suit" and the date received; and

(2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

c. You and any other involved insured must:

(1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";

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(2) Authorize us to obtain records and other information;

(3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and

(4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.

d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

e. The following provisions apply to Paragraph **a.** above, but only for purposes of the insurance provided under this Coverage Part to you or any insured listed in Paragraph **1.** or **2.** of Section **II – Who Is An Insured**:

(1) Notice to us of such "occurrence" or offense must be given as soon as practicable only after the "occurrence" or offense is known to you (if you are an individual), any of your partners or members who is an individual (if you are a partnership or joint venture), any of your managers who is an individual (if you are a limited liability company), any of your "executive officers" or directors (if you are an organization other than a partnership, joint venture, or limited liability company), any of your trustees who is an individual (if you are a trust) or any "employee" authorized by you to give notice of an "occurrence" or offense.

(2) If you are a partnership, joint venture, limited liability company or trust, and none of your partners, joint venture members, managers or trustees are individuals, notice to us of such "occurrence" or offense must be given as soon as practicable only after the "occurrence" or offense is known by:

(a) Any individual who is:

(i) A partner or member of any partnership or joint venture;

(ii) A manager of any limited liability company;

(iii) An executive officer or director of any other organization; or

(iv) A trustee of any trust;

that is your partner, joint venture member, manager or trustee; or

(b) Any employee authorized by such partnership, joint venture, limited liability company, trust or other organization to give notice of an "occurrence" or offense.

(3) Notice to us of such "occurrence" or offense will be deemed to be given as soon as practicable if it is given in good faith as soon as practicable to your workers' compensation insurer. This applies only if you subsequently give notice to us of the "occurrence" or offense as soon as practicable after any of the persons described in Paragraph **e.(1)** or **(2)** above discovers that the "occurrence" or offense may result in sums to which the insurance provided under this Coverage Part may apply.

However, if this policy includes an endorsement that provides limited coverage for "bodily injury" or "property damage" or pollution costs arising out of a discharge, release or escape of "pollutants" which contains a requirement that the discharge, release or escape of "pollutants" must be reported to us within a specific number of days after its abrupt commencement, this Paragraph **e.** does not affect that requirement.

3. Legal Action Against Us

No person or organization has a right under this Coverage Part:

a. To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or

b. To sue us on this Coverage Part unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this Coverage Part or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured, and the claimant or the claimant's legal representative.

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4. Other Insurance

If valid and collectible other insurance is available to the insured for a loss we cover under Coverages **A** or **B** of this Coverage Part, our obligations are limited as described in Paragraphs **a.** and **b.** below.

As used anywhere in this Coverage Part, other insurance means insurance, or the funding of losses, that is provided by, through or on behalf of:

(i) Another insurance company;

(ii) Us or any of our affiliated insurance companies, except when the Non cumulation of Each Occurrence Limit provision of Paragraph **5.** of Section **III – Limits Of Insurance** or the Non cumulation of Personal and Advertising Injury Limit provision of Paragraph **4.** of Section **III – Limits of Insurance** applies because the Amendment – Non Cumulation Of Each Occurrence Limit Of Liability And Non Cumulation Of Personal And Advertising Injury Limit endorsement is included in this policy;

(iii) Any risk retention group; or

(iv) Any self-insurance method or program, in which case the insured will be deemed to be the provider of other insurance.

Other insurance does not include umbrella insurance, or excess insurance, that was bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

As used anywhere in this Coverage Part, other insurer means a provider of other insurance. As used in Paragraph **c.** below, insurer means a provider of insurance.

a. Primary Insurance

This insurance is primary except when Paragraph **b.** below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in Paragraph **c.** below, except when Paragraph **d.** below applies.

b. Excess Insurance

(1) This insurance is excess over:

(a) Any of the other insurance, whether primary, excess, contingent or on any other basis:

(i) That is Fire, Extended Coverage, Builder's Risk, Installation Risk or similar coverage for "your work";

(ii) That is insurance for "premises damage";

(iii) If the loss arises out of the maintenance or use of aircraft, "autos" or watercraft to the extent not subject to any exclusion in this Coverage Part that applies to aircraft, "autos" or watercraft;

(iv) That is insurance available to a premises owner, manager or lessor that qualifies as an insured under Paragraph **4.** of Section **II – Who Is An Insured**, except when Paragraph **d.** below applies; or

(v) That is insurance available to an equipment lessor that qualifies as an insured under Paragraph **5.** of Section **II – Who Is An Insured**, except when Paragraph **d.** below applies.

(b) Any of the other insurance, whether primary, excess, contingent or on any other basis, that is available to the insured when the insured is an additional insured, or is any other insured that does not qualify as a named insured, under such other insurance.

(2) When this insurance is excess, we will have no duty under Coverages **A** or **B** to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

(3) When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

(a) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and

(b) The total of all deductible and self-insured amounts under all that other insurance.

(4) We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

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c. Method Of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

d. Primary And Non-Contributory Insurance If Required By Written Contract

If you specifically agree in a written contract or agreement that the insurance afforded to an insured under this Coverage Part must apply on a primary basis, or a primary and non-contributory basis, this insurance is primary to other insurance that is available to such insured which covers such insured as a named insured, and we will not share with that other insurance, provided that:

(1) The "bodily injury" or "property damage" for which coverage is sought occurs; and

(2) The "personal and advertising injury" for which coverage is sought is caused by an offense that is committed;

subsequent to the signing of that contract or agreement by you.

5. Premium Audit

a. We will compute all premiums for this Coverage Part in accordance with our rules and rates.

b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the first Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If the sum of the advance and audit premiums paid for the policy period is greater than the earned premium, we will return the excess to the first Named Insured.

c. The first Named Insured must keep records of the information we need for premium computation, and send us copies at such times as we may request.

6. Representations

By accepting this policy, you agree:

a. The statements in the Declarations are accurate and complete;

b. Those statements are based upon representations you made to us; and

c. We have issued this policy in reliance upon your representations.

The unintentional omission of, or unintentional error in, any information provided by you which we relied upon in issuing this policy will not prejudice your rights under this insurance. However, this provision does not affect our right to collect additional premium or to exercise our rights of cancellation or nonrenewal in accordance with applicable insurance laws or regulations.

7. Separation Of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

a. As if each Named Insured were the only Named Insured; and

b. Separately to each insured against whom claim is made or "suit" is brought.

8. Transfer Of Rights Of Recovery Against Others To Us

If the insured has rights to recover all or part of any payment we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

9. When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V – DEFINITIONS

1. "Advertisement" means a notice that is broadcast or published to the general public or specific market segments about your goods, products or services for the purpose of attracting customers or supporters. For the purposes of this definition:

a. Notices that are published include material placed on the Internet or on similar electronic means of communication; and

b. Regarding websites, only that part of a website that is about your goods, products or services for the purposes of attracting customers or supporters is considered an advertisement.

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2. "Advertising injury":

a. Means injury caused by one or more of the following offenses:

(1) Oral or written publication, including publication by electronic means, of material in your "advertisement" that slanders or libels a person or organization or disparages a person's or organization's goods, products or services, provided that the claim is made or the "suit" is brought by a person or organization that claims to have been slandered or libeled, or that claims to have had its goods, products or services disparaged;

(2) Oral or written publication, including publication by electronic means, of material in your "advertisement" that:

(a) Appropriates a person's name, voice, photograph or likeness; or

(b) Unreasonably places a person in a false light; or

(3) Infringement of copyright, "title" or "slogan" in your "advertisement", provided that the claim is made or the "suit" is brought by a person or organization that claims ownership of such copyright, "title" or "slogan".

b. Includes "bodily injury" caused by one or more of the offenses described in Paragraph **a.** above.

3. "Auto" means:

a. A land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment; or

b. Any other land vehicle that is subject to a compulsory or financial responsibility law, or other motor vehicle insurance law, where it is licensed or principally garaged.

However, "auto" does not include "mobile equipment".

4. "Bodily injury" means:

a. Physical harm, including sickness or disease, sustained by a person; or

b. Mental anguish, injury or illness, or emotional distress, resulting at any time from such physical harm, sickness or disease.

5. "Broadcasting" means transmitting any audio or visual material for any purpose:

a. By radio or television; or

b. In, by or with any other electronic means of communication, such as the Internet, if that material is part of:

(1) Radio or television programming being transmitted;

(2) Other entertainment, educational, instructional, music or news programming being transmitted; or

(3) Advertising transmitted with any of such programming.

6. "Coverage territory" means:

a. The United States of America (including its territories and possessions), Puerto Rico and Canada;

b. International waters or airspace, but only if the injury or damage occurs in the course of travel or transportation between any places included in Paragraph **a.** above; or

c. All other parts of the world if the injury or damage arises out of:

(1) Goods or products made or sold by you in the territory described in Paragraph **a.** above;

(2) The activities of a person whose home is in the territory described in Paragraph **a.** above, but is away for a short time on your business; or

(3) "Personal and advertising injury" offenses that take place through the Internet or similar electronic means of communication;

provided the insured's responsibility to pay damages is determined in a "suit" on the merits in the territory described in Paragraph **a.** above, or in a settlement we agree to.

7. "Electronic data" means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software (including systems and applications software), hard or floppy disks, CD-ROMs, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

8. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".

9. "Executive officer" means a person holding any of the officer positions created by your charter, constitution, bylaws or any other similar governing document.

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10. "Good Samaritan services" means any emergency medical services for which no compensation is demanded or received.

11. "Hostile fire" means a fire which becomes uncontrollable or breaks out from where it was intended to be.

12. "Impaired property" means tangible property, other than "your product" or "your work", that cannot be used or is less useful because:

a. It incorporates "your product" or "your work" that is known or thought to be defective, deficient, inadequate or dangerous; or

b. You have failed to fulfill the terms of a contract or agreement;

if such property can be restored to use by the repair, replacement, adjustment or removal of "your product" or "your work" or your fulfilling the terms of the contract or agreement.

13. "Insured contract" means:

a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for "premises damage" is not an "insured contract";

b. A sidetrack agreement;

c. Any easement or license agreement, except in connection with construction or demolition operations on or within 50 feet of a railroad;

d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;

e. An elevator maintenance agreement;

f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury", "property damage" or "personal injury" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph **f.** does not include that part of any contract or agreement:

(1) That indemnifies a railroad for "bodily injury" or "property damage" arising out of construction or demolition operations, within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, roadbeds, tunnel, underpass or crossing;

(2) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:

(a) Preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage; or

(3) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in Paragraph **(2)** above and supervisory, inspection, architectural or engineering activities.

14. "Leased worker" means a person leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business. "Leased worker" does not include a "temporary worker".

15. "Loading or unloading" means the handling of property:

a. After it is moved from the place where it is accepted for movement into or onto an aircraft, watercraft or "auto";

b. While it is in or on an aircraft, watercraft or "auto"; or

c. While it is being moved from an aircraft, watercraft or "auto" to the place where it is finally delivered;

but "loading or unloading" does not include the movement of property by means of a mechanical device, other than a hand truck, that is not attached to the aircraft, watercraft or "auto".

16. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:

a. Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;

b. Vehicles maintained for use solely on or next to premises you own or rent;

c. Vehicles that travel on crawler treads;

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d. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:

(1) Power cranes, shovels, loaders, diggers or drills; or

(2) Road construction or resurfacing equipment such as graders, scrapers or rollers;

e. Vehicles not described in Paragraph **a.**, **b.**, **c.** or **d.** above that are not self-propelled and are maintained primarily to provide mobility to permanently attached equipment of the following types:

(1) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or

(2) Cherry pickers and similar devices used to raise or lower workers;

f. Vehicles not described in Paragraph **a.**, **b.**, **c.** or **d.** above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

(1) Equipment designed primarily for:

(a) Snow removal;

(b) Road maintenance, but not construction or resurfacing; or

(c) Street cleaning;

(2) Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and

(3) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

However, "mobile equipment" does not include any land vehicle that is subject to a compulsory or financial responsibility law, or other motor vehicle insurance law, where it is licensed or principally garaged. Such land vehicles are considered "autos".

17. "Occurrence" means:

a. An accident, including continuous or repeated exposure to substantially the same general harmful conditions; or

b. An act or omission committed in providing or failing to provide first aid or "Good Samaritan services" to a person, unless you are in the business or occupation of providing professional health care services.

18. "Personal and advertising injury" means "personal injury" or "advertising injury".

19. "Personal injury":

a. Means injury, other than "advertising injury", caused by one or more of the following offenses:

(1) False arrest, detention or imprisonment;

(2) Malicious prosecution;

(3) The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, provided that the wrongful eviction, wrongful entry or invasion of the right of private occupancy is committed by or on behalf of the owner, landlord or lessor of that room, dwelling or premises;

(4) Oral or written publication, including publication by electronic means, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services, provided that the claim is made or the "suit" is brought by a person or organization that claims to have been slandered or libeled, or that claims to have had its goods, products or services disparaged; or

(5) Oral or written publication, including publication by electronic means, of material that:

(a) Appropriates a person's name, voice, photograph or likeness; or

(b) Unreasonably places a person in a false light.

b. Includes "bodily injury" caused by one or more of the offenses described in Paragraph **a.** above.

20. "Pollutants" mean any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

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21. "Premises damage" means:

a. With respect to the first paragraph of the exceptions in Exclusion **j.** of Section **I – Coverage A – Bodily Injury And Property Damage Liability**, "property damage" to any premises while rented to you for a period of seven or fewer consecutive days, including the contents of such premises; or

b. With respect to the exception to Exclusions **c.** through **n.** in the last paragraph of Paragraph **2.** of Section **I – Coverage A – Bodily Injury And Property Damage Liability**, "property damage" to any premises while rented to you for a period of more than seven consecutive days, or while temporarily occupied by you with permission of the owner, caused by:

(1) Fire;

(2) Explosion;

(3) Lightning;

(4) Smoke resulting from fire, explosion or lightning; or

(5) Water.

But "premises damage" under this Paragraph **b.** does not include "property damage" to any premises caused by:

(1) Rupture, bursting, or operation of pressure relief devices;

(2) Rupture or bursting due to expansion or swelling of the contents of any building or structure caused by or resulting from water; or

(3) Explosion of steam boilers, steam pipes, steam engines or steam turbines.

22. "Products-completed operations hazard":

a. Includes all "bodily injury" and "property damage" occurring away from premises you own or rent and arising out of "your product" or "your work" except:

(1) Products that are still in your physical possession; or

(2) Work that has not yet been completed or abandoned. However, "your work" will be deemed completed at the earliest of the following times:

(a) When all of the work called for in your contract has been completed.

(b) When all of the work to be done at the job site has been completed if your contract calls for work at more than one job site.

(c) When that part of the work done at a job site has been put to its intended use by any person or organization other than another contractor or subcontractor working on the same project.

Work that may need service, maintenance, correction, repair or replacement, but which is otherwise complete, will be treated as completed.

b. Does not include "bodily injury" or "property damage" arising out of:

(1) The transportation of property, unless the injury or damage arises out of a condition in or on a vehicle not owned or operated by you, and that condition was created by the "loading or unloading" of that vehicle by any insured;

(2) The existence of tools, uninstalled equipment or abandoned or unused materials; or

(3) Products or operations for which the classification, listed in the Declarations or in a policy Schedule, states that products-completed operations are subject to the General Aggregate Limit.

23. "Property damage" means:

a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use will be deemed to occur at the time of the physical injury that caused it; or

b. Loss of use of tangible property that is not physically injured. All such loss of use will be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, "electronic data" is not tangible property.

24. "Slogan":

a. Means a phrase that others use for the purpose of attracting attention in their advertising.

b. Does not include a phrase used as, or in, the name of:

(1) Any person or organization, other than you; or

(2) Any business, or any of the premises, goods, products, services or work, of any person or organization, other than you.

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25. "Suit" means a civil proceeding in which damages because of "bodily injury", "property damage" or "personal and advertising injury" to which this insurance applies are alleged. "Suit" includes:

a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent; or

b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent.

26. "Temporary worker" means a person who is furnished to you to substitute for a permanent "employee" on leave or to meet seasonal or short-term workload conditions.

27. "Title" means a name of a literary or artistic work.

28. "Unsolicited communication" means any communication, in any form, that the recipient of such communication did not specifically request to receive.

29. "Volunteer worker" means a person who is not your "employee", and who donates his or her work and acts at the direction of and within the scope of duties determined by you, and is not paid a fee, salary or other compensation by you or anyone else for their work performed for you.

30. "Your product":

a. Means:

(1) Any goods or products, other than real property, manufactured, sold, handled, distributed or disposed of by:

(a) You;

(b) Others trading under your name; or

(c) A person or organization whose business or assets you have acquired; and

(2) Containers (other than vehicles), materials, parts or equipment furnished in connection with such goods or products.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your product"; and

(2) The providing of or failure to provide warnings or instructions.

c. Does not include vending machines or other property rented to or located for the use of others but not sold.

31. "Your work":

a. Means:

(1) Work or operations performed by you or on your behalf; and

(2) Materials, parts or equipment furnished in connection with such work or operations.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your work"; and

(2) The providing of or failure to provide warnings or instructions.

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POLICY NUMBER: 810-6T343696-22-I3-G

EFFECTIVE DATE: 08/23/2022

ISSUE DATE: 08/24/2022

COMMERCIAL AUTO (CONTINUED)

CA 21 21 11 02	UNINSURED MOTORISTS END (VIRGINIA)
CA 21 24 05 20	MINNESOTA UNINSURED AND UNDERINSURED MOTORISTS COVERAGE
CA 21 27 10 13	NEVADA UNINSURED MOTORISTS COVERAGE
CA 21 30 01 15	ILLINOIS UNINSURED MOTORISTS COVERAGE
CA 21 31 10 13	MICHIGAN UNINSURED MOTORISTS COVERAGE
CA 21 33 08 17	OHIO UNINSURED AND UNDERINSURED MOTORISTS COVERAGE - BODILY INJURY
CA 21 38 10 13	ILLINOIS UNDERINSURED MOTORISTS COVERAGE
CA 21 43 06 15	RHODE ISLAND UNINSURED MOTORISTS COVERAGE - BODILY INJURY
CA 21 44 12 15	INDIANA UNINSURED MOTORISTS COVERAGE
CA 21 48 10 13	LOUSIANA UNINSURED MOTORISTS COVERAGE - BODILY INJURY
CA 21 50 07 17	COLORADO UNINSURED MOTORISTS COVERAGE - BODILY INJURY
CA 21 54 11 16	CA UM MOTORISTS COVERAGE - BODILY INJURY
CA 21 59 10 13	ALABAMA UNINSURED MOTORISTS COVERAGE
CA 21 72 10 09	FL UM MOTORIST COVERAGE - NONSTACKED
CA 21 76 10 13	KENTUCKY UNINSURED MOTORISTS COVERAGE
CA 21 79 10 13	KENTUCKY UNDERINSURED MOTORISTS COVERAGE
CA 22 10 01 21	FLORIDA PERSONAL INJURY PROTECTION
CA 22 16 10 13	KENTUCKY PERSONAL INJURY PROTECTION
CA 22 22 10 13	MICHIGAN BROADENED COLLISION COVERAGE
CA 22 24 10 13	MICHIGAN PROPERTY PROTECTION COVERAGE
CA 22 25 05 20	MINNESOTA PERSONAL INJURY PROTECTION
CA 22 30 01 20	NEW JERSEY PERSONAL INJURY PROTECTION
CA 22 46 11 16	VA MED EXP & INCOME LOSS BENEFITS END
CA 22 64 10 13	TEXAS PERSONAL INJURY PROTECTION ENDORSEMENT
CA 31 16 12 15	INDIANA UNDERINSURED MOTORISTS COVERAGE
CA 31 37 10 13	GEORGIA UNINSURED MOTORISTS COVERAGE - ADDED ON TO AT-FAULT LIABILITY LIMITS
CA 31 43 11 15	OKLAHOMA UNINSURED MOTORISTS COVERAGE - NON-STACKED
CA 99 03 03 06	AUTO MED PAY COVERAGE
CA 99 03 10 13	AUTO MEDICAL PAYMENTS COVERAGE
CA 99 58 04 14	SOUTH CAROLINA AUTO MEDICAL PAYMENTS COVERAGE
CA 99 95 10 13	TEXAS SUPPLEMENTARY DEATH BENEFIT
CA F0 73 02 15	TENNESSEE EXCEPTION - LOSS PAYABLE CLAUSE
CA T4 59 02 15	AMENDMENT OF EMPLOYEE DEFINITION
CA T4 74 02 16	BLANKET ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY WITH OTHER INSURANCE
CA T6 25 07 18	ROADSIDE ASSISTANCE COVERAGE
CA T3 53 02 15	BUSINESS AUTO EXTENSION ENDORSEMENT
CA 02 18 10 13	MINNESOTA CHANGES - CANCELLATION AND NONRENEWAL
CA 02 70 01 18	Illinois Changes - Cancellation and Nonrenewal
CA 02 73 10 13	RI CHANGES-CANCELLATION & NONRENEWAL
CA F0 51 02 15	TEXAS CHANGES - CANCELLATION AND NONRENEWAL
CA 01 10 11 20	MICHIGAN CHANGES

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BLANKET ADDITIONAL INSURED – PRIMARY AND NON-CONTRIBUTORY WITH OTHER INSURANCE

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

PROVISIONS

1. The following is added to Paragraph **A.1.c.**, **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

This includes any person or organization who you are required under a written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to name as an additional insured for Covered Autos Liability Coverage, but only for damages to which this insurance applies and only to the extent of that person's or organization's liability for the conduct of another "insured".

2. The following is added to Paragraph **B.5.**, **Other Insurance** of **SECTION IV – BUSINESS AUTO CONDITIONS**:

Regardless of the provisions of paragraph a. and paragraph **d.** of this part **5. Other Insurance,** this insurance is primary to and non-contributory with applicable other insurance under which an additional insured person or organization is the first named insured when the written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, requires this insurance to be primary and non-contributory.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BUSINESS AUTO EXTENSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to the Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Limitations and exclusions may apply to these coverages. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

A. BROAD FORM NAMED INSURED

B. BLANKET ADDITIONAL INSURED

C. EMPLOYEE HIRED AUTO

D. EMPLOYEES AS INSURED

E. SUPPLEMENTARY PAYMENTS – INCREASED LIMITS

F. HIRED AUTO – LIMITED WORLDWIDE COVERAGE – INDEMNITY BASIS

G. WAIVER OF DEDUCTIBLE – GLASS

H. HIRED AUTO PHYSICAL DAMAGE – LOSS OF USE – INCREASED LIMIT

I. PHYSICAL DAMAGE – TRANSPORTATION EXPENSES – INCREASED LIMIT

J. PERSONAL PROPERTY

K. AIRBAGS

L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS

M. BLANKET WAIVER OF SUBROGATION

N. UNINTENTIONAL ERRORS OR OMISSIONS

PROVISIONS

A. BROAD FORM NAMED INSURED

The following is added to Paragraph **A.1.**, **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

Any organization you newly acquire or form during the policy period over which you maintain 50% or more ownership interest and that is not separately insured for Business Auto Coverage. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

B. BLANKET ADDITIONAL INSURED

The following is added to Paragraph **c.** in **A.1.**, **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

Any person or organization who is required under a written contract or agreement between you and that person or organization, that is signed and executed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to be named as an additional insured is an "insured" for Covered Autos Liability Coverage, but only for damages to which this insurance applies and only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Section **II**.

C. EMPLOYEE HIRED AUTO

1. The following is added to Paragraph **A.1.**, **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.

2. The following replaces Paragraph **b.** in **B.5.**, **Other Insurance**, of **SECTION IV – BUSINESS AUTO CONDITIONS**:

b. For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

(1) Any covered "auto" you lease, hire, rent or borrow; and

(2) Any covered "auto" hired or rented by your "employee" under a contract in an "employee's" name, with your

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permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

D. EMPLOYEES AS INSURED

The following is added to Paragraph **A.1.**, **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

E. SUPPLEMENTARY PAYMENTS – INCREASED LIMITS

1. The following replaces Paragraph **A.2.a.(2)**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

(2) Up to $3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.

2. The following replaces Paragraph **A.2.a.(4)**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

(4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to $500 a day because of time off from work.

F. HIRED AUTO – LIMITED WORLDWIDE COVERAGE – INDEMNITY BASIS

The following replaces Subparagraph **(5)** in Paragraph **B.7.**, **Policy Period, Coverage Territory**, of **SECTION IV – BUSINESS AUTO CONDITIONS**:

(5) Anywhere in the world, except any country or jurisdiction while any trade sanction, embargo, or similar regulation imposed by the United States of America applies to and prohibits the transaction of business with or within such country or jurisdiction, for Covered Autos Liability Coverage for any covered "auto" that you lease, hire, rent or borrow without a driver for a period of 30 days or less and that is not an "auto" you lease, hire, rent or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited liability company) or members of their households.

(a) With respect to any claim made or "suit" brought outside the United States of America, the territories and possessions of the United States of America, Puerto Rico and Canada:

(i) You must arrange to defend the "insured" against, and investigate or settle any such claim or "suit" and keep us advised of all proceedings and actions.

(ii) Neither you nor any other involved "insured" will make any settlement without our consent.

(iii) We may, at our discretion, participate in defending the "insured" against, or in the settlement of, any claim or "suit".

(iv) We will reimburse the "insured" for sums that the "insured" legally must pay as damages because of "bodily injury" or "property damage" to which this insurance applies, that the "insured" pays with our consent, but only up to the limit described in Paragraph **C.**, Limits Of Insurance, of SECTION **II** – COVERED AUTOS LIABILITY COVERAGE.

(v) We will reimburse the "insured" for the reasonable expenses incurred with our consent for your investigation of such claims and your defense of the "insured" against any such "suit", but only up to and included within the limit described in Paragraph **C.**, Limits Of Insurance, of SECTION **II** – COVERED AUTOS LIABILITY COVERAGE, and not in addition to such limit. Our duty to make such payments ends when we have used up the applicable limit of insurance in payments for damages, settlements or defense expenses.

(b) This insurance is excess over any valid and collectible other insurance available to the "insured" whether primary, excess, contingent or on any other basis.

(c) This insurance is not a substitute for required or compulsory insurance in any country outside the United States, its territories and possessions, Puerto Rico and Canada.

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You agree to maintain all required or compulsory insurance in any such country up to the minimum limits required by local law. Your failure to comply with compulsory insurance requirements will not invalidate the coverage afforded by this policy, but we will only be liable to the same extent we would have been liable had you complied with the compulsory insurance requirements.

(d) It is understood that we are not an admitted or authorized insurer outside the United States of America, its territories and possessions, Puerto Rico and Canada. We assume no responsibility for the furnishing of certificates of insurance, or for compliance in any way with the laws of other countries relating to insurance.

G. WAIVER OF DEDUCTIBLE – GLASS

The following is added to Paragraph **D.**, **Deductible**, of **SECTION III – PHYSICAL DAMAGE COVERAGE**:

No deductible for a covered "auto" will apply to glass damage if the glass is repaired rather than replaced.

H. HIRED AUTO PHYSICAL DAMAGE – LOSS OF USE – INCREASED LIMIT

The following replaces the last sentence of Paragraph **A.4.b.**, **Loss Of Use Expenses**, of **SECTION III – PHYSICAL DAMAGE COVERAGE**:

However, the most we will pay for any expenses for loss of use is $65 per day, to a maximum of $750 for any one "accident".

I. PHYSICAL DAMAGE – TRANSPORTATION EXPENSES – INCREASED LIMIT

The following replaces the first sentence in Paragraph **A.4.a.**, **Transportation Expenses**, of **SECTION III – PHYSICAL DAMAGE COVERAGE**:

We will pay up to $50 per day to a maximum of $1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

J. PERSONAL PROPERTY

The following is added to Paragraph **A.4.**, **Coverage Extensions**, of **SECTION III – PHYSICAL DAMAGE COVERAGE**:

Personal Property

We will pay up to $400 for "loss" to wearing apparel and other personal property which is:

(1) Owned by an "insured"; and

(2) In or on your covered "auto".

This coverage applies only in the event of a total theft of your covered "auto".

No deductibles apply to this Personal Property coverage.

K. AIRBAGS

The following is added to Paragraph **B.3.**, **Exclusions**, of **SECTION III – PHYSICAL DAMAGE COVERAGE**:

Exclusion **3.a.** does not apply to "loss" to one or more airbags in a covered "auto" you own that inflate due to a cause other than a cause of "loss" set forth in Paragraphs **A.1.b.** and **A.1.c.**, but only:

a. If that "auto" is a covered "auto" for Comprehensive Coverage under this policy;

b. The airbags are not covered under any warranty; and

c. The airbags were not intentionally inflated.

We will pay up to a maximum of $1,000 for any one "loss".

L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS

The following is added to Paragraph **A.2.a.**, of **SECTION IV – BUSINESS AUTO CONDITIONS**:

Your duty to give us or our authorized representative prompt notice of the "accident" or "loss" applies only when the "accident" or "loss" is known to:

(a) You (if you are an individual);

(b) A partner (if you are a partnership);

(c) A member (if you are a limited liability company);

(d) An executive officer, director or insurance manager (if you are a corporation or other organization); or

(e) Any "employee" authorized by you to give notice of the "accident" or "loss".

M. BLANKET WAIVER OF SUBROGATION

The following replaces Paragraph **A.5.**, **Transfer Of Rights Of Recovery Against Others To Us**, of **SECTION IV – BUSINESS AUTO CONDITIONS** :

5. Transfer Of Rights Of Recovery Against Others To Us

We waive any right of recovery we may have against any person or organization to the extent required of you by a written contract signed and executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by

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such contract. The waiver applies only to the person or organization designated in such contract.

N. UNINTENTIONAL ERRORS OR OMISSIONS

The following is added to Paragraph **B.2.**, **Concealment, Misrepresentation, Or Fraud**, of **SECTION IV – BUSINESS AUTO CONDITIONS**:

The unintentional omission of, or unintentional error in, any information given by you shall not prejudice your rights under this insurance. However this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.

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TRAVELERS
ONE TOWER SQUARE
HARTFORD CT 06183

**WORKERS COMPENSATION
AND
EMPLOYERS LIABILITY POLICY**

ENDORSEMENT WC 00 03 13 (00) - 001

POLICY NUMBER: **UB-6T346569-22-I3-G**

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

SCHEDULE

DESIGNATED PERSON:

DESIGNATED ORGANIZATION:

ANY PERSON OR ORGANIZATION FOR WHICH THE INSURED HAS AGREED BY WRITTEN CONTRACT EXECUTED PRIOR TO LOSS TO FURNISH THIS WAIVER.

Any person or organization for which the employer has agreed by written contract, executed prior to loss, may execute a waiver of subrogation. However, for purposes of work performed by the employer in Missouri, this waiver of subrogation does not apply to any construction group of classifications as designated by the waiver of right to recover from others (subrogation) rule in our manual.

TRAVELERS
ONE TOWER SQUARE
HARTFORD CT 06183

WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 99 03 76 (A) - 001

POLICY NUMBER: UB-6T346569-22-I3-G

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT – CALIFORNIA (BLANKET WAIVER)

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule.

The additional premium for this endorsement shall be 2.00 % of the California workers' compensation premium.

Schedule

Person or Organization	Job Description
ANY PERSON OR ORGANIZATION FOR WHICH THE INSURED HAS AGREED BY WRITTEN CONTRACT EXECUTED PRIOR TO LOSS TO FURNISH THIS WAIVER.	

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective Policy No. Endorsement No.
Insured Premium

Insurance Company Countersigned by _____

DATE OF ISSUE: 08-24-22 **ST ASSIGN:**

TRAVELERS

ONE TOWER SQUARE
HARTFORD CT 06183

WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 42 03 04 (B) – 001

POLICY NUMBER: **UB-6T346569-22-I3-G**

TEXAS WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because Texas is shown in Item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule, but this waiver applies only with respect to bodily injury arising out of the operations described in the Schedule where you are required by a written contract to obtain this waiver from us.

This endorsement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

The premium for this endorsement is shown in the Schedule.

1. ☐ Specific Waiver

☒ Blanket Waiver
Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations:

ALL TEXAS OPERATIONS

3. Premium:

The premium charge for this endorsement shall be **2.00** percent of the premium developed on payroll in connection with work performed for the above person(s) or organization(s) arising out of the operations described..

4. Advance Premium: $ **SEE SCHEDULE**

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective Policy No. Endorsement No.
Insured Premium

Insurance Company Countersigned by_____

DATE OF ISSUE: **08-24-22** ST ASSIGN:

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TRAVELERS
ONE TOWER SQUARE
HARTFORD CT 06183

WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 43 03 05 (00) - 001

POLICY NUMBER: **UB-6T346569-22-I3-G**

UTAH WAIVER OF SUBROGATION ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because Utah is shown in Item 3.A.of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule. Our waiver of rights does not release your employees' rights against third parties and does not release our authority as trustee of claims against third parties.

Schedule

Designated Person:

Designated Organization:

ANY PERSON OR ORGANIZATION FOR WHICH THE INSURED HAS AGREED BY WRITTEN CONTRACT EXECUTED PRIOR TO LOSS TO FURNISH THIS WAIVER.

TRAVELERS

ONE TOWER SQUARE
HARTFORD CT 06183

WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 99 03 J9 (00) - 001

POLICY NUMBER: UB-6T346569-22-I3-G

KANSAS WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because Kansas is shown in Item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us, and

1. Such written contract is not a construction contract subject to the Kansas Fairness in Private Construction Contract Act (Kan. Stat. Sections 16-1801 through 16-1807) or the Kansas Fairness in Public Construction Contract Act (Kan. Stat. Sections 16-1901 through 16-1908), or any amendments to those laws; or

2. This policy is part of a consolidated or wrap-up insurance program.

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

SCHEDULE

DESIGNATED PERSON:

DESIGNATED ORGANIZATION:

ANY PERSON OR ORGANIZATION FOR WHICH THE INSURED HAS AGREED BY WRITTEN CONTRACT EXECUTED PRIOR TO LOSS TO FURNISH THIS WAIVER.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to issuance of the policy.)

Endorsement Effective Policy No. Endorsement No.

Insured Premium $

Insurance Company Countersigned by _____

DATE OF ISSUE 08-24-22 ST ASSIGN

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POLICY NUMBER: CUP-6T386924-22-I3

UMBRELLA
ISSUE DATE: 08/24/2022

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

SCHEDULE OF UNDERLYING INSURANCE

This endorsement modifies insurance provided under the following:

EXCESS FOLLOW-FORM AND UMBRELLA LIABILITY INSURANCE

Employee Benefits Liability

Carrier **TRAVELERS PROPERTY CASUALTY COMPANY OF AMERICA**

Policy Number **630-6T343807-22**

Policy Period

From: **08/23/2022**

to: **08/23/2023**

Limits Of Liability	
Each Employee	**$1,000,000**
Aggregate	**$3,000,000**

Commercial General Liability

Carrier **TRAVELERS PROPERTY CASUALTY COMPANY OF AMERICA**

Policy Number **630-6T343807-22**

Policy Period

From: **08/23/2022**

to: **08/23/2023**

Limits Of Liability	
General Aggregate	**$2,000,000**
Products-Completed Operations Aggregate	**$2,000,000**
Personal and Advertising Injury	**$1,000,000**
Each Occurrence	**$1,000,000**

Employers Liability

Carrier **TRAVELERS PROPERTY CASUALTY COMPANY OF AMERICA**

Policy Number **UB-006T346569-22**

Policy Period

From: **08/23/2022**

to: **08/23/2023**

Limits Of Liability	
Bodily Injury By Accident Each Accident	**$1,000,000***
Bodily Injury By Disease Policy Limit	**$1,000,000***
Bodily Injury By Disease Each Employee	**$1,000,000***

*UNLIMITED IN THE STATE OF NEW YORK FOR SUBJECT EMPLOYEES

PRODUCER:**THE COMPLETE INS SOURCE** OFFICE:**ATLANTA GA 005**

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POLICY NUMBER: CUP-6T386924-22-I3

UMBRELLA
ISSUE DATE: 08/24/2022

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

SCHEDULE OF UNDERLYING INSURANCE

This endorsement modifies insurance provided under the following:

EXCESS FOLLOW-FORM AND UMBRELLA LIABILITY INSURANCE

Automobile Liability	**Limits Of Liability**	
Carrier **THE CHARTER OAK FIRE INSURANCE COMPANY**	**Bodily Injury And Property Damage Combined Single Limit**	**$1,000,000**

Policy Number **810-006T343696-22**

Policy Period

From: **08/23/2022**

to: **08/23/2023**

	Limits Of Liability
Carrier	

Policy Number

Policy Period

From:

to:

	Limits Of Liability
Carrier	

Policy Number

Policy Period

From:

to:

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flock safety

What is Flock Safety?

Flock Safety is a public safety operating system that helps communities and law enforcement in 1200+ cities work together to eliminate crime, protect privacy, and mitigate bias. We build devices that capture objective evidence and use machine learning to detect, decode, and deliver unbiased investigative leads to law enforcement. Our proprietary devices are solar powered, utilize cloud-based software, infrastructure free, and above all, assist in reducing crime.

Frequently Asked Issues for Legal

- Flock Safety provides crime-fighting technology (cameras + software) under a service subscription model.
- Flock Safety's subscription service is a flat annual fee. Flock Safety's services include the ALPR camera hardware, hardware maintenance, ALPR software, software updates, unlimited users, 30 days unlimited data storage, LTE connectivity, solar panels, poles, mounting equipment, and monitoring.
- Flock Safety works together with the Agency to select the most ideal locations for cameras (sunlight, efficiency, LTE availability, impact).
- Flock Safety will assist the Agency in obtaining any permits or additional licenses needed to install the cameras in public roadways.If a camera suffers from a manufacturer defect, Flock will replace the camera at no additional cost. If a camera is lost, stolen, vandalized, or damaged, the Agency will be responsible for replacement.

Clarifications of Definitions/Clauses in the Agreement

- An example of a “Non-Agency User” would be Flock Safety’s private customer (HOA, Shopping Center, Apartment Complex, etc.) These “Non-Agency Users” can choose to share their data with local law enforcement.
- “Aggregate Data” is the small fraction (<1%) of anonymously compiled data from Flock cameras that have been stripped of any metadata, which is used for product enhancements to teach our software how to find specific types of vehicles, objects, descriptions (“machine learning”) and is never sold to third parties.
- “Special Terms” is a section on the front Order Form of the agreement where parties can make a mutually agreed upon change to the agreement without the need of altering the master agreement.
- The “No-Fee Term” refers to the complimentary access that we provide to Agencies, which includes ‘Hot-List’ alerts. Agencies will have free access to this feature whether or not they purchase any cameras. As such, Flock limits liability in regards to the “No-Fee Term” since it is provided at no cost.

How Does Flock Safety Protect Privacy?

Flock Safety understands the concerns with technology capturing any public information, and we built the technology to protect people and equitably promote public safety. Here's how:

- We focus on objective evidence: vehicles and license plates. We capture car features (make, model, color, license plate, state of the plate, timestamp) and do not record any personally identifiable information such as names, addresses, or phone numbers.
- We do not use facial recognition technology of any kind.
- Agencies completely own their data. Flock Safety does not sell the data to any third parties.
- Since the Agency owns their data, a limited license grant is required for Flock Safety to use the data; however, this use is strictly limited to that which is necessary for Flock Safety to provide services.
- Criminal Justice Information Services ("CJIS") footage is stored, secured, and encrypted in AWS Government Cloud and automatically deleted every thirty (30) days on a rolling basis. Our Privacy Policy can be found at https://www.flocksafety.com/privacy-policy/
- Flock Safety cameras take photos, and there is no live feed. Flock Safety does not monitor the system and it is not used for the purpose of surveillance.
- Flock Safety does not work in any capacity for traffic enforcement, unpaid fines, or speeding violations, nor do we work with any type of immigration services.
- Flock Safety provides an audit trail of searches for accountability purposes.

Contact Information Flock Safety

For any questions or concerns regarding the Agreement, please contact:

Mike Molina, Esq.
Counsel
Michael.Molina@FlockSafety.com

Automated License Plate Readers (ALPRs)

470.1 PURPOSE AND SCOPE

Best Practice

The purpose of this policy is to provide guidance for the capture, storage and use of digital data obtained through the use of Automated License Plate Reader (ALPR) technology.

470.2 POLICY

Best Practice

The policy of the Oroville Police Department is to utilize ALPR technology to capture and store digital license plate data and images while recognizing the established privacy rights of the public.

All data and images gathered by the ALPR are for the official use of this department. Because such data may contain confidential information, it is not open to public review.

470.3 ADMINISTRATION

Best Practice

The ALPR technology, also known as License Plate Recognition (LPR), allows for the automated detection of license plates. It is used by the Oroville Police Department to convert data associated with vehicle license plates for official law enforcement purposes, including identifying stolen or wanted vehicles, stolen license plates and missing persons. It may also be used to gather information related to active warrants, homeland security, electronic surveillance, suspect interdiction and stolen property recovery.

All installation and maintenance of ALPR equipment, as well as ALPR data retention and access, shall be managed by the Administration Assistant Chief. The Administration Assistant Chief will assign members under his/her command to administer the day-to-day operation of the ALPR equipment and data.

470.3.1 ALPR ADMINISTRATOR

State

The Administration Assistant Chief shall be responsible for developing guidelines and procedures to comply with the requirements of Civil Code § 1798.90.5 et seq. This includes, but is not limited to (Civil Code § 1798.90.51; Civil Code § 1798.90.53):

(a) A description of the job title or other designation of the members and independent contractors who are authorized to use or access the ALPR system or to collect ALPR information.

(b) Training requirements for authorized users.

(c) A description of how the ALPR system will be monitored to ensure the security of the information and compliance with applicable privacy laws.

(d) Procedures for system operators to maintain records of access in compliance with Civil Code § 1798.90.52.

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(e) The title and name of the current designee in overseeing the ALPR operation.

(f) Working with the Custodian of Records on the retention and destruction of ALPR data.

(g) Ensuring this policy and related procedures are conspicuously posted on the department's website.

470.4 OPERATIONS

State

Use of an ALPR is restricted to the purposes outlined below. Department members shall not use, or allow others to use the equipment or database records for any unauthorized purpose (Civil Code § 1798.90.51; Civil Code § 1798.90.53).

(a) An ALPR shall only be used for official law enforcement business.

(b) An ALPR may be used in conjunction with any routine patrol operation or criminal investigation. Reasonable suspicion or probable cause is not required before using an ALPR.

(c) While an ALPR may be used to canvass license plates around any crime scene, particular consideration should be given to using ALPR-equipped cars to canvass areas around homicides, shootings and other major incidents. Partial license plates reported during major crimes should be entered into the ALPR system in an attempt to identify suspect vehicles.

(d) No member of this department shall operate ALPR equipment or access ALPR data without first completing department-approved training.

(e) No ALPR operator may access department, state or federal data unless otherwise authorized to do so.

(f) If practicable, the officer should verify an ALPR response through the California Law Enforcement Telecommunications System (CLETS) before taking enforcement action that is based solely on an ALPR alert.

470.5 DATA COLLECTION AND RETENTION

Best Practice

The Administration Assistant Chief is responsible for ensuring systems and processes are in place for the proper collection and retention of ALPR data. Data will be transferred from vehicles to the designated storage in accordance with department procedures.

All ALPR data downloaded to the server should be stored for a minimum of one year (Government Code § 34090.6) and in accordance with the established records retention schedule. Thereafter, ALPR data should be purged unless it has become, or it is reasonable to believe it will become, evidence in a criminal or civil action or is subject to a discovery request or other lawful action to produce records. In those circumstances the applicable data should be downloaded from the server onto portable media and booked into evidence.

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470.6 ACCOUNTABILITY

State

All data will be closely safeguarded and protected by both procedural and technological means. The Oroville Police Department will observe the following safeguards regarding access to and use of stored data (Civil Code § 1798.90.51; Civil Code § 1798.90.53):

(a) All ALPR data downloaded to the mobile workstation and in storage shall be accessible only through a login/password-protected system capable of documenting all access of information by name, date and time (Civil Code § 1798.90.52).

(b) Members approved to access ALPR data under these guidelines are permitted to access the data for legitimate law enforcement purposes only, such as when the data relate to a specific criminal investigation or department-related civil or administrative action.

(c) ALPR system audits should be conducted on a regular basis.

For security or data breaches, see the Records Release and Maintenance Policy.

470.7 RELEASING ALPR DATA

Best Practice

The ALPR data may be shared only with other law enforcement or prosecutorial agencies for official law enforcement purposes or as otherwise permitted by law, using the following procedures:

(a) The agency makes a written request for the ALPR data that includes:

1. The name of the agency.
2. The name of the person requesting.
3. The intended purpose of obtaining the information.

(b) The request is reviewed by the Administration Assistant Chief or the authorized designee and approved before the request is fulfilled.

(c) The approved request is retained on file.

Requests for ALPR data by non-law enforcement or non-prosecutorial agencies will be processed as provided in the Records Maintenance and Release Policy (Civil Code § 1798.90.55).

470.8 TRAINING

State

The Training Sergeant should ensure that members receive department-approved training for those authorized to use or access the ALPR system (Civil Code § 1798.90.51; Civil Code § 1798.90.53).

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CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **DAWN NEVERS, ASSISTANT COMMUNITY DEVELOPMENT DIRECTOR**

RE: **AUTHORIZATION TO PURCHASE (1) SALSCO TP-44 MINI-ASPHALT PAVER**

DATE: **APRIL 18, 2023**

SUMMARY

At the request of Council Member Johnstone and Council Member Webber, the Council may consider and approve the purchase of (1) Salsco TP-44 Mini-Asphalt Paver to aid the efficiency of repairs and repaving in the amount of $69,465.25 and the surplus of a 1988 Mauldin paver.

DISCUSSION

Staff requests approval of the above expenditure and budget adjustment for a “Mini-Asphalt Paver” to aid in efficient repairs and repaving of city streets.

Staff is requesting councils’ approval to surplus the 1988 Mauldin paver that is owned and currently not used due to the cost of repairs for the machine that far exceed the value. In addition, many parts needed for this paver are not available.

With an increased need for street repairs and with enough staff to operate the paver, staff is requesting Council’s consideration of this purchase. This item was not budgeted for the 2022/23 fiscal year, however, with summer months coming and the growing costs of machinery, labor, and freight, staff believe it is important to not delay the purchase so it can be received and utilized towards the end of this summer. The current build time is ninety plus days.

With street repairs being a council priority, staff agree the community can begin to see benefits as soon as Fall 2023. The Salsco TP-44 Mini-Asphalt Paver is designed for service and maintenance jobs with a 6” to 7’ paving width for increased productivity and efficiency. Staff anticipates twenty to thirty days of use in a paving season.

FISCAL IMPACT

Funding is available with a budget adjustment to the 2022/23 Capital Asset Replacement budget in the amount of $63,150.23 with a 10% contingency, for a total of $69,465.25.

RECOMMENDATION

Authorize staff to purchase (1) Salsco TP-44 Mini Asphalt Paver and surplus the 1988 Mauldin Paving Machine and send to the next surplus auction.

ATTACHMENTS

Quote from Salsco
Track Paver Specification sheet

Salsco, INC.
LEADER BY DESIGN
MADE IN THE U.S.A.

105 School House Rd.
Cheshire, CT 06410

Phone #: 832-745-2360
Fax #: 203-271-2596
Toll Free #: 800-872-5726
Web Site: www.salsco.com
Prepared By: Brandon cole
Email: b.cole@salsco.com

EQUIPMENT QUOTATION
Quote #:23-0010BC
Quote Good Through: 05/01/23

Bill To:	City Of Oroville Public Works Dept	**Date:**	**3/29/2023**	
Contact:	Bryan Downer			
Address:	1735 Montgomery Street			
City:	Oroville	**ST: CA**	**ZIP:**	**95965**
Phone #:	530-990-0246	**Fax #:**		
Email:	bdowner@cityoforoville.org	**Cell #:**		
Ship To:	**Same**			

QTY.	ITEM #	ITEM DESCRIPTION	UNIT PRICE	List PRICE
1	0005029-N	Salsco Mini-Asphalt Paver TP44		$51,967.00
2	0261413-O	Loading Doors 84"	$373.00	$746.00
2	0161367-O	6" Screed Extensions (Gets you out to 7')	$432.00	$864.00
1	0222233-N	Cut off Doors		$182.00
1	0161430-O	Heated Screed		$1,662.00
			Subtotal	$55,421.00
			Sales Tax	$4,572.23
		Freight, Set Up, and Delivery		$3,157.00
		TOTAL ORDER AMOUNT		$63,150.23
NOTE: IF FREIGHT IS QUOTED, IT WILL BE RE-QUOTED AT ACTUAL TIME OF SHIPPING				

I have read and accepted the above quotation and hereby authorize Salsco, Inc. to release the order as written above.

Signature _____ P.O. # _____ Date: _____

INCREMENTAL PAYMENT AMOUNTS				
DEP	20%	Due with Order	$11,084.20	Cash
BAL	80%	Due when ready to ship, including freight & applicable tax.	$52,066.03	US Dollars

Mini-Track Paver
Model TP44-TD

Salsco, INC.
LEADER BY DESIGN

MADE IN THE U.S.A.

The Go-Anywhere Mini-Asphalt Paver!



Pictured above the TP44-TD is shown with the 6" Screed Extensions Option, and Loading Panels Option.

*** Extra Large Drive Motors for Years of Service!**

*** Designed with Service & Maintenance in Mind!**

*** Clean, Simple, Basic Design!**

*** 0 - 6' Standard Paving Width + Optional Screed Extensions up to 7' Wide!**



Tracks are fixed at 38" to accommodate screed style.

"***My Salsco Track Paver is a great little machine. Its durable manufacturing quality & accessibility to parts, make it an efficient machine to use on all my sidewalk & trench jobs. Also, considering the small crew it takes to run, and its overall ease of operation, I know I'm getting maximum productivity whenever it's on the job."*** **Charlie, Canton, MA**



Hydraulic Tilt Hopper. Hopper easily bolts together. Raise the complete hopper for ease of maintenance.



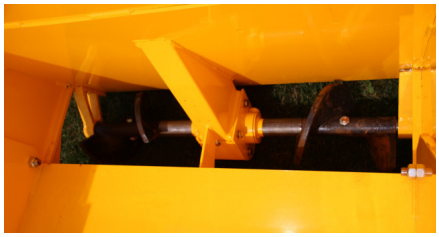
Extra Large Cut Off Door with two (2) Cylinders & Flow Regulators that open the door evenly & smoothly.



Hydraulic End-Gates move in & out, and have rulers on the top of the end gate to see where they are.



All controls are on the rear of the machine, including the Key Switch & Throttle.



Two (2) 9" Cast Augers are independently operated both Forward & Reverse.

MINI-TRACK PAVER, MODEL TP44 - TD SPECIFICATIONS & FEATURES

ENGINE:	14HP Hatz diesel, Model 1D81Z-9221, electric start mounted on 1/2" thick steel plate motor mount.
PUMP:	Dual hydrostatic, variable speed. Each section has a displacement of .97 cu. in.
DRIVE MOTORS:	Two (2) drive motors for tracks - 28.7 Cu.In. Displacement. Two (2) drive motors for augers - 24 cu. in. displacement.
HOSES:	SAE JIC hose ends & fittings. 3,000 P.S.I., working, 12,000 P.S.I., burst.
BATTERY:	12 volt, automotive type, 850 CCA.
FUEL TANK:	Steel, 8.9 gallon capacity.
HYDRAULIC TANK:	Steel, 8 gallon capacity
HOPPER:	Dual hopper, 1/4" thick, steel plate. Inside hopper tilts to 52° angle for ease of dumping material. 1.85 sq. yd. capacity
SCREED:	40" wide, with crown/invert adjustment, power end gates and end gate adjustment plates for uniform texture.
AUGER ASSEMBLIES:	Two (2) 9" cast augers, with independent hydraulic drive, forward and reverse.
DRIVE:	Hydrostatic; variable forward and reverse.
TRACK ASSEMBLIES:	Heavy duty Bridgestone tracks. Tracks are fixed at 38" to accommodate screed style.
CONTROLS:	All controls are located at the rear of the machine over the screed, for ease of operation.
MAIN FRAME:	One (1) piece, 1/4" thick steel main frame. 2" x 2" square tubing supports.
WELDS:	Continuous welds where needed for durability.
GUSSETS:	1/4" gussets where needed for strength.
BEARINGS:	Cast iron, heavy duty, greaseable.
CHAINS & SPROCKETS:	#80 chain and sprockets.
PAVING SPEED:	0 - 50' +, per minute.
PAVING WIDTH:	24" to 72".
PAVING THICKNESS:	1/4" - 5".
OPTIONS:	6" Screed Extensions; Hopper Panel Extensions; Cut-Off Plates.
GUARDS/DECALS:	All moving parts guarded. Full set of safety decals.
PAINT:	Powder coat baked enamel polyester finish; resists ultraviolet light. Safety yellow.
DIMENSIONS:	Length: 9' 4" (with step up), Width: 3'8", Height: 3' 11" (from the ground to the top of hopper). Weight: 4,400 lbs. (Approximately)
WARRANTY:	1-year standard warranty

Specifications & Options Subject to Change Without Notice

REV. 10-12-2020

MANUFACTURER OF OUTDOOR POWER EQUIPMENT

Products for Turf & Lawncare, Rental, Construction, Tree Care, Wood Processing, Nursery & Farm Industries

3-1/2" - 18" Capacity, Gas, Diesel, & PTO Wood/Brush Chippers - Slab Chippers
Gas, Electric & Tow Behind Rollers - Tranz-Former Roller - CRV Core Recovery Vehicle
Mini-Paver - Mini-Track Paver - Cobra Curbers - Scorpion Router - Concrete Paver
Chipper Shredder Vacuums - Tailgate & Truckloader Vacuums
9 cu. yds. - 50 cu. yds. Per Hour, Electric, PTO & Diesel Powered Shaving Mills

Salsco, INC.
LEADER BY DESIGN

105 Schoolhouse Road
Cheshire, CT 06410 U.S.A.
800-872-5726 (Toll Free), 203-271-1682, 203-271-2596 (Fax)
www.salsco.com, sales@salsco.com

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **CHRIS TENNS, CALFIRE ASSISTANT CHIEF OROVILLE CITY DIVISION**

RE: **REVIEW OF LEASE AND PURCHASE OPTIONS FOR A TYPE 1 FIRE ENGINE**

DATE: **APRIL 18, 2023**

SUMMARY

At the request of Council Member Riggs and Council Member Thomson, the Council will review lease and purchase options for one new Pierce Type 1 Fire Engine for Oroville Fire Department.

DISCUSSION

During the April 4, 2023 Council Meeting, Council requested staff to add to the next Council agenda a possible lease option with Community Leasing Partners for a future purchase of one new Pierce Fire Engine in the amount of $962,841.41. There would be an additional cost of approximately $300,000 to purchase equipment to properly outfit the new engine with the appropriate tools and equipment for staff. This price quote is valid through April 28, 2023. Effective May 1, 2023, the costs for these engines will be going up by approximately 1.5% (additional quote provided at $975,234.40, and this quote is valid through June 15, 2023).

The lease to purchase program offers three different term options: 7-years at 4.85% interest rate; 10-years at 4.89% interest rate; and 15-years at 5.09% interest rate. There are no documentation or closing fees associated with this proposal. The quoted interest rate for the lease options are valid through April 21, 2023. This proposal has been prepared assuming the lessee is bank qualified and that the proposed lease qualifies for Federal Income Tax Exempt status for the lessor under Section 103 of the IRS code.

The city owns and maintains a fleet of three Type 1 fire engines for emergency response (two primary engines and one reserve). Oroville City Engines are housed and respond from one city fire station (Fire Station 91). The one reserve engine was custom designed for the City of Oroville Fire Department and built in 2002. Maintenance costs over the last two years for the two primary Type 1 engines as been approximately $84,000. The fire department needs to maintain a minimum of three Type 1 fire engines in its fleet, two of which are staffed daily and one in reserve. Older engines are kept in reserve status to be made available when one of the primary fire engines are out of service or for routine or required maintenance. Reserve engines can also be used in the event one of the primary engines is committed to a large fire within or out of the County or if there was a need for additional engines to be staffed locally due to a heightened threat of fire. The requested fire engine will replace a 2002 fire engine that is 21

years old and housed at Station 91. While the 2002 engine has served the city well, it is showing signs of wear. The problem is exacerbated given that replacement parts are becoming increasingly difficult to locate. It is noted that typically, frontline service for an engine is 15 years. After 15 years, engines are often placed in reserve status for an additional 5 years, for approximately 20-year service life. Engine 93 currently serves as a reserve engine and has been in reserve status since 2009. The new fire engine would serve as the frontline engine and one of the existing frontline fire engines would be moved into reserve status. Wait time for completion of a new engine are in excess of two years.

Alternatively to this lease to purchase option, staff Could issue a request for proposals based on the build sheet of the Type 1, to determine the if there are other viable options available to consider.

FISCAL IMPACT

There are three lease options to consider as well as a one-time purchase. If the city were to proceed with a purchase, there would either be annual lease costs associated with the engine, or there would be a one time expenditure of $962,841.41.

RECOMMENDATION

Provide staff direction.

ATTACHMENTS

Engine Specification Sheet
Purchase quotes (through April 28, 2023 and through June 15, 2023)
Community Leasing Partners quotes (through April 21, 2023)
Spreadsheet of repairs expenses for Engines 91, 92, 93 and Truck 91

E91

	2020	2021	2022	2023
JANUARY	$206.88	$1,590.88	$6,479.24	$813.01
FEBRUARY	$2,160.26		$1,782.51	$1,037.98
MARCH	$45.53	$232.18	$4,357.13	
APRIL	$2,836.72	$78.60	$195.16	
MAY	$166.49	$51.54	$686.54	
JUNE	$938.48	$460.07		
JULY	$229.95	$780.55	$3,751.57	
AUGUST	$2,511.93		$3,168.75	
SEPTEMBER	$1,314.08	$1,892.95	$1,095.09	
OCTOBER	$63.14	$6,188.44	$388.75	
NOVEMBER	$700.27	$5,850.18	$375.68	
DECEMBER	$1,479.78	$768.21	$20,138.56	
TOTAL	$12,653.51	$17,893.60	$42,418.98	$1,850.99
COMBINED TOTAL			$74,817.08	

E92

	2020	2021	2022	2023
JANUARY				
FEBRUARY		$43.09	$2,434.80	
MARCH		$2,127.59	$937.70	$770.15
APRIL	$55,869.65			
MAY	$473.27	$355.33	$673.99	
JUNE	$407.58	$3,821.29		
JULY	$259.62			
AUGUST	$6,813.79	$2,307.87	$2,811.94	
SEPTEMBER	$857.96	$186.18	$3,017.65	
OCTOBER	$365.37	$4,017.07		
NOVEMBER	$194.76	$59.36	$586.03	
DECEMBER	$65.58	$119.21	$240.48	
TOTAL	$65,307.58	$13,036.99	$10,702.59	$770.15
COMBINED TOTAL			$89,817.31	

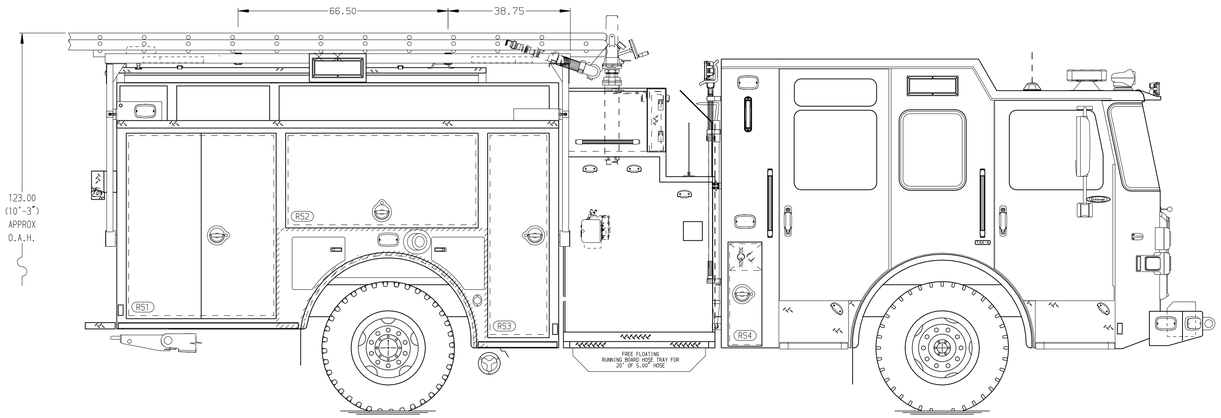
E93

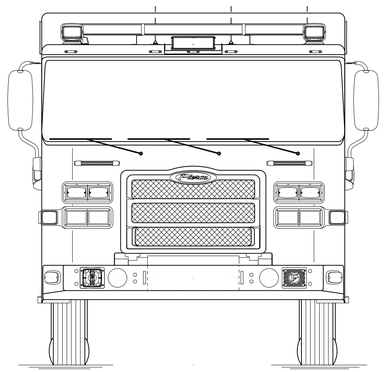
	2020	2021	2022	2023
JANUARY	$176.28	$2,012.71		
FEBRUARY		$951.97		
MARCH	$1,453.16	$240.02		
APRIL	$125.61			
MAY				
JUNE		$465.00		
JULY	$427.66			
AUGUST			$124.79	
SEPTEMBER	$523.17	$1,832.53	$2,785.14	
OCTOBER		$1,315.21	$1,695.64	
NOVEMBER	-$80.57	$152.39	$208.08	
DECEMBER				
TOTAL	$2,625.31	$6,969.83	$4,813.65	$0.00
COMBINED TOTAL			$14,408.79	

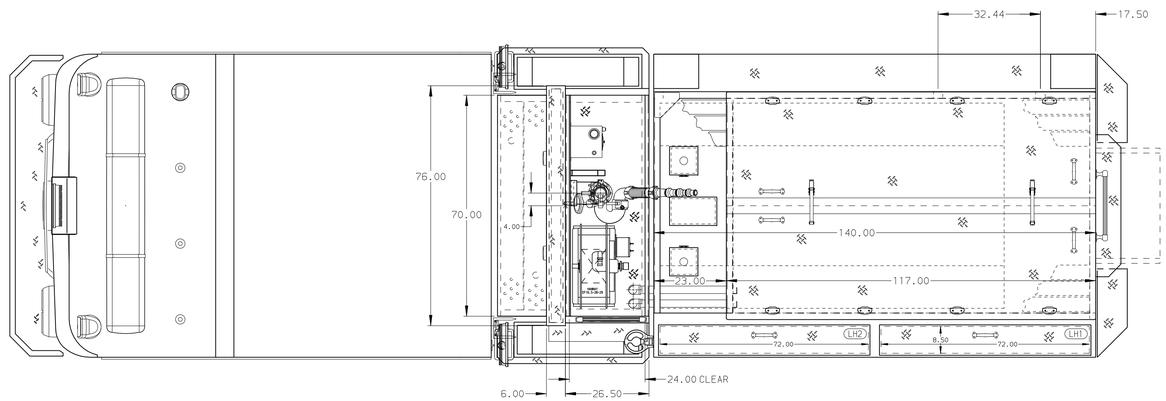
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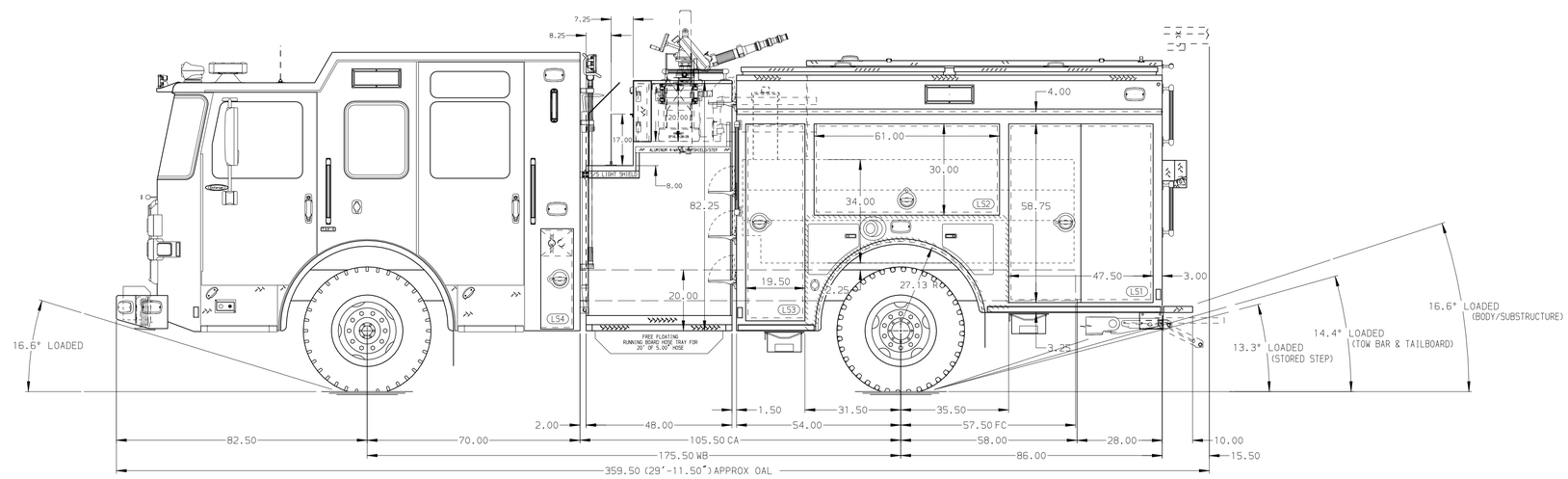
	2020	2021	2022	2023
JANUARY	$287.51	$1,747.75	$1,169.37	$2,853.47
FEBRUARY	$707.91	$1,232.97	$2,807.28	$1,194.10
MARCH	$162.31	$4,023.14	$993.02	
APRIL	$1,145.52	$447.08	$131.97	
MAY		$29.72	$687.38	
JUNE		$125.80	$1,154.12	
JULY		$3,329.37	$1,953.82	
AUGUST		$527.67	$559.68	
SEPTEMBER	$102.27	$79.02	$107.37	
OCTOBER		$45.82	$3,028.67	
NOVEMBER	$225.17	$1,685.57	$346.17	
DECEMBER	$1,468.84	$1,155.48	$876.60	
TOTAL	$4,099.53	$14,429.39	$13,815.45	$4,047.57
COMBINED TOTAL			$36,391.94	

ALL VEHICLE TOTALS	$215,435.12





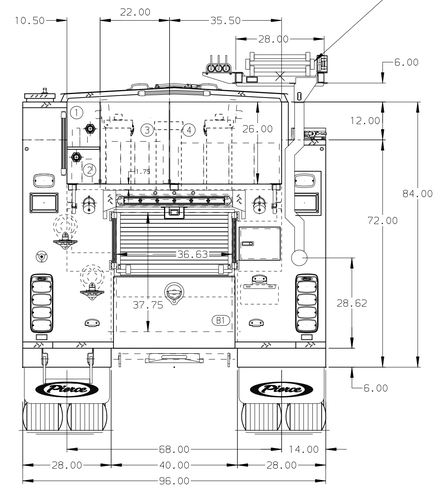


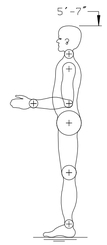


HOSEBED CAPACITIES

1. 200' OF 1.50" WILDLAND HOSE
2. 200' OF 1.75" DJP HOSE
3. 600' OF 2.50" DJP HOSE
4. 600' OF 5.00" DJP HOSE

DUO-SAFETY LADDERS:
(1) 24' 2 SECTION 900A
(1) 14' ROOF 775A
(1) 10' FOLDING 585A
(1) 10' NUPLA YPD-10 PIKE POLE
(1) 8' NUPLA YPD-8 PIKE POLE
(1) 6' NUPLA YPD-6 PIKE POLE





GALVANNEAL

MAXIMUM O.A.H. 118.00"

NOTE

DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MINOR DEVIATIONS AS MAY OCCUR OR BE NECESSARY IN CONSTRUCTION.
MINOR DETAILS NOT SHOWN.

CUSTOMER APPROVAL

APPROVED BY: _____

DATE: _____

REV	DATE	BY	CH
V	03FEB23	CKN	AMI

CHASSIS DATA
MAKE: PIERCE
MODEL: ENFORCER

Pierce MANUFACTURING INC.

TITLE: 1500-D-640P, 600G WATER W/20G & 20G FOAM, 140" BODY (2) CROSSLAYS, HYDRAULIC LADDER RACK, DELUGE

FOR: CITY OF OROVILLE BID# 785
GOLDEN STATE FIRE APPARATUS INC BRAD HANSEN

DWG NO. 70242

JOB NO.	PRELIM
SCALE	DATE
1:24	
DRAWN BY	20JAN23
SAM	
CHECKED BY	20JAN23
CKN	
SHEET SIZE	SHEET NO.
D	1 OF 1

COMMUNITY LEASING PARTNERS

Phone: 888.777.7850
Fax: 888.777.7875
Cell: 785.313.3154
215 S. Seth Child Road
Manhattan, KS 66502
www.clpusa.net

April 11, 2023

Customer Name: **Oroville, CA**
Isaac Ruiz, BC

Equipment: One Pierce Engine
Sales Representative: Brad Hansen @ Golden State Fire Apparatus
Delivery: Estimated 3 years

Community Leasing Partners, a Division of *Community First National Bank*, is pleased to present the following financing options for your review and consideration.

Option 1

Total Cost:	$ 962,841.41		Payment Frequency:	Annual
Down Payment:	$ -		First Payment:	August 1, 2024
Amount Financed:	**$ 962,841.41**			

Term in Years:	7	10	15
Payment:	$167,795.11	$125,771.44	$94,899.50
Factor:	0.174271	0.130625	0.098562
Interest Rate:	4.85%	4.89%	5.12%

- **THERE ARE NO DOCUMENTATION OR CLOSING FEES ASSOCIATED WITH THIS PROPOSAL.**
- Interest rates are fixed for terms up to 10 years. For terms greater than 10 years, upon receipt of the 7th payment, at sole discretion of the Lessor, the remaining payments can be adjusted based on an index determined at contract issuance and then will remain fixed for the remaining term.
- The quoted interest rate is valid for 10-days from the date of the proposal. To lock in the interest rate, a credit submission would be required, and a credit approval attained within the same 10-day period. This financing is to be executed & funded within 30 days of the date of the proposal or Lessor reserves the right to adjust the interest rate. The proposal is subject to credit review and approval and mutually acceptable documentation.
- This proposal has been prepared assuming the lessee is bank qualified and that the proposed lease qualifies for Federal Income Tax Exempt Status for the Lessor under Section 103 of the IRS Code.

Thank you for allowing Community Leasing Partners the opportunity to provide this proposal. If you have any questions regarding the options presented, need additional options, or would like to proceed with a financing, please contact me at 1-888-777-7850.

Respectively,

Blake J. Kaus
Vice President & Director of Leasing
blakekaus@clpusa.net

GOLDEN STATE
FIRE APPARATUS

PREPARED ESPECIALLY FOR:

OROVILLE FIRE DEPARTMENT

One (1) Pierce Manufacturing, Inc.
Enforcer 1500 GPM Pumper

Pierce
HGACBuy
THE SMART PURCHASING SOLUTION

TABLE OF CONTENTS

1 Product Proposal (Exhibit A)

2 Purchasing Terms and Conditions (Exhibit B)

3 Product Specifications (Exhibit C)

4 Product Warranties (Exhibit D)

5 Dealer Supplied Products and/or Services (Exhibit E)

1 PRODUCT PROPOSAL

Exhibit "A"

OPTION A

100% Pre-Payment

This will be the price of the Product(s) contingent upon the Customer paying the Grand Total Purchase Price to GSFA pursuant to the Payment Terms in “Exhibit A”

Please note this discount is also available contingent upon a Third Party (Leasing Company) paying 100% of the Grand Total Purchase Price on behalf of the Customer pursuant to the Payment Terms in “Exhibit A”

IF YOU ELECT THIS OPTION, IT RESULTS IN A SAVINGS OF $73,278.09 OFF OF THE GRAND TOTAL OF OPTION B

GOLDEN STATE
FIRE APPARATUS

7400 Reese Road
Sacramento, CA 95828
Phone (916) 330-1638
www.goldenstatefire.com

PRODUCT PROPOSAL FOR:	SHIP TO:	SALES CONSULTANT
Oroville Fire Department 2055 W Lincoln Street Oroville, CA 95966	SAME	Brad Hansen brad@goldenstatefire.com Mobile: (916) 869-6072

SUBMITTED DATE	EXPIRATION DATE	GSFA PROPOSAL #	MANUFACTURER BID #	MANUFACTURER	CONSORTIUM
03/28/2023	04/28/2023	10328-23A	785	Pierce Manufacturing, Inc.	HGAC Contract FS12-19, Product Code FS19VC07

Golden State Fire Apparatus, Inc. ("**GSFA**") is pleased to provide this proposal for the fire apparatus(es) and equipment identified below (the "**Product**") to OROVILLE FIRE DEPARTMENT ("**Customer**") for consideration. This proposal (this "**Product Proposal**") includes the following exhibits attached hereto: Product Proposal as Exhibit A; the Standard Terms and Conditions attached as Exhibit B (the "**Terms and Conditions**"); the Product Specifications attached as Exhibit C (the "**Specifications**"); the Product Warranties attached as Exhibit D; and the Dealer Supplied Products and/or Services attached as Exhibit E (the "**Dealer Supplied Products/Services List**") (all of the foregoing, collectively, the "**Agreement**"). Through its signature below or other Acceptance (as defined on page 2), Customer acknowledges having received and read, and agrees to be bound by, the Agreement. The Agreement shall be effective as of the latest date appearing the signature blocks below (the "**Executed Date**").

Item	Product Description	Unit Price
A	One (1) Pierce Manufacturing, Inc. Enforcer 1500 GPM Pumper	955,113.16
B	*Pre-Payment Discount for 100% Payment at Time of Order (the "Prepayment Discount")*	*(67,556.66)*
C	SUBTOTAL	887,556.50
D	7.25% State Sales Tax	73,223.41
E	California Tire Fee	10.50
F	100% Performance Bond	2,051.00
G	GRAND TOTAL PURCHASE PRICE	962,841.41

PAYMENT TERMS – Customer shall pay the total purchase price set forth directly above (the "**Grand Total Purchase Price**") to GSFA within thirty (30) calendar days of the Executed Date. If payment of the Grand Total Purchase Price is late, a late fee as specified in section 6 of the Terms and Conditions may be applied, and the Prepayment Discount may be adjusted and the Grand Total Purchase Price increased in accordance with section 2.d of the Terms and Conditions. Customer shall pay any balance due as a result of Change Orders to GSFA at the time of GSFA's delivery of the applicable Product to Customer's address listed above (or Customer's pick up of such Product at GSFA's facilities, as applicable and if approved by GSFA).

MANUFACTURER – Customer acknowledges that GSFA is not an agent of the Product manufacturer identified above ("**Manufacturer**") and is not capable of binding Manufacturer. Within five (5) business days of the Executed Date, GSFA shall submit an order form to Manufacturer for the Product. GSFA's further performance under the Agreement is contingent upon Manufacturer's acceptance of such order form at the price and on the terms GSFA believed to be available when submitting this Product Proposal to Customer. If Manufacturer rejects such order as submitted or fails to respond to GSFA within a reasonable amount of time, GSFA shall notify Customer in writing, and unless GSFA and Customer otherwise agree in writing the Agreement shall then terminate and have no further force or effect.

PRODUCT COMPLETION – The Product shall be ready for final inspection by Customer at the manufacturing facility within approximately **38 to 41 MONTHS** after the Executed Date. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PREDELIVERY SERVICE – If applicable, after transportation from the manufacturing facility and prior to final delivery or pick u Product shall receive those additional Products and/or services identified on the Dealer Supplied Products/Services List. It is estimated that such service will add approximately **0.5 to 1 MONTH(S)** to the above Product completion estimate. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PROPOSAL EXPIRATION – This Product Proposal supersedes any previous proposal(s) presented to Customer by GSFA and its employees and may be accepted by Customer on or before the Expiration Date identified above. Unless accepted by the Expiration Date, GSFA reserves the right to withdraw this Product Proposal or to alter its terms (including by providing updated Product pricing) prior to an order being accepted.

PURCHASE ORDER – If the Customer elects to issue a Purchase Order (PO) it shall be made out to: *Golden State Fire Apparatus, Inc. – 7400 Reese Road – Sacramento, CA 95828.*

ACCEPTANCE – ACCEPTANCE OF THIS PROPOSAL CREATES AN ENFORCEABLE BINDING AGREEMENT BETWEEN GSFA AND CUSTOMER. "**ACCEPTANCE**" MEANS THAT THE CUSTOMER DELIVERS TO GSFA: (A) A SIGNED COPY OF THIS PRODUCT PROPOSAL, OR (B) A SIGNED COPY OF A PURCHASE ORDER INCORPORATING THE AGREEMENT IN ITS ENTIRETY. ANY ADDITIONAL OR DIFFERENT TERMS, WHETHER CONTAINED IN CUSTOMER'S FORMS OR OTHERWISE PRESENTED BY CUSTOMER AT ANY TIME, ARE HEREBY REJECTED AND OF NO EFFECT UNLESS APPROVED IN WRITING SIGNED BY GSFA.

COUNTERPARTS - This Product Proposal may be executed in multiple counterparts, each of which shall be deemed an original (including copies sent to a party by electronic transmission) as against the party signing such counterpart, but which together shall constitute one and the same instrument. A signed copy of this Product Proposal delivered by facsimile, email or other means of electronic transmission will be deemed to have the same legal effect as delivery of an original signed copy of this Product Proposal. If this Product Proposal is returned to GSFA with the signature of Customer's authorized representative but without an attestation or co-signers signature, then absent Customer's written notice to the contrary, GSFA shall be entitled to rely on such single signature as sufficient evidence of the signatory's authority to execute the Agreement and bind Customer thereby.

[*Signature Page Follows*]

INTENDING TO CREATE A BINDING AGREEMENT, Customer and GSFA have each caused this Product Proposal to be executed by their duly authorized representatives effective as of the Executed Date.

ACCEPTED AND AGREED TO BY CUSTOMER

AUTHORIZED CUSTOMER REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

ACCEPTED AND AGREED TO BY GSFA

AUTHORIZED GSFA REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

OPTION B

Payment at Time of Delivery or Pickup

This will be the price of the Product(s) contingent upon the Customer paying the Grand Total Purchase Price to GSFA at time of delivery or pickup pursuant to the Payment Terms in “Exhibit A”

GOLDEN STATE
FIRE APPARATUS

7400 Reese Road
Sacramento, CA 95828
Phone (916) 330-1638
www.goldenstatefire.com

PRODUCT PROPOSAL FOR:	SHIP TO:	SALES CONSULTANT
Oroville Fire Department 2055 W Lincoln Street Oroville, CA 95966	SAME	Brad Hansen brad@goldenstatefire.com Mobile: (916) 869-6072

SUBMITTED DATE	EXPIRATION DATE	GSFA PROPOSAL #	MANUFACTURER BID #	MANUFACTURER	CONSORTIUM
03/28/2023	04/28/2023	10328-23B	785	Pierce Manufacturing, Inc.	HGAC Contract FS12-19, Product Code FS19VC07

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Item	Product Description	Unit Price
A	One (1) Pierce Manufacturing, Inc. Enforcer 1500 GPM Pumper	955,113.16
B	7.25% State Sales Tax	78,796.84
C	California Tire Fee	10.50
D	100% Performance Bond	2,199.00
E	GRAND TOTAL PURCHASE PRICE	1,036,119.50

PAYMENT TERMS – Customer shall pay the total purchase price set forth directly above (the "**Grand Total Purchase Price**") (as such amount may be adjusted by Change Order in accordance with the Terms and Conditions) to GSFA at the time of GSFA's delivery of the applicable Product to Customer's address listed above (or Customer's pick up of such Product at GSFA's facilities, if approved by GSFA). GSFA shall have no obligation to deliver or permit pick up of the Product if Customer does not have full payment ready when the Product is complete and ready to deliver or pick up, as applicable.

MANUFACTURER – Customer acknowledges that GSFA is not an agent of the Product manufacturer identified above ("**Manufacturer**") and is not capable of binding Manufacturer. Within five (5) business days of the Executed Date, GSFA shall submit an order form to Manufacturer for the Product. GSFA's further performance under the Agreement is contingent upon Manufacturer's acceptance of such order form at the price and on the terms GSFA believed to be available when submitting this Product Proposal to Customer. If Manufacturer rejects such order as submitted or fails to respond to GSFA within a reasonable amount of time, GSFA shall notify Customer in writing, and unless GSFA and Customer otherwise agree in writing the Agreement shall then terminate and have no further force or effect.

PRODUCT COMPLETION – The Product shall be ready for final inspection by Customer at the manufacturing facility within approximately **38 to 41 MONTHS** after the Executed Date. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PREDELIVERY SERVICE – If applicable, after transportation from the manufacturing facility and prior to final delivery or pick up, the Product shall receive those additional Products and/or services identified on the Dealer Supplied Products/Services List. It is

estimated that such service will add approximately **0.5 to 1 MONTH(S)** to the above Product completion estimate. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PROPOSAL EXPIRATION – This Product Proposal supersedes any previous proposal(s) presented to Customer by GSFA and its employees and may be accepted by Customer on or before the Expiration Date identified above. Unless accepted by the Expiration Date, GSFA reserves the right to withdraw this Product Proposal or to alter its terms (including by providing updated Product pricing) prior to an order being accepted.

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COUNTERPARTS - This Product Proposal may be executed in multiple counterparts, each of which shall be deemed an original (including copies sent to a party by electronic transmission) as against the party signing such counterpart, but which together shall constitute one and the same instrument. A signed copy of this Product Proposal delivered by facsimile, email or other means of electronic transmission will be deemed to have the same legal effect as delivery of an original signed copy of this Product Proposal. If this Product Proposal is returned to GSFA with the signature of Customer's authorized representative but without an attestation or co-signers signature, then absent Customer's written notice to the contrary, GSFA shall be entitled to rely on such single signature as sufficient evidence of the signatory's authority to execute the Agreement and bind Customer thereby.

[*Signature Page Follows*]

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ACCEPTED AND AGREED TO BY CUSTOMER

AUTHORIZED CUSTOMER REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

ACCEPTED AND AGREED TO BY GSFA

AUTHORIZED GSFA REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

2 PURCHASING TERMS AND CONDITIONS

Exhibit "B"

STANDARD TERMS AND CONDITIONS

1. Definitions.

a. "**Agreement**" has the meaning given in the Product Proposal.
b. "**Customer**" means the customer identified in the Product Proposal.
c. "**Dealer Preparation,**" if applicable, means additional product(s) and/or services added by GSFA after Manufacturer's completion of the Product and prior to delivery, in accordance with the Dealer Supplied Products/Services List.
d. "**Dealer Supplied Products/Services List**" means the Dealer Supplied Products and/or Services List attached to the Product Proposal as Exhibit D, which reflects all Dealer Preparation under the Agreement absent a valid Change Order.
e. "**Grand Total Purchase Price**" means the total purchase price for the Product identified in the Product Proposal (subject to any adjustments required or permitted by these Terms and Conditions, including by the execution of a valid Change Order).
f. "**GSFA**" means Golden State Fire Apparatus, Inc., a California corporation.
g. "**Manufacturer**" means the person or persons, company, firm, corporation, partnership, or other organization identified in the Product Proposal as responsible for manufacturing the Product.
h. "**Party**" or "**Parties**" means GSFA and/or Customer, as applicable.
i. "**Prepayment Discount**" means a discount to the purchase price for the Product granted to Customer in connection with Customer's advance payment of the Grand Total Purchase Price (or portion thereof, as specified in the Product Proposal).
j. "**Product**" means the fire apparatus(es) and any associated equipment listed in the Product Proposal and further described in the Specifications.
k. "**Product Proposal**" means the GSFA proposal executed by Customer to which these Terms and Conditions are attached.
l. "**Product Warranties**" means the Manufacturer warranties for the Product attached to the Product Proposal as Exhibit C.
m. "**Specifications**" means the specifications for the Product attached to the Product Proposal as Exhibit B.
n. "**Terms and Conditions**" means these Standard Terms and Conditions, which are attached to the Product Proposal as Exhibit A.

2. Purchase and Payment.

a. Purchase. Customer agrees to purchase the Product at the Grand Total Purchase Price (as such amount may be adjusted in accordance with these Terms and Conditions), pursuant to the payment terms set forth in the Product Proposal. The Grand Total Purchase Price is payable in U.S. dollars.

b. Contingency Reserve Fund. The Grand Total Purchase Price may include an amount to be set aside for the purpose of funding any future costs or financial obligations incurred by Customer under the Product Proposal or any valid Change Order (the "**Contingency Reserve Fund**"). If applicable, the amount of any required Contingency Reserve Fund will be set forth in either the Product Proposal or Exhibit D. The Contingency Reserve Fund may be withdrawn against by Customer or GSFA for the purpose of satisfying Customer's payment obligations under the initial Product Proposal or any valid Change Order (including, without limitation, a Change Order submitted by GSFA pursuant to Section 8.b). If a Contingency Reserve Fund is required under the Agreement, the amount of such fund is not intended as an estimate of the actual additional costs of contingencies, Change Orders, unforeseen items or other required work that may be incurred under the Agreement after submission of the Product Proposal to Customer, which amounts Customer acknowledges may exceed the Contingency Reserve Fund amount. The balance of any Contingency Reserve Fund will be credited against Customer's payment obligations, or otherwise returned to Customer within thirty (30) calendar days of delivery of all Products under the Agreement (provided that Customer has paid all amounts owed under the Agreement as of such date).

c. Prepayment Discount. If GSFA has granted Customer a Prepayment Discount, Customer must provide each associated prepayment (each, a "**Prepayment**") within the time frame specified in the Product Proposal in order to receive such discount. Customer's failure to timely make such Prepayment may result in: (i) GSFA's termination of the Agreement; and/or (ii) Customer's loss of the Prepayment Discount for the portion of the Grand Total Purchase Price represented by such outstanding Prepayment and the application of a late fee as set forth in Section 6, in each case in GSFA's sole discretion.

d. State Sales Tax. Customer shall be responsible for the cost of state sales tax associated with, or attributable to, the Product. The taxes stated in the Product Proposal are subject to adjustment for the applicable state sales tax rate in effect at the time of delivery. Therefore, the sales tax set forth on the Product Proposal is only an estimate of such taxes and will be increased or decreased at the time of delivery if a change in the applicable sales tax rate has occurred, in which case Customer shall pay GSFA (or be refunded by GSFA) the difference in the applicable sales tax.

3. Product Completion Date. Within thirty (30) calendar days of the date on which the last required signatory executes the Product Proposal (such date, the "**Executed Date**"), GSFA shall submit to Customer a tentative Product completion date (which may differ from the Product completion estimate contained in the Product Proposal). Due to global supply chain constraints, any Product completion date contained herein, or in the Product Proposal, or otherwise provided to Customer, is a good faith estimate only as of the date provided to Customer, and merely an approximation based on current information available to GSFA and Manufacturer. Customer shall not be entitled to rely on any such estimate, and GSFA shall have no liability to Customer for a failure by GSFA or Manufacturer to meet any such estimate. All Product completion estimates are subject to modification and, if applicable, GSFA will provide updates to such estimates to Customer when available.

4. Stock / Demo Units. Notwithstanding any other provision contained in the Agreement (including Section 12 hereof concerning warranties), any Products constituting stock/demo unit(s) are sold to Customer on an as-is, first-come and first served-basis and GSFA makes no further representation or warranty to any customer with respect to such unit(s). Regardless of the terms of the Product Proposal, GSFA shall only be obligated to sell such stock/demo unit(s) to the first customer to enter into a purchase agreement with GSFA identifying such unit(s), and after the execution by GSFA of such agreement any subsequent purchase agreement (including the Agreement, as applicable) shall have no further force or effect with respect to such unit(s).

5. Multiple Unit Purchase. If the Grand Total Purchase Price includes pricing for multiple Products, the Product price stated in the Product Proposal shall only be valid if the quantity of Products being proposed are purchased at the same time, pursuant to the same Agreement. GSFA shall have no obligation to offer the same price for any Product if purchased by Customer pursuant to a later purchase agreement.

6. Late Fee; Storage Fee. A late fee equal to 0.033% of the outstanding portion of the Grand Total Purchase Price will be charged per calendar day for overdue payments beginning ten (10) calendar days after the payment is due and continuing for the first thirty (30) calendar days thereafter. After such thirty (30) calendar day period, the late fee shall increase to 0.044% per calendar day until payment of the outstanding portion of the Grand Total Purchase Price is received. If Customer is unable to satisfy the delivery requirements hereunder or is unwilling to take delivery of the Product, then GSFA shall be entitled to a storage charge running from the earlier of: (i) the date of delivery agreed to between GSFA and Customer (provided GSFA is willing and able to deliver the Product on such date), or (ii) twenty-one (21) calendar days after GSFA notifies Customer that the Product is available for delivery. The storage charge is equal to: (i) $175.00 per calendar day per apparatus stored, or (ii) the actual charges incurred by GSFA with a third party for storage of the Product, whichever is greater. Such storage charge shall continue until the actual time of delivery and Customer's possession of the Product, and any such storage by GSFA or such third party shall be at the sole risk of Customer.

7. Delivery; Inspection and Acceptance.

a. Delivery. Subject to Section 5 hereof, the Product is scheduled to be delivered to the location and within the time period specified in the Product Proposal. Such delivery date is an estimate, and GSFA is, notwithstanding this Section 7.a, not bound to such date unless it otherwise agrees in a separate writing to complete delivery by a date certain. For the avoidance of doubt, GSFA is not responsible for delivery delays caused by or because of actions, omissions or conduct of Customer, the Manufacturer, or their respective employees, affiliates, suppliers, contractors, and carriers. Risk of loss for the Product shall pass to Customer at the point and time of delivery (which shall include an attempted delivery by GSFA which cannot be completed due to any act of Customer). However, title to the Product shall only pass to Customer upon delivery if Customer has then fully paid GSFA all amounts due hereunder (including additional amounts due under any valid Change Order). Absent GSFA's separate written agreement, which it may or may not provide in its sole and absolute discretion, delivery of the Product will not occur before Customer has fully paid all amounts due under the Agreement and provided proof of insurance reasonably satisfactory to GSFA. If GSFA permits Customer to take possession of the Product, Customer may not mount equipment, conduct training, or place the Product into service until all amounts due under the Agreement have been paid. If Customer has ordered multiple Products, GSFA reserves the right to deliver such Products in installments and to separately invoice Customer for such Products.

b. Inspection and Acceptance. Upon delivery, Customer shall have ten (10) calendar days within which to inspect the Product for substantial conformance to the Specifications, and in the event of substantial non-conformance to the Specifications to furnish GSFA with written notice sufficient to permit GSFA to evaluate such non-conformance ("**Notice of Nonconformance to Specifications**"). Contingent upon part availability and Customer's cooperation, any Product not in substantial conformance to material Specifications shall be remedied by GSFA (by repair or replacement, at GSFA's election) within thirty (30) calendar days from GSFA's receipt of the Notice of Nonconformance to Specifications. In the event GSFA does not receive a Notice of Nonconformance to Specifications within ten (10) calendar days of delivery, the Product will be deemed to be in conformance with Specifications and accepted by Customer.

8. Changes to Agreement Terms.

a. Change Orders. The Customer may request that GSFA incorporate a change to the Product or the Specifications for the Product, or GSFA may submit changes to the Agreement required or permitted to be made by GSFA (pursuant to Section 8.b or otherwise) by delivering a written Change Order to the other party hereto, which shall include a description of the proposed change sufficient to permit the receiving party to evaluate the feasibility of such change (either, a "**Change Order**"). For any Change Order submitted by Customer, GSFA will provide Customer a written response (a "**Response**") stating (i) whether GSFA will accommodate such Change Order (which GSFA may decide in its sole and absolute discretion); and (ii) the terms of the modification to the order, including any increase or decrease in the Grand Total Purchase Price resulting from such Change Order, a date on which any increase in the Grand Total Purchase Price must be paid, and an estimate of any effect on production scheduling or delivery resulting from such Change Order. Customer shall have seven (7) calendar days after receipt of the Response to notify GSFA as to whether Customer desires to make the changes GSFA has approved in the Response. In the event Customer countersigns GSFA's Response, Customer shall pay the increase (or be refunded the decrease) in the Grand Total Purchase Price by the date specified in the Response. GSFA may also send Customer a Change Order to account for any changes to the Agreement required or permitted to be made by GSFA (including those changes required pursuant to Section 8.b hereof), and such Change Order shall be effective upon delivery to Customer unless Customer elects to terminate the applicable Product order under the Agreement in accordance with Section 9.

b. Additional Changes.

i. Component Price Volatility. GSFA shall not be responsible for any unforeseen price increase or surcharge enacted by suppliers of major components of the Product (including but not limited to commercial chassis, engine, transmission, and fire pump) after Customer becomes bound by the Agreement. Customer shall be responsible for all amounts arising from any price increases for major components of the Product (including all

associated taxes and fees thereon) occurring after the execution of the Agreement which increase the cost of the Product to GSFA, and such amounts will be documented on a Change Order adjusting the Grand Total Purchase Price accordingly. Customer shall pay any such price increase prior to Product delivery.

ii. New Legal Standards. In the event the Product design, materials or specifications require an alteration arising from new regulations issued by any governmental entity or trade association, including, but not limited to, the NFPA, DOT, and EPA, and such alteration increases the cost of the Product to GSFA, Customer shall be responsible for changes to the Grand Total Purchase Price arising from such alteration. GSFA shall promptly notify Customer when it becomes aware of any potential or required change in regulations occurring prior to delivery that would impact the Product purchased.

iii. Change Orders. Customer shall execute any Change Order submitted by GSFA documenting any of the changes required or permitted by Sections 8.b.i and 8.b.ii above (which shall, to the extent practicable, itemize any increases in the Grant Total Purchase Price and specify a commercially reasonable date by which Customer must pay such increase), unless Customer instead elects to terminate the applicable Product order under the Agreement within fifteen (15) calendar days of Customer's receipt of such Change Order and in accordance with Section 9. Absent such a termination, failure to execute a Change Order does not alter Customer's obligations under this Section 8.b.

c. Changes in Commercial Specifications. Specifications for all components of the Product manufactured by companies other than the Manufacturer are subject to change without notice. Specifications for such components will be as available at the time of manufacture of the Product. GSFA shall not be liable for any deviations in such specifications arising from a substitution of components or changes in the design of any component by their original manufacturer.

9. Termination.

a. By Customer. Customer may terminate a Product order identified in the Product Proposal or a Change Order by providing written notice to GSFA in accordance with Section 16 hereof. If Customer elects to terminate a Product order, Customer shall pay GSFA a cancellation fee as follows: (a) after the Product order is accepted and entered by GSFA, 10% of the portion of the Grand Total Purchase Price applicable to such Product (including all associated taxes, fees and costs) (such amount, the "**Product Purchase Price**"); (b) after completion of the pre-construction phase of the order process, 20% of the Product Purchase Price; and (c) after the requisition of any materials or commencement of any manufacturing or assembly of the Product by either GSFA or Manufacturer but before substantial completion of such Product, 50% of the Product Purchase Price. Customer shall not be permitted to terminate a Product order after substantial completion of manufacturing and assembly of such Product (excluding any Dealer Preparation or other pre-delivery services or untypical Product customization, if applicable). Notwithstanding the foregoing, if the applicable tier of cancellation fee is not sufficient to cover all actual costs and fees incurred by GSFA with Manufacturer in connection with Customer's termination of the Product order ("**Manufacturer Termination Fees**"), then in addition to such cancellation fee Customer shall pay the balance of all Manufacturer Termination Fees. If Customer received a Prepayment Discount, such discount shall not be considered for the purpose of calculating the above cancellation fee. The tier of cancellation fee applicable to any cancellation, as well as the determination of whether a Product has reached substantial completion, shall be in the sole and absolute discretion of GSFA. Customer may request a fee waiver, and GSFA, in its sole discretion, may agree to waive and/or adjust such fee. GSFA will return the balance of the Grand Total Purchase Price or Product Purchase Price, as applicable, within thirty (30) calendar days of the effective date of the cancellation of the Product order or termination of the Agreement.

Customer may terminate the Agreement for an Event of Default by GSFA after providing GSFA with written notice in accordance with Section 16 (which notice shall describe with reasonably particularity the Event of Default justifying such termination) if such Event of Default remains uncured (if capable of cure) thirty (30) days following GSFA's receipt of such notice; provided, however, that the foregoing cure period shall continue if and for so long as GSFA

has commenced and is continuing to undertake commercially reasonable efforts to cure such Event of Default as promptly as reasonably practicable.

b. By GSFA. GSFA may terminate the Agreement for an Event of Default by Customer after providing Customer with written notice in accordance with Section 16 (which notice shall describe with reasonably particularity the Event of Default justifying such termination) if such Event of Default remains uncured (if capable of cure) thirty (30) days following Customer's receipt of such notice; provided, however, that the foregoing cure period shall continue if and for so long as Customer has commenced and is continuing to undertake commercially reasonable efforts to cure such Event of Default as promptly as reasonably practicable. Notwithstanding the foregoing, GSFA may terminate the Agreement effective immediately upon written notice to Customer for Customer's failure to pay any amount owed under the Agreement when due.

Notwithstanding any other provision of this Agreement, if Customer terminates a Product order in accordance with Section 9.a above, GSFA may elect to instead terminate the Agreement upon notice to Customer in accordance with Section 16 hereof. If GSFA terminates the Agreement in accordance with this Section 9.b, Customer shall pay the applicable tier of cancellation fee for all Products pursuant to Section 9.a above as if Customer had elected to terminate each applicable Product order.

c. Based on Discontinuation or Cancellation by Manufacturer. In the event that Manufacturer cancels a Product order (provided that such cancellation is not the result of an act by Customer in violation of the Agreement) or discontinues the manufacture of a Product prior to its completion and delivery: (i) if such Product is the only Product contemplated under the Agreement, then the Agreement shall terminate; or (ii) if additional Products are contemplated under the Agreement, then only the Product order for the applicable cancelled or discontinued Product shall be terminated. Such Agreement termination or Product termination, as applicable, shall be effective upon GSFA's written notice to Customer of such cancellation or discontinuance in accordance with Section 16 hereof. GSFA's only obligation to Customer in such event shall be the return of any Prepayment paid by Customer for the cancelled or discontinued Product. For the avoidance of doubt, the cancellation fees contemplated in Section 9.a hereof shall not apply in the event of a termination pursuant to this Section 9.c.

10. Customer's Obligations. Customer shall provide its timely and best efforts to cooperate with GSFA and Manufacturer during the Product manufacturing process. Reasonable and timely cooperation includes, without limitation, Customer's providing timely information in response to any requests from Manufacturer or GSFA and the participation of Customer's authorized representatives in traveling to Manufacturer's facility for inspections and approval of the Product, including a final approval before the Product leaves Manufacturer's facility.

11. Representations and Warranties. Customer hereby represents and warrants to GSFA as of the Executed Date that the execution of the Agreement and the purchase of the Product(s) and performance of the other obligations of Customer under the Agreement have been approved by Customer in accordance with applicable general laws and, as applicable, Customer's charter, ordinances, purchasing policies, and other governing documents, and executed by the appropriate Customer employees, officials, and/or representatives, and funding for Customer's performance of its obligations under the Agreement has been duly budgeted and appropriated by Customer.

12. Standard Warranty. All applicable Manufacturer warranties are contained in the Product Warranties. Any additional warranties must be expressly approved in a writing signed by GSFA, and Customer acknowledges and agrees that Manufacturer will not be liable for any such additional warranties.

a. Disclaimer. OTHER THAN AS EXPRESSLY SET FORTH IN THE AGREEMENT, GSFA, ITS AFFILIATES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, SHAREHOLDERS, AGENTS, OR REPRESENTATIVES, DO NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE PRODUCT (WHETHER RELATING TO THE CONDITION OR QUALITY OF THE PRODUCT, OR OTHERWISE) PROVIDED HEREUNDER OR OTHERWISE REGARDING THE AGREEMENT (INCLUDING, WITHOUT LIMITATION, WITH RESPECT TO ANY APPLICABLE DEALER PREPARATION), WHETHER ORAL OR WRITTEN, EXPRESS, IMPLIED OR STATUTORY. WITHOUT LIMITING THE FOREGOING, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, THE IMPLIED WARRANTY AGAINST INFRINGEMENT, THE

IMPLIED WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE ARE EXPRESSLY EXCLUDED AND DISCLAIMED. STATEMENTS MADE BY SALES CONSULTANTS OR IN PROMOTIONAL MATERIALS DO NOT CONSTITUTE WARRANTIES.

b. Exclusions of Incidental and Consequential Damages. In no event shall GSFA be liable for consequential, incidental, or punitive damages incurred by Customer in connection with any matter arising out of or relating to the Agreement, or the breach thereof, even if GSFA has been advised of the possibility of such damages, and regardless of whether such damages arise out of breach of warranty, the Agreement, indemnity, whether resulting from non-delivery or from GSFA's own negligence, or otherwise, except and solely to the extent such damages arise from the gross negligence or willful misconduct of GSFA.

13. Default. The occurrence of one or more of the following events (each, an "**Event of Default**") shall constitute a default under the Agreement: (a) Customer's failure to pay any amounts due or to perform any of its obligations under the Agreement; (b) GSFA's failure to perform any of its obligations under the Agreement; (c) either Party becoming insolvent or becoming subject to bankruptcy or insolvency proceedings; (d) any representation made by either Party under the Agreement which is false in any material respect; (e) any action by Customer to dissolve, merge, consolidate or transfer a substantial portion of its property to another entity during the term of the Agreement; (f) any other material breach of the terms of the Agreement by a Party; or (g) a default or breach by Customer under any other agreement with GSFA or its affiliates.

14. Indemnification of GSFA. Customer shall indemnify, defend, and hold harmless GSFA, its agents, servants, successors and assigns from and against all losses, damages, injuries, claims, demands and expenses, including attorneys' fees and other legal expenses, of whatever nature ("**Damages**"), to the extent Damages arise out of or in connection with: (i) Customer's breach of the Agreement, or (ii) Customer's use, storage, or operation of the Product following delivery, regardless of where, how, and by whom operated (excluding any negligent operation by GSFA). The indemnification and assumptions of liability and obligation herein provided shall continue in full force and effect notwithstanding the termination of the Agreement, whether by expiration of time, by operation of law or otherwise. This provision is not intended to and shall not constitute the exclusive remedy of the Parties under the Agreement; the Parties may seek indemnity from one another under other legal principles, whether based in equity or law, so long as they do not nullify or cancel the effects of this paragraph.

15. Force Majeure. GSFA shall not be responsible nor deemed to be in default of any provision of the Agreement on account of delays in performance due to causes which are beyond GSFA's or Manufacturer's control and which make GSFA's performance impracticable, including but not limited to wars, insurrections, strikes or labor unrest, riots, fires, storms, floods, other acts of nature, explosions, earthquakes, accidents, any act of federal, state or local government, failure or delays in transportation, inability to obtain necessary labor, supplies or manufacturing facilities, supply chain issues, allocation regulations or orders affecting materials, equipment, facilities or completed products, failure to obtain any required license or certificates, acts of God or the public enemy or terrorism, failure of transportation, disease, pandemics or epidemics, quarantine restrictions, failure of vendors (due to causes similar to those within the scope of this clause) to perform their agreements or labor troubles causing cessation, slowdown, or interruption of work.

16. Notice. Any notices, requests, consents, claims, demands, waivers and other communications required or permitted to be given hereunder must be given in writing at the address of each Party set forth below, or to such other address as either Party may substitute by written notice to the other in accordance with this Section 16, by one of the following methods: hand delivery; registered, express, or certified mail, return receipt requested, postage prepaid; or nationally recognized private express courier. All such communications will be deemed to have been given: (i) when delivered by hand (with written confirmation of receipt); (ii) on the third (3rd) calendar day after the date mailed, by registered, express or certified mail; or (iii) when delivered by the addressee if sent by a nationally recognized private express courier.

GSFA:
Golden State Fire Apparatus Inc.
7400 Reese Road
Sacramento, CA 95828

CUSTOMER:
To the address listed in the Product Proposal

17. Contradictions. In the event of a conflict between the Agreement and any Change Order, or between Change Orders, the terms of the latest executed Change Order shall control.

18. Manufacturer's Statement of Origin. It is agreed that the manufacturer's statement of origin ("**MSO**") for the Product covered by the Agreement, if applicable, shall be retained and remain in the possession of GSFA per California Department of Vehicles (DMV) directives. Notwithstanding the foregoing, GSFA shall provide Customer with the original MSO if the Customer is self-registering, and Customer shall comply with all good-faith Process of Duty and other DMV requirements applicable to the Product and retain its own MSO.

19. Assignment. The relationship of the Parties established under the Agreement is that of independent contractors and neither Party is a partner, employee, agent, or joint venturer of or with the other. Neither Party may assign its rights and obligations under the Agreement unless it has obtained the prior written approval of the other Party.

20. Governing Law; Jurisdiction; Disputes. Without regard to any conflict of laws provisions, the Agreement is to be governed by and under the laws of the state of California. Prior to taking any legal action that may and/or can arise out of the Agreement, the Parties shall first attempt mediation with an agreed upon mediator. If the Parties cannot agree upon a mediator within thirty (30) calendar days of the submission of written notice of a dispute in accordance with Section 16 hereof, if any disputed matter remain unresolved within thirty (30) calendar days of the commencement of discussions, or if any party refuses to meet, then either party may submit any remaining disputes concerning and/or claim regarding the Agreement and/or the terms and conditions herein to the Superior Court, County of Sacramento (and the parties expressly consent to exclusive personal jurisdiction and venue before such court).

21. Entire Agreement; Amendments. The Agreement, including the Product Proposal, its exhibits and all valid Change Orders, is the exclusive agreement between the Parties regarding the subject matter contained herein and therein. No change in, modification of, or revision of the Agreement shall be valid unless in writing and signed by duly authorized representatives of both Parties with authority to sign such amendments to the Agreement.

END OF STANDARD TERMS AND CONDITIONS

3 PRODUCT SPECIFICATIONS

Exhibit “C”

Proposal Details Report

3/2

Customer: City of Oroville
Bid Number: 785
Representative Hansen, Brad
Job Number:
Requirements Manager:
Organization: Golden State Fire Apparatus, Inc
Description: CalFire/Oroville Type 1 WUI
Chassis: Enforcer Chassis
Body: Pumper, Short, Galvanneal, 2nd Gen

OptionCode	Type	Option	ProposalText
0766611		Boiler Plates, Pumper	Golden State Fire Apparatus is pleased to submit a proposal to City of Oroville/Cal Fire Contract for a **Pierce® triple combination pumper** per your request for quotation. The following paragraphs will describe in detail the apparatus, construction methods, and equipment proposed. This proposal will indicate size, type, model and make of components parts and equipment, providing proof of compliance with each and every item (except where noted) in the departments advertised specifications. PIERCE MANUFACTURING was founded in 1913. Since then we have been building bodies with one philosophy, "BUILD THE FINEST". Our skilled craftsmen take pride in their work, which is reflected, in the final product. We have been building fire apparatus since the early "forties" giving Pierce Manufacturing over 75 years of experience in the fire apparatus market. Pierce Manufacturing has built and put into service more than 62,500 apparatus, including more than 33,900 on Pierce custom chassis designed and built specifically for fire and emergency applications. Our Appleton, Wisconsin facility has over 870,000 total square feet of floor space situated on approximately 105 acres of land. Our Bradenton, Florida facility has 300,000 square feet of floor space situated on approximately 38 acres of land. Our beliefs in high ethical standards are carried through in all of our commitments and to everyone with whom we do business. Honesty, Integrity, Accountability and Citizenship are global tenets by which we all live and work. Consequently, we neither engage in, nor have we ever been convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market. Pierce has only one brand of fire apparatus "Pierce", ensuring you are receiving top of the line product that meets your specification. In accordance with the current edition of NFPA 1901 standards, this proposal will specify whether the fire department, manufacturer, or apparatus dealership will provide required loose equipment. Images and illustrative material in this proposal are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment. **GENERAL DESIGN AND CONSTRUCTION** To control quality, ensure compatibility, and provide a single source for service and warranty, the custom cab, chassis, pump module and body will be entirely designed, assembled/welded and painted in Pierce owned manufacturing facilities. This includes, but not limited to the cab weldment, the pumphouse module assembly, the chassis assembly, the body and the electrical system. **QUALITY AND WORKMANSHIP** Pierce has set the pace for quality and workmanship in the fire apparatus field. Our tradition of building the highest quality units with craftsmen second to none has been the rule right from the beginning and we demonstrate that ongoing commitment by: Ensuring all steel welding follows American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding follows American Welding society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding follows American welding Society B2.1-2000 requirements for structural welding of sheet metal. Our flux core arc welding uses alloy rods, type 7000 and is performed to American Welding Society standards A5.20-E70T1. Furthermore, all employees classified as welders are tested and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs and American Welding Society certified welding inspector in plant during working hours to monitor weld quality. Pierce Manufacturing operates a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International Organization for Standardization (ISO) specify the quality systems that are established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance is included with this proposal. In addition to the Quality Management system, we also employ a Quality Achievement Supplier program to insure the vendors and suppliers that we utilize meet the high standards we demand. That is just part of our overall "Quality at the Source" program at Pierce. To demonstrate the quality of our products and services, a list of at least five (5) fire departments/municipalities that have purchased vehicles for a second time is provided. **DELIVERY** The apparatus will be delivered under its own power to insure proper break-in of all components while the apparatus is still under warranty. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered. **MANUAL AND SERVICE INFORMATION** At time of delivery, complete operation and maintenance manuals covering the apparatus will be provided. A permanent plate will be mounted in the driver's compartment specifying the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle. **SAFETY VIDEO** At the time of delivery Pierce will also provide one (1) 39-minute, professionally produced apparatus safety video, in DVD format. This video will address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus, including the following: vehicle pre-trip inspection, chassis operation, pump operation, aerial operation, and safety during maintenance. **PERFORMANCE TESTS** A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat.

transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise. The apparatus when fully loaded will not have less than 25 percent nor more t percent on the front axle, and not less than 50 percent nor more than 75 percent on the The apparatus will meet NFPA 1901 acceleration and braking requirements.

SERVICE AND WARRANTY SUPPORT

Pierce dealership support will be provided by Golden State Emergency Vehicle Services by operating a Pierce authorized service center. The service center will have factory-trained mechanics on staff versed in Pierce fire apparatus. The service facility will be located within one hundred fifty (150) miles of the fire department.

In addition to the dealership, Pierce has service facilities located in both, Weyauwega, Wisconsin and Bradenton, Florida. Pierce also maintains a dedicated parts facility of over 100,000 square feet in Appleton, Wisconsin. The parts facility stocks in excess of $5,000,000 in parts dedicated to service and replacement parts. The parts facility employs a staff dedicated solely for the distribution and shipment of service and replacement parts.

Service parts for the apparatus being proposed can be found via Pierceparts.com which, is an interactive online tool that delivers information regarding your specific apparatus as well as the opportunity to register for training classes.

As a Pierce customer you have the ability to view the complete bill of materials for your specific apparatus, including assembly drawings, piece part drawings, and beneficial parts notations. You will also have the ability to search the complete Pierce item master through a parts search function which offers all Pierce SKU's and descriptions offered on all Pierce apparatus. Published component catalogs, which include proprietary systems along with an extensive operators manual library is available for easy reference.

Pierce Manufacturing maintains a dedicated service and warranty staff of over 35 personnel, dedicated to customer support, which also maintains a 24 hour 7 day a week toll free hot line, four (4) on staff EVTs, and offers hands-on repair and maintenance training classes multiple times a year.

LIABILITY

The successful bidder will defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.

INSURANCE PROVIDED BY BIDDER

COMMERCIAL GENERAL LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

Each Occurrence $1,000,000

Products/Completed Operations Aggregate $1,000,000

Personal and Advertising Injury $1,000,000

General Aggregate $2,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form and will include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy will include Owner as an additional insured when required by written contract.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The successful bidder will, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage will be written on a Commercial Automobile liability form:

Each Accident Combined Single Limit: $1,000,000

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate: $3,000,000

Each Occurrence: $3,000,000

The umbrella policy will be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described polices be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as certificate holder.

INSURANCE PROVIDED BY MANUFACTURER

PRODUCT LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:

Each Occurrence $1,000,000

Products/Completed Operations Aggregate $1,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form. The manufacturer's policy will include the owner as additional insured when required by written contract between the Owner and a Pierce authorized dealer.

UMBRELLA/EXCESS LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

		Each Occurrence: $25,000,000 **Aggregate: $25,000,000** **The umbrella policy will be written on an occurrence basis and provide excess manufacturer's General Liability/Products policies.** **The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.** **Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.** **All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described polices be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.** **Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as the certificate holder.**
0661794	Single Source Compliance	**SINGLE SOURCE MANUFACTURER** Pierce Manufacturing, Inc. provides an integrated approach to the design and manufacture of our products that delivers superior apparatus and a dedicated support team. From our facilities, the chassis, cab weldment, cab, pumphouse (including the sheet metal enclosure, valve controls, piping and operators panel) and body will be entirely designed, tested, and hand assembled to the customer's exact specifications. The electrical system either hardwired or multiplexed, will be both designed and integrated by Pierce Manufacturing. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) will be provided by Pierce as a single source manufacturer. Pierce's single source solution adds value by providing a fully engineered product that offers durability, reliability, maintainability, performance, and a high level of quality.
0584456	Manufacture Location, Appleton, Wisconsin	Your apparatus will be manufactured in Appleton, Wisconsin.
0584452	RFP Location: Appleton, Wisconsin	
0588609	Vehicle Destination, US	
0670275	Unit to be Similar in some Aspects, Excluding Pump Panel	**SPECIAL INSTRUCTIONS** The apparatus being proposed will be designed and built to match the 36591, 36592, & 36592. However, some variation may be necessary due to changes in our manufacturing processes or our product offering. Revisions in NFPA guidelines and/or other regulations may also affect our ability to match the previous unit.
0610784	Comply NFPA 1901 Changes Effective Jan 1, 2016, With Exceptions	**NFPA 2016 STANDARDS** This unit will comply with the NFPA standards effective January 1, 2016, except for fire department directed exceptions. These exceptions will be set forth in the Statement of Exceptions. Certification of slip resistance of all stepping, standing and walking surfaces will be supplied with delivery of the apparatus. All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack. A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating. The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications. An official of the company will designate, in writing, who is qualified to witness and certify test results.
0533347	Pumper/Pumper with Aerial Device Fire Apparatus	
0588611	Vehicle Certification, Pumper	

0661778	Agency, Apparatus Certification, Pumper/Tanker, U.L.	**NFPA COMPLIANCY** Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Any department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA". **PUMP TEST** Underwriters Laboratory (UL) will test, approved, and certify the pump. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the pump manufacturer's record of pump construction details will be forwarded to the Fire Department. **GENERATOR TEST** If the unit has a generator, Underwriters Laboratory (UL) will test, approved, and certify the generator. The test results will be provided to the Fire Department at the time of delivery. **BREATHING AIR TEST** If the unit has breathing air, Pierce Manufacturing will draw an air sample from the air system and have the sample certified that the air quality meets the requirements of NFPA 1989, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection.*
0891947	Certification, Vehicle Inspection Program, NFPA 1901	**VEHICLE INSPECTION PROGRAM CERTIFICATION** To assure the vehicle is built to current NFPA 1901 standards, the apparatus, in its entirety, will be third-party, independent, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition. The certification includes: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus. A placard will be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.
0092138	Highly Customized Product (HCP)	**PRODUCT CHANGES AND IMPROVEMENTS** Our components and processes, as described in this proposal document, are as accurate as known at the time of bid submission, but are subject to change for the purpose of product or process improvements, or changes in industry standards providing the change does not affect the meaning or definition of the bid specifications.
0620362	Consortium, HGAC	
0537375	Unit of Measure, US Gallons	
0030006	Bid Bond Not Requested	**BID BOND NOT REQUESTED** A bid bond will not be included. If requested, the following will apply: All bidders will provide a bid bond as security for the bid in the form of a 5% bid bond to accompany their bid. This bid bond will be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond will be issued by an authorized representative of the Surety Company and will be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond will include language, which assures that the bidder/principal will give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.
0807710	Performance Bond, 100% with 25% Warranty Bond, 1 Yr, and Payment Bond	**PERFORMANCE BOND, 1 YEAR** The successful bidder will furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond will be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required. Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Basic One (1) Year Limited Warranty period included within this proposal. Owner agrees that the penal amount of this bond will be simultaneously amended to 25 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type will not exceed one (1) year from the date of such satisfactory acceptance and delivery, or the actual Basic One (1) Year Limited Warranty period, whichever is shorter. Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible.

0000007	Approval Drawing	**APPROVAL DRAWING** A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc. A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.
0002928	Electrical Diagrams	**ELECTRICAL WIRING DIAGRAMS** Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.
0649754	Enforcer Chassis	**ENFORCER CHASSIS** The Pierce Enforcer™ is the custom chassis developed exclusively for the fire service. Chassis provided will be a new, tilt-type custom fire apparatus. The chassis will be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis will be designed and manufactured for heavy-duty service, with adequate strength, capacity for the intended load to be sustained, and the type of service required. The chassis will be the manufacturer's first line tilt cab.
0021008	Overall Height, Target	**TARGET OVERALL HEIGHT** The target overall height of the apparatus will be 118".
0523786	Angle of Approach	**ANGLE OF APPROACH** The angle of approach will be 16.6 degrees. This will be effective with the truck in a loaded state.
0523787	Angle of Departure	**ANGLE OF DEPARTURE** The angle of departure will be 12.6 degrees to the step stored, and the tow bar at 13.7 degrees. This will be effective with the truck in a loaded state.
0000110	Wheelbase	**WHEELBASE** The wheelbase of the vehicle will be 175.50".
0000070	GVW Rating	**GVW RATING** The gross vehicle weight rating will be 42,000 lbs..
0729280	Frame Rails, 13.38 x 3.50 x .375, Enforcer	**FRAME** The chassis frame will be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails will have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to 10.75" over the rear axle. Each rail will have a section modulus of 25.992 cubic inches and a resisting bending moment (rbm) of 3,119,040 in-lb over the critical regions of the frame assembly, with a section modulus of 18.96 cubic inches with an rbm of 2,275,200 in-lb over the rear axle. The frame rails will be constructed of 120,000 psi yield strength heat-treated 0.38" thick steel with 3.50" wide flanges.
0020018	Frame Liner Not Req'd	

0633906	Axle, Front, Oshkosh TAK-4, Non Drive, 18,000 lb, Enforcer	**FRONT NON DRIVE AXLE** The Oshkosh TAK-4® front axle will be of the independent suspension design with a gr rating of 18,000 lb. Upper and lower control arms will be used on each side of the axle. Upper control arm castings will be made of 100,000-psi yield strength 8630 steel and the lower control arm casting will be made of 55,000-psi yield ductile iron. The center cross members and side plates will be constructed out of 80,000-psi yield strength steel. Each control arm will be mounted to the center section using elastomer bushings. These rubber bushings will rotate on low friction plain bearings and be lubricated for life. Each bushing will also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations. There will be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension. The upper control arm will be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load. Camber at load will be zero degrees for optimum tire life. The ball joint bearing will be of low friction design and be maintenance free. Toe links that are adjustable for alignment of the wheel to the center of the chassis will be provided. The wheel ends must have little to no bump steer when the chassis encounters a hole or obstacle. The steering linkage will provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase. The axle will have a turning angle of up to 45 degrees.
0633905	Suspension, Front TAK-4, 18,000 lb, Enforcer/SFR	**FRONT SUSPENSION** Front Oshkosh TAK-4™ independent suspension will be provided with a minimum ground rating of 18,000 lb. The independent suspension system will be designed to provide maximum ride comfort. The design will allow the vehicle to travel at highway speeds over improved road surfaces and moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment. Each wheel will have a torsion bar type spring. In addition, each front wheel end will have energy absorbing jounce bumpers to prevent bottoming of the suspension. The suspension design will have at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms. The torsion bar anchor lock system allows for simple lean adjustments without the use of shims. One can adjust for a lean within fifteen minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side. The independent suspension completed durability testing that simulated 140,000 miles of inner city driving.
0087572	Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	**FRONT SHOCK ABSORBERS** KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.
0000322	Oil Seals, Front Axle	**FRONT OIL SEALS** Oil seals with viewing window will be provided on the front axle.
0582936	Tires, Front, Goodyear, G289 WHA, 315/80R22.50, 20 ply	**FRONT TIRES** Front tires will be Goodyear® 315/80R22.50 radials, 20 ply G289 WHA tread, rated for 20,400 lb maximum axle load and 68 mph maximum speed.
0894433	Wheels, Front, 22.50" x 9.00", Steel, Hub Pilot, 315/80R Tire	The tires will be mounted on 22.50" x 9.00" steel disc type wheels with a ten (10) stud, 11.25" bolt circle.
0641555	Axle, Rear, Dana S23-190, 24,000 lb, Saber/Enforcer	**REAR AXLE** The rear axle will be a Dana Model S23-190, single axle assembly with a capacity of 24,000 lb.
0602744	Top Speed of Vehicle, Non-NFPA 2016 Compliant	**TOP SPEED OF VEHICLE** NFPA 1901, 2016 edition requires limits on the top speed of vehicles. NFPA 4.15.2 requires that the maximum top speed of fire apparatus with a GVWR over 26,000 lb will not exceed either 68 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. NFPA 4.15.3 requires that if the combined water tank and foam agent tank on the fire apparatus exceed 1250 gallons or the GVWR of the vehicle is over 50,000 lb, the maximum top speed of the apparatus will not exceed either 60 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. It is the intention of the standard to improve safety by limiting the speed of all apparatus to 68 mph, and tankers or heavy apparatus to 60 mph. By requesting an exception to this requirement, the purchasing authority is consciously choosing to operate their apparatus at speeds above the limits designated as safe speeds by the NFPA Technical Committee on Fire Department Apparatus. The top speed of the apparatus as manufactured exceeds the NFPA requirements. Per fire department specification of a top speed that exceeds NFPA requirements, the apparatus will be non-compliant to NFPA 1901 standards at time of contract execution. A rear axle ratio will be furnished to allow the vehicle to reach an approximate top speed of 73 MPH.

0565379	Suspen, Rear, Single Slipper Spring, 24,000 lb, Saber/Enforcer	**REAR SUSPENSION** The rear suspension will be Standens, semi-elliptical, 3.00" wide x 53.00" long, 12-leaf [illegible] a ground rating of 24,000 lb. The spring hangers will be castings. The two (2) top leaves will wrap the forward spring hanger pin, and the rear of the spring will be a slipper style end that will ride in a rear slipper hanger. To reduce bending stress due to acceleration and braking, the front eye will be a berlin eye that will place the front spring pin in the horizontal plane within the main leaf. A steel encased rubber bushing will be used in the spring eye. The steel encased rubber bushing will be maintenance free and require no lubrication.
0000485	Oil Seals, Rear Axle	**REAR OIL SEALS** Oil seals will be provided on the rear axle(s).
0000482	Driver Controlled Differential Lock, Single Axle	**DRIVER CONTROL DIFFERENTIAL LOCK (DCDL)** A rear axle will be equipped with a driver controlled differential lock (DCDL). The control will be located within easy reach of the driver. An indicator light will be provided next to the control switch.
0596433	Switch, Rocker, Differential Lock, IPOS, MUX	**DIFFERENTIAL LOCK CONTROL** A rocker style switch will be used to engage or disengage the differential lock.
0782552	Tires, Rear, Goodyear, Endurance RSA, 12R22.50, LRH, Single	**REAR TIRES** Rear tires will be four (4) Goodyear 12R22.50 radials, load range H, Endurance RSA highway tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.
0654806	Wheels, Rear, Accuride, 22.50" x 8.25", Steel, Hub Pilot, Single	The tires will be mounted on Accuride® 22.50" x 8.25" steel disc type wheels with a ten (10) stud, 11.25" bolt circle.
0568081	Tire Balancing, Counteract Beads	**TIRE BALANCE** All tires will be balanced with Counteract balancing beads. The beads will be inserted into the tire and eliminate the need for wheel weights.
0620570	Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle	**TIRE PRESSURE MANAGEMENT** There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of six (6) tires. The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi. Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.
0801909	Lug Nut, Covers, Chrome	**CHROME LUG NUT COVERS** Chrome lug nut covers will be supplied on front and rear wheels.
0002045	Mud Flap, Front and Rear, Pierce Logo	**MUD FLAPS** Mud flaps with a Pierce logo will be installed behind the front and rear wheels.
0544802	Chocks, Wheel, SAC-44-E, Folding	**WHEEL CHOCKS** There will be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks, with easy-grip handle provided.
0544806	Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	**Wheel Chock Brackets** There will be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets will be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets will be mounted one (1) forward and one (1) rearward of the left side rear tire.
0010670	ABS Wabco Brake System, Single rear axle	**ANTI-LOCK BRAKE SYSTEM** The vehicle will be equipped with a Meritor WABCO 4S4M, anti-lock braking system. The ABS will provide a 4-channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology will control the anti-lock braking system. Each wheel will be monitored by the system. When any particular wheel begins to lockup, a signal will be sent to the control unit. This control unit then will reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.

0030185		Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	**BRAKES** The service brake system will be full air type. The front brakes will be Knorr/Bendix disc type with a 17.00" ventilated rotor for improved stopping distance. The brake system will be certified, third party inspected, for improved stopping distance.
0580500		Brakes, Bendix, Disc, Rear, Model ADB-22X, Single	The rear brakes will be Bendix Model ADB-22X, air disc.
0735527		Air Compressor, Brake, Wabco 26.8 CI, Paccar	**AIR COMPRESSOR, BRAKE SYSTEM** The air compressor will be a Wabco single piston compressor with a 26.8 CI displacement.
0644232		Brake Reservoirs, 4,272 Cubic Inch Minimum Capacity, Saber FR/Enforcer	**BRAKE SYSTEM** The brake system will include: Brake treadle valve Heated automatic moisture ejector on air dryer Total air system minimum capacity of 4,272 cubic inches Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi Spring set parking brake system Parking brake operated by a push-pull style control valve A parking "brake on" indicator light on instrument panel Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, with an automatic spring brake application at 40 psi A pressure protection valve to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa) 1/4 turn drain valves on each air tank The air tank will be primed and painted to meet a minimum 750 hour salt spray test. To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.
0790412		Air Dryer, Wabco System Saver 1200 IWT, Heated, SFR/Enf	**BRAKE SYSTEM AIR DRYER** The air dryer will be a WABCO System Saver 1200 IWT, with internal wet tank, spin-on coalescing filter cartridge and 100 watt heater.
0000790		Brake Lines, Nylon	**BRAKE LINES** Color-coded nylon brake lines will be provided. The lines will be wrapped in a heat protective loom in the chassis areas that are subject to excessive heat.
0617799		Inlet/Outlet, Air, w/Disconnect Fitting, 1/4 Turn Valve, Location	**AIR INLET/OUTLET** One (1) air inlet/outlet will be installed with the female coupling located LS pump panel per PP layout. This system will tie into the "wet" tank of the brake system and include a check valve in the inlet line and an 85 psi pressure protection valve in the outlet line. The air outlet will be controlled by a 1/4 turn valve. A mating male fitting will be provided with the loose equipment. The air inlet will allow a shoreline air hose to be connected to the vehicle. This will allow station air to be supplied to the brake system of the vehicle to insure constant air pressure.
0589828	SP	Air Tanks, Mount High, Maximize Ground Clearance	**AIR TANK MOUNTING** Air tanks will be installed to maximize ground clearance. Smaller tanks may be required to allow for them to be mounted higher for increased ground clearance.

0808515		Engine, Paccar MX, 510HP, 1850 lb-ftW/OBD, EPA 2027, Enforcer	**ENGINE** The chassis will be powered by an electronically controlled engine as described below: Make: Paccar Model: MX Power: 510 hp at 1600rpm Torque: 1850 lb-ft at 1000rpm Governed Speed: 1900 rpm Emissions Certification: EPA 2027 Fuel: Diesel Cylinders: Six (6) Displacement: 13.7L Starter: DP60 Fuel Filters: Dual cartridge style with check valve, water separator, and water in fuel sensor The engine will include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system will give the owner or repair technician access to state of health information for various vehicle sub systems. The system will monitor vehicle systems, engine and after treatment. The system will illuminate a malfunction indicator light on the dash console if a problem is detected.
0000000	STF	Engine Contingency Adjustment	
0001244		High Idle w/Electronic Engine, Custom	**HIGH IDLE** A high idle switch will be provided, inside the cab, on the instrument panel, that will automatically maintain a preset engine rpm. A switch will be installed, at the cab instrument panel, for activation/deactivation. The high idle will be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light will be provided, adjacent to the switch. The light will illuminate when the above conditions are met. The light will be labeled "OK to Engage High Idle."
0735687		Engine Brake, Fully Integrated, Paccar MX13 Engine	**ENGINE BRAKE** The compression release brake option is a fully integrated MX engine braking system. It utilizes the turbocharger and backpressure valve, but adds in a hydraulically operated compression brake to increase overall retarding power. To maximize the effectiveness of the compression brake the MX engine brake system works in conjunction with the turbocharger and back pressure valve. The driver will be able to turn the engine brake system on/off and have a high, medium and low setting
0644227		Clutch, Fan, Air Actuated, Saber FR/Enforcer	**CLUTCH FAN** A fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and constantly engaged when in "Pump" position.
0640477		Air Intake, Metal Screen, Saber FR/Enforcer	**ENGINE AIR INTAKE** The engine air intake will be located above the engine cooling package. It will draw fresh air from the front of the apparatus through the radiator grille. A stainless steel metal screen will be installed at the inlet of the air intake system that will meet NFPA 1901 requirements. The air cleaner and stainless steel screen will be easily accessible by tilting the cab.
0794743		Exhaust System, 5", X12/X15, MX13, Engine, Horizontal, Right Side	**EXHAUST SYSTEM** The exhaust system will include a Single Module™ aftertreatment device to meet current EPA standards. The exhaust system will be stainless steel from the turbo to the inlet of the aftertreatment device, and will be 5.00" in diameter. An insulation wrap will be provided on all exhaust pipes between the turbo and aftertreatment device to minimize the heat loss to the aftertreatment device. The exhaust will terminate horizontally ahead of the right side rear wheels. A tailpipe diffuser will be provided to reduce the temperature of the exhaust as it exits. Heat deflector shields will be provided to isolate chassis and body components from the heat of the tailpipe diffuser.

0683310		Diffuser, Exhaust, Modified For Extraction, 5"x7"x5", Flush With Rub Rail, CARE	**EXHAUST MODIFICATION** The exhaust pipe will be 90 degrees to the body. The diffuser will be reduced to 5.00" in the center to accommodate the fire department's recovery system. The 5.00" extension pipe coming out of the end of the diffuser will be flush with the body rub rail. There will be a minimum of 4.00" clearance between the top of the 5.00" extension and the bottom of the body. There will be a minimum of 2.50" from the exhaust pipe to the under side of the body heat shield. The last 7.00" of the exhaust will be free of hangers and/or clamps.
0788765		Radiator, Saber FR/Enforcer	**RADIATOR** The radiator and the complete cooling system will meet or exceed NFPA and engine manufacturer cooling system standards. For maximum corrosion resistance and cooling performance, the entire radiator core will be constructed using long life aluminum alloy. The radiator core will consist of aluminum fins, having a serpentine design, brazed to aluminum tubes. The radiator core will have a minimum front area of 1060 square inches. Supply tank will be made of heavy duty glass-reinforced nylon and the return tank will be mode of aluminum. Both tanks will be crimped onto the core assembly using header tabs and a compression gasket to complete the radiator core assembly. There will be a full steel frame around the inserts to enhance cooling system durability and reliability. The radiator will be compatible with commercial antifreeze solutions. The radiator assembly will be isolated from the chassis frame rails with rubber isolators to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven terrain. The radiator will include a de-aeration/expansion tank. For visual coolant level inspection, the radiator will have a built-in sight glass. The radiator will be equipped with a 15 psi pressure relief cap. A drain port will be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.
0001090		Cooling Hoses, Rubber	**COOLANT LINES** Gates, or Goodyear, rubber hose will be used for all engine coolant lines installed by Pierce Manufacturing. Hose clamps will be stainless steel constant torque type to prevent coolant leakage. They will expand and contract according to coolant system temperature thereby keeping a constant clamping pressure on the hose.
0001125		Fuel Tank, 65 Gallon, Left Side Fill	**FUEL TANK** A 65 gallon fuel tank will be provided and mounted at the rear of the chassis. The tank will be constructed of 12-gauge, hot rolled steel. It will be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank will be mounted with stainless steel straps. A 0.75" drain plug will be located in a low point of the tank for drainage. A fill inlet will be located on the left hand side of the body and is covered with a hinged, spring loaded, stainless steel door that is marked "Ultra Low Sulfur - Diesel Fuel Only." A 0.50" diameter vent will be installed from tank top to just below fuel fill inlet. The fuel tank will meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.
0001129		Lines, Fuel	All fuel lines will be provided as recommended by the engine manufacturer.
0733463	SP	DEF Tank, 6.0 Gallon, LS Fill, Rear of Axle, Common Door, Paccar	**DIESEL EXHAUST FLUID TANK** A 6.0 gallon diesel exhaust fluid (DEF) tank will be provided and mounted in the driver's side body rearward of the rear axle. A fill inlet will be provided and marked "Diesel Exhaust Fluid Only". The fill inlet will be located adjacent to the engine fuel inlet behind a common hinged, spring loaded, painted door on the driver side of the vehicle. The selector flap within the common area for the fuel and DEF fills will have a flush lift & turn latch. The latch will be provided so that the selector flap will be latched when the flap is in the position over the DEF fill. The tank will meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing. The tank will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.
0552793		Not Required, Fuel Priming Pump	
0552712		Not Required, Shutoff Valve, Fuel Line	
0699437		Cooler, Chassis Fuel, Not Req'd.	
0690880		No Selection Required From This Category	

0887546	Trans, Allison 6th Gen, 4000 EVS P, w/Prognostics, Imp/Vel/SFR/Enf	**TRANSMISSION** An Allison 6th generation, Model EVS 4000P, electronic, torque converting, automatic transmission will be provided. The transmission will be equipped with prognostics to monitor oil life, filter life, and transmission health. A wrench icon on the shift selector's digital display will indicate when service is due. Two (2) PTO openings will be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock). A transmission temperature gauge with an amber light and buzzer will be installed on the cab instrument panel.
0625331	Transmission, Shifter, 6-Spd, Push Button, 4000 EVS	**TRANSMISSION SHIFTER** A six (6)-speed push button shift module will be mounted to right of driver on console. Shift position indicator will be indirectly lit for after dark operation. The transmission ratio will be: 1st 3.51 to 1.00 2nd 1.91 to 1.00 3rd 1.43 to 1.00 4th 1.00 to 1.00 5th 0.75 to 1.00 6th 0.64 to 1.00 R 4.80 to 1.00
0684459	Transmission Oil Cooler, Modine, External	**TRANSMISSION COOLER** A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.
0559012	Program, Transmission, Shift To Neutral, With Prk Brk	**TRANSMISSION PROGRAM** The transmission will shift to neutral when parking brake is set.
0801876	Fluid, 4000 Series Trans, Allison Approved TES-668 Synthetic, IPOS, Custom	**TRANSMISSION FLUID** The transmission will be provided with TranSynd, or other Allison approved TES-668 heavy duty synthetic transmission fluid.
0001375	Driveline, Spicer 1810	**DRIVELINE** Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints. The shafts will be dynamically balanced before installation. A splined slip joint will be provided in each driveshaft where the driveline design requires it. The slip joint will be coated with Glidecoat® or equivalent.
0734211	Steering, Sheppard M110 w/Tilt, TAK-4, Paccar Pump, w/Cooler, Paccar	**STEERING** Dual Sheppard, Model M110, steering gears, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and Paccar hydraulic pump with integral pressure and flow control. All power steering lines will have wire braded lines with crimped fittings. A tilt and telescopic steering column will be provided to improve fit for a broader range of driver configurations.
0509229	Steering Wheel, 2 Spoke	**STEERING WHEEL** The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 2-spoke design.
0550144	Logo/Emblem, on Horn Button	**LOGO AND CUSTOMER DESIGNATION ON HORN BUTTON** The steering wheel will have an emblem containing the Pierce logo and customer name. The emblem will have three (3) rows of text for the customer's department name. There will be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row. The first row of text will be: City The second row of text will be: of The third row of text will be: Oroville

0606555		Bumper, 13" Extended, Steel Painted, 8.00" High, Saber FR/Enforcer	**BUMPER** A one (1) piece steel painted bumper, minimum of 8.00" high, will be attached to the fro frame. The bumper will be metal finished and painted to match the apparatus. To provide adequate support strength, the bumper will be mounted directly to the front of the C channel frame. The frame will be a bolted modular extension frame constructed of 50,000 psi tensile steel. The bumper will be extended 13.00" from front face of cab. **Gravel Pan** A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and cab face. The gravel pan will be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate. The sides of the gravel pan will provide a transition between the bottom of the bumper and the bottom of the cab.
0625212	SP	Tray, Hose, Center, 13" Bumper, Outside Air Horns, 11" Deep, 8" Below/3" Above	**HOSE TRAY** A hose tray, constructed of aluminum, will be placed in the center of the bumper extension. The tray will be 11.00" deep, 8.00" below the gravel pan and a 3.00" extension above. The tray will have a capacity of 100' of 1.75" double jacket cotton-polyester hose. Black rubber grating will be provided at the bottom of the tray. Drain holes are also provided.
0624826		Hose Restraint, Bumper Tray, 2.00" Straps, Fasteners, Pair	**Center Hose Tray Restraint** There will be one (1) pair of hose tray restraint straps located over the center mounted tray. The restraints will be 2.00" wide black nylon straps with seat belt buckle fasteners provided. The straps will be used to secure the hose in the tray.
0614646		No Lift & Tow Package, Imp/Vel, AXT, SFR/Enf	
0612736	SP	Tow Eyes, Painted, Extended Out Front of Bumper, Color Feature	**TOW EYES** Two (2) tow eyes will be mounted through the front face of the bumper. The inner and outer edges of the tow eyes will have a .25" radius. The tow eyes will be mounted directly to the bumper frame. Cutouts will be provided in the front face of the stainless steel bumper to allow the tow eyes to extend out the front. The tow eyes will be designed and positioned to allow up to a 9,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow eyes will not be used for lifting of the apparatus. The tow eyes will be painted #90 red .
0809080	SP	Lights, Flood, Rigid Industries, D-Series Pro, Model #212513, Flush Mount	**DIFFUSED AUXILIARY LIGHTS** Two (2) Rigid Industries, D-Series Pro, Part #212513, 3.00" x 3.00" black hexagonal LED flood lamps with diffused light pattern, 9-36V DC, 3168 raw lumens, will be provided, one (1) on each side, flush mounted in the front bumper. The lights will be activated by a switch with indicator on the driver side instrument panel. The lights will be reset to off whenever the vehicle ignition switch is set to the off position.

0649716	Cab, Enforcer, 6010	**CAB** The Enforcer cab will be designed specifically for the fire service and manufactured by t chassis builder. The cab will be built by the apparatus manufacturer in a facility located on the manufacturer's premises. For reasons of structural integrity and enhanced occupant protection, the cab will be a heavy duty design, constructed to the following minimal standards. The cab will have 12 main vertical structural members located in the A-pillar (front cab corner posts), B-pillar (side center posts), C-pillar (rear corner posts), and rear wall areas. The A-pillar will be constructed of solid A356-T5 aluminum castings. The B-pillar and C-pillar will be constructed from 0.13" wall extrusions. The rear wall will be constructed of two (2) 2.00" x 2.00" outer aluminum extrusions and two (2) 2.00" x 1.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 4.625" x 3.864" x 0.090" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.25" thick corner casting at each of the front corners of the roof assembly. The front of the cab will be constructed of a 0.13" firewall plate, covered with a 0.090" front skin (for a total thickness of 0.22"), and reinforced with a full width x 0.50" thick cross-cab support located just below the windshield and fully welded to the engine tunnel. The cross-cab support will run the full width of the cab and weld to each A-pillar, the 0.13" firewall plate, and the front skin. The cab floors will be constructed of 0.125" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.375" of structural material at the front floor area. The front floor area will also be supported with two (2) triangular 0.30" wall extrusions that also provides the mounting point for the cab lift. This tubing will run from the floor wireway of the cab to the engine tunnel side plates, creating the structure to support the forces created when lifting the cab. The cab will be 96.00" wide (outside door skin to outside door skin) to maintain maximum maneuverability. The forward cab section will have an overall height (from the cab roof to the ground) of approximately 99.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 109.00". The overall height listed will be calculated based on a truck configuration with the lowest suspension weight rating, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension will increase the overall height listed. The floor to ceiling height inside the crew cab will be 64.50" in the center and outboard positions. The crew cab floor will measure 36.00" from the rear wall to the back side of the rear facing seat risers. The medium block engine tunnel, at the rearward highest point (knee level), will measure 51.50" to the rear wall. The big block engine tunnel will measure 41.50" to the rear wall. The crew cab will be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants. The cab will be a full tilt cab style. A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab. **CAB ROOF DRIP RAIL** For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be painted to match the cab roof, and bonded to the sides of the cab. The drip rail will extend the full length of the cab roof. **INTERIOR CAB INSULATION** The cab will include 1.00" insulation in the ceiling, 1.50" insulation in the side walls, and 2.00" insulation in the rear wall to maximize acoustic absorption and thermal insulation. **FENDER LINERS** Full circular inner fender liners in the wheel wells will be provided. **PANORAMIC WINDSHIELD** A one (1)-piece safety glass windshield will be provided with over 2,775 square inches of clear viewing area. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: outer light, middle safety laminate, and inner light. The outer light layer will provide superior chip resistance. The middle safety laminate layer will prevent the windshield glass pieces from detaching in the event of breakage. The inner light will provide yet another chip resistant layer. The cab windshield will be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern will be applied on the outside perimeter of the windshield for a finished automotive appearance. **WINDSHIELD WIPERS** Three (3) electric windshield wipers with washer will be provided that meet FMVSS and SAE requirements. The washer reservoir will be able to be filled without raising the cab.
0747442	Engine Tunnel, X12, MX13, Enforcer	**ENGINE TUNNEL** Engine hood side walls will be constructed of 0.375" aluminum. The top will be constructed of 0.125" aluminum and will be tapered at the top to allow for more driver and passenger elbow room. The engine hood will be insulated for protection from heat and sound. The noise insulation keeps the dBA level within the limits stated in the current NFPA 1901 standards. The engine tunnel will be no higher than 17.00" off the crew cab floor.
0610508	Rear Wall, Interior, Adjustable Seating, Not Available	
0632103	Rear Wall, Exterior, Cab, Saber FR/Enforcer	**CAB REAR WALL EXTERIOR COVERING** The exterior surface of the rear wall of the cab will be overlaid with bright aluminum treadplate that covers the entire rear wall.

0639727	Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer	**CAB LIFT** A hydraulic cab lift system will be provided consisting of an electric powered hydraulic p lift cylinders, and necessary hoses and valves. Hydraulic pump will have a manual override for backup in the event of electrical failure. Lift controls will be located on the right side pump panel or front area of the body in a convenient location. The cab will be capable of tilting 43 degrees to accommodate engine maintenance and removal. The cab will be locked down by a 2-point normally closed spring loaded hook type latch that fully engages after the cab has been lowered. The system will be hydraulically actuated to release the normally closed locks when the cab lift control is in the raised position and cab lift system is under pressure. When the cab is completely lowered and system pressure has been relieved, the spring loaded latch mechanisms will return to the normally closed and locked position. The hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position. For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the left side between the chassis and cab frame when the cab is in the raised position. This device will be manually stowed to its original position before the cab can be lowered. **Cab Lift Interlock** The cab lift system will be interlocked to the parking brake. The cab tilt mechanism will be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism will be disabled.
0695930	Grille, Bright Finished, Front of Cab, Enforcer	**GRILLE** A bright finished aluminum mesh grille screen, inserted behind a bright finished grille surround, will be provided on the front center of the cab.
0002224	Scuffplates, S/S At Cab Door Jambs, 4-Door Cab	**DOOR JAMB SCUFFPLATES** All cab door jambs will be furnished with a 1.00" polished stainless steel scuffplate, mounted on the striker side of the jamb.
0643412	Seal, Caulk Top Edge, Exterior Cab Rear Wall	**CAULK TOP EDGE OF REAR WALL SCUFFPLATE** The top edge of the scuffplate on the back wall of the cab will be caulked to prevent water from leaking behind it.
0647932	Not Required, Trim, S/S Band, Across Cab Face, AXT/Saber/Enforcer	
0015440	No Chrome Molding, On side of cab	
0521669	Mirrors, Retrac, West Coast Style, Htd/Rmt, w/Htd/Rmt Convex	**MIRRORS** A Retrac, Model 613423, dual vision, motorized, west coast style mirror, with chrome finish, will be mounted on each side of the front cab door with spring loaded retractable arms. The flat glass and convex glass will be heated and adjustable with remote control within reach of the driver.
0648170	Door, Half-Height, Saber FR/Enforcer 4-Door Cab, Raised Roof	**DOORS** To enhance entry and egress to the cab, the forward cab door openings will be a minimum of 37.50" wide x 63.37" high. The crew cab doors will be located on the sides of the cab and will be constructed in the same manner as the forward cab doors. The crew cab door openings will be a minimum of 34.30" wide x 73.25" high. The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.093". The exterior door skins will be constructed from 0.090" aluminum. A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. The finish of the door handle will be chrome/black. The exterior handle will be designed specifically for the fire service to prevent accidental activation, and will provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands. Each door will also be provided with an interior flush, open style paddle handle that will be readily operable from fore and aft positions, and be designed to prevent accidental activation. The interior handles will provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands. The cab doors will be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys will be Model 751. The locks will be capable of activating when the doors are open or closed. The doors will remain locked if locks are activated when the doors are opened, then closed. A full length, heavy duty, stainless steel, piano-type hinge with a 0.38" pin and 11 gauge leaf will be provided on all cab doors. There will be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit. A chrome grab handle will be provided on the inside of each cab door for ease of entry. A red webbed grab handle will be installed on the crew cab door stop strap. The grab handles will be securely mounted. The bottom cab step at each cab door location will be located below the cab doors and will be exposed to the exterior of the cab.

0655543		Door Panel, Brushed Stainless Steel, Saber/Enforcer 4-Door Cab	**Door Panels** The inner cab door panels will be constructed out of brushed stainless steel.
0630636		Controls, Electric Roll-Up Windows, 4dr, 4 Driver Controls, Saber FR/Enforcer	**ELECTRIC OPERATED CAB DOOR WINDOWS** All four (4) cab doors will be equipped with electric operated windows with one (1) flush mounted automotive style switch on each door. The driver's door will have four (4) switches, one (1) to control each door window. Each switch will allow intermittent or auto down operation for ease of use. Auto down operation will be actuated by holding the window down switch for approximately 1 second.
0528251		Electric Door Locks, Cab Doors, QXS, AXT, Sab, Enf, Dash CF	**ELECTRIC CAB DOOR LOCKS** The front driver and officer doors will have a door lock master switch that will control all front and rear crew cab door locks. Each rear crew cab door will have its own lock control. There will be one (1) concealed switch located in an easily accessible chassis specific location that will unlock all the doors.
0633615		Steps, 4-Door Cab, Reduced Bottom Step, Saber FR/Enforcer	**CAB STEPS** The forward cab and crew cab access steps will be a full size two (2) step design to provide largest possible stepping surfaces for safe ingress and egress. The bottom steps will be designed with a grip pattern punched into bright aluminum treadplate material to provide support, slip resistance, and drainage. The bottom steps will be a bolt-in design to minimize repair costs should they need to be replaced. The forward cab steps will be a minimum 25.00" wide, and the crew cab steps will be 21.65" wide with an 8.00" minimum depth. The inside cab steps will not exceed 16.50" in height. The vertical surfaces of the step well will be aluminum treadplate.
0770194		Handrail, Exterior, Knurled, Alum, 4-Door Cab	**CAB EXTERIOR HANDRAILS** A 1.25" diameter slip-resistant, knurled aluminum handrail will be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress.
0892638		Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	**STEP LIGHTS** There will be six (6) white LED step lights with chrome housing installed for cab and crew cab access steps. One (1) light for the left access steps. Two (2) lights for the left side crew cab access steps. Two (2) lights for the right side crew cab access steps. One (1) light for the right side access step. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights will be activated when the battery switch is on and the adjacent door is opened.
0583698		Fenders, S/S on cab, Extra Wide, Saber/Enf	**FENDER CROWNS** Stainless steel fender crowns will be installed at the cab wheel openings.
0557023		Handrail, 10", Below Cab Windshield, Pair	**HANDRAILS BELOW CAB WINDSHIELD** A 10.00" long x 1.25" diameter handrail will be mounted below the front cab windshield, one (1) on each side. The handrails will be extruded aluminum with a ribbed design to provide a positive gripping surface.
0802931	SP	Handrail, Interior, Crew Cab Doors, Location	**INTERIOR CREW CAB DOOR HANDRAIL** A handrail will be provided on each interior crew cab door pan. The handrails will be mounted One (1) each Crew Cab door, horizontal at lower portion of door window.. These are in addition to the standard crew cab door handle.
0637984		Window, Side of C/C, Fixed, Saber FR/Enforcer	**CREW CAB WINDOWS** One (1) fixed window with tinted glass will be provided on each side of the cab, to the rear of the front cab door. The windows will be sized to enhance light penetration into the cab interior. The windows will measure 18.70" wide x 23.75" high.
0012090		Not Required, Windows, Front/Side of raised roof	
0779033		Not Required, Windows Rear of Crew Cab, Saber FR/Enforcer	
0786279		Window Tint, Crew Cab Door, Right Side, Privacy Dark Gray	**RIGHT SIDE ROLLUP CREW CAB DOOR WINDOW TINT** The rollup window in the right side crew cab door will be tinted privacy dark gray.

0786284	Window Tint, Behind Cab Door, Right Side, Privacy Dark Gray	**BEHIND RIGHT SIDE CAB DOOR WINDOW TINT** The window behind the right side front cab door will be tinted privacy dark gray.
0786286	Window Tint, Upper Crew Cab Door, Right Side, Privacy Dark Gray	**RIGHT SIDE UPPER CREW CAB DOOR WINDOW TINT** The upper window in the right side crew cab door will be tinted privacy dark gray.
0786290	Window Tint, Crew Cab Door, Left Side, Privacy Dark Gray	**LEFT SIDE ROLLUP CREW CAB DOOR WINDOW TINT** The rollup window in the left side crew cab door will be tinted privacy dark gray.
0786294	Window Tint, Upper Crew Cab Door, Left Side, Privacy Dark Gray	**LEFT SIDE UPPER CREW CAB DOOR WINDOW TINT** The upper window in the left side crew cab door will be tinted privacy dark gray.
0786299	Window Tint, Behind Cab Door, Left Side, Privacy Dark Gray	**BEHIND LEFT SIDE CAB DOOR WINDOW TINT** The window behind the left side front cab door will be tinted privacy dark gray.
0644019	Holder, Cup, 4" Diameter x 4" High x 1" Slit on Side, Matting, Alum, Each	**CUP HOLDER** There will be four (4) cup holder(s) provided. Each cup holder will be 4.00" in diameter x 4.00" high. An approximate 1.00" wide recess in the cup holder will allow it to hold beverage containers with handles. Black rubber matting will be provided on the bottom of each cup holder. The cup holder(s) will be painted to match the cab interior and located Mount at Final.
0722796	Dash, Poly, Saber FR/Enforcer	**CAB DASH** The driver side dash, switch panel located to the right of the driver, and center console will be an easily removable high impact resistant polymer cover. The instrument gauge cluster will be surrounded with a high impact ABS plastic contoured to the same shape of the instrument gauge cluster. The officer side dash will be a flat top design with an upper beveled edge to provide easy maintenance and will be constructed out of aluminum and painted to match the cab interior.
0634206	Mounting Provisions, 1/4" Alum, Full Engine Tunnel, Saber FR/Enforcer	**MOUNTING PLATE ON ENGINE TUNNEL** Equipment installation provisions will be installed on the engine tunnel. A .25" smooth aluminum plate will be bolted to the top surface of the engine tunnel. The plate will follow the contour of the engine tunnel and will run the entire length of the engine tunnel. The plate will be spaced off the engine tunnel .75" to allow for wire routing below the plate. The mounting surface will be painted to match the cab interior.
0893536	Mounting Plate, 3/16" Aluminum, Pegboard, Cab Interior	**MOUNTING PLATE(S)** There will be two (2)Sized based on available space, maximum size outboard of Forward Facing cabinet full height pegboard mounting plate(s) provided and installed (1) Each side of rear wall outboard of the forward facing center cabinet.. The plate will be 0.188" thick with .203" diameter holes, punched 1.00" on center in a pegboard pattern. The mounting surface will be painted to match the cab interior. The plates(s) will be mounted on 1.00" spacer stand-offs.
0750824	Cab Interior, Vinyl Headliner, Saber FR/Enforcer, CARE	**CAB INTERIOR** The cab interior will be constructed of primarily metal (painted aluminum) to withstand the severe duty cycles of the fire service. The engine tunnel will be padded and covered, on the top and sides, with black 36 ounce leather grain vinyl resistant to oil, grease, and mildew. For durability and ease of maintenance, the cab interior side walls will be painted aluminum. The rear wall will be painted aluminum. The headliner will be installed in both forward and rear cab sections. Headliner material will be vinyl. A sound barrier will be part of its composition. Material will be installed on an aluminum sheet and securely fastened to interior cab ceiling. The forward portion of the cab headliner will permit easy access for service of electrical wiring or other maintenance needs. All wiring will be placed in metal raceways. **CAB INTERIOR UPHOLSTERY** The cab interior upholstery will be 36 oz black vinyl.
0753903	Cab Interior, Paint Color, Saber FR/Enforcer	**CAB INTERIOR PAINT** The cab interior metal surfaces, excluding the rear heater panels, will be painted black, vinyl texture paint. The rear heater panels will be painted black, vinyl textured paint.

0052100	Floor, Rubber Padded, Cab & Crew Cab, Saber/Enforcer	**CAB FLOOR** The cab and crew cab floor areas will be covered with Polydamp™ acoustical floor mat of a black pyramid rubber facing and closed cell foam decoupler. The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a 0.25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.
0722696	HVAC, Enforcer, CARE	**DEFROST/AIR CONDITIONING SYSTEM** A ceiling mounted combination heater, defroster and air conditioning system will be installed in the cab above the engine tunnel area. **Cab Defroster** A 54,000 BTU heater-defroster unit with 690 SCFM of air flow will be provided inside the cab. The heater-defrost will be installed in the forward portion of the cab ceiling. Air outlets will be strategically located in the cab header extrusion per the following: One (1) adjustable will be directed towards the left side cab window One (1) adjustable will be directed towards the right side cab window Six (6) fixed outlets will be directed at the windshield The defroster will be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system will meet or exceed SAE J382 requirements. **Cab/Crew Auxiliary Heater** There will be one (1) 31,000 BTU auxiliary heater with 560 SCFM of air flow provided in each outboard rear facing seat risers with a dual scroll blower. An aluminum plenum incorporated into the cab structure used to transfer heat to the forward positions. **Air Conditioning** A condenser will be a 59,644 BTU output that meets and exceeds the performance specification will be mounted on the radiator. The air conditioning system will be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit at 50 percent relative humidity within 30 minutes. The cooling performance test will be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours. The evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include one (1) high performance heating core, one (1) high performance cooling core with (1) plenum directed to the front and one (1) plenum directed to the rear of the cab. The rear plenum will be covered with a formed plastic cover. The evaporator unit will have a 52,000 BTU at 690 SCFM rating that meets and exceeds the performance specifications. Adjustable air outlets will be strategically located on the forward plenum cover per the following: Four (4) will be directed towards the seating position on the left side of the cab Four (4) will be directed towards the seating position on the right side of the cab Adjustable air outlets will be strategically located on the rear plenum cover per the following: Minimum of five (5) will be directed towards crew cab area A high efficiency particulate air (HEPA) filter will be included for the system. Access to the filter cover will be secured with four (4) screws. The air conditioner refrigerant will be R-134A and will be installed by a certified technician. **Climate Control** An automotive style controller will be provided to control the heat and air conditioning system within the cab. The controller will have three (3) functional knobs for fan speed, temperature, and air flow distribution (front to rear) control. The system will control the temperature of the cab and crew cab automatically by pushing the center of the fan speed control knob. Rotate the center temperature control knob to set the cab and crew cab temperature. The AC system will be manually activated by pushing the center of the temperature control knob. Pushing the center of the air flow distribution knob will engage the AC for max defrost, setting the fan speeds to 100 percent and directing all air flow to the overhead forward position. The system controller will be located within panel position #13. **Gravity Drain Tubes** Two (2) condensate drain tubes will be provided for the air conditioning evaporator. The drip pan will have two (2) drain tubes plumbed separately to allow for the condensate to exit the drip pan. No pumps will be provided.
0639675	Sun Visor, Smoked Lexan, AXT, Imp/Vel, Saber FR/Enforcer	**SUN VISORS** Two (2) smoked Lexan™ sun visors will be provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab. There will be a black plastic thumb latch provided to help secure each sun visor in the stowed position.
0622887	Grab Handles, Driver Door Post, Officer Door Post Low, Saber FR/Enforcer	**GRAB HANDLE** A black rubber covered grab handle will be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The officer's side grab handle will be mounted on the lower portion of the door post. The grab handle will be securely mounted to the post area between the door and windshield.
0583938	Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3" LED, Trim	**ENGINE COMPARTMENT LIGHTS** There will be one (1) Whelen, Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Whelen, Model 3FLANGEC, chrome flange kit(s) installed under the cab to be used as engine compartment illumination. These light(s) will be activated automatically when the cab is raised.

0631830	Fluid Check Access, Saber FR/Enforcer, Arrow XT	**ACCESS TO ENGINE DIPSTICKS** For access to the engine oil and transmission fluid dipsticks, there will be a door on the tunnel, inside the crew cab. The door will be on the rear wall of the engine tunnel, on th surface. The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. The door will have a rubber seal for thermal and acoustic insulation. One (1) flush lift and turn latch will be provided on the access door.
0013560	Map box, 5 bin/30 Deg Slant, AXT, Imp/Vel, SFR/Enf	**MAP BOX** A map box with five (5) bins, open at the top, will be installed mount at final with each bin being 12.50" wide x 2.25" high x 12.00" deep. Each bin will slant 30 degrees from horizontal. The map box will be constructed of .125" aluminum and will be painted to match the cab interior.
0583039	Not Required, Side Roll and Frontal Impact Protection	
0622619	Seating Capacity, 4 Seats	**SEATING CAPACITY** The seating capacity in the cab will be four (4).
0632962	Seat, Driver, Bostrom, Sierra, Air Ride, High Back, Saber FR/Enforcer	**DRIVER SEAT** A H.O. Bostrom, Sierra, air suspension high back seat will be provided in the cab for the driver. For increased convenience, the seat will include a manual control to adjust the horizontal position (5.50" travel). To provide flexibility for multiple driver configurations, the seat will have a reclining back, adjustable from 15 degrees back to 45 degrees forward. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0632918	Seat, Officer, Bostrom 450, Fixed, SCBA, Saber FR/Enforcer	**OFFICER SEAT** A H.O. Bostrom, Tanker 450, SCBA fixed seat will be provided in the cab for the officer. For optimal comfort, the seat will be provided with 17.00" deep cushion. The seat back will be an SCBA back style with a 5 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 1.50" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0620420	Radio Compartment, Below Non-Air Ride Seat, Saber FR/Enforcer	**RADIO COMPARTMENT** A radio compartment will be provided under the officer's seat. The inside compartment dimensions will be 16.00" wide x 7.50" high x 15.00" deep, with the back of the compartment angled up to match the cab structure. A drop-down door with one (1) lift and turn latch will be provided for access. The compartment will be constructed of smooth aluminum and painted to match the cab interior.
0632850	Seat, Rear Facing C/C, DS Outboard, Bostrom 450, SCBA, Saber FR/Enforcer	**REAR FACING DRIVER SIDE OUTBOARD SEAT** There will be one (1) rear facing, HO Bostrom Tanker 450 SCBA seat provided at the driver side outboard position in the crew cab. For optimal comfort, the seat will be provided with 17.00" deep cushion. The seat back will be an SCBA back style with a 5 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 1.50" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0102783	Not Required, Seat, Rr Facing C/C, Center	
0632846	Seat, Rear Facing C/C, PS Outboard, Bostrom 450, SCBA, Saber FR/Enforcer	**REAR FACING PASSENGER SIDE OUTBOARD SEAT** There will be one (1) rear facing, HO Bostrom Tanker 450 SCBA seat provided at the passenger side outboard position in the crew cab. For optimal comfort, the seat will be provided with 17.00" deep cushion. The seat back will be an SCBA back style with a 5 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 1.50" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0108189	Not Required, Seat, Forward Facing C/C, DS Outboard	

0764155	SP	Cabinet, Forward Facing, Center, 38.50 W x 50 H x 22.50 D, Roll, SFR/Enf	**FORWARD FACING CENTER CABINET** A forward facing cabinet will be provided in the crew cab at the center position. The cabinet will be 38.50" wide x 50.00" high x 22.50" deep with one (1) Amdor rollup d[illegible] anodized finish, non-locking. The frame to frame opening of the cabinet will be 36.00" w[illegible] x 44.75" high. The minimum clear door opening will be 33.25" wide x 38.87" high. The cabinet will include three (3) infinitely adjustable shelves with a 1.25" up-turned lippainted to match the cab interior. The cabinet will include no louvers. The cabinet will be constructed of smooth aluminum, and painted to match the cab interior. **Cabinet Light** There will be one (1) white LED strip light installed on the left side of the interior cabinet door opening and one (1) white LED strip light installed on the right side of the interior cabinet door opening. The lighting will be controlled by an automatic door switch.
0108190		Not Required, Seat, Forward Facing C/C, PS Outboard	
0617410		Matting, Turtle Tile, EMS Compt, Shelving, 0.75" Thick	**MATTING IN EMS COMPARTMENT** Turtle Tile vinyl matting will be provided in three (3) EMS compartment shelves, Forward facing center cabinet. Tile color will be black.
0042359		Upholstery, Seats In Cab, All Vinyl, Bostrom, CARE	**SEAT UPHOLSTERY** All seat upholstery will be leather grain black vinyl resistant to oil, grease and mildew. The cab will have four (4) seating positions.
0677039		Bracket, Air Bottle, Bostrom "SecureAll", Cab Seats, Bostrom Only	**AIR BOTTLE HOLDERS** There will be three (3) SCBA type seats in the cab with Bostrom SecureAll SCBA locking holder brackets installed directly into the Bostrom seats. The brackets will be compliant with NFPA 1901 Section 14.1.10.1.
0603866		Seat Belt, Dual Retractor, ReadyReach, Saber FR/Enforcer	**SEAT BELTS** All cab and tiller cab (if applicable) seating positions will have red seat belts. To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length will meet or exceed the current edition of NFPA 1901 and CAN/ULC - S515 standards. The 3-point shoulder type seat belts will include height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter. The 3-point shoulder type seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position. The 3-point shoulder type belts will also include the ReadyReach D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location. Any flip up seats will include a 3-point shoulder type belts only. To ensure safe operation, the seats will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not buckled.
0602464		Helmet Storage, Provided by Fire Department, NFPA 2016	**HELMET STORAGE PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided. There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.
0647638		Lights, Dome, Weldon Dual LED 4 Lts	**CAB DOME LIGHTS** There will be four (4) Weldon 808* series, dual LED dome lights with black bezels provided. Two (2) lights will be mounted above the inside shoulder of the driver and officer and two (2) lights will be installed and located, one (1) on each side of the crew cab. The color of the LED's will be red and white . The white LED's will be controlled by the lens switch. The color LED's will be controlled by the door switches.
0896451		Enhanced Software for Cab and Crew Cab Dome Lts	**ENHANCED SOFTWARE FOR CAB AND CREW CAB DOME LIGHTS** The cab and crew cab dome lights will remain on for 10 seconds for improved visibility after the doors are closed. The dome lights will dim after 10 seconds or immediately if the vehicle's transmission is put into gear.
0602637		Portable Hand Light, Provided by Fire Dept, Pumper NFPA 2016 Classification	**PORTABLE HAND LIGHTS, PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 5.9.4 requires two portable hand lights mounted in brackets fastened to the apparatus. The hand lights are not on the apparatus as manufactured. The fire department will provide and mount these hand lights.

0554191	Handlight, Streamlight, Fire Vulcan, 44451, C4 LED, Tail Lights, 12v, Orange	**ADDITIONAL HAND HELD LIGHT** There will be three (3) lights additional 12v Streamlight, Model #44451, Fire Vulcan LED will be provided and mounted Determine at Pre-Con. Each light will be provided with a 1 direct wire vehicle mounting rack. Each light housing will be orange in color and be provided with a single C4 LED bulb and two (2) "ultra bright blue tail-light LEDs". The tail-light LEDs will have a dual mode of blinking or steady.
0622803	Cab Instruments, Black Gauges, Black Bezels, Enforcer MUX	**CAB INSTRUMENTATION** The cab instrument panel include gauges, an LCD display, telltale indicator lamps, control switches, alarms, and a diagnostic panel. The function of the instrument panel controls and switches will be identified by a label adjacent to each item. Actuation of the headlight switch will illuminate the labels in low light conditions. Telltale indicator lamps will not be illuminated unless necessary. The cab instruments and controls will be conveniently located within the forward cab section, forward of the driver. The gauge assembly and switch panels are designed to be removable for ease of service and low cost of ownership. **Gauges** The gauge panel will include the following ten (10) black faced gauges with black bezels to monitor vehicle performance: Voltmeter gauge (volts): Low volts (11.8 VDC) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly High volts (15.5 VDC) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Very low volts (11.3 VDC) Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Very high volts (16.0 VDC) Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Engine Tachometer (RPM) Speedometer MPH (Major Scale), KM/H (Minor Scale) Fuel level gauge (Empty - Full in fractions): Low fuel (1/8 full) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Very low fuel (1/32 full) Red caution indicator on the information center with steady alarm Amber caution light on gauge assembly Engine Oil pressure Gauge (PSI): Low oil pressure to activate engine warning lights and alarms Red caution indicator on the information center with steady alarm Amber caution light on gauge assembly Front Air Pressure Gauges (PSI): Low air pressure to activate warning lights and alarm Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Rear Air Pressure Gauges (PSI): Low air pressure to activate warning lights and alarm Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Transmission Oil Temperature Gauge (Fahrenheit): High transmission oil temperature activates warning lights and alarm Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Engine Coolant Temperature Gauge (Fahrenheit): High engine temperature activates an engine warning light and alarms Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions): Low fluid (1/8 full) Amber indicator light in gauge dial All gauges will perform prove out at initial power-up to ensure proper performance. **Indicator Lamps** To promote safety, the following telltale indicator lamps will be located on the instrument panel in clear view of the driver. The indicator lamps will be "dead-front" design that is only visible when active. The colored indicator lights will have descriptive text or symbols. The following amber telltale lamps will be present: Low coolant Trac cntl (traction control) (where applicable) Check engine Check trans (check transmission Aux brake overheat (Auxiliary brake overheat Air rest (air restriction) Caution (triangle symbol) Water in fuel DPF (engine diesel particulate filter regeneration) Trailer ABS (where applicable) Wait to start (where applicable) HET (engine high exhaust temperature) (where applicable) ABS (antilock brake system) MIL (engine emissions system malfunction indicator lamp) (where applicable) Side roll fault (where applicable) Front air bag fault (where applicable) The following red telltale lamps will be present:

Warning (stop sign symbol)
Seat belt
Parking brake
Stop engine
Rack down
The following green telltale lamps will be provided:
Left turn
Right turn
Battery on
The following blue telltale lamp will be provided:
High beam

Alarms

Audible steady tone warning alarm: A steady audible tone alarm will be provided whenever a warning message is present.
Audible pulsing tone caution alarm: A pulsing audible tone alarm (chime/chirp) will be provided whenever a caution message is present without a warning message being present.
Alarm silence: Any active audible alarm will be able to be silenced by holding the ignition switch at the top position for three (3) to five (5) seconds. For improved safety, silenced audible alarms will intermittently chirp every 30 seconds until the alarm condition no longer exists. The intermittent chirp will act as a reminder to the operator that a caution or warning condition still exists. Any new warning or caution condition will enable the steady or pulsing tones respectively.

Indicator Lamp and Alarm Prove-Out

A system will be provided which automatically tests telltale indicator lights and alarms located on the cab instrument panel. Telltale indicators and alarms will perform prove-out at initial power-up to ensure proper performance.

Control Switches

For ease of use, the following controls will be provided immediately adjacent to the cab instrument panel within easy reach of the driver. All switches will have backlit labels for low light applications.
Headlight/Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking and headlights. The second switch position will activate the parking lights. The third switch will activate the headlights.
Panel back lighting intensity control switch: A three (3)-position momentary rocker switch will be provided. Pressing the top half of the switch, "Panel Up" increases the panel back lighting intensity and pressing the bottom half of the switch, "Panel Down" decreases the panel back lighting intensity. Pressing the half or bottom half of the switch several times will allow back lighting intensity to be gradually varied from minimum to maximum intensity level for ease of use.
Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will turn off and deactivate vehicle ignition. The second switch position will activate vehicle ignition and will perform prove-out on the telltale indicators and alarms for 3 to 5 seconds after the switch is turned on. A green indicator lamp is activated with vehicle ignition. The third momentary position will temporarily silence all active cab alarms. An alarm "chirp" may continue as long as alarm condition exists. Switching ignition to off position will terminate the alarm silence feature and reset function of cab alarm system.
Engine start switch: A two (2)-position momentary rocker switch will be provided. The first switch position is the default switch position. The second switch position will activate the vehicle's engine. The switch actuator is designed to prevent accidental activation.
Hazard switch will be provided on the instrument panel or on the steering column.
Heater, defroster, and air conditioning control panel.
Turn signal arm: A self-canceling turn signal with high beam headlight controls will be provided.
Windshield wiper control will have high, low and intermittent modes.
Parking brake control: An air actuated push/pull park brake control valve will be provided.
Chassis horn control: Activation of the chassis horn control will be provided through the center of the steering wheel.
High idle engagement switch: A momentary rocker switch with integral indicator lamp will be provided. The switch will activate and deactivate the high idle function. The "OK To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch will indicate when the high idle function is engaged.
"OK To Engage High Idle" indicator lamp: A green indicator light will be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.
Emergency switching will be controlled by multiple individual warning light switches for various groups or areas of emergency warning lights. An Emergency Master switch provided on the instrument panel that enables or disables all individual warning light switches is included.
An additional "Emergency Master" button will be provided on the lower left hand corner of the gauge panel to allow convenient control of the "Emergency Master" system from inside the driver's door when standing on the ground.

Custom Switch Panels

The design of cab instrumentation will allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There will be positions for up to four (4) switch panels in the lower instrument console and up to six (6) switch panels in the overhead visor console. All switches have backlit labels for low light conditions.

Diagnostic Panel

A diagnostic panel will be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel will allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches will allow ABS systems to provide blink codes should a problem exist.
The diagnostic panel will include the following:
Engine diagnostic port
Transmission diagnostic port

ABS diagnostic port
Roll sensor diagnostic port
Command Zone USB diagnostic port
ABS diagnostic switch (blink codes flashed on ABS telltale indicator)
Diesel particulate filter regeneration switch (where applicable)
Diesel particulate filter regeneration inhibit switch (where applicable)
Cab LCD Display
A digital four (4)-row by 20-character dot matrix display will be integral to the gauge panel. The display will be capable of showing simple graphical images as well as text. The display will be split into three (3) sections. Each section will have a dedicated function.
The upper left section will display the outside ambient temperature.
The upper right section will display the following, along with other configuration specific information:
Odometer
Trip mileage
PTO hours
Fuel consumption
Engine hours
The bottom section will display INFO, CAUTION, and WARNING messages. Text messages will automatically activate to describe the cause of an audible caution or warning alarm. The LCD will be capable of displaying multiple text messages should more than one caution or warning condition exist.

0509511	Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	**AIR RESTRICTION INDICATOR** A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.
0543751	Light, Do Not Move Apparatus	**"DO NOT MOVE APPARATUS" INDICATOR** A flashing red indicator light, located in the driving compartment, will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On." The same circuit that activates the Do Not Move Apparatus indicator will activate a pulsing alarm when the parking brake is released.
0509042	Messages, Open Dr/DNMT, Color Dsply,	**DO NOT MOVE TRUCK MESSAGES** Messages will be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages will designate the item or items not in the stowed for vehicle travel position (parking brake disengaged). The following messages will be displayed (where applicable): Do Not Move Truck DS Cab Door Open (Driver Side Cab Door Open) PS Cab Door Open (Passenger's Side Cab Door Open) DS Crew Cab Door Open (Driver Side Crew Cab Door Open) PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open) DS Body Door Open (Driver Side Body Door Open) PS Body Door Open (Passenger's Side Body Door Open) Rear Body Door Open DS Ladder Rack Down (Driver Side Ladder Rack Down) PS Ladder Rack Down (Passenger Side Ladder Rack Down) Deck Gun Not Stowed Lt Tower Not Stowed (Light Tower Not Stowed) Fold Tank Not Stowed (Fold-A-Tank Not Stowed) Aerial Not Stowed (Aerial Device Not Stowed) Stabilizer Not Stowed Steps Not Stowed Handrail Not Stowed Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved will be displayed as a caution message after the parking brake is disengaged.
0611683	Switching, Cab Instrument Lower Console & Overhead, Membrane, Enforcer WiFi MUX	**SWITCH PANELS** The emergency light switch panel will have a master switch for ease of use plus individual switches for selective control. Each switch panel will contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments will include non-functioning black appliqués. The built-in switch panels will be located in the lower console or overhead console of the cab. Additional switch panel(s) will be located in the overhead position(s) above the windshield or in designated locations on the lower instrument panel layout. The switches will be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch will be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. An active illuminated switch will flash when interlock requirements are not met or device is actively being load managed. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed in the center of the switch. The label will allow light to pass through the letters for ease of use in low light conditions.

0802940	Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	**WIPER CONTROL** Wiper control will consist of a two (2)-speed windshield wiper control with intermittent fe windshield washer controls. The control will be located on the left side of the center inst panel.
0897831	Wiring, Spare,12V DC, USB-A, USB-C Termination, Kussmaul 091-264 Cab 1st	**SPARE CIRCUIT** There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 6 amps at 12 volts DC. Power and ground will terminate in the cab/crewcab (1) in drivers area per IP Layout, (1) one Officer area per IP Layout, (1) each side of Forward Facing Center cabinet in a box with USB outlets facing Firefighter seat. Termination will be a Kussmaul part number 091-264 switch panel dual USB-A, 18 watt and USB-C, 45 watt SVR, charger socket. Wires will be sized to 125 percent of the protection. This circuit(s) may be load managed when the parking brake is applied.
0764088	Wiring, Spare, 47.5 A 12V DC, Cust Install Radio, 40A Bat Dir, 7.5A Sw & Grnd	**CUSTOMER SUPPLIED RADIO WIRING** There will be one (1) 12 volt combination wiring leads of which each will include one (1) direct battery, one (1) master battery switched and one (1) negative for use with radio equipment. Each lead will be 18.00" long and be provided RS overhead passenger dash, from below Officer seat. The leads will be clearly marked in a coil and terminate with butt splices. A breaker rated for 40 amps will be provided for circuit protection of the direct battery lead with a minimum of 8 gauge wire. A breaker rated for 7.5 amps will be provided for circuit protection of the master battery switched lead. The wires will be colored coded as follows: red for direct battery yellow for master battery switched black for ground
0585913	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025 2nd	**SPARE CIRCUIT** There will be two (2) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 20 amps at 12 volts DC. Power and ground will terminate (1) one mounted in LS3 & RS3, mounted in upper rear corner on forward wall of each compartment.. Termination will be to a Blue Sea System, Model 5025, 6 circuit with negative bus bar. The terminal block will include a cover with circuit labels. Wires will be sized to 125% of the protection. This circuit(s) may be load managed when the parking brake is set.
0585914	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025 1st	**SPARE CIRCUIT** There will be three (3) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 20 amps at 12 volts DC. Power and ground will terminate (1) one mounted next to engine tunnel aft of Driver seat. (1) one mounted next to engine tunnel aft of Officer seat (1) one mounted in lower portion of forward facing center cabinet in crew cab area. Termination will be to a Blue Sea System, Model 5025, 6 circuit with negative bus bar. The terminal block will include a cover with circuit labels. Wires will be sized to 125% of the protection. This circuit(s) may be load managed when the parking brake is set.
0548004	Wiring, Spare, 15 A 12V DC 1st	**SPARE CIRCUIT** There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power The negative wire will be connected to ground Wires will be protected to 15 amps at 12 volts DC Power and ground will terminate officer side dash area and Drivers Dash per IP Layout, X2 Crew Cab rear seats. (1) each side of Forward Facing Center cabinet in same box with USB, outlets facing forward towards Firefighter seats Termination will be with 15 amp, power point plug with rubber cover Wires will be sized to 125 percent of the protection The circuit(s) may be load managed when the parking brake is set.

0803875	Radio, AM/FM/WB, Jensen, Frt,Rear Aux In/Frt,Rear USB/Bluetooth	**STEREO RADIO** A Jensen, heavy duty AM/FM / Bluetooth / Weatherband stereo radio, with front and rear input will be installed within reach of the driver. There will be 5.25" speakers installed on one (1) pair of 5.25" speakers in the cab and one (1) pair of 5.25" speakers in the crew cab. The antenna will be a roof-mounted rubber antenna located in an open space, on the cab roof. The following features will be included: - 180 watts max power output (45W x 4) - Bluetooth® streaming audio and controls (A2DP/AVRCP) with hands-free calling (HFP) - Electronic AM/FM tuner (US/Euro) - iPod®/iPhone® ready via USB - SiriusXM-Ready® - Seven-channel NOAA weatherband with S.A.M.E. technology - USB 2.0 for playback of MP3 & WMA audio files - RBDS with PTY search - Front and rear USB input - Front and rear AUX input
0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	**INFORMATION CENTER** An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing. The information center will have the following specifications: Operate in temperatures from -40 to 185 degrees Fahrenheit An Optical Gel will be placed between the LCD and protective lens Five weather resistant user interface switches Grey with black accents Sunlight Readable Linux operating system Minimum of 1000nits rated display Display can be changed to an available foreign language A LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area. Programmed to read US Customary **General Screen Design** Where possible, background colors will be used to provide "At a Glance" vehicle information. If information provided on a screen is within acceptable limits, a green background will be used. If a caution or warning situation arises the following will occur: An amber background/text color will indicate a caution condition A red background/text color will indicate a warning condition The information center will utilize an "Alert Center" to display text messages for audible alarm tones. The text messages will be written to identify the item(s) causing the audible alarm to sound. If more than one (1) text message occurs, the messages will cycle every second until the problem(s) have been resolved. The background color for the "Alert Center" will change to indicate the severity of the "warning" message. If a warning and a caution condition occur simultaneously, the red background color will be shown for all alert center messages. A label for each button will exist. The label will indicate the function for each active button for each screen. Buttons that are not utilized on specific screens will have a button label with no text or symbol. **Home/Transit Screen** This screen will display the following: Vehicle Mitigation (if equipped) Water Level (if the water level system includes compatible communications to the information center) Foam Level (if the foam level system includes compatible communications to the information center) Seat Belt Monitoring Screen Seat Belt Monitoring Screen Tire Pressure Monitoring (if equipped) Digital Speedometer Active Alarms **On Scene Screen** This screen will display the following and will be auto activated with pump engaged (if equipped): Battery Voltage Fuel Oil Pressure Coolant Temperature RPM Water Level (if equipped) Foam Level (if equipped) Foam Concentration (if equipped) Water Flow Rate (if equipped) Water Used (if equipped) Active Alarms **Virtual Buttons** There will be four (4) virtual switch panel screens that match the overhead and lower lighting and HVAC switch panels. **Page Screen** The page screen will display the following and allow the user to progress into other screens for further functionality: Diagnostics Faults Listed by order of occurrence Allows to sort by system Interlock Throttle Interlocks Pump Interlocks (if equipped) Aerial Interlocks (if equipped)

PTO Interlocks (if equipped)
Load Manager
A list of items to be load managed will be provided. The list will provide a description of
The lower the priority numbers the earlier the device will be shed should a low voltage
occur.
The screen will indicate if a load has been shed (disabled) or not shed.
"At a glance" color features are utilized on this screen.
Systems
Command Zone
Module type and ID number
Module Version
Input or output number
Circuit number connected to that input or output
Status of the input or output
Power and Constant Current module diagnostic information
Foam (if equipped)
Pressure Controller (if equipped)
Generator Frequency (if equipped)
Live Data
General Truck Data
Maintenance
Engine oil and filter
Transmission oil and filter
Pump oil (if equipped)
Foam (if equipped)
Aerial (if equipped)
Setup
Clock Setup
Date & Time
12 or 24 hour format
Set time and date
Backlight
Daytime
Night time
Sensitivity
Unit Selection
Home Screen
Virtual Button Setup
On Scene Screen Setup
Configure Video Mode
Set Video Contrast
Set Video Color
Set Video Tint
Do Not Move
The screen will indicate the approximate location and type of item that is open or is not stowed for travel. The actual status of the following devices will be indicated
Driver Side Cab Door
Passenger's Side Cab Door
Driver Side Crew Cab Door
Passenger's Side Crew Cab Door
Driver Side Body Doors
Passenger's Side Body Doors
Rear Body Door(s)
Ladder Rack (if applicable)
Deck Gun (if applicable)
Light Tower (if applicable)
Hatch Door (if applicable)
Stabilizers (if applicable)
Steps (if applicable)
Notifications
View Active Alarms
Shows a list of all active alarms including date and time of the occurrence is shown with each alarm
Silence Alarms - All alarms are silenced
Timer Screen
HVAC (if equipped)
Tire Information (if equipped)
Ascendant Set Up Confirmation (if equipped)
Button functions and button labels may change with each screen.

0734857	Collision Mitigation, HAAS Alert (R2V), HA5	**COLLISION MITIGATION** There will be a HAAS Alert®, Model HA5 Responder-to-Vehicle (R2V) collision avoidan provided on the apparatus. The HA5 cellular transponder module will be installed behin windshield, as high and near to the center as practical, to allow clear visibility to the sky. The module dimensions are 5.40" long x 2.70" wide x 1.30" high, and operating temperature range is -40 degree C to 85 degree C. The transponder will be connected to the vehicle's emergency master circuit and battery direct power and ground. While responding with emergency lights on, the HA5 transponder sends alert messages via cellular network to motorists in the vicinity of the responding truck that are equipped with the WAZE app. While on scene with emergency lights on, the HA5 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app. The HA5 Responder-to-Vehicle (R2V) collision avoidance system will include the transponder and a 5 year cellular plan subscription. Activation of the HAAS Alert system requires a representative of the customer to accept the End User License Agreement (EULA) via an on-line portal.
0606247	Vehicle Data Recorder w/CZ Display Seat Belt Monitor	**VEHICLE DATA RECORDER** There will be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided. The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve required information. The program to download the information from the VDR will be available to download on-line. The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs: Vehicle Speed - MPH Acceleration - MPH/sec Deceleration - MPH/sec Engine Speed - RPM Engine Throttle Position - % of Full Throttle ABS Event - On/Off Seat Occupied Status - Yes/No by Position Seat Belt Buckled Status - Yes/No by Position Master Optical Warning Device Switch - On/Off Time - 24 Hour Time Date - Year/Month/Day **Seat Belt Monitoring System** A seat belt monitoring system (SBMS) will be provided on the Command Zone™ color display. The SBMS will be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following: Seat Occupied & Buckled = Green LED indicator illuminated Seat Occupied & Unbuckled = Red LED indicator with audible alarm No Occupant & Buckled = Red LED indicator with audible alarm No Occupant & Unbuckled = No indicator and no alarm The seat belt monitoring screen will become active on the Command Zone color display when: The home screen is active: and there is any occupant seated but not buckled or any belt buckled with an occupant. and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS will be activated. The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.
0606226	Signal, Recordable, VDR, Silence Alarm, AXT MUX, DCF, SFR/Enf, Imp/Vel, Qtm	**Vehicle Data Recordable Input** When the VDR is active, the seat belt monitoring system alarm will be silenced through the standard silence alarm switch. The alarm will chirp in intervals to remind the operator that an alarm is still sounding.
0735006	Intercom, David Clark, 4-Pos, 2-Radio, (D,O,RPTT), 2obC, U3805	**INTERCOM SYSTEM** There will be a four (4) position David Clark, Model U3800, intercom system with single radio interface capability at the driver and officer positions and remote radio push to talk buttons located (1) DS, (1) Officer per IP Layout. Two (2) crew cab outboard seats will have intercom only capability. The following components will be provided: One (1) U3805 Radio Cord Junction Module Two (2) U3815 Radio interface modules (Driver, Officer) Two (2) Remote Push To Talk Button Kits One (1) U3800 Master station (1 Crew) One (1) U3801 Remote headset intercom station (1 Crew) One (1) C3820 Power cord All necessary station cables and connectors
0637058	David Clark Universal Radio Interfaces Included with Single/Dual System	**RADIO / INTERCOM INTERFACE INCLUDED** All radio interfaced stations will have universal radio interfaces installed. The interface wiring will be routed within the cab to Officer overhead dash area .

0597914	Headset, David Clark, H3442 Under Helmet, Flex Mic	**UNDER THE HELMET HEADSET** There will be four (4) under the helmet, headset(s) provided Driver, Officer, Both Crew C Each David Clark, Model H3442, headset will feature: 5' Coiled cord Noise cancelling electric microphone Flexible microphone boom rotates 200 degrees for left or right dress Microphone on/off button Comfort Gel Earseals 23 dB noise reduction
0681408	Hangers For Headsets, NFPA, Each	**HEADSET HANGERS** There will be four (4) headset hanger(s) installed driver's seat, officer's seat, driver's side outboard rear facing seat and passenger's side outboard rear facing seat. The hanger(s) will meet NFPA 1901, Section 14.1.11, requirement for equipment mounting.
0559503	Install Customer Provided, Portable Radio Charger(s)	**PORTABLE RADIO CHARGER INSTALLATION** There will be three (3) customer supplied portable two-way radio chargers(s) sent to the apparatus manufacturers preferred radio installer to be installed TBD at Pre-Con visit. Specific shipping requirements will be followed.
0687904	Antenna Mount, Custom Chassis, Cable Routed to Behind Officer Seat	**RADIO ANTENNA MOUNT** There will be two (2) standard 1.125", 18 thread antenna-mounting base(s) installed (2) behind the lightbar on the lower roof on the cab roof with high efficiency, low loss, coaxial cable(s) routed to behind the officer seat. A weatherproof cap will be installed on the mount.
0787174	Special CZIII WiFi Antenna Location, RS Cab Rf, Vel/Imp/Dash CF/Enf	**SPECIAL WIFI ANTENNA MOUNT LOCATION** The Command Zone advanced electronics WiFi-GPS antenna will be relocated from its standard right crewcab roof location forward on the cab roof on the right side. When relocating this antenna it must be located a minimum of nine (9) inches away from any other metallic object.
0653520	Camera, Pierce, Mux, R, RS Cameras	**VEHICLE CAMERA SYSTEM** There will be a color vehicle camera system provided with the following: One (1) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse. One (1) camera located on the right side of the apparatus, pointing rearward, displayed automatically with the right side turn signal. The camera images will be displayed on the driver's vehicle information center display. Audio from the microphone on the rear camera will be emitted by an amplified speaker with volume control located behind the driver seat. The following components will be included: One (1) SV-CW134639CAI Camera One (1) CS134404CI Side camera One (1) Amplified speaker (if applicable) All necessary cables
0523921	Recess, Rear Vision Camera	**RECESS REAR CAMERA** A rear camera recess will be provided to the driver side rear .
0890416	Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT	**ELECTRICAL POWER CONTROL SYSTEM** The primary power distribution will be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers will be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers will be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays will be easily accessible. Distribution centers located throughout the vehicle will contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership. Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers will be Type-I automatic reset (continuously resetting). When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA. **Solid-State Control System** A solid-state electronics based control system will be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network will consist of electronic modules, electronic control modules to include black housings, a power indicator and status indicator located near their point of use to reduce harness lengths and improve reliability. The control system will comply with SAE J1939-11 recommended practices. The control system will operate as a master-slave system whereas the main control module instructs all other system components. The system will contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system will utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership. For increased reliability and simplified use the control system modules will include the following attributes:

Green LED indicator light for module power
Red LED indicator light for network communication stability status
Control system self test at activation and continually throughout vehicle operation
No moving parts due to transistor logic
Software logic control for NFPA mandated safety interlocks and indicators
Integrated electrical system load management without additional components
Integrated electrical load sequencing system without additional components
Customized control software to the vehicle's configuration
Factory and field programmable to accommodate changes to the vehicle's operating parameters
To assure long life and operation in a broad range of environmental conditions, the solid-state control system modules will meet the following specifications:
Module circuit board will meet SAE J771 specifications
Operating temperature from -40C to +70C
Storage temperature from -40C to +70C
Vibration to 50g
IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter)
Operating voltage from eight (8) volts to 32 volts DC
The main controller will activate status indicators and audible alarms designed to provide warning of problems before they become critical.

Circuit Protection and Control Diagram

Copies of all job-specific, computer network input and output (I/O) connections will be provided with each chassis. The sheets will indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information.

On-Board Electrical System Diagnostics

The on-board information center will include the following diagnostic information:
Text description of active warning or caution alarms
Simplified warning indicators
Amber caution indication with intermittent alarm
Red warning indication with steady tone alarm
Advanced diagnostic feature will be provided in this control system. From the Command Zone display or connected wireless device, these features allow the user to monitor the real-time status of every input or output on the vehicle. It also allows users logged in as an administrator to force on inputs or outputs to assist the troubleshooting process.

TCU Module with WiFi

An in cab module will provide WiFi wireless interface and data logging capability. The WiFi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz.
The module will communicate through a black WiFi antenna allowing a line of site communication range of up to 300 feet with a roof mounted antenna.
The module will transmit a password protected web page to a WiFi enabled device (i.e. most smart phones, tablets or laptops) allowing two levels of user interaction. The firefighter level will allow vehicle monitoring of the vehicle and firefighting systems on the apparatus. The technician level will allow diagnostic access to inputs and outputs installed on the Command Zone™, control and information system.
The TCU capability will record faults from the engine, transmission, ABS and Command Zone™, control and information systems as they occur. No other data will be recorded at the time the fault occurs. The data TCU will provide up to 2 Gigabytes of data storage.
The TCU will provide a means to download the TCU information and update software in the device.

Indicator Light and Alarm Prove-Out System

A system will be provided which automatically tests basic indicator lights and alarms located on the cab instrument panel.

Voltage Monitor System

A voltage monitoring system will be provided to indicate the status of the battery system connected to the vehicle's electrical load. The system will provide visual and audible warning when the system voltage is below or above optimum levels.
The alarm will activate if the system falls below 11.8 volts DC for more than two (2) minutes.

Dedicated Radio Equipment Connection Points

There will be three (3) studs provided in the primary power distribution center located in front of the officer for two-way radio equipment. The studs will consist of the following:
12-volt 40-amp battery switched power
12-volt 60-amp ignition switched power
12-volt 60-amp direct battery power
There will also be a 12-volt 100-amp ground stud located in or adjacent to the power distribution center.

EMI/RFI Protection

To prevent erroneous signals from crosstalk contamination and interference, the electrical system will meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system will be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source.
The apparatus will have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The electrical system will meet, without exceptions, electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, will provide EMC testing reports from testing conducted on an entire apparatus and will certify that the vehicle meets SAE J551/2 and SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter requirements. Component and partial (incomplete) vehicle testing is not adequate as overall vehicle design can impact test results and thus is not acceptable by itself.
EMI/RFI susceptibility will be controlled by applying appropriate circuit designs and shielding. The electrical system will be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing will be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

0896456	Prognostics, Electrical System	**ELECTRICAL SYSTEM PROGNOSTICS** There will be a software based vehicle tool provided to predict remaining life of the vehi critical fluid and events. The system will send automatic indications to the Command Zone™ information center and/or wireless enabled devices to proactively alert of upcoming service intervals. Prognostics will include the following: Engine oil and filter Transmission oil and filter
0892649	CZ Connect Telematics	**TELEMATICS SYSTEM** There will be a cellular based vehicle telematics system consisting of a Telematic Control Unit (TCU) with external cellular WiFi and GPS antenna, and access to a web-based user interface portal provided. The TCU will be fully integrated into the Command Zone™ electrical system. It will monitor the vehicle through the CAN data bus and transmit data through a secure 4G LTE cellular connection, and be provided with a 3 year subscription.. After accepting the end user license agreement, the vehicle administrator will have access to vehicle location information and vehicle data via a secure CZ Connect web-based interface portal. The CZ Connect web-based interface will allow users to access vehicle data and configure monitoring tools, providing a global view of the location of each connected asset and a summary of fleet data, which include: User defined interval notifications User defined fault alerts Remote access to Command Zone diagnostics Vehicle analytics and activity monitoring Vehicle system status
0624253	Electrical System, Enforcer MUX	**ELECTRICAL** All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment will be installed utilizing the following guidelines: All holes made in the roof will be caulked with silicon. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof. Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body. Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work. Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug). All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area. All electrical terminals in exposed areas will have silicon applied completely over the metal portion of the terminal. All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments. An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order. The results of the tests will be recorded and provided to the purchaser at time of delivery.
0079211	Batteries, (6) Exide Grp 31, 950 CCA each, Threaded Stud	**BATTERY SYSTEM** There will be six (6) 12 volt Exide®, Model 31S950X3W, batteries that include the following features will be provided: 950 CCA, cold cranking amps 190 amp reserve capacity High cycle Group 31 Rating of 5700 CCA at 0 degrees Fahrenheit 1140 minutes of reserve capacity Threaded stainless steel studs Each battery case will be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover will be manifold vented with a central venting location to allow a 45 degree tilt capacity. The inside of each battery will consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.

0008621	Battery System, Single Start, All Custom Chassis	**BATTERY SYSTEM** There will be a single starting system with an ignition switch and starter button provided located on the cab instrument panel. **MASTER BATTERY SWITCH** There will be a master battery switch provided within the cab within easy reach of the driver to activate the battery system. An indicator light will be provided on the instrument panel to notify the driver of the status of the battery system.
0002698	Battery Compartment, Saber/Enforcer	**BATTERY COMPARTMENTS** Batteries will be placed on non-corrosive mats and stored in well ventilated compartments located under the cab. Heavy-duty, 2/0 gauge, color coded battery cables will be provided. Battery terminal connections will be coated with anti-corrosion compound. Battery solenoid terminal connections will be encapsulated with semi-permanent rubberized compound. **JUMPER STUDS** One (1) set of battery jumper studs with plastic color-coded covers will be included on the battery compartments.
0793175	Charger, Sngl Sys, Kussmaul, 440-4910-0, 023-5353-1 Indicator, Waterproof	**BATTERY CHARGER** There will be one (1) Kussmaul, Model 440-4910-0, 35 amp 12 volt DC single bank chassis battery charger provided. There will be a Kussmaul, Model 023-5353-1, bar graph display indicating the state of charge provided. The battery charger will be wired to the AC shoreline inlet through a splice box located near the charger.
0505960	Location, Charger, Left Side Front Body Compartment	Battery charger will be located in the front left body compartment, mounted Up high on back wall as high as possible.
0530949	Location, Bat Chrg Ind, Driver's Seat Riser	The battery charger indicator will be located on the driver's seat riser.
0016857	Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super	**AUTO EJECT FOR SHORELINE** There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus. The shoreline inlet(s) will include red weatherproof flip up cover(s). There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting. The shoreline(s) will be connected to the battery charger. There will be a mating connector body supplied with the loose equipment. There will be a label installed near the inlet(s) that state the following: Line Voltage Current Ratting (amps) Phase Frequency
0026800	Shoreline Location	The shoreline receptacle will be located on the driver side of cab, above wheel.
0008740	Cover, Protection over Battery Charger	**BATTERY CHARGER COVER** A cover will be fabricated and installed over the battery charger for protection. LS Body Compartment.
0647728	Alternator, 430 amp, Delco Remy 55SI	**ALTERNATOR** A Delco Remy®, Model 55SI, alternator will be provided. It will have a rated output current of 430 amps, as measured by SAE method J56. The alternator will feature an integral regulator and rectifier system that has been tested and qualified to an ambient temperature of 257 degrees Fahrenheit (125 degrees Celsius). The alternator will be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.

0092582	Load Manager/Sequencer, MUX	**ELECTRONIC LOAD MANAGER** An electronic load management (ELM) system will be provided that monitors the vehicle electrical system, automatically reducing the electrical load in the event of a low voltage and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system. For improved reliability and ease of use, the load manager system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components will not be allowed. The system will include the following features: System voltage monitoring. A shed load will remain inactive for a minimum of five minutes to prevent the load from cycling on and off. Sixteen available electronic load shedding levels. Priority levels can be set for individual outputs. High Idle to activate before any electric loads are shed and deactivate with the service brake. If enabled: "Load Man Hi-Idle On" will display on the information center. Hi-Idle will not activate until 30 seconds after engine start up. Individual switch "on" indicator to flash when the particular load has been shed. The information center indicates system voltage. The information center, where applicable, includes a "Load Manager" screen indicating the following: Load managed items list, with priority levels and item condition. Individual load managed item condition: ON = not shed SHED = shed **SEQUENCER** A sequencer will be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation will allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator. For improved reliability and ease of use, the load sequencing system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components will not be allowed. Emergency light sequencing will operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights will be activated one by one at half-second intervals. Sequenced emergency light switch indicators will flash while waiting for activation. When the emergency master switch is deactivated, the sequencer will deactivate the warning light loads in the reverse order. Sequencing of the following items will also occur, in conjunction with the ignition switch, at half-second intervals: Cab Heater and Air Conditioning Crew Cab Heater (if applicable) Crew Cab Air Conditioning (if applicable) Exhaust Fans (if applicable) Third Evaporator (if applicable)
0783153	Headlights, Rect LED, JW Spkr Evo 2, AXT/DCF/Enf/Imp/Sab/Vel	**HEADLIGHTS** There will be four (4) JW Speaker®, Model 8800, 4" x 6" rectangular LED lights mounted in the front quad style, chrome housing on each side of the cab grille: the outside light on each side will contain a part number 055***1 low beam module the inside light on each side will contain a part number 055***1 high beam module the headlights to include chrome bezels The low beam lights will be activated when the headlight switch is on. The high beam and low beam lights will be activated when the headlight switch and the high beam switch is activated.
0625953	Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts, Enf, Sab FR	**DIRECTIONAL LIGHTS** There will be two (2) Whelen 600 series, LED combination directional/marker lights provided. The lights will be located on the outside cab corners, next to the headlights. The color of the lenses will be clear.
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	**INTERMEDIATE LIGHT** There will be two (2) Weldon, Model 9186-8580-29, amber LED turn signal marker lights furnished, one (1) each side, in the rear fender panel. The light will double as a turn signal and marker light.
0647802	Lights, Clearance/Marker/ID, Front, P25 LED 5 Lts, Saber FR/Enforcer	**CAB CLEARANCE/MARKER/ID LIGHTS** There will be five (5) amber LED lights provided to indicate the presence and overall width of the vehicle in the following locations: Three (3) amber LED identification lights will be installed in the center of the cab above the windshield. Two (2) amber LED clearance lights will be installed, one (1) on each outboard side of the cab above the windshield.

0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED, AXT/Enf	**FRONT CAB SIDE CLEARANCE/MARKER LIGHTS** There will be two (2) Truck-Lite®, Model 19036Y, amber LED lights installed to the outs chrome wrap around bezel, one (1) on each side of the cab. The lights will activate as additional directional lights with the corresponding directional circuit.
0563675	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	**REAR CLEARANCE/MARKER/ID LIGHTING** There will be three (3) Truck-Lite®, Model 33050R, LED lights used as identification lights recessed and located at the rear of the apparatus per the following: As close as practical to the vertical centerline Centers spaced not less than 6.00" or more than 12.00" apart Red in color All at the same height There will be two (2) Truck-Lite, Model 33050R, LED lights recessed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following: To indicate the overall width of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the rear All at the same height There will be two (2) Truck-Lite, Model 33050R, LED lights recessed on the side of the apparatus as marker lights as close to the rear as practical per the following: To indicate the overall length of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the side All at the same height There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground. There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground. Per FMVSS 108 and CMVSS 108 requirements.
0804514	Lights, Tail, Wln M62BTT* Red Stop/Tail & M62T* Amber Dir Arw For Hsg	**REAR FMVSS LIGHTING** The rear stop/tail and directional lighting included in the rear tail light housing will include the following: Two (2) Whelen®, Model M62BTT, 4.30" high x 6.70" wide x 1.40" deep brake/tail lights with red LEDs Two (2) Whelen, Model M62T, 4.30" high x 6.70" wide x 1.40" deep directional lights with amber LEDs. The directional lights will be set to Steady On (Arrow) flash pattern. The lens color(s) to be clear.
0806466	Lights, Backup, Wln M62BU, LED, For Tail Lt Housing	There will be two (2) Whelen Model M62BU, LED backup lights provided in the tail light housing.
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	**LICENSE PLATE BRACKET** One (1) license plate bracket constructed of stainless steel will be provided at the rear of the apparatus. One (1) white LED light with chrome housing will be provided to illuminate the license plate. A stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.
0556842	Bezels, Wln, (2) M6 Chrome Pierce, For mtg (4) Wln M6 lights	**LIGHTING BEZEL** There will be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings with Pierce logos provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights.
0589905	Alarm, Back-up Warning, PRECO 1040	**BACK-UP ALARM** A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.
0578264	Flash Pattern, California Title13, LED Warning Lights	**WARNING LIGHT FLASH PATTERN** The flash pattern of all the exterior warning lights will be set to meet the certified California, Title XIII flash pattern by either the light manufacturer's default flash pattern or by a conversion change to the certified flash pattern.

0804836	SP	Lights, Cornering/Scene, Wln M62BU LED, Switches 2 lts, 1st	**CORNERING/SCENE LIGHTS** There will be two (2) of Whelen®, Model M62BU, white 12 volt DC LED lights with chro provided on the apparatus, no higher than the low beam headlights, (1) each corner of bumper, match #36591. The lights will be activated by a switch at the driver's side switch panel, by a switch at the passenger's side switch panel and when the left directional signal is activated, the left scene lights will activate. When the right directional signal is activated, the right scene lights will activate.
0056200		Mounting, Light, Recess (each)	**MOUNTING, RECESS LIGHT** There will be one (1) recessed pocket(s) for mounting light(s). The recessed pocket(s) will be provided passenger side rear body bulkhead.
0626588		Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	**CAB PERIMETER SCENE LIGHTS** There will be four (4) TecNiq, Model T10-LC00-1, 15.00" lights with white LEDs and 45 degree stainless steel brackets provided per the following: one (1) under the driver's side cab access step one (1) under the passenger's side cab access step one (1) under the passenger's side crew cab access step one (1) under the driver's side crew cab access step The lights will be activated when the battery switch is on, when the respective door is open and by the same control selected for the body perimeter lights.
0617901		Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	**PUMP HOUSE PERIMETER LIGHTS** There will be two (2) TecNiq, Model T10-LC00-1, 15.00" white 12 volt DC LED weatherproof strip lights provided under the pump panel running boards, one (1) each side. The lights will be controlled by the same means as the body perimeter lights.
0626579		Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear Step	**BODY PERIMETER SCENE LIGHTS** There will be two (2) TecNiq, Model T10-LC00-1, 15.00" 12 volt DC LED strip lights provided at the rear step area of the body, one (1) each side shining to the rear. The perimeter scene lights will be activated when a switch within reach of the driver is activated and a cab door is open.
0896454		Enhanced Software for Perimeter Lts	**ENHANCED SOFTWARE FOR PERIMETER LIGHTS** All perimeter lights will be deactivated when the parking brake is released unless alternate control is selected. The cab and crew cab perimeter lights will remain on for ten (10) seconds for improved visibility after the doors closed.
0556360		Lights, Step, P25 LED 4lts, Pump Pnl Sw	**STEP LIGHTS** Four (4) white LED step lights will be provided. One (1) step light will be provided on each side, on the front compartment face and two (2) step lights at the rear to illuminate the tailboard. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light. These step lights will be actuated with the pump panel light switch. All other steps on the apparatus will be illuminated per the current edition of NFPA 1901.
0892654		Light, Step, Additional, P25 LED	**ADDITIONAL STEP LIGHT** There will be Model P25 white LED step lights with chrome housing to provide additional lighting. The step lights will be installed on the front of the cargo sheet to illuminate the crosslay cover. The quantity of additional step lights will be two (2) lights. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The additional step lights will be activated by the same means as the standard step lights.
0765338	SP	Lights, Side Scene, Zico ZQL-SS-LED, Stainless, Cab Sw & Reverse	**SCENE LIGHTS** There will be one (1) pair of Ziamatic, Model ZQL-SS-LED, 450 lumen per light, 12 volt DC, white LED scene light(s) with stainless steel housing installed on the side of the apparatus, just ahead the side warning lights over the rear wheels, match #36591. The lights will be controlled by a switch in the cab per switch panel layout. The lights will also be activated when the transmission is placed into reverse. These lights may be load managed when the parking brake is set.

0626449	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 2nd	**12 VOLT LIGHTING** There will be one (1) Whelen Model NP6B*, 1,800 lumens 12 volt DC LED floodlight(s) and bail bracket to be located passenger side on the cab roof, as far forward as possible and under the lightbar towards the outboard side and angled at 45 degrees outwards per previous truck #32995 01-03. The painted parts of this light assembly to be black. The light(s) selected above will be controlled by the following: from the passenger's side cab scene light option control. a switch at the driver's side pump panel. no additional switch location. no additional switch location. These light(s) may be load managed when the parking brake is applied.
0626453	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 1st	**12 VOLT LIGHTING** There will be one (1) Whelen Model NP6B*, 1,800 lumens 12 volt DC LED floodlight(s) and bail bracket to be located driver side on the cab roof, as far forward as possible and under the lightbar towards the outboard side and angled at 45 degrees outwards per previous truck #32995 01-03. The painted parts of this light assembly to be black. The light(s) selected above will be controlled by the following: from the driver's side body scene light option control. a switch at the pump operator's panel. no additional switch location. no additional switch location. These light(s) may be load managed when the parking brake is applied.
0776357	Light, Visor, Wln, 12V P*H2* Pioneer, Cnt Feature, 1st	**12 VOLT LIGHTING** There will be one (1) Whelen® Model P*H2*, 17,750 lumens 12 volt DC light(s) with a combination of flood and spot optics provided on the front visor, centered. The housing(s) painted parts of this light assembly to be black. The light(s) will be controlled by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel. These light(s) may be load managed when the parking brake is applied.
0768059	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 2nd	**12 VOLT DC SCENE LIGHTS** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC powered light(s) with white LEDs installed on the cab located, RIGHT SIDE OF THE CAB ABOVE WINDOW. The surface mount housing(s) will be provided with a chrome cover. The light(s) will be activated by a switch at the driver's side switch panel and by a switch at the left side pump panel. The light(s) may be load managed when the parking brake is applied.
0768061	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 1st	**12 VOLT DC SCENE LIGHTS** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC powered light(s) with white LEDs installed on the cab located, LEFT SIDE OF THE CAB ABOVE WINDOW. The surface mount housing(s) will be provided with a chrome cover. The light(s) will be activated by a switch at the driver's side switch panel and by a switch at the left side pump panel. The light(s) may be load managed when the parking brake is applied.
0763608	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 2nd	**12 VOLT LIGHTING** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC surface mount light (s) installed on the body of the apparatus located, LS HATCH COMPARTMENT, CENTERED OVER LS2. The light(s) will include housing(s) with a chrome cover. The light(s) will be controlled by a switch at the left side pump panel and by the same control that has been selected for the driver's side scene light(s). The light(s) may be load managed when the parking brake is applied.
0763610	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 1st	**12 VOLT LIGHTING** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC surface mount light (s) installed on the body of the apparatus located, on the RS Body Side Sheet up high centered over RS2. The light(s) will include housing(s) with a chrome cover. The light(s) will be controlled by a switch at the left side pump panel and by the same control that has been selected for the passenger's side scene light(s). The light(s) may be load managed when the parking brake is applied.
0532358	Not Required, Deck Lights, Other Hose Bed & Rear Lighting	

0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40" LED 4lts	**LIGHTS BELOW HOSE BED COVER** There will be four (4) Amdor Model AY-LB-12HW040, 700 lumens, 40.00" white LED lig provided to illuminate the hose bed area. Two (2) LED light strips will be installed on the driver's side hose bed cover 30.00" from and rear of the hose bed, as close to the hinge as practical. Two (2) LED light strips will be installed on the passenger's side hose bed cover 30.00" from the front and rear of the hose bed, as close to the hinge as practical. The lights will be activated when the battery switch is on, and when the hosebed cover is raised.
0778195	Lights, Rear Scene, Wln, PCPSM1C Pioneer LED Fld/Spt, Surface Mount	**REAR SCENE LIGHTS** There will be two (2) Whelen, Model PCPSM1, LED scene lights with chrome trim bezels installed at the rear of the apparatus. These lights will be installed between 30.00" and 102.00" above the ground. The lights will be controlled by a switch at the driver's side switch panel, by a switch at the driver's side pump panel and by a switch in a stainless steel cup located at the rear of the apparatus no more than 72.00" from the ground.
0709438	Lights, Walk Surf, FRP Flood, LED	**WALKING SURFACE LIGHT** There will be Model FRP, 4" round black 12 volt DC LED floodlight(s) with bolt mount provided to illuminate the entire designated walking surface on top of the body. The light(s) will be activated when the body step lights are on.
0060100	Pumper, Short, Galvanneal, 2nd Gen	
0554271	Body Skirt Height, 20"	
0063387	Tank, Water, 600 Gallon, Poly, Short	**WATER TANK** Booster tank will have a capacity of 600 gallons and be constructed of polypropylene plastic by United Plastic Fabricating, Incorporated. Tank will be T-shaped to provide for deep side compartments and to serve as a large sump to limit the amount of undraftable water. Tank joints and seams will be nitrogen welded inside and out. Tank will be baffled in accordance with NFPA bulletin 1901 requirements. Baffles will have vent openings at both the top and bottom to permit movement of air and water between compartments. Longitudinal partitions will be constructed of .38" polypropylene plastic and will extend from the bottom of the tank through the top cover to allow for positive welding. Transverse partitions will extend from 4.00" off the bottom of the tank to the underside of the top cover. All partitions will interlock and will be welded to the tank bottom and sides. Tank top will be constructed of .50" polypropylene. It will be recessed .38" and will be welded to the tank sides and the longitudinal partitions. Tank top will be sufficiently supported to keep it rigid during fast filling conditions. Construction will include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels will be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes. A sump that will be sized dependent on the tank to pump plumbing will be provided at the bottom of the water tank. Sump will include a drain plug and the tank outlet. Tank will be installed in a fabricated cradle assembly constructed of structural steel. Sufficient crossmembers will be provided to properly support bottom of tank. Crossmembers will be constructed of steel flat bar or rectangular tubing. Tank will "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, will be placed on all horizontal surfaces that the tank rests on. Stops or other provision will be provided to prevent an empty tank from bouncing excessively while moving vehicle. Mounting system will be approved by the tank manufacturer.
0003405	Overflow, 4.00" Water Tank, Poly	Fill tower will be constructed of .50" polypropylene and will be a minimum of 8.00" wide x 14.00" long. Fill tower will be furnished with a .25" thick polypropylene screen and a hinged cover. An overflow pipe, constructed of 4.00" schedule 40 polypropylene, will be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.
0028104	Foam Cell Required	
0633066	Sleeve, Through Tank	**SLEEVE, PLUMBING, THROUGH TANK** Two (2) sleeves will be provided in the water tank for a 2.50" pipe to the rear.
0553729	Not Required, Restraint, Water Tank, Heavy Duty	

0003429	Not Required, Direct Tank Fill	
0003424	Not Required, Dump Valve	
0048710	Not Required, Jet Assist	
0030007	Not Required, Dump Valve Chute	
0514778	Not Required, Switch, Tank Dump Master	
0126632	Hose Bed, Galv, Pumper	**HOSE BED** The hose bed will be fabricated of 12-gauge galvanneal steel. The sides will not form any portion of the fender compartments. Upper and rear edges of side panels will have a double break for rigidity. The upper inside area of the beavertails will be covered with brushed stainless steel to prevent damage to painted surface when hose is removed. Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats will be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation.
0723549	Painted Hose Bed	The hose bed interior walls will be painted to match the upper body color.
0003481	Hose Bed Capacity, Special	Hose bed will accommodate from left to right: hosebed #1= 200' of 1.5" Wildland pre-connect above shelf, #2 = 200' of 1.75" pre-connected below shelf, #3 = 600' 2.5", #4 = 600' of 5" additional 200' of 2.5" Blitz line. Most likely on RS of hose bed.
0689090	Divider, Hose Bed, .25" Unpainted, w/Handhold	**HOSE BED DIVIDER** Three (3) hosebed dividers will be furnished for separating hose. Each divider will be constructed of a .25" brushed aluminum sheet. Flat surfaces will be sanded for uniform appearance, or constructed of brushed aluminum. An oval opening will be provided near the rear of the divider to be used as a hand hold and aid in accessing the hose bed. Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed. Divider will be held in place by tightening bolts, at each end. Acorn nuts will be installed on all bolts in the hose bed which have exposed threads.
0010133	Cross-Divider, Hose Bed	A cross-divider will be provided just behind the fill tower. The divider will be bolted to the side sheet.
0058033	Shelf, Hinged, In Hose Bed, Between Side Sheet	**SHELF, HINGED IN HOSE BED** There will be one (1) hinged shelves, constructed of aluminum grating, provided for hose or equipment storage inside the hose bed located LS between side sheet and first divider on the left side. The shelf will be attached to the hose bed side sheet.
0730459	Cover, Hose Bed, Alum Treadplate, Bolted T-Bar	**HOSE BED COVER** A two (2) section hose bed cover, constructed of .125" bright aluminum treadplate, will be furnished. The cover will be hinged with full length stainless steel piano hinge. The sides will be slanted down with the center of the cover supported by a stationary modular bridgework support. The cover will be reinforced so that it can support the weight of a man walking on the cover. The cover is designed with the left cover opening first. If access to water tank fill tower is blocked by the hose bed cover, then a hinged door will be provided in it so that tank may be filled without raising cover doors. Chrome grab handles and gas filled cylinders will be provided to assist in opening and closing the cover. A handrail is provided at the rear, in the center of the support, to assist in opening the cover. The hose bed cover will be connected to the Do Not Move Truck indicator. The light will be activated if the cover is not in the stowed position and the parking brake is released.
0697328	Flap, Rear of Alum Hose Bed Cover, Two Piece, Vinyl, w/Seat Belt Buckles	**HOSEBED END FLAP** A pair of black vinyl flaps will be installed on the rear, one for each of the aluminum treadplate hose bed covers. The vinyl flap will be secured to the hose bed cover with quarter turn fasteners. Each vinyl flap will have (2) nylon tie down straps with seat belt buckles to secure the flaps at their base.

0695399		Running Boards, 14.75" Deep, Front and Rear 45 Degree Corners	**RUNNING BOARDS** Running boards will be fabricated of .125" bright aluminum treadplate. Each running board will be supported by a welded 2.00" square tubing and channel ass which will be bolted to the pump compartment substructure. Running boards will be 14.75" deep and spaced .50" away from the pump panel. The front and rear outside corner of the running board will be finished with a 45 degree corner where it lines up with the body. A splash guard will be provided above the running board treadplate.
0810369	SP	Tailboard, Folding, Space Saver - Tread Ext, Hinged 2 Pc 10" Bumper,PUC Style,2G	**TAILBOARD** The tailboard will be designed as a space saving work platform provided at the rear of the body. The platform will fold up to reduce overall truck length, angle of departure, and create a clean safe working platform by keeping rain, snow, and ice off the platform during transit. The platform will be 35.50" wide x 21.00" deep. When folded up, the platform will be the lower section of the rear compartment door. The external surface of the platform will be covered in aluminum treadplate. When folded down, the platform will provide a treadplate stepping surface with a rated capacity of 500 lb. **REAR BUMPER** A two (2) piece rear bumper will be provided at the rear of the apparatus. The bumper will be a two (2) piece design, allowing the folding platform to operate in the center of the unit. The bumper will be fabricated from bright aluminum treadplate and be 10.00" in depth. Each piece of the bumper will be hinged to allow the piece to fold up if struck from beneath in an angle of departure scenario.
0690027		Wall, Rear, Smooth Aluminum/Body Material, Flush Rear Wall	**REAR WALL, SMOOTH ALUMINUM/BODY MATERIAL** The rear facing surfaces of the center rear wall will be smooth aluminum. The bulkheads, the surface to the rear of the side body compartments, will be smooth and the same material as the body. The rear wall will be flush.
0887592	SP	Tow Eyes, w/Tow Bar, Spaced Forward, 2G Pumper	**REAR TOW EYES** Two (2) tow eyes, which are an integral part of the body mounting substructure, will be installed below the rear of the truck. The tow eyes will be of adequate strength to allow the truck to be pulled from the eyes. **REAR TOW BAR** One (1) tow bar will be installed under the tailboard, 5.00" forward from the rear of the tailboard. With air ride suspension and a 65 gallon fuel tank, the tow bar will be located .50" further rearward than normal when there is this combination of options. The tow bar assembly will be designed and positioned to allow up to a 20,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow bar design will have been tested and evaluated using finite element analysis techniques.
0623362		Hose Restraint, Running Board, Straps, S/S Seat Belt Buckle Style Latch	**RUNNING BOARD HOSE RESTRAINT** A pair of 2.00" wide black nylon straps with stainless steel seat belt buckle style latches will be provided for each hose tray to secure the hose during travel. There will be Two (2) hose trays located one (1) in each side running board.
0695615		Tray, Hose, Running Board, Free Floating, 20' of 5.00" Soft Suction, Tapered	**HOSE TRAY** Two (2) hose trays will be made free floating one (1) in each side running board. The tray(s) will be flanged and drop in from the top. The ends will be tapered at the front and rear towards the center. No fasteners will be used to secure the tray(s). Capacity of the tray will be 20.00' of 5.00" soft suction hose. Rubber matting will be installed on the floor of the tray to provide proper ventilation. Drain holes will be provided.

0895816	Construction, Compt, Galv, 2G Pumper	**COMPARTMENTATION** Body and compartments will be fabricated of galvanneal steel. Side compartments will be an integral assembly with the rear fenders. Circular fender liners will be provided for prevention of rust pockets and ease of maintenance. Side compartment flooring will be 12-gauge and of the sweep out design, with the floor higher than the compartment door lip. The side compartment door opening will be framed by flanging the edges in 1.75" and bending out again 0.75" to form an angle. Drip protection will be provided above the doors by means of bright aluminum extrusion, formed bright aluminum treadplate, or polished stainless steel. The top of the compartment will be covered with bright aluminum treadplate rolled over the edges on the front, rear, and outward side. These covers will have the corners TIG welded. Side compartment covers will be separate from the compartment tops. Front facing compartment walls will be covered with bright aluminum treadplate. All screws and bolts which protrude into a compartment will have acorn nuts on the ends to prevent injury. **UNDERBODY SUPPORT SYSTEM** Due to the severe loading requirements of this pumper, a method of body and compartment support suitable for the intended load will be provided. The backbone of the support system will be the chassis frame rails, which is the strongest component of the chassis and designed for sustaining maximum loads. The support system will include 0.375" thick steel vertical angle supports bolted to the chassis frame rails with 0.625" diameter bolts. Attached to the bottom of the steel vertical angles will be horizontal angles, with gussets welded to the vertical members, which extend to the outside edge of the body. A steel frame will be mounted on the top of these supports to create a floating substructure, which results in a 500 lb equipment support rating per lower compartment. The steel frames as well as the steel vertical angles will be treated with an epoxy E-coat to provide resistance to corrosion and chemicals as standard. The floating substructure will be separated from the horizontal members with neoprene elastomer isolators. These isolators will reduce the natural flex stress of the chassis from being transmitted to the body. The isolators will have a broad load range, proven viability in vehicular applications, be of a fail safe design and allow for all necessary movement in three (3) transitional and rotational modes. The neoprene isolators will be installed in a modified V three (3)-point mounting pattern to reduce the natural flex of the chassis being transmitted to the body. A design with body compartments hanging on the chassis, unsupported, will not be acceptable. **AGGRESSIVE WALKING SURFACE** All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards. **LOUVERS** Louvers will be stamped into compartment walls to provide the proper airflow inside the body compartments and to prevent water from dripping into the compartment. Where these louvers are provided, they will be formed into the metal and not added to the compartment as a separate plate. **TESTING OF BODY DESIGN** Body structural analysis will be fully tested. Proven engineering and test techniques such as finite element analysis, strain gauging, and model analysis will be performed with special attention given to fatigue, life and structural integrity of the cab, body and substructure. The body will be tested while loaded to its greatest in-service weight. The criteria used during the testing procedure will include: Raising opposite corners of the vehicle tires 9.00", simulating the twisting a truck may experience when driving over a curb. Making a 90 degree turn while at 20 mph, simulating aggressive driving conditions. Driving the vehicle at 35 mph on a washboard road. Driving the vehicle at 55 mph on a smooth road. Accelerating the vehicle fully, until reaching the approximate speed of 45 mph, on rough pavement. Evidence of actual testing techniques will be made available upon request.
0551417	LS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	**LEFT SIDE COMPARTMENTATION** The left side compartmentation will consist of three lap door compartments. A full height, vertically hinged, single door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 22.50" wide x 66.63" high x 25.88" deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 16.63" wide x 61.88" high. A horizontally hinged, single lift-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 59.25" wide x 27.00" high. A full height, vertically hinged, double door compartment behind the rear wheels will be provided.**The interior dimensions of this compartment will be 47.75" wide x 61.63" high x 25.88" deep in the lower 20.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 43.50" wide x 56.88" high. The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame.** **Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.** **The vertically hinged doors will be furnished with a positive door holder.** **The lift-up door will be furnished with two gas-charged cylinders to assist in the opening of the door and to maintain the door in an open position. There will be a field adjustable, three-position bracket mounted on the vertical side door opening that will allow the door to be held open at 87°, 90°, or 93°.**

0551418		RS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	**RIGHT SIDE COMPARTMENTATION** The right side compartmentation will consist of three lap door compartments. A full height, vertically hinged, single door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 22.50" wide x 66.63" high x [illegible] deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 16.63" wide x 61.88" high. A horizontally hinged, single lift-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 59.25" wide x 27.00" high. A full height, vertically hinged, double door compartment behind the rear wheels will be provided.**The interior dimensions of this compartment will be 47.75" wide x 61.63" high x 25.88" deep in the lower 20.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 43.50" wide x 56.88" high. The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame.** **Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.** **The vertically hinged doors will be furnished with a positive door holder.** **The lift-up door will be furnished with two gas-charged cylinders to assist in the opening of the door and to maintain the door in an open position. There will be a field adjustable, three-position bracket mounted on the vertical side door opening that will allow the door to be held open at 87°, 90°, or 93°.**
0063911		Doors, Lap w/ "D" Handles - Side Compartments	**SIDE COMPARTMENT DOORS** All hinged compartment doors will be lap style with double panel construction and will be a minimum of 1.50" thick. The doors will be made out of the same material as the body. To provide additional door strength a "C" section reinforcement will be installed between the outer and interior panels. Doors will be provided with a closed cell rubber gasket around the surface that laps onto the body. A second heavy-duty automotive rubber molding with a hollow core will be installed on the door framing that seals onto the interior panel, to ensure a weather resisting compartment. All compartment doors will have polished stainless steel continuous hinge with a pin diameter of .25" that is bolted or screwed on with stainless steel fasteners. (Hinges which are welded on will not be acceptable.) All door locking mechanisms will be fully enclosed within the door panels to prevent fouling of the lock in the event equipment inside shifts into the lock area. Doors will be latched with recessed, polished stainless steel "D" ring handles and FMVSS approved door locking mechanisms. To prevent corrosion caused by dissimilar metals, compartment door handles will not be attached to outer door panel with screws. A rubber gasket will be provided between the "D" ring handle and the door.
0672652	SP	Compt, Flush Rear, Rollup/Space Saver, 37.75" FF, 25.88" D, 2nd Gen	**REAR COMPARTMENTATION** A roll-up door compartment above the rear tailboard will be provided**.** Interior dimensions of this compartment will be 40.00" wide x 40.63" high x 25.88" deep in the lower 32.38" of the compartment and 15.75" deep in the remaining upper portion. Depth of the compartment will be calculated with the compartment door closed. A louvered, removable access panel will be furnished on the back wall of the compartment. Rear compartment will be open into the rear side compartments. Clear door opening of this compartment will be 33.25" wide x 33.00" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.
0692740		Doors, Swing Tailboard/Gortite Rollup, Rear Compartment, PUC	**ROLLUP-SWING DOWN REAR COMPARTMENT DOOR** The rear compartment will have a swing down tailboard as the lower section of the door and a roll door for the upper section. The rollup door will be double faced aluminum construction, an anodized satin finish and manufactured by Gortite®. Lath sections will be an interlocking rib design and will be individually replaceable without complete disassembly of door. Between each slat at the pivoting joint will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals will allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals will be provided to resist ingress of dirt and weather and be made of Santoprene. All hinges, barrel clips and end pieces will be nylon 66. All nylon components will withstand temperatures from 300 to -40 degrees Fahrenheit. A polished stainless steel lift bar with locking key latches to be provided for each roll-up door. The keys to be Model 751 to match all compartment and cab doors. Lift bar will be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge will be supplied over lift bar for additional area to aid in closing the door. Door will be constructed from an aluminum box section. The exterior surface of each slat will be flat. The interior surface will be concave to provide strength and prevent loose equipment from jamming the door from inside. To conserve space in the compartments, the spring roller assembly will not exceed 3.00" in diameter. The header for the rollup door assembly will not exceed 4.00". A heavy-duty magnetic switch will be used for control of open compartment door warning lights.
0554995		No Body Modification Required	

0019845		Guard, Drip Pan, S/S, Rollup Door	**DOOR GUARD** There will be one (1) compartment door that will include a guard/drip pan designed to pr roll-up door from damage when in the retracted position and contain any water spray. T will be fabricated from stainless steel and installed B1.
0505888		Keyed Locks for Latches, Lap Doors (#751 Lock)	**KEYED LOCK(S)** There will be six (6) compartment doors that require a keyed lock. The compartments to have a keyed lock will be ALL LAP DOORS.
0533468	SP	Web Strap Door Stops on Compt Doors	**DOOR STOP WEB STRAP,** four (4) compartment doors will be provided with front cab door strap to keep the high side compartment doors from hitting the lift up compartment doors. LS1, LS3, RS1, RS3.
0731558		Pull Strap for Liftup Doors	**LIFTUP DOOR PULL STRAPS** two (2) compartment doors will be provided with pull straps. The pull straps will be 12.00" long and black in color. The straps will be installed directly to the inside of the liftup door. The liftup door compartments to have these straps will be LS2 and RS2.
0003919		Reverse Hinge Compartment Door	**REVERSE HINGED DOOR** The two (2) compartment doors, located LS3/RS3, will have the hinge at the rear of the door.
0068512	SP	Scuffplate, Clear Lexan and White Vinyl, Half Height of Compt Door	**SCUFFPLATE ON INTERIOR OF COMPARTMENT DOOR(S)** one (1) compartment door will include a 0.118" thick clear lexan scuffplate to cover the entire width and the top one-half height on the inside panel of each door pan. A piece of white vinyl material will be applied back side of the lexan scuffplate. Scuffplate will be located Upper portion of LS3.
0616670		Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker	**COMPARTMENT LIGHTING** There will be seven (7) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips will be centered vertically along each side of the door framing. There will be two (2) light strips per compartment. The dual light strips will be in all body compartment (s). Any remaining compartments without light strips will have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light will have a number 1076 one filament, two wire bulb. Opening the compartment door will automatically turn the compartment lighting on.
0739915		Hatch, (2) Liftup, Pumper	**HATCH COMPARTMENT** One (1) hatch compartment will be provided above the left side compartments. Each hatch compartment will extend the full length of the side body compartmentation x 13.75" wide. The height of each hatch compartment will match the side sheet height or be below the side sheet by a minimum of 3.00" to a maximum hatch height of 22.00". Sides of the compartment will be constructed of the same material as the body and painted job color. A 2.00" tall formed aluminun painted to match the upper body color will be provided to cover the seam between the top of the body panel and the bottom of the hatch compartment. The vertical outboard seam at the center of the compartment will be smooth weld finished and painted. The top of the compartment will be constructed of bright aluminum treadplate. Two (2) lift-up, bright aluminum treadplate doors will be provided on the top of the compartment. Doors will have lipped edges with a rubber seal for weather resistance. Each door will have a socket and plunger type latch and chrome grab handle. Doors will be hinged on the outboard side and will utilize a gas strut (or rubber covered chain on narrow width doors) Compartment will drain to an area below the hose bed. Black Turtle Tile mattin shall be provided to help prevent stored equipment in pooled water.
0730092		Not Required	
0733220		Lights, Hatch Compt, 42", LED, Light Strips, 1-Sides 2 Dr	**COMPARTMENT LIGHTING** There will be a 42.00" 12 volt DC strip light with white LEDs mounted on the interior, hinged side of each door. The lights will be mounted with mechanical fasteners. The lights will be activated when the battery switch is on and the door is opened.
0760868		Lights, Cargo/Dunnage, Dual LED Light Strips, Each Side	**CARGO/DUNNAGE AREA LIGHTING** There will be two (2), 12 volt DC strips lights with white LEDs and stainless steel protective cover, provided to illuminate the cargo area. One (1) light strip will be installed the entire length of the left side of the cargo area. One (1) light strip will be installed the entire length of the right side of the cargo area. The light(s) will be activated when the parking brake is applied.

0687146		Shelf Tracks, Painted	**MOUNTING TRACKS** There will be six (6) sets of tracks for mounting shelf(s) in LS1, LS2, LS3, RS1, RS3 and These tracks will be installed vertically to support the adjustable shelf(s). The tracks will painted to match the compartment interior.
0600350		Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	**ADJUSTABLE SHELVES** There will be 12 shelves with a capacity of 500 lb provided. The shelf construction will consist of .188" aluminum painted spatter gray with 2.00" sides. Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track. The shelves will be held in place by .12" thick stamped plated brackets and bolts. The location(s) will be in LS1 at the depth transition point to the left of the partition, in RS3 in the upper third, in RS3 in the upper third, in RS1 in the upper third, in RS1 in the upper third, in RS1 on the ladder rack actuator cover, in RS3 on the ladder rack actuator cover, in LS2 centered between the floor and ceiling, in B1 centered between the floor and ceiling, in LS3 in the upper third, in LS1 in the upper third to the left of the partition and in LS3 at the depth transition point.
0709690		Tray, 250 lb Slide-out, 2" Sides - Adj. Height, Predefined Locations	**SLIDE-OUT ADJUSTABLE HEIGHT TRAY** There will be one (1) slide-out tray provided. Each tray will have 2.00" high sides and a minimum capacity rating of 250 lb in the extended position. Each tray will be constructed of aluminum painted spatter gray. Each tray will be mounted on a pair of side mounted slides. The slide mechanisms will have ball bearings for ease of operation and years of dependable service. The slides will be mounted to shelf tracks to allow the tray to be adjustable up and down within the designated mounting location. An automatic lock will be provided for both the in and out tray positions. The lock trip mechanism will be located at the front of the tray and will be easily operated with a gloved hand. The location(s) will be in LS3 in the lower third
0540335		Toolboard, Swing-out, Alum, .188", No Holes	**SWING OUT TOOLBOARD** A swing out aluminum toolboard will be provided. It will be a minimum of .188" thick without holes in the board. A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard. The board will be mounted on a pivoting device at the back of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load will be 400 pounds. The board will have positive lock in the stowed and extended position. The board will have a D-ring handle to secure it in the stowed position The board will be mounted on adjustable tracks from front to back within the compartment. There will be One (1) toolboard(s) provided. The toolboard(s) will be spatter gray painted and installed RS2.
0726441		Partition, Trans Rear Compt	**PARTITION, TRANSVERSE REAR COMPARTMENT** Two (2) partitions will be bolted in place to separate the left and right side rear compartments from the rear tailboard compartment. The partition will be body material painted spatter gray.
0726457		Partition, Vertical Compt, Predefined Locations	**VERTICAL COMPARTMENT PARTITION** Two (2) partitions will be provided. The partition construction will consist of body material painted spatter gray. Each partition will be the full vertical height of the compartment. The location(s) will be in LS1, 30.00" from the forward door frame and in LS2, 26.00" from the forward door frame.
0799343	SP	Bracket, SCBA, Zico SC-50-H-6-SF, with PHS	**AIR BOTTLE HOLDERS** There will be one (1) Ziamatic, Model SC-50-H-6-SF, SCBA holder(s) with PHS (positive holding strap) provided. The bracket(s) will be located LS2 forward of the Vertical Divider.
0004016		Rub Rail, Aluminum Extruded, Side of Body	**RUB RAIL** Bottom edge of the side compartments will be trimmed with a bright aluminum extruded rub rail. Trim will be 2.12" high with 1.38" flanges turned outward for rigidity. The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.
0784811		Fender Crowns, Rear, Stainless, w/Removable Liner	**BODY FENDER CROWNS** Polished stainless steel fender crowns will be provided around the rear wheel openings with a dielectric barrier will be provided between the fender crown and the fender sheet metal to prevent corrosion. The fender crowns will be held in place with stainless steel screws that thread directly into a composite nut and not directly into the parent body sheet metal to eliminate dissimilar metals contact and greatly reduce the chance for corrosion. Rubber welting will be provided between the body and crown. **BODY FENDER LINER** A painted to match the lower body color fender liner will be provided. The liners will be removable to aid in the maintenance of rear suspension components.

0519849	Not Required, Hose, Hard Suction	**HARD SUCTION HOSE** Hard suction hose will not be required.
0626229	Handrails, Side Pump Panels, Per Print	**HANDRAILS** The handrails will be 1.25" diameter knurled aluminum to provide a positive gripping surface. Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces. Drain holes will be provided in the bottom of all vertically mounted handrails. Handrails will be provided to meet NFPA 1901 section 15.8 requirements. The handrails will be installed as noted on the sales drawing.
0005261	No Handrail Required, Beavertail	**HANDRAILS** Handrails will not be required on the beavertail.
0011212	Handrail, Not Required, Rear Hose Bed, Pumper	
0636301	Compt, Extinguisher (2) Fender Panel, Triangular Door	**EXTINGUISHER/AIR BOTTLE/ STORAGE (Triangular)** A total of one (1) extinguisher/air bottle/storage compartments will be provided RS REAR. The triangular shaped compartment will be sized to fit a 8.00" diameter extinguisher in the lower area and a 8.00" diameter extinguisher in the upper area. The compartment will be approximately 25.50" deep. A partition will be provided to separate the compartment. Also inside the compartment, black Dura-Surf friction reducing material will be provided. The compartment will be furnished with a drain hole. A painted stainless steel, triangular shaped door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottles. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal. **AIR BOTTLE COMPARTMENT STRAP** A strap will be provided in the air bottle compartment(s) to help contain the bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.
0657522	Compt, Air Bottle, Triple, Fender Panel	**AIR BOTTLE STORAGE (Triple)** A quantity of two (2) air bottle compartments designed to hold (3) air bottles up to 7.25" in diameter x 26.00" deep will be provided on the left side forward of the rear wheels and on the right side forward of the rear wheels. A painted stainless steel door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal. Inside the compartment, black Dura-Surf friction reducing material will be provided. **AIR BOTTLE COMPARTMENT STRAP** A strap will be provided in the air bottle compartment(s) to help contain the air bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.
0004225	Ladder, 24' Duo-Safety 900A 2-Section	**EXTENSION LADDER** There will be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.
0004230	Ladder, 14' Duo-Safety 775A Roof	**ROOF LADDER** There will be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.

0015036		Rack, Ladders, Hydraulic, Right Side, Air Clamps	**HYDRAULIC LADDER RACK** Ground ladders will be mounted above the right side of the hose body in a specially des swing-down cradle. This cradle will be electric/hydraulic operated. The system design w been life cycle tested for dependable service. An independent hydraulic pump powered by a 12-volt electric motor will operate the hydraulics. The hydraulic pump and reservoir will be accessible from the ground through a stainless steel inspection door. The ladder rack will incorporate two hydraulic rotary actuators, one each located inside the front compartment and the rear compartment. The actuators will be completely enclosed within each compartment to eliminate any pinch points while operating the ladder rack. Lifting arms will be attached outside the compartment body to the front and rear actuator. The rack can be designed in certain situations to provide lifting capabilities up to 500 lb. The maximum height of the rack from the ground in the lowered position will be no more than 47.00". The electric control panel will have a master switch on/off switch, an actuation switch, an operation indicator light and operation instructions. The electric controls will be located at the pump panel adjacent to the ladder rack in such a manner to allow the operator full view of the area into which the ladders will be lowered. Two (2) air operated safety locks will be furnished to securely maintain the ladder bracket assembly in the travel position. These air operated safety locks will be controlled from the ladder rack control panel. A polished stainless steel enclosure shall be provided over the hydraulic ladder rack locks at the front and the rear on the right side to cover the ladder rack locks (2) and provide mounting for any rear warning lights. Ladders will be secured to the brackets with two (2) locks retaining the roof ladder and the extension ladder. The locks will be such that when the roof ladder is removed, the clamps can be moved a half turn to hold the extension ladder in place. **LADDER RACK INTERLOCK AND NOT STOWED INDICATOR LIGHT** An interlock will be provided to prevent operation of the ladder rack unless the apparatus parking brake has been activated. A steady red indicator light will be located on the cab instrument panel and illuminated when the hydraulic ladder rack is not in the stowed position. The light will be labeled "Ladder Rack". In addition, the "Do Not Move Apparatus" light located in the cab will be activated when the hydraulic ladder rack is not in the stowed position.
0756375		Lights, Hyd Lad Rack Deployed, Truck-Lite 15****	**HYDRAULIC LADDER RACK DEPLOYED LIGHTS** There will be two (2) Truck-Lite catalog number 15***, 1.20" high x 2.49" wide x 0.94" deep lights with chrome trim, amber flashing LEDs and provided per the following: One (1) light installed on the front of the hydraulic ladder rack One (1) light installed on the rear of the hydraulic ladder rack The warning light lens color(s) to be clear The lights will be activated when the battery switch is on and the hydraulic ladder rack is not in the stowed position.
0733387		Ladder, 10' Duo-Safety Folding 585A	**FOLDING LADDER** One (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder will be installed.
0024499		Arm, Rear, Offset, Hydraulic Rack 2000, Recess Light	The rear hydraulic rack arm will have an offset to not block the rear upper zone warning lights.
0024798		Arms, Raise Pivot Point, 6", Hydraulic Ladder Rack	The ladder rack pivot point will be raised 6.00" on the RS per Pre-Lim to change the lifting capacity of the rack.
0674764	SP	Trough, Aluminum, for Folding Ladder on Hyd Ladder Rack	**TROUGH, ALUMINUM, FOLDING LADDER** There will be an aluminum trough provided on the hydraulic ladder rack to mount the folding ladder.
0725371		Compt w/Door, Backboard, Over Pump	**BACKBOARD STORAGE** A transverse area over the pump and rearward of the crosslays will hold one (1) storage trough. A blister will be supplied at each side to enclose the backboards due to their length. The backboards will be accessible from either side of the vehicle through the aluminum treadplate door(s) with a pair of flush lift and turn latches. The door(s) will be hinged along the rearward edge. The size of the backboard(s) to be stored will be 74.00" long x 18.00" wide x 3.00" high.
0074337		Pike Pole, 6' Nupla, Fiberglass, Featherlight, YPD-6	**PIKE POLE, 6'** One (1) pike pole 6' long with a Nupla Featherlight fiberglass handle will be provided and located Tube on Ladder Rack.
0074336		Pike Pole, 8' Nupla, Fiberglass, Featherlight, YPD-8	**8' PIKE POLE** One (1) pike pole, 8' long with a Nupla Featherlight fiberglass handle will be provided and located Tube on Ladder Rack.

0013950		Pike Pole, 10' Nupla, Fiberglass, Featherlight, YPD-10	**PIKE POLE, 10'** One (1) pike pole, 10' long with a Nupla Featherlight fiberglass handle will be provided a located Tube on Ladder Rack.
0763088	SP	Trash Hook, 8' Fire Hooks Unlimited, Fiberglass, TRH-8, w/D Handle, Turn 90 Deg	**8' PIKE POLE** One (1) pike pole, 8' long trash hook(s), Fire Hooks Unlimited, Model TRH-8 with D-handle will be provided and located RS Long tool compartment. The D-handle will be orientated to be in line with the hook head to allow it to lie flat in a trough.
0567897		Pike Pole, 8' Fire Hooks Unlimited, New York Roof Hook, Steel, Pry End, RH-8	**8' PIKE POLE** There will be one (1) Fire Hooks Unlimited, New York Hook , 8' long roof hook with steel shaft and chisel (pry) end provided RS Long tool compartment.
0552649		Pike Pole, 6' Fire Hooks Unlimited, New York Roof Hook, Steel, Pry End, RH-6	**6 FT PIKE POLE** There will be one (1) Fire Hooks Unlimited NY roof hook RH-6, 6 foot pike pole(s) with steel handles and pry end provided Tubes in Aux Cab Transverse compartment.
0767871	SP	Compt, Long Tools, Btwn Tank & Side Sheet/Below Tank Tee, RS	**LONG TOOL STORAGE** One (1) compartment will be provided below the tank tee between the tank and side sheet on the right side. The compartment will be roughly Maximum size available for area below tank tee on RS, Depth to be set by customer at Pre-Con in size. A door will be provided at the rear of the compartment for access. The door will be made of smooth aluminum with a Southco C2 chrome raised trigger lever latch. The door will be hinged along the outboard edge.
0081834		Trough for D-Handled Trash Hook, Qty	**TRASH HOOK STORAGE** There will be one (1) stainless steel U-shaped trough(s) provided for storage of D-handle style trash hook(s). The trough(s) will be installed RS Long tool compartment.
0058193		Tubes, Alum, Pike Pole Storage, Spcl Notch, NY PP Head	**PIKE POLE STORAGE** Aluminum tubing will be used for the storage of two (2) pike poles and will be located RS long tool compartment. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided. The pike pole tube will be notched to allow a New York style pike pole to fit into the tube.
0004361		Tubes, Alum, Pike Pole Storage	**PIKE POLE STORAGE** Aluminum tubing will be used for the storage of three (3) pike poles and will be located on hydraulic ladder rack. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided.
0785102		Steps, Folding, Front of Body, Cargo Bed Access, w/LED, Trident	**FOLDING STEPS FRONT OF BODY** Folding steps will be provided full height on the left side body compartments to provide access to the cargo bed. Steps will be spaced evenly on the sales drawing. Actual quantity may vary due to pump panel interferences but will meet the NFPA required maximum stepping height. The Trident steps will be bright finished, non-skid with a black tread coating on the stepping surface. The step will incorporate an LED light to illuminate the stepping surface. The steps can be used as a hand hold with two openings wide enough for a gloved hand.
0561510	SP	Steps, Rear Compartment Width, 8", Rear of Body	One (1) bright aluminum treadplate full width step will be provided above the rear compartment. This step will be approximately the same width as the rear comparment. Gussets will be provided to ensure the proper support and structural integrity of the step. The remaining steps will be bright aluminum treadplate corner steps. All rear steps will provide adequate surface for stepping and will be located in accordance to NFPA 1901.
0601853	SP	I Zone Bracket, Pair, Through Rear Wall, Removable,18"	**I-ZONE BRACKETS** Two (2) removable I-Zone brackets will be provided and mounted at the rear of the apparatus recessed through the rear of the body as shown on the AD . The brackets will be "L" shaped and extend approximately 18.00" from the body in the deployed position and extend up 8.00". There will be a steel pin to secure the brackets in the stowed position. The brackets will be constructed of .75" diameter aluminum tubing at minimum. The brackets will be designed with adequate reinforcement to eliminate flexing of the body (oil canning) and not interfere with any of the rear facing zone lights when carrying hose.
0684975	SP	Step, Rung, Camper Style, Pull-out & Drop Down, 14" Wide	**STEP, PULL-OUT/DROP DOWN** One (1) pull-out step will be provided. Each step rung will be 14" wide and will pull out and drop down to provide easy access. The step will be located on the left side below rear bulkhead mounted 5" forward from rear of body.

0780037	Pump, Auxiliary, Waterous, CPK-2, Hyd PTO Drive, 300 GPM, 2016 NFPA 1901	**AUXILIARY PUMP** A hydraulic driven 3.00" suction, 2.00" discharge Waterous CPK-2 centrifugal pump will be provided for pump and roll operations. The pump will have a gear type hydraulic motor. The pump will have a high tensile gray iron case. Bronze double hubbed impeller mechanically and hydraulically balanced will be installed on a heat treated and ground stainless steel shaft. Impeller shaft will be supported by oil lubricated ball bearings. Pump gear case will have silent running helical gears fully supported by ball bearings. A variable displacement piston type hydraulic pump supplying the hydraulic motor on the water pump will be supplied. The displacement of the hydraulic pump will be controlled by a fixed orifice type, load sensing, hydraulic circuit. The hydraulic system will have a properly sized reservoir, cooler, filter and accessory components. The components will be mounted in the vehicle body to facilitate routine maintenance operations. The hydraulic drive design will be certified by manufacturer of the primary hydraulic components as suitable for the intended use and duty. All components of the water pump and drive system will be readily available on the domestic hydraulic market (USA). An auxiliary main pump drain will be supplied. **PUMP PERFORMANCE** The pump will be rated by the pump manufacturer on bench testing to the deliver the following performance at 1000 engine rpm. These numbers will be reduced when installed on the apparatus due to plumbing restrictions and/or the location of this water pump. - 300 gpm @ 150psi - 300 gpm @ 165psi - 210 gpm @ 200psi - 150 gpm @ 250psi This pump will also meet NFPA 1901 section 16.2.2 for pump and roll performance/requirements. It will deliver at least 20 gpm @ 80 psi while moving at 2 mph or less.
0626923	Installation Location, Aux Pump, Inside Pump house Area	**AUXILIARY PUMP INSTALLATION** The auxiliary pump will be installed and located within the main pump module.
0788341	Not Required, Fuel Supply, (Hydraulic Drive Pump)	
0626844	Not Required, Exhaust Routing, Aux Pump	
0787477	Discharge Connections, Aux Pump, Standard, w/Foam System	**AUXILIARY PUMP DISCHARGE CONNECTIONS** A discharge manifold will be supplied as required to allow plumbing of the required discharges. This pump will supply water to all foam capable discharge outlets Check valve(s) will be provided to prevent backflows between the main pump and the auxiliary pump.
0626917	Tank to Pump Line, Hyd Aux Pump, 2.50", Separate Tank to Pump Line	**AUXILIARY PUMP -TANK TO PUMP CONNECTION** An independent 2.50" tank to pump piping with a 2.50" valve will be provided for the auxiliary pump. It will not be part of the main pump's tank to pump line nor draw water through the main pump. The design will include a method for anti-swirl protection and prevent pump cavitation. The tank to pump line will run from the pump into the front face of the water tank. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing. A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank. This tank to pump connection will have an electric valve that will open when the Pierce hydraulic pressure controller(s) "ON" switch is activated. The valve will close when the "OFF" switch is activated. The electric tank to pump valve will not be gateable.
0626935	Primer, Aux Pump, Included w/Main Pump Primer	**AUXILIARY PUMP PRIMER** The auxiliary pump system will be primed with the main pump primer as defined elsewhere in this specification.
0788354	Controls, Hydraulic Aux Pump, Pierce, Dual	**AUXILIARY PUMP GAUGES AND CONTROLS** There will be PTO switch(s) and indicator light(s) provided in the cab near the driver's position and on left pump operator's panel for engaging the water pump PTO. To control the pump pressure and activate the water pump, a Pierce electronic water pressure controller(s) will be provided in the cab near the driver's postion and on left pump operator's panel. The electronic water pressure controller(s) will mounted on an integrated panel and contain a digital pressure gauge along with pump and system status indicators and a pump pressure adjustment knob.

0626933		Line, Recirculating, Aux Pump, 499gpm and less, 0.375", Automatic	**AUXILIARY PUMP AUTOMATIC RECIRCULATING LINE** The auxiliary pump will be furnished with a 0.375" automatic pump recirculating line with valve. The line will be routed from the discharge side of the auxiliary pump to the water tank. This line will be designed to circulate water continuously from the auxiliary pump back to the tank to help maintain the water pump temperature at a safe level. The recirculating line will be plumbed into the water tank dome. It will include a check valve to facilitate priming and prevent water backflow. The check valve will be installed as close as possible to the water tank dome.
0777533	SP	Engineering Review of Aux Pump System Completed - APPROVED	
0007575		Pump House, Side Control, 48", Control Zone	**PUMP COMPARTMENT** The pump compartment will be separate from the hose body and compartments so that each may flex independently of the other. The pump compartment will be constructed of the same material as the body compartmentation. The pump compartment substructure will be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards. The pump compartment will be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist. Pump compartment, pump, plumbing and gauge panels will be removable from the chassis in a single assembly. **PUMP MOUNTING** Pump will be mounted to a substructure which will be mounted to the chassis frame rail using rubber isolators. The mounting will allow chassis frame rails to flex independently without damage to the fire pump. **LEFT SIDE PUMP CONTROL PANEL** All pump controls and gauges will be located at the left (driver's) side of the apparatus and properly identified. Layout of the pump control panel will be ergonomically efficient and systematically organized. The pump operator's control panel will be removable in two (2) main sections for ease of maintenance: The upper section will contain sub panels for the mounting of the pump pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable). Sub panels will be removable from the face of the pump panel for ease of maintenance. Below the sub panels will be located all valve controls and line pressure gauges. The lower section of the panel will contain all inlets, outlets, and drains. All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding. **IDENTIFICATION TAGS** The identification tag for each valve control will be recessed in the face of the tee handle. All discharge outlets will have color coded identification tags, with each discharge having its own unique color. Color coding will include the labeling of the outlet and the drain for each corresponding discharge. All line pressure gauges will be mounted directly above the corresponding discharge control tee handles and recessed within the same chrome plated casting as the rod guide for quick identification. The gauge and rod guide casting will be removable from the face of the pump panel for ease of maintenance. The casting will be color coded to correspond with the discharge identification tag. All remaining identification tags will be mounted on the pump panel in chrome plated bezels. The pump panel on the right (passenger's) side will be removable with lift and turn type fasteners. Trim rings will be installed around all inlets and outlets.
0035500		Raised Pump House Structure, Side Control	

0004425	Pump, Waterous, CSU, 1500 GPM, Single Stage	**PUMP** Pump will be a Waterous CSU, 1500 gpm single (1) stage midship mounted centrifugal Pump will be the class "A" type. Pump will deliver the percentage of rated discharge at pressures indicated below: - 100% of rated capacity at 150 psi net pump pressure. - 70% of rated capacity at 200 psi net pump pressure. - 50% of rated capacity at 250 psi net pump pressure. Pump body will be close-grained gray iron, bronze fitted, and horizontally split in two (2) sections for easy removal of the entire impeller shaft assembly (including wear rings). Pump will be designed for complete servicing from the bottom of the truck, without disturbing the pump setting or apparatus piping. Pump case halves will be bolted together on a single horizontal face to minimize chance of leakage and facilitate ease of reassembly. No end flanges will be used. Discharge manifold of the pump will be cast as an integral part of the pump body assembly and will provide a minimum of three (3) 3.50" openings for flexibility in providing various discharge outlets for maximum efficiency. The three (3) 3.50" openings will be located as follows: one (1) outlet to the right of the pump, one (1) outlet to the left of the pump, and one (1) outlet directly on top of the discharge manifold. Impeller shaft will be stainless steel, accurately ground to size. It will be supported at each end by sealed, anti-friction ball bearings for rigid precise support. Impeller will have flame plated hubs assuring maximum pump life and efficiency despite any presence of abrasive matter in the water supply. Bearings will be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. No special or sleeve type bearings will be used.
0004482	Seal, Mechanical, Waterous	Pump will be equipped with a self-adjusting, maintenance-free, mechanical shaft seal. The mechanical seal will consist of a flat, highly polished, spring fed carbon ring that rotates with the impeller shaft. The carbon ring will press against a highly polished stainless steel stationary ring that is sealed within the pump body. In addition, a throttling ring will be pressed into the steel chamber cover, providing a very small clearance around the rotating shaft in the event of a mechanical seal failure. The pump performance will not deteriorate, nor will the pump lose prime, while drafting if the seal fails during pump operation. Wear rings will be bronze and easily replaceable to restore original pump efficiency and eliminate the need to replace the entire pump casing due to wear.
0559769	Trans, Pump, Waterous C20 Series	**PUMP TRANSMISSION** The pump transmission will be made of a three (3) piece, aluminum, horizontally split casing. Power transfer to pump will be through a high strength Morse HY-VO silent drive chain. By the use of a chain rather than gears, 50% of the sprocket will be accepting or transmitting torque, compared to two (2) or three (3) teeth doing all the work. Drive shafts will be 2.35" diameter hardened and ground alloy steel and supported by ball bearings. The case will be designed to eliminate the need for water cooling.
0635600	Pumping Mode, Stationary Only	**PUMPING MODE** An interlock system will be provided to ensure that the pump drive system components are properly engaged so that the apparatus can be safely operated. The interlock system will be designed to allow stationary pumping only.
0605126	Pump Shift, Air Mnl Override, Split Shaft, Interlocked, Waterous	**AIR PUMP SHIFT** Pump shift engagement will be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control will also be located on the left side pump panel. Two (2) indicator lights will be provided adjacent to the pump shift inside the cab. One (1) green light will indicate the pump shift has been completed and be labeled "pump engaged". The second green light will indicate when the pump has been engaged, and that the chassis transmission is in pump gear. This indicator light will be labeled "OK to pump". The pump shift will be interlocked to prevent the pump from being shifted out of gear when the chassis transmission is in gear to meet NFPA requirements. The pump shift control in the cab will be illuminated to meet NFPA requirements.
0003148	Transmission Lock-up, EVS	**TRANSMISSION LOCK-UP** The direct gear transmission lock-up for the fire pump operation will engage automatically when the pump shift control in the cab is activated.
0004547	Auxiliary Cooling System	**AUXILIARY COOLING SYSTEM** A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. The heat exchanger will be a separate unit. It will be installed in the pump or engine compartment with the control located on the pump operator's control panel. The exchanger will be plumbed to the master drain valve.
0014486	Not Required, Transfer Valve, Single Stage Pump	

0746508		Valve(s), Relief Intake, Trident Air Max, Control Location	**INTAKE RELIEF VALVE** One (1) Trident Air Max intake relief valve(s) will be installed on the suction side of the p preset at 150 psig. The relief valve will have a working range of 50 PSI to 350 PSI. The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag. One (1) adjustable air regulator and pressure indicating gauge will be located on a common bezel on the left side pump panel to control the intake valve(s).
0721609		Controller, Pressure, Pierce LCD, Custom Chassis	**PIERCE PRESSURE CONTROLLER** A Pierce electronic pressure controller will be provided. A pressure transducer will be installed in the discharge side of the water pump. The transducer continuously monitors pump pressure sending a signal to the electronic pressure controller. The pressure controller can be used in two (2) modes of operation, RPM mode and pressure modes. The controller will be programmed to turn on/default to Pressure Setting mode. In the RPM mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will maintain the set engine speed, regardless of engine load (within engine operation capabilities). In the pressure mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will automatically maintain the discharge pressure set by the operator (within the discharge capabilities of the pump and water supply) regardless of flow. A 2.00" diameter throttle control knob with no mechanical stops, a serrated grip, and a red idle push button in the center will be a integrated/part of the pressure controller. The throttle control knob will be programmed for Clockwise rotation to increase engine speed. Individual LED indicators for ok to pump, throttle ready, pressure mode and rpm mode will be located on the pressure controller for easy viewing. A pump cavitation protection feature will also provided which will return the engine to idle should the pump cavitate. Cavitation is sensed by the combination of pump pressure below 30 psi and engine speed above 2000 rpm for more than five (5) seconds. Other safety features include recognition of low water and no water conditions with an automatic programmed response and a push button to return the engine to idle. The pressure controller LCD screen will be 4.20" in size with a minimum brightness of 750 nits. The LCD screen and LED intensity will be automatically adjust for day and nighttime operation. The LCD screen intensity can also be manually adjusted if needed. The following information will be provided/displayed on the LCD screen - Engine RPM Check engine and stop engine warning indicators Engine oil pressure Engine coolant temperature Water pump temperature Fuel Level Water tank level Battery voltage Operating mode (RPM or pressure) Pressure or RPM setting On screen messaging show diagnostic and warning messages as they occur. It will show apparatus information, stored data, and program options when selected by the operator. It will monitor inputs outputs and support audible and visual warning alarms for the following conditions - High battery voltage Low battery voltage/engine off Low battery voltage/engine running High water pump temperature Low fuel Low engine oil pressure High engine coolant temperature Water tank out of water (visual alarm only) No engine response (visual alarm only) The pressure controller will store the accumulated operating hours for the pump and engine. These items are to be displayed within the pressure controller menu. The pressure controller will include a USB port on the back of the controller for easy software upgrades if needed.
0607957	SP	Primer, Trident, Air Prime, Air operated, Auto w/Gauge, w/(1) Add'l Prime Vlv	**PRIMING PUMP** The priming pump will be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of NFPA 1901. All wetted metallic parts of the priming system are to be of brass and stainless steel construction. One (1) priming control will open the priming valve and start the pump primer. The control will have a three position switch for automatic, off or test. In the sentry mode (automatic) the primer will sense when the pump losses discharge pressure and start the pump primer. The primer will automatically stop once the pump has pressure. A vacuum gauge will indicate the vertical elevation of water in feet during priming operation. One (1) additional priming valve will be plumbed to the the auxiliary water pump. The additional control will be located at the pump operator's panel.
0044552		Line, 0.50" Recirculating w/Check Valve	**RECIRCULATING LINE WITH CHECK VALVE** A 0.50" diameter recirculating line, from the pump to the water tank, will be furnished with a control installed at the pump operator's control panel. A check valve will be provided in this line to prevent the back flow of water from the tank to the pump if the valve is left in the open position.

0620445	Foam Drain(s), Special Location	**FOAM DRAIN(S), LOCATION** The foam drain(s) will be located as high as possible for ground clearance.
0780364	Manuals, Pump, (2) Total, Electronic Copies	**PUMP MANUALS** There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.
0602512	Plumbing, Stainless Steel and Hose, Single Stage Pump, Control Zone	**PLUMBING, STAINLESS STEEL AND HOSE** All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness. Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings. Plumbing manifold bodies will be ductile cast iron or stainless steel. All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame. All water carrying gauge lines will be of flexible polypropylene tubing. All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.
0795135	Plumbing, Stainless Steel, w/Foam System	**FOAM SYSTEM PLUMBING** All piping that is in contact with the foam concentrate or foam/water solution will be stainless steel. The fittings will be stainless steel or brass. Cast iron pump manifolds will be allowed.
0004645	Inlets, 6.00" - 1250 GPM or Larger Pump	**MAIN PUMP INLETS** A 6.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.
0014650	Pump Suction Tube(s), Short, All	**SHORT SUCTION TUBE(S)** The suction tube(s) on the water pump will have short suction tube(s) installed to allow for installation of adapters, elbows or intake valves without excessive overhang.
0004646	Cap, Main Pump Inlet, Long Handle, NST, VLH	**MAIN PUMP INLET CAP** The main pump inlets will have National Standard Threads with a long handle chrome cap. The cap will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0084610	Valves, Akron 8000 series- All	**VALVES** All ball valves will be Akron® Brass. The Akron valves will be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve. Valves will have a **ten (10) year** warranty.
0016158	Valve, Inlet(s) Recessed, Side Cntrl, "Control Zone"	The location of the valve for the two (2) inlets will be recessed behind the pump panel.
0004700	Control, Inlet, at Valve	**INLET CONTROL** The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.
0004660	Inlet (1), Left Side, 2.50"	**LEFT SIDE INLET** There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet will be provided with a strainer, chrome swivel and plug.
0004680	Inlet, Right Side, 2.50"	**RIGHT SIDE INLET** There will be one (1) auxiliary inlet with a 2.50" valve at the right side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet will be provided with a strainer, chrome swivel and plug.
0034720	Anode, Zinc, Pair, Pump Inlets	**ANODE, INLET** A pair of sacrificial zinc anodes will be provided in the water pump inlets to protect the pump from corrosion.
0092569	No Rear Inlet (Large Dia) Requested	

0064116	No Rear Inlet Actuation Required	
0092696	Not Required, Cap, Rear Inlet	
0009648	No Rear Intake Relief Valve Required on Rear Inlet	
0092568	No Rear Auxiliary Inlet Requested	
0723049	Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	**INLET BLEEDER VALVE** A 0.75" bleeder valve will be provided for each side gated inlet. The valves will be located behind the panel with a "T" swing style handle control extended to the outside of the panel. The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. The water discharged by the bleeders will be routed below the chassis frame rails.
0014751	Tank to Pump, (1) 3.00" Valve, 3.00" Plumbing, Reverse Linkage	**TANK TO PUMP** The booster tank will be connected to the intake side of the pump with heavy duty piping and a quarter turn 3.00" full flow line valve with the control remotely located at the operator's panel. The tank to pump line will run straight (no elbows) from the pump into the front face of the water tank and down into the tank sump. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing. The control on the pump panel will be "in" when the valve is open and "out" when the valve is closed. A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.
0004905	Outlet, Tank Fill, 1.50"	**TANK REFILL** A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.
0062133	Control, Outlets, Manual, Pierce HW if applicable	**DISCHARGE OUTLET CONTROLS** The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve. If a handwheel control valve is used, the control will be a minimum of a 3.9" diameter stainless steel handwheel with a dial position indicator built in to the center of the handwheel. Any 3.00 inch or larger discharge valve will be a slow-operating valve in accordance with NFPA 16.7.5.3.
0004940	Outlet, Left Side, 2.50"	**LEFT SIDE DISCHARGE OUTLETS** There will be Two (2) discharge outlets with a 2.50" valve on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.
0005091	Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	**LEFT SIDE OUTLET ELBOWS** The 2.50" discharge outlets located on the left side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092570	Not Required, Outlets, Left Side Additional	
0035094	Not Required, Elbow, Left Side Outlets, Additional	
0004945	Outlet, Right Side, 2.50"	**RIGHT SIDE DISCHARGE OUTLETS** There will be One (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.
0025091	Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	**RIGHT SIDE OUTLET ELBOWS** The 2.50" discharge outlets located on the right side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

0092571		Not Required, Outlets, Right Side Additional	
0089584		Not Required, Elbow, Right Side Outlets, Additional	
0775183	SP	Outlet, 4" w/4" Right, Small Handwheel	**LARGE DIAMETER DISCHARGE OUTLET** There will be a 4.00" discharge outlet with a 4.00" Akron valve installed on the right side of the apparatus, terminating with a 4.00" (M) National Standard hose thread adapter. This discharge outlet will be actuated with a small handwheel control at the pump operator's control panel. An indicator will be provided to show when the valve is in the closed position.
0681048		Elbow, Large Dia Outlet, 30 Deg, 4.00" FNST x 5.00" Storz, S/S Cable	**LARGE DIAMETER OUTLET ELBOWS** The 4.00" outlet will be furnished with a 4.00" (F) National Standard hose thread x 5.00" Storz elbow adapter with Storz cap and stainless steel tie cable.
0649939		Outlet, Front, 1.50" w/2" Plumbing	**FRONT DISCHARGE OUTLET** There will be one (1) 1.50" discharge outlet piped to the front of the apparatus and located on the top of the right side of the front bumper. Plumbing will consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 1.50" NST with 90 degree stainless steel swivel. There will be automatic drains provided at all low points of the piping.
0649318		Reverse Linkage, Front Outlet	**REVERSE LINKAGE ON FRONT OUTLET(S)** The valve control for the front outlet(s) on the pump panel will be "in" when the valve is open and "out" when the valve is closed. The reverse linkage will be provided for one (1) front outlet(s) located Front Bumper outlet.
0647702		Additional Valve, Front Outlet, 2"	**FRONT OUTLET ADDITIONAL VALVE** A second 2.00" full flow ball valve will be provided at the front bumper extension. The valve will have an integral chrome swing style handle.
0004995		Outlet, Rear, 2.50"	**REAR DISCHARGE OUTLET** There will be Two (2) discharge outlets piped to the rear of the hose bed, one (1) each side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel.
0040286		Elbow, Rear Outlets, 30 Degree, 2.50" FNST x 2.50" MNST, VLH	**REAR OUTLET ELBOWS** The 2.50" discharge outlets, located at the rear of the apparatus, will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 30 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092574		Not Required, Outlet, Rear, Additional	
0085695		Not Required, Elbow, Rear Outlets, Large, Additional	
0687803	SP	Outlet, Front HB, 1.50" w/2.00" Plumbing, Location	**FRONT OF HOSE BED DISCHARGE OUTLET** There will be Two (2) discharge outlets located at the front of the hose bed, Outlets to be mounted with (1) One above and (1) one below shelf on LS of hosebed. Per AD on left side. Plumbing will consist of 2.00" piping with a 2.00" full-flow ball valve controlled at the pump operator's panel. The outlet(s) will terminate with an 1.50" (M) National Standard hose thread adapter.
0752097		Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	**DISCHARGE CAPS/ INLET PLUGS** Chrome plated, rocker lug, caps with chain will be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets. Chrome plated, rocker lug, plugs with chain will be furnished for all auxiliary inlets 1.00" thru 3.00" in size. The caps and plugs will incorporate a thread design to automatically relieve stored pressure in the line when disconnected.

0723042	Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	**OUTLET BLEEDER VALVE** A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain va acceptable with some outlets if deemed appropriate with the application. The valves will be located behind the panel with a T swing style handle control extended to the outside of the side pump panel. The handles will be chrome plated and provide a visual indication of valve position. The T swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to. The water discharged by the bleeders will be routed below the chassis frame rails.
0091106	Outlet, 3.00" Deluge w/TFT Extend-a-Gun XG18, Handwheel	**DELUGE RISER** A 3.00" deluge riser will be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping will be rigidly braced and installed securely so no movement develops when the line is charged. The riser will be gated and controlled at the pump operator's panel with a handwheel control. **TELESCOPIC PIPING** The deluge riser piping will include a 18.00" Task Force Model XG18 Extend-A-Gun extension. This extension will be telescopic to allow the deluge gun to be raised 18.00" increasing the range of operation. A position sensor will be provided on the telescopic piping that will activate the "do not move vehicle" light inside the cab when the monitor is in the raised position.
0543550	Monitor, TFT Crossfire XFC-42, (2) 2.5" Portable Base, Shaper, Quad Stack Tips	**MONITOR** A Task Force Crossfire Series XFC-42 monitor package will be properly installed on the deluge riser. The monitor package will include a Crossfire monitor with a 10.00" stream shaper and quad stack tips. A Safe-Tak portable base unit with two (2) 2.50" inlets will be provided. The monitor will be painted as provided by monitor manufacturer.
0047175	No Additional Nozzle Req'd	
0046857	Deluge Mount, For TFT Crossfire Monitor, TFT Manual Extend-A-Gun Only	The deluge riser Extend-a-Gun will have provisions for direct mounting a Task Force Tips CrossFire monitor.
0723726	Speedlay Module Not Required	
0722432	Hose Restraint Not Required, No Speedlay Module	
0723395	Speedlays, Not Required	
0723394	Speedlays, Not Required	
0029167	Crosslays Sngl Sheet Unpainted, (2+) 1.50", Std. Cap	**CROSSLAY HOSE BEDS** Two (2) crosslays with 1.50" outlets will be provided. Each bed to be capable of carrying 200' of 1.75" double jacketed hose and will be plumbed with 2.00" i.d. pipe and gated with a 2.00" quarter turn ball valve. Outlets to be equipped with a 1.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus. The crosslay controls will be at the pump operator's panel. The center crosslay dividers will be fabricated of 0.25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a brushed finish. Vertical scuffplates constructed of stainless steel will be provided at the front and rear ends of the bed on each side of vehicle. Crosslay bed flooring will consist of removable perforated brushed aluminum.
0029196	Not Required, 2.50" Crosslay	
0590942	Hose Restraint, Crosslay/Deadlay, 1" Heavy Nylon Web, Strap Fasteners, Each Side	**CROSSLAY/DEADLAY HOSE RESTRAINT** A black 1.00" nylon webbing design with 2.00" box pattern will be provided across each end of two (2) crosslay/deadlay(s) to secure the hose during travel. The webbing will be permanently attached at the top of the crosslay/deadlay opening(s). 1.00" web straps will loop through footman loops located at the opposite end of the permanently attached webbing. The straps will attach with a pair of spring clip and hook fasteners.
0029260	Not Required, Speedlays	

0750536		Hose Restr, Spdly, Not Required, No Spdly	
0615255		Cover, Crosslay, 3/16" Alum Treadplate, Front Hinge	**CROSSLAY COVER** A hinged .19" aluminum treadplate cover will be installed over the crosslay hose beds. It will include a latch at each end of the cover to hold it securely in place, a chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface. The cover will be provided with rubber latch hold open device. The hinge will be to the front of the hose beds.
0644843	SP	Crosslays, 9.00" Lower Than Standard - with 9.00" Raised PH	**CROSSLAY 9.00" LOWER THAN STD** The crosslays will be lowered 9.00" from standard.
0688927		Reel, Booster, Aluminum - Over Pump, Left Side	**BOOSTER HOSE REEL** A Hannay electric rewind booster hose reel will be installed over the pump in a recessed open compartment on the left side of the apparatus. The reel will be fabricated of aluminum and have highly polished end discs. A polished stainless steel roller and guide assembly will be mounted on the reel side of the apparatus. Discharge control will be provided at the pump operator's panel. Plumbing to the reel will consist of 1.50" Aeroquip hose and a 1.50" valve.
0011060		Switch, Reel Rewind - One at Pump Panel	Reel motor will be protected from overload with a circuit breaker rated to match the motor. An electric rewind control switch will be installed on the reel side pump panel.
0045300		Hose, Booster - 200' of 1.00"/800 PSI	Booster hose, 1.00" diameter and 200 feet, with chrome plated Barway, or equal couplings will be provided. Working pressure of the booster hose will be a minimum of 800 psi.
0005244		Capacity, Hose Reel 200' of 1"	Capacity of the hose reel will be 200 feet of 1.00" booster hose.
0007428		Nozzle for Booster Reel Not Req'd	
0095353		Foam Sys, Husky 12, Dual Agent	**FOAM PROPORTIONER** A foam proportioning system will be provided that is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation will be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system will automatically balance and proportion foam solution at rates from .1 percent to 9.9 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump. The design of the system will allow operation from draft, hydrant, or relay operation. This will provide a versatile system to meet the demands at a fire scene. **System Capacity** The system will have the ability to deliver the following minimum foam solution flow rates that meet or exceed NFPA requirements at a pump rating of 250 psi. 200 gpm @ 6 percent 400 gpm @ 3 percent 1200 gpm @ 1 percent The foam concentrate setting may be adjusted in .1 percent increments from .1 percent to 9.9 percent. Typical settings are .3 percent, .5 percent and 1.0 percent (The maximum capacity will be limited to the plumbing and water pump capacity). **Control System** The system will be equipped with a digital electronic control display located on the pump operator's panel. Push button controls will be integrated into the panel to turn the system on/off, control the foam percentage, direct which foam to use on a multi-tank system, and to set the operation modes (automatic, manual, draft, calibration, or flush). The percent of injection will have presets for Class A and Class B foam. These presets can be changed at the fire department as desired. The percent of injection will be able to be easily changed at the scene to adjust to changing demands. In order to minimize the use of abbreviations and interpretations, system information will be displayed on the panel by way of .50 tall LEDs that total 14 characters (two (2) lines of seven (7) each). System on and foam pump on indicator lights will also be included. Information displayed will include mode of operation (automatic, manual, draft, calibration, or flush), foam supply selected (Class A or Class B), water total, foam total, foam percentage, remaining gallons, and time remaining. The control display will direct a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor will compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve will be installed in the plumbing to prevent foam from contaminating the water pump. **Low Level, Foam Tank** The control head will display a warning message when the foam tank in use is below a quarter tank.

Hydraulic Drive System
The foam concentrate pump will be powered by a hydraulic drive system, which is auto activated, whenever the vehicle water pump is engaged. A large parasitic electric load u power the foam pump can cause an overload of the chassis electrical system.
Hydraulic oil cooler will be provided to automatically prevent overheating of the hydraulic oil, which is detrimental to system components. The oil/water cooler will be designed to allow continuous system operation without allowing hydraulic oil temperature to exceed the oil specifications.
The hydraulic oil reservoir will be of four (4) gallons minimum capacity and will also be of sufficient size to minimize foaming and be located to facilitate checking oil level or adding oil without spillage or the need to remove access panels.

Foam Concentrate Pump
The foam concentrate pump will be of positive displacement, self-priming; linear actuated design, driven by the hydraulic motor. The pump will be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum will be present in its construction.
A relief system will be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump
The foam concentrate pump will have minimum capacity for 12 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system will deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump will be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.

External Foam Concentrate Connection
An external foam pick-up will be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up will be designed to allow continued operation after the on-board foam tank is empty. The external foam pick-up will be designed to allow use with training foam or colored water for training purposes.

Panel Mounted Strainer/External Pick-Up Connection
A bronze body strainer/connector unit will be provided. The unit will be mounted to the pump panel. The external foam pick-up will be one (1) 1.00" male connection with chrome-plated cap integrated to a 2.00" strainer cleanout cap. A check valve will be installed in the pick-up portion of the cleanout cap. A basket style stainless steel screen will be installed in the body of the strainer/connector unit. Removal of the 2.00" cleanout cap will be all that is required to gain access to and remove the stainless steel basket screen. The strainer/connector unit will be ahead of the foam concentrate pump inlet port to insure that all agent reaching the foam pump has been strained.

Pick-Up Hose
A 1.00" flexible hose with an end for insertion into foam containers will be provided. The hose will be supplied with a 1.00" female swivel NST thread swivel connector. The hose will be shipped loose.

Discharges
The foam system will be plumbed to six (6) discharges. The discharges capable of dispensing foam will be Font Bumper, ReelLine, Both Crosslays, Both rear HB pre-connects..

System Electrical Load
The foam proportioning will not impose an electrical load on the vehicle electrical system any greater than five (5) amps at 12VDC.

Foam Supply Valve
Electric valves will be used for the foam supply. The foam supply valves will be controlled at the foam system control head for ease of operation. The supply valves will be electric, remote controlled, to eliminate air pockets in the foam tank supply hose.

Maintenance Message
A message will be displayed on the control head to advise when system maintenance needs to be performed. The message will display interval for cleaning the foam strainer, cleaning for the water strainers, and changing the hydraulic oil.

Flush System
The system will be designed such that a flush mode will be provided to allow the system to flush all foam concentrate with clear water. The flush circuit control logic will ensure the foam tank supply valve is closed prior to opening the flush valve. The flush valve will be operated at the foam system control head for ease of operation. The valve will be electrically controlled and located as close to the foam tank supply valve as possible. A manual flush drain valve will be labeled and located under the left side running board.

0012126 Not Required, CAF Compressor

0552484	Refill, Foam Tank, Dual Tank, Husky 12	**REFILL, FOAM TANKS** The foam system's proportioning pump will be used to fill the Class A foam tank. This w use of the auxiliary foam pick-up to pump the foam from pails or a drum on the ground i foam tank. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The fill operation will be controlled by a mode in the foam system controller stating TANK A FILL. While the proportioner pump is filling the tank, the controller will display FILL TANK A. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the controller will display TANK A FULL. A separate air operated fill pump, controlled by the foam system controller, will be provided for filling the Class B foam tank. A separate inlet connection, mounted on the pump panel will be provided for this fill system. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The connection will be the same as the foam intake connection, in order to allow the use of the foam pick-up hose as the fill hose. The fill operation will be controlled by a mode in the foam system controller stating TANK B FILL. To fill the tank, the controller will start and run the air operated pump. While the pump runs, the controller will display FILL TANK B. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the controller will display TANK B FULL.
0031896	Demonstration, Foam System, Dealer Provided	
0005446	Foam Cell, 20 Gallon, Not Reduce Water	**FOAM TANK** The foam tank will be an integral portion of the polypropylene water tank. The cell will have a capacity of 20 gallons of foam with the intended use of Class A foam. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.
0505016	Drain, 1.00", Foam Tank #1, Husky 12 Foam System	**FOAM TANK DRAIN** A system of 1.00" foam tank drains will be provided, integrated into the foam systems strainer and tank to foam pump valve management system. The tank to pump hoses running from the tank(s) to the panel mounted strainer will 1.00" diameter. The foam system controller will have a mode that allows for a given foam valve to be opened at will. Flow of foam from the tank valve to the strainer will be usable as a tank drain mode. An adaptor will be supplied, that allows the 1.00" foam intake screen to assembly to be used as a drain outlet. The standard supplied 1.00" foam pick up hose will be attached to the screen assembly by way of the adapter. The drain mode will allow the operator to open and close the tank valve as required from the control head, to drain foam and re-fill foam containers through the connected hose, without foam spillage beneath the vehicle.
0091082	Foam Cell #2, 20 Gallon, Not Reduce	**FOAM CELL** The cell will be an integral portion of the polypropylene water tank. The cell will have a capacity of 20 gallons of foam with the intended use of Class B foam. The brand of foam stored in this cell will be Customer to advise. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.
0505017	Drain, 1.00", Foam Tank #2, Husky 12 Foam System	**FOAM TANK DRAIN** A system of 1.00" foam tank drains will be provided, integrated into the foam systems strainer and tank to foam pump valve management system. The tank to pump hoses running from the tank(s) to the panel mounted strainer will 1.00" diameter. The foam system controller will have a mode that allows for a given foam valve to be opened at will. Flow of foam from the tank valve to the strainer will be usable as a tank drain mode. An adaptor will be supplied, that allows the 1.00" foam intake screen to assembly to be used as a drain outlet. The standard supplied, 1.00" foam pick up hose will be attached to the screen assembly by way of the adapter. The drain mode will allow the operator to open and close the tank valve as required from the control head, to drain foam and re-fill foam containers through the connected hose, without foam spillage beneath the vehicle.

0746445	Approval Dwg, Pump Operator's Panel, Includes Color And Label Tags	The following drawing(s) will be provided for approval by the customer. The drawing(s) will be made for up One (01) Truck apparatus and/or similar Pierce job number. **PUMP OPERATOR'S PANEL DRAWING** A detailed drawing to scale of the pump operator's panel will be provided for the customer to review. The drawing will include all of the gauges, controls, switching, etc.., located on the pump operator's panel. The customer will be allowed to make changes and/or mark-ups to this approval drawing. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved pump operator's panel drawing will become part of the contract documents. Due to the way drain(s), bleeder(s), operational/maintenance tag(s) and NFPA required warning tag(s) are placed on pump panel(s), these items will NOT be shown on any pump panel approval drawing(s). These item(s) will be placed on pump panel(s) at the fire apparatus manufacturer discretion. **COLOR CODED TAGS** A detailed drawing/chart of the colors used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the colors will become part of the contract documents. **SPECIAL TEXT/VERBIAGE TAGS** A detailed drawing/chart of the text/verbiage used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the text/verbiage will become part of the contract documents.
0032479	Pump Panel Configuration, Control Zone	**PUMP PANEL CONFIGURATION** The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.
0629252	Material, Pump Panels, Side Control Black Vinyl	**PUMP AND GAUGE PANEL** The pump and gauge panels will be constructed of aluminum with a black vinyl finish. A polished aluminum trim molding will be provided around each panel.
0721772	Panel, Pump Access - Right Side, Front, Side Control	**PUMP ACCESS** **Right Side Panel** The right side pump panel will be removable. **Panel Fastener** The right side removable panel will be secured using a black swell latch . The left side pump panels will be attached with screws. The right side lower panel (drain bank) will be secured using screws. **Front Pump House Access** The front of the pump house structure will have provisions for access to the pump.
0803876	Light, Pump Compt, Truck-Lite 44042C LED	**PUMP COMPARTMENT LIGHTS** There will be one (1) Truck-Lite, model 44207C, 4.00" diameter LED light(s) provided inside the pump enclosure. The light(s) will be activated when the battery switch is on and a switch located near the light(s) is turned on.
0536401	Gauges, Engine, Included With Pierce Pressure Controller	Engine monitoring graduated LED indicators will be incorporated with the pressure controller.
0005601	Throttle, Engine, Incl'd w/Press Controller	
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle,Green	**THROTTLE READY GREEN INDICATOR LIGHT** There will be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.
0549333	Indicators, Engine, Included with Pressure Controller	
0745568	Indicator Light, Pump Panel, Ok To Pump, Green	**OK TO PUMP INDICATOR LIGHT** There will be a green indicator light installed on the pump operators panel that is activated when the pump is in Ok To Pump mode.

0005635	Hourmeter, Pump	- Pump Hourmeter
0553643	Control, Air Horn at Pmp Pnl, Red Switch	**AIR HORN SWITCH** An air horn control switch will be provided at the pump operator's control panel. This switch will be red and properly labeled. The switch will be located within easy reach of the operator in the electrical switch panel.
0511078	Gauges, 4.00" Master, Class 1, 30"-0-600psi	**VACUUM AND PRESSURE GAUGES** The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©. The gauges will be a minimum of 4.00" in diameter and will have white faces with black lettering, with a pressure range of 30.00"-0-600#. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel. Test port connections will be provided at the pump operator's panel. One will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and non-corrosive polished stainless steel or brass plugs. They will be marked with a label. This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.
0511100	Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	**PRESSURE GAUGES** The individual "line" pressure gauges for the discharges will be Class 1© interlube filled. They will be a minimum of 2.00" in diameter and have white faces with black lettering. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. Gauges will have a pressure range of 30"-0-400#. The individual pressure gauge will be installed as close to the outlet control as practical. This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.
0750526	Gauge, Water Level, Pierce, In pressure Controller, Lt Driver	**WATER LEVEL GAUGE** An electric water level gauge will be incorporated in the pressure controller that registers water level by means of 9 LEDs. They will be at 1/8 level increments with a tank empty LED. The LEDs will be a bright type that is readable in sunlight, and have a full 180-degree of clear viewing. To further alert the pump operator, the gauge will have a warning flash when the tank volume is less than 25%, and will have "Down Chasing LEDs when the tank is almost empty. The level measurement will be ascertained by sensing the head pressure of the fluid in the tank or cell. There will be a light driver module with this installation to power additional water level gauge(s) included on the apparatus.
0084763	Gauge, Ernst Sight Water Level, w/Red Ball, IATS	**WATER LEVEL GAUGE, ADDITIONAL** An additional water level gauge will be provided. An Ernst sight tube water level indicator with a floating red ball will be mounted on the gauge panel with an unrestricted view for the operator.
0604059	Gauge, Water Level, FRC, WLA 205-A00, TankVision, Remote Mini Display(s)	**MINIATURE WATER LEVEL GAUGE(S)** There will be one (1)Fire Research TankVision model WLA205-A00 miniature water tank indicator gauge(s) installed inside the cab. The indicator gauge(s) will show the volume of water in the tank on five (5) easy to see super bright LEDs. A wide view lens over the LEDs will provide for a viewing angle of 180 degrees. The indicator gauge case will be manufactured of Polycarbonate material with an integrated lens and have a distinctive blue label. The miniature tank indicator gauge(s) will be activated when pump is in gear. The flash rate will be determined by the main water tank sensor.
0062988	Gauge, Foam Level, (2) Tanks, Class 1	**FOAM LEVEL GAUGE** An electronic foam level gauge will be provided on the operator's panel for each foam tank, that registers foam level by means of five colored LED lights. The lights will be durable, ultra-bright five LED design viewable through 180 degrees. The foam level indicators will be as follows: - 100% = Green - 75% = Yellow - 50% = Yellow - 25% = Yellow - Refill = Red The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the foam tank is empty. The level measurement will be based on the sensing of head pressure of the fluid in the tank. The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from foam and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The field calibratable display measures head pressure to accurately show the tank level.

0665336	Light Shield/Step 8", 4-FRC Firefly LED115-Q01, P25 LED Step Lt	**STEP/LIGHT SHIELD** There will be an aluminum treadplate stepping surface no less than 8.00" deep and pro reinforced to support a man's weight, installed over the pump operators panel. There will be four (4) Fire Research Firefly, part number LED115-Q01, 12 volt DC LED lights installed under the step to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by the pump panel light switch. Additional lights will be included every 18.00" depending on the size of the pump house. One (1) pump panel light will come on when the pump is in ok to pump mode. There will be a light activated above the pump panel light switch when the parking brake is set. This is to afford the operator some illumination when first approaching the control panel. There will be one (1) white LED step light provided above this step. In order to ensure exceptional illumination, each step light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light. The step light will be activated by the pump panel light switch.
0522730	Light, Over Passenger Side Pump Panel, P25 LED Stp Lt	There will be three (3) white LED scene lights with ABS chrome housing, installed above the passenger side pump panel. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights will be operated from a switch on the pump panel.
0606694	Air Horns, (2) Hadley, 6" Round, eTone, In Bumper	**AIR HORN SYSTEM** Two (2) Hadley®, eTone, chrome air horns will be recessed in the front bumper. The air horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed to prevent the loss of air in the brake system.
0606834	Location, Air Horns, Bumper, Each Side, Outside Frame, Inboard (Pos #2 & #6)	**Air Horn Location** The air horns will be located on each side of the bumper, just outside of the frame rails.
0757092	Control, Air Horn, Multi Select	**Air Horn Control** The air horn(s) will be activated by the following:
0757081	Control, Air Horn, Ft Sw, LS	Left side foot switch
0602752	Siren, Wln 295HFS2 Remote, Single Amp, Other Speaker, Non-NFPA 2016	**ELECTRONIC SIREN** A Whelen 295HFS2, electronic remote siren with noise canceling microphone will be provided. This siren to be active when the battery switch is on and that emergency master switch is on. NFPA 1901, 2016 edition, Section 13.9.1.1 requires the siren manufacturer to certify the siren as meeting the requirements of SAE J1849, *Emergency Vehicle Sirens*. Per the fire department specification, the siren and siren speaker come from separate manufacturers and a certification is therefore not valid. The apparatus will be non compliant to NFPA 1901 standards at time of contract execution.
0692039	Location, Electronic Siren, Center Console	Electronic siren head will be located in the center console.
0076157	Control, Elec Siren, Horn Ring	**SIREN CONTROL** The electronic siren will be controllable on the siren head and horn ring only. No foot switches will be required. The driver will have the option to control the siren or the chassis horns from the horn button by means of a selector switch located on the instrument panel.
0601330	Speaker, (1) Federal, ES100C w/ESFMT-EF Recess Mnt & S/S Grille	**SPEAKER** There will be one (1) Federal Signal DynaMax®, Model ES100, 100 watt speaker provided. The speaker will use a Federal Signal, Model ESFMT-EF, recess mount with stainless steel grille. The speaker will be connected to the siren amplifier.
0601551	Location, Speaker, Frt Bumper, Recessed, Right Side, Outside Frame,Outbrd(Pos 1)	The speaker will be recessed in the right side of the front bumper, towards the outside.

0895310	Siren, Federal Q2B	**AUXILIARY MECHANICAL SIREN** There will be a Federal Signal Model Q2B mechanical siren furnished and installed in th the apparatus. The Q2B will be chrome finish. The siren will have a 2-gauge cable connected to a power solenoid that is connected by a 2-gauge cable ran battery direct to the primary chassis batteries and will be labeled Q2B+ at the battery. The power solenoid will only be enabled when the emergency master switch is on. The siren will have a 2-gauge ground wire connected to the chassis battery stud. The cable will be labeled Q2B- at the battery.
0006097	Location of Siren, Recessed in Bumper	The mechanical siren will be recessed in the front bumper on the left side. The siren will be properly supported using the bumper framework.
0748305	Control, Mech Siren, Multi Select	**MECHANICAL SIREN CONTROL** The mechanical siren will be activated by the following:
0748282	Control Mech Siren, Ft Sw LS	Left side foot switch.
0736158	Sw, Siren Brake, Momentary, Lower Sw Pnl	A momentary switch will be included in the lower switch panel to activate the siren brake.
0746353	Not Required, Warning Lights Intensity	
0789132	Lightbar, Wln, Freedom IV-Q, 81", RRRRWRRRWWRRRWRRRR	**FRONT ZONE UPPER WARNING LIGHTS** There will be one (1) 81.00" Whelen® Freedom™ IV lightbar mounted on the cab roof. The lightbar will include the following: One (1) red flashing LED module in the driver's side end position. One (1) red flashing LED module in the driver's side front corner position. One (1) red flashing LED module in the driver's side first front position. One (1) red flashing LED module in the driver's side second front position. One (1) white flashing LED module in the driver's side third front position. One (1) red flashing LED module in the driver's side fourth front position. One (1) red flashing LED module in the driver's side fifth front position. One (1) red flashing LED module in the driver's side sixth front position. One (1) white flashing LED module in the driver's side seventh front position. One (1) white flashing LED module in the passenger's side seventh front position. One (1) red flashing LED module in the passenger's side sixth front position. One (1) red flashing LED module in the passenger's side fifth front position. One (1) red flashing LED module in the passenger's side fourth front position. One (1) white flashing LED module in the passenger's side third front position. One (1) red flashing LED module in the passenger's side second front position. One (1) red flashing LED module in the passenger's side first front position. One (1) red flashing LED module in the passenger's side front corner position. One (1) red flashing LED module in the passenger's side end position. There will be clear lenses included on the lightbar. There will be a switch installed in the cab on the switch panel to control this lightbar. The white flashing LED modules in the front positions will be deactivated when the parking brake is applied. The red flashing LED modules in the front positions may be load managed when the parking brake is applied.
0016380	No Additional Lights Req'd, Side Zone Upper	
0899300	Lights, Front Zone, Wln M6** M6RS M6RS M6**, Inside Steady Burn, 4lts Q Bez	**FRONT ZONE LOWER LIGHTS** There will be four (4) Whelen®, 4.31" high x 6.75" wide x 1.37" deep lights installed on the cab face above the headlights, in a common bezel matching the one for the headlamps per the following. One (1) Model M6** flashing light installed in the left side outside position. The left side outside warning light to include red LEDs. One (1) Model M6RS steady burning light installed in the left side inside position. The light will include red LEDs. One (1) Model M6RS steady burning light installed in the right side inside position. The light will include red LEDs. One (1) Model M6** flashing light installed in the right side outside position. The right side outside warning light to include red LEDs. The lens color(s) to be clear. The housing to be polished and the trim shall be chrome. There will be a switch in the cab on the switch panel to control the lights.

0653937		Flasher, Headlight Alternating	**HEADLIGHT FLASHER** The high beam headlights will flash alternately between the left and right side. There will be a switch installed in the cab on the switch panel to control the high beam f switch will be live when the battery switch and the emergency master switches are on. The flashing will automatically cancel when the hi-beam headlight switch is activated or when the parking brake is set.
0540679		Lights, Side Zone Lower, Wln M6*C LED, Clear Lens 2pr	**SIDE ZONE LOWER LIGHTING** There will be four (4) Whelen®, Model M6*C, flashing LED warning lights with chrome trim installed per the following: Two (2) lights, one (1) each side on the bumper extension. The side front lights to be red. Two (2) lights, one (1) each side above rear wheels. The side rear lights to be red. The lights will include a clear lenses. There will be a switch in the cab on the switch panel to control the lights.
0564655		Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt Housing	**REAR ZONE LOWER LIGHTING** There will be two (2) Whelen®, Model M6*C, LED flashing warning lights located at the rear of the apparatus. The driver's side rear light to be red The passenger's side rear light to be red Both lights will include a lens that is clear. There will be a switch located in the cab on the switch panel to control the lights.
0541152		Lights, Rear/Side Up Zone, Wln M6*C LED, Clear Lens 4lts	**WARNING LIGHTS (Rear and Side upper zones)** Four (4) Whelen, model M6*C LED flashing warning lights will be provided at the rear of the apparatus. The side upper rear light on the left side to include red flashing LEDs. The rear upper light on the left side to include red flashing LEDs. The rear upper light on the right side to include red flashing LEDs. The side upper rear light on the right side to include red flashing LEDs. These lights will include a lens that is clear. These lights will be provided with a flange. There will be a switch located in the cab on the switch panel to control the lights.
0006551		Not Required, Lights, Rear Upper Zone Blocking	
0668965	SP	Mtg, Rear Warn Lts, LS Mtd on Hatch Compt, RS on Large S/S Bracket Ladder Lock	**REAR WARNING LIGHT MOUNTING** The left side warning light will be installed on the left side hatch compartment. The right side warning lights will be installed on a large stainless steel box above hydraulic ladder rack lock enclosure. The wiring of all of these lights will be totally enclosed.
0791528		Light, Traffic Directing, Wln TAL65, 36.00" Long, TACTL5	**TRAFFIC DIRECTING LIGHT** There will be one (1) Whelen®, Model TAL65, 36.00" long x 2.87" high x 2.25" deep, amber LED traffic directing light installed at the rear of the apparatus. The Whelen, Model TACTL5, control head will be included with this installation. The controller will be energized when the battery switch is on. The auxiliary flash to be activated when the emergency master switch is on.
0529858		Location, Traf Dir Lt, Recessed Within Trdplt Step	This traffic directing light will be recessed within a treadplate step at the rear of the apparatus.
0530282		Location, Traf Dir Lt Controller, Overhead Switch Panel DS Right End	The traffic directing light control head will be located in the driver side overhead switch panel in the right panel position.
0779722		Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Body	**120 VOLT RECEPTACLE** There will be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with white receptacle(s) and stainless steel wall plate(s), installed In B1 above shelf up high, RS3 Back wall upper left hand corner . The NEMA configuration for the receptacle(s) will be 5-20R. The receptacle(s) will be powered from the shoreline inlet. There will be a label installed near the receptacle(s) that state the following: Line Voltage Current Ratting (amps) Phase Frequency
0519934		Not Required, Brand, Hydraulic Tool System	
0649753		Not Required, PTO Driven Hydraulic Tool System	

0649736	Not Required, Hydraulic Tools	
0007150	Bag of Nuts and Bolts	**LOOSE EQUIPMENT** The following equipment will be furnished with the completed unit: One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.
0602516	NFPA Required Loose Equipment, Pumper, NFPA 2016, Provided by Fire Department	**NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY FIRE DEPARTMENT** The following loose equipment as outlined in NFPA 1901, 2016 edition, section 5.9.3 and 5.9.4 will be provided by the fire department. 800 ft (60 m) of 2.50" (65 mm) or larger fire hose. 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose. One (1) handline nozzle, 200 gpm (750 L/min) minimum. Two (2) handline nozzles, 95 gpm (360 L/min) minimum. One (1) smoothbore of combination nozzle with 2.50" shutoff that flows a minimum of 250 gpm. One (1) SCBA complying with NFPA 1981 for each assigned seating position, but not fewer than four (4), mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer. One (1) spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space(s). One (1) first aid kit. Four (4) combination spanner wrenches. Two (2) hydrant wrenches. One (1) double female 2.50" (65 mm) adapter with National Hose threads. One (1) double male 2.50" (65 mm) adapter with National Hose threads. One (1) rubber mallet, for use on suction hose connections. Two (2) salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m). One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, *Standard for High Visibility Public Safety Vests*, and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front. Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (152 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band. Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities. One (1) automatic external defibrillator (AED). Four (4) ladder belts meeting the requirements of NFPA 1983, *Standard on Fire Service Life Safety Rope and System Components* (if equipped with an aerial device). If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, will be carried mounted in brackets fastened to the apparatus. If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side will be carried. Any intake connection larger than 3.00" (75 mm) will include a pressure relief device that meets the requirements of 16.6.6. If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake will be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake. If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters will be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.
0519913	Not Required, Soft Suction Hose	**SOFT SUCTION HOSE** There will be no soft suction hose provided.
0027023	No Strainer Required	
0602538	Extinguisher, Dry Chemical, Pumper NFPA 2016 Class, Provided by Fire Department	**DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 5.9.4 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus. The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.
0602360	Extinguisher, 2.5 Gal. Pressurized Water, Pumper NFPA 2016,Provided by Fire Dept	**WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 5.9.4 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus. The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

0602679	Axe, Flathead, Pumper NFPA 2016 Classification, Provided by Fire Department	**FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) flathead axe mounted in a bra fastened to the apparatus. The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.
0602667	Axe, Pickhead, Pumper NFPA 2016 Classification, Provided by Fire Department	**PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) pickhead axe mounted in a bracket fastened to the apparatus. The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.
0741569	Paint Process / Environmental Requirements, Appleton	**PAINT PROCESS** The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows: Manual Surface Preparation - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate. Chemical Cleaning and Pretreatment - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion. Surfacer Primer - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded. Finish Sanding - The Surfacer Primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat. Sealer Primer - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated. Basecoat Paint - Two coats of a high performance, two component high solids polyurethane basecoat will be applied. The Basecoat will be applied to a thickness that will achieve the proper color match. The Basecoat will be used in conjunction with a urethane clear coat to provide protection from the environment. Clear Coat - Two (2) coats of Clear Coat will be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors will be Clear Coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacturer. After the cab and body are painted, the color will be verified to make sure that it matches the color standard. Electronic color measuring equipment will be used to compare the color sample to the color standard entered into the computer. Color specifications will be used to determine the color match. A Delta E reading will be used to determine a good color match within each family color. All removable items such as brackets, compartment doors, door hinges, and trim will be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly. The paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) are to meet or exceed Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels are to meet or exceed the #6 A.C.T.standard in critical areas. The manufacture's written paint standards will be available upon request. **Environmental Impact** Contractor will meet or exceed all current state regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions: Topcoats and primers will be chrome and lead free. Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals. Particulate emission collection from sanding operations will have a 99.99 percent efficiency factor. Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98 percent. Water wash systems will be 99.97 percent efficient Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean. Paint wastes are disposed of in an environmentally safe manner. Empty metal paint containers will be recycled to recover the metal. Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse. Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Contractor will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his state EPA rules and regulations.

0709566		Paint, Two-Tone Color, Enforcer	**TWO-TONE CAB PAINT** The cab will be painted two-tone with the upper section painted #101 black and the lower painted #90 red. There will be a standard two-tone cab paint break provided. There will be a deep cab shield provided.
0709833		Paint, Two-Tone Color, Body	**TWO-TONE BODY PAINT** The body will be painted two-tone with the upper section painted to match the upper section of the cab and the lower section painted to match the lower section of the cab. The body paint break will be at the seam between the body and hatch compartment or catwalk on each side.
0646897		Paint Chassis Frame Assy, E-Coat, Standard	**PAINT CHASSIS FRAME ASSEMBLY** The chassis frame assembly will be finished with a single system black top coat before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components treated with epoxy E-coat protection prior to paint: Two (2) C-channel frame rails Components that are included with the chassis frame assembly that will be painted not e-coated are: Cross members Axles Suspensions Steering gear Battery boxes Bumper extension weldment Frame extensions Body mounting angles Rear Body support substructure (front and rear) Pump house substructure Air tanks Steel fuel tank Castings Individual piece parts used in chassis and body assembly The E-coat process will meet the technical properties shown.
0516417		Wheels, Accent Stripe on Outer Edge, Single Axle	**WHEELS, ACCENT STRIPE** All exposed outer edge wheel surfaces will be painted with a Red Pierce #90 accent stripe.
0693798		Paint, Front Wheels	**PAINT, FRONT WHEELS** All wheel surfaces, inside and outside, will be provided with paint black #101.
0693793		Paint, Rear Wheels, Single Axle	**PAINT, REAR WHEELS** All wheel surfaces, inside and outside, will be provided with paint black #101.
0733739		Paint, Axle Hubs	**AXLE HUB PAINT** All axle hubs will be painted black #101.
0013176		Smooth Finish, Two-Tone Cab Paint Break w/Shield, No Vinyl	**FINISH TWO-TONE PAINT BREAK SMOOTH, NO VINYL** The two-tone paint break will be finished smooth. There will not be a vinyl stripe installed on the break.
0007230		Compartment, Painted, Spatter Gray	**COMPARTMENT INTERIOR PAINT** The interior of all compartments will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.
0605221	SP	Reflective Band, 9"	**REFLECTIVE BAND** An 9.00" black reflective band will be provided across the front of the vehicle and along the sides of the cab and body.
0027356		Reflective, Cab Face, Below the Grille	**REFLECTIVE, CAB FACE, BELOW GRILLE** The reflective band provided on the cab face will be between the front grille and the front bumper.
0536954		Stripe, Chevron, Rear, Diamond Grade, Pumper	**REAR CHEVRON STRIPING** There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear compartment door, will be covered. The colors will be red and fluorescent yellow green diamond grade. Each stripe will be 6.00" in width. This will meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface will be covered with chevron striping.

0679883	Stripe, Printed Effect Gold Leaf Outline Above & Below Reflective Band	**PRINTED EFFECT GOLD LEAF STRIPE** There will be a printed effect gold leaf stripe applied above and below the reflective ban printed effect gold leaf stripes will be .50" wide with an outline.
0065687	Stripe, Reflective, Cab Doors Interior	**CAB DOOR REFLECTIVE STRIPE** A 6.00" x 16.00" black reflective stripe will be provided across the interior of each cab door. The stripe will be located approximately 1.00" up from the bottom, on the door panel. This stripe will meet the NFPA 1901 requirement.
0679810	Stripe, Printed Effect Gold Leaf, Two-Tone Paint Break with Shield, IPO Chrome	**CAB STRIPE** There will be a printed effect gold leaf stripe provided on both sides of the cab in place of the chrome molding and on the cab face with shield.
0027372	Lettering Specifications, (GOLD STAR Process)	**LETTERING** The lettering will be totally encapsulated between two (2) layers of clear vinyl.
0685691	Lettering, Printed Effect Gold Leaf, 3.00", (21-40)	**LETTERING** Twenty-one (21) to forty (40) printed effect gold leaf lettering, 3.00" high, with outline and shade will be provided.
0685993	Lettering, Reflective, 10.00", Each	**LETTERING** There will be reflective lettering, 10.00" high, with outline and shade provided. There will be four (4) letters provided.
0686018	Lettering, Reflective, 5.00", Each	**LETTERING** There will be reflective lettering, 5.00" high, with outline and shade provided. There will be six (6) letters provided.
0686084	Lettering, Reflective, 3.00", Each	**LETTERING** There will be reflective lettering, 3.00" high, with outline and shade provided. There will be 48 letters provided.
0685553	Lettering, Printed Effect Gold Leaf, 6.00", (1-20)	**LETTERING** One (1) to twenty (20) printed effect gold leaf lettering, 6.00" high, with outline and shade will be provided.
0685560	Lettering, Printed Effect Gold Leaf, 5.00", (1-20)	**LETTERING** One (1) to twenty (20) printed effect gold leaf lettering, 5.00" high, with outline and shade will be provided.
0685602	Lettering, Printed Effect Gold Leaf, 3.00", (21-40)	**LETTERING** Twenty-one (21) to forty (40) printed effect gold leaf lettering, 3.00" high, with outline and shade will be provided.
0683997	Lettering, Vinyl, 18.00", Each	**LETTERING** There will be non-reflective vinyl lettering, 18.00" high, with no outline or shade provided. There will be four (4) letters provided.
0017268	Decals, Customer furnished, Pierce installed, Per Pair	**DECAL INSTALLATION** There will be two (2) pair of decals furnished by the fire department and applied by the apparatus manufacturer.

0771690	Manual, Fire Apparatus Parts, (2) USB Flash Drives, Multi Unit Order, Custom	**FIRE APPARATUS PARTS MANUAL** There will be one (1) custom parts manual in USB flash drive format for the complete fir apparatus provided. The manual will contain the following: Job number Part numbers with full descriptions Table of contents Parts section sorted in functional groups reflecting a major system, component, or assembly Parts section sorted in alphabetical order Instructions on how to locate parts Each manual will be specifically written for the chassis and body model being purchased. It will not be a generic manual for a multitude of different chassis and bodies. This is a multiple unit order. The customer will receive one (1) manual on USB flash drive total for the four (4) truck order. **SERVICE PARTS INTERNET SITE** The service parts information included in these manuals are also available on the Pierce website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.
0771956	Manual, Chassis Service, (1) USB Flash Drive, Multi Unit Order, Custom	**CHASSIS SERVICE MANUALS** There will be one (1) chassis service manual on USB flash drive containing parts and service information on major components provided with the completed unit. The manual will contain the following sections: Job number Table of contents Troubleshooting Front Axle/Suspension Brakes Engine Tires Wheels Cab Electrical, DC Air Systems Plumbing Appendix The manual will be specifically written for the chassis model being purchased. It will not be a generic manual for a multitude of different chassis and bodies. This is a multiple unit order. The customer will receive one (1) manual on USB flash drive total for the four (4) truck order.
0772059	Manual, Chassis Operation, (1) Hard Copy & (1) USB, Multi Unit Order, Custom	**CHASSIS OPERATION MANUALS** There will be one (1) hard copy and one (1) USB flash drive provided that will include all of the same information. This is a multiple unit order. One (1) hard copy manual and one (1) manual on USB flash drive total will be supplied for the four (4) truck order.
0030008	Warranty, Basic, 1 Year, Apparatus, WA0008	**ONE (1) YEAR MATERIAL AND WORKMANSHIP** A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.
0735523	Warranty, Engine, Paccar MX13, 5 Year	**ENGINE WARRANTY** A Paccar five (5) year**limited engine warranty will be provided. A limited warranty certificate, XX, is included with this proposal.**
0684953	Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	**STEERING GEAR WARRANTY** A Sheppard **three (3) year** limited steering gear warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.
0596017	Warranty, Frame, 50 Year, Custom Chassis, WA0013	**FIFTY (50) YEAR STRUCTURAL INTEGRITY** The Pierce custom chassis frame limited warranty certificate, WA0013, is included with this proposal.
0595698	Warranty, Axle, 3 Year, TAK-4, WA0050	**FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY** The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.
0610485	Warranty, Axle, Eaton/Dana, 5 Year/100,000 Mile, Parts and Labor	**REAR AXLE WARRANTY** A Eaton **five (5)-year/100,000 mile** parts and labor warranty will be provided.

0652758	Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	**ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY** A Meritor Wabco™ ABS brake system limited warranty certificate, WA0232, is included proposal.
0019914	Warranty, Structure, 10 Year, Custom Cab, WA0012	**TEN (10) YEAR STRUCTURAL INTEGRITY** The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.
0744240	Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	**TEN (10) YEAR PRO-RATED PAINT AND CORROSION** A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.
0524627	Warranty, Electronics, 5 Year, MUX, WA0014	**FIVE (5) YEAR MATERIAL AND WORKMANSHIP** The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.
0695416	Warranty, Pierce Camera System, WA0188	**CAMERA SYSTEM WARRANTY** A Pierce fifty four (54) month**warranty will be provided for the camera system.**
0647720	Warranty, Pierce LED Strip Lights, WA0203	**COMPARTMENT LIGHT WARRANTY** The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.
0046369	Warranty, 5-year EVS Transmission, Standard Custom, WA0187	**TRANSMISSION WARRANTY** The transmission will have a **five (5) year/unlimited mileage** warranty covering 100 percent parts and labor. The warranty will be provided by Allison Transmission. Note: The transmission cooler is not covered under any extended warranty you may be getting on your Allison Transmission. Please review your Allison Transmission warranty for coverage limitations.
0685945	Warranty, Transmission Cooler, WA0216	**TRANSMISSION COOLER WARRANTY** The transmission cooler will carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty will also be in effect for the first three (3) years of the warranty coverage and will not exceed $10,000 per occurrence. A copy of the warranty certificate will be submitted with the bid package.
0688798	Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	**WATER TANK WARRANTY** A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.
0596025	Warranty, Structure, 10 Year, Body, WA0009	**TEN (10) YEAR STRUCTURAL INTEGRITY** The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.
0693127	Warranty, Gortite, Roll-up Door, 6 Year, WA0190	**ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY** A Gortite roll-up door limited warranty will be provided. The mechanical components of the roll-up door will be warranted against defects in material and workmanship for the lifetime of the vehicle. A **six (6) year** limited warranty will be provided on painted and satin roll up doors. The limited warranty certificate, WA0190, is included with this proposal.
0734463	Warranty, Pump, Waterous, 7 Year Parts, WA0382	**PUMP WARRANTY** The Waterous pump will be provided with a Seven (7) year**material and workmanship limited warranty.** **A copy of the warranty certificate will be submitted with the bid package (no exception).**
0648675	Warranty, 10 Year S/S Pumbing, WA0035	**TEN (10) YEAR PUMP PLUMBING WARRANTY** The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.
0657846	Warranty, Foam System, Husky 12, WA0231	**FOAM SYSTEM WARRANTY** The Husky 12 foam system limited warranty certificate, WA0231, is included with this proposal.
0595820	Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	**TEN (10) YEAR PRO-RATED PAINT AND CORROSION** A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.

0595421	Warranty, Goldstar, 3 Year, Apparatus, WA0018	**THREE (3) YEAR MATERIAL AND WORKMANSHIP** The Pierce Goldstar gold leaf lamination limited warranty limited warranty certificate, WA included with this proposal.
0683627	Certification, Vehicle Stability, CD0156	**VEHICLE STABILITY CERTIFICATION** The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification will be provided at the time of bid.
0808565	Certification, Engine Installation, Enf, Paccar MX, 2027	**ENGINE INSTALLATION CERTIFICATION** The fire apparatus manufacturer will provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification will be provided at the time of delivery.
0686786	Certification, Power Steering, CD0098	**POWER STEERING CERTIFICATION** The fire apparatus manufacturer will provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification will be provided at the time of bid.
0631980	Certification, Cab Integrity, Saber FR/Enforcer, CD0130	**CAB INTEGRITY CERTIFICATION** The fire apparatus manufacturer will provide a cab crash test certification with this proposal. The certification will state that a specimen representing the substantial structural configuration of the cab has been tested and certified by an independent third party test facility. Testing events will be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer will provide a state licensed professional engineer to witness and certify all testing events. Testing will meet or exceed the requirements below: European Occupant Protection Standard ECE Regulation No.29. SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks. SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks. **Roof Crush** The cab will be subjected to a roof crush force of 22,500 lb. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons. **Side Impact** The same cab will be subjected to dynamic preload where a 13,275-lb moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lb of force. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a rollover incident. **Frontal Impact** The same cab will withstand a frontal impact of 32,600 ft-lb of force using a moving barrier in accordance with SAE J2420. **Additional Frontal Impact** The same cab will withstand a frontal impact of 65,200 ft-lb of force using a moving barrier. (Twice the force required by SAE J2420) The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area.
0631973	Certification, Cab Door Durability, Saber FR/Enforcer, CD0137	**CAB DOOR DURABILITY CERTIFICATION** Robust cab doors help protect occupants. Cab doors will survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder will certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.
0631978	Certification, Windshield Wiper Durability, Saber FR/Enforcer, CD0132	**WINDSHIELD WIPER DURABILITY CERTIFICATION** Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers will survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 *Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles.* The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.
0631974	Certification, Electric Window Durability, Saber FR/Enforcer, CD0133	**ELECTRIC WINDOW DURABILITY CERTIFICATION** Cab window roll-up systems can cause maintenance problems if not designed for long service life. The window regulator design will complete 30,000 complete up-down cycles and still function normally when finished. The bidder will certify that sample doors and windows similar to those provided on the apparatus have been tested and have met these criteria without malfunction or significant component wear.

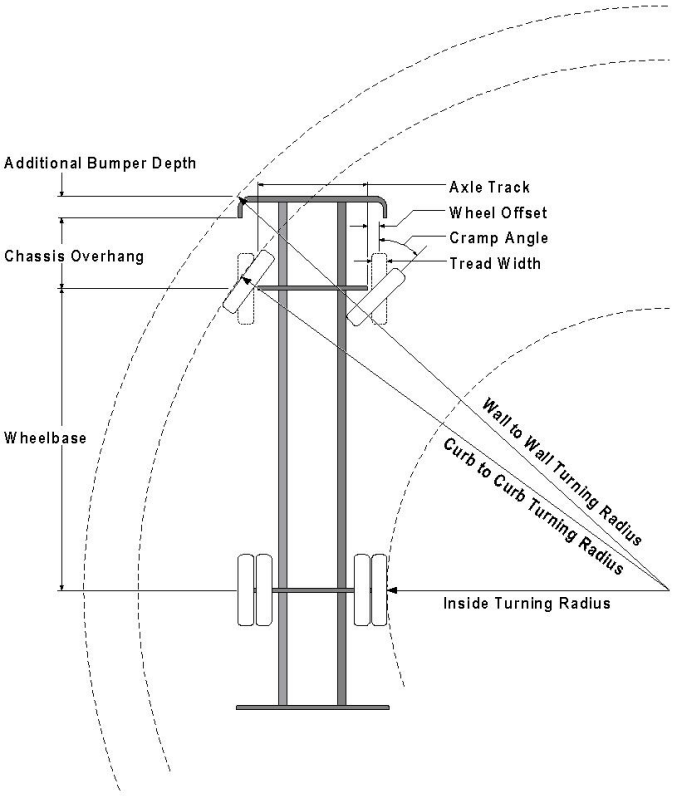
0631977	Certification, Seat Belt Anchors and Mounting, Saber FR/Enforcer, CD0134	**SEAT BELT ANCHOR STRENGTH** Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards a[illegible] be validated through testing. Each seat belt anchor design will withstand 3000 lb of pull the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anch[illegible]. The bidder will certify that each anchor design was pull tested to the required force and met the appropriate criteria. **SEAT MOUNTING STRENGTH** Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design will be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder will certify, at time of delivery, that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.
0735949	Certification, Cab HVAC System Performance, SFR/Enf, CD0165/CD0167/CD0174/CD0175	**PERFORMANCE CERTIFICATIONS** **Cab Air Conditioning** Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air conditioning system will cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 78 degrees Fahrenheit in 30 minutes. The bidder will certify that a substantially similar cab has been tested and has met these criteria. **Cab Defroster** Visibility during inclement weather is essential to safe apparatus performance. The defroster system will clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles.*The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.* ***Cab Auxiliary Heater*** *Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. An auxiliary cab heater will warm the cab 77 degrees Fahrenheit from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify, at time of delivery, that a substantially similar cab has been tested and has met these criteria.*
0545073	Amp Draw Report, NFPA Current Edition	**AMP DRAW REPORT** The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system. The manufacturer of the apparatus will provide the following: Documentation of the electrical system performance tests. A written load analysis, which will include the following: The nameplate rating of the alternator. The alternator rating under the conditions specified per: Applicable NFPA 1901 or 1906 (Current Edition). The minimum continuous load of each component that is specified per: Applicable NFPA 1901 or 1906 (Current Edition). Additional loads that, when added to the minimum continuous load, determine the total connected load. Each individual intermittent load. All of the above listed items will be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).
0002758	Amp Draw, NFPA/ULC Radio Allowance	
0799248	Appleton/Florida BTO	
0000018	PUMPER, 2ND GEN	
0000012	PIERCE CHASSIS	
0735525	PACCAR MX13 ENGINE	
0046396	EVS 4000 Series TRANSMISSION	
0020011	WATEROUS PUMP	
0020009	POLY TANK	
0028048	FOAM SYSTEM	

0020006	SIDE CONTROL
0020007	AKRON VALVES
0020015	ABS SYSTEM
0658751	PUMPER BASE

Turning Performance Analysis

Bid Number: 785
Department: City of Oroville

Chassis: Enforcer Chassis
Body: Pumper, Short, Galvanneal, 2nd Gen



Parameters:

*Inside Cramp Angle:	45°
Axle Track:	86.17 in.
Wheel Offset:	3.12 in.
Tread Width:	12.4 in.
Chassis Overhang:	65.95 in.
Additional Bumper Depth:	13 in.
Front Overhang:	78.95 in.
Wheelbase:	165.5 in.

Calculated Turning Radii:

Inside Turn:	13 ft. 0 in.
Curb to curb:	25 ft. 11 in.
Wall to wall:	29 ft. 10 in.

Category	Option	Description
Bumpers	0606555	Bumper, 13" Extended, Steel Painted, 8.00" High, Saber FR/Enforcer
Wheels, Front	0894433	Wheels, Front, 22.50" x 9.00", Steel, Hub Pilot, 315/80R Tire
Tires, Front	0582936	Tires, Front, Goodyear, G289 WHA, 315/80R22.50, 20 ply
Axle, Front, Custom	0633906	Axle, Front, Oshkosh TAK-4, Non Drive, 18,000 lb, Enforcer

Notes:

*Actual Inside cramp angle may be less than shown.

Curb to Curb turning radius calculated for 9.00 inch curb.

Definitions:

Inside CrampAngle	Maximum turning angle of the front inside fire.
Axle Track	King-pin to King-pin distance of front axle.
Wheel Offset	Offset from the center line of the wheel to the King-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance of the center line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Wheel	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicles front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures takes into account any front overhang due to chassis , bumper extensions and or aerial devices.

Electrical Analysis

Bid #: 785

Desc: CalFire/Oroville Type 1 WUI

Customer: City of Oroville

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT

Job #:

Sales Rep: Hansen, Brad

Organization: Golden State Fire Apparatus, Inc

Type: Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0001244	High Idle w/Electronic Engine, Custom		0.00	1.20	0.00
0010670	ABS Wabco Brake System, Single rear axle		0.00	6.00	0.00
0062988	Gauge, Foam Level, (2) Tanks, Class 1		0.00	0.00	1.00
0079211	Batteries, (6) Exide Grp 31, 950 CCA each, Threaded Stud		0.00	3.00	0.00
0095353	Foam Sys, Husky 12, Dual Agent		0.00	5.00	0.00
0543751	Light, Do Not Move Apparatus		0.00	0.80	0.00
0548004	Wiring, Spare, 15 A 12V DC 1st		0.00	0.00	60.00
0549333	Indicators, Engine, Included with Pressure Controller		0.00	0.35	0.00
0553643	Control, Air Horn at Pmp Pnl, Red Switch		0.00	0.16	0.00
0554191	Handlight, Streamlight, Fire Vulcan, 44451, C4 LED, Tail Lights,		0.00	1.50	0.00
0583938	Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3"		0.00	0.30	0.00
0589905	Alarm, Back-up Warning, PRECO 1040		0.00	0.50	0.00
0602637	Portable Hand Light, Provided by Fire Dept, Pumper NFPA 2016		0.00	0.50	0.00
0604059	Gauge, Water Level, FRC, WLA 205-A00, TankVision, Remote		0.00	0.00	0.50
0607957	Primer, Trident, Air Prime, Air operated, Auto w/Gauge, w/(1) Add'l		0.00	0.01	0.00
0626449	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 2nd		0.00	0.00	1.50
0626453	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 1st		0.00	0.00	1.50
0630636	Controls, Electric Roll-Up Windows, 4dr, 4 Driver Controls, Saber		0.00	26.00	0.00
0639727	Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer		0.00	180.00	0.00
0653520	Camera, Pierce, Mux, R, RS Cameras		0.00	1.20	0.00
0653937	Flasher, Headlight Alternating		0.00	0.08	0.00
0688927	Reel, Booster, Aluminum - Over Pump, Left Side		0.00	36.00	0.00
0735006	Intercom, David Clark, 4-Pos, 2-Radio, (D,O,RPTT), 2obC, U3805		0.00	0.00	0.50
0735687	Engine Brake, Fully Integrated, Paccar MX13 Engine		0.00	0.42	0.00
0764088	Wiring, Spare, 47.5 A 12V DC, Cust Install Radio, 40A Bat Dir,		0.00	0.00	47.50
0765338	Lights, Side Scene, Zico ZQL-SS-LED, Stainless, Cab Sw &		0.00	0.00	1.00
0803875	Radio, AM/FM/WB, Jensen, Frt,Rear Aux In/Frt,Rear		0.00	0.00	2.00
0804836	Lights, Cornering/Scene, Wln M62BU LED, Switches 2 lts, 1st		0.00	3.20	0.00
0806466	Lights, Backup, Wln M62BU, LED, For Tail Lt Housing		0.00	3.20	0.00
0895310	Siren, Federal Q2B		0.00	100.00	0.00
0897831	Wiring, Spare,12V DC, USB-A, USB-C Termination, Kussmaul		0.00	0.00	24.00
0585913	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025	Load Managed	0.00	0.00	40.00
0585914	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025	Load Managed	0.00	0.00	60.00
0722696	HVAC, Enforcer, CARE	Load Managed	0.00	0.00	100.00
0763608	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 2nd	Load Managed	0.00	0.00	12.00
0763610	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 1st	Load Managed	0.00	0.00	12.00
0768059	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 2nd	Load Managed	0.00	0.00	12.00
0768061	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 1st	Load Managed	0.00	0.00	12.00
0776357	Light, Visor, Wln, 12V P*H2* Pioneer, Cnt Feature, 1st	Load Managed	0.00	0.00	13.00
0809080	Lights, Flood, Rigid Industries, D-Series Pro, Model #212513,	Load Managed	0.00	0.00	4.69
0002758	Amp Draw, NFPA/ULC Radio Allowance	NFPA	5.00	0.00	0.00
0005635	Hourmeter, Pump	NFPA	0.11	0.00	0.00
0092582	Load Manager/Sequencer, MUX	NFPA	0.56	0.56	0.00
0522730	Light, Over Passenger Side Pump Panel, P25 LED Stp Lt	NFPA	0.75	0.00	0.00
0536401	Gauges, Engine, Included With Pierce Pressure Controller	NFPA	0.30	0.00	0.00
0540679	Lights, Side Zone Lower, Wln M6*C LED, Clear Lens 2pr	NFPA	3.60	5.40	0.00
0541152	Lights, Rear/Side Up Zone, Wln M6*C LED, Clear Lens 4lts	NFPA	9.00	0.00	0.00

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply

Electrical Analysis

Bid #: 785

Desc: CalFire/Oroville Type 1 WUI

Customer: City of Oroville

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT

Job #:

Sales Rep: Hansen, Brad

Organization: Golden State Fire Apparatus, Inc

Type: Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0551417	LS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	NFPA	4.50	0.00	4.50
0551418	RS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	NFPA	4.50	0.00	4.50
0556360	Lights, Step, P25 LED 4lts, Pump Pnl Sw	NFPA	1.00	0.00	0.00
0563675	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	NFPA	0.35	0.00	0.00
0564655	Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt	NFPA	1.80	2.70	0.00
0602752	Siren, Wln 295HFS2 Remote, Single Amp, Other Speaker, Non-	NFPA	1.40	12.60	0.00
0605126	Pump Shift, Air Mnl Override, Split Shaft, Interlocked, Waterous	NFPA	1.00	0.00	0.00
0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	NFPA	1.20	0.00	0.00
0617901	Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	NFPA	0.80	0.00	0.00
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29	NFPA	0.10	0.90	0.00
0622803	Cab Instruments, Black Gauges, Black Bezels, Enforcer MUX	NFPA	1.26	0.00	0.00
0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED,	NFPA	0.12	0.00	0.00
0625953	Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts,	NFPA	0.70	0.70	0.00
0626579	Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear	NFPA	0.80	0.00	0.00
0626588	Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	NFPA	1.60	0.00	0.00
0647638	Lights, Dome, Weldon Dual LED 4 Lts	NFPA	0.80	0.80	0.00
0647802	Lights, Clearance/Marker/ID, Front, P25 LED 5 Lts, Saber	NFPA	0.35	0.00	0.00
0649716	Cab, Enforcer, 6010	NFPA	6.80	10.20	0.00
0665336	Light Shield/Step 8", 4-FRC Firefly LED115-Q01, P25 LED Step Lt	NFPA	5.00	0.00	0.00
0672652	Compt, Flush Rear, Rollup/Space Saver, 37.75" FF, 25.88" D, 2nd	NFPA	0.90	0.00	0.90
0709438	Lights, Walk Surf, FRP Flood, LED	NFPA	2.00	0.00	0.00
0721609	Controller, Pressure, Pierce LCD, Custom Chassis	NFPA	1.70	0.00	0.00
0733220	Lights, Hatch Compt, 42", LED, Light Strips, 1-Sides 2 Dr	NFPA	0.42	0.42	0.00
0733463	DEF Tank, 6.0 Gallon, LS Fill, Rear of Axle, Common Door,	NFPA	0.60	11.40	0.00
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure	NFPA	0.10	0.00	0.00
0739915	Hatch, (2) Liftup, Pumper	NFPA	1.80	0.00	1.80
0745568	Indicator Light, Pump Panel, Ok To Pump, Green	NFPA	0.10	0.00	0.00
0750526	Gauge, Water Level, Pierce, In pressure Controller, Lt Driver	NFPA	1.23	0.00	0.00
0756375	Lights, Hyd Lad Rack Deployed, Truck-Lite 15****	NFPA	0.10	0.00	0.00
0760868	Lights, Cargo/Dunnage, Dual LED Light Strips, Each Side	NFPA	0.30	0.00	0.00
0764155	Cabinet, Forward Facing, Center, 38.50 W x 50 H x 22.50 D, Roll,	NFPA	0.50	0.50	0.00
0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40"	NFPA	2.40	0.00	0.00
0778195	Lights, Rear Scene, Wln, PCPSM1C Pioneer LED Fld/Spt,	NFPA	12.00	0.00	0.00
0783153	Headlights, Rect LED, JW Spkr Evo 2, AXT/DCF/Enf/Imp/Sab/Vel	NFPA	4.20	4.20	0.00
0789132	Lightbar, Wln, Freedom IV-Q, 81", RRRRWRRRWWRRRWRRRR	NFPA	6.48	4.96	12.40
0790412	Air Dryer, Wabco System Saver 1200 IWT, Heated, SFR/Enf	NFPA	7.81	0.00	0.00
0791528	Light, Traffic Directing, Wln TAL65, 36.00" Long, TACTL5	NFPA	0.60	1.20	0.00
0803876	Light, Pump Compt, Truck-Lite 44042C LED	NFPA	0.11	0.00	0.00
0804514	Lights, Tail, Wln M62BTT* Red Stop/Tail & M62T* Amber Dir Arw	NFPA	0.83	2.49	0.00
0808515	Engine, Paccar MX, 510HP, 1850 lb-ftW/OBD, EPA 2027,	NFPA	6.00	0.00	0.00
0887546	Trans, Allison 6th Gen, 4000 EVS P, w/Prognostics,	NFPA	2.00	2.00	0.00
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	NFPA	0.07	0.00	0.00
0892638	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	NFPA	1.00	0.00	0.00
0892649	CZ Connect Telematics	NFPA	1.61	0.00	0.00
0892654	Light, Step, Additional, P25 LED	NFPA	0.14	0.00	0.00
0899300	Lights, Front Zone, Wln M6** M6RS M6RS M6**, Inside Steady	NFPA	3.60	5.40	0.00
0647728	Alternator, 430 amp, Delco Remy 55SI	S	0.00	0.00	0.00
		Load Totals:	**112.00**	**435.85**	**429.29**

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply

Electrical Analysis

Bid #: 785

Desc: CalFire/Oroville Type 1 WUI

Customer: City of Oroville

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT

Job #:

Sales Rep: Hansen, Brad

Organization: Golden State Fire Apparatus, Inc

Type: Multiplexed

Note: Minimum Continous Load is in "Blocking Right of Way" mode.(Reference current edition of NFPA 1901)
Note: Intermittent Load items are not factored in on any alternator load comparisons. These items are included on the report for reference only and should be looked at as amp draw exclusion items. (Reference current edition of NFPA 1901)
Note: Total Connected Load "Demand" represents Total Connected Load minus any Load Managed items

Alternator Output at Idle: 268.00

Minimum Continuous Load	
Supply:	268.00
Demand:	112.00
Variance:	156.00

Alternator Output at Governed Speed: 374.00

Total Connected Load	
Supply:	374.00
Demand:	275.60
Variance:	98.40

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply

4 PRODUCT WARRANTIES

Exhibit "D"

Fire and Rescue Apparatus

One (1) Year Material and Workmanship Basic Apparatus

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Portions of the apparatus manufactured by Pierce shall be free from defects in material and workmanship**
Warranty Begins:	**The date the apparatus is placed in service, or 60 days from the original buyer invoice date, whichever comes first.**
Warranty Period Ends After:	**Twelve (12) months.**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**No specific exclusions apply**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0008

Fire and Rescue Apparatus

SUPPLIER

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the purchaser who first puts the product in service ("Buyer"):

Coverage:	**Covers any failures of the engine which result, under normal use and service, from a defect in material or factory workmanship.**
Warranty Begins:	**The date of the original buyer invoice.**
Warranty Period Ends After:	**Five (5) years or 100,000 miles, whichever occurs first**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**See warranty for exclusions.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

PACCAR ENGINE LIMITED WARRANTY

PACCAR MX Warranty
United States

THIS LIMITED WARRANTY ("LIMITED WARRANTY") LISTS THE RESPECTIVE RIGHTS AND RESPONSIBILITIES OF PIERCE MANUFACTURING INC.'S END USER CUSTOMER THAT FIRST PUTS THE PACCAR ENGINE INTO SERVICE ("YOU" or "FIRST PURCHASER"), PACCAR INC ("PACCAR"), AND THE SERVICING PACCAR ENGINE DISTRIBUTORS ("AUTHORIZED DISTRIBUTORS"). PLEASE READ THIS LIMITED WARRANTY CAREFULLY.

PACCAR warrants directly to You that the PACCAR MX engine and related kitted parts (collectively, the "Engine") will be free from defects in materials and factory workmanship ("Warrantable Failures") appearing under normal commercial use and service during the time, mileage or hour limitations set forth in the attached Warranty Schedule. **This Engine warranty extends only to You, and not any subsequent owner or user of the Engine.** The Emissions warranty is made to all owners of the Engine in the chain of distribution until the end of the Emissions warranty coverage period. Warranty coverage relating to the Emissions components is outlined in the Emissions Warranty section of the PACCAR MX Operator's Manual, the terms and conditions of which are incorporated herein by reference.

YOUR SOLE AND EXCLUSIVE REMEDY AGAINST PACCAR AND ITS SUBSIDIARIES AND AFFILIATES ARISING FROM YOUR PURCHASE AND USE OF THIS ENGINE IS LIMITED TO THE REPAIR OR REPLACEMENT OF WARRANTABLE FAILURES AT AUTHORIZED DISTRIBUTORS IN THE UNITED STATES AND CANADA AND IS SUBJECT TO PACCAR'S TIME, MILEAGE, AND HOUR LIMITATIONS LISTED IN THE ATTACHED WARRANTY SCHEDULES. The maximum time, mileage and hour limitations in the Warranty Schedules begin running on the Date of Delivery to the First Purchaser. **The accrued time, mileage, or hours is calculated when this Engine is brought into an Authorized Distributor for correction of Warrantable Failures.**

WARRANTY DISCLAIMER AND LIMITATIONS OF LIABILITY (ENGINE AND EMISSIONS)

This Limited Warranty is the sole warranty made by PACCAR and its Authorized Distributors to You relating to the Engine. Except for the above limited express warranty, PACCAR and its Authorized Distributors make no other warranties to You, express or implied. PACCAR AND ITS AUTHORIZED DISTRIBUTORS EXPRESSLY DISCLAIM ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IT IS AGREED THAT PACCAR AND ITS AUTHORIZED DISTRIBUTORS SHALL NOT BE LIABLE TO YOU FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO: LOSS OF INCOME OR LOST PROFITS; ENGINE OR VEHICLE DOWNTIME; THIRD PARTY DAMAGE, INCLUDING DAMAGE OR LOSS TO OTHER ENGINES, VEHICLES OR PROPERTY, ATTACHMENTS, TRAILERS AND CARGO; LOSS OR DAMAGE TO PERSONAL CONTENTS; COMMUNICATION EXPENSES; LODGING AND/OR MEAL EXPENSES; FINES; APPLICABLE TAXES OR BUSINESS COSTS OR LOSSES; ATTORNEYS' FEES; AND ANY LIABILITY YOU MAY HAVE IN RESPECT TO ANY OTHER PERSON OR ENTITY.

This warranty does not apply to parts or accessories supplied by the vehicle manufacturer or third parties.

Failures of belts and hoses supplied by PACCAR are covered during the first year from the Date of Delivery of the Engine to the First Purchaser. PACCAR does not warrant antifreeze, lubricants, filters, filter elements, or any other part that is a maintenance or repair item. However, in its sole discretion, PACCAR may pay for lubricating oil, antifreeze, filter elements, belts, hoses, and other maintenance or repair items if the need for replacing such items is due to a Warrantable Failure of the Engine.

You are responsible for the safe operation and maintenance of the Engine and Emissions equipment as specified in the applicable Operator's Manuals. You are responsible for providing proof that all recommended inspections and maintenance have been performed. Before the expiration of the applicable warranty, You must notify an Authorized Distributor of any Warrantable Failures and make the Engine available for Engine repair by such Authorized Distributor. You are responsible for delivery of the Engine to the Authorized Distributor. Locations in the United States and Canada of Authorized Distributors may be found at WWW.PACCARPOWERTRAIN.COM.

PACCAR IS NOT RESPONSIBLE FOR WEAR AND TEAR OR WEAROUT OF COVERED PARTS, storage deterioration, and changes in adjustment resulting from your use of the Engine. Damage due to accident, misuse, abuse, neglect, negligence, improper or insufficient maintenance, or unauthorized modification is not warranted. This may include, but is not limited to: operation without adequate coolants, lubricants, or other fluids; over-fueling; over-speeding; lack of maintenance of the lubricating, cooling or air intake systems; improper storage, starting, warm-up, run-in or shutdown practices; and unauthorized modifications to the Engine. **PACCAR is not responsible for damage or loss resulting from Engine horsepower/torque upgrades.**

Parts used to repair a Warrantable Failure may be new parts, approved remanufactured parts, or repaired parts. PACCAR is not responsible for failures resulting from the use of parts not approved by PACCAR. A new or approved remanufactured part used to repair a Warrantable Failure assumes the identity of the part it has replaced and is entitled to the remaining warranty coverage, if any.

PACCAR IS NOT RESPONSIBLE FOR DAMAGE OR LOSSES CAUSED BY INCORRECT OIL, FUEL, DIESEL EXHAUST FLUID, COOLANT, OR ADDITIVES; WATER, DIRT OR OTHER CONTAMINANTS IN THE FUEL, OIL OR DIESEL EXHAUST FLUID; OPERATION WITHOUT ADEQUATE COOLANTS OR LUBRICANTS; OVER-FUELING; OVER-SPEEDING; IMPROPER STORAGE, STARTING, WARM-UP, RUN-IN OR SHUT-DOWN PRACTICES; OR UNAUTHORIZED MODIFICATIONS OF THE ENGINE. Failure of replacement parts used in repairs due to the above non-warrantable conditions is not warrantable.

If your vehicle is disabled by a Warrantable Failure to the Engine during the base warranty period, PACCAR is not responsible for towing expenses to transport the vehicle to the nearest Authorized Distributor. In lieu of the towing expense and at the sole discretion of PACCAR,

PACCAR will pay the reasonable costs of an authorized mechanic to travel to and from the location of the disabled Vehicle in order to perform the Engine repair.

PACCAR will pay for reasonable labor costs for Engine removal and reinstallation when necessary to repair a Warrantable Failure.

Warrantable Failures resulting in excessive oil consumption will be handled within the basic Engine coverage as stated in the attached Engine Schedule. Before a claim for excessive oil consumption, low power, or excessive fuel consumption will be considered for payment, You must submit adequate documentation to show that consumption exceeds PACCAR published standards

PACCAR reserves the right to inspect and download data from the Engine Electronic Control Module for purpose of failure analysis unless prohibited by applicable law.

TIME LIMIT ON COMMENCING LEGAL ACTION / OTHER TERMS

IT IS AGREED THAT YOU HAVE 12 MONTHS FROM THE ACCRUAL OF THE CAUSE OF ACTION TO COMMENCE ANY LEGAL ACTION ARISING FROM THE PURCHASE OR USE OF THE ENGINE, OR BE BARRED FOREVER.

To the extent any provision of this limited warranty is found to contravene the law of any jurisdiction, the remainder of the warranty shall not be affected thereby.

PACCAR ENGINE LIMITED WARRANTY SCHEDULE

PACCAR MX Warranty

United States

THIS ENGINE WARRANTY SCHEDULE APPLIES ONLY TO ORIGINAL FACTORY EQUIPMENT AND IS SUBJECT TO THE TERMS AND LIMITATIONS IN THE ATTACHED LIMITED WARRANTY. This Engine Warranty Schedule does not apply to the vehicle which is warranted separately. Pursuant to the terms of the attached Limited Warranty, PACCAR Inc ("PACCAR") will pay warranty claims for Warrantable Failures within the following maximum limits in time, mileage, or hours, **whichever shall occur first**. The Warrantable Failure must be brought to the attention of an Authorized Distributor within 30 days of discovery.

PACCAR MX Engine

Basic Engine -Twenty-four (24) months or 250,000 miles (or 400,000 km) or 6,250 hours - (all applications except fire apparatus)

Fire Apparatus Truck Applications Basic Engine - Sixty (60) months or 100,000 miles (or 160,000 km) or 6,250 hours

Major Engine Components - Sixty (60) months or 500,000 miles or 12,500 hours

Cylinder Block Casting	Crankshaft	Lube Pump Gear	Flywheel Housing
Main Bearing Bolts	Camshaft	Crankshaft Gear	Water Pump Housing
Cylinder Head Casting	Cam Follower Assemblies	Camshaft Gear	Thermostat Housing
Cylinder Head Capscrews	Connecting Rod Assemblies	Camshaft Idler Gear	

R. H. SHEPPARD CO., INC.
101 Philadelphia St.
Hanover, PA 17331
Pierce Manufacturing Inc.
2600 American Drive
Appleton, WI 54912

LIMITED WARRANTY: The R. H. Sheppard Co. Inc., ("Sheppard") warrants all M110PKG1 and M110SAU1 steering gears manufactured and sold to Pierce Manufacturing Inc. ("Pierce") for application on Pierce TAK-4 equipped vehicles to be free from defects of workmanship and material under normal use and service for a period of thirty six months from the in service date of the vehicle to its original owner.

Vehicle applications where Sheppard product is used require an application approval before production build. If Pierce uses Sheppard product for any purpose or application which has not been approved by Sheppard in advance, including aftermarket devices (defined as a device added to the steering system directly or indirectly affecting the performance or operation of the Sheppard product in its approved application) not tested and approved by Sheppard this limited warranty SHALL NOT APPLY AND SHALL BE VOID. SHEPPARD MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED. SHEPPARD EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.
SHEPPARD SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES OR FOR LOSS OR DAMAGE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF A PRODUCT. Pierce expressly acknowledges its obligation to inform all users (customers) of the above disclaimer.

CONDITIONS: Claims under this Limited Warranty may only be made by Pierce. In no event shall Sheppard be held liable for warranty charges by unauthorized persons. No allowance will be made for repairs or alterations, unless made with the written consent of Sheppard. Authorized Pierce dealers shall be the only authorized repair facility for Sheppard products applied to Pierce vehicles. Any warrantable repair made under this Limited Warranty must be made on or before 36 months of the in-service date for the Product to which the claim relates. Sheppard shall not be liable for claims made after such date. Sheppard product fitted to Pierce vehicles that are repaired at a repair facility other than an authorized Pierce dealer within the warranty period will be considered for payment under the guidelines of this agreement only by joint written consideration of Sheppard and Pierce warranty departments. It shall be the responsibility of the Pierce warranty department to notify Sheppard if and when this situation occurs. Sheppard will not be held responsible for damage to other steering components such as but not limited to pumps and reservoirs due to improper adjustment of steering gear relief plungers. Vehicle downtime and towing will not be considered under warranty.

REMEDIES: The sole and exclusive remedy of Pierce for Sheppard's breach of the foregoing warranty is limited to the return and repair or reimbursement as follows:

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 2

Warranty Support: In support of the Pierce dealer network, Sheppard will provide a toll-free "Hotline" service to assist in the diagnosis and troubleshooting of steering problems. The R. H. Sheppard Co., Inc. Field Service Department can be reached at 1-800-274-7437 for assistance. Sheppard will require that Pierce dealers contact this toll-free "Hotline" for approval before product is removed from a vehicle in a warranty situation. When contacted regarding a warranty situation, the Sheppard representative will provide an authorization number for removal of the product. This Returned Goods Authorization (RGA) number must be included in all warranty correspondence and attached to all returned goods.

Procedure: In the event of a warranty situation, the servicing dealer shall contact the Sheppard Hotline and receive an RGA number before replacing any steering gear. For M110PKG1 and M110SAU1 steering gear models, the dealer will first obtain an RGA number from Sheppard, and then order the replacement gear from Pierce. Replacement M110PKG1 and M110SAU1 steering gears shall be shipped from Pierce once those models are in full production. A warranty claim for both parts and labor will then be generated by the dealer and sent to Pierce. After reviewing the claim, Pierce will submit it to Sheppard for reimbursement.

Parts Reimbursement: Sheppard agrees to reimburse Pierce at Pierce's purchase price plus 30% mark-up for parts found to be defective within the warranty period. Parts being returned for warranty consideration shall be sent to the R. H. Sheppard Company, 447 E. Middle St., Hanover, PA 17331 ATTN: Warranty Dept. Sheppard's determination as to whether the part is covered by the foregoing warranty is final and conclusive. Sheppard requires the return of complete steering gears only. Individual seals replaced under warranty **should not** be returned unless specifically requested by Sheppard. All parts being returned for warranty consideration must be clearly tagged with all pertinent warranty information including, but not limited to (1) Returned Goods Authorization number (RGA); (2) claim number; (3) date in service; (4) date of failure; (5) mileage; (6) part number; (7) labor hours; (8) dealer labor rate and; (9) dollar amount claimed. Claims submitted without prior authorization are subject to rejection under this agreement.

Labor: Labor to repair Sheppard product found to be defective within the warranty period will be reimbursed at not more than 10 hours per vehicle. Labor shall be reimbursed at the rate of $85.00 USD per hour for M110PGK1 and M110SAU1 steering gears.

Freight: Pierce will collect M110PGK1 and M110SAU1 warranty material at a designated collection point. Inbound freight to the Pierce collection point will be the responsibility of Pierce. All warranty material should be returned from the Pierce collection point to R. H. Sheppard Co. Freight Collect by a Sheppard-specified common carrier based on location of the Pierce collection point. Sheppard does not require the return of failed seals. Any freight charges incurred for the return of seals will be the responsibility of Pierce. Parts returned for warranty consideration without prior authorization are subject to rejection under this agreement and may be subject to a charge back of inbound freight charges. Parts rejected under this warranty will be returned to Pierce Freight Collect or scrapped by Sheppard at Pierce's discretion.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 3

Outside Purchases: Pierce authorized dealers shall be the only outlet for repair, warranty service and parts for Sheppard products applied to Pierce vehicles. Sheppard will not be responsible for consumables such as hoses, belts, fluids, fittings or miscellaneous shop material that may be required for the repair of the product.

Warranty Documentation: Warranty credit memos will be issued monthly to the Pierce Warranty Department. Monthly credit memos will include (1) claim number; (2) part number; (3) parts reimbursement; (4) labor reimbursement; (5) any applicable Pierce reference number and; (6) reason for rejection or acceptance of the claim. Credit memos will be issued in U.S. funds. Debits for warranty claims will not be accepted under this agreement. Claim disposition will constitute the final and conclusive resolution of warranty claims.

Parts Retention: Sheppard will retain parts submitted for warranty consideration for a period of sixty (60) days for any material found to be rejected for warranty. Sheppard will notify Pierce within sixty (60) days of receipt of Sheppard's determination as to whether any such part is covered by this warranty. Warranty reimbursement will be issued within thirty days of receipt of material at Sheppard.

Good-Will Requests: Good-Will requests will be considered jointly between Sheppard and Pierce for equitable compensation.

RECALLS: Sheppard retains the right to review information regarding federal motor vehicle recall and /or product repair programs if Sheppard products fitted to Pierce vehicles are alleged to be non-compliant with federal motor vehicle safety standards. Sheppard retains the right to review any claims of product defect or non-compliance before participating in reimbursement of expenses incurred as a result of alleged non-compliance or defect of its products. Sheppard agrees to negotiate in good faith for the reimbursement of expenses incurred by Pierce for all administrative, material and labor cost and expense associated with any recall where Sheppard product is found to be defective or non-compliant with federal motor vehicle standards.

MISCELLANEOUS: This writing constitutes the full complete and final statement of Sheppard's limited warranty for M110PKG1 and M110SAU1 products sold to Pierce. All prior oral or written correspondence, test data, negotiations, representations, understandings and the like regarding products are merged in this writing and extinguished by it. This limited warranty may not be altered, amended extended or modified except by a writing signed by the President or Vice President of Sheppard. No employee, vendor, dealer, distributor or other representative of Sheppard has authority to make statements to extend, expand, alter or amend the terms of this Limited Warranty. Sheppard expressly disclaims any statements contrary to the Limited Warranty. Sheppard's failure at any time to enforce any of the terms and conditions stated herein shall not constitute a waiver of any provisions herein. This Limited Warranty shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 4

Any legal actions which may arise as a result of disputes, controversies or claims arising out of or related to this limited warranty shall be in such forum as Sheppard and Pierce shall agree, or, in the absence of agreement, in a court of appropriate jurisdiction other than in the county in which either party is located. This Limited Warranty shall not be assigned by Pierce.

COOPERATIVE EFFORT: Sheppard and Pierce agree to work cooperatively toward expanding this warranty coverage to a period of sixty months from the in service date. These cooperative efforts shall focus on examining the effects of increased heat generated by 2007 model engines and its impact on the entire power steering system.

AGREEMENT: This agreement is effective April 3, 2006 and may be modified by mutual agreement between Sheppard and Pierce of a signed amendment to be attached to the original Limited Warranty. There are no third party beneficiaries to this Limited Warranty. This warranty agreement applies to Pierce authorized dealers only. It does not encompass any special arrangements that Pierce may now have or that Pierce may enter into, with any other segments of the trucking industry. This warranty agreement does not apply to non-conforming product removed at Pierce assembly plants.

This Limited Warranty agreement between the R. H. Sheppard Co., Inc and Pierce Manufacturing Inc. may be terminated by either party with thirty days written notice prior to termination.

Signed at Pierce Manufacturing Inc., Appleton, WI this _____ day of _____, 2006.

R. H. SHEPPARD CO., INC.

_____
Authorized Signature

_____
Title

PIERCE MANUFACTURING INC.

_____
Authorized Signature

_____
Title

Fire and Rescue Apparatus

Lifetime Fifty (50) Year Structural Integrity Custom Chassis Frame

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Custom chassis frame rail manufactured by Pierce shall be free from defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Fifty (50) Years (Expected Life of Apparatus)**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not apply to damage caused by corrosion.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0013

Fire and Rescue Apparatus

Three (3) Year Material and Workmanship
TAK-4 Independent Front Suspension

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The TAK-4 Front Independent Suspension and Steering Gears shall be free from defects in material and workmanship.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Three (3) Years -or- 30,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty excludes brake pads, brake rotors, seal boots and shock absorbers.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Dana Holding Corporation
Commercial Vehicle Products Group
Grace Lake Corporate Center
1 Village Center Drive
Van Buren Township, Michigan 48111
www.dana.com

New for 2011!

Dana Holding Corporation is pleased to announce a change in our standard warranty for fire/rescue vehicles. All steer and drive axles will now come with a 5 year / 100,000 mile warranty. For further information, please go to www.roadranger.com.

Dana Holding Corporation is working with chassis manufactures to supply a 24K front steer beam with a 5 ¼' drop. We have listened to your requests for a slightly higher GAWR for single axle aerials. Not all fire stations can accommodate a long wheel base application. This allows manufactures to meet the limited length requirements for smaller fire houses. Please submit your requests through our website. Please indicate on the application your need for 24K GAWR.

Finally, our drive axles will accommodate simultaneous auxiliary braking. Dana axles are built tough and were design with Telma retarders in mind. Submit your application for single or tandem designation.

Dana Holding Corporation will work with you to provide the best drive train solution with the best warranty in the fire/rescue industry. For additional information please contact:

Alan Manzon
Account Manager – Specialty Markets
Dana Holding Corporation
One Village Center Dr.
Van Buren Twp., MI 48111-5711

Phone: (734)629-1141
Cell: (269)312-3220
Alan.manzon@dana.com

Fire and Rescue Apparatus

Three (3) Year Material and Workmanship
Meritor Wabco ABS Brake System
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The Meritor Wabco ABS brake system shall be covered by Meritor Wabco as indicated in the attached Meritor Wabco warranty coverage description**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Three (3) Year**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**The exclusions listed in the attached Meritor Wabco warranty description shall apply.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

WARRANTY

MODEL YEAR 2021 VEHICLES



Warranty coverage is essential to protecting your investment. But understanding the full details of your coverage can be challenging. This straightforward approach allows you, our valued customer, to better understand how your specific vehicle applications will be covered in your region. Our component warranty coverage is provided according to vocation/usage categories listed below.

- Linehaul covers high mileage operation (over 60,000 miles/year) on well-maintained major highways of concrete or asphalt construction.
- General Service covers moderate mileage operations (less than 60,000 miles/year) on well-maintained public roads (less than 10 percent off-road) typically with less than three (3) stops per mile.
- Heavy Service (Vocational) covers vehicles with more than 10 percent off-road OR moderate to frequent starts/stops typically with more than three (3) stops per mile.
- Off-Highway Service covers lower mileage operations. Vehicles are not typically licensed for highway use.

How to Read Warranty Coverage (Example)		
Number of Years	**Mileage (in thousands) Unl=Unlimited**	**P=Parts Only P&L=Parts & Labor**
3	300	P

- The standard aftermarket warranty for WABCO products - including WABCO Original parts, WABCO Reman Solutions, ProVia quality aftermarket parts and WABCO retrofit solutions - is one year, parts only from in-service date when purchased from ZF distributor networks or its affiliates and/or subsidiaries.

LINEHAUL/GENERAL SERVICE WARRANTY INFORMATION

LINEHAUL/GENERAL SERVICE VEHICLES

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Auto Hauler
- Beverage Truck
- Bulk Hauler
- Chip Hauler (Truck)
- Cross Country Coach
- Doubles
- Flatbed
- Front Engine Commercial Chassis
- Front Engine Integral Coach
- General Freight
- Grain Hauler
- Intercity Coach
- Intermodal Chassis
- Livestock Hauler
- Meat Packer
- Moving Van
- Municipal Truck
- Pipe Hauler
- Platform Auto Hauler
- Pumper
- Rear Engine Integral Coach
- Recreational Vehicles
- Refrigerated Freight
- School Bus
- Stake Truck
- Tanker
- Tanker Truck
- Triples
- Tour Bus
- Wrecker

LINEHAUL TYPICALLY IS

- High mileage operation (over 60,000 miles/year)
- Well maintained major highways of concrete or asphalt construction

GENERAL SERVICE TYPICALLY IS

- Moderate mileage operations (less than 60,000 miles/year)
- Well maintained public roads (less than 10% off-road)
- Less than three (3) stops per mile

WABCO Components[1]	
Air Management	
Air Brake Valves	1/100/P&L
Trailer Lift Axle Control Valve	
Trailer Control Line Filter[3]	
Air Compressors (ALL)[2]	2/200/P&L
Air Dryers (ALL)	3/300/P&L
Aerodynamics	
OptiFlow® TrailerSkirt	2/UnU/P
OptiFlow® Trailer Tail and AutoTail	2/Unl/P
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Electronic Braking System (EBS)	
Electronic Stability Control (ESC)	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Trailer ABS (Anti-Lock Braking System)[3]	
Driveline Suspension Control	
Clutch Controls	2/200/P&L
Leveling Valves	1/100/P&L
OptiRide® Automated Manual Transmission (AMT)	
OptiRide® Electronically Controlled Air Suspension (ECAS)	3/300/P&L

WABCO Components[1] (cont.)	
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	6/600/P
MAXXUS™ Truck Air Disc Brake	5/500/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 17 and 19 Air Disc Brake	2/Unl/P and 1/Unl/L
Pan 22 Air Disc Brake	5/500/P and 1/L
TRISTOP™ D Actuator w/ IBV or IRB	6/600/P
TRISTOP™ D Actuator	3/300/P
UNISTOP™ Actuator	2/200/P
Trailer MAXX22T™ Air Disc Brake	5/500/P and 1/L

[1] ZF and WABCO branded components. [2] WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. [3] An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

HEAVY SERVICE (VOCATIONAL) WARRANTY INFORMATION

HEAVY SERVICE VEHICLES

- Airport Rescue Fire (ARF)
- Airport Shuttle
- Asphalt Truck
- Block Truck
- Bottom Dump Trailer Combination
- Cementing Vehicle
- City Bus
- Commercial Pick-Up
- Concrete Pumper
- Construction Material Hauler
- Crash Fire Rescue (CFR)
- Mixer
- Demolition
- Drill Rig
- Dump
- Emergency Service
- Equipment Hauling
- Flatbed Trailer Hauler
- Flatbed Truck
- Fracturing Truck
- Front Loader
- Geophysical Exploration
- Hopper Trailer Combinations
- Landscaping Truck
- Liquid Waste Hauler
- Log Hauling
- Lowboy
- Michigan Special Gravel Trains
- Michigan Special Log Hauler
- Michigan Special Steel Hauler
- Michigan Special Waste Vehicle
- Municipal Dump
- Newspaper Delivery
- Package Delivery
- Pick-up and Delivery
- Rapid Intervention Vehicle (RIV)
- Rear Loader
- Recycling Truck
- Residential Pick-Up/Waste
- Rigging Truck
- Roll-Off
- Scrap Truck
- Semi-End Dump
- Sewer/Septic Vacuum
- Shuttle Bus
- Side Loader
- Snowplow/Snowblower
- Steel Hauling
- Tanker
- Tank Truck
- Tractors with Pole Trailers
- Tractor/Trailer with Jeeps
- Transfer Dump
- Transfer Vehicle
- Transit Bus
- Trolley
- Utility Truck
- Winch Truck

HEAVY SERVICE TYPICALLY IS

- On/Off road vocations (10% or more off-road) OR
- Moderate to frequent starts/stops typically more than three (3) stops per mile



WABCO Components[1]	
Air Management	
Air Brake Valves	1/100/P&L
Air Compressors (ALL)2	
Air Dryers (ALL)	
Trailer Control Line Filter[3]	
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	2/200/P&L
Electronic Braking System (EBS)	3/300/P&L
Electronic Stability Control (ESC)	
Trailer ABS Valve[3]	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Driveline Suspension Control	
OptiRide® Electronically Controlled Air Suspension (ECAS)	2/200/P&L
Leveling Valves	1/100/P&L
Clutch Controls	2/200/P&L
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
Trailer MAXX22T™	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

1 ZF and WABCO branded components. 2 WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. 3 An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

INDUSTRIAL/OFF-HIGHWAY SERVICE WARRANTY INFORMATION

INDUSTRIAL AND OFF-HIGHWAY SERVICE TYPICALLY IS

- Low mileage operation[3]
- Vehicles are not typically licensed for highway use

Market	Common Application Types
Agriculture	Fertilizer Spreader, Tractor, Heavy Duty Ag Trailers, Harvester, Sprayer, Skid Loader, Silage Bagger, Slurry Wagons, Grain Cart
Airport Support	Pushback Tractor, Towing Tugs, Aircraft Tow Tractor, Refueling Trucks, Food Service Trucks, Baggage Tractors, De-Icing Equipment, Runway Clearing Equipment
Construction	All-Terrain Crane, Rough Terrain Crane, Excavator, Compactor, Wheel Loader, Road Roller, Motor Grader, Articulated Dump Truck, Rubber Tire Road Roller, Backhoe Loaders, Haul Trucks, Scraper Rough Terrain Forklifts, Trenchers, Drills
Forestry	Logging Forwarder, Kidder, Loaders, Yard Forklifts, Harvesters Fellers
Material Handling	Port Tractor, Rail Yard Spotter, Stevedoring Tractor, Trailer Spotter, Yard Jockey, Scissor Lift, Straddle Carrier, Manlift, Forklift, Boom Lift Telebandlers, Aerial Work Platforms
Mining	Specialized Mining, Excavator, Haul Truck, Underground Loader, Service Trucks, Wheel Loaders, Scrapers, Load Haul Dumps, Personnel Transports, Bolters, Scalers
Municipal	Street Sweeper, Utility Tractor, Utility Trucks, Tree Trimmers, Dump Trucks, Tow Trucks, Flat Bed Trucks, Winch Applications
Oil & Gas	Fracturing Trailer, Injecter Heads, Top Drives, Jack/Lift Boats, Wireline Trucks, Load-On / Load-Off
Rail	Railcar Mover, Track Layers, Grinders, Platform Crane, Locomotive Railcars, Ballast Equipment, Winch Applications



WABCO Components[1]	
Air Management	
Air Brake Valves	2/Unl/P
Air Compressors (ALL)2	
Air Dryers (ALL)	
Brake Actuation	
Air/Hydraulic Actuators	2/Unl/P
Master Cylinders	
Remote Actuators	
Slave and Wheel Cylinders	
Two Fluid Actuators	
Brake Locks	
Brake Locks (ALL)	2/Unl/P
Electric Brake Locks	
Lever Locks	
Braking Systems	
ABS (Anti-Lock Braking System) Air	1/100/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Driveline Suspension Control	
Clutch Controls	1/100/P&L
Leveling Valves	
Electrohydraulics & Controls	
Electronic Pedals	2/Unl/P
Electrohydraulic Brake Valves (EBV)	
Pressure Switches	
Hydraulic Braking Solutions	
Accumulator Charging Valves	2/Unl/P
Hydraulic Throttle Controls and Switches	
Modulating Brake Valves	
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
Caliper Disc Brakes	2/Unl/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
Multiple Disc Brakes	2/Unl/P
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

[1] ZF and WABCO branded components. 2 WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. 3 Equivalent hours of service limit: 2,000 hours for all components.

TERMS AND CONDITIONS

COVERAGE EXCLUSIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

This Warranty shall not apply to the following, but not limited to: (1) damage to the product or its component parts caused by incorrect use, installation, maintenance or repair, including without limitation (a) improper fit of mating components or brackets, damaged threads, cut, broken, chafed, pinched or otherwise damaged wiring (sensors, harnesses and connectors), (b) sensors damaged during removal when seized in block, or associated with sensor adjustments/ alignments, and (c) damage resulting from the use or installation of non-genuine WABCO components or materials; (2) damage to the product, its component parts, or diminished product or component part performance due to incorrect operation, deviation from approved conditions or misapplication; (3) any unauthorized disassembly of the product or its component parts including without limitation (a) obliterated, defaced or missing WABCO or WABCO name plate, serial numbers or label identifying the device as a ZF product or WABCO component, (b) changes to sealed adjusting screws, and (c) opening or attempted repair of non-serviceable components; (4) malfunction of the component due to internal contamination of the vehicle system including without limitation (a) water and other contamination damage that is due to the use of a non-genuine air dryer cartridge or (b) valve failures due to contamination in air system, (5) complaints associated with noise, (6) damage resulting from corrosion (including oxidation of electrical devices and connections).

AIR DRYERS

Mounting brackets (see vehicle OEM). Desiccant cartridge housing only.

AIR SYSTEM COMPONENTS

Normal wear items; Gladhand seals, dash valve knobs, valve actuation handles, treadles, pedals.

ABS, ELECTRONIC STABILITY CONTROL (ESC), ROLL STABILITY CONTROL (RSC), OPTIRIDE®, ONGUARD® AND ONLANE®, COLLECTIVELY “ELECTRONICS”

Failure of electronic components due to overvoltage condition, improper grounding, electrostatic discharge (ESD), improper shielding, electromagnetic interference (EMI), or other wiring or installation issues. Malfunctions and failure codes caused by other electronic subsystem failures (data bus, engine, transmission, dashboard, etc.)

HYDRAULIC COMPONENTS

For certain components, brake fluid DOT3 or DOT4 is used as the operating medium. Use of any other fluid will void all warranties associated with that component. For hydraulic braking applications the brake fluid is considered a maintenance item. Maintenance intervals are listed in TB-1367.

COVERAGE LIMITATIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

Any claim beyond 60 days from date of repair will not be accepted or honored under this warranty program.

Products purchased on an incomplete vehicle (glider) are limited to one year, 1/Unl/P.

For vehicles that operate full- or part-time outside of the United States and Canada, a 1-Year/Unlimited Miles parts only (1/Unl/P) will apply.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

Proper diagnostics of WABCO Electronics may require the latest version of TOOLBOX PLUS™. Additional labor due to use of an outdated version of TOOLBOX™ software and/or the time to purchase or install the latest version of TOOLBOX PLUS™ are not covered under product warranty.

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?
ZF CV Systems North America LLC and its North American subsidiaries and affiliates (ZF) warrant to the owner ("Owner") that the components listed in this publication, which have been installed by an Original Equipment Manufacturer ("OEM") as original equipment will be free from defects in material and workmanship. This warranty coverage begins from the original in-service date to the limits provided and runs concurrently with any warranties provided by OEMs and/or any distribution agreements and/or any service contracts that cover the components listed in this publication, if any. If the components listed in this publication are covered by an OEM warranty and/or service contract, then the OEM's warranty and/ or service contract shall supersede ZF's warranty and Owner shall comply with all OEM's warranty and/or service contract requirements for claims under such OEM's warranty and/or service contract until those agreements expire. Once those agreements expire and provided the ZF warranty has not expired under the terms stated above, the ZF warranty will be in effect until its expiration date.

Warranty coverage ends at the expiration of the applicable time period from the date of vehicle purchase by the first Owner, or, the applicable mileage limitation, whichever occurs first. Duration of coverage varies by component and vocation as detailed previously in this publication. Some components are warranted for parts only and the Owner must pay any labor costs associated with the repair or replacement of the component. Other components are warranted for both parts and reasonable labor to repair or replace the subject component. Additional diagnostic time due to use of an outdated version of TOOLBOX™, time to purchase or install latest version of TOOLBOX™ are the responsibility of the authorized ZF distributor networks and are not covered under product warranty. Components installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

(2) Designation of Vocational Use Required. To obtain warranty coverage, each Owner must notify ZF through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the WABCO components have been incorporated prior to the vehicle in-service date. This notification may be accomplished by registering the vehicle through your OEM new truck and/or trailer dealer or with ZF directly. Failure to notify ZF of (I) the intended vocational use of the vehicle or (II) a change in vocational use from that which was originally designated, will result in the application of a one year, unlimited mileage, parts only warranty (1/Unl/P) from the initial in-service date. A second Owner and each subsequent Owner must also notify ZF as to the intended vocational use of the vehicle. This notification can be sent directly to ZF or through the OEM new truck and/or trailer dealer. The duration and mileage coverage of this warranty cannot exceed the coverage extended to the first Owner after his or her initial designation of vocational use. Coverage under ZF's warranty requires that the application of products be properly approved pursuant to OEM and ZF, approvals.

(3) What is the Cost of this Warranty? There is no charge to the Owner for this warranty.

(4) What is not Covered by this Warranty? In addition to the items listed on "Coverage Exclusions," this warranty does not cover normal wear and tear, or service items; nor does it cover a component that fails, malfunctions or is damaged as a result of (a) improper handling, storage, installation, adjustment, repair or modification including the use of unauthorized attachments or changes or modification in the vehicle's configuration, usage, or vocation from that which was originally approved by ZF, (b) accident, fire or other casualty, natural disaster, road debris, negligence, misuse, abuse, or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the brake system capacity), or (c) improper or insufficient maintenance (including deviation from maintenance intervals, approved lubricants, or lube levels). This warranty does not cover any component or part that is not sold by ZF.

(5) To obtain service. If the owner discovers within the applicable coverage period a defect in material or workmanship, the Owner must promptly give notice to either ZF or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM dealer or ZF distributor networks' servicer. The dealer or ZF authorized servicer will inspect the vehicle and contact ZF for an evaluation of the claim. When authorized by ZF, the dealer or ZF authorized servicer will repair or replace during the term of this warranty any defective WABCO component covered by this warranty.

(6) Disclaimer of Warranty and Limitation of remedies. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE LIMITED WARRANTY SET FORTH HEREIN IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR WARRANTY FOR HIDDEN OR LATENT DEFECTS, AND IN NO EVENT WILL ZF OR ANY OF ITS AFFILIATES BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, PROGRESSIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND.

(7) Legal action. Any legal action or claim arising from or related to this Warranty, in contract or otherwise, must be commenced within one year from the accrual of that cause of action, or be barred forever. Any dispute arising in connection with this agreement shall be governed by and construed according to the laws of the State of Michigan and be brought, heard and determined exclusively in either the Circuit Court for the County of Oakland, State of Michigan or the United States District Court for the Eastern District of Michigan. The parties stipulate that the referenced venues are convenient.

(8) Remedy. The exclusive remedy under this warranty shall be the repair or replacement of the defective component at ZF's option. ZF reserves the right to require that all applicable covered components are available and/or returned to ZF for review and evaluation. THE MAXIMUM LIABILITY, IF ANY, OF ZF FOR ALL DAMAGES, INCLUDING WITHOUT LIMITATION CONTRACT DAMAGES, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORT, IS LIMITED TO AN AMOUNT NOT TO EXCEED THE PURCHASE PRICE OF THE PRODUCT and where indicated in the product and application warranty information above, the inclusion of labor is limited to the standard repair time. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE LIMITATION OF DAMAGES PROVISION SET FORTH IN THIS PARAGRAPH SURVIVES BETWEEN THE ORIGINAL END USER AND ZF EVEN IF THE EXCLUSIVE REMEDY SET FORTH ABOVE IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE. ZF may change the design or make improvements to its Products without incurring any warranty obligation for previously manufactured Product .

(9) Entire Agreement. This is the entire agreement between ZF and the Owner about warranty and no, ZF employee, or dealer is authorized to make any additional warranty on behalf of ZF unless in writing and signed by an authorized representative of ZF.





For further product details contact your distributor or the WABCO Customer Care Center at 855-228-3203.

About ZF Friedrichshafen AG

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate.

ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 160,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and $3.4 billion (WABCO). For more information, visit: **www.wabco-na.com**

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Fire and Rescue Apparatus

Ten (10) Year Structural Integrity
Custom Cab
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The Pierce Custom Cab shall be free from structural failures caused by defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years - or - 100,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty applies only to the cab tubular support and mounting structures and other structural components of the cab of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus.** **This warranty does not apply to damage caused by corrosion.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0012

Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Exterior surfaces of the cab painted by Pierce shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:** **Topcoat Durability & Appearance: Gloss, Color Retention & Cracking** **0-72 months 100%** **73-96 months 50%** **97-120 months 25%** **Integrity of Coating System: Adhesion, Blistering/Bubbling** **0-36 months 100%** **37-84 months 50%** **85-120 months 25%** **Corrosion: Dissimilar Metal and Crevice** **0-36 months 100%** **37-48 months 50%** **49-72 months 25%** **73-120 months 10%** **Corrosion Perforation** **0-120 months 100%** **This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty.** **Items not covered by this warranty include:** **(a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).** **(b) UV paint fade.** **(c) Any cab not manufactured by Pierce.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0055

Fire and Rescue Apparatus

Five (5) Year Material and Workmanship
Command Zone Electronics

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Command Zone control modules shall be free from failures caused by defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Five (5) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty applies to all of the control modules for the Command Zone system, including the full color graphic displays. Related wire harnesses, cables and connectors are not covered under this limited warranty and are instead covered under the Pierce One Year Basic Apparatus Limited Warranty.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0014

Fire and Rescue Apparatus

54 Months Material and Workmanship

Camera System

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**This limited warranty covers repairs to correct any defect related to materials or workmanship of the Sharpvision camera system installed on the apparatus occuring during the warranty period.**
Warranty Begins:	**The date of delivery.**
Warranty Period Ends After:	**Fifty - Four (54) months**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

1/11/2011 WA0188

Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship
Pierce 12V LED Strip Light

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**This limited warranty covers repairs to correct any defect related to materials or workmanship of the Pierce 12V LED strip lights installed on the apparatus occuring during the warranty period.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Year**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

NEW PRODUCT WARRANTY

PARTICIPATING OEM SALES
DISTRIBUTOR SALES

LIMITED WARRANTY ON NEW ALLISON AUTOMATIC TRANSMISSIONS USED IN EMERGENCY VEHICLE APPLICATIONS

Allison Transmission will provide for repairs or replacement, at its option, during the warranty period of each new Allison transmission listed below that is installed in an Emergency Vehicle in accordance with the following terms, conditions, and limitations.

WHAT IS COVERED

- **WARRANTY APPLIES —** This warranty is for new Allison transmission models listed below installed in an Emergency Vehicle and is provided to the original and any subsequent owner(s) of the vehicle during the warranty period.
- **REPAIRS COVERED —** The warranty covers repairs or replacement, at Allison Transmission's option, to correct any transmission malfunction resulting from defects in material or workmanship occurring during the warranty period. Needed repairs or replacements will be performed using the method Allison Transmission determines most appropriate under the circumstances.
- **TOWING —** Towing is covered to the nearest Allison Transmission Distributor or authorized Dealer only when necessary to prevent further damage to your transmission.
- **PAYMENT TERMS —** Warranty repairs, including parts and labor, will be covered per the schedule shown in the chart contained in section "APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE."
- **OBTAINING REPAIRS —** To obtain warranty repairs, take the vehicle to any Allison Transmission Distributor or authorized Dealer within a reasonable amount of time and request the needed repairs. A reasonable amount of time must be allowed for the Distributor or Dealer to perform necessary repairs.
- **TRANSMISSION REMOVAL AND REINSTALLATION —** Labor costs for the removal and re-installation of the transmission, when necessary to make a warranty repair, are covered by this warranty.
- **WARRANTY PERIOD —** The warranty period for all coverages shall begin on the date the transmission is delivered to the first retail purchaser, with the following exception:

  Demonstration Service - A transmission in a new truck or bus may be demonstrated to a total of 5000 miles (8000 kilometers). If the vehicle is within this limit when sold to a retail purchaser, the warranty start date is the date of purchase. Normal warranty services are applicable to the demonstrating Dealer. Should the truck or bus be sold to a retail purchaser after these limits are reached, the warranty period will begin on the date the vehicle was first placed in demonstration service and the purchaser will be entitled to the remaining warranty.

APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE

APPLICABLE MODELS	WARRANTY LIMITATIONS (Whichever occurs first)		ADJUSTMENT CHARGE TO BE PAID BY THE CUSTOMER	
	Months	Transmission Miles Or Kilometers	Parts	Labor
MT, MD 3000, 3200, 3500, 3700	0–24	No Limit	No Charge	No Charge
HT with Hydraulic Controls	0–24	No Limit	No Charge	No Charge
AT, 1000 Series™, 2000 Series™, 2400 Series™	0–36	No Limit	No Charge	No Charge
HT with Electronic Controls	0–60	No Limit	No Charge	No Charge
HD 1000 EVS, 2100 EVS, 2200 EVS 2350 EVS, 2500 EVS, 2550 EVS, 3000 EVS, 3500 EVS, 4000, 4000 EVS, 4500, 4500 EVS, 4700, 4700 EVS, 4800, 4800 EVS	0–60	No Limit	No Charge	No Charge

WHAT IS NOT COVERED

- **DAMAGE DUE TO ACCIDENT, MISUSE, or ALTERATION —** Defects and damage caused as the result of any of the following are not covered:
  - — Flood, collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle;
  - — Misuse of the vehicle;
  - — Installation into unapproved applications and installations;
  - — Alterations or modification of the transmission or the vehicle, and
  - — Damage resulting from improper storage (refer to long-term storage procedure outlined in the applicable Allison Service Manual)
  - — Anything other than defects in Allison Transmission material or workmanship

  NOTE: This warranty is void on transmissions used in vehicles currently or previously titled as salvaged, scrapped, junked, or totaled.
- **CHASSIS, BODY, and COMPONENTS —** The chassis and body company (assemblers) and other component and equipment manufacturers are solely responsible for warranties on the chassis, body, component(s), and equipment they provide. Any transmission repair caused by an alteration(s) made to the Allison transmission or the vehicle which allows the transmission to be installed or operated outside of the limits defined in the appropriate Allison Installation Guideline is solely the responsibility of the entity making the alteration(s).
- **DAMAGE CAUSED by LACK of MAINTENANCE or by the USE of TRANSMISSION FLUIDS NOT RECOMMENDED in the OPERATOR'S MANUAL —** Defects and damage caused by any of the following are not covered:
  - — Failure to follow the recommendations of the maintenance schedule intervals applicable to the transmission;
  - — Failure to use transmission fluids or maintain transmission fluid levels recommended in the Operator's Manual.
- **MAINTENANCE —** Normal maintenance (such as replacement of filters, screens, and transmission fluid) is not covered and is the owner's responsibility.
- **REPAIRS by UNAUTHORIZED DEALERS —** Defects and damage caused by a service outlet that is not an authorized Allison Transmission Distributor or Dealer are not covered.
- **USE of OTHER THAN GENUINE ALLISON TRANSMISSION PARTS —** Defects and damage caused by the use of parts that are not genuine Allison Transmission parts are not covered.
- **EXTRA EXPENSES —** Economic loss and extra expenses are not covered. Examples include but are not limited to: loss of vehicle use; inconvenience; storage; payment for loss of time or pay; vehicle rental expense; lodging; meals; or other travel costs.
- **"DENIED PARTY" OWNERSHIP —** Warranty repair parts and labor costs are not reimbursed to any participating or non-participating OEMs, dealers or distributors who perform warranty work for, or on behalf of, end users identified by the United States as being a "denied party" or who are citizens of sanctioned or embargoed countries as defined by the U.S. Department of Treasury Office of Foreign Assets Control. Furthermore, warranty reimbursements are not guaranteed if the reimbursement would be contrary to any United States export control laws or regulations as defined by the U.S. Department of Commerce, the U.S. Department of State, or the U.S. Department of Treasury.

OTHER TERMS APPLICABLE TO CONSUMERS AS DEFINED by the MAGNUSON-MOSS WARRANTY ACT

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Allison Transmission does not authorize any person to create for it any other obligation or liability in connection with these transmissions. **ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THESE TRANSMISSIONS IS LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. PERFORMANCE OF REPAIRS AND NEEDED ADJUSTMENTS IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (SUCH AS, BUT NOT LIMITED TO, LOST WAGES OR VEHICLE RENTAL EXPENSES) RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.****

** Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

OTHER TERMS APPLICABLE TO OTHER END-USERS

THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE ALLISON TRANSMISSION MODELS LISTED ABOVE AND IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALLISON TRANSMISSION DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SUCH TRANSMISSIONS. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WARRANTY OR ANY IMPLIED WARRANTY.

QUESTIONS

If you have any questions regarding this warranty or the performance of warranty obligations, you may contact any Allison Transmission Distributor or Dealer or write to:

Allison Transmission, Inc.
P.O. Box 894
Indianapolis, IN 46206-0894
Attention: Warranty Administration PF-9

Form SE0616EN (201009)

Fire and Rescue Apparatus

Five (5) Year Material and Workmanship - Transmission Oil Cooler
Three (3) Year Collateral Damage Coverage

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The transmission cooler shall be free from component or structural failures caused by defects in material and/or workmanship. Collateral damage up to $10,000 per occurrence is available for the first three (3) years.**
Warranty Begins:	**The date of delivery to the first retail purchaser.**
Warranty Period Ends After:	**Five (5) Years on Oil Cooler and three (3) years on collateral damage coverage**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty.** **This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner.** **Towing is covered to the nearest distributor or authorized dealer only when necessary to prevent further damage to your transmission.** **Labor costs for the removal and reinstallation of goods may be covered when necessary to make repairs. Please contact your OEM for authorization.** **Replacement of cooler during the warranty period is limited to 100% of reasonable labor costs up to a maximum of $700 to remove, replace, or repair the oil cooler.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Effective 1 August, 2009

UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

LIFETIME SERVICE WARRANTY

United Plastic Fabricating, Inc. (hereinafter called "UPF") warrants each POLY-TANK®, Booster/Foam Tank POLYSIDE® Wetside Tank, Integrator Tank/Body, ELLIPSE™ Elliptical Tank, Ellip-T-Tank Tank and DEFENDER™ Skid Tank to be free from defects in material and workmanship for the service life of the original vehicle (vehicle must be actively used in an emergency response for fire suppression). All UPF Tanks must be installed and operated in accordance with the UPF Installation and Operating Guidelines. Failure to do so can void the warranty.

Every UPF Tank is inspected and tested before leaving our facility. Should your UPF Tank require service, please notify UPF via email, fax, in writing or by calling UPF at 1-978-975-4520. Please provide the serial number, a description of the service request, the location along with the phone number and name of the contact person. Our goal is to have scheduled work completed within a reasonable time period.

Under a valid warranty claim, UPF will cover the cost to repair the UPF Tank including the customary and reasonable costs to make the tank accessible such as the removal and reinstallation of the tank if authorized in advance (pre-approved) by UPF. The warranty will not cover tanks that have been improperly installed, operated, misused, abused, or modified from its intended or designed use. Serial number must not have been altered, defaced or removed. Tanks that are not stored or installed properly which results in the tank suffering UV damage will not be covered by this agreement.

Should UPF determine that the service claim is valid under this warranty for a tank located outside of the United States and Canada, UPF will assume the costs for labor and material for the warranty repair as described above plus all travel costs to the U.S. port of embarkation. Costs for airline travel outside of the U.S. and Canada will not be the responsibility of UPF.

In the event the tank shall become stationed in an area of the world that is considered to be a war zone or where unsafe conditions exist for the safe passage of United States Nationals, as reported by the United States Department of State, (http://www.state.gov), and a request to perform service or warranty repairs, UPF reserves the right to refuse to honor such requests. It is the purchaser's responsibility to relocate the tank to an area where such repairs can be performed without undue risk to UPF employees or their designee. UPF will make every reasonable effort to support our products though alternative means.

For Ellipse™ elliptical tanks, a separate five year warranty provided by the subcontractor is applied to the sub-frames, chute linings (rubber isolation strips) and metal components. The stainless steel wrap provided by UPF shall be warranted by the subcontractor performing the wrap installation in accordance with their warranty in place at the time of the installation. UPF will not be liable for any warranty costs associated with the wrap, sub-frames, chute linings (rubber isolation strips) and metal components but will assist with all claims on behalf of its customer.

For PolySide® wetsided tanks and Integrator™ Tank/Body units, all polypropylene components related to the tank shall carry the standard UPF [illegible]e

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UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

service warranty. Other polypropylene components, including but not limited to compartments, wheel wells, fenders and other body related components shall be warranted by UPF for a period of ten years. The warranty for the PolySide® and Integrator™ units excludes paint or hardware, which shall be covered by the manufacturer of the paint/hardware.

All UPF tanks 50 gallons or less utilized for non-fire applications and installed on specialty vehicles such as ATVs, trailers, boats, etc. are covered under a separate warranty policy available from UPF. Further, UPF Protector™ foam and water trailers are warranted under a separate warranty policy available from UPF.

This UPF warranty is transferable within the United States only with prior written approval by UPF (except an original apparatus manufacturer may assign this warranty to the first titled owner/lessee of the apparatus).

UPF will NOT reimburse any unnecessary work and/or work that has not been pre-approved. Any and all third party charges must be pre-authorized and approved in writing by UPF prior to commencing the work. Any unauthorized third party repairs, alterations, actions or modifications will not be covered and can void the warranty. UPF will be the sole determining authority as to whether a service claim will be valid and covered under this warranty.

In no event will UPF be liable for an amount in excess of the purchase price of the booster/foam tank at the time of manufacture or for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of failure of its product. Loss of contents (water, foam, etc.) shall not be the responsibility of UPF. Further, UPF is not responsible for costs associated with service repairs to chassis, sub-frames, bodies, valves, dumps, hoses, pressure vacuum vents, and other components (i.e. liquid level transducers, etc.). Further, UPF will not cover the cost for travel of the vehicle to and from a repair facility.

This warranty contains the entire warranty. It is the sole warranty and price agreements or representation, whether oral or written, are either merged herein or expressly cancelled. UPF neither assumes, nor authorizes any person supposing to act on its behalf to change, nor assume for it, any warranty or liability concerning its product.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion or limitation or incidental or consequential damage, so the above limitation or exclusion may not apply to you. Since some states do not allow limitations on the length of an implied warranty, the above limitation may not apply to you.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATION OR LIABILITIES ON THE PART OF UPF.

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PIERCE MANUFACTURING INC.

BULLETIN

TO: **All Dealer Service Representatives**

From: **Kevin Hanegraaf**

DATE: **January 4, 2010**

RE: **UPF Tank Warranty Policy – Truck in Accident**

Service Topic #292

To keep the UPF tank warranty valid on trucks that have been involved in a vehicular accident, it is UPF's policy that the customer must remove the tank from the truck and send it back to one of UPF's facilities for inspection. In the event that this does not take place, the warranty will be considered null and void.

The customer must remove and send the tank back to UPF for inspection in order to maintain the original warranty coverage, at which time it will be:

- *Filled with water*
- *Visually inspected*
- *Ultraviolet spark tested on articulating test stand in the dark*
- *Recommendation for repairs if necessary provided by UPF*
- *Fully evaluated and repaired by UPF*

If your customer chooses to leave the tank on the truck and wants a technician to inspect and/or repair the tank in the field, then **the warranty is no longer in effect**. This direction is upheld by UPF because the technician cannot inspect the entire tank when it is still installed on the truck.

Note: This memo is intended to relay the information Pierce has received on UPF's tank warranty for trucks that are in a vehicular accident. In the event of an actual claim, we direct you to consult with UPF's service Manager Maura Watts (800-638-8265 x253)

Fire and Rescue Apparatus

Ten (10) Year Structural Integrity
Apparatus Body
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The apparatus body shall be free from structural failures caused by defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years - or - 100,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty applies only to the body tubular support and mounting structures and other structural components of the body of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus.** **This warranty does not apply to damage caused by corrosion.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0009

A&A MANUFACTURING

Pierce Warranty Statement for Gortite Roll Up Doors Rev 2/24/2011

All mechanical components of the door shall be warranted to be free from defects in materials and workmanship for the lifetime of the vehicle. All parts covered under this warranty shall be to the original owner.

A&A manufacturing warrants that painted doors shall be free of blistering, peeling, bubbling, or any other adhesion defect caused by defective manufacturing methods or paint material selection. The time period for the coverage shall be 6 years from date of door shipment to Pierce. Satin anodized finish doors shall be warranted for 6 years against corrosion defects from date of door shipment to Pierce. Replacement of decals/Scotchlite is not covered.

The maximum amount A&A will reimburse for labor is $60.00 per hour and the maximum amount of time allowed for repair is as follows:

Door	1.0 Hr.
Slat Replacement	1.0 Hr.
Pennant Plate Replacement	1.0 Hr.
Roller Replacement	.5 Hr.
Seal Replacement	.5 Hr.
Switch/Magnet Replacement	1.0 Hr.
Travel Time	4.0 Hr.

Waterous Seven-Year Limited Warranty

WATEROUS warrants, to the original Buyer only, that products manufactured by WATEROUS will be free from defects in material and workmanship under normal use and service for a period of seven (7) years from the date the product is first placed in service, or seven and one-half (7-1/2) years from the date of shipment by WATEROUS, whichever period shall be the first to expire; provided the Buyer notifies WATEROUS, in writing, of the defect in said product within the warranty period, and said product is found by WATEROUS to be nonconforming with the aforesaid warranty. When required in writing by WATEROUS, defective products must be promptly returned by Buyer to WATEROUS at WATEROUS' plant at South St. Paul, Minnesota, or at such other place as may be specified by WATEROUS, with transportation and other charges prepaid. A Returned Material Authorization (RMA) is required for all products and parts and may be requested by phone, fax, email, or mail. The aforesaid warranty excludes any responsibility or liability of WATEROUS for:

(a) damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes, use in non-firefighting applications, or improper maintenance, or attributable to written specifications or instructions furnished by Buyer;

(b) defects in products manufactured by others and furnished by WATEROUS hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, WATEROUS will assign to Buyer, if requested by Buyer;

(c) any product or part, altered, modified, serviced or repaired other than by WATEROUS, without its prior written consent;

(d) the cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation; and

(e) normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, mechanical seals, etc.).

ALL OTHER WARRANTIES ARE EXCLUDED, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER CAUSE OF ACTION, SHALL WATEROUS BE LIABLE FOR ANY PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR PERSONAL INJURY OR PROPERTY DAMAGES.

The exclusive remedy of Buyer and the sole liability of WATEROUS, whether based on contract, warranty, tort or any other basis of recovery whatsoever, is expressly limited at the election of WATEROUS to:

(a) the replacement at the agreed point of delivery of any product or part, which upon inspection by WATEROUS or its duly authorized representative, is found not to conform to the limited warranty set forth above, or

(b) the repair of such product or part, or

(c) the refund or crediting to Buyer of the net sales price of the defective product or part.

BUYER'S REMEDIES CONTAINED HEREIN ARE EXCLUSIVE OF ANY OTHER REMEDY OTHERWISE AVAILABLE TO BUYER.

Waterous Company
125 Hardman Avenue South
South St. Paul, MN 55075 USA
www.waterousco.com

WATEROUS

Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship
Stainless Steel Piping
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Stainless steel piping shall be free from structural failures caused by defects in material and workmanship, or perforation caused by corrosion.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years - or - 100,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**Pierce's obligation under this warranty is limited to repairing or replacing without charge, as Pierce may elect, the stainless steel piping or components which Pierce determines to have failed due to defective material and workmanship, or perforation caused by corrosion.** **This warranty does not cover the use of fluoroprotein (FP) type foam. The sodium chloride within FP foam can cause long-term damage to system components if not thoroughly flushed immediately after use.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Fire and Rescue Apparatus

One (1) Year Material and Workmanship Foam System & Five (5) Year Material and Workmanship Control Head

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Limited warranty 1 year parts and labor for for the foam system and 5 years parts and labor for the control head.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**One (1) Year & Five (5) Year**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty.** **This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion Custom Body Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Exterior surfaces of the body shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:** **Topcoat Durability & Appearance: Gloss, Color Retention & Cracking** **0-72 months 100%** **73-96 months 50%** **97-120 months 25%** **Integrity of Coating System: Adhesion, Blistering/Bubbling** **0-36 months 100%** **37-84 months 50%** **85-120 months 25%** **Corrosion: Dissimilar Metal and Crevice** **0-36 months 100%** **37-48 months 50%** **49-72 months 25%** **73-120 months 10%** **Corrosion Perforation** **0-120 months 100%** **This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty.** **Items not covered by this warranty include:** **(a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).** **(b) UV paint fade.** **(c) Any cab not manufactured by Pierce.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0057

Fire and Rescue Apparatus

Three (3) Year Material and Workmanship
Goldstar® Gold Leaf Lamination

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Each Goldstar® gold leaf lamination shall be free from defects in material and workmanship.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Three (3) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not cover damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/22/2010 WA0018

5 DEALER SUPPLIED PRODUCTS AND/OR SERVICES

Exhibit "E"

DEALER SUPPLIED PRODUCTS and/or SERVICES

The following products and/or services will be provided by Golden State Fire Apparatus Inc. (GSFA) prior to final delivery:

LICENSED MANUFACTURER

The State of California Vehicle Code, section 11701 requires "every manufacturer of a vehicle subject to registration shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number". The manufacturer has a current license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

LICENSED DEALERSHIP

The State of California Vehicle Code, section 11701 requires a "dealer in vehicles of a type subject to registration, shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number". Golden State Fire Apparatus, Inc. has a current license at time of bid as outlined above and is available upon request. Temporary licenses are not acceptable.

LICENSED SALES REPRESENTATIVE

The State of California Vehicle Code, section 11800 requires that it shall be "unlawful for any person to function as a vehicle salesperson without having first procured a license issued by the Department of Motor Vehicles (DMV)". The representative has a current vehicle salespersons license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

VEHICLE REGISTRATION

The State of California Vehicle Code section 11739 requires that the "dealer of a new motor vehicle sale is responsible for applying for the title, securing vehicle registration, and obtaining license plates for the Customer" through the Department of Motor Vehicles (DMV). Golden State Fire Apparatus, Inc. is a factory-authorized dealer of the vehicle being sold and is authorized to register with the State of California as a new vehicle manufacturer.

GSFA will make all necessary applications and complete all transfer papers, including applying for California Exempt "E" license plates.

WEEKLY PROGRESS PHOTOGRAPHS

GSFA will provide weekly photographs of the apparatus or the major components as they are being constructed. The photographs will commence at the start of the manufacturing process and will continue through production by the manufacturer. The reports will show the progress of the apparatus through the course of each week. Special attention will be given to show the unique features and aspects of the apparatus as construction progresses.

FINAL INSPECTION, FACTORY TRIP

A final inspection trip to the manufacturing facility will be provided for two (2) Customer representative(s). The intent of this trip is to ensure that the apparatus is built to specification and to detect any deficiencies that require correction. The final inspection trip will have a duration of four (4) days and three (3) nights and be scheduled at times mutually agreed upon between GSFA and the Customer. Costs for airfare, lodging, meals, and ground transportation while at the manufacturer's location will be the responsibility of GSFA. Air travel will be from one of the following airports: Sacramento, San Francisco, or San Jose.

Costs such as Customer ground transportation in California, Customer airport parking, Customer luggage fees and Customer incidentals while traveling to the factory will be the responsibility of the Customer. Flight reservations are non-refundable and in the event of a cancellation after booking, the Customer will

be responsible for all costs associated with this cancellation, which may include not only the original ticket cost but also any change or cancellation fees imposed by the airline and/ or travel agency. Flight reservations are also non-transferable.

DELIVERY TO AUTHORIZED SERVICE FACILITY

GSFA will, at their expense, deliver the apparatus (including any applicable equipment, spare parts, and supplies) to their Northern California facility in Sacramento for a dealer preparation inspection.

To ensure proper break in of all components while still under warranty, the apparatus shall be delivered under its own power - rail or truck freight shall not be acceptable.

PRE-DELIVERY SERVICE

After transportation from the factory and prior to delivery, the apparatus will receive a pre-delivery service to confirm proper operation and correction of any issues found as a result of said inspection. The Golden State Fire Apparatus, Inc. pre-delivery service consists of the following:

- Engine Compartment and Undercarriage – Check for any broken mounting brackets and inspect for correct capacities of the following (if applicable): engine oil, coolant, power steering fluid, washer reservoir fluid, transmission fluid, rear end fluid, pump transmission oil, and primer oil.

- Interior – Operate all doors, windows, and locks for proper adjustment. Check upholstery.

- Exterior – Repair reasonable paint scratches or chips. Tighten any loose hardware and inspect tires and wheels for proper pressure and lug torquing.

- Road Test – With the water tank (if applicable) full, the apparatus will be driven approximately twenty miles which allows the drive train components to get up to operating temperature. Road test will be on both city and highway roads. A DOT compliant brake test will be conducted to ensure the system is holding air. The brake condition and wheel seals will also be inspected.

- Electrical - Operate all lights, sirens, and other electrical accessories to verify operation.

- Pump - If applicable, vacuum test the pump to hold for 15 minutes. After vacuum test, operate the relief valve, transfer valve and check pump shift. Check water tank for leaks and inspect water level gauge for calibration. With discharge caps loose, rapid test all individual gauges and main gauges for calibration. Lubricate valve rods.

- Foam System – If applicable, tighten caps and connect foam lines. Test selector, valves, metering valve and operation of foam system (including flush).

- Fuel Tank - Fuel tank will be filled at the dealership location prior to final delivery.

- DEF Tank - DEF tank will be filled at the dealership location prior to final delivery.

- Wash - The apparatus will be thoroughly washed at the dealership location prior to final delivery.

FINAL DELIVERY (CUSTOMER LOCATION)

GSFA will, at their expense, deliver the Product (including any applicable equipment, spare parts, and supplies) to the Customer specified address once completed. Prior to delivery of the Product, Customer agrees

to provide proof of liability and physical damage insurance to GSFA. GSFA will not release the Product to the Customer until such proof of insurance is provided.

It is the responsibility of the Customer to have any outstanding balance due, paid in full to GSFA, prior to or at the time that the Product is complete and ready to deliver. If payment is late or delivery is delayed pending payment, a daily finance charge of $150.00 and a daily storage fee of $50.00 may apply until such payment is received.

Due to insurance liability, the Product will not be delivered without full acceptance and full payment (or prior written agreement between the Customer and GSFA).

END OF EXHIBIT ”E”

COMMUNITY LEASING PARTNERS

Phone: 888.777.7850
Fax: 888.777.7875
Cell: 785.313.3154
215 S. Seth Child Road
Manhattan, KS 66502
www.clpusa.net

April 11, 2023

Customer Name: **Oroville, CA**
Isaac Ruiz, BC

Equipment: One Pierce Engine
Sales Representative: Brad Hansen @ Golden State Fire Apparatus
Delivery: Estimated 3 years

Community Leasing Partners, a Division of *Community First National Bank*, is pleased to present the following financing options for your review and consideration.

Option 1

Total Cost:	$	975,234.40	Payment Frequency:	Annual
Down Payment:	$	-	First Payment:	August 1, 2024
Amount Financed:	**$**	**975,234.40**		

Term in Years:	7	10	15
Payment:	$169,954.85	$127,390.28	$96,120.97
Factor:	0.174271	0.130625	0.098562
Interest Rate:	4.85%	4.89%	5.12%

- **THERE ARE NO DOCUMENTATION OR CLOSING FEES ASSOCIATED WITH THIS PROPOSAL.**
- Interest rates are fixed for terms up to 10 years. For terms greater than 10 years, upon receipt of the 7th payment, at sole discretion of the Lessor, the remaining payments can be adjusted based on an index determined at contract issuance and then will remain fixed for the remaining term.
- The quoted interest rate is valid for 10-days from the date of the proposal. To lock in the interest rate, a credit submission would be required, and a credit approval attained within the same 10-day period. This financing is to be executed & funded within 30 days of the date of the proposal or Lessor reserves the right to adjust the interest rate. The proposal is subject to credit review and approval and mutually acceptable documentation.
- This proposal has been prepared assuming the lessee is bank qualified and that the proposed lease qualifies for Federal Income Tax Exempt Status for the Lessor under Section 103 of the IRS Code.

Thank you for allowing Community Leasing Partners the opportunity to provide this proposal. If you have any questions regarding the options presented, need additional options, or would like to proceed with a financing, please contact me at 1-888-777-7850.

Respectively,

Blake J. Kaus
Vice President & Director of Leasing
blakekaus@clpusa.net

GOLDEN STATE
FIRE APPARATUS

PREPARED ESPECIALLY FOR:

OROVILLE FIRE DEPARTMENT

One (1) Pierce Manufacturing, Inc.
Enforcer 1500 GPM Pumper

Pierce

HGACBuy
THE SMART PURCHASING SOLUTION

TABLE OF CONTENTS

1 Product Proposal (Exhibit A)

2 Purchasing Terms and Conditions (Exhibit B)

3 Product Specifications (Exhibit C)

4 Product Warranties (Exhibit D)

5 Dealer Supplied Products and/or Services (Exhibit E)

1 PRODUCT PROPOSAL

Exhibit "A"

OPTION A

100% Pre-Payment

This will be the price of the Product(s) contingent upon the Customer paying the Grand Total Purchase Price to GSFA pursuant to the Payment Terms in “Exhibit A”

Please note this discount is also available contingent upon a Third Party (Leasing Company) paying 100% of the Grand Total Purchase Price on behalf of the Customer pursuant to the Payment Terms in “Exhibit A”

IF YOU ELECT THIS OPTION, IT RESULTS IN A SAVINGS OF $73,278.09 OFF OF THE GRAND TOTAL OF OPTION B

GOLDEN STATE
FIRE APPARATUS

7400 Reese Road
Sacramento, CA 95828
Phone (916) 330-1638
www.goldenstatefire.com

PRODUCT PROPOSAL FOR:	SHIP TO:	SALES CONSULTANT
Oroville Fire Department 2055 W Lincoln Street Oroville, CA 95966	SAME	Brad Hansen brad@goldenstatefire.com Mobile: (916) 869-6072

SUBMITTED DATE	EXPIRATION DATE	GSFA PROPOSAL #	MANUFACTURER BID #	MANUFACTURER	CONSORTIUM
05/01/2023	06/15/2023	10501-23A	785	Pierce Manufacturing, Inc.	HGAC Contract FS12-19, Product Code FS19VC07

Golden State Fire Apparatus, Inc. ("**GSFA**") is pleased to provide this proposal for the fire apparatus(es) and equipment identified below (the "**Product**") to OROVILLE FIRE DEPARTMENT ("**Customer**") for consideration. This proposal (this "**Product Proposal**") includes the following exhibits attached hereto: Product Proposal as Exhibit A; the Standard Terms and Conditions attached as Exhibit B (the "**Terms and Conditions**"); the Product Specifications attached as Exhibit C (the "**Specifications**"); the Product Warranties attached as Exhibit D; and the Dealer Supplied Products and/or Services attached as Exhibit E (the "**Dealer Supplied Products/Services List**") (all of the foregoing, collectively, the "**Agreement**"). Through its signature below or other Acceptance (as defined on page 2), Customer acknowledges having received and read, and agrees to be bound by, the Agreement. The Agreement shall be effective as of the latest date appearing the signature blocks below (the "**Executed Date**").

Item	Product Description	Unit Price
A	One (1) Pierce Manufacturing, Inc. Enforcer 1500 GPM Pumper	966,777.67
B	*Pre-Payment Discount for 100% Payment at Time of Order (the "Prepayment Discount")*	*(67,795.78)*
C	SUBTOTAL	898,981.89
D	7.25% State Sales Tax	74,166.01
E	California Tire Fee	10.50
F	100% Performance Bond	2,076.00
G	GRAND TOTAL PURCHASE PRICE	975,234.40

PAYMENT TERMS – Customer shall pay the total purchase price set forth directly above (the "**Grand Total Purchase Price**") to GSFA within thirty (30) calendar days of the Executed Date. If payment of the Grand Total Purchase Price is late, a late fee as specified in section 6 of the Terms and Conditions may be applied, and the Prepayment Discount may be adjusted and the Grand Total Purchase Price increased in accordance with section 2.d of the Terms and Conditions. Customer shall pay any balance due as a result of Change Orders to GSFA at the time of GSFA's delivery of the applicable Product to Customer's address listed above (or Customer's pick up of such Product at GSFA's facilities, as applicable and if approved by GSFA).

MANUFACTURER – Customer acknowledges that GSFA is not an agent of the Product manufacturer identified above ("**Manufacturer**") and is not capable of binding Manufacturer. Within five (5) business days of the Executed Date, GSFA shall submit an order form to Manufacturer for the Product. GSFA's further performance under the Agreement is contingent upon Manufacturer's acceptance of such order form at the price and on the terms GSFA believed to be available when submitting this Product Proposal to Customer. If Manufacturer rejects such order as submitted or fails to respond to GSFA within a reasonable amount of time, GSFA shall notify Customer in writing, and unless GSFA and Customer otherwise agree in writing the Agreement shall then terminate and have no further force or effect.

PRODUCT COMPLETION – The Product shall be ready for final inspection by Customer at the manufacturing facility within approximately **38 to 41 MONTHS** after the Executed Date. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PREDELIVERY SERVICE – If applicable, after transportation from the manufacturing facility and prior to final delivery or pick u Product shall receive those additional Products and/or services identified on the Dealer Supplied Products/Services List. It is estimated that such service will add approximately **0.5 to 1 MONTH(S)** to the above Product completion estimate. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PROPOSAL EXPIRATION – This Product Proposal supersedes any previous proposal(s) presented to Customer by GSFA and its employees and may be accepted by Customer on or before the Expiration Date identified above. Unless accepted by the Expiration Date, GSFA reserves the right to withdraw this Product Proposal or to alter its terms (including by providing updated Product pricing) prior to an order being accepted.

PURCHASE ORDER – If the Customer elects to issue a Purchase Order (PO) it shall be made out to: *Golden State Fire Apparatus, Inc. – 7400 Reese Road – Sacramento, CA 95828.*

ACCEPTANCE – ACCEPTANCE OF THIS PROPOSAL CREATES AN ENFORCEABLE BINDING AGREEMENT BETWEEN GSFA AND CUSTOMER. "**ACCEPTANCE**" MEANS THAT THE CUSTOMER DELIVERS TO GSFA: (A) A SIGNED COPY OF THIS PRODUCT PROPOSAL, OR (B) A SIGNED COPY OF A PURCHASE ORDER INCORPORATING THE AGREEMENT IN ITS ENTIRETY. ANY ADDITIONAL OR DIFFERENT TERMS, WHETHER CONTAINED IN CUSTOMER'S FORMS OR OTHERWISE PRESENTED BY CUSTOMER AT ANY TIME, ARE HEREBY REJECTED AND OF NO EFFECT UNLESS APPROVED IN WRITING SIGNED BY GSFA.

COUNTERPARTS - This Product Proposal may be executed in multiple counterparts, each of which shall be deemed an original (including copies sent to a party by electronic transmission) as against the party signing such counterpart, but which together shall constitute one and the same instrument. A signed copy of this Product Proposal delivered by facsimile, email or other means of electronic transmission will be deemed to have the same legal effect as delivery of an original signed copy of this Product Proposal. If this Product Proposal is returned to GSFA with the signature of Customer's authorized representative but without an attestation or co-signers signature, then absent Customer's written notice to the contrary, GSFA shall be entitled to rely on such single signature as sufficient evidence of the signatory's authority to execute the Agreement and bind Customer thereby.

[*Signature Page Follows*]

INTENDING TO CREATE A BINDING AGREEMENT, Customer and GSFA have each caused this Product Proposal to be executed by their duly authorized representatives effective as of the Executed Date.

ACCEPTED AND AGREED TO BY CUSTOMER

AUTHORIZED CUSTOMER REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

ACCEPTED AND AGREED TO BY GSFA

AUTHORIZED GSFA REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

OPTION B

Payment at Time of Delivery or Pickup

This will be the price of the Product(s) contingent upon the Customer paying the Grand Total Purchase Price to GSFA at time of delivery or pickup pursuant to the Payment Terms in “Exhibit A”

GOLDEN STATE FIRE APPARATUS

7400 Reese Road
Sacramento, CA 95828
Phone (916) 330-1638
www.goldenstatefire.com

PRODUCT PROPOSAL FOR:	SHIP TO:	SALES CONSULTANT
Oroville Fire Department 2055 W Lincoln Street Oroville, CA 95966	SAME	Brad Hansen brad@goldenstatefire.com Mobile: (916) 869-6072

SUBMITTED DATE	EXPIRATION DATE	GSFA PROPOSAL #	MANUFACTURER BID #	MANUFACTURER	CONSORTIUM
05/01/2023	06/15/2023	10501-23B	785	Pierce Manufacturing, Inc.	HGAC Contract FS12-19, Product Code FS19VC07

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Item	Product Description	Unit Price
A	One (1) Pierce Manufacturing, Inc. Enforcer 1500 GPM Pumper	966,777.67
B	7.25% State Sales Tax	79,759.16
C	California Tire Fee	10.50
D	100% Performance Bond	2,225.00
E	GRAND TOTAL PURCHASE PRICE	1,048,772.33

PAYMENT TERMS – Customer shall pay the total purchase price set forth directly above (the "**Grand Total Purchase Price**") (as such amount may be adjusted by Change Order in accordance with the Terms and Conditions) to GSFA at the time of GSFA's delivery of the applicable Product to Customer's address listed above (or Customer's pick up of such Product at GSFA's facilities, if approved by GSFA). GSFA shall have no obligation to deliver or permit pick up of the Product if Customer does not have full payment ready when the Product is complete and ready to deliver or pick up, as applicable.

MANUFACTURER – Customer acknowledges that GSFA is not an agent of the Product manufacturer identified above ("**Manufacturer**") and is not capable of binding Manufacturer. Within five (5) business days of the Executed Date, GSFA shall submit an order form to Manufacturer for the Product. GSFA's further performance under the Agreement is contingent upon Manufacturer's acceptance of such order form at the price and on the terms GSFA believed to be available when submitting this Product Proposal to Customer. If Manufacturer rejects such order as submitted or fails to respond to GSFA within a reasonable amount of time, GSFA shall notify Customer in writing, and unless GSFA and Customer otherwise agree in writing the Agreement shall then terminate and have no further force or effect.

PRODUCT COMPLETION – The Product shall be ready for final inspection by Customer at the manufacturing facility within approximately **38 to 41 MONTHS** after the Executed Date. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PREDELIVERY SERVICE – If applicable, after transportation from the manufacturing facility and prior to final delivery or pick up, the Product shall receive those additional Products and/or services identified on the Dealer Supplied Products/Services List. It is

estimated that such service will add approximately **0.5 to 1 MONTH(S)** to the above Product completion estimate. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal, and is subject to the Terms and Conditions.

PROPOSAL EXPIRATION – This Product Proposal supersedes any previous proposal(s) presented to Customer by GSFA and its employees and may be accepted by Customer on or before the Expiration Date identified above. Unless accepted by the Expiration Date, GSFA reserves the right to withdraw this Product Proposal or to alter its terms (including by providing updated Product pricing) prior to an order being accepted.

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COUNTERPARTS - This Product Proposal may be executed in multiple counterparts, each of which shall be deemed an original (including copies sent to a party by electronic transmission) as against the party signing such counterpart, but which together shall constitute one and the same instrument. A signed copy of this Product Proposal delivered by facsimile, email or other means of electronic transmission will be deemed to have the same legal effect as delivery of an original signed copy of this Product Proposal. If this Product Proposal is returned to GSFA with the signature of Customer's authorized representative but without an attestation or co-signers signature, then absent Customer's written notice to the contrary, GSFA shall be entitled to rely on such single signature as sufficient evidence of the signatory's authority to execute the Agreement and bind Customer thereby.

[*Signature Page Follows*]

INTENDING TO CREATE A BINDING AGREEMENT, Customer and GSFA have each caused this Product Proposal to be executed by their duly authorized representatives effective as of the Executed Date.

ACCEPTED AND AGREED TO BY CUSTOMER

AUTHORIZED CUSTOMER REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

ACCEPTED AND AGREED TO BY GSFA

AUTHORIZED GSFA REPRESENTATIVE:

_____
Signature

_____
Print Name

_____
Title

_____
Date

2 PURCHASING TERMS AND CONDITIONS

Exhibit "B"

STANDARD TERMS AND CONDITIONS

1. Definitions.

a. "**Agreement**" has the meaning given in the Product Proposal.
b. "**Customer**" means the customer identified in the Product Proposal.
c. "**Dealer Preparation,**" if applicable, means additional product(s) and/or services added by GSFA after Manufacturer's completion of the Product and prior to delivery, in accordance with the Dealer Supplied Products/Services List.
d. "**Dealer Supplied Products/Services List**" means the Dealer Supplied Products and/or Services List attached to the Product Proposal as Exhibit D, which reflects all Dealer Preparation under the Agreement absent a valid Change Order.
e. "**Grand Total Purchase Price**" means the total purchase price for the Product identified in the Product Proposal (subject to any adjustments required or permitted by these Terms and Conditions, including by the execution of a valid Change Order).
f. "**GSFA**" means Golden State Fire Apparatus, Inc., a California corporation.
g. "**Manufacturer**" means the person or persons, company, firm, corporation, partnership, or other organization identified in the Product Proposal as responsible for manufacturing the Product.
h. "**Party**" or "**Parties**" means GSFA and/or Customer, as applicable.
i. "**Prepayment Discount**" means a discount to the purchase price for the Product granted to Customer in connection with Customer's advance payment of the Grand Total Purchase Price (or portion thereof, as specified in the Product Proposal).
j. "**Product**" means the fire apparatus(es) and any associated equipment listed in the Product Proposal and further described in the Specifications.
k. "**Product Proposal**" means the GSFA proposal executed by Customer to which these Terms and Conditions are attached.
l. "**Product Warranties**" means the Manufacturer warranties for the Product attached to the Product Proposal as Exhibit C.
m. "**Specifications**" means the specifications for the Product attached to the Product Proposal as Exhibit B.
n. "**Terms and Conditions**" means these Standard Terms and Conditions, which are attached to the Product Proposal as Exhibit A.

2. Purchase and Payment.

a. Purchase. Customer agrees to purchase the Product at the Grand Total Purchase Price (as such amount may be adjusted in accordance with these Terms and Conditions), pursuant to the payment terms set forth in the Product Proposal. The Grand Total Purchase Price is payable in U.S. dollars.

b. Contingency Reserve Fund. The Grand Total Purchase Price may include an amount to be set aside for the purpose of funding any future costs or financial obligations incurred by Customer under the Product Proposal or any valid Change Order (the "**Contingency Reserve Fund**"). If applicable, the amount of any required Contingency Reserve Fund will be set forth in either the Product Proposal or Exhibit D. The Contingency Reserve Fund may be withdrawn against by Customer or GSFA for the purpose of satisfying Customer's payment obligations under the initial Product Proposal or any valid Change Order (including, without limitation, a Change Order submitted by GSFA pursuant to Section 8.b). If a Contingency Reserve Fund is required under the Agreement, the amount of such fund is not intended as an estimate of the actual additional costs of contingencies, Change Orders, unforeseen items or other required work that may be incurred under the Agreement after submission of the Product Proposal to Customer, which amounts Customer acknowledges may exceed the Contingency Reserve Fund amount. The balance of any Contingency Reserve Fund will be credited against Customer's payment obligations, or otherwise returned to Customer within thirty (30) calendar days of delivery of all Products under the Agreement (provided that Customer has paid all amounts owed under the Agreement as of such date).

c. Prepayment Discount. If GSFA has granted Customer a Prepayment Discount, Customer must provide each associated prepayment (each, a "**Prepayment**") within the time frame specified in the Product Proposal in order to receive such discount. Customer's failure to timely make such Prepayment may result in: (i) GSFA's termination of the Agreement; and/or (ii) Customer's loss of the Prepayment Discount for the portion of the Grand Total Purchase Price represented by such outstanding Prepayment and the application of a late fee as set forth in Section 6, in each case in GSFA's sole discretion.

d. State Sales Tax. Customer shall be responsible for the cost of state sales tax associated with, or attributable to, the Product. The taxes stated in the Product Proposal are subject to adjustment for the applicable state sales tax rate in effect at the time of delivery. Therefore, the sales tax set forth on the Product Proposal is only an estimate of such taxes and will be increased or decreased at the time of delivery if a change in the applicable sales tax rate has occurred, in which case Customer shall pay GSFA (or be refunded by GSFA) the difference in the applicable sales tax.

3. Product Completion Date. Within thirty (30) calendar days of the date on which the last required signatory executes the Product Proposal (such date, the "**Executed Date**"), GSFA shall submit to Customer a tentative Product completion date (which may differ from the Product completion estimate contained in the Product Proposal). Due to global supply chain constraints, any Product completion date contained herein, or in the Product Proposal, or otherwise provided to Customer, is a good faith estimate only as of the date provided to Customer, and merely an approximation based on current information available to GSFA and Manufacturer. Customer shall not be entitled to rely on any such estimate, and GSFA shall have no liability to Customer for a failure by GSFA or Manufacturer to meet any such estimate. All Product completion estimates are subject to modification and, if applicable, GSFA will provide updates to such estimates to Customer when available.

4. Stock / Demo Units. Notwithstanding any other provision contained in the Agreement (including Section 12 hereof concerning warranties), any Products constituting stock/demo unit(s) are sold to Customer on an as-is, first-come and first served-basis and GSFA makes no further representation or warranty to any customer with respect to such unit(s). Regardless of the terms of the Product Proposal, GSFA shall only be obligated to sell such stock/demo unit(s) to the first customer to enter into a purchase agreement with GSFA identifying such unit(s), and after the execution by GSFA of such agreement any subsequent purchase agreement (including the Agreement, as applicable) shall have no further force or effect with respect to such unit(s).

5. Multiple Unit Purchase. If the Grand Total Purchase Price includes pricing for multiple Products, the Product price stated in the Product Proposal shall only be valid if the quantity of Products being proposed are purchased at the same time, pursuant to the same Agreement. GSFA shall have no obligation to offer the same price for any Product if purchased by Customer pursuant to a later purchase agreement.

6. Late Fee; Storage Fee. A late fee equal to 0.033% of the outstanding portion of the Grand Total Purchase Price will be charged per calendar day for overdue payments beginning ten (10) calendar days after the payment is due and continuing for the first thirty (30) calendar days thereafter. After such thirty (30) calendar day period, the late fee shall increase to 0.044% per calendar day until payment of the outstanding portion of the Grand Total Purchase Price is received. If Customer is unable to satisfy the delivery requirements hereunder or is unwilling to take delivery of the Product, then GSFA shall be entitled to a storage charge running from the earlier of: (i) the date of delivery agreed to between GSFA and Customer (provided GSFA is willing and able to deliver the Product on such date), or (ii) twenty-one (21) calendar days after GSFA notifies Customer that the Product is available for delivery. The storage charge is equal to: (i) $175.00 per calendar day per apparatus stored, or (ii) the actual charges incurred by GSFA with a third party for storage of the Product, whichever is greater. Such storage charge shall continue until the actual time of delivery and Customer's possession of the Product, and any such storage by GSFA or such third party shall be at the sole risk of Customer.

7. Delivery; Inspection and Acceptance.

a. Delivery. Subject to Section 5 hereof, the Product is scheduled to be delivered to the location and within the time period specified in the Product Proposal. Such delivery date is an estimate, and GSFA is, notwithstanding this Section 7.a, not bound to such date unless it otherwise agrees in a separate writing to complete delivery by a date certain. For the avoidance of doubt, GSFA is not responsible for delivery delays caused by or because of actions, omissions or conduct of Customer, the Manufacturer, or their respective employees, affiliates, suppliers, contractors, and carriers. Risk of loss for the Product shall pass to Customer at the point and time of delivery (which shall include an attempted delivery by GSFA which cannot be completed due to any act of Customer). However, title to the Product shall only pass to Customer upon delivery if Customer has then fully paid GSFA all amounts due hereunder (including additional amounts due under any valid Change Order). Absent GSFA's separate written agreement, which it may or may not provide in its sole and absolute discretion, delivery of the Product will not occur before Customer has fully paid all amounts due under the Agreement and provided proof of insurance reasonably satisfactory to GSFA. If GSFA permits Customer to take possession of the Product, Customer may not mount equipment, conduct training, or place the Product into service until all amounts due under the Agreement have been paid. If Customer has ordered multiple Products, GSFA reserves the right to deliver such Products in installments and to separately invoice Customer for such Products.

b. Inspection and Acceptance. Upon delivery, Customer shall have ten (10) calendar days within which to inspect the Product for substantial conformance to the Specifications, and in the event of substantial non-conformance to the Specifications to furnish GSFA with written notice sufficient to permit GSFA to evaluate such non-conformance ("**Notice of Nonconformance to Specifications**"). Contingent upon part availability and Customer's cooperation, any Product not in substantial conformance to material Specifications shall be remedied by GSFA (by repair or replacement, at GSFA's election) within thirty (30) calendar days from GSFA's receipt of the Notice of Nonconformance to Specifications. In the event GSFA does not receive a Notice of Nonconformance to Specifications within ten (10) calendar days of delivery, the Product will be deemed to be in conformance with Specifications and accepted by Customer.

8. Changes to Agreement Terms.

a. Change Orders. The Customer may request that GSFA incorporate a change to the Product or the Specifications for the Product, or GSFA may submit changes to the Agreement required or permitted to be made by GSFA (pursuant to Section 8.b or otherwise) by delivering a written Change Order to the other party hereto, which shall include a description of the proposed change sufficient to permit the receiving party to evaluate the feasibility of such change (either, a "**Change Order**"). For any Change Order submitted by Customer, GSFA will provide Customer a written response (a "**Response**") stating (i) whether GSFA will accommodate such Change Order (which GSFA may decide in its sole and absolute discretion); and (ii) the terms of the modification to the order, including any increase or decrease in the Grand Total Purchase Price resulting from such Change Order, a date on which any increase in the Grand Total Purchase Price must be paid, and an estimate of any effect on production scheduling or delivery resulting from such Change Order. Customer shall have seven (7) calendar days after receipt of the Response to notify GSFA as to whether Customer desires to make the changes GSFA has approved in the Response. In the event Customer countersigns GSFA's Response, Customer shall pay the increase (or be refunded the decrease) in the Grand Total Purchase Price by the date specified in the Response. GSFA may also send Customer a Change Order to account for any changes to the Agreement required or permitted to be made by GSFA (including those changes required pursuant to Section 8.b hereof), and such Change Order shall be effective upon delivery to Customer unless Customer elects to terminate the applicable Product order under the Agreement in accordance with Section 9.

b. Additional Changes.

i. Component Price Volatility. GSFA shall not be responsible for any unforeseen price increase or surcharge enacted by suppliers of major components of the Product (including but not limited to commercial chassis, engine, transmission, and fire pump) after Customer becomes bound by the Agreement. Customer shall be responsible for all amounts arising from any price increases for major components of the Product (including all

associated taxes and fees thereon) occurring after the execution of the Agreement which increase the cost of the Product to GSFA, and such amounts will be documented on a Change Order adjusting the Grand Total Purchase Price accordingly. Customer shall pay any such price increase prior to Product delivery.

ii. New Legal Standards. In the event the Product design, materials or specifications require an alteration arising from new regulations issued by any governmental entity or trade association, including, but not limited to, the NFPA, DOT, and EPA, and such alteration increases the cost of the Product to GSFA, Customer shall be responsible for changes to the Grand Total Purchase Price arising from such alteration. GSFA shall promptly notify Customer when it becomes aware of any potential or required change in regulations occurring prior to delivery that would impact the Product purchased.

iii. Change Orders. Customer shall execute any Change Order submitted by GSFA documenting any of the changes required or permitted by Sections 8.b.i and 8.b.ii above (which shall, to the extent practicable, itemize any increases in the Grant Total Purchase Price and specify a commercially reasonable date by which Customer must pay such increase), unless Customer instead elects to terminate the applicable Product order under the Agreement within fifteen (15) calendar days of Customer's receipt of such Change Order and in accordance with Section 9. Absent such a termination, failure to execute a Change Order does not alter Customer's obligations under this Section 8.b.

c. Changes in Commercial Specifications. Specifications for all components of the Product manufactured by companies other than the Manufacturer are subject to change without notice. Specifications for such components will be as available at the time of manufacture of the Product. GSFA shall not be liable for any deviations in such specifications arising from a substitution of components or changes in the design of any component by their original manufacturer.

9. Termination.

a. By Customer. Customer may terminate a Product order identified in the Product Proposal or a Change Order by providing written notice to GSFA in accordance with Section 16 hereof. If Customer elects to terminate a Product order, Customer shall pay GSFA a cancellation fee as follows: (a) after the Product order is accepted and entered by GSFA, 10% of the portion of the Grand Total Purchase Price applicable to such Product (including all associated taxes, fees and costs) (such amount, the "**Product Purchase Price**"); (b) after completion of the pre-construction phase of the order process, 20% of the Product Purchase Price; and (c) after the requisition of any materials or commencement of any manufacturing or assembly of the Product by either GSFA or Manufacturer but before substantial completion of such Product, 50% of the Product Purchase Price. Customer shall not be permitted to terminate a Product order after substantial completion of manufacturing and assembly of such Product (excluding any Dealer Preparation or other pre-delivery services or untypical Product customization, if applicable). Notwithstanding the foregoing, if the applicable tier of cancellation fee is not sufficient to cover all actual costs and fees incurred by GSFA with Manufacturer in connection with Customer's termination of the Product order ("**Manufacturer Termination Fees**"), then in addition to such cancellation fee Customer shall pay the balance of all Manufacturer Termination Fees. If Customer received a Prepayment Discount, such discount shall not be considered for the purpose of calculating the above cancellation fee. The tier of cancellation fee applicable to any cancellation, as well as the determination of whether a Product has reached substantial completion, shall be in the sole and absolute discretion of GSFA. Customer may request a fee waiver, and GSFA, in its sole discretion, may agree to waive and/or adjust such fee. GSFA will return the balance of the Grand Total Purchase Price or Product Purchase Price, as applicable, within thirty (30) calendar days of the effective date of the cancellation of the Product order or termination of the Agreement.

Customer may terminate the Agreement for an Event of Default by GSFA after providing GSFA with written notice in accordance with Section 16 (which notice shall describe with reasonably particularity the Event of Default justifying such termination) if such Event of Default remains uncured (if capable of cure) thirty (30) days following GSFA's receipt of such notice; provided, however, that the foregoing cure period shall continue if and for so long as GSFA

has commenced and is continuing to undertake commercially reasonable efforts to cure such Event of Default as promptly as reasonably practicable.

b. By GSFA. GSFA may terminate the Agreement for an Event of Default by Customer after providing Customer with written notice in accordance with Section 16 (which notice shall describe with reasonably particularity the Event of Default justifying such termination) if such Event of Default remains uncured (if capable of cure) thirty (30) days following Customer's receipt of such notice; provided, however, that the foregoing cure period shall continue if and for so long as Customer has commenced and is continuing to undertake commercially reasonable efforts to cure such Event of Default as promptly as reasonably practicable. Notwithstanding the foregoing, GSFA may terminate the Agreement effective immediately upon written notice to Customer for Customer's failure to pay any amount owed under the Agreement when due.

Notwithstanding any other provision of this Agreement, if Customer terminates a Product order in accordance with Section 9.a above, GSFA may elect to instead terminate the Agreement upon notice to Customer in accordance with Section 16 hereof. If GSFA terminates the Agreement in accordance with this Section 9.b, Customer shall pay the applicable tier of cancellation fee for all Products pursuant to Section 9.a above as if Customer had elected to terminate each applicable Product order.

c. Based on Discontinuation or Cancellation by Manufacturer. In the event that Manufacturer cancels a Product order (provided that such cancellation is not the result of an act by Customer in violation of the Agreement) or discontinues the manufacture of a Product prior to its completion and delivery: (i) if such Product is the only Product contemplated under the Agreement, then the Agreement shall terminate; or (ii) if additional Products are contemplated under the Agreement, then only the Product order for the applicable cancelled or discontinued Product shall be terminated. Such Agreement termination or Product termination, as applicable, shall be effective upon GSFA's written notice to Customer of such cancellation or discontinuance in accordance with Section 16 hereof. GSFA's only obligation to Customer in such event shall be the return of any Prepayment paid by Customer for the cancelled or discontinued Product. For the avoidance of doubt, the cancellation fees contemplated in Section 9.a hereof shall not apply in the event of a termination pursuant to this Section 9.c.

10. Customer's Obligations. Customer shall provide its timely and best efforts to cooperate with GSFA and Manufacturer during the Product manufacturing process. Reasonable and timely cooperation includes, without limitation, Customer's providing timely information in response to any requests from Manufacturer or GSFA and the participation of Customer's authorized representatives in traveling to Manufacturer's facility for inspections and approval of the Product, including a final approval before the Product leaves Manufacturer's facility.

11. Representations and Warranties. Customer hereby represents and warrants to GSFA as of the Executed Date that the execution of the Agreement and the purchase of the Product(s) and performance of the other obligations of Customer under the Agreement have been approved by Customer in accordance with applicable general laws and, as applicable, Customer's charter, ordinances, purchasing policies, and other governing documents, and executed by the appropriate Customer employees, officials, and/or representatives, and funding for Customer's performance of its obligations under the Agreement has been duly budgeted and appropriated by Customer.

12. Standard Warranty. All applicable Manufacturer warranties are contained in the Product Warranties. Any additional warranties must be expressly approved in a writing signed by GSFA, and Customer acknowledges and agrees that Manufacturer will not be liable for any such additional warranties.

a. Disclaimer. OTHER THAN AS EXPRESSLY SET FORTH IN THE AGREEMENT, GSFA, ITS AFFILIATES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, SHAREHOLDERS, AGENTS, OR REPRESENTATIVES, DO NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE PRODUCT (WHETHER RELATING TO THE CONDITION OR QUALITY OF THE PRODUCT, OR OTHERWISE) PROVIDED HEREUNDER OR OTHERWISE REGARDING THE AGREEMENT (INCLUDING, WITHOUT LIMITATION, WITH RESPECT TO ANY APPLICABLE DEALER PREPARATION), WHETHER ORAL OR WRITTEN, EXPRESS, IMPLIED OR STATUTORY. WITHOUT LIMITING THE FOREGOING, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, THE IMPLIED WARRANTY AGAINST INFRINGEMENT, THE

IMPLIED WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE ARE EXPRESSLY EXCLUDED AND DISCLAIMED. STATEMENTS MADE BY SALES CONSULTANTS OR IN PROMOTIONAL MATERIALS DO NOT CONSTITUTE WARRANTIES.

b. Exclusions of Incidental and Consequential Damages. In no event shall GSFA be liable for consequential, incidental, or punitive damages incurred by Customer in connection with any matter arising out of or relating to the Agreement, or the breach thereof, even if GSFA has been advised of the possibility of such damages, and regardless of whether such damages arise out of breach of warranty, the Agreement, indemnity, whether resulting from non-delivery or from GSFA's own negligence, or otherwise, except and solely to the extent such damages arise from the gross negligence or willful misconduct of GSFA.

13. Default. The occurrence of one or more of the following events (each, an "**Event of Default**") shall constitute a default under the Agreement: (a) Customer's failure to pay any amounts due or to perform any of its obligations under the Agreement; (b) GSFA's failure to perform any of its obligations under the Agreement; (c) either Party becoming insolvent or becoming subject to bankruptcy or insolvency proceedings; (d) any representation made by either Party under the Agreement which is false in any material respect; (e) any action by Customer to dissolve, merge, consolidate or transfer a substantial portion of its property to another entity during the term of the Agreement; (f) any other material breach of the terms of the Agreement by a Party; or (g) a default or breach by Customer under any other agreement with GSFA or its affiliates.

14. Indemnification of GSFA. Customer shall indemnify, defend, and hold harmless GSFA, its agents, servants, successors and assigns from and against all losses, damages, injuries, claims, demands and expenses, including attorneys' fees and other legal expenses, of whatever nature ("**Damages**"), to the extent Damages arise out of or in connection with: (i) Customer's breach of the Agreement, or (ii) Customer's use, storage, or operation of the Product following delivery, regardless of where, how, and by whom operated (excluding any negligent operation by GSFA). The indemnification and assumptions of liability and obligation herein provided shall continue in full force and effect notwithstanding the termination of the Agreement, whether by expiration of time, by operation of law or otherwise. This provision is not intended to and shall not constitute the exclusive remedy of the Parties under the Agreement; the Parties may seek indemnity from one another under other legal principles, whether based in equity or law, so long as they do not nullify or cancel the effects of this paragraph.

15. Force Majeure. GSFA shall not be responsible nor deemed to be in default of any provision of the Agreement on account of delays in performance due to causes which are beyond GSFA's or Manufacturer's control and which make GSFA's performance impracticable, including but not limited to wars, insurrections, strikes or labor unrest, riots, fires, storms, floods, other acts of nature, explosions, earthquakes, accidents, any act of federal, state or local government, failure or delays in transportation, inability to obtain necessary labor, supplies or manufacturing facilities, supply chain issues, allocation regulations or orders affecting materials, equipment, facilities or completed products, failure to obtain any required license or certificates, acts of God or the public enemy or terrorism, failure of transportation, disease, pandemics or epidemics, quarantine restrictions, failure of vendors (due to causes similar to those within the scope of this clause) to perform their agreements or labor troubles causing cessation, slowdown, or interruption of work.

16. Notice. Any notices, requests, consents, claims, demands, waivers and other communications required or permitted to be given hereunder must be given in writing at the address of each Party set forth below, or to such other address as either Party may substitute by written notice to the other in accordance with this Section 16, by one of the following methods: hand delivery; registered, express, or certified mail, return receipt requested, postage prepaid; or nationally recognized private express courier. All such communications will be deemed to have been given: (i) when delivered by hand (with written confirmation of receipt); (ii) on the third (3rd) calendar day after the date mailed, by registered, express or certified mail; or (iii) when delivered by the addressee if sent by a nationally recognized private express courier.

GSFA:
Golden State Fire Apparatus Inc.
7400 Reese Road
Sacramento, CA 95828

CUSTOMER:
To the address listed in the Product Proposal

17. Contradictions. In the event of a conflict between the Agreement and any Change Order, or between Change Orders, the terms of the latest executed Change Order shall control.

18. Manufacturer's Statement of Origin. It is agreed that the manufacturer's statement of origin ("**MSO**") for the Product covered by the Agreement, if applicable, shall be retained and remain in the possession of GSFA per California Department of Vehicles (DMV) directives. Notwithstanding the foregoing, GSFA shall provide Customer with the original MSO if the Customer is self-registering, and Customer shall comply with all good-faith Process of Duty and other DMV requirements applicable to the Product and retain its own MSO.

19. Assignment. The relationship of the Parties established under the Agreement is that of independent contractors and neither Party is a partner, employee, agent, or joint venturer of or with the other. Neither Party may assign its rights and obligations under the Agreement unless it has obtained the prior written approval of the other Party.

20. Governing Law; Jurisdiction; Disputes. Without regard to any conflict of laws provisions, the Agreement is to be governed by and under the laws of the state of California. Prior to taking any legal action that may and/or can arise out of the Agreement, the Parties shall first attempt mediation with an agreed upon mediator. If the Parties cannot agree upon a mediator within thirty (30) calendar days of the submission of written notice of a dispute in accordance with Section 16 hereof, if any disputed matter remain unresolved within thirty (30) calendar days of the commencement of discussions, or if any party refuses to meet, then either party may submit any remaining disputes concerning and/or claim regarding the Agreement and/or the terms and conditions herein to the Superior Court, County of Sacramento (and the parties expressly consent to exclusive personal jurisdiction and venue before such court).

21. Entire Agreement; Amendments. The Agreement, including the Product Proposal, its exhibits and all valid Change Orders, is the exclusive agreement between the Parties regarding the subject matter contained herein and therein. No change in, modification of, or revision of the Agreement shall be valid unless in writing and signed by duly authorized representatives of both Parties with authority to sign such amendments to the Agreement.

END OF STANDARD TERMS AND CONDITIONS

3 PRODUCT SPECIFICATIONS

Exhibit “C”

Proposal Details Report

3/2

Customer: City of Oroville
Bid Number: 785
Representative Hansen, Brad
Job Number:
Requirements Manager:
Organization: Golden State Fire Apparatus, Inc
Description: CalFire/Oroville Type 1 WUI
Chassis: Enforcer Chassis
Body: Pumper, Short, Galvanneal, 2nd Gen

OptionCode	Type	Option	ProposalText
0766611		Boiler Plates, Pumper	Golden State Fire Apparatus is pleased to submit a proposal to City of Oroville/Cal Fire Contract for a **Pierce® triple combination pumper** per your request for quotation. The following paragraphs will describe in detail the apparatus, construction methods, and equipment proposed. This proposal will indicate size, type, model and make of components parts and equipment, providing proof of compliance with each and every item (except where noted) in the departments advertised specifications. PIERCE MANUFACTURING was founded in 1913. Since then we have been building bodies with one philosophy, "BUILD THE FINEST". Our skilled craftsmen take pride in their work, which is reflected, in the final product. We have been building fire apparatus since the early "forties" giving Pierce Manufacturing over 75 years of experience in the fire apparatus market. Pierce Manufacturing has built and put into service more than 62,500 apparatus, including more than 33,900 on Pierce custom chassis designed and built specifically for fire and emergency applications. Our Appleton, Wisconsin facility has over 870,000 total square feet of floor space situated on approximately 105 acres of land. Our Bradenton, Florida facility has 300,000 square feet of floor space situated on approximately 38 acres of land. Our beliefs in high ethical standards are carried through in all of our commitments and to everyone with whom we do business. Honesty, Integrity, Accountability and Citizenship are global tenets by which we all live and work. Consequently, we neither engage in, nor have we ever been convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market. Pierce has only one brand of fire apparatus "Pierce", ensuring you are receiving top of the line product that meets your specification. In accordance with the current edition of NFPA 1901 standards, this proposal will specify whether the fire department, manufacturer, or apparatus dealership will provide required loose equipment. Images and illustrative material in this proposal are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment. **GENERAL DESIGN AND CONSTRUCTION** To control quality, ensure compatibility, and provide a single source for service and warranty, the custom cab, chassis, pump module and body will be entirely designed, assembled/welded and painted in Pierce owned manufacturing facilities. This includes, but not limited to the cab weldment, the pumphouse module assembly, the chassis assembly, the body and the electrical system. **QUALITY AND WORKMANSHIP** Pierce has set the pace for quality and workmanship in the fire apparatus field. Our tradition of building the highest quality units with craftsmen second to none has been the rule right from the beginning and we demonstrate that ongoing commitment by: Ensuring all steel welding follows American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding follows American Welding society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding follows American welding Society B2.1-2000 requirements for structural welding of sheet metal. Our flux core arc welding uses alloy rods, type 7000 and is performed to American Welding Society standards A5.20-E70T1. Furthermore, all employees classified as welders are tested and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs and American Welding Society certified welding inspector in plant during working hours to monitor weld quality. Pierce Manufacturing operates a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International Organization for Standardization (ISO) specify the quality systems that are established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance is included with this proposal. In addition to the Quality Management system, we also employ a Quality Achievement Supplier program to insure the vendors and suppliers that we utilize meet the high standards we demand. That is just part of our overall "Quality at the Source" program at Pierce. To demonstrate the quality of our products and services, a list of at least five (5) fire departments/municipalities that have purchased vehicles for a second time is provided. **DELIVERY** The apparatus will be delivered under its own power to insure proper break-in of all components while the apparatus is still under warranty. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered. **MANUAL AND SERVICE INFORMATION** At time of delivery, complete operation and maintenance manuals covering the apparatus will be provided. A permanent plate will be mounted in the driver's compartment specifying the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle. **SAFETY VIDEO** At the time of delivery Pierce will also provide one (1) 39-minute, professionally produced apparatus safety video, in DVD format. This video will address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus, including the following: vehicle pre-trip inspection, chassis operation, pump operation, aerial operation, and safety during maintenance. **PERFORMANCE TESTS** A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat.

transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise. The apparatus when fully loaded will not have less than 25 percent nor more t percent on the front axle, and not less than 50 percent nor more than 75 percent on the The apparatus will meet NFPA 1901 acceleration and braking requirements.

SERVICE AND WARRANTY SUPPORT

Pierce dealership support will be provided by Golden State Emergency Vehicle Services by operating a Pierce authorized service center. The service center will have factory-trained mechanics on staff versed in Pierce fire apparatus. The service facility will be located within one hundred fifty (150) miles of the fire department.

In addition to the dealership, Pierce has service facilities located in both, Weyauwega, Wisconsin and Bradenton, Florida. Pierce also maintains a dedicated parts facility of over 100,000 square feet in Appleton, Wisconsin. The parts facility stocks in excess of $5,000,000 in parts dedicated to service and replacement parts. The parts facility employs a staff dedicated solely for the distribution and shipment of service and replacement parts.

Service parts for the apparatus being proposed can be found via Pierceparts.com which, is an interactive online tool that delivers information regarding your specific apparatus as well as the opportunity to register for training classes.

As a Pierce customer you have the ability to view the complete bill of materials for your specific apparatus, including assembly drawings, piece part drawings, and beneficial parts notations. You will also have the ability to search the complete Pierce item master through a parts search function which offers all Pierce SKU's and descriptions offered on all Pierce apparatus. Published component catalogs, which include proprietary systems along with an extensive operators manual library is available for easy reference.

Pierce Manufacturing maintains a dedicated service and warranty staff of over 35 personnel, dedicated to customer support, which also maintains a 24 hour 7 day a week toll free hot line, four (4) on staff EVTs, and offers hands-on repair and maintenance training classes multiple times a year.

LIABILITY

The successful bidder will defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.

INSURANCE PROVIDED BY BIDDER

COMMERCIAL GENERAL LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

Each Occurrence $1,000,000

Products/Completed Operations Aggregate $1,000,000

Personal and Advertising Injury $1,000,000

General Aggregate $2,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form and will include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy will include Owner as an additional insured when required by written contract.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The successful bidder will, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage will be written on a Commercial Automobile liability form:

Each Accident Combined Single Limit: $1,000,000

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate: $3,000,000

Each Occurrence: $3,000,000

The umbrella policy will be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described polices be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as certificate holder.

INSURANCE PROVIDED BY MANUFACTURER

PRODUCT LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:

Each Occurrence $1,000,000

Products/Completed Operations Aggregate $1,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form. The manufacturer's policy will include the owner as additional insured when required by written contract between the Owner and a Pierce authorized dealer.

UMBRELLA/EXCESS LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

		Each Occurrence: $25,000,000 **Aggregate: $25,000,000** **The umbrella policy will be written on an occurrence basis and provide exce manufacturer's General Liability/Products policies.** **The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.** **Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.** **All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described polices be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.** **Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as the certificate holder.**
0661794	Single Source Compliance	**SINGLE SOURCE MANUFACTURER** Pierce Manufacturing, Inc. provides an integrated approach to the design and manufacture of our products that delivers superior apparatus and a dedicated support team. From our facilities, the chassis, cab weldment, cab, pumphouse (including the sheet metal enclosure, valve controls, piping and operators panel) and body will be entirely designed, tested, and hand assembled to the customer's exact specifications. The electrical system either hardwired or multiplexed, will be both designed and integrated by Pierce Manufacturing. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) will be provided by Pierce as a single source manufacturer. Pierce's single source solution adds value by providing a fully engineered product that offers durability, reliability, maintainability, performance, and a high level of quality.
0584456	Manufacture Location, Appleton, Wisconsin	Your apparatus will be manufactured in Appleton, Wisconsin.
0584452	RFP Location: Appleton, Wisconsin	
0588609	Vehicle Destination, US	
0670275	Unit to be Similar in some Aspects, Excluding Pump Panel	**SPECIAL INSTRUCTIONS** The apparatus being proposed will be designed and built to match the 36591, 36592, & 36592. However, some variation may be necessary due to changes in our manufacturing processes or our product offering. Revisions in NFPA guidelines and/or other regulations may also affect our ability to match the previous unit.
0610784	Comply NFPA 1901 Changes Effective Jan 1, 2016, With Exceptions	**NFPA 2016 STANDARDS** This unit will comply with the NFPA standards effective January 1, 2016, except for fire department directed exceptions. These exceptions will be set forth in the Statement of Exceptions. Certification of slip resistance of all stepping, standing and walking surfaces will be supplied with delivery of the apparatus. All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack. A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating. The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications. An official of the company will designate, in writing, who is qualified to witness and certify test results.
0533347	Pumper/Pumper with Aerial Device Fire Apparatus	
0588611	Vehicle Certification, Pumper	

0661778	Agency, Apparatus Certification, Pumper/Tanker, U.L.	**NFPA COMPLIANCY** Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Any department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA". **PUMP TEST** Underwriters Laboratory (UL) will test, approved, and certify the pump. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the pump manufacturer's record of pump construction details will be forwarded to the Fire Department. **GENERATOR TEST** If the unit has a generator, Underwriters Laboratory (UL) will test, approved, and certify the generator. The test results will be provided to the Fire Department at the time of delivery. **BREATHING AIR TEST** If the unit has breathing air, Pierce Manufacturing will draw an air sample from the air system and have the sample certified that the air quality meets the requirements of NFPA 1989, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection.*
0891947	Certification, Vehicle Inspection Program, NFPA 1901	**VEHICLE INSPECTION PROGRAM CERTIFICATION** To assure the vehicle is built to current NFPA 1901 standards, the apparatus, in its entirety, will be third-party, independent, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition. The certification includes: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus. A placard will be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.
0092138	Highly Customized Product (HCP)	**PRODUCT CHANGES AND IMPROVEMENTS** Our components and processes, as described in this proposal document, are as accurate as known at the time of bid submission, but are subject to change for the purpose of product or process improvements, or changes in industry standards providing the change does not affect the meaning or definition of the bid specifications.
0620362	Consortium, HGAC	
0537375	Unit of Measure, US Gallons	
0030006	Bid Bond Not Requested	**BID BOND NOT REQUESTED** A bid bond will not be included. If requested, the following will apply: All bidders will provide a bid bond as security for the bid in the form of a 5% bid bond to accompany their bid. This bid bond will be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond will be issued by an authorized representative of the Surety Company and will be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond will include language, which assures that the bidder/principal will give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.
0807710	Performance Bond, 100% with 25% Warranty Bond, 1 Yr, and Payment Bond	**PERFORMANCE BOND, 1 YEAR** The successful bidder will furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond will be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required. Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Basic One (1) Year Limited Warranty period included within this proposal. Owner agrees that the penal amount of this bond will be simultaneously amended to 25 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type will not exceed one (1) year from the date of such satisfactory acceptance and delivery, or the actual Basic One (1) Year Limited Warranty period, whichever is shorter. Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible.

0000007	Approval Drawing	**APPROVAL DRAWING** A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc. A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.
0002928	Electrical Diagrams	**ELECTRICAL WIRING DIAGRAMS** Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.
0649754	Enforcer Chassis	**ENFORCER CHASSIS** The Pierce Enforcer™ is the custom chassis developed exclusively for the fire service. Chassis provided will be a new, tilt-type custom fire apparatus. The chassis will be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis will be designed and manufactured for heavy-duty service, with adequate strength, capacity for the intended load to be sustained, and the type of service required. The chassis will be the manufacturer's first line tilt cab.
0021008	Overall Height, Target	**TARGET OVERALL HEIGHT** The target overall height of the apparatus will be 118".
0523786	Angle of Approach	**ANGLE OF APPROACH** The angle of approach will be 16.6 degrees. This will be effective with the truck in a loaded state.
0523787	Angle of Departure	**ANGLE OF DEPARTURE** The angle of departure will be 12.6 degrees to the step stored, and the tow bar at 13.7 degrees. This will be effective with the truck in a loaded state.
0000110	Wheelbase	**WHEELBASE** The wheelbase of the vehicle will be 175.50".
0000070	GVW Rating	**GVW RATING** The gross vehicle weight rating will be 42,000 lbs..
0729280	Frame Rails, 13.38 x 3.50 x .375, Enforcer	**FRAME** The chassis frame will be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails will have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to 10.75" over the rear axle. Each rail will have a section modulus of 25.992 cubic inches and a resisting bending moment (rbm) of 3,119,040 in-lb over the critical regions of the frame assembly, with a section modulus of 18.96 cubic inches with an rbm of 2,275,200 in-lb over the rear axle. The frame rails will be constructed of 120,000 psi yield strength heat-treated 0.38" thick steel with 3.50" wide flanges.
0020018	Frame Liner Not Req'd	

0633906	Axle, Front, Oshkosh TAK-4, Non Drive, 18,000 lb, Enforcer	**FRONT NON DRIVE AXLE** The Oshkosh TAK-4® front axle will be of the independent suspension design with a gr rating of 18,000 lb. Upper and lower control arms will be used on each side of the axle. Upper control arm castings will be made of 100,000-psi yield strength 8630 steel and the lower control arm casting will be made of 55,000-psi yield ductile iron. The center cross members and side plates will be constructed out of 80,000-psi yield strength steel. Each control arm will be mounted to the center section using elastomer bushings. These rubber bushings will rotate on low friction plain bearings and be lubricated for life. Each bushing will also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations. There will be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension. The upper control arm will be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load. Camber at load will be zero degrees for optimum tire life. The ball joint bearing will be of low friction design and be maintenance free. Toe links that are adjustable for alignment of the wheel to the center of the chassis will be provided. The wheel ends must have little to no bump steer when the chassis encounters a hole or obstacle. The steering linkage will provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase. The axle will have a turning angle of up to 45 degrees.
0633905	Suspension, Front TAK-4, 18,000 lb, Enforcer/SFR	**FRONT SUSPENSION** Front Oshkosh TAK-4™ independent suspension will be provided with a minimum ground rating of 18,000 lb. The independent suspension system will be designed to provide maximum ride comfort. The design will allow the vehicle to travel at highway speeds over improved road surfaces and moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment. Each wheel will have a torsion bar type spring. In addition, each front wheel end will have energy absorbing jounce bumpers to prevent bottoming of the suspension. The suspension design will have at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms. The torsion bar anchor lock system allows for simple lean adjustments without the use of shims. One can adjust for a lean within fifteen minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side. The independent suspension completed durability testing that simulated 140,000 miles of inner city driving.
0087572	Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	**FRONT SHOCK ABSORBERS** KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.
0000322	Oil Seals, Front Axle	**FRONT OIL SEALS** Oil seals with viewing window will be provided on the front axle.
0582936	Tires, Front, Goodyear, G289 WHA, 315/80R22.50, 20 ply	**FRONT TIRES** Front tires will be Goodyear® 315/80R22.50 radials, 20 ply G289 WHA tread, rated for 20,400 lb maximum axle load and 68 mph maximum speed.
0894433	Wheels, Front, 22.50" x 9.00", Steel, Hub Pilot, 315/80R Tire	The tires will be mounted on 22.50" x 9.00" steel disc type wheels with a ten (10) stud, 11.25" bolt circle.
0641555	Axle, Rear, Dana S23-190, 24,000 lb, Saber/Enforcer	**REAR AXLE** The rear axle will be a Dana Model S23-190, single axle assembly with a capacity of 24,000 lb.
0602744	Top Speed of Vehicle, Non-NFPA 2016 Compliant	**TOP SPEED OF VEHICLE** NFPA 1901, 2016 edition requires limits on the top speed of vehicles. NFPA 4.15.2 requires that the maximum top speed of fire apparatus with a GVWR over 26,000 lb will not exceed either 68 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. NFPA 4.15.3 requires that if the combined water tank and foam agent tank on the fire apparatus exceed 1250 gallons or the GVWR of the vehicle is over 50,000 lb, the maximum top speed of the apparatus will not exceed either 60 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. It is the intention of the standard to improve safety by limiting the speed of all apparatus to 68 mph, and tankers or heavy apparatus to 60 mph. By requesting an exception to this requirement, the purchasing authority is consciously choosing to operate their apparatus at speeds above the limits designated as safe speeds by the NFPA Technical Committee on Fire Department Apparatus. The top speed of the apparatus as manufactured exceeds the NFPA requirements. Per fire department specification of a top speed that exceeds NFPA requirements, the apparatus will be non-compliant to NFPA 1901 standards at time of contract execution. A rear axle ratio will be furnished to allow the vehicle to reach an approximate top speed of 73 MPH.

0565379	Suspen, Rear, Single Slipper Spring, 24,000 lb, Saber/Enforcer	**REAR SUSPENSION** The rear suspension will be Standens, semi-elliptical, 3.00" wide x 53.00" long, 12-leaf [illegible] a ground rating of 24,000 lb. The spring hangers will be castings. The two (2) top leaves will wrap the forward spring hanger pin, and the rear of the spring will be a slipper style end that will ride in a rear slipper hanger. To reduce bending stress due to acceleration and braking, the front eye will be a berlin eye that will place the front spring pin in the horizontal plane within the main leaf. A steel encased rubber bushing will be used in the spring eye. The steel encased rubber bushing will be maintenance free and require no lubrication.
0000485	Oil Seals, Rear Axle	**REAR OIL SEALS** Oil seals will be provided on the rear axle(s).
0000482	Driver Controlled Differential Lock, Single Axle	**DRIVER CONTROL DIFFERENTIAL LOCK (DCDL)** A rear axle will be equipped with a driver controlled differential lock (DCDL). The control will be located within easy reach of the driver. An indicator light will be provided next to the control switch.
0596433	Switch, Rocker, Differential Lock, IPOS, MUX	**DIFFERENTIAL LOCK CONTROL** A rocker style switch will be used to engage or disengage the differential lock.
0782552	Tires, Rear, Goodyear, Endurance RSA, 12R22.50, LRH, Single	**REAR TIRES** Rear tires will be four (4) Goodyear 12R22.50 radials, load range H, Endurance RSA highway tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.
0654806	Wheels, Rear, Accuride, 22.50" x 8.25", Steel, Hub Pilot, Single	The tires will be mounted on Accuride® 22.50" x 8.25" steel disc type wheels with a ten (10) stud, 11.25" bolt circle.
0568081	Tire Balancing, Counteract Beads	**TIRE BALANCE** All tires will be balanced with Counteract balancing beads. The beads will be inserted into the tire and eliminate the need for wheel weights.
0620570	Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle	**TIRE PRESSURE MANAGEMENT** There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of six (6) tires. The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi. Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.
0801909	Lug Nut, Covers, Chrome	**CHROME LUG NUT COVERS** Chrome lug nut covers will be supplied on front and rear wheels.
0002045	Mud Flap, Front and Rear, Pierce Logo	**MUD FLAPS** Mud flaps with a Pierce logo will be installed behind the front and rear wheels.
0544802	Chocks, Wheel, SAC-44-E, Folding	**WHEEL CHOCKS** There will be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks, with easy-grip handle provided.
0544806	Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	**Wheel Chock Brackets** There will be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets will be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets will be mounted one (1) forward and one (1) rearward of the left side rear tire.
0010670	ABS Wabco Brake System, Single rear axle	**ANTI-LOCK BRAKE SYSTEM** The vehicle will be equipped with a Meritor WABCO 4S4M, anti-lock braking system. The ABS will provide a 4-channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology will control the anti-lock braking system. Each wheel will be monitored by the system. When any particular wheel begins to lockup, a signal will be sent to the control unit. This control unit then will reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.

0030185		Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	**BRAKES** The service brake system will be full air type. The front brakes will be Knorr/Bendix disc type with a 17.00" ventilated rotor for improved stopping distance. The brake system will be certified, third party inspected, for improved stopping distance.
0580500		Brakes, Bendix, Disc, Rear, Model ADB-22X, Single	The rear brakes will be Bendix Model ADB-22X, air disc.
0735527		Air Compressor, Brake, Wabco 26.8 CI, Paccar	**AIR COMPRESSOR, BRAKE SYSTEM** The air compressor will be a Wabco single piston compressor with a 26.8 CI displacement.
0644232		Brake Reservoirs, 4,272 Cubic Inch Minimum Capacity, Saber FR/Enforcer	**BRAKE SYSTEM** The brake system will include: Brake treadle valve Heated automatic moisture ejector on air dryer Total air system minimum capacity of 4,272 cubic inches Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi Spring set parking brake system Parking brake operated by a push-pull style control valve A parking "brake on" indicator light on instrument panel Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, with an automatic spring brake application at 40 psi A pressure protection valve to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa) 1/4 turn drain valves on each air tank The air tank will be primed and painted to meet a minimum 750 hour salt spray test. To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.
0790412		Air Dryer, Wabco System Saver 1200 IWT, Heated, SFR/Enf	**BRAKE SYSTEM AIR DRYER** The air dryer will be a WABCO System Saver 1200 IWT, with internal wet tank, spin-on coalescing filter cartridge and 100 watt heater.
0000790		Brake Lines, Nylon	**BRAKE LINES** Color-coded nylon brake lines will be provided. The lines will be wrapped in a heat protective loom in the chassis areas that are subject to excessive heat.
0617799		Inlet/Outlet, Air, w/Disconnect Fitting, 1/4 Turn Valve, Location	**AIR INLET/OUTLET** One (1) air inlet/outlet will be installed with the female coupling located LS pump panel per PP layout. This system will tie into the "wet" tank of the brake system and include a check valve in the inlet line and an 85 psi pressure protection valve in the outlet line. The air outlet will be controlled by a 1/4 turn valve. A mating male fitting will be provided with the loose equipment. The air inlet will allow a shoreline air hose to be connected to the vehicle. This will allow station air to be supplied to the brake system of the vehicle to insure constant air pressure.
0589828	SP	Air Tanks, Mount High, Maximize Ground Clearance	**AIR TANK MOUNTING** Air tanks will be installed to maximize ground clearance. Smaller tanks may be required to allow for them to be mounted higher for increased ground clearance.

0808515		Engine, Paccar MX, 510HP, 1850 lb-ftW/OBD, EPA 2027, Enforcer	**ENGINE** The chassis will be powered by an electronically controlled engine as described below: Make: Paccar Model: MX Power: 510 hp at 1600rpm Torque: 1850 lb-ft at 1000rpm Governed Speed: 1900 rpm Emissions Certification: EPA 2027 Fuel: Diesel Cylinders: Six (6) Displacement: 13.7L Starter: DP60 Fuel Filters: Dual cartridge style with check valve, water separator, and water in fuel sensor The engine will include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system will give the owner or repair technician access to state of health information for various vehicle sub systems. The system will monitor vehicle systems, engine and after treatment. The system will illuminate a malfunction indicator light on the dash console if a problem is detected.
0000000	STF	Engine Contingency Adjustment	
0001244		High Idle w/Electronic Engine, Custom	**HIGH IDLE** A high idle switch will be provided, inside the cab, on the instrument panel, that will automatically maintain a preset engine rpm. A switch will be installed, at the cab instrument panel, for activation/deactivation. The high idle will be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light will be provided, adjacent to the switch. The light will illuminate when the above conditions are met. The light will be labeled "OK to Engage High Idle."
0735687		Engine Brake, Fully Integrated, Paccar MX13 Engine	**ENGINE BRAKE** The compression release brake option is a fully integrated MX engine braking system. It utilizes the turbocharger and backpressure valve, but adds in a hydraulically operated compression brake to increase overall retarding power. To maximize the effectiveness of the compression brake the MX engine brake system works in conjunction with the turbocharger and back pressure valve. The driver will be able to turn the engine brake system on/off and have a high, medium and low setting
0644227		Clutch, Fan, Air Actuated, Saber FR/Enforcer	**CLUTCH FAN** A fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and constantly engaged when in "Pump" position.
0640477		Air Intake, Metal Screen, Saber FR/Enforcer	**ENGINE AIR INTAKE** The engine air intake will be located above the engine cooling package. It will draw fresh air from the front of the apparatus through the radiator grille. A stainless steel metal screen will be installed at the inlet of the air intake system that will meet NFPA 1901 requirements. The air cleaner and stainless steel screen will be easily accessible by tilting the cab.
0794743		Exhaust System, 5", X12/X15, MX13, Engine, Horizontal, Right Side	**EXHAUST SYSTEM** The exhaust system will include a Single Module™ aftertreatment device to meet current EPA standards. The exhaust system will be stainless steel from the turbo to the inlet of the aftertreatment device, and will be 5.00" in diameter. An insulation wrap will be provided on all exhaust pipes between the turbo and aftertreatment device to minimize the heat loss to the aftertreatment device. The exhaust will terminate horizontally ahead of the right side rear wheels. A tailpipe diffuser will be provided to reduce the temperature of the exhaust as it exits. Heat deflector shields will be provided to isolate chassis and body components from the heat of the tailpipe diffuser.

0683310		Diffuser, Exhaust, Modified For Extraction, 5"x7"x5", Flush With Rub Rail, CARE	**EXHAUST MODIFICATION** The exhaust pipe will be 90 degrees to the body. The diffuser will be reduced to 5.00" in the center to accommodate the fire department's recovery system. The 5.00" extension pipe coming out of the end of the diffuser will be flush with the body rub rail. There will be a minimum of 4.00" clearance between the top of the 5.00" extension and the bottom of the body. There will be a minimum of 2.50" from the exhaust pipe to the under side of the body heat shield. The last 7.00" of the exhaust will be free of hangers and/or clamps.
0788765		Radiator, Saber FR/Enforcer	**RADIATOR** The radiator and the complete cooling system will meet or exceed NFPA and engine manufacturer cooling system standards. For maximum corrosion resistance and cooling performance, the entire radiator core will be constructed using long life aluminum alloy. The radiator core will consist of aluminum fins, having a serpentine design, brazed to aluminum tubes. The radiator core will have a minimum front area of 1060 square inches. Supply tank will be made of heavy duty glass-reinforced nylon and the return tank will be mode of aluminum. Both tanks will be crimped onto the core assembly using header tabs and a compression gasket to complete the radiator core assembly. There will be a full steel frame around the inserts to enhance cooling system durability and reliability. The radiator will be compatible with commercial antifreeze solutions. The radiator assembly will be isolated from the chassis frame rails with rubber isolators to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven terrain. The radiator will include a de-aeration/expansion tank. For visual coolant level inspection, the radiator will have a built-in sight glass. The radiator will be equipped with a 15 psi pressure relief cap. A drain port will be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.
0001090		Cooling Hoses, Rubber	**COOLANT LINES** Gates, or Goodyear, rubber hose will be used for all engine coolant lines installed by Pierce Manufacturing. Hose clamps will be stainless steel constant torque type to prevent coolant leakage. They will expand and contract according to coolant system temperature thereby keeping a constant clamping pressure on the hose.
0001125		Fuel Tank, 65 Gallon, Left Side Fill	**FUEL TANK** A 65 gallon fuel tank will be provided and mounted at the rear of the chassis. The tank will be constructed of 12-gauge, hot rolled steel. It will be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank will be mounted with stainless steel straps. A 0.75" drain plug will be located in a low point of the tank for drainage. A fill inlet will be located on the left hand side of the body and is covered with a hinged, spring loaded, stainless steel door that is marked "Ultra Low Sulfur - Diesel Fuel Only." A 0.50" diameter vent will be installed from tank top to just below fuel fill inlet. The fuel tank will meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.
0001129		Lines, Fuel	All fuel lines will be provided as recommended by the engine manufacturer.
0733463	SP	DEF Tank, 6.0 Gallon, LS Fill, Rear of Axle, Common Door, Paccar	**DIESEL EXHAUST FLUID TANK** A 6.0 gallon diesel exhaust fluid (DEF) tank will be provided and mounted in the driver's side body rearward of the rear axle. A fill inlet will be provided and marked "Diesel Exhaust Fluid Only". The fill inlet will be located adjacent to the engine fuel inlet behind a common hinged, spring loaded, painted door on the driver side of the vehicle. The selector flap within the common area for the fuel and DEF fills will have a flush lift & turn latch. The latch will be provided so that the selector flap will be latched when the flap is in the position over the DEF fill. The tank will meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing. The tank will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.
0552793		Not Required, Fuel Priming Pump	
0552712		Not Required, Shutoff Valve, Fuel Line	
0699437		Cooler, Chassis Fuel, Not Req'd.	
0690880		No Selection Required From This Category	

0887546	Trans, Allison 6th Gen, 4000 EVS P, w/Prognostics, Imp/Vel/SFR/Enf	**TRANSMISSION** An Allison 6th generation, Model EVS 4000P, electronic, torque converting, automatic transmission will be provided. The transmission will be equipped with prognostics to monitor oil life, filter life, and transmission health. A wrench icon on the shift selector's digital display will indicate when service is due. Two (2) PTO openings will be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock). A transmission temperature gauge with an amber light and buzzer will be installed on the cab instrument panel.
0625331	Transmission, Shifter, 6-Spd, Push Button, 4000 EVS	**TRANSMISSION SHIFTER** A six (6)-speed push button shift module will be mounted to right of driver on console. Shift position indicator will be indirectly lit for after dark operation. The transmission ratio will be: 1st 3.51 to 1.00 2nd 1.91 to 1.00 3rd 1.43 to 1.00 4th 1.00 to 1.00 5th 0.75 to 1.00 6th 0.64 to 1.00 R 4.80 to 1.00
0684459	Transmission Oil Cooler, Modine, External	**TRANSMISSION COOLER** A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.
0559012	Program, Transmission, Shift To Neutral, With Prk Brk	**TRANSMISSION PROGRAM** The transmission will shift to neutral when parking brake is set.
0801876	Fluid, 4000 Series Trans, Allison Approved TES-668 Synthetic, IPOS, Custom	**TRANSMISSION FLUID** The transmission will be provided with TranSynd, or other Allison approved TES-668 heavy duty synthetic transmission fluid.
0001375	Driveline, Spicer 1810	**DRIVELINE** Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints. The shafts will be dynamically balanced before installation. A splined slip joint will be provided in each driveshaft where the driveline design requires it. The slip joint will be coated with Glidecoat® or equivalent.
0734211	Steering, Sheppard M110 w/Tilt, TAK-4, Paccar Pump, w/Cooler, Paccar	**STEERING** Dual Sheppard, Model M110, steering gears, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and Paccar hydraulic pump with integral pressure and flow control. All power steering lines will have wire braded lines with crimped fittings. A tilt and telescopic steering column will be provided to improve fit for a broader range of driver configurations.
0509229	Steering Wheel, 2 Spoke	**STEERING WHEEL** The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 2-spoke design.
0550144	Logo/Emblem, on Horn Button	**LOGO AND CUSTOMER DESIGNATION ON HORN BUTTON** The steering wheel will have an emblem containing the Pierce logo and customer name. The emblem will have three (3) rows of text for the customer's department name. There will be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row. The first row of text will be: City The second row of text will be: of The third row of text will be: Oroville

0606555		Bumper, 13" Extended, Steel Painted, 8.00" High, Saber FR/Enforcer	**BUMPER** A one (1) piece steel painted bumper, minimum of 8.00" high, will be attached to the fro frame. The bumper will be metal finished and painted to match the apparatus. To provide adequate support strength, the bumper will be mounted directly to the front of the C channel frame. The frame will be a bolted modular extension frame constructed of 50,000 psi tensile steel. The bumper will be extended 13.00" from front face of cab. **Gravel Pan** A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and cab face. The gravel pan will be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate. The sides of the gravel pan will provide a transition between the bottom of the bumper and the bottom of the cab.
0625212	SP	Tray, Hose, Center, 13" Bumper, Outside Air Horns, 11" Deep, 8" Below/3" Above	**HOSE TRAY** A hose tray, constructed of aluminum, will be placed in the center of the bumper extension. The tray will be 11.00" deep, 8.00" below the gravel pan and a 3.00" extension above. The tray will have a capacity of 100' of 1.75" double jacket cotton-polyester hose. Black rubber grating will be provided at the bottom of the tray. Drain holes are also provided.
0624826		Hose Restraint, Bumper Tray, 2.00" Straps, Fasteners, Pair	**Center Hose Tray Restraint** There will be one (1) pair of hose tray restraint straps located over the center mounted tray. The restraints will be 2.00" wide black nylon straps with seat belt buckle fasteners provided. The straps will be used to secure the hose in the tray.
0614646		No Lift & Tow Package, Imp/Vel, AXT, SFR/Enf	
0612736	SP	Tow Eyes, Painted, Extended Out Front of Bumper, Color Feature	**TOW EYES** Two (2) tow eyes will be mounted through the front face of the bumper. The inner and outer edges of the tow eyes will have a .25" radius. The tow eyes will be mounted directly to the bumper frame. Cutouts will be provided in the front face of the stainless steel bumper to allow the tow eyes to extend out the front. The tow eyes will be designed and positioned to allow up to a 9,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow eyes will not be used for lifting of the apparatus. The tow eyes will be painted #90 red .
0809080	SP	Lights, Flood, Rigid Industries, D-Series Pro, Model #212513, Flush Mount	**DIFFUSED AUXILIARY LIGHTS** Two (2) Rigid Industries, D-Series Pro, Part #212513, 3.00" x 3.00" black hexagonal LED flood lamps with diffused light pattern, 9-36V DC, 3168 raw lumens, will be provided, one (1) on each side, flush mounted in the front bumper. The lights will be activated by a switch with indicator on the driver side instrument panel. The lights will be reset to off whenever the vehicle ignition switch is set to the off position.

0649716	Cab, Enforcer, 6010	**CAB** The Enforcer cab will be designed specifically for the fire service and manufactured by t chassis builder. The cab will be built by the apparatus manufacturer in a facility located on the manufacturer's premises. For reasons of structural integrity and enhanced occupant protection, the cab will be a heavy duty design, constructed to the following minimal standards. The cab will have 12 main vertical structural members located in the A-pillar (front cab corner posts), B-pillar (side center posts), C-pillar (rear corner posts), and rear wall areas. The A-pillar will be constructed of solid A356-T5 aluminum castings. The B-pillar and C-pillar will be constructed from 0.13" wall extrusions. The rear wall will be constructed of two (2) 2.00" x 2.00" outer aluminum extrusions and two (2) 2.00" x 1.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 4.625" x 3.864" x 0.090" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.25" thick corner casting at each of the front corners of the roof assembly. The front of the cab will be constructed of a 0.13" firewall plate, covered with a 0.090" front skin (for a total thickness of 0.22"), and reinforced with a full width x 0.50" thick cross-cab support located just below the windshield and fully welded to the engine tunnel. The cross-cab support will run the full width of the cab and weld to each A-pillar, the 0.13" firewall plate, and the front skin. The cab floors will be constructed of 0.125" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.375" of structural material at the front floor area. The front floor area will also be supported with two (2) triangular 0.30" wall extrusions that also provides the mounting point for the cab lift. This tubing will run from the floor wireway of the cab to the engine tunnel side plates, creating the structure to support the forces created when lifting the cab. The cab will be 96.00" wide (outside door skin to outside door skin) to maintain maximum maneuverability. The forward cab section will have an overall height (from the cab roof to the ground) of approximately 99.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 109.00". The overall height listed will be calculated based on a truck configuration with the lowest suspension weight rating, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension will increase the overall height listed. The floor to ceiling height inside the crew cab will be 64.50" in the center and outboard positions. The crew cab floor will measure 36.00" from the rear wall to the back side of the rear facing seat risers. The medium block engine tunnel, at the rearward highest point (knee level), will measure 51.50" to the rear wall. The big block engine tunnel will measure 41.50" to the rear wall. The crew cab will be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants. The cab will be a full tilt cab style. A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab. **CAB ROOF DRIP RAIL** For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be painted to match the cab roof, and bonded to the sides of the cab. The drip rail will extend the full length of the cab roof. **INTERIOR CAB INSULATION** The cab will include 1.00" insulation in the ceiling, 1.50" insulation in the side walls, and 2.00" insulation in the rear wall to maximize acoustic absorption and thermal insulation. **FENDER LINERS** Full circular inner fender liners in the wheel wells will be provided. **PANORAMIC WINDSHIELD** A one (1)-piece safety glass windshield will be provided with over 2,775 square inches of clear viewing area. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: outer light, middle safety laminate, and inner light. The outer light layer will provide superior chip resistance. The middle safety laminate layer will prevent the windshield glass pieces from detaching in the event of breakage. The inner light will provide yet another chip resistant layer. The cab windshield will be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern will be applied on the outside perimeter of the windshield for a finished automotive appearance. **WINDSHIELD WIPERS** Three (3) electric windshield wipers with washer will be provided that meet FMVSS and SAE requirements. The washer reservoir will be able to be filled without raising the cab.
0747442	Engine Tunnel, X12, MX13, Enforcer	**ENGINE TUNNEL** Engine hood side walls will be constructed of 0.375" aluminum. The top will be constructed of 0.125" aluminum and will be tapered at the top to allow for more driver and passenger elbow room. The engine hood will be insulated for protection from heat and sound. The noise insulation keeps the dBA level within the limits stated in the current NFPA 1901 standards. The engine tunnel will be no higher than 17.00" off the crew cab floor.
0610508	Rear Wall, Interior, Adjustable Seating, Not Available	
0632103	Rear Wall, Exterior, Cab, Saber FR/Enforcer	**CAB REAR WALL EXTERIOR COVERING** The exterior surface of the rear wall of the cab will be overlaid with bright aluminum treadplate that covers the entire rear wall.

0639727	Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer	**CAB LIFT** A hydraulic cab lift system will be provided consisting of an electric powered hydraulic p lift cylinders, and necessary hoses and valves. Hydraulic pump will have a manual override for backup in the event of electrical failure. Lift controls will be located on the right side pump panel or front area of the body in a convenient location. The cab will be capable of tilting 43 degrees to accommodate engine maintenance and removal. The cab will be locked down by a 2-point normally closed spring loaded hook type latch that fully engages after the cab has been lowered. The system will be hydraulically actuated to release the normally closed locks when the cab lift control is in the raised position and cab lift system is under pressure. When the cab is completely lowered and system pressure has been relieved, the spring loaded latch mechanisms will return to the normally closed and locked position. The hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position. For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the left side between the chassis and cab frame when the cab is in the raised position. This device will be manually stowed to its original position before the cab can be lowered. **Cab Lift Interlock** The cab lift system will be interlocked to the parking brake. The cab tilt mechanism will be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism will be disabled.
0695930	Grille, Bright Finished, Front of Cab, Enforcer	**GRILLE** A bright finished aluminum mesh grille screen, inserted behind a bright finished grille surround, will be provided on the front center of the cab.
0002224	Scuffplates, S/S At Cab Door Jambs, 4-Door Cab	**DOOR JAMB SCUFFPLATES** All cab door jambs will be furnished with a 1.00" polished stainless steel scuffplate, mounted on the striker side of the jamb.
0643412	Seal, Caulk Top Edge, Exterior Cab Rear Wall	**CAULK TOP EDGE OF REAR WALL SCUFFPLATE** The top edge of the scuffplate on the back wall of the cab will be caulked to prevent water from leaking behind it.
0647932	Not Required, Trim, S/S Band, Across Cab Face, AXT/Saber/Enforcer	
0015440	No Chrome Molding, On side of cab	
0521669	Mirrors, Retrac, West Coast Style, Htd/Rmt, w/Htd/Rmt Convex	**MIRRORS** A Retrac, Model 613423, dual vision, motorized, west coast style mirror, with chrome finish, will be mounted on each side of the front cab door with spring loaded retractable arms. The flat glass and convex glass will be heated and adjustable with remote control within reach of the driver.
0648170	Door, Half-Height, Saber FR/Enforcer 4-Door Cab, Raised Roof	**DOORS** To enhance entry and egress to the cab, the forward cab door openings will be a minimum of 37.50" wide x 63.37" high. The crew cab doors will be located on the sides of the cab and will be constructed in the same manner as the forward cab doors. The crew cab door openings will be a minimum of 34.30" wide x 73.25" high. The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.093". The exterior door skins will be constructed from 0.090" aluminum. A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. The finish of the door handle will be chrome/black. The exterior handle will be designed specifically for the fire service to prevent accidental activation, and will provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands. Each door will also be provided with an interior flush, open style paddle handle that will be readily operable from fore and aft positions, and be designed to prevent accidental activation. The interior handles will provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands. The cab doors will be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys will be Model 751. The locks will be capable of activating when the doors are open or closed. The doors will remain locked if locks are activated when the doors are opened, then closed. A full length, heavy duty, stainless steel, piano-type hinge with a 0.38" pin and 11 gauge leaf will be provided on all cab doors. There will be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit. A chrome grab handle will be provided on the inside of each cab door for ease of entry. A red webbed grab handle will be installed on the crew cab door stop strap. The grab handles will be securely mounted. The bottom cab step at each cab door location will be located below the cab doors and will be exposed to the exterior of the cab.

0655543		Door Panel, Brushed Stainless Steel, Saber/Enforcer 4-Door Cab	**Door Panels** The inner cab door panels will be constructed out of brushed stainless steel.
0630636		Controls, Electric Roll-Up Windows, 4dr, 4 Driver Controls, Saber FR/Enforcer	**ELECTRIC OPERATED CAB DOOR WINDOWS** All four (4) cab doors will be equipped with electric operated windows with one (1) flush mounted automotive style switch on each door. The driver's door will have four (4) switches, one (1) to control each door window. Each switch will allow intermittent or auto down operation for ease of use. Auto down operation will be actuated by holding the window down switch for approximately 1 second.
0528251		Electric Door Locks, Cab Doors, QXS, AXT, Sab, Enf, Dash CF	**ELECTRIC CAB DOOR LOCKS** The front driver and officer doors will have a door lock master switch that will control all front and rear crew cab door locks. Each rear crew cab door will have its own lock control. There will be one (1) concealed switch located in an easily accessible chassis specific location that will unlock all the doors.
0633615		Steps, 4-Door Cab, Reduced Bottom Step, Saber FR/Enforcer	**CAB STEPS** The forward cab and crew cab access steps will be a full size two (2) step design to provide largest possible stepping surfaces for safe ingress and egress. The bottom steps will be designed with a grip pattern punched into bright aluminum treadplate material to provide support, slip resistance, and drainage. The bottom steps will be a bolt-in design to minimize repair costs should they need to be replaced. The forward cab steps will be a minimum 25.00" wide, and the crew cab steps will be 21.65" wide with an 8.00" minimum depth. The inside cab steps will not exceed 16.50" in height. The vertical surfaces of the step well will be aluminum treadplate.
0770194		Handrail, Exterior, Knurled, Alum, 4-Door Cab	**CAB EXTERIOR HANDRAILS** A 1.25" diameter slip-resistant, knurled aluminum handrail will be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress.
0892638		Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	**STEP LIGHTS** There will be six (6) white LED step lights with chrome housing installed for cab and crew cab access steps. One (1) light for the left access steps. Two (2) lights for the left side crew cab access steps. Two (2) lights for the right side crew cab access steps. One (1) light for the right side access step. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights will be activated when the battery switch is on and the adjacent door is opened.
0583698		Fenders, S/S on cab, Extra Wide, Saber/Enf	**FENDER CROWNS** Stainless steel fender crowns will be installed at the cab wheel openings.
0557023		Handrail, 10", Below Cab Windshield, Pair	**HANDRAILS BELOW CAB WINDSHIELD** A 10.00" long x 1.25" diameter handrail will be mounted below the front cab windshield, one (1) on each side. The handrails will be extruded aluminum with a ribbed design to provide a positive gripping surface.
0802931	SP	Handrail, Interior, Crew Cab Doors, Location	**INTERIOR CREW CAB DOOR HANDRAIL** A handrail will be provided on each interior crew cab door pan. The handrails will be mounted One (1) each Crew Cab door, horizontal at lower portion of door window.. These are in addition to the standard crew cab door handle.
0637984		Window, Side of C/C, Fixed, Saber FR/Enforcer	**CREW CAB WINDOWS** One (1) fixed window with tinted glass will be provided on each side of the cab, to the rear of the front cab door. The windows will be sized to enhance light penetration into the cab interior. The windows will measure 18.70" wide x 23.75" high.
0012090		Not Required, Windows, Front/Side of raised roof	
0779033		Not Required, Windows Rear of Crew Cab, Saber FR/Enforcer	
0786279		Window Tint, Crew Cab Door, Right Side, Privacy Dark Gray	**RIGHT SIDE ROLLUP CREW CAB DOOR WINDOW TINT** The rollup window in the right side crew cab door will be tinted privacy dark gray.

0786284	Window Tint, Behind Cab Door, Right Side, Privacy Dark Gray	**BEHIND RIGHT SIDE CAB DOOR WINDOW TINT** The window behind the right side front cab door will be tinted privacy dark gray.
0786286	Window Tint, Upper Crew Cab Door, Right Side, Privacy Dark Gray	**RIGHT SIDE UPPER CREW CAB DOOR WINDOW TINT** The upper window in the right side crew cab door will be tinted privacy dark gray.
0786290	Window Tint, Crew Cab Door, Left Side, Privacy Dark Gray	**LEFT SIDE ROLLUP CREW CAB DOOR WINDOW TINT** The rollup window in the left side crew cab door will be tinted privacy dark gray.
0786294	Window Tint, Upper Crew Cab Door, Left Side, Privacy Dark Gray	**LEFT SIDE UPPER CREW CAB DOOR WINDOW TINT** The upper window in the left side crew cab door will be tinted privacy dark gray.
0786299	Window Tint, Behind Cab Door, Left Side, Privacy Dark Gray	**BEHIND LEFT SIDE CAB DOOR WINDOW TINT** The window behind the left side front cab door will be tinted privacy dark gray.
0644019	Holder, Cup, 4" Diameter x 4" High x 1" Slit on Side, Matting, Alum, Each	**CUP HOLDER** There will be four (4) cup holder(s) provided. Each cup holder will be 4.00" in diameter x 4.00" high. An approximate 1.00" wide recess in the cup holder will allow it to hold beverage containers with handles. Black rubber matting will be provided on the bottom of each cup holder. The cup holder(s) will be painted to match the cab interior and located Mount at Final.
0722796	Dash, Poly, Saber FR/Enforcer	**CAB DASH** The driver side dash, switch panel located to the right of the driver, and center console will be an easily removable high impact resistant polymer cover. The instrument gauge cluster will be surrounded with a high impact ABS plastic contoured to the same shape of the instrument gauge cluster. The officer side dash will be a flat top design with an upper beveled edge to provide easy maintenance and will be constructed out of aluminum and painted to match the cab interior.
0634206	Mounting Provisions, 1/4" Alum, Full Engine Tunnel, Saber FR/Enforcer	**MOUNTING PLATE ON ENGINE TUNNEL** Equipment installation provisions will be installed on the engine tunnel. A .25" smooth aluminum plate will be bolted to the top surface of the engine tunnel. The plate will follow the contour of the engine tunnel and will run the entire length of the engine tunnel. The plate will be spaced off the engine tunnel .75" to allow for wire routing below the plate. The mounting surface will be painted to match the cab interior.
0893536	Mounting Plate, 3/16" Aluminum, Pegboard, Cab Interior	**MOUNTING PLATE(S)** There will be two (2)Sized based on available space, maximum size outboard of Forward Facing cabinet full height pegboard mounting plate(s) provided and installed (1) Each side of rear wall outboard of the forward facing center cabinet.. The plate will be 0.188" thick with .203" diameter holes, punched 1.00" on center in a pegboard pattern. The mounting surface will be painted to match the cab interior. The plates(s) will be mounted on 1.00" spacer stand-offs.
0750824	Cab Interior, Vinyl Headliner, Saber FR/Enforcer, CARE	**CAB INTERIOR** The cab interior will be constructed of primarily metal (painted aluminum) to withstand the severe duty cycles of the fire service. The engine tunnel will be padded and covered, on the top and sides, with black 36 ounce leather grain vinyl resistant to oil, grease, and mildew. For durability and ease of maintenance, the cab interior side walls will be painted aluminum. The rear wall will be painted aluminum. The headliner will be installed in both forward and rear cab sections. Headliner material will be vinyl. A sound barrier will be part of its composition. Material will be installed on an aluminum sheet and securely fastened to interior cab ceiling. The forward portion of the cab headliner will permit easy access for service of electrical wiring or other maintenance needs. All wiring will be placed in metal raceways. **CAB INTERIOR UPHOLSTERY** The cab interior upholstery will be 36 oz black vinyl.
0753903	Cab Interior, Paint Color, Saber FR/Enforcer	**CAB INTERIOR PAINT** The cab interior metal surfaces, excluding the rear heater panels, will be painted black, vinyl texture paint. The rear heater panels will be painted black, vinyl textured paint.

0052100	Floor, Rubber Padded, Cab & Crew Cab, Saber/Enforcer	**CAB FLOOR** The cab and crew cab floor areas will be covered with Polydamp™ acoustical floor mat of a black pyramid rubber facing and closed cell foam decoupler. The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a 0.25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.
0722696	HVAC, Enforcer, CARE	**DEFROST/AIR CONDITIONING SYSTEM** A ceiling mounted combination heater, defroster and air conditioning system will be installed in the cab above the engine tunnel area. **Cab Defroster** A 54,000 BTU heater-defroster unit with 690 SCFM of air flow will be provided inside the cab. The heater-defrost will be installed in the forward portion of the cab ceiling. Air outlets will be strategically located in the cab header extrusion per the following: One (1) adjustable will be directed towards the left side cab window One (1) adjustable will be directed towards the right side cab window Six (6) fixed outlets will be directed at the windshield The defroster will be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system will meet or exceed SAE J382 requirements. **Cab/Crew Auxiliary Heater** There will be one (1) 31,000 BTU auxiliary heater with 560 SCFM of air flow provided in each outboard rear facing seat risers with a dual scroll blower. An aluminum plenum incorporated into the cab structure used to transfer heat to the forward positions. **Air Conditioning** A condenser will be a 59,644 BTU output that meets and exceeds the performance specification will be mounted on the radiator. The air conditioning system will be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit at 50 percent relative humidity within 30 minutes. The cooling performance test will be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours. The evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include one (1) high performance heating core, one (1) high performance cooling core with (1) plenum directed to the front and one (1) plenum directed to the rear of the cab. The rear plenum will be covered with a formed plastic cover. The evaporator unit will have a 52,000 BTU at 690 SCFM rating that meets and exceeds the performance specifications. Adjustable air outlets will be strategically located on the forward plenum cover per the following: Four (4) will be directed towards the seating position on the left side of the cab Four (4) will be directed towards the seating position on the right side of the cab Adjustable air outlets will be strategically located on the rear plenum cover per the following: Minimum of five (5) will be directed towards crew cab area A high efficiency particulate air (HEPA) filter will be included for the system. Access to the filter cover will be secured with four (4) screws. The air conditioner refrigerant will be R-134A and will be installed by a certified technician. **Climate Control** An automotive style controller will be provided to control the heat and air conditioning system within the cab. The controller will have three (3) functional knobs for fan speed, temperature, and air flow distribution (front to rear) control. The system will control the temperature of the cab and crew cab automatically by pushing the center of the fan speed control knob. Rotate the center temperature control knob to set the cab and crew cab temperature. The AC system will be manually activated by pushing the center of the temperature control knob. Pushing the center of the air flow distribution knob will engage the AC for max defrost, setting the fan speeds to 100 percent and directing all air flow to the overhead forward position. The system controller will be located within panel position #13. **Gravity Drain Tubes** Two (2) condensate drain tubes will be provided for the air conditioning evaporator. The drip pan will have two (2) drain tubes plumbed separately to allow for the condensate to exit the drip pan. No pumps will be provided.
0639675	Sun Visor, Smoked Lexan, AXT, Imp/Vel, Saber FR/Enforcer	**SUN VISORS** Two (2) smoked Lexan™ sun visors will be provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab. There will be a black plastic thumb latch provided to help secure each sun visor in the stowed position.
0622887	Grab Handles, Driver Door Post, Officer Door Post Low, Saber FR/Enforcer	**GRAB HANDLE** A black rubber covered grab handle will be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The officer's side grab handle will be mounted on the lower portion of the door post. The grab handle will be securely mounted to the post area between the door and windshield.
0583938	Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3" LED, Trim	**ENGINE COMPARTMENT LIGHTS** There will be one (1) Whelen, Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Whelen, Model 3FLANGEC, chrome flange kit(s) installed under the cab to be used as engine compartment illumination. These light(s) will be activated automatically when the cab is raised.

0631830	Fluid Check Access, Saber FR/Enforcer, Arrow XT	**ACCESS TO ENGINE DIPSTICKS** For access to the engine oil and transmission fluid dipsticks, there will be a door on the tunnel, inside the crew cab. The door will be on the rear wall of the engine tunnel, on th surface. The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. The door will have a rubber seal for thermal and acoustic insulation. One (1) flush lift and turn latch will be provided on the access door.
0013560	Map box, 5 bin/30 Deg Slant, AXT, Imp/Vel, SFR/Enf	**MAP BOX** A map box with five (5) bins, open at the top, will be installed mount at final with each bin being 12.50" wide x 2.25" high x 12.00" deep. Each bin will slant 30 degrees from horizontal. The map box will be constructed of .125" aluminum and will be painted to match the cab interior.
0583039	Not Required, Side Roll and Frontal Impact Protection	
0622619	Seating Capacity, 4 Seats	**SEATING CAPACITY** The seating capacity in the cab will be four (4).
0632962	Seat, Driver, Bostrom, Sierra, Air Ride, High Back, Saber FR/Enforcer	**DRIVER SEAT** A H.O. Bostrom, Sierra, air suspension high back seat will be provided in the cab for the driver. For increased convenience, the seat will include a manual control to adjust the horizontal position (5.50" travel). To provide flexibility for multiple driver configurations, the seat will have a reclining back, adjustable from 15 degrees back to 45 degrees forward. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0632918	Seat, Officer, Bostrom 450, Fixed, SCBA, Saber FR/Enforcer	**OFFICER SEAT** A H.O. Bostrom, Tanker 450, SCBA fixed seat will be provided in the cab for the officer. For optimal comfort, the seat will be provided with 17.00" deep cushion. The seat back will be an SCBA back style with a 5 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 1.50" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0620420	Radio Compartment, Below Non-Air Ride Seat, Saber FR/Enforcer	**RADIO COMPARTMENT** A radio compartment will be provided under the officer's seat. The inside compartment dimensions will be 16.00" wide x 7.50" high x 15.00" deep, with the back of the compartment angled up to match the cab structure. A drop-down door with one (1) lift and turn latch will be provided for access. The compartment will be constructed of smooth aluminum and painted to match the cab interior.
0632850	Seat, Rear Facing C/C, DS Outboard, Bostrom 450, SCBA, Saber FR/Enforcer	**REAR FACING DRIVER SIDE OUTBOARD SEAT** There will be one (1) rear facing, HO Bostrom Tanker 450 SCBA seat provided at the driver side outboard position in the crew cab. For optimal comfort, the seat will be provided with 17.00" deep cushion. The seat back will be an SCBA back style with a 5 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 1.50" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0102783	Not Required, Seat, Rr Facing C/C, Center	
0632846	Seat, Rear Facing C/C, PS Outboard, Bostrom 450, SCBA, Saber FR/Enforcer	**REAR FACING PASSENGER SIDE OUTBOARD SEAT** There will be one (1) rear facing, HO Bostrom Tanker 450 SCBA seat provided at the passenger side outboard position in the crew cab. For optimal comfort, the seat will be provided with 17.00" deep cushion. The seat back will be an SCBA back style with a 5 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 1.50" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include no additional zip clean covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0108189	Not Required, Seat, Forward Facing C/C, DS Outboard	

0764155	SP	Cabinet, Forward Facing, Center, 38.50 W x 50 H x 22.50 D, Roll, SFR/Enf	**FORWARD FACING CENTER CABINET** A forward facing cabinet will be provided in the crew cab at the center position. The cabinet will be 38.50" wide x 50.00" high x 22.50" deep with one (1) Amdor rollup d anodized finish, non-locking. The frame to frame opening of the cabinet will be 36.00" w 44.75" high. The minimum clear door opening will be 33.25" wide x 38.87" high. The cabinet will include three (3) infinitely adjustable shelves with a 1.25" up-turned lippainted to match the cab interior. The cabinet will include no louvers. The cabinet will be constructed of smooth aluminum, and painted to match the cab interior. **Cabinet Light** There will be one (1) white LED strip light installed on the left side of the interior cabinet door opening and one (1) white LED strip light installed on the right side of the interior cabinet door opening. The lighting will be controlled by an automatic door switch.
0108190		Not Required, Seat, Forward Facing C/C, PS Outboard	
0617410		Matting, Turtle Tile, EMS Compt, Shelving, 0.75" Thick	**MATTING IN EMS COMPARTMENT** Turtle Tile vinyl matting will be provided in three (3) EMS compartment shelves, Forward facing center cabinet. Tile color will be black.
0042359		Upholstery, Seats In Cab, All Vinyl, Bostrom, CARE	**SEAT UPHOLSTERY** All seat upholstery will be leather grain black vinyl resistant to oil, grease and mildew. The cab will have four (4) seating positions.
0677039		Bracket, Air Bottle, Bostrom "SecureAll", Cab Seats, Bostrom Only	**AIR BOTTLE HOLDERS** There will be three (3) SCBA type seats in the cab with Bostrom SecureAll SCBA locking holder brackets installed directly into the Bostrom seats. The brackets will be compliant with NFPA 1901 Section 14.1.10.1.
0603866		Seat Belt, Dual Retractor, ReadyReach, Saber FR/Enforcer	**SEAT BELTS** All cab and tiller cab (if applicable) seating positions will have red seat belts. To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length will meet or exceed the current edition of NFPA 1901 and CAN/ULC - S515 standards. The 3-point shoulder type seat belts will include height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter. The 3-point shoulder type seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position. The 3-point shoulder type belts will also include the ReadyReach D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location. Any flip up seats will include a 3-point shoulder type belts only. To ensure safe operation, the seats will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not buckled.
0602464		Helmet Storage, Provided by Fire Department, NFPA 2016	**HELMET STORAGE PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided. There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.
0647638		Lights, Dome, Weldon Dual LED 4 Lts	**CAB DOME LIGHTS** There will be four (4) Weldon 808* series, dual LED dome lights with black bezels provided. Two (2) lights will be mounted above the inside shoulder of the driver and officer and two (2) lights will be installed and located, one (1) on each side of the crew cab. The color of the LED's will be red and white . The white LED's will be controlled by the lens switch. The color LED's will be controlled by the door switches.
0896451		Enhanced Software for Cab and Crew Cab Dome Lts	**ENHANCED SOFTWARE FOR CAB AND CREW CAB DOME LIGHTS** The cab and crew cab dome lights will remain on for 10 seconds for improved visibility after the doors are closed. The dome lights will dim after 10 seconds or immediately if the vehicle's transmission is put into gear.
0602637		Portable Hand Light, Provided by Fire Dept, Pumper NFPA 2016 Classification	**PORTABLE HAND LIGHTS, PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 5.9.4 requires two portable hand lights mounted in brackets fastened to the apparatus. The hand lights are not on the apparatus as manufactured. The fire department will provide and mount these hand lights.

0554191	Handlight, Streamlight, Fire Vulcan, 44451, C4 LED, Tail Lights, 12v, Orange	**ADDITIONAL HAND HELD LIGHT** There will be three (3) lights additional 12v Streamlight, Model #44451, Fire Vulcan LED will be provided and mounted Determine at Pre-Con. Each light will be provided with a 1 direct wire vehicle mounting rack. Each light housing will be orange in color and be provided with a single C4 LED bulb and two (2) "ultra bright blue tail-light LEDs". The tail-light LEDs will have a dual mode of blinking or steady.
0622803	Cab Instruments, Black Gauges, Black Bezels, Enforcer MUX	**CAB INSTRUMENTATION** The cab instrument panel include gauges, an LCD display, telltale indicator lamps, control switches, alarms, and a diagnostic panel. The function of the instrument panel controls and switches will be identified by a label adjacent to each item. Actuation of the headlight switch will illuminate the labels in low light conditions. Telltale indicator lamps will not be illuminated unless necessary. The cab instruments and controls will be conveniently located within the forward cab section, forward of the driver. The gauge assembly and switch panels are designed to be removable for ease of service and low cost of ownership. **Gauges** The gauge panel will include the following ten (10) black faced gauges with black bezels to monitor vehicle performance: Voltmeter gauge (volts): Low volts (11.8 VDC) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly High volts (15.5 VDC) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Very low volts (11.3 VDC) Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Very high volts (16.0 VDC) Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Engine Tachometer (RPM) Speedometer MPH (Major Scale), KM/H (Minor Scale) Fuel level gauge (Empty - Full in fractions): Low fuel (1/8 full) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Very low fuel (1/32 full) Red caution indicator on the information center with steady alarm Amber caution light on gauge assembly Engine Oil pressure Gauge (PSI): Low oil pressure to activate engine warning lights and alarms Red caution indicator on the information center with steady alarm Amber caution light on gauge assembly Front Air Pressure Gauges (PSI): Low air pressure to activate warning lights and alarm Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Rear Air Pressure Gauges (PSI): Low air pressure to activate warning lights and alarm Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Transmission Oil Temperature Gauge (Fahrenheit): High transmission oil temperature activates warning lights and alarm Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Engine Coolant Temperature Gauge (Fahrenheit): High engine temperature activates an engine warning light and alarms Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions): Low fluid (1/8 full) Amber indicator light in gauge dial All gauges will perform prove out at initial power-up to ensure proper performance. **Indicator Lamps** To promote safety, the following telltale indicator lamps will be located on the instrument panel in clear view of the driver. The indicator lamps will be "dead-front" design that is only visible when active. The colored indicator lights will have descriptive text or symbols. The following amber telltale lamps will be present: Low coolant Trac cntl (traction control) (where applicable) Check engine Check trans (check transmission Aux brake overheat (Auxiliary brake overheat Air rest (air restriction) Caution (triangle symbol) Water in fuel DPF (engine diesel particulate filter regeneration) Trailer ABS (where applicable) Wait to start (where applicable) HET (engine high exhaust temperature) (where applicable) ABS (antilock brake system) MIL (engine emissions system malfunction indicator lamp) (where applicable) Side roll fault (where applicable) Front air bag fault (where applicable) The following red telltale lamps will be present:

Warning (stop sign symbol)
Seat belt
Parking brake
Stop engine
Rack down
The following green telltale lamps will be provided:
Left turn
Right turn
Battery on
The following blue telltale lamp will be provided:
High beam

Alarms

Audible steady tone warning alarm: A steady audible tone alarm will be provided whenever a warning message is present.
Audible pulsing tone caution alarm: A pulsing audible tone alarm (chime/chirp) will be provided whenever a caution message is present without a warning message being present.
Alarm silence: Any active audible alarm will be able to be silenced by holding the ignition switch at the top position for three (3) to five (5) seconds. For improved safety, silenced audible alarms will intermittently chirp every 30 seconds until the alarm condition no longer exists. The intermittent chirp will act as a reminder to the operator that a caution or warning condition still exists. Any new warning or caution condition will enable the steady or pulsing tones respectively.

Indicator Lamp and Alarm Prove-Out

A system will be provided which automatically tests telltale indicator lights and alarms located on the cab instrument panel. Telltale indicators and alarms will perform prove-out at initial power-up to ensure proper performance.

Control Switches

For ease of use, the following controls will be provided immediately adjacent to the cab instrument panel within easy reach of the driver. All switches will have backlit labels for low light applications.
Headlight/Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking and headlights. The second switch position will activate the parking lights. The third switch will activate the headlights.
Panel back lighting intensity control switch: A three (3)-position momentary rocker switch will be provided. Pressing the top half of the switch, "Panel Up" increases the panel back lighting intensity and pressing the bottom half of the switch, "Panel Down" decreases the panel back lighting intensity. Pressing the half or bottom half of the switch several times will allow back lighting intensity to be gradually varied from minimum to maximum intensity level for ease of use.
Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will turn off and deactivate vehicle ignition. The second switch position will activate vehicle ignition and will perform prove-out on the telltale indicators and alarms for 3 to 5 seconds after the switch is turned on. A green indicator lamp is activated with vehicle ignition. The third momentary position will temporarily silence all active cab alarms. An alarm "chirp" may continue as long as alarm condition exists. Switching ignition to off position will terminate the alarm silence feature and reset function of cab alarm system.
Engine start switch: A two (2)-position momentary rocker switch will be provided. The first switch position is the default switch position. The second switch position will activate the vehicle's engine. The switch actuator is designed to prevent accidental activation.
Hazard switch will be provided on the instrument panel or on the steering column.
Heater, defroster, and air conditioning control panel.
Turn signal arm: A self-canceling turn signal with high beam headlight controls will be provided.
Windshield wiper control will have high, low and intermittent modes.
Parking brake control: An air actuated push/pull park brake control valve will be provided.
Chassis horn control: Activation of the chassis horn control will be provided through the center of the steering wheel.
High idle engagement switch: A momentary rocker switch with integral indicator lamp will be provided. The switch will activate and deactivate the high idle function. The "OK To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch will indicate when the high idle function is engaged.
"OK To Engage High Idle" indicator lamp: A green indicator light will be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.
Emergency switching will be controlled by multiple individual warning light switches for various groups or areas of emergency warning lights. An Emergency Master switch provided on the instrument panel that enables or disables all individual warning light switches is included.
An additional "Emergency Master" button will be provided on the lower left hand corner of the gauge panel to allow convenient control of the "Emergency Master" system from inside the driver's door when standing on the ground.

Custom Switch Panels

The design of cab instrumentation will allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There will be positions for up to four (4) switch panels in the lower instrument console and up to six (6) switch panels in the overhead visor console. All switches have backlit labels for low light conditions.

Diagnostic Panel

A diagnostic panel will be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel will allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches will allow ABS systems to provide blink codes should a problem exist.
The diagnostic panel will include the following:
Engine diagnostic port
Transmission diagnostic port

ABS diagnostic port
Roll sensor diagnostic port
Command Zone USB diagnostic port
ABS diagnostic switch (blink codes flashed on ABS telltale indicator)
Diesel particulate filter regeneration switch (where applicable)
Diesel particulate filter regeneration inhibit switch (where applicable)
Cab LCD Display
A digital four (4)-row by 20-character dot matrix display will be integral to the gauge panel. The display will be capable of showing simple graphical images as well as text. The display will be split into three (3) sections. Each section will have a dedicated function.
The upper left section will display the outside ambient temperature.
The upper right section will display the following, along with other configuration specific information:
Odometer
Trip mileage
PTO hours
Fuel consumption
Engine hours
The bottom section will display INFO, CAUTION, and WARNING messages. Text messages will automatically activate to describe the cause of an audible caution or warning alarm. The LCD will be capable of displaying multiple text messages should more than one caution or warning condition exist.

0509511	Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	**AIR RESTRICTION INDICATOR** A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.
0543751	Light, Do Not Move Apparatus	**"DO NOT MOVE APPARATUS" INDICATOR** A flashing red indicator light, located in the driving compartment, will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On." The same circuit that activates the Do Not Move Apparatus indicator will activate a pulsing alarm when the parking brake is released.
0509042	Messages, Open Dr/DNMT, Color Dsply,	**DO NOT MOVE TRUCK MESSAGES** Messages will be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages will designate the item or items not in the stowed for vehicle travel position (parking brake disengaged). The following messages will be displayed (where applicable): Do Not Move Truck DS Cab Door Open (Driver Side Cab Door Open) PS Cab Door Open (Passenger's Side Cab Door Open) DS Crew Cab Door Open (Driver Side Crew Cab Door Open) PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open) DS Body Door Open (Driver Side Body Door Open) PS Body Door Open (Passenger's Side Body Door Open) Rear Body Door Open DS Ladder Rack Down (Driver Side Ladder Rack Down) PS Ladder Rack Down (Passenger Side Ladder Rack Down) Deck Gun Not Stowed Lt Tower Not Stowed (Light Tower Not Stowed) Fold Tank Not Stowed (Fold-A-Tank Not Stowed) Aerial Not Stowed (Aerial Device Not Stowed) Stabilizer Not Stowed Steps Not Stowed Handrail Not Stowed Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved will be displayed as a caution message after the parking brake is disengaged.
0611683	Switching, Cab Instrument Lower Console & Overhead, Membrane, Enforcer WiFi MUX	**SWITCH PANELS** The emergency light switch panel will have a master switch for ease of use plus individual switches for selective control. Each switch panel will contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments will include non-functioning black appliqués. The built-in switch panels will be located in the lower console or overhead console of the cab. Additional switch panel(s) will be located in the overhead position(s) above the windshield or in designated locations on the lower instrument panel layout. The switches will be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch will be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. An active illuminated switch will flash when interlock requirements are not met or device is actively being load managed. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed in the center of the switch. The label will allow light to pass through the letters for ease of use in low light conditions.

0802940	Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	**WIPER CONTROL** Wiper control will consist of a two (2)-speed windshield wiper control with intermittent fe windshield washer controls. The control will be located on the left side of the center inst panel.
0897831	Wiring, Spare,12V DC, USB-A, USB-C Termination, Kussmaul 091-264 Cab 1st	**SPARE CIRCUIT** There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 6 amps at 12 volts DC. Power and ground will terminate in the cab/crewcab (1) in drivers area per IP Layout, (1) one Officer area per IP Layout, (1) each side of Forward Facing Center cabinet in a box with USB outlets facing Firefighter seat. Termination will be a Kussmaul part number 091-264 switch panel dual USB-A, 18 watt and USB-C, 45 watt SVR, charger socket. Wires will be sized to 125 percent of the protection. This circuit(s) may be load managed when the parking brake is applied.
0764088	Wiring, Spare, 47.5 A 12V DC, Cust Install Radio, 40A Bat Dir, 7.5A Sw & Grnd	**CUSTOMER SUPPLIED RADIO WIRING** There will be one (1) 12 volt combination wiring leads of which each will include one (1) direct battery, one (1) master battery switched and one (1) negative for use with radio equipment. Each lead will be 18.00" long and be provided RS overhead passenger dash, from below Officer seat. The leads will be clearly marked in a coil and terminate with butt splices. A breaker rated for 40 amps will be provided for circuit protection of the direct battery lead with a minimum of 8 gauge wire. A breaker rated for 7.5 amps will be provided for circuit protection of the master battery switched lead. The wires will be colored coded as follows: red for direct battery yellow for master battery switched black for ground
0585913	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025 2nd	**SPARE CIRCUIT** There will be two (2) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 20 amps at 12 volts DC. Power and ground will terminate (1) one mounted in LS3 & RS3, mounted in upper rear corner on forward wall of each compartment.. Termination will be to a Blue Sea System, Model 5025, 6 circuit with negative bus bar. The terminal block will include a cover with circuit labels. Wires will be sized to 125% of the protection. This circuit(s) may be load managed when the parking brake is set.
0585914	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025 1st	**SPARE CIRCUIT** There will be three (3) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 20 amps at 12 volts DC. Power and ground will terminate (1) one mounted next to engine tunnel aft of Driver seat. (1) one mounted next to engine tunnel aft of Officer seat (1) one mounted in lower portion of forward facing center cabinet in crew cab area. Termination will be to a Blue Sea System, Model 5025, 6 circuit with negative bus bar. The terminal block will include a cover with circuit labels. Wires will be sized to 125% of the protection. This circuit(s) may be load managed when the parking brake is set.
0548004	Wiring, Spare, 15 A 12V DC 1st	**SPARE CIRCUIT** There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power The negative wire will be connected to ground Wires will be protected to 15 amps at 12 volts DC Power and ground will terminate officer side dash area and Drivers Dash per IP Layout, X2 Crew Cab rear seats. (1) each side of Forward Facing Center cabinet in same box with USB, outlets facing forward towards Firefighter seats Termination will be with 15 amp, power point plug with rubber cover Wires will be sized to 125 percent of the protection The circuit(s) may be load managed when the parking brake is set.

0803875	Radio, AM/FM/WB, Jensen, Frt,Rear Aux In/Frt,Rear USB/Bluetooth	**STEREO RADIO** A Jensen, heavy duty AM/FM / Bluetooth / Weatherband stereo radio, with front and rear input will be installed within reach of the driver. There will be 5.25" speakers installed on one (1) pair of 5.25" speakers in the cab and one (1) pair of 5.25" speakers in the crew cab. The antenna will be a roof-mounted rubber antenna located in an open space, on the cab roof. The following features will be included: - 180 watts max power output (45W x 4) - Bluetooth® streaming audio and controls (A2DP/AVRCP) with hands-free calling (HFP) - Electronic AM/FM tuner (US/Euro) - iPod®/iPhone® ready via USB - SiriusXM-Ready® - Seven-channel NOAA weatherband with S.A.M.E. technology - USB 2.0 for playback of MP3 & WMA audio files - RBDS with PTY search - Front and rear USB input - Front and rear AUX input
0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	**INFORMATION CENTER** An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing. The information center will have the following specifications: Operate in temperatures from -40 to 185 degrees Fahrenheit An Optical Gel will be placed between the LCD and protective lens Five weather resistant user interface switches Grey with black accents Sunlight Readable Linux operating system Minimum of 1000nits rated display Display can be changed to an available foreign language A LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area. Programmed to read US Customary **General Screen Design** Where possible, background colors will be used to provide "At a Glance" vehicle information. If information provided on a screen is within acceptable limits, a green background will be used. If a caution or warning situation arises the following will occur: An amber background/text color will indicate a caution condition A red background/text color will indicate a warning condition The information center will utilize an "Alert Center" to display text messages for audible alarm tones. The text messages will be written to identify the item(s) causing the audible alarm to sound. If more than one (1) text message occurs, the messages will cycle every second until the problem(s) have been resolved. The background color for the "Alert Center" will change to indicate the severity of the "warning" message. If a warning and a caution condition occur simultaneously, the red background color will be shown for all alert center messages. A label for each button will exist. The label will indicate the function for each active button for each screen. Buttons that are not utilized on specific screens will have a button label with no text or symbol. **Home/Transit Screen** This screen will display the following: Vehicle Mitigation (if equipped) Water Level (if the water level system includes compatible communications to the information center) Foam Level (if the foam level system includes compatible communications to the information center) Seat Belt Monitoring Screen Seat Belt Monitoring Screen Tire Pressure Monitoring (if equipped) Digital Speedometer Active Alarms **On Scene Screen** This screen will display the following and will be auto activated with pump engaged (if equipped): Battery Voltage Fuel Oil Pressure Coolant Temperature RPM Water Level (if equipped) Foam Level (if equipped) Foam Concentration (if equipped) Water Flow Rate (if equipped) Water Used (if equipped) Active Alarms **Virtual Buttons** There will be four (4) virtual switch panel screens that match the overhead and lower lighting and HVAC switch panels. **Page Screen** The page screen will display the following and allow the user to progress into other screens for further functionality: Diagnostics Faults Listed by order of occurrence Allows to sort by system Interlock Throttle Interlocks Pump Interlocks (if equipped) Aerial Interlocks (if equipped)

PTO Interlocks (if equipped)
Load Manager
A list of items to be load managed will be provided. The list will provide a description of
The lower the priority numbers the earlier the device will be shed should a low voltage
occur.
The screen will indicate if a load has been shed (disabled) or not shed.
"At a glance" color features are utilized on this screen.
Systems
Command Zone
Module type and ID number
Module Version
Input or output number
Circuit number connected to that input or output
Status of the input or output
Power and Constant Current module diagnostic information
Foam (if equipped)
Pressure Controller (if equipped)
Generator Frequency (if equipped)
Live Data
General Truck Data
Maintenance
Engine oil and filter
Transmission oil and filter
Pump oil (if equipped)
Foam (if equipped)
Aerial (if equipped)
Setup
Clock Setup
Date & Time
12 or 24 hour format
Set time and date
Backlight
Daytime
Night time
Sensitivity
Unit Selection
Home Screen
Virtual Button Setup
On Scene Screen Setup
Configure Video Mode
Set Video Contrast
Set Video Color
Set Video Tint
Do Not Move
The screen will indicate the approximate location and type of item that is open or is not stowed for travel. The actual status of the following devices will be indicated
Driver Side Cab Door
Passenger's Side Cab Door
Driver Side Crew Cab Door
Passenger's Side Crew Cab Door
Driver Side Body Doors
Passenger's Side Body Doors
Rear Body Door(s)
Ladder Rack (if applicable)
Deck Gun (if applicable)
Light Tower (if applicable)
Hatch Door (if applicable)
Stabilizers (if applicable)
Steps (if applicable)
Notifications
View Active Alarms
Shows a list of all active alarms including date and time of the occurrence is shown with each alarm
Silence Alarms - All alarms are silenced
Timer Screen
HVAC (if equipped)
Tire Information (if equipped)
Ascendant Set Up Confirmation (if equipped)
Button functions and button labels may change with each screen.

0734857	Collision Mitigation, HAAS Alert (R2V), HA5	**COLLISION MITIGATION** There will be a HAAS Alert®, Model HA5 Responder-to-Vehicle (R2V) collision avoidan provided on the apparatus. The HA5 cellular transponder module will be installed behin windshield, as high and near to the center as practical, to allow clear visibility to the sky. The module dimensions are 5.40" long x 2.70" wide x 1.30" high, and operating temperature range is -40 degree C to 85 degree C. The transponder will be connected to the vehicle's emergency master circuit and battery direct power and ground. While responding with emergency lights on, the HA5 transponder sends alert messages via cellular network to motorists in the vicinity of the responding truck that are equipped with the WAZE app. While on scene with emergency lights on, the HA5 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app. The HA5 Responder-to-Vehicle (R2V) collision avoidance system will include the transponder and a 5 year cellular plan subscription. Activation of the HAAS Alert system requires a representative of the customer to accept the End User License Agreement (EULA) via an on-line portal.
0606247	Vehicle Data Recorder w/CZ Display Seat Belt Monitor	**VEHICLE DATA RECORDER** There will be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided. The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve required information. The program to download the information from the VDR will be available to download on-line. The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs: Vehicle Speed - MPH Acceleration - MPH/sec Deceleration - MPH/sec Engine Speed - RPM Engine Throttle Position - % of Full Throttle ABS Event - On/Off Seat Occupied Status - Yes/No by Position Seat Belt Buckled Status - Yes/No by Position Master Optical Warning Device Switch - On/Off Time - 24 Hour Time Date - Year/Month/Day **Seat Belt Monitoring System** A seat belt monitoring system (SBMS) will be provided on the Command Zone™ color display. The SBMS will be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following: Seat Occupied & Buckled = Green LED indicator illuminated Seat Occupied & Unbuckled = Red LED indicator with audible alarm No Occupant & Buckled = Red LED indicator with audible alarm No Occupant & Unbuckled = No indicator and no alarm The seat belt monitoring screen will become active on the Command Zone color display when: The home screen is active: and there is any occupant seated but not buckled or any belt buckled with an occupant. and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS will be activated. The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.
0606226	Signal, Recordable, VDR, Silence Alarm, AXT MUX, DCF, SFR/Enf, Imp/Vel, Qtm	**Vehicle Data Recordable Input** When the VDR is active, the seat belt monitoring system alarm will be silenced through the standard silence alarm switch. The alarm will chirp in intervals to remind the operator that an alarm is still sounding.
0735006	Intercom, David Clark, 4-Pos, 2-Radio, (D,O,RPTT), 2obC, U3805	**INTERCOM SYSTEM** There will be a four (4) position David Clark, Model U3800, intercom system with single radio interface capability at the driver and officer positions and remote radio push to talk buttons located (1) DS, (1) Officer per IP Layout. Two (2) crew cab outboard seats will have intercom only capability. The following components will be provided: One (1) U3805 Radio Cord Junction Module Two (2) U3815 Radio interface modules (Driver, Officer) Two (2) Remote Push To Talk Button Kits One (1) U3800 Master station (1 Crew) One (1) U3801 Remote headset intercom station (1 Crew) One (1) C3820 Power cord All necessary station cables and connectors
0637058	David Clark Universal Radio Interfaces Included with Single/Dual System	**RADIO / INTERCOM INTERFACE INCLUDED** All radio interfaced stations will have universal radio interfaces installed. The interface wiring will be routed within the cab to Officer overhead dash area .

0597914	Headset, David Clark, H3442 Under Helmet, Flex Mic	**UNDER THE HELMET HEADSET** There will be four (4) under the helmet, headset(s) provided Driver, Officer, Both Crew C Each David Clark, Model H3442, headset will feature: 5' Coiled cord Noise cancelling electric microphone Flexible microphone boom rotates 200 degrees for left or right dress Microphone on/off button Comfort Gel Earseals 23 dB noise reduction
0681408	Hangers For Headsets, NFPA, Each	**HEADSET HANGERS** There will be four (4) headset hanger(s) installed driver's seat, officer's seat, driver's side outboard rear facing seat and passenger's side outboard rear facing seat. The hanger(s) will meet NFPA 1901, Section 14.1.11, requirement for equipment mounting.
0559503	Install Customer Provided, Portable Radio Charger(s)	**PORTABLE RADIO CHARGER INSTALLATION** There will be three (3) customer supplied portable two-way radio chargers(s) sent to the apparatus manufacturers preferred radio installer to be installed TBD at Pre-Con visit. Specific shipping requirements will be followed.
0687904	Antenna Mount, Custom Chassis, Cable Routed to Behind Officer Seat	**RADIO ANTENNA MOUNT** There will be two (2) standard 1.125", 18 thread antenna-mounting base(s) installed (2) behind the lightbar on the lower roof on the cab roof with high efficiency, low loss, coaxial cable(s) routed to behind the officer seat. A weatherproof cap will be installed on the mount.
0787174	Special CZIII WiFi Antenna Location, RS Cab Rf, Vel/Imp/Dash CF/Enf	**SPECIAL WIFI ANTENNA MOUNT LOCATION** The Command Zone advanced electronics WiFi-GPS antenna will be relocated from its standard right crewcab roof location forward on the cab roof on the right side. When relocating this antenna it must be located a minimum of nine (9) inches away from any other metallic object.
0653520	Camera, Pierce, Mux, R, RS Cameras	**VEHICLE CAMERA SYSTEM** There will be a color vehicle camera system provided with the following: One (1) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse. One (1) camera located on the right side of the apparatus, pointing rearward, displayed automatically with the right side turn signal. The camera images will be displayed on the driver's vehicle information center display. Audio from the microphone on the rear camera will be emitted by an amplified speaker with volume control located behind the driver seat. The following components will be included: One (1) SV-CW134639CAI Camera One (1) CS134404CI Side camera One (1) Amplified speaker (if applicable) All necessary cables
0523921	Recess, Rear Vision Camera	**RECESS REAR CAMERA** A rear camera recess will be provided to the driver side rear .
0890416	Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT	**ELECTRICAL POWER CONTROL SYSTEM** The primary power distribution will be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers will be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers will be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays will be easily accessible. Distribution centers located throughout the vehicle will contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership. Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers will be Type-I automatic reset (continuously resetting). When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA. **Solid-State Control System** A solid-state electronics based control system will be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network will consist of electronic modules, electronic control modules to include black housings, a power indicator and status indicator located near their point of use to reduce harness lengths and improve reliability. The control system will comply with SAE J1939-11 recommended practices. The control system will operate as a master-slave system whereas the main control module instructs all other system components. The system will contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system will utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership. For increased reliability and simplified use the control system modules will include the following attributes:

Green LED indicator light for module power
Red LED indicator light for network communication stability status
Control system self test at activation and continually throughout vehicle operation
No moving parts due to transistor logic
Software logic control for NFPA mandated safety interlocks and indicators
Integrated electrical system load management without additional components
Integrated electrical load sequencing system without additional components
Customized control software to the vehicle's configuration
Factory and field programmable to accommodate changes to the vehicle's operating parameters
To assure long life and operation in a broad range of environmental conditions, the solid-state control system modules will meet the following specifications:
Module circuit board will meet SAE J771 specifications
Operating temperature from -40C to +70C
Storage temperature from -40C to +70C
Vibration to 50g
IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter)
Operating voltage from eight (8) volts to 32 volts DC
The main controller will activate status indicators and audible alarms designed to provide warning of problems before they become critical.

Circuit Protection and Control Diagram

Copies of all job-specific, computer network input and output (I/O) connections will be provided with each chassis. The sheets will indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information.

On-Board Electrical System Diagnostics

The on-board information center will include the following diagnostic information:
Text description of active warning or caution alarms
Simplified warning indicators
Amber caution indication with intermittent alarm
Red warning indication with steady tone alarm
Advanced diagnostic feature will be provided in this control system. From the Command Zone display or connected wireless device, these features allow the user to monitor the real-time status of every input or output on the vehicle. It also allows users logged in as an administrator to force on inputs or outputs to assist the troubleshooting process.

TCU Module with WiFi

An in cab module will provide WiFi wireless interface and data logging capability. The WiFi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module will communicate through a black WiFi antenna allowing a line of site communication range of up to 300 feet with a roof mounted antenna.
The module will transmit a password protected web page to a WiFi enabled device (i.e. most smart phones, tablets or laptops) allowing two levels of user interaction. The firefighter level will allow vehicle monitoring of the vehicle and firefighting systems on the apparatus. The technician level will allow diagnostic access to inputs and outputs installed on the Command Zone™, control and information system.
The TCU capability will record faults from the engine, transmission, ABS and Command Zone™, control and information systems as they occur. No other data will be recorded at the time the fault occurs. The data TCU will provide up to 2 Gigabytes of data storage.
The TCU will provide a means to download the TCU information and update software in the device.

Indicator Light and Alarm Prove-Out System

A system will be provided which automatically tests basic indicator lights and alarms located on the cab instrument panel.

Voltage Monitor System

A voltage monitoring system will be provided to indicate the status of the battery system connected to the vehicle's electrical load. The system will provide visual and audible warning when the system voltage is below or above optimum levels.
The alarm will activate if the system falls below 11.8 volts DC for more than two (2) minutes.

Dedicated Radio Equipment Connection Points

There will be three (3) studs provided in the primary power distribution center located in front of the officer for two-way radio equipment. The studs will consist of the following:
12-volt 40-amp battery switched power
12-volt 60-amp ignition switched power
12-volt 60-amp direct battery power
There will also be a 12-volt 100-amp ground stud located in or adjacent to the power distribution center.

EMI/RFI Protection

To prevent erroneous signals from crosstalk contamination and interference, the electrical system will meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system will be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source.
The apparatus will have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The electrical system will meet, without exceptions, electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, will provide EMC testing reports from testing conducted on an entire apparatus and will certify that the vehicle meets SAE J551/2 and SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter requirements. Component and partial (incomplete) vehicle testing is not adequate as overall vehicle design can impact test results and thus is not acceptable by itself.
EMI/RFI susceptibility will be controlled by applying appropriate circuit designs and shielding. The electrical system will be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing will be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

0896456	Prognostics, Electrical System	**ELECTRICAL SYSTEM PROGNOSTICS** There will be a software based vehicle tool provided to predict remaining life of the vehi critical fluid and events. The system will send automatic indications to the Command Zone™ information center and/or wireless enabled devices to proactively alert of upcoming service intervals. Prognostics will include the following: Engine oil and filter Transmission oil and filter
0892649	CZ Connect Telematics	**TELEMATICS SYSTEM** There will be a cellular based vehicle telematics system consisting of a Telematic Control Unit (TCU) with external cellular WiFi and GPS antenna, and access to a web-based user interface portal provided. The TCU will be fully integrated into the Command Zone™ electrical system. It will monitor the vehicle through the CAN data bus and transmit data through a secure 4G LTE cellular connection, and be provided with a 3 year subscription.. After accepting the end user license agreement, the vehicle administrator will have access to vehicle location information and vehicle data via a secure CZ Connect web-based interface portal. The CZ Connect web-based interface will allow users to access vehicle data and configure monitoring tools, providing a global view of the location of each connected asset and a summary of fleet data, which include: User defined interval notifications User defined fault alerts Remote access to Command Zone diagnostics Vehicle analytics and activity monitoring Vehicle system status
0624253	Electrical System, Enforcer MUX	**ELECTRICAL** All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment will be installed utilizing the following guidelines: All holes made in the roof will be caulked with silicon. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof. Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body. Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work. Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug). All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area. All electrical terminals in exposed areas will have silicon applied completely over the metal portion of the terminal. All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments. An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order. The results of the tests will be recorded and provided to the purchaser at time of delivery.
0079211	Batteries, (6) Exide Grp 31, 950 CCA each, Threaded Stud	**BATTERY SYSTEM** There will be six (6) 12 volt Exide®, Model 31S950X3W, batteries that include the following features will be provided: 950 CCA, cold cranking amps 190 amp reserve capacity High cycle Group 31 Rating of 5700 CCA at 0 degrees Fahrenheit 1140 minutes of reserve capacity Threaded stainless steel studs Each battery case will be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover will be manifold vented with a central venting location to allow a 45 degree tilt capacity. The inside of each battery will consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.

0008621	Battery System, Single Start, All Custom Chassis	**BATTERY SYSTEM** There will be a single starting system with an ignition switch and starter button provided located on the cab instrument panel. **MASTER BATTERY SWITCH** There will be a master battery switch provided within the cab within easy reach of the driver to activate the battery system. An indicator light will be provided on the instrument panel to notify the driver of the status of the battery system.
0002698	Battery Compartment, Saber/Enforcer	**BATTERY COMPARTMENTS** Batteries will be placed on non-corrosive mats and stored in well ventilated compartments located under the cab. Heavy-duty, 2/0 gauge, color coded battery cables will be provided. Battery terminal connections will be coated with anti-corrosion compound. Battery solenoid terminal connections will be encapsulated with semi-permanent rubberized compound. **JUMPER STUDS** One (1) set of battery jumper studs with plastic color-coded covers will be included on the battery compartments.
0793175	Charger, Sngl Sys, Kussmaul, 440-4910-0, 023-5353-1 Indicator, Waterproof	**BATTERY CHARGER** There will be one (1) Kussmaul, Model 440-4910-0, 35 amp 12 volt DC single bank chassis battery charger provided. There will be a Kussmaul, Model 023-5353-1, bar graph display indicating the state of charge provided. The battery charger will be wired to the AC shoreline inlet through a splice box located near the charger.
0505960	Location, Charger, Left Side Front Body Compartment	Battery charger will be located in the front left body compartment, mounted Up high on back wall as high as possible.
0530949	Location, Bat Chrg Ind, Driver's Seat Riser	The battery charger indicator will be located on the driver's seat riser.
0016857	Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super	**AUTO EJECT FOR SHORELINE** There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus. The shoreline inlet(s) will include red weatherproof flip up cover(s). There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting. The shoreline(s) will be connected to the battery charger. There will be a mating connector body supplied with the loose equipment. There will be a label installed near the inlet(s) that state the following: Line Voltage Current Ratting (amps) Phase Frequency
0026800	Shoreline Location	The shoreline receptacle will be located on the driver side of cab, above wheel.
0008740	Cover, Protection over Battery Charger	**BATTERY CHARGER COVER** A cover will be fabricated and installed over the battery charger for protection. LS Body Compartment.
0647728	Alternator, 430 amp, Delco Remy 55SI	**ALTERNATOR** A Delco Remy®, Model 55SI, alternator will be provided. It will have a rated output current of 430 amps, as measured by SAE method J56. The alternator will feature an integral regulator and rectifier system that has been tested and qualified to an ambient temperature of 257 degrees Fahrenheit (125 degrees Celsius). The alternator will be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.

0092582	Load Manager/Sequencer, MUX	**ELECTRONIC LOAD MANAGER** An electronic load management (ELM) system will be provided that monitors the vehicle electrical system, automatically reducing the electrical load in the event of a low voltage and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system. For improved reliability and ease of use, the load manager system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components will not be allowed. The system will include the following features: System voltage monitoring. A shed load will remain inactive for a minimum of five minutes to prevent the load from cycling on and off. Sixteen available electronic load shedding levels. Priority levels can be set for individual outputs. High Idle to activate before any electric loads are shed and deactivate with the service brake. If enabled: "Load Man Hi-Idle On" will display on the information center. Hi-Idle will not activate until 30 seconds after engine start up. Individual switch "on" indicator to flash when the particular load has been shed. The information center indicates system voltage. The information center, where applicable, includes a "Load Manager" screen indicating the following: Load managed items list, with priority levels and item condition. Individual load managed item condition: ON = not shed SHED = shed **SEQUENCER** A sequencer will be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation will allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator. For improved reliability and ease of use, the load sequencing system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components will not be allowed. Emergency light sequencing will operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights will be activated one by one at half-second intervals. Sequenced emergency light switch indicators will flash while waiting for activation. When the emergency master switch is deactivated, the sequencer will deactivate the warning light loads in the reverse order. Sequencing of the following items will also occur, in conjunction with the ignition switch, at half-second intervals: Cab Heater and Air Conditioning Crew Cab Heater (if applicable) Crew Cab Air Conditioning (if applicable) Exhaust Fans (if applicable) Third Evaporator (if applicable)
0783153	Headlights, Rect LED, JW Spkr Evo 2, AXT/DCF/Enf/Imp/Sab/Vel	**HEADLIGHTS** There will be four (4) JW Speaker®, Model 8800, 4" x 6" rectangular LED lights mounted in the front quad style, chrome housing on each side of the cab grille: the outside light on each side will contain a part number 055***1 low beam module the inside light on each side will contain a part number 055***1 high beam module the headlights to include chrome bezels The low beam lights will be activated when the headlight switch is on. The high beam and low beam lights will be activated when the headlight switch and the high beam switch is activated.
0625953	Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts, Enf, Sab FR	**DIRECTIONAL LIGHTS** There will be two (2) Whelen 600 series, LED combination directional/marker lights provided. The lights will be located on the outside cab corners, next to the headlights. The color of the lenses will be clear.
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	**INTERMEDIATE LIGHT** There will be two (2) Weldon, Model 9186-8580-29, amber LED turn signal marker lights furnished, one (1) each side, in the rear fender panel. The light will double as a turn signal and marker light.
0647802	Lights, Clearance/Marker/ID, Front, P25 LED 5 Lts, Saber FR/Enforcer	**CAB CLEARANCE/MARKER/ID LIGHTS** There will be five (5) amber LED lights provided to indicate the presence and overall width of the vehicle in the following locations: Three (3) amber LED identification lights will be installed in the center of the cab above the windshield. Two (2) amber LED clearance lights will be installed, one (1) on each outboard side of the cab above the windshield.

0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED, AXT/Enf	**FRONT CAB SIDE CLEARANCE/MARKER LIGHTS** There will be two (2) Truck-Lite®, Model 19036Y, amber LED lights installed to the outs chrome wrap around bezel, one (1) on each side of the cab. The lights will activate as additional directional lights with the corresponding directional circuit.
0563675	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	**REAR CLEARANCE/MARKER/ID LIGHTING** There will be three (3) Truck-Lite®, Model 33050R, LED lights used as identification lights recessed and located at the rear of the apparatus per the following: As close as practical to the vertical centerline Centers spaced not less than 6.00" or more than 12.00" apart Red in color All at the same height There will be two (2) Truck-Lite, Model 33050R, LED lights recessed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following: To indicate the overall width of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the rear All at the same height There will be two (2) Truck-Lite, Model 33050R, LED lights recessed on the side of the apparatus as marker lights as close to the rear as practical per the following: To indicate the overall length of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the side All at the same height There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground. There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground. Per FMVSS 108 and CMVSS 108 requirements.
0804514	Lights, Tail, Wln M62BTT* Red Stop/Tail & M62T* Amber Dir Arw For Hsg	**REAR FMVSS LIGHTING** The rear stop/tail and directional lighting included in the rear tail light housing will include the following: Two (2) Whelen®, Model M62BTT, 4.30" high x 6.70" wide x 1.40" deep brake/tail lights with red LEDs Two (2) Whelen, Model M62T, 4.30" high x 6.70" wide x 1.40" deep directional lights with amber LEDs. The directional lights will be set to Steady On (Arrow) flash pattern. The lens color(s) to be clear.
0806466	Lights, Backup, Wln M62BU, LED, For Tail Lt Housing	There will be two (2) Whelen Model M62BU, LED backup lights provided in the tail light housing.
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	**LICENSE PLATE BRACKET** One (1) license plate bracket constructed of stainless steel will be provided at the rear of the apparatus. One (1) white LED light with chrome housing will be provided to illuminate the license plate. A stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.
0556842	Bezels, Wln, (2) M6 Chrome Pierce, For mtg (4) Wln M6 lights	**LIGHTING BEZEL** There will be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings with Pierce logos provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights.
0589905	Alarm, Back-up Warning, PRECO 1040	**BACK-UP ALARM** A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.
0578264	Flash Pattern, California Title13, LED Warning Lights	**WARNING LIGHT FLASH PATTERN** The flash pattern of all the exterior warning lights will be set to meet the certified California, Title XIII flash pattern by either the light manufacturer's default flash pattern or by a conversion change to the certified flash pattern.

0804836	SP	Lights, Cornering/Scene, Wln M62BU LED, Switches 2 lts, 1st	**CORNERING/SCENE LIGHTS** There will be two (2) of Whelen®, Model M62BU, white 12 volt DC LED lights with chro provided on the apparatus, no higher than the low beam headlights, (1) each corner of bumper, match #36591. The lights will be activated by a switch at the driver's side switch panel, by a switch at the passenger's side switch panel and when the left directional signal is activated, the left scene lights will activate. When the right directional signal is activated, the right scene lights will activate.
0056200		Mounting, Light, Recess (each)	**MOUNTING, RECESS LIGHT** There will be one (1) recessed pocket(s) for mounting light(s). The recessed pocket(s) will be provided passenger side rear body bulkhead.
0626588		Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	**CAB PERIMETER SCENE LIGHTS** There will be four (4) TecNiq, Model T10-LC00-1, 15.00" lights with white LEDs and 45 degree stainless steel brackets provided per the following: one (1) under the driver's side cab access step one (1) under the passenger's side cab access step one (1) under the passenger's side crew cab access step one (1) under the driver's side crew cab access step The lights will be activated when the battery switch is on, when the respective door is open and by the same control selected for the body perimeter lights.
0617901		Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	**PUMP HOUSE PERIMETER LIGHTS** There will be two (2) TecNiq, Model T10-LC00-1, 15.00" white 12 volt DC LED weatherproof strip lights provided under the pump panel running boards, one (1) each side. The lights will be controlled by the same means as the body perimeter lights.
0626579		Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear Step	**BODY PERIMETER SCENE LIGHTS** There will be two (2) TecNiq, Model T10-LC00-1, 15.00" 12 volt DC LED strip lights provided at the rear step area of the body, one (1) each side shining to the rear. The perimeter scene lights will be activated when a switch within reach of the driver is activated and a cab door is open.
0896454		Enhanced Software for Perimeter Lts	**ENHANCED SOFTWARE FOR PERIMETER LIGHTS** All perimeter lights will be deactivated when the parking brake is released unless alternate control is selected. The cab and crew cab perimeter lights will remain on for ten (10) seconds for improved visibility after the doors closed.
0556360		Lights, Step, P25 LED 4lts, Pump Pnl Sw	**STEP LIGHTS** Four (4) white LED step lights will be provided. One (1) step light will be provided on each side, on the front compartment face and two (2) step lights at the rear to illuminate the tailboard. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light. These step lights will be actuated with the pump panel light switch. All other steps on the apparatus will be illuminated per the current edition of NFPA 1901.
0892654		Light, Step, Additional, P25 LED	**ADDITIONAL STEP LIGHT** There will be Model P25 white LED step lights with chrome housing to provide additional lighting. The step lights will be installed on the front of the cargo sheet to illuminate the crosslay cover. The quantity of additional step lights will be two (2) lights. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The additional step lights will be activated by the same means as the standard step lights.
0765338	SP	Lights, Side Scene, Zico ZQL-SS-LED, Stainless, Cab Sw & Reverse	**SCENE LIGHTS** There will be one (1) pair of Ziamatic, Model ZQL-SS-LED, 450 lumen per light, 12 volt DC, white LED scene light(s) with stainless steel housing installed on the side of the apparatus, just ahead the side warning lights over the rear wheels, match #36591. The lights will be controlled by a switch in the cab per switch panel layout. The lights will also be activated when the transmission is placed into reverse. These lights may be load managed when the parking brake is set.

0626449	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 2nd	**12 VOLT LIGHTING** There will be one (1) Whelen Model NP6B*, 1,800 lumens 12 volt DC LED floodlight(s) and bail bracket to be located passenger side on the cab roof, as far forward as possible and under the lightbar towards the outboard side and angled at 45 degrees outwards per previous truck #32995 01-03. The painted parts of this light assembly to be black. The light(s) selected above will be controlled by the following: from the passenger's side cab scene light option control. a switch at the driver's side pump panel. no additional switch location. no additional switch location. These light(s) may be load managed when the parking brake is applied.
0626453	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 1st	**12 VOLT LIGHTING** There will be one (1) Whelen Model NP6B*, 1,800 lumens 12 volt DC LED floodlight(s) and bail bracket to be located driver side on the cab roof, as far forward as possible and under the lightbar towards the outboard side and angled at 45 degrees outwards per previous truck #32995 01-03. The painted parts of this light assembly to be black. The light(s) selected above will be controlled by the following: from the driver's side body scene light option control. a switch at the pump operator's panel. no additional switch location. no additional switch location. These light(s) may be load managed when the parking brake is applied.
0776357	Light, Visor, Wln, 12V P*H2* Pioneer, Cnt Feature, 1st	**12 VOLT LIGHTING** There will be one (1) Whelen® Model P*H2*, 17,750 lumens 12 volt DC light(s) with a combination of flood and spot optics provided on the front visor, centered. The housing(s) painted parts of this light assembly to be black. The light(s) will be controlled by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel. These light(s) may be load managed when the parking brake is applied.
0768059	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 2nd	**12 VOLT DC SCENE LIGHTS** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC powered light(s) with white LEDs installed on the cab located, RIGHT SIDE OF THE CAB ABOVE WINDOW. The surface mount housing(s) will be provided with a chrome cover. The light(s) will be activated by a switch at the driver's side switch panel and by a switch at the left side pump panel. The light(s) may be load managed when the parking brake is applied.
0768061	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 1st	**12 VOLT DC SCENE LIGHTS** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC powered light(s) with white LEDs installed on the cab located, LEFT SIDE OF THE CAB ABOVE WINDOW. The surface mount housing(s) will be provided with a chrome cover. The light(s) will be activated by a switch at the driver's side switch panel and by a switch at the left side pump panel. The light(s) may be load managed when the parking brake is applied.
0763608	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 2nd	**12 VOLT LIGHTING** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC surface mount light (s) installed on the body of the apparatus located, LS HATCH COMPARTMENT, CENTERED OVER LS2. The light(s) will include housing(s) with a chrome cover. The light(s) will be controlled by a switch at the left side pump panel and by the same control that has been selected for the driver's side scene light(s). The light(s) may be load managed when the parking brake is applied.
0763610	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 1st	**12 VOLT LIGHTING** There will be one (1) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC surface mount light (s) installed on the body of the apparatus located, on the RS Body Side Sheet up high centered over RS2. The light(s) will include housing(s) with a chrome cover. The light(s) will be controlled by a switch at the left side pump panel and by the same control that has been selected for the passenger's side scene light(s). The light(s) may be load managed when the parking brake is applied.
0532358	Not Required, Deck Lights, Other Hose Bed & Rear Lighting	

0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40" LED 4lts	**LIGHTS BELOW HOSE BED COVER** There will be four (4) Amdor Model AY-LB-12HW040, 700 lumens, 40.00" white LED lig provided to illuminate the hose bed area. Two (2) LED light strips will be installed on the driver's side hose bed cover 30.00" from the front and rear of the hose bed, as close to the hinge as practical. Two (2) LED light strips will be installed on the passenger's side hose bed cover 30.00" from the front and rear of the hose bed, as close to the hinge as practical. The lights will be activated when the battery switch is on, and when the hosebed cover is raised.
0778195	Lights, Rear Scene, Wln, PCPSM1C Pioneer LED Fld/Spt, Surface Mount	**REAR SCENE LIGHTS** There will be two (2) Whelen, Model PCPSM1, LED scene lights with chrome trim bezels installed at the rear of the apparatus. These lights will be installed between 30.00" and 102.00" above the ground. The lights will be controlled by a switch at the driver's side switch panel, by a switch at the driver's side pump panel and by a switch in a stainless steel cup located at the rear of the apparatus no more than 72.00" from the ground.
0709438	Lights, Walk Surf, FRP Flood, LED	**WALKING SURFACE LIGHT** There will be Model FRP, 4" round black 12 volt DC LED floodlight(s) with bolt mount provided to illuminate the entire designated walking surface on top of the body. The light(s) will be activated when the body step lights are on.
0060100	Pumper, Short, Galvanneal, 2nd Gen	
0554271	Body Skirt Height, 20"	
0063387	Tank, Water, 600 Gallon, Poly, Short	**WATER TANK** Booster tank will have a capacity of 600 gallons and be constructed of polypropylene plastic by United Plastic Fabricating, Incorporated. Tank will be T-shaped to provide for deep side compartments and to serve as a large sump to limit the amount of undraftable water. Tank joints and seams will be nitrogen welded inside and out. Tank will be baffled in accordance with NFPA bulletin 1901 requirements. Baffles will have vent openings at both the top and bottom to permit movement of air and water between compartments. Longitudinal partitions will be constructed of .38" polypropylene plastic and will extend from the bottom of the tank through the top cover to allow for positive welding. Transverse partitions will extend from 4.00" off the bottom of the tank to the underside of the top cover. All partitions will interlock and will be welded to the tank bottom and sides. Tank top will be constructed of .50" polypropylene. It will be recessed .38" and will be welded to the tank sides and the longitudinal partitions. Tank top will be sufficiently supported to keep it rigid during fast filling conditions. Construction will include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels will be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes. A sump that will be sized dependent on the tank to pump plumbing will be provided at the bottom of the water tank. Sump will include a drain plug and the tank outlet. Tank will be installed in a fabricated cradle assembly constructed of structural steel. Sufficient crossmembers will be provided to properly support bottom of tank. Crossmembers will be constructed of steel flat bar or rectangular tubing. Tank will "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, will be placed on all horizontal surfaces that the tank rests on. Stops or other provision will be provided to prevent an empty tank from bouncing excessively while moving vehicle. Mounting system will be approved by the tank manufacturer.
0003405	Overflow, 4.00" Water Tank, Poly	Fill tower will be constructed of .50" polypropylene and will be a minimum of 8.00" wide x 14.00" long. Fill tower will be furnished with a .25" thick polypropylene screen and a hinged cover. An overflow pipe, constructed of 4.00" schedule 40 polypropylene, will be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.
0028104	Foam Cell Required	
0633066	Sleeve, Through Tank	**SLEEVE, PLUMBING, THROUGH TANK** Two (2) sleeves will be provided in the water tank for a 2.50" pipe to the rear.
0553729	Not Required, Restraint, Water Tank, Heavy Duty	

0003429	Not Required, Direct Tank Fill	
0003424	Not Required, Dump Valve	
0048710	Not Required, Jet Assist	
0030007	Not Required, Dump Valve Chute	
0514778	Not Required, Switch, Tank Dump Master	
0126632	Hose Bed, Galv, Pumper	**HOSE BED** The hose bed will be fabricated of 12-gauge galvanneal steel. The sides will not form any portion of the fender compartments. Upper and rear edges of side panels will have a double break for rigidity. The upper inside area of the beavertails will be covered with brushed stainless steel to prevent damage to painted surface when hose is removed. Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats will be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation.
0723549	Painted Hose Bed	The hose bed interior walls will be painted to match the upper body color.
0003481	Hose Bed Capacity, Special	Hose bed will accommodate from left to right: hosebed #1= 200' of 1.5" Wildland pre-connect above shelf, #2 = 200' of 1.75" pre-connected below shelf, #3 = 600' 2.5", #4 = 600' of 5" additional 200' of 2.5" Blitz line. Most likely on RS of hose bed.
0689090	Divider, Hose Bed, .25" Unpainted, w/Handhold	**HOSE BED DIVIDER** Three (3) hosebed dividers will be furnished for separating hose. Each divider will be constructed of a .25" brushed aluminum sheet. Flat surfaces will be sanded for uniform appearance, or constructed of brushed aluminum. An oval opening will be provided near the rear of the divider to be used as a hand hold and aid in accessing the hose bed. Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed. Divider will be held in place by tightening bolts, at each end. Acorn nuts will be installed on all bolts in the hose bed which have exposed threads.
0010133	Cross-Divider, Hose Bed	A cross-divider will be provided just behind the fill tower. The divider will be bolted to the side sheet.
0058033	Shelf, Hinged, In Hose Bed, Between Side Sheet	**SHELF, HINGED IN HOSE BED** There will be one (1) hinged shelves, constructed of aluminum grating, provided for hose or equipment storage inside the hose bed located LS between side sheet and first divider on the left side. The shelf will be attached to the hose bed side sheet.
0730459	Cover, Hose Bed, Alum Treadplate, Bolted T-Bar	**HOSE BED COVER** A two (2) section hose bed cover, constructed of .125" bright aluminum treadplate, will be furnished. The cover will be hinged with full length stainless steel piano hinge. The sides will be slanted down with the center of the cover supported by a stationary modular bridgework support. The cover will be reinforced so that it can support the weight of a man walking on the cover. The cover is designed with the left cover opening first. If access to water tank fill tower is blocked by the hose bed cover, then a hinged door will be provided in it so that tank may be filled without raising cover doors. Chrome grab handles and gas filled cylinders will be provided to assist in opening and closing the cover. A handrail is provided at the rear, in the center of the support, to assist in opening the cover. The hose bed cover will be connected to the Do Not Move Truck indicator. The light will be activated if the cover is not in the stowed position and the parking brake is released.
0697328	Flap, Rear of Alum Hose Bed Cover, Two Piece, Vinyl, w/Seat Belt Buckles	**HOSEBED END FLAP** A pair of black vinyl flaps will be installed on the rear, one for each of the aluminum treadplate hose bed covers. The vinyl flap will be secured to the hose bed cover with quarter turn fasteners. Each vinyl flap will have (2) nylon tie down straps with seat belt buckles to secure the flaps at their base.

0695399		Running Boards, 14.75" Deep, Front and Rear 45 Degree Corners	**RUNNING BOARDS** Running boards will be fabricated of .125" bright aluminum treadplate. Each running board will be supported by a welded 2.00" square tubing and channel ass which will be bolted to the pump compartment substructure. Running boards will be 14.75" deep and spaced .50" away from the pump panel. The front and rear outside corner of the running board will be finished with a 45 degree corner where it lines up with the body. A splash guard will be provided above the running board treadplate.
0810369	SP	Tailboard, Folding, Space Saver - Tread Ext, Hinged 2 Pc 10" Bumper,PUC Style,2G	**TAILBOARD** The tailboard will be designed as a space saving work platform provided at the rear of the body. The platform will fold up to reduce overall truck length, angle of departure, and create a clean safe working platform by keeping rain, snow, and ice off the platform during transit. The platform will be 35.50" wide x 21.00" deep. When folded up, the platform will be the lower section of the rear compartment door. The external surface of the platform will be covered in aluminum treadplate. When folded down, the platform will provide a treadplate stepping surface with a rated capacity of 500 lb. **REAR BUMPER** A two (2) piece rear bumper will be provided at the rear of the apparatus. The bumper will be a two (2) piece design, allowing the folding platform to operate in the center of the unit. The bumper will be fabricated from bright aluminum treadplate and be 10.00" in depth. Each piece of the bumper will be hinged to allow the piece to fold up if struck from beneath in an angle of departure scenario.
0690027		Wall, Rear, Smooth Aluminum/Body Material, Flush Rear Wall	**REAR WALL, SMOOTH ALUMINUM/BODY MATERIAL** The rear facing surfaces of the center rear wall will be smooth aluminum. The bulkheads, the surface to the rear of the side body compartments, will be smooth and the same material as the body. The rear wall will be flush.
0887592	SP	Tow Eyes, w/Tow Bar, Spaced Forward, 2G Pumper	**REAR TOW EYES** Two (2) tow eyes, which are an integral part of the body mounting substructure, will be installed below the rear of the truck. The tow eyes will be of adequate strength to allow the truck to be pulled from the eyes. **REAR TOW BAR** One (1) tow bar will be installed under the tailboard, 5.00" forward from the rear of the tailboard. With air ride suspension and a 65 gallon fuel tank, the tow bar will be located .50" further rearward than normal when there is this combination of options. The tow bar assembly will be designed and positioned to allow up to a 20,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow bar design will have been tested and evaluated using finite element analysis techniques.
0623362		Hose Restraint, Running Board, Straps, S/S Seat Belt Buckle Style Latch	**RUNNING BOARD HOSE RESTRAINT** A pair of 2.00" wide black nylon straps with stainless steel seat belt buckle style latches will be provided for each hose tray to secure the hose during travel. There will be Two (2) hose trays located one (1) in each side running board.
0695615		Tray, Hose, Running Board, Free Floating, 20' of 5.00" Soft Suction, Tapered	**HOSE TRAY** Two (2) hose trays will be made free floating one (1) in each side running board. The tray(s) will be flanged and drop in from the top. The ends will be tapered at the front and rear towards the center. No fasteners will be used to secure the tray(s). Capacity of the tray will be 20.00' of 5.00" soft suction hose. Rubber matting will be installed on the floor of the tray to provide proper ventilation. Drain holes will be provided.

0895816	Construction, Compt, Galv, 2G Pumper	**COMPARTMENTATION** Body and compartments will be fabricated of galvanneal steel. Side compartments will be an integral assembly with the rear fenders. Circular fender liners will be provided for prevention of rust pockets and ease of maintenance. Side compartment flooring will be 12-gauge and of the sweep out design, with the floor higher than the compartment door lip. The side compartment door opening will be framed by flanging the edges in 1.75" and bending out again 0.75" to form an angle. Drip protection will be provided above the doors by means of bright aluminum extrusion, formed bright aluminum treadplate, or polished stainless steel. The top of the compartment will be covered with bright aluminum treadplate rolled over the edges on the front, rear, and outward side. These covers will have the corners TIG welded. Side compartment covers will be separate from the compartment tops. Front facing compartment walls will be covered with bright aluminum treadplate. All screws and bolts which protrude into a compartment will have acorn nuts on the ends to prevent injury. **UNDERBODY SUPPORT SYSTEM** Due to the severe loading requirements of this pumper, a method of body and compartment support suitable for the intended load will be provided. The backbone of the support system will be the chassis frame rails, which is the strongest component of the chassis and designed for sustaining maximum loads. The support system will include 0.375" thick steel vertical angle supports bolted to the chassis frame rails with 0.625" diameter bolts. Attached to the bottom of the steel vertical angles will be horizontal angles, with gussets welded to the vertical members, which extend to the outside edge of the body. A steel frame will be mounted on the top of these supports to create a floating substructure, which results in a 500 lb equipment support rating per lower compartment. The steel frames as well as the steel vertical angles will be treated with an epoxy E-coat to provide resistance to corrosion and chemicals as standard. The floating substructure will be separated from the horizontal members with neoprene elastomer isolators. These isolators will reduce the natural flex stress of the chassis from being transmitted to the body. The isolators will have a broad load range, proven viability in vehicular applications, be of a fail safe design and allow for all necessary movement in three (3) transitional and rotational modes. The neoprene isolators will be installed in a modified V three (3)-point mounting pattern to reduce the natural flex of the chassis being transmitted to the body. A design with body compartments hanging on the chassis, unsupported, will not be acceptable. **AGGRESSIVE WALKING SURFACE** All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards. **LOUVERS** Louvers will be stamped into compartment walls to provide the proper airflow inside the body compartments and to prevent water from dripping into the compartment. Where these louvers are provided, they will be formed into the metal and not added to the compartment as a separate plate. **TESTING OF BODY DESIGN** Body structural analysis will be fully tested. Proven engineering and test techniques such as finite element analysis, strain gauging, and model analysis will be performed with special attention given to fatigue, life and structural integrity of the cab, body and substructure. The body will be tested while loaded to its greatest in-service weight. The criteria used during the testing procedure will include: Raising opposite corners of the vehicle tires 9.00", simulating the twisting a truck may experience when driving over a curb. Making a 90 degree turn while at 20 mph, simulating aggressive driving conditions. Driving the vehicle at 35 mph on a washboard road. Driving the vehicle at 55 mph on a smooth road. Accelerating the vehicle fully, until reaching the approximate speed of 45 mph, on rough pavement. Evidence of actual testing techniques will be made available upon request.
0551417	LS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	**LEFT SIDE COMPARTMENTATION** The left side compartmentation will consist of three lap door compartments. A full height, vertically hinged, single door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 22.50" wide x 66.63" high x 25.88" deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 16.63" wide x 61.88" high. A horizontally hinged, single lift-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 59.25" wide x 27.00" high. A full height, vertically hinged, double door compartment behind the rear wheels will be provided.**The interior dimensions of this compartment will be 47.75" wide x 61.63" high x 25.88" deep in the lower 20.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 43.50" wide x 56.88" high. The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame.** **Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.** **The vertically hinged doors will be furnished with a positive door holder.** **The lift-up door will be furnished with two gas-charged cylinders to assist in the opening of the door and to maintain the door in an open position. There will be a field adjustable, three-position bracket mounted on the vertical side door opening that will allow the door to be held open at 87°, 90°, or 93°.**

0551418		RS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	**RIGHT SIDE COMPARTMENTATION** The right side compartmentation will consist of three lap door compartments. A full height, vertically hinged, single door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 22.50" wide x 66.63" high x [illegible] deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 16.63" wide x 61.88" high. A horizontally hinged, single lift-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 59.25" wide x 27.00" high. A full height, vertically hinged, double door compartment behind the rear wheels will be provided.**The interior dimensions of this compartment will be 47.75" wide x 61.63" high x 25.88" deep in the lower 20.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 43.50" wide x 56.88" high. The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame.** **Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.** **The vertically hinged doors will be furnished with a positive door holder.** **The lift-up door will be furnished with two gas-charged cylinders to assist in the opening of the door and to maintain the door in an open position. There will be a field adjustable, three-position bracket mounted on the vertical side door opening that will allow the door to be held open at 87°, 90°, or 93°.**
0063911		Doors, Lap w/ "D" Handles - Side Compartments	**SIDE COMPARTMENT DOORS** All hinged compartment doors will be lap style with double panel construction and will be a minimum of 1.50" thick. The doors will be made out of the same material as the body. To provide additional door strength a "C" section reinforcement will be installed between the outer and interior panels. Doors will be provided with a closed cell rubber gasket around the surface that laps onto the body. A second heavy-duty automotive rubber molding with a hollow core will be installed on the door framing that seals onto the interior panel, to ensure a weather resisting compartment. All compartment doors will have polished stainless steel continuous hinge with a pin diameter of .25" that is bolted or screwed on with stainless steel fasteners. (Hinges which are welded on will not be acceptable.) All door locking mechanisms will be fully enclosed within the door panels to prevent fouling of the lock in the event equipment inside shifts into the lock area. Doors will be latched with recessed, polished stainless steel "D" ring handles and FMVSS approved door locking mechanisms. To prevent corrosion caused by dissimilar metals, compartment door handles will not be attached to outer door panel with screws. A rubber gasket will be provided between the "D" ring handle and the door.
0672652	SP	Compt, Flush Rear, Rollup/Space Saver, 37.75" FF, 25.88" D, 2nd Gen	**REAR COMPARTMENTATION** A roll-up door compartment above the rear tailboard will be provided**.** Interior dimensions of this compartment will be 40.00" wide x 40.63" high x 25.88" deep in the lower 32.38" of the compartment and 15.75" deep in the remaining upper portion. Depth of the compartment will be calculated with the compartment door closed. A louvered, removable access panel will be furnished on the back wall of the compartment. Rear compartment will be open into the rear side compartments. Clear door opening of this compartment will be 33.25" wide x 33.00" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.
0692740		Doors, Swing Tailboard/Gortite Rollup, Rear Compartment, PUC	**ROLLUP-SWING DOWN REAR COMPARTMENT DOOR** The rear compartment will have a swing down tailboard as the lower section of the door and a roll door for the upper section. The rollup door will be double faced aluminum construction, an anodized satin finish and manufactured by Gortite®. Lath sections will be an interlocking rib design and will be individually replaceable without complete disassembly of door. Between each slat at the pivoting joint will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals will allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals will be provided to resist ingress of dirt and weather and be made of Santoprene. All hinges, barrel clips and end pieces will be nylon 66. All nylon components will withstand temperatures from 300 to -40 degrees Fahrenheit. A polished stainless steel lift bar with locking key latches to be provided for each roll-up door. The keys to be Model 751 to match all compartment and cab doors. Lift bar will be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge will be supplied over lift bar for additional area to aid in closing the door. Door will be constructed from an aluminum box section. The exterior surface of each slat will be flat. The interior surface will be concave to provide strength and prevent loose equipment from jamming the door from inside. To conserve space in the compartments, the spring roller assembly will not exceed 3.00" in diameter. The header for the rollup door assembly will not exceed 4.00". A heavy-duty magnetic switch will be used for control of open compartment door warning lights.
0554995		No Body Modification Required	

0019845		Guard, Drip Pan, S/S, Rollup Door	**DOOR GUARD** There will be one (1) compartment door that will include a guard/drip pan designed to pr roll-up door from damage when in the retracted position and contain any water spray. T will be fabricated from stainless steel and installed B1.
0505888		Keyed Locks for Latches, Lap Doors (#751 Lock)	**KEYED LOCK(S)** There will be six (6) compartment doors that require a keyed lock. The compartments to have a keyed lock will be ALL LAP DOORS.
0533468	SP	Web Strap Door Stops on Compt Doors	**DOOR STOP WEB STRAP,** four (4) compartment doors will be provided with front cab door strap to keep the high side compartment doors from hitting the lift up compartment doors. LS1, LS3, RS1, RS3.
0731558		Pull Strap for Liftup Doors	**LIFTUP DOOR PULL STRAPS** two (2) compartment doors will be provided with pull straps. The pull straps will be 12.00" long and black in color. The straps will be installed directly to the inside of the liftup door. The liftup door compartments to have these straps will be LS2 and RS2.
0003919		Reverse Hinge Compartment Door	**REVERSE HINGED DOOR** The two (2) compartment doors, located LS3/RS3, will have the hinge at the rear of the door.
0068512	SP	Scuffplate, Clear Lexan and White Vinyl, Half Height of Compt Door	**SCUFFPLATE ON INTERIOR OF COMPARTMENT DOOR(S)** one (1) compartment door will include a 0.118" thick clear lexan scuffplate to cover the entire width and the top one-half height on the inside panel of each door pan. A piece of white vinyl material will be applied back side of the lexan scuffplate. Scuffplate will be located Upper portion of LS3.
0616670		Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker	**COMPARTMENT LIGHTING** There will be seven (7) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips will be centered vertically along each side of the door framing. There will be two (2) light strips per compartment. The dual light strips will be in all body compartment (s). Any remaining compartments without light strips will have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light will have a number 1076 one filament, two wire bulb. Opening the compartment door will automatically turn the compartment lighting on.
0739915		Hatch, (2) Liftup, Pumper	**HATCH COMPARTMENT** One (1) hatch compartment will be provided above the left side compartments. Each hatch compartment will extend the full length of the side body compartmentation x 13.75" wide. The height of each hatch compartment will match the side sheet height or be below the side sheet by a minimum of 3.00" to a maximum hatch height of 22.00". Sides of the compartment will be constructed of the same material as the body and painted job color. A 2.00" tall formed aluminun painted to match the upper body color will be provided to cover the seam between the top of the body panel and the bottom of the hatch compartment. The vertical outboard seam at the center of the compartment will be smooth weld finished and painted. The top of the compartment will be constructed of bright aluminum treadplate. Two (2) lift-up, bright aluminum treadplate doors will be provided on the top of the compartment. Doors will have lipped edges with a rubber seal for weather resistance. Each door will have a socket and plunger type latch and chrome grab handle. Doors will be hinged on the outboard side and will utilize a gas strut (or rubber covered chain on narrow width doors) Compartment will drain to an area below the hose bed. Black Turtle Tile mattin shall be provided to help prevent stored equipment in pooled water.
0730092		Not Required	
0733220		Lights, Hatch Compt, 42", LED, Light Strips, 1-Sides 2 Dr	**COMPARTMENT LIGHTING** There will be a 42.00" 12 volt DC strip light with white LEDs mounted on the interior, hinged side of each door. The lights will be mounted with mechanical fasteners. The lights will be activated when the battery switch is on and the door is opened.
0760868		Lights, Cargo/Dunnage, Dual LED Light Strips, Each Side	**CARGO/DUNNAGE AREA LIGHTING** There will be two (2), 12 volt DC strips lights with white LEDs and stainless steel protective cover, provided to illuminate the cargo area. One (1) light strip will be installed the entire length of the left side of the cargo area. One (1) light strip will be installed the entire length of the right side of the cargo area. The light(s) will be activated when the parking brake is applied.

0687146		Shelf Tracks, Painted	**MOUNTING TRACKS** There will be six (6) sets of tracks for mounting shelf(s) in LS1, LS2, LS3, RS1, RS3 and These tracks will be installed vertically to support the adjustable shelf(s). The tracks will painted to match the compartment interior.
0600350		Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	**ADJUSTABLE SHELVES** There will be 12 shelves with a capacity of 500 lb provided. The shelf construction will consist of .188" aluminum painted spatter gray with 2.00" sides. Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track. The shelves will be held in place by .12" thick stamped plated brackets and bolts. The location(s) will be in LS1 at the depth transition point to the left of the partition, in RS3 in the upper third, in RS3 in the upper third, in RS1 in the upper third, in RS1 in the upper third, in RS1 on the ladder rack actuator cover, in RS3 on the ladder rack actuator cover, in LS2 centered between the floor and ceiling, in B1 centered between the floor and ceiling, in LS3 in the upper third, in LS1 in the upper third to the left of the partition and in LS3 at the depth transition point.
0709690		Tray, 250 lb Slide-out, 2" Sides - Adj. Height, Predefined Locations	**SLIDE-OUT ADJUSTABLE HEIGHT TRAY** There will be one (1) slide-out tray provided. Each tray will have 2.00" high sides and a minimum capacity rating of 250 lb in the extended position. Each tray will be constructed of aluminum painted spatter gray. Each tray will be mounted on a pair of side mounted slides. The slide mechanisms will have ball bearings for ease of operation and years of dependable service. The slides will be mounted to shelf tracks to allow the tray to be adjustable up and down within the designated mounting location. An automatic lock will be provided for both the in and out tray positions. The lock trip mechanism will be located at the front of the tray and will be easily operated with a gloved hand. The location(s) will be in LS3 in the lower third
0540335		Toolboard, Swing-out, Alum, .188", No Holes	**SWING OUT TOOLBOARD** A swing out aluminum toolboard will be provided. It will be a minimum of .188" thick without holes in the board. A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard. The board will be mounted on a pivoting device at the back of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load will be 400 pounds. The board will have positive lock in the stowed and extended position. The board will have a D-ring handle to secure it in the stowed position The board will be mounted on adjustable tracks from front to back within the compartment. There will be One (1) toolboard(s) provided. The toolboard(s) will be spatter gray painted and installed RS2.
0726441		Partition, Trans Rear Compt	**PARTITION, TRANSVERSE REAR COMPARTMENT** Two (2) partitions will be bolted in place to separate the left and right side rear compartments from the rear tailboard compartment. The partition will be body material painted spatter gray.
0726457		Partition, Vertical Compt, Predefined Locations	**VERTICAL COMPARTMENT PARTITION** Two (2) partitions will be provided. The partition construction will consist of body material painted spatter gray. Each partition will be the full vertical height of the compartment. The location(s) will be in LS1, 30.00" from the forward door frame and in LS2, 26.00" from the forward door frame.
0799343	SP	Bracket, SCBA, Zico SC-50-H-6-SF, with PHS	**AIR BOTTLE HOLDERS** There will be one (1) Ziamatic, Model SC-50-H-6-SF, SCBA holder(s) with PHS (positive holding strap) provided. The bracket(s) will be located LS2 forward of the Vertical Divider.
0004016		Rub Rail, Aluminum Extruded, Side of Body	**RUB RAIL** Bottom edge of the side compartments will be trimmed with a bright aluminum extruded rub rail. Trim will be 2.12" high with 1.38" flanges turned outward for rigidity. The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.
0784811		Fender Crowns, Rear, Stainless, w/Removable Liner	**BODY FENDER CROWNS** Polished stainless steel fender crowns will be provided around the rear wheel openings with a dielectric barrier will be provided between the fender crown and the fender sheet metal to prevent corrosion. The fender crowns will be held in place with stainless steel screws that thread directly into a composite nut and not directly into the parent body sheet metal to eliminate dissimilar metals contact and greatly reduce the chance for corrosion. Rubber welting will be provided between the body and crown. **BODY FENDER LINER** A painted to match the lower body color fender liner will be provided. The liners will be removable to aid in the maintenance of rear suspension components.

0519849	Not Required, Hose, Hard Suction	**HARD SUCTION HOSE** Hard suction hose will not be required.
0626229	Handrails, Side Pump Panels, Per Print	**HANDRAILS** The handrails will be 1.25" diameter knurled aluminum to provide a positive gripping surface. Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces. Drain holes will be provided in the bottom of all vertically mounted handrails. Handrails will be provided to meet NFPA 1901 section 15.8 requirements. The handrails will be installed as noted on the sales drawing.
0005261	No Handrail Required, Beavertail	**HANDRAILS** Handrails will not be required on the beavertail.
0011212	Handrail, Not Required, Rear Hose Bed, Pumper	
0636301	Compt, Extinguisher (2) Fender Panel, Triangular Door	**EXTINGUISHER/AIR BOTTLE/ STORAGE (Triangular)** A total of one (1) extinguisher/air bottle/storage compartments will be provided RS REAR. The triangular shaped compartment will be sized to fit a 8.00" diameter extinguisher in the lower area and a 8.00" diameter extinguisher in the upper area. The compartment will be approximately 25.50" deep. A partition will be provided to separate the compartment. Also inside the compartment, black Dura-Surf friction reducing material will be provided. The compartment will be furnished with a drain hole. A painted stainless steel, triangular shaped door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottles. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal. **AIR BOTTLE COMPARTMENT STRAP** A strap will be provided in the air bottle compartment(s) to help contain the bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.
0657522	Compt, Air Bottle, Triple, Fender Panel	**AIR BOTTLE STORAGE (Triple)** A quantity of two (2) air bottle compartments designed to hold (3) air bottles up to 7.25" in diameter x 26.00" deep will be provided on the left side forward of the rear wheels and on the right side forward of the rear wheels. A painted stainless steel door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal. Inside the compartment, black Dura-Surf friction reducing material will be provided. **AIR BOTTLE COMPARTMENT STRAP** A strap will be provided in the air bottle compartment(s) to help contain the air bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.
0004225	Ladder, 24' Duo-Safety 900A 2-Section	**EXTENSION LADDER** There will be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.
0004230	Ladder, 14' Duo-Safety 775A Roof	**ROOF LADDER** There will be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.

0015036		Rack, Ladders, Hydraulic, Right Side, Air Clamps	**HYDRAULIC LADDER RACK** Ground ladders will be mounted above the right side of the hose body in a specially des swing-down cradle. This cradle will be electric/hydraulic operated. The system design w been life cycle tested for dependable service. An independent hydraulic pump powered by a 12-volt electric motor will operate the hydraulics. The hydraulic pump and reservoir will be accessible from the ground through a stainless steel inspection door. The ladder rack will incorporate two hydraulic rotary actuators, one each located inside the front compartment and the rear compartment. The actuators will be completely enclosed within each compartment to eliminate any pinch points while operating the ladder rack. Lifting arms will be attached outside the compartment body to the front and rear actuator. The rack can be designed in certain situations to provide lifting capabilities up to 500 lb. The maximum height of the rack from the ground in the lowered position will be no more than 47.00". The electric control panel will have a master switch on/off switch, an actuation switch, an operation indicator light and operation instructions. The electric controls will be located at the pump panel adjacent to the ladder rack in such a manner to allow the operator full view of the area into which the ladders will be lowered. Two (2) air operated safety locks will be furnished to securely maintain the ladder bracket assembly in the travel position. These air operated safety locks will be controlled from the ladder rack control panel. A polished stainless steel enclosure shall be provided over the hydraulic ladder rack locks at the front and the rear on the right side to cover the ladder rack locks (2) and provide mounting for any rear warning lights. Ladders will be secured to the brackets with two (2) locks retaining the roof ladder and the extension ladder. The locks will be such that when the roof ladder is removed, the clamps can be moved a half turn to hold the extension ladder in place. **LADDER RACK INTERLOCK AND NOT STOWED INDICATOR LIGHT** An interlock will be provided to prevent operation of the ladder rack unless the apparatus parking brake has been activated. A steady red indicator light will be located on the cab instrument panel and illuminated when the hydraulic ladder rack is not in the stowed position. The light will be labeled "Ladder Rack". In addition, the "Do Not Move Apparatus" light located in the cab will be activated when the hydraulic ladder rack is not in the stowed position.
0756375		Lights, Hyd Lad Rack Deployed, Truck-Lite 15****	**HYDRAULIC LADDER RACK DEPLOYED LIGHTS** There will be two (2) Truck-Lite catalog number 15***, 1.20" high x 2.49" wide x 0.94" deep lights with chrome trim, amber flashing LEDs and provided per the following: One (1) light installed on the front of the hydraulic ladder rack One (1) light installed on the rear of the hydraulic ladder rack The warning light lens color(s) to be clear The lights will be activated when the battery switch is on and the hydraulic ladder rack is not in the stowed position.
0733387		Ladder, 10' Duo-Safety Folding 585A	**FOLDING LADDER** One (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder will be installed.
0024499		Arm, Rear, Offset, Hydraulic Rack 2000, Recess Light	The rear hydraulic rack arm will have an offset to not block the rear upper zone warning lights.
0024798		Arms, Raise Pivot Point, 6", Hydraulic Ladder Rack	The ladder rack pivot point will be raised 6.00" on the RS per Pre-Lim to change the lifting capacity of the rack.
0674764	SP	Trough, Aluminum, for Folding Ladder on Hyd Ladder Rack	**TROUGH, ALUMINUM, FOLDING LADDER** There will be an aluminum trough provided on the hydraulic ladder rack to mount the folding ladder.
0725371		Compt w/Door, Backboard, Over Pump	**BACKBOARD STORAGE** A transverse area over the pump and rearward of the crosslays will hold one (1) storage trough. A blister will be supplied at each side to enclose the backboards due to their length. The backboards will be accessible from either side of the vehicle through the aluminum treadplate door(s) with a pair of flush lift and turn latches. The door(s) will be hinged along the rearward edge. The size of the backboard(s) to be stored will be 74.00" long x 18.00" wide x 3.00" high.
0074337		Pike Pole, 6' Nupla, Fiberglass, Featherlight, YPD-6	**PIKE POLE, 6'** One (1) pike pole 6' long with a Nupla Featherlight fiberglass handle will be provided and located Tube on Ladder Rack.
0074336		Pike Pole, 8' Nupla, Fiberglass, Featherlight, YPD-8	**8' PIKE POLE** One (1) pike pole, 8' long with a Nupla Featherlight fiberglass handle will be provided and located Tube on Ladder Rack.

0013950		Pike Pole, 10' Nupla, Fiberglass, Featherlight, YPD-10	**PIKE POLE, 10'** One (1) pike pole, 10' long with a Nupla Featherlight fiberglass handle will be provided a located Tube on Ladder Rack.
0763088	SP	Trash Hook, 8' Fire Hooks Unlimited, Fiberglass, TRH-8, w/D Handle, Turn 90 Deg	**8' PIKE POLE** One (1) pike pole, 8' long trash hook(s), Fire Hooks Unlimited, Model TRH-8 with D-handle will be provided and located RS Long tool compartment. The D-handle will be orientated to be in line with the hook head to allow it to lie flat in a trough.
0567897		Pike Pole, 8' Fire Hooks Unlimited, New York Roof Hook, Steel, Pry End, RH-8	**8' PIKE POLE** There will be one (1) Fire Hooks Unlimited, New York Hook , 8' long roof hook with steel shaft and chisel (pry) end provided RS Long tool compartment.
0552649		Pike Pole, 6' Fire Hooks Unlimited, New York Roof Hook, Steel, Pry End, RH-6	**6 FT PIKE POLE** There will be one (1) Fire Hooks Unlimited NY roof hook RH-6, 6 foot pike pole(s) with steel handles and pry end provided Tubes in Aux Cab Transverse compartment.
0767871	SP	Compt, Long Tools, Btwn Tank & Side Sheet/Below Tank Tee, RS	**LONG TOOL STORAGE** One (1) compartment will be provided below the tank tee between the tank and side sheet on the right side. The compartment will be roughly Maximum size available for area below tank tee on RS, Depth to be set by customer at Pre-Con in size. A door will be provided at the rear of the compartment for access. The door will be made of smooth aluminum with a Southco C2 chrome raised trigger lever latch. The door will be hinged along the outboard edge.
0081834		Trough for D-Handled Trash Hook, Qty	**TRASH HOOK STORAGE** There will be one (1) stainless steel U-shaped trough(s) provided for storage of D-handle style trash hook(s). The trough(s) will be installed RS Long tool compartment.
0058193		Tubes, Alum, Pike Pole Storage, Spcl Notch, NY PP Head	**PIKE POLE STORAGE** Aluminum tubing will be used for the storage of two (2) pike poles and will be located RS long tool compartment. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided. The pike pole tube will be notched to allow a New York style pike pole to fit into the tube.
0004361		Tubes, Alum, Pike Pole Storage	**PIKE POLE STORAGE** Aluminum tubing will be used for the storage of three (3) pike poles and will be located on hydraulic ladder rack. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided.
0785102		Steps, Folding, Front of Body, Cargo Bed Access, w/LED, Trident	**FOLDING STEPS FRONT OF BODY** Folding steps will be provided full height on the left side body compartments to provide access to the cargo bed. Steps will be spaced evenly on the sales drawing. Actual quantity may vary due to pump panel interferences but will meet the NFPA required maximum stepping height. The Trident steps will be bright finished, non-skid with a black tread coating on the stepping surface. The step will incorporate an LED light to illuminate the stepping surface. The steps can be used as a hand hold with two openings wide enough for a gloved hand.
0561510	SP	Steps, Rear Compartment Width, 8", Rear of Body	One (1) bright aluminum treadplate full width step will be provided above the rear compartment. This step will be approximately the same width as the rear comparment. Gussets will be provided to ensure the proper support and structural integrity of the step. The remaining steps will be bright aluminum treadplate corner steps. All rear steps will provide adequate surface for stepping and will be located in accordance to NFPA 1901.
0601853	SP	I Zone Bracket, Pair, Through Rear Wall, Removable,18"	**I-ZONE BRACKETS** Two (2) removable I-Zone brackets will be provided and mounted at the rear of the apparatus recessed through the rear of the body as shown on the AD . The brackets will be "L" shaped and extend approximately 18.00" from the body in the deployed position and extend up 8.00". There will be a steel pin to secure the brackets in the stowed position. The brackets will be constructed of .75" diameter aluminum tubing at minimum. The brackets will be designed with adequate reinforcement to eliminate flexing of the body (oil canning) and not interfere with any of the rear facing zone lights when carrying hose.
0684975	SP	Step, Rung, Camper Style, Pull-out & Drop Down, 14" Wide	**STEP, PULL-OUT/DROP DOWN** One (1) pull-out step will be provided. Each step rung will be 14" wide and will pull out and drop down to provide easy access. The step will be located on the left side below rear bulkhead mounted 5" forward from rear of body.

0780037	Pump, Auxiliary, Waterous, CPK-2, Hyd PTO Drive, 300 GPM, 2016 NFPA 1901	**AUXILIARY PUMP** A hydraulic driven 3.00" suction, 2.00" discharge Waterous CPK-2 centrifugal pump will be provided for pump and roll operations. The pump will have a gear type hydraulic motor. The pump will have a high tensile gray iron case. Bronze double hubbed impeller mechanically and hydraulically balanced will be installed on a heat treated and ground stainless steel shaft. Impeller shaft will be supported by oil lubricated ball bearings. Pump gear case will have silent running helical gears fully supported by ball bearings. A variable displacement piston type hydraulic pump supplying the hydraulic motor on the water pump will be supplied. The displacement of the hydraulic pump will be controlled by a fixed orifice type, load sensing, hydraulic circuit. The hydraulic system will have a properly sized reservoir, cooler, filter and accessory components. The components will be mounted in the vehicle body to facilitate routine maintenance operations. The hydraulic drive design will be certified by manufacturer of the primary hydraulic components as suitable for the intended use and duty. All components of the water pump and drive system will be readily available on the domestic hydraulic market (USA). An auxiliary main pump drain will be supplied. **PUMP PERFORMANCE** The pump will be rated by the pump manufacturer on bench testing to the deliver the following performance at 1000 engine rpm. These numbers will be reduced when installed on the apparatus due to plumbing restrictions and/or the location of this water pump. - 300 gpm @ 150psi - 300 gpm @ 165psi - 210 gpm @ 200psi - 150 gpm @ 250psi This pump will also meet NFPA 1901 section 16.2.2 for pump and roll performance/requirements. It will deliver at least 20 gpm @ 80 psi while moving at 2 mph or less.
0626923	Installation Location, Aux Pump, Inside Pump house Area	**AUXILIARY PUMP INSTALLATION** The auxiliary pump will be installed and located within the main pump module.
0788341	Not Required, Fuel Supply, (Hydraulic Drive Pump)	
0626844	Not Required, Exhaust Routing, Aux Pump	
0787477	Discharge Connections, Aux Pump, Standard, w/Foam System	**AUXILIARY PUMP DISCHARGE CONNECTIONS** A discharge manifold will be supplied as required to allow plumbing of the required discharges. This pump will supply water to all foam capable discharge outlets Check valve(s) will be provided to prevent backflows between the main pump and the auxiliary pump.
0626917	Tank to Pump Line, Hyd Aux Pump, 2.50", Separate Tank to Pump Line	**AUXILIARY PUMP -TANK TO PUMP CONNECTION** An independent 2.50" tank to pump piping with a 2.50" valve will be provided for the auxiliary pump. It will not be part of the main pump's tank to pump line nor draw water through the main pump. The design will include a method for anti-swirl protection and prevent pump cavitation. The tank to pump line will run from the pump into the front face of the water tank. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing. A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank. This tank to pump connection will have an electric valve that will open when the Pierce hydraulic pressure controller(s) "ON" switch is activated. The valve will close when the "OFF" switch is activated. The electric tank to pump valve will not be gateable.
0626935	Primer, Aux Pump, Included w/Main Pump Primer	**AUXILIARY PUMP PRIMER** The auxiliary pump system will be primed with the main pump primer as defined elsewhere in this specification.
0788354	Controls, Hydraulic Aux Pump, Pierce, Dual	**AUXILIARY PUMP GAUGES AND CONTROLS** There will be PTO switch(s) and indicator light(s) provided in the cab near the driver's position and on left pump operator's panel for engaging the water pump PTO. To control the pump pressure and activate the water pump, a Pierce electronic water pressure controller(s) will be provided in the cab near the driver's postion and on left pump operator's panel. The electronic water pressure controller(s) will mounted on an integrated panel and contain a digital pressure gauge along with pump and system status indicators and a pump pressure adjustment knob.

0626933		Line, Recirculating, Aux Pump, 499gpm and less, 0.375", Automatic	**AUXILIARY PUMP AUTOMATIC RECIRCULATING LINE** The auxiliary pump will be furnished with a 0.375" automatic pump recirculating line with a valve. The line will be routed from the discharge side of the auxiliary pump to the water tank. This line will be designed to circulate water continuously from the auxiliary pump back to the tank to help maintain the water pump temperature at a safe level. The recirculating line will be plumbed into the water tank dome. It will include a check valve to facilitate priming and prevent water backflow. The check valve will be installed as close as possible to the water tank dome.
0777533	SP	Engineering Review of Aux Pump System Completed - APPROVED	
0007575		Pump House, Side Control, 48", Control Zone	**PUMP COMPARTMENT** The pump compartment will be separate from the hose body and compartments so that each may flex independently of the other. The pump compartment will be constructed of the same material as the body compartmentation. The pump compartment substructure will be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards. The pump compartment will be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist. Pump compartment, pump, plumbing and gauge panels will be removable from the chassis in a single assembly. **PUMP MOUNTING** Pump will be mounted to a substructure which will be mounted to the chassis frame rail using rubber isolators. The mounting will allow chassis frame rails to flex independently without damage to the fire pump. **LEFT SIDE PUMP CONTROL PANEL** All pump controls and gauges will be located at the left (driver's) side of the apparatus and properly identified. Layout of the pump control panel will be ergonomically efficient and systematically organized. The pump operator's control panel will be removable in two (2) main sections for ease of maintenance: The upper section will contain sub panels for the mounting of the pump pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable). Sub panels will be removable from the face of the pump panel for ease of maintenance. Below the sub panels will be located all valve controls and line pressure gauges. The lower section of the panel will contain all inlets, outlets, and drains. All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding. **IDENTIFICATION TAGS** The identification tag for each valve control will be recessed in the face of the tee handle. All discharge outlets will have color coded identification tags, with each discharge having its own unique color. Color coding will include the labeling of the outlet and the drain for each corresponding discharge. All line pressure gauges will be mounted directly above the corresponding discharge control tee handles and recessed within the same chrome plated casting as the rod guide for quick identification. The gauge and rod guide casting will be removable from the face of the pump panel for ease of maintenance. The casting will be color coded to correspond with the discharge identification tag. All remaining identification tags will be mounted on the pump panel in chrome plated bezels. The pump panel on the right (passenger's) side will be removable with lift and turn type fasteners. Trim rings will be installed around all inlets and outlets.
0035500		Raised Pump House Structure, Side Control	

0004425	Pump, Waterous, CSU, 1500 GPM, Single Stage	**PUMP** Pump will be a Waterous CSU, 1500 gpm single (1) stage midship mounted centrifugal Pump will be the class "A" type. Pump will deliver the percentage of rated discharge at pressures indicated below: - 100% of rated capacity at 150 psi net pump pressure. - 70% of rated capacity at 200 psi net pump pressure. - 50% of rated capacity at 250 psi net pump pressure. Pump body will be close-grained gray iron, bronze fitted, and horizontally split in two (2) sections for easy removal of the entire impeller shaft assembly (including wear rings). Pump will be designed for complete servicing from the bottom of the truck, without disturbing the pump setting or apparatus piping. Pump case halves will be bolted together on a single horizontal face to minimize chance of leakage and facilitate ease of reassembly. No end flanges will be used. Discharge manifold of the pump will be cast as an integral part of the pump body assembly and will provide a minimum of three (3) 3.50" openings for flexibility in providing various discharge outlets for maximum efficiency. The three (3) 3.50" openings will be located as follows: one (1) outlet to the right of the pump, one (1) outlet to the left of the pump, and one (1) outlet directly on top of the discharge manifold. Impeller shaft will be stainless steel, accurately ground to size. It will be supported at each end by sealed, anti-friction ball bearings for rigid precise support. Impeller will have flame plated hubs assuring maximum pump life and efficiency despite any presence of abrasive matter in the water supply. Bearings will be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. No special or sleeve type bearings will be used.
0004482	Seal, Mechanical, Waterous	Pump will be equipped with a self-adjusting, maintenance-free, mechanical shaft seal. The mechanical seal will consist of a flat, highly polished, spring fed carbon ring that rotates with the impeller shaft. The carbon ring will press against a highly polished stainless steel stationary ring that is sealed within the pump body. In addition, a throttling ring will be pressed into the steel chamber cover, providing a very small clearance around the rotating shaft in the event of a mechanical seal failure. The pump performance will not deteriorate, nor will the pump lose prime, while drafting if the seal fails during pump operation. Wear rings will be bronze and easily replaceable to restore original pump efficiency and eliminate the need to replace the entire pump casing due to wear.
0559769	Trans, Pump, Waterous C20 Series	**PUMP TRANSMISSION** The pump transmission will be made of a three (3) piece, aluminum, horizontally split casing. Power transfer to pump will be through a high strength Morse HY-VO silent drive chain. By the use of a chain rather than gears, 50% of the sprocket will be accepting or transmitting torque, compared to two (2) or three (3) teeth doing all the work. Drive shafts will be 2.35" diameter hardened and ground alloy steel and supported by ball bearings. The case will be designed to eliminate the need for water cooling.
0635600	Pumping Mode, Stationary Only	**PUMPING MODE** An interlock system will be provided to ensure that the pump drive system components are properly engaged so that the apparatus can be safely operated. The interlock system will be designed to allow stationary pumping only.
0605126	Pump Shift, Air Mnl Override, Split Shaft, Interlocked, Waterous	**AIR PUMP SHIFT** Pump shift engagement will be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control will also be located on the left side pump panel. Two (2) indicator lights will be provided adjacent to the pump shift inside the cab. One (1) green light will indicate the pump shift has been completed and be labeled "pump engaged". The second green light will indicate when the pump has been engaged, and that the chassis transmission is in pump gear. This indicator light will be labeled "OK to pump". The pump shift will be interlocked to prevent the pump from being shifted out of gear when the chassis transmission is in gear to meet NFPA requirements. The pump shift control in the cab will be illuminated to meet NFPA requirements.
0003148	Transmission Lock-up, EVS	**TRANSMISSION LOCK-UP** The direct gear transmission lock-up for the fire pump operation will engage automatically when the pump shift control in the cab is activated.
0004547	Auxiliary Cooling System	**AUXILIARY COOLING SYSTEM** A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. The heat exchanger will be a separate unit. It will be installed in the pump or engine compartment with the control located on the pump operator's control panel. The exchanger will be plumbed to the master drain valve.
0014486	Not Required, Transfer Valve, Single Stage Pump	

0746508		Valve(s), Relief Intake, Trident Air Max, Control Location	**INTAKE RELIEF VALVE** One (1) Trident Air Max intake relief valve(s) will be installed on the suction side of the p preset at 150 psig. The relief valve will have a working range of 50 PSI to 350 PSI. The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag. One (1) adjustable air regulator and pressure indicating gauge will be located on a common bezel on the left side pump panel to control the intake valve(s).
0721609		Controller, Pressure, Pierce LCD, Custom Chassis	**PIERCE PRESSURE CONTROLLER** A Pierce electronic pressure controller will be provided. A pressure transducer will be installed in the discharge side of the water pump. The transducer continuously monitors pump pressure sending a signal to the electronic pressure controller. The pressure controller can be used in two (2) modes of operation, RPM mode and pressure modes. The controller will be programmed to turn on/default to Pressure Setting mode. In the RPM mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will maintain the set engine speed, regardless of engine load (within engine operation capabilities). In the pressure mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will automatically maintain the discharge pressure set by the operator (within the discharge capabilities of the pump and water supply) regardless of flow. A 2.00" diameter throttle control knob with no mechanical stops, a serrated grip, and a red idle push button in the center will be a integrated/part of the pressure controller. The throttle control knob will be programmed for Clockwise rotation to increase engine speed. Individual LED indicators for ok to pump, throttle ready, pressure mode and rpm mode will be located on the pressure controller for easy viewing. A pump cavitation protection feature will also provided which will return the engine to idle should the pump cavitate. Cavitation is sensed by the combination of pump pressure below 30 psi and engine speed above 2000 rpm for more than five (5) seconds. Other safety features include recognition of low water and no water conditions with an automatic programmed response and a push button to return the engine to idle. The pressure controller LCD screen will be 4.20" in size with a minimum brightness of 750 nits. The LCD screen and LED intensity will be automatically adjust for day and nighttime operation. The LCD screen intensity can also be manually adjusted if needed. The following information will be provided/displayed on the LCD screen - Engine RPM Check engine and stop engine warning indicators Engine oil pressure Engine coolant temperature Water pump temperature Fuel Level Water tank level Battery voltage Operating mode (RPM or pressure) Pressure or RPM setting On screen messaging show diagnostic and warning messages as they occur. It will show apparatus information, stored data, and program options when selected by the operator. It will monitor inputs outputs and support audible and visual warning alarms for the following conditions - High battery voltage Low battery voltage/engine off Low battery voltage/engine running High water pump temperature Low fuel Low engine oil pressure High engine coolant temperature Water tank out of water (visual alarm only) No engine response (visual alarm only) The pressure controller will store the accumulated operating hours for the pump and engine. These items are to be displayed within the pressure controller menu. The pressure controller will include a USB port on the back of the controller for easy software upgrades if needed.
0607957	SP	Primer, Trident, Air Prime, Air operated, Auto w/Gauge, w/(1) Add'l Prime Vlv	**PRIMING PUMP** The priming pump will be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of NFPA 1901. All wetted metallic parts of the priming system are to be of brass and stainless steel construction. One (1) priming control will open the priming valve and start the pump primer. The control will have a three position switch for automatic, off or test. In the sentry mode (automatic) the primer will sense when the pump losses discharge pressure and start the pump primer. The primer will automatically stop once the pump has pressure. A vacuum gauge will indicate the vertical elevation of water in feet during priming operation. One (1) additional priming valve will be plumbed to the the auxiliary water pump. The additional control will be located at the pump operator's panel.
0044552		Line, 0.50" Recirculating w/Check Valve	**RECIRCULATING LINE WITH CHECK VALVE** A 0.50" diameter recirculating line, from the pump to the water tank, will be furnished with a control installed at the pump operator's control panel. A check valve will be provided in this line to prevent the back flow of water from the tank to the pump if the valve is left in the open position.

0620445	Foam Drain(s), Special Location	**FOAM DRAIN(S), LOCATION** The foam drain(s) will be located as high as possible for ground clearance.
0780364	Manuals, Pump, (2) Total, Electronic Copies	**PUMP MANUALS** There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.
0602512	Plumbing, Stainless Steel and Hose, Single Stage Pump, Control Zone	**PLUMBING, STAINLESS STEEL AND HOSE** All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness. Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings. Plumbing manifold bodies will be ductile cast iron or stainless steel. All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame. All water carrying gauge lines will be of flexible polypropylene tubing. All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.
0795135	Plumbing, Stainless Steel, w/Foam System	**FOAM SYSTEM PLUMBING** All piping that is in contact with the foam concentrate or foam/water solution will be stainless steel. The fittings will be stainless steel or brass. Cast iron pump manifolds will be allowed.
0004645	Inlets, 6.00" - 1250 GPM or Larger Pump	**MAIN PUMP INLETS** A 6.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.
0014650	Pump Suction Tube(s), Short, All	**SHORT SUCTION TUBE(S)** The suction tube(s) on the water pump will have short suction tube(s) installed to allow for installation of adapters, elbows or intake valves without excessive overhang.
0004646	Cap, Main Pump Inlet, Long Handle, NST, VLH	**MAIN PUMP INLET CAP** The main pump inlets will have National Standard Threads with a long handle chrome cap. The cap will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0084610	Valves, Akron 8000 series- All	**VALVES** All ball valves will be Akron® Brass. The Akron valves will be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve. Valves will have a **ten (10) year** warranty.
0016158	Valve, Inlet(s) Recessed, Side Cntrl, "Control Zone"	The location of the valve for the two (2) inlets will be recessed behind the pump panel.
0004700	Control, Inlet, at Valve	**INLET CONTROL** The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.
0004660	Inlet (1), Left Side, 2.50"	**LEFT SIDE INLET** There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet will be provided with a strainer, chrome swivel and plug.
0004680	Inlet, Right Side, 2.50"	**RIGHT SIDE INLET** There will be one (1) auxiliary inlet with a 2.50" valve at the right side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet will be provided with a strainer, chrome swivel and plug.
0034720	Anode, Zinc, Pair, Pump Inlets	**ANODE, INLET** A pair of sacrificial zinc anodes will be provided in the water pump inlets to protect the pump from corrosion.
0092569	No Rear Inlet (Large Dia) Requested	

0064116	No Rear Inlet Actuation Required	
0092696	Not Required, Cap, Rear Inlet	
0009648	No Rear Intake Relief Valve Required on Rear Inlet	
0092568	No Rear Auxiliary Inlet Requested	
0723049	Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	**INLET BLEEDER VALVE** A 0.75" bleeder valve will be provided for each side gated inlet. The valves will be located behind the panel with a "T" swing style handle control extended to the outside of the panel. The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. The water discharged by the bleeders will be routed below the chassis frame rails.
0014751	Tank to Pump, (1) 3.00" Valve, 3.00" Plumbing, Reverse Linkage	**TANK TO PUMP** The booster tank will be connected to the intake side of the pump with heavy duty piping and a quarter turn 3.00" full flow line valve with the control remotely located at the operator's panel. The tank to pump line will run straight (no elbows) from the pump into the front face of the water tank and down into the tank sump. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing. The control on the pump panel will be "in" when the valve is open and "out" when the valve is closed. A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.
0004905	Outlet, Tank Fill, 1.50"	**TANK REFILL** A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.
0062133	Control, Outlets, Manual, Pierce HW if applicable	**DISCHARGE OUTLET CONTROLS** The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve. If a handwheel control valve is used, the control will be a minimum of a 3.9" diameter stainless steel handwheel with a dial position indicator built in to the center of the handwheel. Any 3.00 inch or larger discharge valve will be a slow-operating valve in accordance with NFPA 16.7.5.3.
0004940	Outlet, Left Side, 2.50"	**LEFT SIDE DISCHARGE OUTLETS** There will be Two (2) discharge outlets with a 2.50" valve on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.
0005091	Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	**LEFT SIDE OUTLET ELBOWS** The 2.50" discharge outlets located on the left side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092570	Not Required, Outlets, Left Side Additional	
0035094	Not Required, Elbow, Left Side Outlets, Additional	
0004945	Outlet, Right Side, 2.50"	**RIGHT SIDE DISCHARGE OUTLETS** There will be One (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.
0025091	Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	**RIGHT SIDE OUTLET ELBOWS** The 2.50" discharge outlets located on the right side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

0092571		Not Required, Outlets, Right Side Additional	
0089584		Not Required, Elbow, Right Side Outlets, Additional	
0775183	SP	Outlet, 4" w/4" Right, Small Handwheel	**LARGE DIAMETER DISCHARGE OUTLET** There will be a 4.00" discharge outlet with a 4.00" Akron valve installed on the right side of the apparatus, terminating with a 4.00" (M) National Standard hose thread adapter. This discharge outlet will be actuated with a small handwheel control at the pump operator's control panel. An indicator will be provided to show when the valve is in the closed position.
0681048		Elbow, Large Dia Outlet, 30 Deg, 4.00" FNST x 5.00" Storz, S/S Cable	**LARGE DIAMETER OUTLET ELBOWS** The 4.00" outlet will be furnished with a 4.00" (F) National Standard hose thread x 5.00" Storz elbow adapter with Storz cap and stainless steel tie cable.
0649939		Outlet, Front, 1.50" w/2" Plumbing	**FRONT DISCHARGE OUTLET** There will be one (1) 1.50" discharge outlet piped to the front of the apparatus and located on the top of the right side of the front bumper. Plumbing will consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 1.50" NST with 90 degree stainless steel swivel. There will be automatic drains provided at all low points of the piping.
0649318		Reverse Linkage, Front Outlet	**REVERSE LINKAGE ON FRONT OUTLET(S)** The valve control for the front outlet(s) on the pump panel will be "in" when the valve is open and "out" when the valve is closed. The reverse linkage will be provided for one (1) front outlet(s) located Front Bumper outlet.
0647702		Additional Valve, Front Outlet, 2"	**FRONT OUTLET ADDITIONAL VALVE** A second 2.00" full flow ball valve will be provided at the front bumper extension. The valve will have an integral chrome swing style handle.
0004995		Outlet, Rear, 2.50"	**REAR DISCHARGE OUTLET** There will be Two (2) discharge outlets piped to the rear of the hose bed, one (1) each side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel.
0040286		Elbow, Rear Outlets, 30 Degree, 2.50" FNST x 2.50" MNST, VLH	**REAR OUTLET ELBOWS** The 2.50" discharge outlets, located at the rear of the apparatus, will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 30 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092574		Not Required, Outlet, Rear, Additional	
0085695		Not Required, Elbow, Rear Outlets, Large, Additional	
0687803	SP	Outlet, Front HB, 1.50" w/2.00" Plumbing, Location	**FRONT OF HOSE BED DISCHARGE OUTLET** There will be Two (2) discharge outlets located at the front of the hose bed, Outlets to be mounted with (1) One above and (1) one below shelf on LS of hosebed. Per AD on left side. Plumbing will consist of 2.00" piping with a 2.00" full-flow ball valve controlled at the pump operator's panel. The outlet(s) will terminate with an 1.50" (M) National Standard hose thread adapter.
0752097		Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	**DISCHARGE CAPS/ INLET PLUGS** Chrome plated, rocker lug, caps with chain will be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets. Chrome plated, rocker lug, plugs with chain will be furnished for all auxiliary inlets 1.00" thru 3.00" in size. The caps and plugs will incorporate a thread design to automatically relieve stored pressure in the line when disconnected.

0723042	Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	**OUTLET BLEEDER VALVE** A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain va acceptable with some outlets if deemed appropriate with the application. The valves will be located behind the panel with a T swing style handle control extended to the outside of the side pump panel. The handles will be chrome plated and provide a visual indication of valve position. The T swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to. The water discharged by the bleeders will be routed below the chassis frame rails.
0091106	Outlet, 3.00" Deluge w/TFT Extend-a-Gun XG18, Handwheel	**DELUGE RISER** A 3.00" deluge riser will be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping will be rigidly braced and installed securely so no movement develops when the line is charged. The riser will be gated and controlled at the pump operator's panel with a handwheel control. **TELESCOPIC PIPING** The deluge riser piping will include a 18.00" Task Force Model XG18 Extend-A-Gun extension. This extension will be telescopic to allow the deluge gun to be raised 18.00" increasing the range of operation. A position sensor will be provided on the telescopic piping that will activate the "do not move vehicle" light inside the cab when the monitor is in the raised position.
0543550	Monitor, TFT Crossfire XFC-42, (2) 2.5" Portable Base, Shaper, Quad Stack Tips	**MONITOR** A Task Force Crossfire Series XFC-42 monitor package will be properly installed on the deluge riser. The monitor package will include a Crossfire monitor with a 10.00" stream shaper and quad stack tips. A Safe-Tak portable base unit with two (2) 2.50" inlets will be provided. The monitor will be painted as provided by monitor manufacturer.
0047175	No Additional Nozzle Req'd	
0046857	Deluge Mount, For TFT Crossfire Monitor, TFT Manual Extend-A-Gun Only	The deluge riser Extend-a-Gun will have provisions for direct mounting a Task Force Tips CrossFire monitor.
0723726	Speedlay Module Not Required	
0722432	Hose Restraint Not Required, No Speedlay Module	
0723395	Speedlays, Not Required	
0723394	Speedlays, Not Required	
0029167	Crosslays Sngl Sheet Unpainted, (2+) 1.50", Std. Cap	**CROSSLAY HOSE BEDS** Two (2) crosslays with 1.50" outlets will be provided. Each bed to be capable of carrying 200' of 1.75" double jacketed hose and will be plumbed with 2.00" i.d. pipe and gated with a 2.00" quarter turn ball valve. Outlets to be equipped with a 1.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus. The crosslay controls will be at the pump operator's panel. The center crosslay dividers will be fabricated of 0.25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a brushed finish. Vertical scuffplates constructed of stainless steel will be provided at the front and rear ends of the bed on each side of vehicle. Crosslay bed flooring will consist of removable perforated brushed aluminum.
0029196	Not Required, 2.50" Crosslay	
0590942	Hose Restraint, Crosslay/Deadlay, 1" Heavy Nylon Web, Strap Fasteners, Each Side	**CROSSLAY/DEADLAY HOSE RESTRAINT** A black 1.00" nylon webbing design with 2.00" box pattern will be provided across each end of two (2) crosslay/deadlay(s) to secure the hose during travel. The webbing will be permanently attached at the top of the crosslay/deadlay opening(s). 1.00" web straps will loop through footman loops located at the opposite end of the permanently attached webbing. The straps will attach with a pair of spring clip and hook fasteners.
0029260	Not Required, Speedlays	

0750536		Hose Restr, Spdly, Not Required, No Spdly	
0615255		Cover, Crosslay, 3/16" Alum Treadplate, Front Hinge	**CROSSLAY COVER** A hinged .19" aluminum treadplate cover will be installed over the crosslay hose beds. It will include a latch at each end of the cover to hold it securely in place, a chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface. The cover will be provided with rubber latch hold open device. The hinge will be to the front of the hose beds.
0644843	SP	Crosslays, 9.00" Lower Than Standard - with 9.00" Raised PH	**CROSSLAY 9.00" LOWER THAN STD** The crosslays will be lowered 9.00" from standard.
0688927		Reel, Booster, Aluminum - Over Pump, Left Side	**BOOSTER HOSE REEL** A Hannay electric rewind booster hose reel will be installed over the pump in a recessed open compartment on the left side of the apparatus. The reel will be fabricated of aluminum and have highly polished end discs. A polished stainless steel roller and guide assembly will be mounted on the reel side of the apparatus. Discharge control will be provided at the pump operator's panel. Plumbing to the reel will consist of 1.50" Aeroquip hose and a 1.50" valve.
0011060		Switch, Reel Rewind - One at Pump Panel	Reel motor will be protected from overload with a circuit breaker rated to match the motor. An electric rewind control switch will be installed on the reel side pump panel.
0045300		Hose, Booster - 200' of 1.00"/800 PSI	Booster hose, 1.00" diameter and 200 feet, with chrome plated Barway, or equal couplings will be provided. Working pressure of the booster hose will be a minimum of 800 psi.
0005244		Capacity, Hose Reel 200' of 1"	Capacity of the hose reel will be 200 feet of 1.00" booster hose.
0007428		Nozzle for Booster Reel Not Req'd	
0095353		Foam Sys, Husky 12, Dual Agent	**FOAM PROPORTIONER** A foam proportioning system will be provided that is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation will be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system will automatically balance and proportion foam solution at rates from .1 percent to 9.9 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump. The design of the system will allow operation from draft, hydrant, or relay operation. This will provide a versatile system to meet the demands at a fire scene. **System Capacity** The system will have the ability to deliver the following minimum foam solution flow rates that meet or exceed NFPA requirements at a pump rating of 250 psi. 200 gpm @ 6 percent 400 gpm @ 3 percent 1200 gpm @ 1 percent The foam concentrate setting may be adjusted in .1 percent increments from .1 percent to 9.9 percent. Typical settings are .3 percent, .5 percent and 1.0 percent (The maximum capacity will be limited to the plumbing and water pump capacity). **Control System** The system will be equipped with a digital electronic control display located on the pump operator's panel. Push button controls will be integrated into the panel to turn the system on/off, control the foam percentage, direct which foam to use on a multi-tank system, and to set the operation modes (automatic, manual, draft, calibration, or flush). The percent of injection will have presets for Class A and Class B foam. These presets can be changed at the fire department as desired. The percent of injection will be able to be easily changed at the scene to adjust to changing demands. In order to minimize the use of abbreviations and interpretations, system information will be displayed on the panel by way of .50 tall LEDs that total 14 characters (two (2) lines of seven (7) each). System on and foam pump on indicator lights will also be included. Information displayed will include mode of operation (automatic, manual, draft, calibration, or flush), foam supply selected (Class A or Class B), water total, foam total, foam percentage, remaining gallons, and time remaining. The control display will direct a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor will compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve will be installed in the plumbing to prevent foam from contaminating the water pump. **Low Level, Foam Tank** The control head will display a warning message when the foam tank in use is below a quarter tank.

Hydraulic Drive System
The foam concentrate pump will be powered by a hydraulic drive system, which is auto activated, whenever the vehicle water pump is engaged. A large parasitic electric load u power the foam pump can cause an overload of the chassis electrical system.
Hydraulic oil cooler will be provided to automatically prevent overheating of the hydraulic oil, which is detrimental to system components. The oil/water cooler will be designed to allow continuous system operation without allowing hydraulic oil temperature to exceed the oil specifications.
The hydraulic oil reservoir will be of four (4) gallons minimum capacity and will also be of sufficient size to minimize foaming and be located to facilitate checking oil level or adding oil without spillage or the need to remove access panels.

Foam Concentrate Pump
The foam concentrate pump will be of positive displacement, self-priming; linear actuated design, driven by the hydraulic motor. The pump will be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum will be present in its construction.
A relief system will be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump
The foam concentrate pump will have minimum capacity for 12 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system will deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump will be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.

External Foam Concentrate Connection
An external foam pick-up will be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up will be designed to allow continued operation after the on-board foam tank is empty. The external foam pick-up will be designed to allow use with training foam or colored water for training purposes.

Panel Mounted Strainer/External Pick-Up Connection
A bronze body strainer/connector unit will be provided. The unit will be mounted to the pump panel. The external foam pick-up will be one (1) 1.00" male connection with chrome-plated cap integrated to a 2.00" strainer cleanout cap. A check valve will be installed in the pick-up portion of the cleanout cap. A basket style stainless steel screen will be installed in the body of the strainer/connector unit. Removal of the 2.00" cleanout cap will be all that is required to gain access to and remove the stainless steel basket screen. The strainer/connector unit will be ahead of the foam concentrate pump inlet port to insure that all agent reaching the foam pump has been strained.

Pick-Up Hose
A 1.00" flexible hose with an end for insertion into foam containers will be provided. The hose will be supplied with a 1.00" female swivel NST thread swivel connector. The hose will be shipped loose.

Discharges
The foam system will be plumbed to six (6) discharges. The discharges capable of dispensing foam will be Font Bumper, ReelLine, Both Crosslays, Both rear HB pre-connects..

System Electrical Load
The foam proportioning will not impose an electrical load on the vehicle electrical system any greater than five (5) amps at 12VDC.

Foam Supply Valve
Electric valves will be used for the foam supply. The foam supply valves will be controlled at the foam system control head for ease of operation. The supply valves will be electric, remote controlled, to eliminate air pockets in the foam tank supply hose.

Maintenance Message
A message will be displayed on the control head to advise when system maintenance needs to be performed. The message will display interval for cleaning the foam strainer, cleaning for the water strainers, and changing the hydraulic oil.

Flush System
The system will be designed such that a flush mode will be provided to allow the system to flush all foam concentrate with clear water. The flush circuit control logic will ensure the foam tank supply valve is closed prior to opening the flush valve. The flush valve will be operated at the foam system control head for ease of operation. The valve will be electrically controlled and located as close to the foam tank supply valve as possible. A manual flush drain valve will be labeled and located under the left side running board.

0012126 Not Required, CAF Compressor

0552484	Refill, Foam Tank, Dual Tank, Husky 12	**REFILL, FOAM TANKS** The foam system's proportioning pump will be used to fill the Class A foam tank. This w use of the auxiliary foam pick-up to pump the foam from pails or a drum on the ground i foam tank. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The fill operation will be controlled by a mode in the foam system controller stating TANK A FILL. While the proportioner pump is filling the tank, the controller will display FILL TANK A. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the controller will display TANK A FULL. A separate air operated fill pump, controlled by the foam system controller, will be provided for filling the Class B foam tank. A separate inlet connection, mounted on the pump panel will be provided for this fill system. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The connection will be the same as the foam intake connection, in order to allow the use of the foam pick-up hose as the fill hose. The fill operation will be controlled by a mode in the foam system controller stating TANK B FILL. To fill the tank, the controller will start and run the air operated pump. While the pump runs, the controller will display FILL TANK B. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the controller will display TANK B FULL.
0031896	Demonstration, Foam System, Dealer Provided	
0005446	Foam Cell, 20 Gallon, Not Reduce Water	**FOAM TANK** The foam tank will be an integral portion of the polypropylene water tank. The cell will have a capacity of 20 gallons of foam with the intended use of Class A foam. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.
0505016	Drain, 1.00", Foam Tank #1, Husky 12 Foam System	**FOAM TANK DRAIN** A system of 1.00" foam tank drains will be provided, integrated into the foam systems strainer and tank to foam pump valve management system. The tank to pump hoses running from the tank(s) to the panel mounted strainer will 1.00" diameter. The foam system controller will have a mode that allows for a given foam valve to be opened at will. Flow of foam from the tank valve to the strainer will be usable as a tank drain mode. An adaptor will be supplied, that allows the 1.00" foam intake screen to assembly to be used as a drain outlet. The standard supplied 1.00" foam pick up hose will be attached to the screen assembly by way of the adapter. The drain mode will allow the operator to open and close the tank valve as required from the control head, to drain foam and re-fill foam containers through the connected hose, without foam spillage beneath the vehicle.
0091082	Foam Cell #2, 20 Gallon, Not Reduce	**FOAM CELL** The cell will be an integral portion of the polypropylene water tank. The cell will have a capacity of 20 gallons of foam with the intended use of Class B foam. The brand of foam stored in this cell will be Customer to advise. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.
0505017	Drain, 1.00", Foam Tank #2, Husky 12 Foam System	**FOAM TANK DRAIN** A system of 1.00" foam tank drains will be provided, integrated into the foam systems strainer and tank to foam pump valve management system. The tank to pump hoses running from the tank(s) to the panel mounted strainer will 1.00" diameter. The foam system controller will have a mode that allows for a given foam valve to be opened at will. Flow of foam from the tank valve to the strainer will be usable as a tank drain mode. An adaptor will be supplied, that allows the 1.00" foam intake screen to assembly to be used as a drain outlet. The standard supplied, 1.00" foam pick up hose will be attached to the screen assembly by way of the adapter. The drain mode will allow the operator to open and close the tank valve as required from the control head, to drain foam and re-fill foam containers through the connected hose, without foam spillage beneath the vehicle.

0746445	Approval Dwg, Pump Operator's Panel, Includes Color And Label Tags	The following drawing(s) will be provided for approval by the customer. The drawing(s) will be made for up One (01) Truck apparatus and/or similar Pierce job number. **PUMP OPERATOR'S PANEL DRAWING** A detailed drawing to scale of the pump operator's panel will be provided for the customer to review. The drawing will include all of the gauges, controls, switching, etc.., located on the pump operator's panel. The customer will be allowed to make changes and/or mark-ups to this approval drawing. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved pump operator's panel drawing will become part of the contract documents. Due to the way drain(s), bleeder(s), operational/maintenance tag(s) and NFPA required warning tag(s) are placed on pump panel(s), these items will NOT be shown on any pump panel approval drawing(s). These item(s) will be placed on pump panel(s) at the fire apparatus manufacturer discretion. **COLOR CODED TAGS** A detailed drawing/chart of the colors used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the colors will become part of the contract documents. **SPECIAL TEXT/VERBIAGE TAGS** A detailed drawing/chart of the text/verbiage used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the text/verbiage will become part of the contract documents.
0032479	Pump Panel Configuration, Control Zone	**PUMP PANEL CONFIGURATION** The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.
0629252	Material, Pump Panels, Side Control Black Vinyl	**PUMP AND GAUGE PANEL** The pump and gauge panels will be constructed of aluminum with a black vinyl finish. A polished aluminum trim molding will be provided around each panel.
0721772	Panel, Pump Access - Right Side, Front, Side Control	**PUMP ACCESS** **Right Side Panel** The right side pump panel will be removable. **Panel Fastener** The right side removable panel will be secured using a black swell latch . The left side pump panels will be attached with screws. The right side lower panel (drain bank) will be secured using screws. **Front Pump House Access** The front of the pump house structure will have provisions for access to the pump.
0803876	Light, Pump Compt, Truck-Lite 44042C LED	**PUMP COMPARTMENT LIGHTS** There will be one (1) Truck-Lite, model 44207C, 4.00" diameter LED light(s) provided inside the pump enclosure. The light(s) will be activated when the battery switch is on and a switch located near the light(s) is turned on.
0536401	Gauges, Engine, Included With Pierce Pressure Controller	Engine monitoring graduated LED indicators will be incorporated with the pressure controller.
0005601	Throttle, Engine, Incl'd w/Press Controller	
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle,Green	**THROTTLE READY GREEN INDICATOR LIGHT** There will be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.
0549333	Indicators, Engine, Included with Pressure Controller	
0745568	Indicator Light, Pump Panel, Ok To Pump, Green	**OK TO PUMP INDICATOR LIGHT** There will be a green indicator light installed on the pump operators panel that is activated when the pump is in Ok To Pump mode.

0005635	Hourmeter, Pump	- Pump Hourmeter
0553643	Control, Air Horn at Pmp Pnl, Red Switch	**AIR HORN SWITCH** An air horn control switch will be provided at the pump operator's control panel. This switch will be red and properly labeled. The switch will be located within easy reach of the operator in the electrical switch panel.
0511078	Gauges, 4.00" Master, Class 1, 30"-0-600psi	**VACUUM AND PRESSURE GAUGES** The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©. The gauges will be a minimum of 4.00" in diameter and will have white faces with black lettering, with a pressure range of 30.00"-0-600#. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel. Test port connections will be provided at the pump operator's panel. One will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and non-corrosive polished stainless steel or brass plugs. They will be marked with a label. This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.
0511100	Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	**PRESSURE GAUGES** The individual "line" pressure gauges for the discharges will be Class 1© interlube filled. They will be a minimum of 2.00" in diameter and have white faces with black lettering. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. Gauges will have a pressure range of 30"-0-400#. The individual pressure gauge will be installed as close to the outlet control as practical. This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.
0750526	Gauge, Water Level, Pierce, In pressure Controller, Lt Driver	**WATER LEVEL GAUGE** An electric water level gauge will be incorporated in the pressure controller that registers water level by means of 9 LEDs. They will be at 1/8 level increments with a tank empty LED. The LEDs will be a bright type that is readable in sunlight, and have a full 180-degree of clear viewing. To further alert the pump operator, the gauge will have a warning flash when the tank volume is less than 25%, and will have "Down Chasing LEDs when the tank is almost empty. The level measurement will be ascertained by sensing the head pressure of the fluid in the tank or cell. There will be a light driver module with this installation to power additional water level gauge(s) included on the apparatus.
0084763	Gauge, Ernst Sight Water Level, w/Red Ball, IATS	**WATER LEVEL GAUGE, ADDITIONAL** An additional water level gauge will be provided. An Ernst sight tube water level indicator with a floating red ball will be mounted on the gauge panel with an unrestricted view for the operator.
0604059	Gauge, Water Level, FRC, WLA 205-A00, TankVision, Remote Mini Display(s)	**MINIATURE WATER LEVEL GAUGE(S)** There will be one (1)Fire Research TankVision model WLA205-A00 miniature water tank indicator gauge(s) installed inside the cab. The indicator gauge(s) will show the volume of water in the tank on five (5) easy to see super bright LEDs. A wide view lens over the LEDs will provide for a viewing angle of 180 degrees. The indicator gauge case will be manufactured of Polycarbonate material with an integrated lens and have a distinctive blue label. The miniature tank indicator gauge(s) will be activated when pump is in gear. The flash rate will be determined by the main water tank sensor.
0062988	Gauge, Foam Level, (2) Tanks, Class 1	**FOAM LEVEL GAUGE** An electronic foam level gauge will be provided on the operator's panel for each foam tank, that registers foam level by means of five colored LED lights. The lights will be durable, ultra-bright five LED design viewable through 180 degrees. The foam level indicators will be as follows: - 100% = Green - 75% = Yellow - 50% = Yellow - 25% = Yellow - Refill = Red The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the foam tank is empty. The level measurement will be based on the sensing of head pressure of the fluid in the tank. The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from foam and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The field calibratable display measures head pressure to accurately show the tank level.

0665336	Light Shield/Step 8", 4-FRC Firefly LED115-Q01, P25 LED Step Lt	**STEP/LIGHT SHIELD** There will be an aluminum treadplate stepping surface no less than 8.00" deep and pro reinforced to support a man's weight, installed over the pump operators panel. There will be four (4) Fire Research Firefly, part number LED115-Q01, 12 volt DC LED lights installed under the step to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by the pump panel light switch. Additional lights will be included every 18.00" depending on the size of the pump house. One (1) pump panel light will come on when the pump is in ok to pump mode. There will be a light activated above the pump panel light switch when the parking brake is set. This is to afford the operator some illumination when first approaching the control panel. There will be one (1) white LED step light provided above this step. In order to ensure exceptional illumination, each step light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light. The step light will be activated by the pump panel light switch.
0522730	Light, Over Passenger Side Pump Panel, P25 LED Stp Lt	There will be three (3) white LED scene lights with ABS chrome housing, installed above the passenger side pump panel. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights will be operated from a switch on the pump panel.
0606694	Air Horns, (2) Hadley, 6" Round, eTone, In Bumper	**AIR HORN SYSTEM** Two (2) Hadley®, eTone, chrome air horns will be recessed in the front bumper. The air horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed to prevent the loss of air in the brake system.
0606834	Location, Air Horns, Bumper, Each Side, Outside Frame, Inboard (Pos #2 & #6)	**Air Horn Location** The air horns will be located on each side of the bumper, just outside of the frame rails.
0757092	Control, Air Horn, Multi Select	**Air Horn Control** The air horn(s) will be activated by the following:
0757081	Control, Air Horn, Ft Sw, LS	Left side foot switch
0602752	Siren, Wln 295HFS2 Remote, Single Amp, Other Speaker, Non-NFPA 2016	**ELECTRONIC SIREN** A Whelen 295HFS2, electronic remote siren with noise canceling microphone will be provided. This siren to be active when the battery switch is on and that emergency master switch is on. NFPA 1901, 2016 edition, Section 13.9.1.1 requires the siren manufacturer to certify the siren as meeting the requirements of SAE J1849, *Emergency Vehicle Sirens*. Per the fire department specification, the siren and siren speaker come from separate manufacturers and a certification is therefore not valid. The apparatus will be non compliant to NFPA 1901 standards at time of contract execution.
0692039	Location, Electronic Siren, Center Console	Electronic siren head will be located in the center console.
0076157	Control, Elec Siren, Horn Ring	**SIREN CONTROL** The electronic siren will be controllable on the siren head and horn ring only. No foot switches will be required. The driver will have the option to control the siren or the chassis horns from the horn button by means of a selector switch located on the instrument panel.
0601330	Speaker, (1) Federal, ES100C w/ESFMT-EF Recess Mnt & S/S Grille	**SPEAKER** There will be one (1) Federal Signal DynaMax®, Model ES100, 100 watt speaker provided. The speaker will use a Federal Signal, Model ESFMT-EF, recess mount with stainless steel grille. The speaker will be connected to the siren amplifier.
0601551	Location, Speaker, Frt Bumper, Recessed, Right Side, Outside Frame,Outbrd(Pos 1)	The speaker will be recessed in the right side of the front bumper, towards the outside.

0895310	Siren, Federal Q2B	**AUXILIARY MECHANICAL SIREN** There will be a Federal Signal Model Q2B mechanical siren furnished and installed in th the apparatus. The Q2B will be chrome finish. The siren will have a 2-gauge cable connected to a power solenoid that is connected by a 2-gauge cable ran battery direct to the primary chassis batteries and will be labeled Q2B+ at the battery. The power solenoid will only be enabled when the emergency master switch is on. The siren will have a 2-gauge ground wire connected to the chassis battery stud. The cable will be labeled Q2B- at the battery.
0006097	Location of Siren, Recessed in Bumper	The mechanical siren will be recessed in the front bumper on the left side. The siren will be properly supported using the bumper framework.
0748305	Control, Mech Siren, Multi Select	**MECHANICAL SIREN CONTROL** The mechanical siren will be activated by the following:
0748282	Control Mech Siren, Ft Sw LS	Left side foot switch.
0736158	Sw, Siren Brake, Momentary, Lower Sw Pnl	A momentary switch will be included in the lower switch panel to activate the siren brake.
0746353	Not Required, Warning Lights Intensity	
0789132	Lightbar, Wln, Freedom IV-Q, 81", RRRRWRRRWWRRRWRRRR	**FRONT ZONE UPPER WARNING LIGHTS** There will be one (1) 81.00" Whelen® Freedom™ IV lightbar mounted on the cab roof. The lightbar will include the following: One (1) red flashing LED module in the driver's side end position. One (1) red flashing LED module in the driver's side front corner position. One (1) red flashing LED module in the driver's side first front position. One (1) red flashing LED module in the driver's side second front position. One (1) white flashing LED module in the driver's side third front position. One (1) red flashing LED module in the driver's side fourth front position. One (1) red flashing LED module in the driver's side fifth front position. One (1) red flashing LED module in the driver's side sixth front position. One (1) white flashing LED module in the driver's side seventh front position. One (1) white flashing LED module in the passenger's side seventh front position. One (1) red flashing LED module in the passenger's side sixth front position. One (1) red flashing LED module in the passenger's side fifth front position. One (1) red flashing LED module in the passenger's side fourth front position. One (1) white flashing LED module in the passenger's side third front position. One (1) red flashing LED module in the passenger's side second front position. One (1) red flashing LED module in the passenger's side first front position. One (1) red flashing LED module in the passenger's side front corner position. One (1) red flashing LED module in the passenger's side end position. There will be clear lenses included on the lightbar. There will be a switch installed in the cab on the switch panel to control this lightbar. The white flashing LED modules in the front positions will be deactivated when the parking brake is applied. The red flashing LED modules in the front positions may be load managed when the parking brake is applied.
0016380	No Additional Lights Req'd, Side Zone Upper	
0899300	Lights, Front Zone, Wln M6** M6RS M6RS M6**, Inside Steady Burn, 4lts Q Bez	**FRONT ZONE LOWER LIGHTS** There will be four (4) Whelen®, 4.31" high x 6.75" wide x 1.37" deep lights installed on the cab face above the headlights, in a common bezel matching the one for the headlamps per the following. One (1) Model M6** flashing light installed in the left side outside position. The left side outside warning light to include red LEDs. One (1) Model M6RS steady burning light installed in the left side inside position. The light will include red LEDs. One (1) Model M6RS steady burning light installed in the right side inside position. The light will include red LEDs. One (1) Model M6** flashing light installed in the right side outside position. The right side outside warning light to include red LEDs. The lens color(s) to be clear. The housing to be polished and the trim shall be chrome. There will be a switch in the cab on the switch panel to control the lights.

0653937		Flasher, Headlight Alternating	**HEADLIGHT FLASHER** The high beam headlights will flash alternately between the left and right side. There will be a switch installed in the cab on the switch panel to control the high beam f switch will be live when the battery switch and the emergency master switches are on. The flashing will automatically cancel when the hi-beam headlight switch is activated or when the parking brake is set.
0540679		Lights, Side Zone Lower, Wln M6*C LED, Clear Lens 2pr	**SIDE ZONE LOWER LIGHTING** There will be four (4) Whelen®, Model M6*C, flashing LED warning lights with chrome trim installed per the following: Two (2) lights, one (1) each side on the bumper extension. The side front lights to be red. Two (2) lights, one (1) each side above rear wheels. The side rear lights to be red. The lights will include a clear lenses. There will be a switch in the cab on the switch panel to control the lights.
0564655		Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt Housing	**REAR ZONE LOWER LIGHTING** There will be two (2) Whelen®, Model M6*C, LED flashing warning lights located at the rear of the apparatus. The driver's side rear light to be red The passenger's side rear light to be red Both lights will include a lens that is clear. There will be a switch located in the cab on the switch panel to control the lights.
0541152		Lights, Rear/Side Up Zone, Wln M6*C LED, Clear Lens 4lts	**WARNING LIGHTS (Rear and Side upper zones)** Four (4) Whelen, model M6*C LED flashing warning lights will be provided at the rear of the apparatus. The side upper rear light on the left side to include red flashing LEDs. The rear upper light on the left side to include red flashing LEDs. The rear upper light on the right side to include red flashing LEDs. The side upper rear light on the right side to include red flashing LEDs. These lights will include a lens that is clear. These lights will be provided with a flange. There will be a switch located in the cab on the switch panel to control the lights.
0006551		Not Required, Lights, Rear Upper Zone Blocking	
0668965	SP	Mtg, Rear Warn Lts, LS Mtd on Hatch Compt, RS on Large S/S Bracket Ladder Lock	**REAR WARNING LIGHT MOUNTING** The left side warning light will be installed on the left side hatch compartment. The right side warning lights will be installed on a large stainless steel box above hydraulic ladder rack lock enclosure. The wiring of all of these lights will be totally enclosed.
0791528		Light, Traffic Directing, Wln TAL65, 36.00" Long, TACTL5	**TRAFFIC DIRECTING LIGHT** There will be one (1) Whelen®, Model TAL65, 36.00" long x 2.87" high x 2.25" deep, amber LED traffic directing light installed at the rear of the apparatus. The Whelen, Model TACTL5, control head will be included with this installation. The controller will be energized when the battery switch is on. The auxiliary flash to be activated when the emergency master switch is on.
0529858		Location, Traf Dir Lt, Recessed Within Trdplt Step	This traffic directing light will be recessed within a treadplate step at the rear of the apparatus.
0530282		Location, Traf Dir Lt Controller, Overhead Switch Panel DS Right End	The traffic directing light control head will be located in the driver side overhead switch panel in the right panel position.
0779722		Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Body	**120 VOLT RECEPTACLE** There will be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with white receptacle(s) and stainless steel wall plate(s), installed In B1 above shelf up high, RS3 Back wall upper left hand corner . The NEMA configuration for the receptacle(s) will be 5-20R. The receptacle(s) will be powered from the shoreline inlet. There will be a label installed near the receptacle(s) that state the following: Line Voltage Current Ratting (amps) Phase Frequency
0519934		Not Required, Brand, Hydraulic Tool System	
0649753		Not Required, PTO Driven Hydraulic Tool System	

0649736	Not Required, Hydraulic Tools	
0007150	Bag of Nuts and Bolts	**LOOSE EQUIPMENT** The following equipment will be furnished with the completed unit: One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.
0602516	NFPA Required Loose Equipment, Pumper, NFPA 2016, Provided by Fire Department	**NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY FIRE DEPARTMENT** The following loose equipment as outlined in NFPA 1901, 2016 edition, section 5.9.3 and 5.9.4 will be provided by the fire department. 800 ft (60 m) of 2.50" (65 mm) or larger fire hose. 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose. One (1) handline nozzle, 200 gpm (750 L/min) minimum. Two (2) handline nozzles, 95 gpm (360 L/min) minimum. One (1) smoothbore of combination nozzle with 2.50" shutoff that flows a minimum of 250 gpm. One (1) SCBA complying with NFPA 1981 for each assigned seating position, but not fewer than four (4), mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer. One (1) spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space(s). One (1) first aid kit. Four (4) combination spanner wrenches. Two (2) hydrant wrenches. One (1) double female 2.50" (65 mm) adapter with National Hose threads. One (1) double male 2.50" (65 mm) adapter with National Hose threads. One (1) rubber mallet, for use on suction hose connections. Two (2) salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m). One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, *Standard for High Visibility Public Safety Vests*, and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front. Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (152 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band. Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities. One (1) automatic external defibrillator (AED). Four (4) ladder belts meeting the requirements of NFPA 1983, *Standard on Fire Service Life Safety Rope and System Components* (if equipped with an aerial device). If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, will be carried mounted in brackets fastened to the apparatus. If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side will be carried. Any intake connection larger than 3.00" (75 mm) will include a pressure relief device that meets the requirements of 16.6.6. If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake will be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake. If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters will be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.
0519913	Not Required, Soft Suction Hose	**SOFT SUCTION HOSE** There will be no soft suction hose provided.
0027023	No Strainer Required	
0602538	Extinguisher, Dry Chemical, Pumper NFPA 2016 Class, Provided by Fire Department	**DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 5.9.4 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus. The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.
0602360	Extinguisher, 2.5 Gal. Pressurized Water, Pumper NFPA 2016,Provided by Fire Dept	**WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, section 5.9.4 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus. The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

0602679	Axe, Flathead, Pumper NFPA 2016 Classification, Provided by Fire Department	**FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) flathead axe mounted in a bra fastened to the apparatus. The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.
0602667	Axe, Pickhead, Pumper NFPA 2016 Classification, Provided by Fire Department	**PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT** NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) pickhead axe mounted in a bracket fastened to the apparatus. The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.
0741569	Paint Process / Environmental Requirements, Appleton	**PAINT PROCESS** The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows: Manual Surface Preparation - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate. Chemical Cleaning and Pretreatment - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion. Surfacer Primer - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded. Finish Sanding - The Surfacer Primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat. Sealer Primer - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated. Basecoat Paint - Two coats of a high performance, two component high solids polyurethane basecoat will be applied. The Basecoat will be applied to a thickness that will achieve the proper color match. The Basecoat will be used in conjunction with a urethane clear coat to provide protection from the environment. Clear Coat - Two (2) coats of Clear Coat will be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors will be Clear Coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacturer. After the cab and body are painted, the color will be verified to make sure that it matches the color standard. Electronic color measuring equipment will be used to compare the color sample to the color standard entered into the computer. Color specifications will be used to determine the color match. A Delta E reading will be used to determine a good color match within each family color. All removable items such as brackets, compartment doors, door hinges, and trim will be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly. The paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) are to meet or exceed Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels are to meet or exceed the #6 A.C.T.standard in critical areas. The manufacture's written paint standards will be available upon request. **Environmental Impact** Contractor will meet or exceed all current state regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions: Topcoats and primers will be chrome and lead free. Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals. Particulate emission collection from sanding operations will have a 99.99 percent efficiency factor. Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98 percent. Water wash systems will be 99.97 percent efficient Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean. Paint wastes are disposed of in an environmentally safe manner. Empty metal paint containers will be recycled to recover the metal. Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse. Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Contractor will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his state EPA rules and regulations.

0709566		Paint, Two-Tone Color, Enforcer	**TWO-TONE CAB PAINT** The cab will be painted two-tone with the upper section painted #101 black and the lower painted #90 red. There will be a standard two-tone cab paint break provided. There will be a deep cab shield provided.
0709833		Paint, Two-Tone Color, Body	**TWO-TONE BODY PAINT** The body will be painted two-tone with the upper section painted to match the upper section of the cab and the lower section painted to match the lower section of the cab. The body paint break will be at the seam between the body and hatch compartment or catwalk on each side.
0646897		Paint Chassis Frame Assy, E-Coat, Standard	**PAINT CHASSIS FRAME ASSEMBLY** The chassis frame assembly will be finished with a single system black top coat before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components treated with epoxy E-coat protection prior to paint: Two (2) C-channel frame rails Components that are included with the chassis frame assembly that will be painted not e-coated are: Cross members Axles Suspensions Steering gear Battery boxes Bumper extension weldment Frame extensions Body mounting angles Rear Body support substructure (front and rear) Pump house substructure Air tanks Steel fuel tank Castings Individual piece parts used in chassis and body assembly The E-coat process will meet the technical properties shown.
0516417		Wheels, Accent Stripe on Outer Edge, Single Axle	**WHEELS, ACCENT STRIPE** All exposed outer edge wheel surfaces will be painted with a Red Pierce #90 accent stripe.
0693798		Paint, Front Wheels	**PAINT, FRONT WHEELS** All wheel surfaces, inside and outside, will be provided with paint black #101.
0693793		Paint, Rear Wheels, Single Axle	**PAINT, REAR WHEELS** All wheel surfaces, inside and outside, will be provided with paint black #101.
0733739		Paint, Axle Hubs	**AXLE HUB PAINT** All axle hubs will be painted black #101.
0013176		Smooth Finish, Two-Tone Cab Paint Break w/Shield, No Vinyl	**FINISH TWO-TONE PAINT BREAK SMOOTH, NO VINYL** The two-tone paint break will be finished smooth. There will not be a vinyl stripe installed on the break.
0007230		Compartment, Painted, Spatter Gray	**COMPARTMENT INTERIOR PAINT** The interior of all compartments will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.
0605221	SP	Reflective Band, 9"	**REFLECTIVE BAND** An 9.00" black reflective band will be provided across the front of the vehicle and along the sides of the cab and body.
0027356		Reflective, Cab Face, Below the Grille	**REFLECTIVE, CAB FACE, BELOW GRILLE** The reflective band provided on the cab face will be between the front grille and the front bumper.
0536954		Stripe, Chevron, Rear, Diamond Grade, Pumper	**REAR CHEVRON STRIPING** There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear compartment door, will be covered. The colors will be red and fluorescent yellow green diamond grade. Each stripe will be 6.00" in width. This will meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface will be covered with chevron striping.

0679883	Stripe, Printed Effect Gold Leaf Outline Above & Below Reflective Band	**PRINTED EFFECT GOLD LEAF STRIPE** There will be a printed effect gold leaf stripe applied above and below the reflective ban printed effect gold leaf stripes will be .50" wide with an outline.
0065687	Stripe, Reflective, Cab Doors Interior	**CAB DOOR REFLECTIVE STRIPE** A 6.00" x 16.00" black reflective stripe will be provided across the interior of each cab door. The stripe will be located approximately 1.00" up from the bottom, on the door panel. This stripe will meet the NFPA 1901 requirement.
0679810	Stripe, Printed Effect Gold Leaf, Two-Tone Paint Break with Shield, IPO Chrome	**CAB STRIPE** There will be a printed effect gold leaf stripe provided on both sides of the cab in place of the chrome molding and on the cab face with shield.
0027372	Lettering Specifications, (GOLD STAR Process)	**LETTERING** The lettering will be totally encapsulated between two (2) layers of clear vinyl.
0685691	Lettering, Printed Effect Gold Leaf, 3.00", (21-40)	**LETTERING** Twenty-one (21) to forty (40) printed effect gold leaf lettering, 3.00" high, with outline and shade will be provided.
0685993	Lettering, Reflective, 10.00", Each	**LETTERING** There will be reflective lettering, 10.00" high, with outline and shade provided. There will be four (4) letters provided.
0686018	Lettering, Reflective, 5.00", Each	**LETTERING** There will be reflective lettering, 5.00" high, with outline and shade provided. There will be six (6) letters provided.
0686084	Lettering, Reflective, 3.00", Each	**LETTERING** There will be reflective lettering, 3.00" high, with outline and shade provided. There will be 48 letters provided.
0685553	Lettering, Printed Effect Gold Leaf, 6.00", (1-20)	**LETTERING** One (1) to twenty (20) printed effect gold leaf lettering, 6.00" high, with outline and shade will be provided.
0685560	Lettering, Printed Effect Gold Leaf, 5.00", (1-20)	**LETTERING** One (1) to twenty (20) printed effect gold leaf lettering, 5.00" high, with outline and shade will be provided.
0685602	Lettering, Printed Effect Gold Leaf, 3.00", (21-40)	**LETTERING** Twenty-one (21) to forty (40) printed effect gold leaf lettering, 3.00" high, with outline and shade will be provided.
0683997	Lettering, Vinyl, 18.00", Each	**LETTERING** There will be non-reflective vinyl lettering, 18.00" high, with no outline or shade provided. There will be four (4) letters provided.
0017268	Decals, Customer furnished, Pierce installed, Per Pair	**DECAL INSTALLATION** There will be two (2) pair of decals furnished by the fire department and applied by the apparatus manufacturer.

0771690	Manual, Fire Apparatus Parts, (2) USB Flash Drives, Multi Unit Order, Custom	**FIRE APPARATUS PARTS MANUAL** There will be one (1) custom parts manual in USB flash drive format for the complete fir apparatus provided. The manual will contain the following: Job number Part numbers with full descriptions Table of contents Parts section sorted in functional groups reflecting a major system, component, or assembly Parts section sorted in alphabetical order Instructions on how to locate parts Each manual will be specifically written for the chassis and body model being purchased. It will not be a generic manual for a multitude of different chassis and bodies. This is a multiple unit order. The customer will receive one (1) manual on USB flash drive total for the four (4) truck order. **SERVICE PARTS INTERNET SITE** The service parts information included in these manuals are also available on the Pierce website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.
0771956	Manual, Chassis Service, (1) USB Flash Drive, Multi Unit Order, Custom	**CHASSIS SERVICE MANUALS** There will be one (1) chassis service manual on USB flash drive containing parts and service information on major components provided with the completed unit. The manual will contain the following sections: Job number Table of contents Troubleshooting Front Axle/Suspension Brakes Engine Tires Wheels Cab Electrical, DC Air Systems Plumbing Appendix The manual will be specifically written for the chassis model being purchased. It will not be a generic manual for a multitude of different chassis and bodies. This is a multiple unit order. The customer will receive one (1) manual on USB flash drive total for the four (4) truck order.
0772059	Manual, Chassis Operation, (1) Hard Copy & (1) USB, Multi Unit Order, Custom	**CHASSIS OPERATION MANUALS** There will be one (1) hard copy and one (1) USB flash drive provided that will include all of the same information. This is a multiple unit order. One (1) hard copy manual and one (1) manual on USB flash drive total will be supplied for the four (4) truck order.
0030008	Warranty, Basic, 1 Year, Apparatus, WA0008	**ONE (1) YEAR MATERIAL AND WORKMANSHIP** A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.
0735523	Warranty, Engine, Paccar MX13, 5 Year	**ENGINE WARRANTY** A Paccar five (5) year**limited engine warranty will be provided. A limited warranty certificate, XX, is included with this proposal.**
0684953	Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	**STEERING GEAR WARRANTY** A Sheppard **three (3) year** limited steering gear warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.
0596017	Warranty, Frame, 50 Year, Custom Chassis, WA0013	**FIFTY (50) YEAR STRUCTURAL INTEGRITY** The Pierce custom chassis frame limited warranty certificate, WA0013, is included with this proposal.
0595698	Warranty, Axle, 3 Year, TAK-4, WA0050	**FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY** The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.
0610485	Warranty, Axle, Eaton/Dana, 5 Year/100,000 Mile, Parts and Labor	**REAR AXLE WARRANTY** A Eaton **five (5)-year/100,000 mile** parts and labor warranty will be provided.

0652758	Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	**ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY** A Meritor Wabco™ ABS brake system limited warranty certificate, WA0232, is included proposal.
0019914	Warranty, Structure, 10 Year, Custom Cab, WA0012	**TEN (10) YEAR STRUCTURAL INTEGRITY** The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.
0744240	Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	**TEN (10) YEAR PRO-RATED PAINT AND CORROSION** A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.
0524627	Warranty, Electronics, 5 Year, MUX, WA0014	**FIVE (5) YEAR MATERIAL AND WORKMANSHIP** The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.
0695416	Warranty, Pierce Camera System, WA0188	**CAMERA SYSTEM WARRANTY** A Pierce fifty four (54) month**warranty will be provided for the camera system.**
0647720	Warranty, Pierce LED Strip Lights, WA0203	**COMPARTMENT LIGHT WARRANTY** The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.
0046369	Warranty, 5-year EVS Transmission, Standard Custom, WA0187	**TRANSMISSION WARRANTY** The transmission will have a **five (5) year/unlimited mileage** warranty covering 100 percent parts and labor. The warranty will be provided by Allison Transmission. Note: The transmission cooler is not covered under any extended warranty you may be getting on your Allison Transmission. Please review your Allison Transmission warranty for coverage limitations.
0685945	Warranty, Transmission Cooler, WA0216	**TRANSMISSION COOLER WARRANTY** The transmission cooler will carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty will also be in effect for the first three (3) years of the warranty coverage and will not exceed $10,000 per occurrence. A copy of the warranty certificate will be submitted with the bid package.
0688798	Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	**WATER TANK WARRANTY** A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.
0596025	Warranty, Structure, 10 Year, Body, WA0009	**TEN (10) YEAR STRUCTURAL INTEGRITY** The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.
0693127	Warranty, Gortite, Roll-up Door, 6 Year, WA0190	**ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY** A Gortite roll-up door limited warranty will be provided. The mechanical components of the roll-up door will be warranted against defects in material and workmanship for the lifetime of the vehicle. A **six (6) year** limited warranty will be provided on painted and satin roll up doors. The limited warranty certificate, WA0190, is included with this proposal.
0734463	Warranty, Pump, Waterous, 7 Year Parts, WA0382	**PUMP WARRANTY** The Waterous pump will be provided with a Seven (7) year**material and workmanship limited warranty.** **A copy of the warranty certificate will be submitted with the bid package (no exception).**
0648675	Warranty, 10 Year S/S Pumbing, WA0035	**TEN (10) YEAR PUMP PLUMBING WARRANTY** The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.
0657846	Warranty, Foam System, Husky 12, WA0231	**FOAM SYSTEM WARRANTY** The Husky 12 foam system limited warranty certificate, WA0231, is included with this proposal.
0595820	Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	**TEN (10) YEAR PRO-RATED PAINT AND CORROSION** A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.

0595421	Warranty, Goldstar, 3 Year, Apparatus, WA0018	**THREE (3) YEAR MATERIAL AND WORKMANSHIP** The Pierce Goldstar gold leaf lamination limited warranty limited warranty certificate, WA included with this proposal.
0683627	Certification, Vehicle Stability, CD0156	**VEHICLE STABILITY CERTIFICATION** The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification will be provided at the time of bid.
0808565	Certification, Engine Installation, Enf, Paccar MX, 2027	**ENGINE INSTALLATION CERTIFICATION** The fire apparatus manufacturer will provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification will be provided at the time of delivery.
0686786	Certification, Power Steering, CD0098	**POWER STEERING CERTIFICATION** The fire apparatus manufacturer will provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification will be provided at the time of bid.
0631980	Certification, Cab Integrity, Saber FR/Enforcer, CD0130	**CAB INTEGRITY CERTIFICATION** The fire apparatus manufacturer will provide a cab crash test certification with this proposal. The certification will state that a specimen representing the substantial structural configuration of the cab has been tested and certified by an independent third party test facility. Testing events will be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer will provide a state licensed professional engineer to witness and certify all testing events. Testing will meet or exceed the requirements below: European Occupant Protection Standard ECE Regulation No.29. SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks. SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks. **Roof Crush** The cab will be subjected to a roof crush force of 22,500 lb. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons. **Side Impact** The same cab will be subjected to dynamic preload where a 13,275-lb moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lb of force. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a rollover incident. **Frontal Impact** The same cab will withstand a frontal impact of 32,600 ft-lb of force using a moving barrier in accordance with SAE J2420. **Additional Frontal Impact** The same cab will withstand a frontal impact of 65,200 ft-lb of force using a moving barrier. (Twice the force required by SAE J2420) The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area.
0631973	Certification, Cab Door Durability, Saber FR/Enforcer, CD0137	**CAB DOOR DURABILITY CERTIFICATION** Robust cab doors help protect occupants. Cab doors will survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder will certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.
0631978	Certification, Windshield Wiper Durability, Saber FR/Enforcer, CD0132	**WINDSHIELD WIPER DURABILITY CERTIFICATION** Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers will survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 *Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles.* The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.
0631974	Certification, Electric Window Durability, Saber FR/Enforcer, CD0133	**ELECTRIC WINDOW DURABILITY CERTIFICATION** Cab window roll-up systems can cause maintenance problems if not designed for long service life. The window regulator design will complete 30,000 complete up-down cycles and still function normally when finished. The bidder will certify that sample doors and windows similar to those provided on the apparatus have been tested and have met these criteria without malfunction or significant component wear.

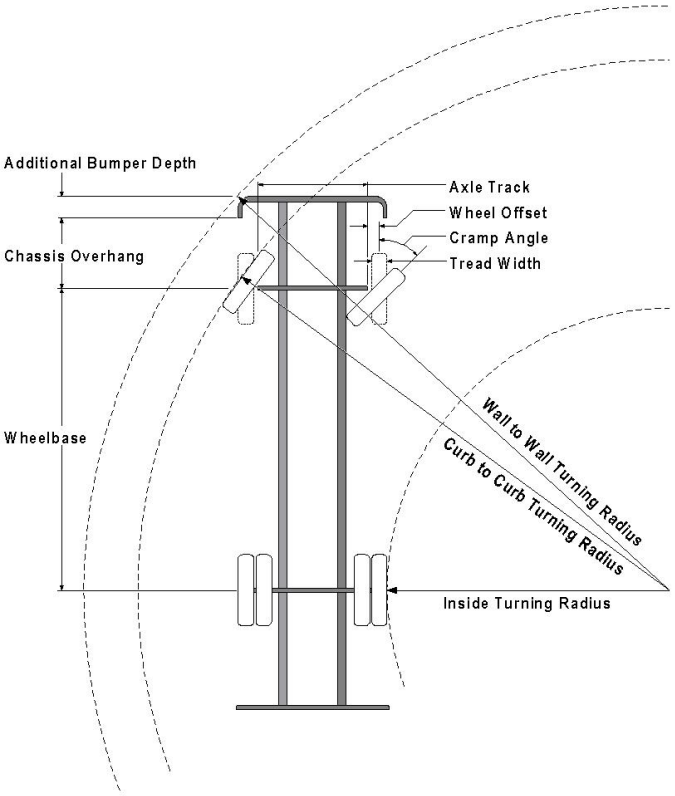
0631977	Certification, Seat Belt Anchors and Mounting, Saber FR/Enforcer, CD0134	**SEAT BELT ANCHOR STRENGTH** Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards a[illegible] be validated through testing. Each seat belt anchor design will withstand 3000 lb of pull the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anch[illegible] The bidder will certify that each anchor design was pull tested to the required force and met the appropriate criteria. **SEAT MOUNTING STRENGTH** Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design will be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder will certify, at time of delivery, that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.
0735949	Certification, Cab HVAC System Performance, SFR/Enf, CD0165/CD0167/CD0174/CD0175	**PERFORMANCE CERTIFICATIONS** **Cab Air Conditioning** Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air conditioning system will cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 78 degrees Fahrenheit in 30 minutes. The bidder will certify that a substantially similar cab has been tested and has met these criteria. **Cab Defroster** Visibility during inclement weather is essential to safe apparatus performance. The defroster system will clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles.*The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.* ***Cab Auxiliary Heater*** *Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. An auxiliary cab heater will warm the cab 77 degrees Fahrenheit from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify, at time of delivery, that a substantially similar cab has been tested and has met these criteria.*
0545073	Amp Draw Report, NFPA Current Edition	**AMP DRAW REPORT** The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system. The manufacturer of the apparatus will provide the following: Documentation of the electrical system performance tests. A written load analysis, which will include the following: The nameplate rating of the alternator. The alternator rating under the conditions specified per: Applicable NFPA 1901 or 1906 (Current Edition). The minimum continuous load of each component that is specified per: Applicable NFPA 1901 or 1906 (Current Edition). Additional loads that, when added to the minimum continuous load, determine the total connected load. Each individual intermittent load. All of the above listed items will be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).
0002758	Amp Draw, NFPA/ULC Radio Allowance	
0799248	Appleton/Florida BTO	
0000018	PUMPER, 2ND GEN	
0000012	PIERCE CHASSIS	
0735525	PACCAR MX13 ENGINE	
0046396	EVS 4000 Series TRANSMISSION	
0020011	WATEROUS PUMP	
0020009	POLY TANK	
0028048	FOAM SYSTEM	

0020006	SIDE CONTROL
0020007	AKRON VALVES
0020015	ABS SYSTEM
0658751	PUMPER BASE

Turning Performance Analysis

03/28/2022

Bid Number: 785
Department: City of Oroville
Chassis: Enforcer Chassis
Body: Pumper, Short, Galvanneal, 2nd Gen



Parameters:

*Inside Cramp Angle:	45°
Axle Track:	86.17 in.
Wheel Offset:	3.12 in.
Tread Width:	12.4 in.
Chassis Overhang:	65.95 in.
Additional Bumper Depth:	13 in.
Front Overhang:	78.95 in.
Wheelbase:	165.5 in.

Calculated Turning Radii:

Inside Turn:	13 ft. 0 in.
Curb to curb:	25 ft. 11 in.
Wall to wall:	29 ft. 10 in.

Category	Option	Description
Bumpers	0606555	Bumper, 13" Extended, Steel Painted, 8.00" High, Saber FR/Enforcer
Wheels, Front	0894433	Wheels, Front, 22.50" x 9.00", Steel, Hub Pilot, 315/80R Tire
Tires, Front	0582936	Tires, Front, Goodyear, G289 WHA, 315/80R22.50, 20 ply
Axle, Front, Custom	0633906	Axle, Front, Oshkosh TAK-4, Non Drive, 18,000 lb, Enforcer

Notes:

*Actual Inside cramp angle may be less than shown.

Curb to Curb turning radius calculated for 9.00 inch curb.

Definitions:

Inside CrampAngle	Maximum turning angle of the front inside fire.
Axle Track	King-pin to King-pin distance of front axle.
Wheel Offset	Offset from the center line of the wheel to the King-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance of the center line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Wheel	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicles front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures takes into account any front overhang due to chassis , bumper extensions and or aerial devices.

Electrical Analysis

Bid #: 785

Desc: CalFire/Oroville Type 1 WUI

Customer: City of Oroville

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT

Job #:

Sales Rep: Hansen, Brad

Organization: Golden State Fire Apparatus, Inc

Type: Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0001244	High Idle w/Electronic Engine, Custom		0.00	1.20	0.00
0010670	ABS Wabco Brake System, Single rear axle		0.00	6.00	0.00
0062988	Gauge, Foam Level, (2) Tanks, Class 1		0.00	0.00	1.00
0079211	Batteries, (6) Exide Grp 31, 950 CCA each, Threaded Stud		0.00	3.00	0.00
0095353	Foam Sys, Husky 12, Dual Agent		0.00	5.00	0.00
0543751	Light, Do Not Move Apparatus		0.00	0.80	0.00
0548004	Wiring, Spare, 15 A 12V DC 1st		0.00	0.00	60.00
0549333	Indicators, Engine, Included with Pressure Controller		0.00	0.35	0.00
0553643	Control, Air Horn at Pmp Pnl, Red Switch		0.00	0.16	0.00
0554191	Handlight, Streamlight, Fire Vulcan, 44451, C4 LED, Tail Lights,		0.00	1.50	0.00
0583938	Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3"		0.00	0.30	0.00
0589905	Alarm, Back-up Warning, PRECO 1040		0.00	0.50	0.00
0602637	Portable Hand Light, Provided by Fire Dept, Pumper NFPA 2016		0.00	0.50	0.00
0604059	Gauge, Water Level, FRC, WLA 205-A00, TankVision, Remote		0.00	0.00	0.50
0607957	Primer, Trident, Air Prime, Air operated, Auto w/Gauge, w/(1) Add'l		0.00	0.01	0.00
0626449	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 2nd		0.00	0.00	1.50
0626453	Light, Wln, 12V NP6B* Nano Pioneer Series LED, Bail Mount 1st		0.00	0.00	1.50
0630636	Controls, Electric Roll-Up Windows, 4dr, 4 Driver Controls, Saber		0.00	26.00	0.00
0639727	Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer		0.00	180.00	0.00
0653520	Camera, Pierce, Mux, R, RS Cameras		0.00	1.20	0.00
0653937	Flasher, Headlight Alternating		0.00	0.08	0.00
0688927	Reel, Booster, Aluminum - Over Pump, Left Side		0.00	36.00	0.00
0735006	Intercom, David Clark, 4-Pos, 2-Radio, (D,O,RPTT), 2obC, U3805		0.00	0.00	0.50
0735687	Engine Brake, Fully Integrated, Paccar MX13 Engine		0.00	0.42	0.00
0764088	Wiring, Spare, 47.5 A 12V DC, Cust Install Radio, 40A Bat Dir,		0.00	0.00	47.50
0765338	Lights, Side Scene, Zico ZQL-SS-LED, Stainless, Cab Sw &		0.00	0.00	1.00
0803875	Radio, AM/FM/WB, Jensen, Frt,Rear Aux In/Frt,Rear		0.00	0.00	2.00
0804836	Lights, Cornering/Scene, Wln M62BU LED, Switches 2 lts, 1st		0.00	3.20	0.00
0806466	Lights, Backup, Wln M62BU, LED, For Tail Lt Housing		0.00	3.20	0.00
0895310	Siren, Federal Q2B		0.00	100.00	0.00
0897831	Wiring, Spare,12V DC, USB-A, USB-C Termination, Kussmaul		0.00	0.00	24.00
0585913	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025	Load Managed	0.00	0.00	40.00
0585914	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025	Load Managed	0.00	0.00	60.00
0722696	HVAC, Enforcer, CARE	Load Managed	0.00	0.00	100.00
0763608	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 2nd	Load Managed	0.00	0.00	12.00
0763610	Lights, Wln, PCPSM2*, Pioneer, 12 VDC, 1st	Load Managed	0.00	0.00	12.00
0768059	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 2nd	Load Managed	0.00	0.00	12.00
0768061	Lights, Wln, PCPSM2* Pioneer, 12 VDC, 1st	Load Managed	0.00	0.00	12.00
0776357	Light, Visor, Wln, 12V P*H2* Pioneer, Cnt Feature, 1st	Load Managed	0.00	0.00	13.00
0809080	Lights, Flood, Rigid Industries, D-Series Pro, Model #212513,	Load Managed	0.00	0.00	4.69
0002758	Amp Draw, NFPA/ULC Radio Allowance	NFPA	5.00	0.00	0.00
0005635	Hourmeter, Pump	NFPA	0.11	0.00	0.00
0092582	Load Manager/Sequencer, MUX	NFPA	0.56	0.56	0.00
0522730	Light, Over Passenger Side Pump Panel, P25 LED Stp Lt	NFPA	0.75	0.00	0.00
0536401	Gauges, Engine, Included With Pierce Pressure Controller	NFPA	0.30	0.00	0.00
0540679	Lights, Side Zone Lower, Wln M6*C LED, Clear Lens 2pr	NFPA	3.60	5.40	0.00
0541152	Lights, Rear/Side Up Zone, Wln M6*C LED, Clear Lens 4lts	NFPA	9.00	0.00	0.00

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply

Electrical Analysis

Bid #: 785

Desc: CalFire/Oroville Type 1 WUI

Customer: City of Oroville

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT

Job #:

Sales Rep: Hansen, Brad

Organization: Golden State Fire Apparatus, Inc

Type: Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0551417	LS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	NFPA	4.50	0.00	4.50
0551418	RS 140" Lap, Full Height Front & Rear, FDLER, Raised Rear 6"	NFPA	4.50	0.00	4.50
0556360	Lights, Step, P25 LED 4lts, Pump Pnl Sw	NFPA	1.00	0.00	0.00
0563675	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	NFPA	0.35	0.00	0.00
0564655	Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt	NFPA	1.80	2.70	0.00
0602752	Siren, Wln 295HFS2 Remote, Single Amp, Other Speaker, Non-	NFPA	1.40	12.60	0.00
0605126	Pump Shift, Air Mnl Override, Split Shaft, Interlocked, Waterous	NFPA	1.00	0.00	0.00
0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	NFPA	1.20	0.00	0.00
0617901	Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	NFPA	0.80	0.00	0.00
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29	NFPA	0.10	0.90	0.00
0622803	Cab Instruments, Black Gauges, Black Bezels, Enforcer MUX	NFPA	1.26	0.00	0.00
0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED,	NFPA	0.12	0.00	0.00
0625953	Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts,	NFPA	0.70	0.70	0.00
0626579	Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear	NFPA	0.80	0.00	0.00
0626588	Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	NFPA	1.60	0.00	0.00
0647638	Lights, Dome, Weldon Dual LED 4 Lts	NFPA	0.80	0.80	0.00
0647802	Lights, Clearance/Marker/ID, Front, P25 LED 5 Lts, Saber	NFPA	0.35	0.00	0.00
0649716	Cab, Enforcer, 6010	NFPA	6.80	10.20	0.00
0665336	Light Shield/Step 8", 4-FRC Firefly LED115-Q01, P25 LED Step Lt	NFPA	5.00	0.00	0.00
0672652	Compt, Flush Rear, Rollup/Space Saver, 37.75" FF, 25.88" D, 2nd	NFPA	0.90	0.00	0.90
0709438	Lights, Walk Surf, FRP Flood, LED	NFPA	2.00	0.00	0.00
0721609	Controller, Pressure, Pierce LCD, Custom Chassis	NFPA	1.70	0.00	0.00
0733220	Lights, Hatch Compt, 42", LED, Light Strips, 1-Sides 2 Dr	NFPA	0.42	0.42	0.00
0733463	DEF Tank, 6.0 Gallon, LS Fill, Rear of Axle, Common Door,	NFPA	0.60	11.40	0.00
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure	NFPA	0.10	0.00	0.00
0739915	Hatch, (2) Liftup, Pumper	NFPA	1.80	0.00	1.80
0745568	Indicator Light, Pump Panel, Ok To Pump, Green	NFPA	0.10	0.00	0.00
0750526	Gauge, Water Level, Pierce, In pressure Controller, Lt Driver	NFPA	1.23	0.00	0.00
0756375	Lights, Hyd Lad Rack Deployed, Truck-Lite 15****	NFPA	0.10	0.00	0.00
0760868	Lights, Cargo/Dunnage, Dual LED Light Strips, Each Side	NFPA	0.30	0.00	0.00
0764155	Cabinet, Forward Facing, Center, 38.50 W x 50 H x 22.50 D, Roll,	NFPA	0.50	0.50	0.00
0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40"	NFPA	2.40	0.00	0.00
0778195	Lights, Rear Scene, Wln, PCPSM1C Pioneer LED Fld/Spt,	NFPA	12.00	0.00	0.00
0783153	Headlights, Rect LED, JW Spkr Evo 2, AXT/DCF/Enf/Imp/Sab/Vel	NFPA	4.20	4.20	0.00
0789132	Lightbar, Wln, Freedom IV-Q, 81", RRRRWRRRWWRRRWRRRR	NFPA	6.48	4.96	12.40
0790412	Air Dryer, Wabco System Saver 1200 IWT, Heated, SFR/Enf	NFPA	7.81	0.00	0.00
0791528	Light, Traffic Directing, Wln TAL65, 36.00" Long, TACTL5	NFPA	0.60	1.20	0.00
0803876	Light, Pump Compt, Truck-Lite 44042C LED	NFPA	0.11	0.00	0.00
0804514	Lights, Tail, Wln M62BTT* Red Stop/Tail & M62T* Amber Dir Arw	NFPA	0.83	2.49	0.00
0808515	Engine, Paccar MX, 510HP, 1850 lb-ftW/OBD, EPA 2027,	NFPA	6.00	0.00	0.00
0887546	Trans, Allison 6th Gen, 4000 EVS P, w/Prognostics,	NFPA	2.00	2.00	0.00
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	NFPA	0.07	0.00	0.00
0892638	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	NFPA	1.00	0.00	0.00
0892649	CZ Connect Telematics	NFPA	1.61	0.00	0.00
0892654	Light, Step, Additional, P25 LED	NFPA	0.14	0.00	0.00
0899300	Lights, Front Zone, Wln M6** M6RS M6RS M6**, Inside Steady	NFPA	3.60	5.40	0.00
0647728	Alternator, 430 amp, Delco Remy 55SI	S	0.00	0.00	0.00
		Load Totals:	**112.00**	**435.85**	**429.29**

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply

Electrical Analysis

Bid #: 785

Desc: CalFire/Oroville Type 1 WUI

Customer: City of Oroville

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT

Job #:

Sales Rep: Hansen, Brad

Organization: Golden State Fire Apparatus, Inc

Type: Multiplexed

Note: Minimum Continous Load is in "Blocking Right of Way" mode.(Reference current edition of NFPA 1901)
Note: Intermittent Load items are not factored in on any alternator load comparisons. These items are included on the report for reference only and should be looked at as amp draw exclusion items. (Reference current edition of NFPA 1901)
Note: Total Connected Load "Demand" represents Total Connected Load minus any Load Managed items

Alternator Output at Idle: 268.00

Minimum Continuous Load	
Supply:	268.00
Demand:	112.00
Variance:	156.00

Alternator Output at Governed Speed: 374.00

Total Connected Load	
Supply:	374.00
Demand:	275.60
Variance:	98.40

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply

4 PRODUCT WARRANTIES

Exhibit "D"

Fire and Rescue Apparatus

One (1) Year Material and Workmanship Basic Apparatus

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Portions of the apparatus manufactured by Pierce shall be free from defects in material and workmanship**
Warranty Begins:	**The date the apparatus is placed in service, or 60 days from the original buyer invoice date, whichever comes first.**
Warranty Period Ends After:	**Twelve (12) months.**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**No specific exclusions apply**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0008

Fire and Rescue Apparatus

SUPPLIER

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the purchaser who first puts the product in service ("Buyer"):

Coverage:	**Covers any failures of the engine which result, under normal use and service, from a defect in material or factory workmanship.**
Warranty Begins:	**The date of the original buyer invoice.**
Warranty Period Ends After:	**Five (5) years or 100,000 miles, whichever occurs first**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**See warranty for exclusions.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

3/19/2021 WA0386

PACCAR ENGINE LIMITED WARRANTY

PACCAR MX Warranty

United States

THIS LIMITED WARRANTY ("LIMITED WARRANTY") LISTS THE RESPECTIVE RIGHTS AND RESPONSIBILITIES OF PIERCE MANUFACTURING INC.'S END USER CUSTOMER THAT FIRST PUTS THE PACCAR ENGINE INTO SERVICE ("YOU" or "FIRST PURCHASER"), PACCAR INC ("PACCAR"), AND THE SERVICING PACCAR ENGINE DISTRIBUTORS ("AUTHORIZED DISTRIBUTORS"). PLEASE READ THIS LIMITED WARRANTY CAREFULLY.

PACCAR warrants directly to You that the PACCAR MX engine and related kitted parts (collectively, the "Engine") will be free from defects in materials and factory workmanship ("Warrantable Failures") appearing under normal commercial use and service during the time, mileage or hour limitations set forth in the attached Warranty Schedule. **This Engine warranty extends only to You, and not any subsequent owner or user of the Engine.** The Emissions warranty is made to all owners of the Engine in the chain of distribution until the end of the Emissions warranty coverage period. Warranty coverage relating to the Emissions components is outlined in the Emissions Warranty section of the PACCAR MX Operator's Manual, the terms and conditions of which are incorporated herein by reference.

YOUR SOLE AND EXCLUSIVE REMEDY AGAINST PACCAR AND ITS SUBSIDIARIES AND AFFILIATES ARISING FROM YOUR PURCHASE AND USE OF THIS ENGINE IS LIMITED TO THE REPAIR OR REPLACEMENT OF WARRANTABLE FAILURES AT AUTHORIZED DISTRIBUTORS IN THE UNITED STATES AND CANADA AND IS SUBJECT TO PACCAR'S TIME, MILEAGE, AND HOUR LIMITATIONS LISTED IN THE ATTACHED WARRANTY SCHEDULES. The maximum time, mileage and hour limitations in the Warranty Schedules begin running on the Date of Delivery to the First Purchaser. **The accrued time, mileage, or hours is calculated when this Engine is brought into an Authorized Distributor for correction of Warrantable Failures.**

WARRANTY DISCLAIMER AND LIMITATIONS OF LIABILITY (ENGINE AND EMISSIONS)

This Limited Warranty is the sole warranty made by PACCAR and its Authorized Distributors to You relating to the Engine. Except for the above limited express warranty, PACCAR and its Authorized Distributors make no other warranties to You, express or implied. PACCAR AND ITS AUTHORIZED DISTRIBUTORS EXPRESSLY DISCLAIM ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IT IS AGREED THAT PACCAR AND ITS AUTHORIZED DISTRIBUTORS SHALL NOT BE LIABLE TO YOU FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO: LOSS OF INCOME OR LOST PROFITS; ENGINE OR VEHICLE DOWNTIME; THIRD PARTY DAMAGE, INCLUDING DAMAGE OR LOSS TO OTHER ENGINES, VEHICLES OR PROPERTY, ATTACHMENTS, TRAILERS AND CARGO; LOSS OR DAMAGE TO PERSONAL CONTENTS; COMMUNICATION EXPENSES; LODGING AND/OR MEAL EXPENSES; FINES; APPLICABLE TAXES OR BUSINESS COSTS OR LOSSES; ATTORNEYS' FEES; AND ANY LIABILITY YOU MAY HAVE IN RESPECT TO ANY OTHER PERSON OR ENTITY.

This warranty does not apply to parts or accessories supplied by the vehicle manufacturer or third parties.

Failures of belts and hoses supplied by PACCAR are covered during the first year from the Date of Delivery of the Engine to the First Purchaser. PACCAR does not warrant antifreeze, lubricants, filters, filter elements, or any other part that is a maintenance or repair item. However, in its sole discretion, PACCAR may pay for lubricating oil, antifreeze, filter elements, belts, hoses, and other maintenance or repair items if the need for replacing such items is due to a Warrantable Failure of the Engine.

You are responsible for the safe operation and maintenance of the Engine and Emissions equipment as specified in the applicable Operator's Manuals. You are responsible for providing proof that all recommended inspections and maintenance have been performed. Before the expiration of the applicable warranty, You must notify an Authorized Distributor of any Warrantable Failures and make the Engine available for Engine repair by such Authorized Distributor. You are responsible for delivery of the Engine to the Authorized Distributor. Locations in the United States and Canada of Authorized Distributors may be found at WWW.PACCARPOWERTRAIN.COM.

PACCAR IS NOT RESPONSIBLE FOR WEAR AND TEAR OR WEAROUT OF COVERED PARTS, storage deterioration, and changes in adjustment resulting from your use of the Engine. Damage due to accident, misuse, abuse, neglect, negligence, improper or insufficient maintenance, or unauthorized modification is not warranted. This may include, but is not limited to: operation without adequate coolants, lubricants, or other fluids; over-fueling; over-speeding; lack of maintenance of the lubricating, cooling or air intake systems; improper storage, starting, warm-up, run-in or shutdown practices; and unauthorized modifications to the Engine. **PACCAR is not responsible for damage or loss resulting from Engine horsepower/torque upgrades.**

Parts used to repair a Warrantable Failure may be new parts, approved remanufactured parts, or repaired parts. PACCAR is not responsible for failures resulting from the use of parts not approved by PACCAR. A new or approved remanufactured part used to repair a Warrantable Failure assumes the identity of the part it has replaced and is entitled to the remaining warranty coverage, if any.

PACCAR IS NOT RESPONSIBLE FOR DAMAGE OR LOSSES CAUSED BY INCORRECT OIL, FUEL, DIESEL EXHAUST FLUID, COOLANT, OR ADDITIVES; WATER, DIRT OR OTHER CONTAMINANTS IN THE FUEL, OIL OR DIESEL EXHAUST FLUID; OPERATION WITHOUT ADEQUATE COOLANTS OR LUBRICANTS; OVER-FUELING; OVER-SPEEDING; IMPROPER STORAGE, STARTING, WARM-UP, RUN-IN OR SHUT-DOWN PRACTICES; OR UNAUTHORIZED MODIFICATIONS OF THE ENGINE. Failure of replacement parts used in repairs due to the above non-warrantable conditions is not warrantable.

If your vehicle is disabled by a Warrantable Failure to the Engine during the base warranty period, PACCAR is not responsible for towing expenses to transport the vehicle to the nearest Authorized Distributor. In lieu of the towing expense and at the sole discretion of PACCAR,

PACCAR will pay the reasonable costs of an authorized mechanic to travel to and from the location of the disabled Vehicle in order to perform the Engine repair.

PACCAR will pay for reasonable labor costs for Engine removal and reinstallation when necessary to repair a Warrantable Failure.

Warrantable Failures resulting in excessive oil consumption will be handled within the basic Engine coverage as stated in the attached Engine Schedule. Before a claim for excessive oil consumption, low power, or excessive fuel consumption will be considered for payment, You must submit adequate documentation to show that consumption exceeds PACCAR published standards

PACCAR reserves the right to inspect and download data from the Engine Electronic Control Module for purpose of failure analysis unless prohibited by applicable law.

TIME LIMIT ON COMMENCING LEGAL ACTION / OTHER TERMS

IT IS AGREED THAT YOU HAVE 12 MONTHS FROM THE ACCRUAL OF THE CAUSE OF ACTION TO COMMENCE ANY LEGAL ACTION ARISING FROM THE PURCHASE OR USE OF THE ENGINE, OR BE BARRED FOREVER.

To the extent any provision of this limited warranty is found to contravene the law of any jurisdiction, the remainder of the warranty shall not be affected thereby.

PACCAR ENGINE LIMITED WARRANTY SCHEDULE

PACCAR MX Warranty

United States

THIS ENGINE WARRANTY SCHEDULE APPLIES ONLY TO ORIGINAL FACTORY EQUIPMENT AND IS SUBJECT TO THE TERMS AND LIMITATIONS IN THE ATTACHED LIMITED WARRANTY. This Engine Warranty Schedule does not apply to the vehicle which is warranted separately. Pursuant to the terms of the attached Limited Warranty, PACCAR Inc ("PACCAR") will pay warranty claims for Warrantable Failures within the following maximum limits in time, mileage, or hours, **whichever shall occur first**. The Warrantable Failure must be brought to the attention of an Authorized Distributor within 30 days of discovery.

PACCAR MX Engine

Basic Engine -Twenty-four (24) months or 250,000 miles (or 400,000 km) or 6,250 hours - (all applications except fire apparatus)

Fire Apparatus Truck Applications Basic Engine - Sixty (60) months or 100,000 miles (or 160,000 km) or 6,250 hours

Major Engine Components - Sixty (60) months or 500,000 miles or 12,500 hours

Cylinder Block Casting	Crankshaft	Lube Pump Gear	Flywheel Housing
Main Bearing Bolts	Camshaft	Crankshaft Gear	Water Pump Housing
Cylinder Head Casting	Cam Follower Assemblies	Camshaft Gear	Thermostat Housing
Cylinder Head Capscrews	Connecting Rod Assemblies	Camshaft Idler Gear	

R. H. SHEPPARD CO., INC.
101 Philadelphia St.
Hanover, PA 17331
Pierce Manufacturing Inc.
2600 American Drive
Appleton, WI 54912

LIMITED WARRANTY: The R. H. Sheppard Co. Inc., ("Sheppard") warrants all M110PKG1 and M110SAU1 steering gears manufactured and sold to Pierce Manufacturing Inc. ("Pierce") for application on Pierce TAK-4 equipped vehicles to be free from defects of workmanship and material under normal use and service for a period of thirty six months from the in service date of the vehicle to its original owner.

Vehicle applications where Sheppard product is used require an application approval before production build. If Pierce uses Sheppard product for any purpose or application which has not been approved by Sheppard in advance, including aftermarket devices (defined as a device added to the steering system directly or indirectly affecting the performance or operation of the Sheppard product in its approved application) not tested and approved by Sheppard this limited warranty SHALL NOT APPLY AND SHALL BE VOID. SHEPPARD MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED. SHEPPARD EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.
SHEPPARD SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES OR FOR LOSS OR DAMAGE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF A PRODUCT. Pierce expressly acknowledges its obligation to inform all users (customers) of the above disclaimer.

CONDITIONS: Claims under this Limited Warranty may only be made by Pierce. In no event shall Sheppard be held liable for warranty charges by unauthorized persons. No allowance will be made for repairs or alterations, unless made with the written consent of Sheppard. Authorized Pierce dealers shall be the only authorized repair facility for Sheppard products applied to Pierce vehicles. Any warrantable repair made under this Limited Warranty must be made on or before 36 months of the in-service date for the Product to which the claim relates. Sheppard shall not be liable for claims made after such date. Sheppard product fitted to Pierce vehicles that are repaired at a repair facility other than an authorized Pierce dealer within the warranty period will be considered for payment under the guidelines of this agreement only by joint written consideration of Sheppard and Pierce warranty departments. It shall be the responsibility of the Pierce warranty department to notify Sheppard if and when this situation occurs. Sheppard will not be held responsible for damage to other steering components such as but not limited to pumps and reservoirs due to improper adjustment of steering gear relief plungers. Vehicle downtime and towing will not be considered under warranty.

REMEDIES: The sole and exclusive remedy of Pierce for Sheppard's breach of the foregoing warranty is limited to the return and repair or reimbursement as follows:

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 2

Warranty Support: In support of the Pierce dealer network, Sheppard will provide a toll-free "Hotline" service to assist in the diagnosis and troubleshooting of steering problems. The R. H. Sheppard Co., Inc. Field Service Department can be reached at 1-800-274-7437 for assistance. Sheppard will require that Pierce dealers contact this toll-free "Hotline" for approval before product is removed from a vehicle in a warranty situation. When contacted regarding a warranty situation, the Sheppard representative will provide an authorization number for removal of the product. This Returned Goods Authorization (RGA) number must be included in all warranty correspondence and attached to all returned goods.

Procedure: In the event of a warranty situation, the servicing dealer shall contact the Sheppard Hotline and receive an RGA number before replacing any steering gear. For M110PKG1 and M110SAU1 steering gear models, the dealer will first obtain an RGA number from Sheppard, and then order the replacement gear from Pierce. Replacement M110PKG1 and M110SAU1 steering gears shall be shipped from Pierce once those models are in full production. A warranty claim for both parts and labor will then be generated by the dealer and sent to Pierce. After reviewing the claim, Pierce will submit it to Sheppard for reimbursement.

Parts Reimbursement: Sheppard agrees to reimburse Pierce at Pierce's purchase price plus 30% mark-up for parts found to be defective within the warranty period. Parts being returned for warranty consideration shall be sent to the R. H. Sheppard Company, 447 E. Middle St., Hanover, PA 17331 ATTN: Warranty Dept. Sheppard's determination as to whether the part is covered by the foregoing warranty is final and conclusive. Sheppard requires the return of complete steering gears only. Individual seals replaced under warranty **should not** be returned unless specifically requested by Sheppard. All parts being returned for warranty consideration must be clearly tagged with all pertinent warranty information including, but not limited to (1) Returned Goods Authorization number (RGA); (2) claim number; (3) date in service; (4) date of failure; (5) mileage; (6) part number; (7) labor hours; (8) dealer labor rate and; (9) dollar amount claimed. Claims submitted without prior authorization are subject to rejection under this agreement.

Labor: Labor to repair Sheppard product found to be defective within the warranty period will be reimbursed at not more than 10 hours per vehicle. Labor shall be reimbursed at the rate of $85.00 USD per hour for M110PGK1 and M110SAU1 steering gears.

Freight: Pierce will collect M110PGK1 and M110SAU1 warranty material at a designated collection point. Inbound freight to the Pierce collection point will be the responsibility of Pierce. All warranty material should be returned from the Pierce collection point to R. H. Sheppard Co. Freight Collect by a Sheppard-specified common carrier based on location of the Pierce collection point. Sheppard does not require the return of failed seals. Any freight charges incurred for the return of seals will be the responsibility of Pierce. Parts returned for warranty consideration without prior authorization are subject to rejection under this agreement and may be subject to a charge back of inbound freight charges. Parts rejected under this warranty will be returned to Pierce Freight Collect or scrapped by Sheppard at Pierce's discretion.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 3

Outside Purchases: Pierce authorized dealers shall be the only outlet for repair, warranty service and parts for Sheppard products applied to Pierce vehicles. Sheppard will not be responsible for consumables such as hoses, belts, fluids, fittings or miscellaneous shop material that may be required for the repair of the product.

Warranty Documentation: Warranty credit memos will be issued monthly to the Pierce Warranty Department. Monthly credit memos will include (1) claim number; (2) part number; (3) parts reimbursement; (4) labor reimbursement; (5) any applicable Pierce reference number and; (6) reason for rejection or acceptance of the claim. Credit memos will be issued in U.S. funds. Debits for warranty claims will not be accepted under this agreement. Claim disposition will constitute the final and conclusive resolution of warranty claims.

Parts Retention: Sheppard will retain parts submitted for warranty consideration for a period of sixty (60) days for any material found to be rejected for warranty. Sheppard will notify Pierce within sixty (60) days of receipt of Sheppard's determination as to whether any such part is covered by this warranty. Warranty reimbursement will be issued within thirty days of receipt of material at Sheppard.

Good-Will Requests: Good-Will requests will be considered jointly between Sheppard and Pierce for equitable compensation.

RECALLS: Sheppard retains the right to review information regarding federal motor vehicle recall and /or product repair programs if Sheppard products fitted to Pierce vehicles are alleged to be non-compliant with federal motor vehicle safety standards. Sheppard retains the right to review any claims of product defect or non-compliance before participating in reimbursement of expenses incurred as a result of alleged non-compliance or defect of its products. Sheppard agrees to negotiate in good faith for the reimbursement of expenses incurred by Pierce for all administrative, material and labor cost and expense associated with any recall where Sheppard product is found to be defective or non-compliant with federal motor vehicle standards.

MISCELLANEOUS: This writing constitutes the full complete and final statement of Sheppard's limited warranty for M110PKG1 and M110SAU1 products sold to Pierce. All prior oral or written correspondence, test data, negotiations, representations, understandings and the like regarding products are merged in this writing and extinguished by it. This limited warranty may not be altered, amended extended or modified except by a writing signed by the President or Vice President of Sheppard. No employee, vendor, dealer, distributor or other representative of Sheppard has authority to make statements to extend, expand, alter or amend the terms of this Limited Warranty. Sheppard expressly disclaims any statements contrary to the Limited Warranty. Sheppard's failure at any time to enforce any of the terms and conditions stated herein shall not constitute a waiver of any provisions herein. This Limited Warranty shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 4

Any legal actions which may arise as a result of disputes, controversies or claims arising out of or related to this limited warranty shall be in such forum as Sheppard and Pierce shall agree, or, in the absence of agreement, in a court of appropriate jurisdiction other than in the county in which either party is located. This Limited Warranty shall not be assigned by Pierce.

COOPERATIVE EFFORT: Sheppard and Pierce agree to work cooperatively toward expanding this warranty coverage to a period of sixty months from the in service date. These cooperative efforts shall focus on examining the effects of increased heat generated by 2007 model engines and its impact on the entire power steering system.

AGREEMENT: This agreement is effective April 3, 2006 and may be modified by mutual agreement between Sheppard and Pierce of a signed amendment to be attached to the original Limited Warranty. There are no third party beneficiaries to this Limited Warranty. This warranty agreement applies to Pierce authorized dealers only. It does not encompass any special arrangements that Pierce may now have or that Pierce may enter into, with any other segments of the trucking industry. This warranty agreement does not apply to non-conforming product removed at Pierce assembly plants.

This Limited Warranty agreement between the R. H. Sheppard Co., Inc and Pierce Manufacturing Inc. may be terminated by either party with thirty days written notice prior to termination.

Signed at Pierce Manufacturing Inc., Appleton, WI this _____ day of _____, 2006.

R. H. SHEPPARD CO., INC.

_____
Authorized Signature

_____
Title

PIERCE MANUFACTURING INC.

_____
Authorized Signature

_____
Title

Fire and Rescue Apparatus

Lifetime Fifty (50) Year Structural Integrity Custom Chassis Frame

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Custom chassis frame rail manufactured by Pierce shall be free from defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Fifty (50) Years (Expected Life of Apparatus)**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not apply to damage caused by corrosion.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0013

Fire and Rescue Apparatus

Three (3) Year Material and Workmanship
TAK-4 Independent Front Suspension

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The TAK-4 Front Independent Suspension and Steering Gears shall be free from defects in material and workmanship.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Three (3) Years -or- 30,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty excludes brake pads, brake rotors, seal boots and shock absorbers.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Dana Holding Corporation
Commercial Vehicle Products Group
Grace Lake Corporate Center
1 Village Center Drive
Van Buren Township, Michigan 48111
www.dana.com

New for 2011!

Dana Holding Corporation is pleased to announce a change in our standard warranty for fire/rescue vehicles. All steer and drive axles will now come with a 5 year / 100,000 mile warranty. For further information, please go to www.roadranger.com.

Dana Holding Corporation is working with chassis manufactures to supply a 24K front steer beam with a 5 ¼' drop. We have listened to your requests for a slightly higher GAWR for single axle aerials. Not all fire stations can accommodate a long wheel base application. This allows manufactures to meet the limited length requirements for smaller fire houses. Please submit your requests through our website. Please indicate on the application your need for 24K GAWR.

Finally, our drive axles will accommodate simultaneous auxiliary braking. Dana axles are built tough and were design with Telma retarders in mind. Submit your application for single or tandem designation.

Dana Holding Corporation will work with you to provide the best drive train solution with the best warranty in the fire/rescue industry. For additional information please contact:

Alan Manzon
Account Manager – Specialty Markets
Dana Holding Corporation
One Village Center Dr.
Van Buren Twp., MI 48111-5711

Phone: (734)629-1141
Cell: (269)312-3220
Alan.manzon@dana.com

Fire and Rescue Apparatus

Three (3) Year Material and Workmanship
Meritor Wabco ABS Brake System
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The Meritor Wabco ABS brake system shall be covered by Meritor Wabco as indicated in the attached Meritor Wabco warranty coverage description**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Three (3) Year**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**The exclusions listed in the attached Meritor Wabco warranty description shall apply.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

WARRANTY

MODEL YEAR 2021 VEHICLES



Warranty coverage is essential to protecting your investment. But understanding the full details of your coverage can be challenging. This straightforward approach allows you, our valued customer, to better understand how your specific vehicle applications will be covered in your region. Our component warranty coverage is provided according to vocation/usage categories listed below.

- Linehaul covers high mileage operation (over 60,000 miles/year) on well-maintained major highways of concrete or asphalt construction.
- General Service covers moderate mileage operations (less than 60,000 miles/year) on well-maintained public roads (less than 10 percent off-road) typically with less than three (3) stops per mile.
- Heavy Service (Vocational) covers vehicles with more than 10 percent off-road OR moderate to frequent starts/stops typically with more than three (3) stops per mile.
- Off-Highway Service covers lower mileage operations. Vehicles are not typically licensed for highway use.

How to Read Warranty Coverage (Example)		
Number of Years	**Mileage (in thousands) Unl=Unlimited**	**P=Parts Only P&L=Parts & Labor**
3	300	P

- The standard aftermarket warranty for WABCO products - including WABCO Original parts, WABCO Reman Solutions, ProVia quality aftermarket parts and WABCO retrofit solutions - is one year, parts only from in-service date when purchased from ZF distributor networks or its affiliates and/or subsidiaries.

LINEHAUL/GENERAL SERVICE WARRANTY INFORMATION

LINEHAUL/GENERAL SERVICE VEHICLES

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Auto Hauler
- Beverage Truck
- Bulk Hauler
- Chip Hauler (Truck)
- Cross Country Coach
- Doubles
- Flatbed
- Front Engine Commercial Chassis
- Front Engine Integral Coach
- General Freight
- Grain Hauler
- Intercity Coach
- Intermodal Chassis
- Livestock Hauler
- Meat Packer
- Moving Van
- Municipal Truck
- Pipe Hauler
- Platform Auto Hauler
- Pumper
- Rear Engine Integral Coach
- Recreational Vehicles
- Refrigerated Freight
- School Bus
- Stake Truck
- Tanker
- Tanker Truck
- Triples
- Tour Bus
- Wrecker

LINEHAUL TYPICALLY IS

- High mileage operation (over 60,000 miles/year)
- Well maintained major highways of concrete or asphalt construction

GENERAL SERVICE TYPICALLY IS

- Moderate mileage operations (less than 60,000 miles/year)
- Well maintained public roads (less than 10% off-road)
- Less than three (3) stops per mile

WABCO Components[1]	
Air Management	
Air Brake Valves	1/100/P&L
Trailer Lift Axle Control Valve	
Trailer Control Line Filter[3]	
Air Compressors (ALL)[2]	2/200/P&L
Air Dryers (ALL)	3/300/P&L
Aerodynamics	
OptiFlow® TrailerSkirt	2/UnU/P
OptiFlow® Trailer Tail and AutoTail	2/Unl/P
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Electronic Braking System (EBS)	
Electronic Stability Control (ESC)	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Trailer ABS (Anti-Lock Braking System)[3]	
Driveline Suspension Control	
Clutch Controls	2/200/P&L
Leveling Valves	1/100/P&L
OptiRide® Automated Manual Transmission (AMT)	
OptiRide® Electronically Controlled Air Suspension (ECAS)	3/300/P&L

WABCO Components[1] (cont.)	
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	6/600/P
MAXXUS™ Truck Air Disc Brake	5/500/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 17 and 19 Air Disc Brake	2/Unl/P and 1/Unl/L
Pan 22 Air Disc Brake	5/500/P and 1/L
TRISTOP™ D Actuator w/ IBV or IRB	6/600/P
TRISTOP™ D Actuator	3/300/P
UNISTOP™ Actuator	2/200/P
Trailer MAXX22T™ Air Disc Brake	5/500/P and 1/L

[1] ZF and WABCO branded components. [2] WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. [3] An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

HEAVY SERVICE (VOCATIONAL) WARRANTY INFORMATION

HEAVY SERVICE VEHICLES

- Airport Rescue Fire (ARF)
- Airport Shuttle
- Asphalt Truck
- Block Truck
- Bottom Dump Trailer Combination
- Cementing Vehicle
- City Bus
- Commercial Pick-Up
- Concrete Pumper
- Construction Material Hauler
- Crash Fire Rescue (CFR)
- Mixer
- Demolition
- Drill Rig
- Dump
- Emergency Service
- Equipment Hauling
- Flatbed Trailer Hauler
- Flatbed Truck
- Fracturing Truck
- Front Loader
- Geophysical Exploration
- Hopper Trailer Combinations
- Landscaping Truck
- Liquid Waste Hauler
- Log Hauling
- Lowboy
- Michigan Special Gravel Trains
- Michigan Special Log Hauler
- Michigan Special Steel Hauler
- Michigan Special Waste Vehicle
- Municipal Dump
- Newspaper Delivery
- Package Delivery
- Pick-up and Delivery
- Rapid Intervention Vehicle (RIV)
- Rear Loader
- Recycling Truck
- Residential Pick-Up/Waste
- Rigging Truck
- Roll-Off
- Scrap Truck
- Semi-End Dump
- Sewer/Septic Vacuum
- Shuttle Bus
- Side Loader
- Snowplow/Snowblower
- Steel Hauling
- Tanker
- Tank Truck
- Tractors with Pole Trailers
- Tractor/Trailer with Jeeps
- Transfer Dump
- Transfer Vehicle
- Transit Bus
- Trolley
- Utility Truck
- Winch Truck

HEAVY SERVICE TYPICALLY IS

- On/Off road vocations (10% or more off-road) OR
- Moderate to frequent starts/stops typically more than three (3) stops per mile



WABCO Components[1]	
Air Management	
Air Brake Valves	1/100/P&L
Air Compressors (ALL)2	
Air Dryers (ALL)	
Trailer Control Line Filter[3]	
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	2/200/P&L
Electronic Braking System (EBS)	3/300/P&L
Electronic Stability Control (ESC)	
Trailer ABS Valve[3]	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Driveline Suspension Control	
OptiRide® Electronically Controlled Air Suspension (ECAS)	2/200/P&L
Leveling Valves	1/100/P&L
Clutch Controls	2/200/P&L
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
Trailer MAXX22T™	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

1 ZF and WABCO branded components. 2 WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. 3 An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

INDUSTRIAL/OFF-HIGHWAY SERVICE WARRANTY INFORMATION

INDUSTRIAL AND OFF-HIGHWAY SERVICE TYPICALLY IS

- Low mileage operation[3]
- Vehicles are not typically licensed for highway use

Market	Common Application Types
Agriculture	Fertilizer Spreader, Tractor, Heavy Duty Ag Trailers, Harvester, Sprayer, Skid Loader, Silage Bagger, Slurry Wagons, Grain Cart
Airport Support	Pushback Tractor, Towing Tugs, Aircraft Tow Tractor, Refueling Trucks, Food Service Trucks, Baggage Tractors, De-Icing Equipment, Runway Clearing Equipment
Construction	All-Terrain Crane, Rough Terrain Crane, Excavator, Compactor, Wheel Loader, Road Roller, Motor Grader, Articulated Dump Truck, Rubber Tire Road Roller, Backhoe Loaders, Haul Trucks, Scraper Rough Terrain Forklifts, Trenchers, Drills
Forestry	Logging Forwarder, Kidder, Loaders, Yard Forklifts, Harvesters Fellers
Material Handling	Port Tractor, Rail Yard Spotter, Stevedoring Tractor, Trailer Spotter, Yard Jockey, Scissor Lift, Straddle Carrier, Manlift, Forklift, Boom Lift Telebandlers, Aerial Work Platforms
Mining	Specialized Mining, Excavator, Haul Truck, Underground Loader, Service Trucks, Wheel Loaders, Scrapers, Load Haul Dumps, Personnel Transports, Bolters, Scalers
Municipal	Street Sweeper, Utility Tractor, Utility Trucks, Tree Trimmers, Dump Trucks, Tow Trucks, Flat Bed Trucks, Winch Applications
Oil & Gas	Fracturing Trailer, Injecter Heads, Top Drives, Jack/Lift Boats, Wireline Trucks, Load-On / Load-Off
Rail	Railcar Mover, Track Layers, Grinders, Platform Crane, Locomotive Railcars, Ballast Equipment, Winch Applications



WABCO Components[1]	
Air Management	
Air Brake Valves	2/Unl/P
Air Compressors (ALL)2	
Air Dryers (ALL)	
Brake Actuation	
Air/Hydraulic Actuators	2/Unl/P
Master Cylinders	
Remote Actuators	
Slave and Wheel Cylinders	
Two Fluid Actuators	
Brake Locks	
Brake Locks (ALL)	2/Unl/P
Electric Brake Locks	
Lever Locks	
Braking Systems	
ABS (Anti-Lock Braking System) Air	1/100/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Driveline Suspension Control	
Clutch Controls	1/100/P&L
Leveling Valves	
Electrohydraulics & Controls	
Electronic Pedals	2/Unl/P
Electrohydraulic Brake Valves (EBV)	
Pressure Switches	
Hydraulic Braking Solutions	
Accumulator Charging Valves	2/Unl/P
Hydraulic Throttle Controls and Switches	
Modulating Brake Valves	
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
Caliper Disc Brakes	2/Unl/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
Multiple Disc Brakes	2/Unl/P
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

[1] ZF and WABCO branded components. 2 WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. 3 Equivalent hours of service limit: 2,000 hours for all components.

TERMS AND CONDITIONS

COVERAGE EXCLUSIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

This Warranty shall not apply to the following, but not limited to: (1) damage to the product or its component parts caused by incorrect use, installation, maintenance or repair, including without limitation (a) improper fit of mating components or brackets, damaged threads, cut, broken, chafed, pinched or otherwise damaged wiring (sensors, harnesses and connectors), (b) sensors damaged during removal when seized in block, or associated with sensor adjustments/ alignments, and (c) damage resulting from the use or installation of non-genuine WABCO components or materials; (2) damage to the product, its component parts, or diminished product or component part performance due to incorrect operation, deviation from approved conditions or misapplication; (3) any unauthorized disassembly of the product or its component parts including without limitation (a) obliterated, defaced or missing WABCO or WABCO name plate, serial numbers or label identifying the device as a ZF product or WABCO component, (b) changes to sealed adjusting screws, and (c) opening or attempted repair of non-serviceable components; (4) malfunction of the component due to internal contamination of the vehicle system including without limitation (a) water and other contamination damage that is due to the use of a non-genuine air dryer cartridge or (b) valve failures due to contamination in air system, (5) complaints associated with noise, (6) damage resulting from corrosion (including oxidation of electrical devices and connections).

AIR DRYERS

Mounting brackets (see vehicle OEM). Desiccant cartridge housing only.

AIR SYSTEM COMPONENTS

Normal wear items; Gladhand seals, dash valve knobs, valve actuation handles, treadles, pedals.

ABS, ELECTRONIC STABILITY CONTROL (ESC), ROLL STABILITY CONTROL (RSC), OPTIRIDE®, ONGUARD® AND ONLANE®, COLLECTIVELY “ELECTRONICS”

Failure of electronic components due to overvoltage condition, improper grounding, electrostatic discharge (ESD), improper shielding, electromagnetic interference (EMI), or other wiring or installation issues. Malfunctions and failure codes caused by other electronic subsystem failures (data bus, engine, transmission, dashboard, etc.)

HYDRAULIC COMPONENTS

For certain components, brake fluid DOT3 or DOT4 is used as the operating medium. Use of any other fluid will void all warranties associated with that component. For hydraulic braking applications the brake fluid is considered a maintenance item. Maintenance intervals are listed in TB-1367.

COVERAGE LIMITATIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

Any claim beyond 60 days from date of repair will not be accepted or honored under this warranty program.

Products purchased on an incomplete vehicle (glider) are limited to one year, 1/Unl/P.

For vehicles that operate full- or part-time outside of the United States and Canada, a 1-Year/Unlimited Miles parts only (1/Unl/P) will apply.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

Proper diagnostics of WABCO Electronics may require the latest version of TOOLBOX PLUS™. Additional labor due to use of an outdated version of TOOLBOX™ software and/or the time to purchase or install the latest version of TOOLBOX PLUS™ are not covered under product warranty.

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?
ZF CV Systems North America LLC and its North American subsidiaries and affiliates (ZF) warrant to the owner ("Owner") that the components listed in this publication, which have been installed by an Original Equipment Manufacturer ("OEM") as original equipment will be free from defects in material and workmanship. This warranty coverage begins from the original in-service date to the limits provided and runs concurrently with any warranties provided by OEMs and/or any distribution agreements and/or any service contracts that cover the components listed in this publication, if any. If the components listed in this publication are covered by an OEM warranty and/or service contract, then the OEM's warranty and/ or service contract shall supersede ZF's warranty and Owner shall comply with all OEM's warranty and/or service contract requirements for claims under such OEM's warranty and/or service contract until those agreements expire. Once those agreements expire and provided the ZF warranty has not expired under the terms stated above, the ZF warranty will be in effect until its expiration date.

Warranty coverage ends at the expiration of the applicable time period from the date of vehicle purchase by the first Owner, or, the applicable mileage limitation, whichever occurs first. Duration of coverage varies by component and vocation as detailed previously in this publication. Some components are warranted for parts only and the Owner must pay any labor costs associated with the repair or replacement of the component. Other components are warranted for both parts and reasonable labor to repair or replace the subject component. Additional diagnostic time due to use of an outdated version of TOOLBOX™, time to purchase or install latest version of TOOLBOX™ are the responsibility of the authorized ZF distributor networks and are not covered under product warranty. Components installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

(2) Designation of Vocational Use Required. To obtain warranty coverage, each Owner must notify ZF through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the WABCO components have been incorporated prior to the vehicle in-service date. This notification may be accomplished by registering the vehicle through your OEM new truck and/or trailer dealer or with ZF directly. Failure to notify ZF of (I) the intended vocational use of the vehicle or (II) a change in vocational use from that which was originally designated, will result in the application of a one year, unlimited mileage, parts only warranty (1/Unl/P) from the initial in-service date. A second Owner and each subsequent Owner must also notify ZF as to the intended vocational use of the vehicle. This notification can be sent directly to ZF or through the OEM new truck and/or trailer dealer. The duration and mileage coverage of this warranty cannot exceed the coverage extended to the first Owner after his or her initial designation of vocational use. Coverage under ZF's warranty requires that the application of products be properly approved pursuant to OEM and ZF, approvals.

(3) What is the Cost of this Warranty? There is no charge to the Owner for this warranty.

(4) What is not Covered by this Warranty? In addition to the items listed on "Coverage Exclusions," this warranty does not cover normal wear and tear, or service items; nor does it cover a component that fails, malfunctions or is damaged as a result of (a) improper handling, storage, installation, adjustment, repair or modification including the use of unauthorized attachments or changes or modification in the vehicle's configuration, usage, or vocation from that which was originally approved by ZF, (b) accident, fire or other casualty, natural disaster, road debris, negligence, misuse, abuse, or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the brake system capacity), or (c) improper or insufficient maintenance (including deviation from maintenance intervals, approved lubricants, or lube levels). This warranty does not cover any component or part that is not sold by ZF.

(5) To obtain service. If the owner discovers within the applicable coverage period a defect in material or workmanship, the Owner must promptly give notice to either ZF or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM dealer or ZF distributor networks' servicer. The dealer or ZF authorized servicer will inspect the vehicle and contact ZF for an evaluation of the claim. When authorized by ZF, the dealer or ZF authorized servicer will repair or replace during the term of this warranty any defective WABCO component covered by this warranty.

(6) Disclaimer of Warranty and Limitation of remedies. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE LIMITED WARRANTY SET FORTH HEREIN IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR WARRANTY FOR HIDDEN OR LATENT DEFECTS, AND IN NO EVENT WILL ZF OR ANY OF ITS AFFILIATES BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, PROGRESSIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND.

(7) Legal action. Any legal action or claim arising from or related to this Warranty, in contract or otherwise, must be commenced within one year from the accrual of that cause of action, or be barred forever. Any dispute arising in connection with this agreement shall be governed by and construed according to the laws of the State of Michigan and be brought, heard and determined exclusively in either the Circuit Court for the County of Oakland, State of Michigan or the United States District Court for the Eastern District of Michigan. The parties stipulate that the referenced venues are convenient.

(8) Remedy. The exclusive remedy under this warranty shall be the repair or replacement of the defective component at ZF's option. ZF reserves the right to require that all applicable covered components are available and/or returned to ZF for review and evaluation. THE MAXIMUM LIABILITY, IF ANY, OF ZF FOR ALL DAMAGES, INCLUDING WITHOUT LIMITATION CONTRACT DAMAGES, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORT, IS LIMITED TO AN AMOUNT NOT TO EXCEED THE PURCHASE PRICE OF THE PRODUCT and where indicated in the product and application warranty information above, the inclusion of labor is limited to the standard repair time. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE LIMITATION OF DAMAGES PROVISION SET FORTH IN THIS PARAGRAPH SURVIVES BETWEEN THE ORIGINAL END USER AND ZF EVEN IF THE EXCLUSIVE REMEDY SET FORTH ABOVE IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE. ZF may change the design or make improvements to its Products without incurring any warranty obligation for previously manufactured Product .

(9) Entire Agreement. This is the entire agreement between ZF and the Owner about warranty and no, ZF employee, or dealer is authorized to make any additional warranty on behalf of ZF unless in writing and signed by an authorized representative of ZF.





For further product details contact your distributor or the WABCO Customer Care Center at 855-228-3203.

About ZF Friedrichshafen AG

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate.

ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 160,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and $3.4 billion (WABCO). For more information, visit: **www.wabco-na.com**

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Fire and Rescue Apparatus

Ten (10) Year Structural Integrity
Custom Cab
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The Pierce Custom Cab shall be free from structural failures caused by defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years - or - 100,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty applies only to the cab tubular support and mounting structures and other structural components of the cab of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus.** **This warranty does not apply to damage caused by corrosion.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0012

Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Exterior surfaces of the cab painted by Pierce shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:** **Topcoat Durability & Appearance: Gloss, Color Retention & Cracking** **0-72 months 100%** **73-96 months 50%** **97-120 months 25%** **Integrity of Coating System: Adhesion, Blistering/Bubbling** **0-36 months 100%** **37-84 months 50%** **85-120 months 25%** **Corrosion: Dissimilar Metal and Crevice** **0-36 months 100%** **37-48 months 50%** **49-72 months 25%** **73-120 months 10%** **Corrosion Perforation** **0-120 months 100%** **This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty.** **Items not covered by this warranty include:** **(a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).** **(b) UV paint fade.** **(c) Any cab not manufactured by Pierce.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0055

Fire and Rescue Apparatus

Five (5) Year Material and Workmanship
Command Zone Electronics

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Command Zone control modules shall be free from failures caused by defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Five (5) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty applies to all of the control modules for the Command Zone system, including the full color graphic displays. Related wire harnesses, cables and connectors are not covered under this limited warranty and are instead covered under the Pierce One Year Basic Apparatus Limited Warranty.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0014

Fire and Rescue Apparatus

54 Months Material and Workmanship

Camera System

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**This limited warranty covers repairs to correct any defect related to materials or workmanship of the Sharpvision camera system installed on the apparatus occuring during the warranty period.**
Warranty Begins:	**The date of delivery.**
Warranty Period Ends After:	**Fifty - Four (54) months**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

1/11/2011 WA0188

Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship
Pierce 12V LED Strip Light

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**This limited warranty covers repairs to correct any defect related to materials or workmanship of the Pierce 12V LED strip lights installed on the apparatus occuring during the warranty period.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Year**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

NEW PRODUCT WARRANTY

PARTICIPATING OEM SALES
DISTRIBUTOR SALES

LIMITED WARRANTY ON NEW ALLISON AUTOMATIC TRANSMISSIONS USED IN EMERGENCY VEHICLE APPLICATIONS

Allison Transmission will provide for repairs or replacement, at its option, during the warranty period of each new Allison transmission listed below that is installed in an Emergency Vehicle in accordance with the following terms, conditions, and limitations.

WHAT IS COVERED

- **WARRANTY APPLIES —** This warranty is for new Allison transmission models listed below installed in an Emergency Vehicle and is provided to the original and any subsequent owner(s) of the vehicle during the warranty period.
- **REPAIRS COVERED —** The warranty covers repairs or replacement, at Allison Transmission's option, to correct any transmission malfunction resulting from defects in material or workmanship occurring during the warranty period. Needed repairs or replacements will be performed using the method Allison Transmission determines most appropriate under the circumstances.
- **TOWING —** Towing is covered to the nearest Allison Transmission Distributor or authorized Dealer only when necessary to prevent further damage to your transmission.
- **PAYMENT TERMS —** Warranty repairs, including parts and labor, will be covered per the schedule shown in the chart contained in section "APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE."
- **OBTAINING REPAIRS —** To obtain warranty repairs, take the vehicle to any Allison Transmission Distributor or authorized Dealer within a reasonable amount of time and request the needed repairs. A reasonable amount of time must be allowed for the Distributor or Dealer to perform necessary repairs.
- **TRANSMISSION REMOVAL AND REINSTALLATION —** Labor costs for the removal and re-installation of the transmission, when necessary to make a warranty repair, are covered by this warranty.
- **WARRANTY PERIOD —** The warranty period for all coverages shall begin on the date the transmission is delivered to the first retail purchaser, with the following exception:

  Demonstration Service - A transmission in a new truck or bus may be demonstrated to a total of 5000 miles (8000 kilometers). If the vehicle is within this limit when sold to a retail purchaser, the warranty start date is the date of purchase. Normal warranty services are applicable to the demonstrating Dealer. Should the truck or bus be sold to a retail purchaser after these limits are reached, the warranty period will begin on the date the vehicle was first placed in demonstration service and the purchaser will be entitled to the remaining warranty.

APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE

APPLICABLE MODELS	WARRANTY LIMITATIONS (Whichever occurs first)		ADJUSTMENT CHARGE TO BE PAID BY THE CUSTOMER	
	Months	Transmission Miles Or Kilometers	Parts	Labor
MT, MD 3000, 3200, 3500, 3700	0–24	No Limit	No Charge	No Charge
HT with Hydraulic Controls	0–24	No Limit	No Charge	No Charge
AT, 1000 Series™, 2000 Series™, 2400 Series™	0–36	No Limit	No Charge	No Charge
HT with Electronic Controls	0–60	No Limit	No Charge	No Charge
HD 1000 EVS, 2100 EVS, 2200 EVS 2350 EVS, 2500 EVS, 2550 EVS, 3000 EVS, 3500 EVS, 4000, 4000 EVS, 4500, 4500 EVS, 4700, 4700 EVS, 4800, 4800 EVS	0–60	No Limit	No Charge	No Charge

WHAT IS NOT COVERED

- **DAMAGE DUE TO ACCIDENT, MISUSE, or ALTERATION —** Defects and damage caused as the result of any of the following are not covered:
  - — Flood, collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle;
  - — Misuse of the vehicle;
  - — Installation into unapproved applications and installations;
  - — Alterations or modification of the transmission or the vehicle, and
  - — Damage resulting from improper storage (refer to long-term storage procedure outlined in the applicable Allison Service Manual)
  - — Anything other than defects in Allison Transmission material or workmanship

  NOTE: This warranty is void on transmissions used in vehicles currently or previously titled as salvaged, scrapped, junked, or totaled.
- **CHASSIS, BODY, and COMPONENTS —** The chassis and body company (assemblers) and other component and equipment manufacturers are solely responsible for warranties on the chassis, body, component(s), and equipment they provide. Any transmission repair caused by an alteration(s) made to the Allison transmission or the vehicle which allows the transmission to be installed or operated outside of the limits defined in the appropriate Allison Installation Guideline is solely the responsibility of the entity making the alteration(s).
- **DAMAGE CAUSED by LACK of MAINTENANCE or by the USE of TRANSMISSION FLUIDS NOT RECOMMENDED in the OPERATOR'S MANUAL —** Defects and damage caused by any of the following are not covered:
  - — Failure to follow the recommendations of the maintenance schedule intervals applicable to the transmission;
  - — Failure to use transmission fluids or maintain transmission fluid levels recommended in the Operator's Manual.
- **MAINTENANCE —** Normal maintenance (such as replacement of filters, screens, and transmission fluid) is not covered and is the owner's responsibility.
- **REPAIRS by UNAUTHORIZED DEALERS —** Defects and damage caused by a service outlet that is not an authorized Allison Transmission Distributor or Dealer are not covered.
- **USE of OTHER THAN GENUINE ALLISON TRANSMISSION PARTS —** Defects and damage caused by the use of parts that are not genuine Allison Transmission parts are not covered.
- **EXTRA EXPENSES —** Economic loss and extra expenses are not covered. Examples include but are not limited to: loss of vehicle use; inconvenience; storage; payment for loss of time or pay; vehicle rental expense; lodging; meals; or other travel costs.
- **"DENIED PARTY" OWNERSHIP —** Warranty repair parts and labor costs are not reimbursed to any participating or non-participating OEMs, dealers or distributors who perform warranty work for, or on behalf of, end users identified by the United States as being a "denied party" or who are citizens of sanctioned or embargoed countries as defined by the U.S. Department of Treasury Office of Foreign Assets Control. Furthermore, warranty reimbursements are not guaranteed if the reimbursement would be contrary to any United States export control laws or regulations as defined by the U.S. Department of Commerce, the U.S. Department of State, or the U.S. Department of Treasury.

OTHER TERMS APPLICABLE TO CONSUMERS AS DEFINED by the MAGNUSON-MOSS WARRANTY ACT

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Allison Transmission does not authorize any person to create for it any other obligation or liability in connection with these transmissions. **ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THESE TRANSMISSIONS IS LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. PERFORMANCE OF REPAIRS AND NEEDED ADJUSTMENTS IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (SUCH AS, BUT NOT LIMITED TO, LOST WAGES OR VEHICLE RENTAL EXPENSES) RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.****

** Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

OTHER TERMS APPLICABLE TO OTHER END-USERS

THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE ALLISON TRANSMISSION MODELS LISTED ABOVE AND IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALLISON TRANSMISSION DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SUCH TRANSMISSIONS. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WARRANTY OR ANY IMPLIED WARRANTY.

QUESTIONS

If you have any questions regarding this warranty or the performance of warranty obligations, you may contact any Allison Transmission Distributor or Dealer or write to:

Allison Transmission, Inc.
P.O. Box 894
Indianapolis, IN 46206-0894
Attention: Warranty Administration PF-9

Form SE0616EN (201009)

Fire and Rescue Apparatus

Five (5) Year Material and Workmanship - Transmission Oil Cooler
Three (3) Year Collateral Damage Coverage

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The transmission cooler shall be free from component or structural failures caused by defects in material and/or workmanship. Collateral damage up to $10,000 per occurrence is available for the first three (3) years.**
Warranty Begins:	**The date of delivery to the first retail purchaser.**
Warranty Period Ends After:	**Five (5) Years on Oil Cooler and three (3) years on collateral damage coverage**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty.** **This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner.** **Towing is covered to the nearest distributor or authorized dealer only when necessary to prevent further damage to your transmission.** **Labor costs for the removal and reinstallation of goods may be covered when necessary to make repairs. Please contact your OEM for authorization.** **Replacement of cooler during the warranty period is limited to 100% of reasonable labor costs up to a maximum of $700 to remove, replace, or repair the oil cooler.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Effective 1 August, 2009

UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

LIFETIME SERVICE WARRANTY

United Plastic Fabricating, Inc. (hereinafter called "UPF") warrants each POLY-TANK®, Booster/Foam Tank POLYSIDE® Wetside Tank, Integrator Tank/Body, ELLIPSE™ Elliptical Tank, Ellip-T-Tank Tank and DEFENDER™ Skid Tank to be free from defects in material and workmanship for the service life of the original vehicle (vehicle must be actively used in an emergency response for fire suppression). All UPF Tanks must be installed and operated in accordance with the UPF Installation and Operating Guidelines. Failure to do so can void the warranty.

Every UPF Tank is inspected and tested before leaving our facility. Should your UPF Tank require service, please notify UPF via email, fax, in writing or by calling UPF at 1-978-975-4520. Please provide the serial number, a description of the service request, the location along with the phone number and name of the contact person. Our goal is to have scheduled work completed within a reasonable time period.

Under a valid warranty claim, UPF will cover the cost to repair the UPF Tank including the customary and reasonable costs to make the tank accessible such as the removal and reinstallation of the tank if authorized in advance (pre-approved) by UPF. The warranty will not cover tanks that have been improperly installed, operated, misused, abused, or modified from its intended or designed use. Serial number must not have been altered, defaced or removed. Tanks that are not stored or installed properly which results in the tank suffering UV damage will not be covered by this agreement.

Should UPF determine that the service claim is valid under this warranty for a tank located outside of the United States and Canada, UPF will assume the costs for labor and material for the warranty repair as described above plus all travel costs to the U.S. port of embarkation. Costs for airline travel outside of the U.S. and Canada will not be the responsibility of UPF.

In the event the tank shall become stationed in an area of the world that is considered to be a war zone or where unsafe conditions exist for the safe passage of United States Nationals, as reported by the United States Department of State, (http://www.state.gov), and a request to perform service or warranty repairs, UPF reserves the right to refuse to honor such requests. It is the purchaser's responsibility to relocate the tank to an area where such repairs can be performed without undue risk to UPF employees or their designee. UPF will make every reasonable effort to support our products though alternative means.

For Ellipse™ elliptical tanks, a separate five year warranty provided by the subcontractor is applied to the sub-frames, chute linings (rubber isolation strips) and metal components. The stainless steel wrap provided by UPF shall be warranted by the subcontractor performing the wrap installation in accordance with their warranty in place at the time of the installation. UPF will not be liable for any warranty costs associated with the wrap, sub-frames, chute linings (rubber isolation strips) and metal components but will assist with all claims on behalf of its customer.

For PolySide® wetsided tanks and Integrator™ Tank/Body units, all polypropylene components related to the tank shall carry the standard UPF [illegible]e

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UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

service warranty. Other polypropylene components, including but not limited to compartments, wheel wells, fenders and other body related components shall be warranted by UPF for a period of ten years. The warranty for the PolySide® and Integrator™ units excludes paint or hardware, which shall be covered by the manufacturer of the paint/hardware.

All UPF tanks 50 gallons or less utilized for non-fire applications and installed on specialty vehicles such as ATVs, trailers, boats, etc. are covered under a separate warranty policy available from UPF. Further, UPF Protector™ foam and water trailers are warranted under a separate warranty policy available from UPF.

This UPF warranty is transferable within the United States only with prior written approval by UPF (except an original apparatus manufacturer may assign this warranty to the first titled owner/lessee of the apparatus).

UPF will NOT reimburse any unnecessary work and/or work that has not been pre-approved. Any and all third party charges must be pre-authorized and approved in writing by UPF prior to commencing the work. Any unauthorized third party repairs, alterations, actions or modifications will not be covered and can void the warranty. UPF will be the sole determining authority as to whether a service claim will be valid and covered under this warranty.

In no event will UPF be liable for an amount in excess of the purchase price of the booster/foam tank at the time of manufacture or for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of failure of its product. Loss of contents (water, foam, etc.) shall not be the responsibility of UPF. Further, UPF is not responsible for costs associated with service repairs to chassis, sub-frames, bodies, valves, dumps, hoses, pressure vacuum vents, and other components (i.e. liquid level transducers, etc.). Further, UPF will not cover the cost for travel of the vehicle to and from a repair facility.

This warranty contains the entire warranty. It is the sole warranty and price agreements or representation, whether oral or written, are either merged herein or expressly cancelled. UPF neither assumes, nor authorizes any person supposing to act on its behalf to change, nor assume for it, any warranty or liability concerning its product.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion or limitation or incidental or consequential damage, so the above limitation or exclusion may not apply to you. Since some states do not allow limitations on the length of an implied warranty, the above limitation may not apply to you.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATION OR LIABILITIES ON THE PART OF UPF.

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PIERCE MANUFACTURING INC.

BULLETIN

TO: **All Dealer Service Representatives**

From: **Kevin Hanegraaf**

DATE: **January 4, 2010**

RE: **UPF Tank Warranty Policy – Truck in Accident**

Service Topic #292

To keep the UPF tank warranty valid on trucks that have been involved in a vehicular accident, it is UPF's policy that the customer must remove the tank from the truck and send it back to one of UPF's facilities for inspection. In the event that this does not take place, the warranty will be considered null and void.

The customer must remove and send the tank back to UPF for inspection in order to maintain the original warranty coverage, at which time it will be:

- *Filled with water*
- *Visually inspected*
- *Ultraviolet spark tested on articulating test stand in the dark*
- *Recommendation for repairs if necessary provided by UPF*
- *Fully evaluated and repaired by UPF*

If your customer chooses to leave the tank on the truck and wants a technician to inspect and/or repair the tank in the field, then **the warranty is no longer in effect**. This direction is upheld by UPF because the technician cannot inspect the entire tank when it is still installed on the truck.

Note: This memo is intended to relay the information Pierce has received on UPF's tank warranty for trucks that are in a vehicular accident. In the event of an actual claim, we direct you to consult with UPF's service Manager Maura Watts (800-638-8265 x253)

Fire and Rescue Apparatus

Ten (10) Year Structural Integrity
Apparatus Body
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**The apparatus body shall be free from structural failures caused by defects in material and workmanship**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years - or - 100,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty applies only to the body tubular support and mounting structures and other structural components of the body of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus.** **This warranty does not apply to damage caused by corrosion.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0009

A&A MANUFACTURING

Pierce Warranty Statement for Gortite Roll Up Doors Rev 2/24/2011

All mechanical components of the door shall be warranted to be free from defects in materials and workmanship for the lifetime of the vehicle. All parts covered under this warranty shall be to the original owner.

A&A manufacturing warrants that painted doors shall be free of blistering, peeling, bubbling, or any other adhesion defect caused by defective manufacturing methods or paint material selection. The time period for the coverage shall be 6 years from date of door shipment to Pierce. Satin anodized finish doors shall be warranted for 6 years against corrosion defects from date of door shipment to Pierce. Replacement of decals/Scotchlite is not covered.

The maximum amount A&A will reimburse for labor is $60.00 per hour and the maximum amount of time allowed for repair is as follows:

Door	1.0 Hr.
Slat Replacement	1.0 Hr.
Pennant Plate Replacement	1.0 Hr.
Roller Replacement	.5 Hr.
Seal Replacement	.5 Hr.
Switch/Magnet Replacement	1.0 Hr.
Travel Time	4.0 Hr.

Waterous Seven-Year Limited Warranty

WATEROUS warrants, to the original Buyer only, that products manufactured by WATEROUS will be free from defects in material and workmanship under normal use and service for a period of seven (7) years from the date the product is first placed in service, or seven and one-half (7-1/2) years from the date of shipment by WATEROUS, whichever period shall be the first to expire; provided the Buyer notifies WATEROUS, in writing, of the defect in said product within the warranty period, and said product is found by WATEROUS to be nonconforming with the aforesaid warranty. When required in writing by WATEROUS, defective products must be promptly returned by Buyer to WATEROUS at WATEROUS' plant at South St. Paul, Minnesota, or at such other place as may be specified by WATEROUS, with transportation and other charges prepaid. A Returned Material Authorization (RMA) is required for all products and parts and may be requested by phone, fax, email, or mail. The aforesaid warranty excludes any responsibility or liability of WATEROUS for:

(a) damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes, use in non-firefighting applications, or improper maintenance, or attributable to written specifications or instructions furnished by Buyer;

(b) defects in products manufactured by others and furnished by WATEROUS hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, WATEROUS will assign to Buyer, if requested by Buyer;

(c) any product or part, altered, modified, serviced or repaired other than by WATEROUS, without its prior written consent;

(d) the cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation; and

(e) normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, mechanical seals, etc.).

ALL OTHER WARRANTIES ARE EXCLUDED, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER CAUSE OF ACTION, SHALL WATEROUS BE LIABLE FOR ANY PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR PERSONAL INJURY OR PROPERTY DAMAGES.

The exclusive remedy of Buyer and the sole liability of WATEROUS, whether based on contract, warranty, tort or any other basis of recovery whatsoever, is expressly limited at the election of WATEROUS to:

(a) the replacement at the agreed point of delivery of any product or part, which upon inspection by WATEROUS or its duly authorized representative, is found not to conform to the limited warranty set forth above, or

(b) the repair of such product or part, or

(c) the refund or crediting to Buyer of the net sales price of the defective product or part.

BUYER'S REMEDIES CONTAINED HEREIN ARE EXCLUSIVE OF ANY OTHER REMEDY OTHERWISE AVAILABLE TO BUYER.

Waterous Company
125 Hardman Avenue South
South St. Paul, MN 55075 USA
www.waterousco.com

WATEROUS

Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship
Stainless Steel Piping
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Stainless steel piping shall be free from structural failures caused by defects in material and workmanship, or perforation caused by corrosion.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years - or - 100,000 Miles**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**Pierce's obligation under this warranty is limited to repairing or replacing without charge, as Pierce may elect, the stainless steel piping or components which Pierce determines to have failed due to defective material and workmanship, or perforation caused by corrosion.** **This warranty does not cover the use of fluoroprotein (FP) type foam. The sodium chloride within FP foam can cause long-term damage to system components if not thoroughly flushed immediately after use.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Fire and Rescue Apparatus

One (1) Year Material and Workmanship Foam System & Five (5) Year Material and Workmanship Control Head

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Limited warranty 1 year parts and labor for for the foam system and 5 years parts and labor for the control head.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**One (1) Year & Five (5) Year**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty.** **This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion Custom Body Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Exterior surfaces of the body shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Ten (10) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:** **Topcoat Durability & Appearance: Gloss, Color Retention & Cracking** **0-72 months 100%** **73-96 months 50%** **97-120 months 25%** **Integrity of Coating System: Adhesion, Blistering/Bubbling** **0-36 months 100%** **37-84 months 50%** **85-120 months 25%** **Corrosion: Dissimilar Metal and Crevice** **0-36 months 100%** **37-48 months 50%** **49-72 months 25%** **73-120 months 10%** **Corrosion Perforation** **0-120 months 100%** **This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty.** **Items not covered by this warranty include:** **(a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).** **(b) UV paint fade.** **(c) Any cab not manufactured by Pierce.**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0057

Fire and Rescue Apparatus

Three (3) Year Material and Workmanship
Goldstar® Gold Leaf Lamination

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	**Each Goldstar® gold leaf lamination shall be free from defects in material and workmanship.**
Warranty Begins:	**The date of the original purchase invoice (issued when the product ships from the factory).**
Warranty Period Ends After:	**Three (3) Years**
Conditions and Exclusions: **See Also Paragraphs 2 thru 4**	**This warranty does not cover damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).**

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

5 DEALER SUPPLIED PRODUCTS AND/OR SERVICES

Exhibit "E"

DEALER SUPPLIED PRODUCTS and/or SERVICES

The following products and/or services will be provided by Golden State Fire Apparatus Inc. (GSFA) prior to final delivery:

LICENSED MANUFACTURER

The State of California Vehicle Code, section 11701 requires "every manufacturer of a vehicle subject to registration shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number". The manufacturer has a current license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

LICENSED DEALERSHIP

The State of California Vehicle Code, section 11701 requires a "dealer in vehicles of a type subject to registration, shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number". Golden State Fire Apparatus, Inc. has a current license at time of bid as outlined above and is available upon request. Temporary licenses are not acceptable.

LICENSED SALES REPRESENTATIVE

The State of California Vehicle Code, section 11800 requires that it shall be "unlawful for any person to function as a vehicle salesperson without having first procured a license issued by the Department of Motor Vehicles (DMV)". The representative has a current vehicle salespersons license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

VEHICLE REGISTRATION

The State of California Vehicle Code section 11739 requires that the "dealer of a new motor vehicle sale is responsible for applying for the title, securing vehicle registration, and obtaining license plates for the Customer" through the Department of Motor Vehicles (DMV). Golden State Fire Apparatus, Inc. is a factory-authorized dealer of the vehicle being sold and is authorized to register with the State of California as a new vehicle manufacturer.

GSFA will make all necessary applications and complete all transfer papers, including applying for California Exempt "E" license plates.

WEEKLY PROGRESS PHOTOGRAPHS

GSFA will provide weekly photographs of the apparatus or the major components as they are being constructed. The photographs will commence at the start of the manufacturing process and will continue through production by the manufacturer. The reports will show the progress of the apparatus through the course of each week. Special attention will be given to show the unique features and aspects of the apparatus as construction progresses.

FINAL INSPECTION, FACTORY TRIP

A final inspection trip to the manufacturing facility will be provided for two (2) Customer representative(s). The intent of this trip is to ensure that the apparatus is built to specification and to detect any deficiencies that require correction. The final inspection trip will have a duration of four (4) days and three (3) nights and be scheduled at times mutually agreed upon between GSFA and the Customer. Costs for airfare, lodging, meals, and ground transportation while at the manufacturer's location will be the responsibility of GSFA. Air travel will be from one of the following airports: Sacramento, San Francisco, or San Jose.

Costs such as Customer ground transportation in California, Customer airport parking, Customer luggage fees and Customer incidentals while traveling to the factory will be the responsibility of the Customer. Flight reservations are non-refundable and in the event of a cancellation after booking, the Customer will

be responsible for all costs associated with this cancellation, which may include not only the original ticket cost but also any change or cancellation fees imposed by the airline and/ or travel agency. Flight reservations are also non-transferable.

DELIVERY TO AUTHORIZED SERVICE FACILITY

GSFA will, at their expense, deliver the apparatus (including any applicable equipment, spare parts, and supplies) to their Northern California facility in Sacramento for a dealer preparation inspection.

To ensure proper break in of all components while still under warranty, the apparatus shall be delivered under its own power - rail or truck freight shall not be acceptable.

PRE-DELIVERY SERVICE

After transportation from the factory and prior to delivery, the apparatus will receive a pre-delivery service to confirm proper operation and correction of any issues found as a result of said inspection. The Golden State Fire Apparatus, Inc. pre-delivery service consists of the following:

- Engine Compartment and Undercarriage – Check for any broken mounting brackets and inspect for correct capacities of the following (if applicable): engine oil, coolant, power steering fluid, washer reservoir fluid, transmission fluid, rear end fluid, pump transmission oil, and primer oil.

- Interior – Operate all doors, windows, and locks for proper adjustment. Check upholstery.

- Exterior – Repair reasonable paint scratches or chips. Tighten any loose hardware and inspect tires and wheels for proper pressure and lug torquing.

- Road Test – With the water tank (if applicable) full, the apparatus will be driven approximately twenty miles which allows the drive train components to get up to operating temperature. Road test will be on both city and highway roads. A DOT compliant brake test will be conducted to ensure the system is holding air. The brake condition and wheel seals will also be inspected.

- Electrical - Operate all lights, sirens, and other electrical accessories to verify operation.

- Pump - If applicable, vacuum test the pump to hold for 15 minutes. After vacuum test, operate the relief valve, transfer valve and check pump shift. Check water tank for leaks and inspect water level gauge for calibration. With discharge caps loose, rapid test all individual gauges and main gauges for calibration. Lubricate valve rods.

- Foam System – If applicable, tighten caps and connect foam lines. Test selector, valves, metering valve and operation of foam system (including flush).

- Fuel Tank - Fuel tank will be filled at the dealership location prior to final delivery.

- DEF Tank - DEF tank will be filled at the dealership location prior to final delivery.

- Wash - The apparatus will be thoroughly washed at the dealership location prior to final delivery.

FINAL DELIVERY (CUSTOMER LOCATION)

GSFA will, at their expense, deliver the Product (including any applicable equipment, spare parts, and supplies) to the Customer specified address once completed. Prior to delivery of the Product, Customer agrees

to provide proof of liability and physical damage insurance to GSFA. GSFA will not release the Product to the Customer until such proof of insurance is provided.

It is the responsibility of the Customer to have any outstanding balance due, paid in full to GSFA, prior to or at the time that the Product is complete and ready to deliver. If payment is late or delivery is delayed pending payment, a daily finance charge of $150.00 and a daily storage fee of $50.00 may apply until such payment is received.

Due to insurance liability, the Product will not be delivered without full acceptance and full payment (or prior written agreement between the Customer and GSFA).

END OF EXHIBIT ”E”

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR PITTMAN AND COUNCIL MEMBERS**

FROM: **DAWN NEVERS, ASSISTANT COMMUNITY DEVELOPMENT DIRECTOR**
WES ERVIN, PRINCIPAL PLANNER
AMY BERGSTRAND, HOUSING DIRECTOR

RE: **HOUSING ELEMENT UPDATE (2022-2030) FINAL DRAFT**

DATE: **APRIL 18, 2023**

SUMMARY

The City Council will conduct a public hearing to consider adopting the final draft of the 2022 General Plan Housing Element Update.

DISCUSSION

State Law for Housing Elements

State law requires each jurisdiction to update its Housing Element (one of the nine required elements of a General Plan) every eight years with specific deadlines established by the California Department of Housing and Community Development (HCD). The City of Oroville is required to submit its updated "Sixth Cycle" Housing Element to the State for certification.

On July 19, 2022, this Council approved the draft Housing Element for submittal to HCD and certified it as exempt from CEQA. Comments from HCD and the public were then incorporated into the document, and staff resubmitted it on February 16, 2023. The document now meets the statutory requirements of HCD, and upon final adoption by the City Council is ready to be approved by HCD.

Oroville is unique in that it now has a plethora of affordable housing, thanks in large part to the state funding that has become available because of the recent fires. While almost all other California communities struggle to approve enough affordable housing, Oroville has necessarily shifted its emphasis on developing market rate and executive housing to accommodate its moderate- and higher-income residents.

The Housing Element provides an analysis of a community's housing needs for all income levels, along with strategies and actions for responding to those needs. Unlike other elements in the General Plan, the Housing Element is required to be updated every eight years, which allows it to be more responsive to a rapidly changing housing market. The Housing Element is considered the primary policy document to guide the development, rehabilitation, and preservation of housing for all economic segments of the City's population. California law also specifies that for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory

systems which provide opportunities for and do not unduly constrain housing development. It also establishes that each city and county accommodate its fair share of affordable and market rate housing.

Goals in the 2022-2030 Housing Element

Each of the six goals in the new Housing Element has a set of accompanying policies and programs, most of which the City already does. The programs that involve new activities are outlined below.

Goal 1: Increase the availability of permanent housing for all community residents.

Goal 2: Remove constraints that could hinder the production of housing.

Goal 3: Support and encourage the construction of new housing at a range of costs, types, and tenures and in quantities to meet the needs of all income groups, including the very low, low- and moderate-income groups.

Goal 4: Preserve, rehabilitate, and enhance existing housing and neighborhoods.

Goal 5: Promote the conservation of energy in residential neighborhoods.

Goal: 6: Improve fair housing choice and equitable access to opportunity.

Selected Programs and Code Changes Required by HCD:

HCD has required a number of code changes and programs with deadlines to be incorporated into the Element prior to their approval. While many are ongoing and already being done by the City, some are new and will require some staff time or code changes. Those of potential significance include:

- Code amendments to comply with AB 139 (parking standards for emergency shelters and ‘by right’ zoning to address shelter capacity requirements) and AB 101 (allowing Low Barrier Navigation Centers as a use "by right" in areas zoned for mixed-use and nonresidential zones permitting multi-family uses);
- Provisions to allow transitional housing, supportive housing, agricultural farmworker housing, and residential care facilities housing seven or more persons in all residential zoning districts.
- Redefinition of "Family" to allow more flexibility for housing persons with disabilities.
- Provide technical assistance in grant funding applications for the development of new facilities to serve individuals experiencing homelessness, and to incentivize the production of Accessory Dwelling Units (ADUs) that can be offered at affordable rents to Low- to Moderate-Income households per AB 671.
- Removal of constraints to the production of Accessory Dwelling Units (ADUs) in accordance with State laws AB 3182, AB 68, AB 881, SB 13, AB 687, AB 680 and AB 681;
- Streamlined permit review processes for projects that request AB 2162 (permanent supportive housing) or SB 35 (affordable housing) reviews;
- Monitoring and if needed revision of the use permit approval criteria to promote greater objectivity for residential development.

- Support the development of agricultural housing by coordinating with developers.
- Increased fair housing outreach and tobacco education.
- Assemble a taskforce of law enforcement, code enforcement, and staff from Parks and Trees to identify code issues and housing complaints.

GENERAL PLAN CONSISTENCY

The Goals, Policies, and Actions in the Housing Element must be consistent with the General Plan and must support and compliment its Goals, Policies, and Actions. The policy framework in the document reinforces the overall direction of the General Plan through consistency with the following General Plan Goals:

Goal LU-3: Provide housing in a range of residential densities and types to address the housing needs of all segments of the community, including all income groups expected to reside in Oroville.

Goal LU-3 includes several policies guiding housing development, including developing multi-family development where appropriate, building cohesive neighborhoods with distinctive characters and parks and access to public and commercial facilities, and developing affordable housing.

In addition, under Oroville Municipal Code 17.04.050(H) all Zoning and other deliberations by the Planning Commission and City Council should “promote, protect and preserve the general public health, safety and welfare, and to implement the goals and objectives of the General Plan for the City of Oroville”. (Ord. 1749 § 4).

FISCAL IMPACT

None. The Housing element Update was funded using CDBG Program Income funds.

PUBLIC NOTICE

A detailed description of the extensive public outreach process during preparation is found on Pages 8-17 of the document. Outreach also included making the document available for public review for 30 days between June 12 and July 12, 2022. The Planning Commission conducted a fully noticed public hearing on June 23, 2022, and the City Council conducted a public hearing on July, 19, 2022.

In addition, notice of this public hearing appeared on April 8, 2023, in the Oroville Enterprise Record-Mercury register.

FISCAL IMPACT

None. The Housing Element Update was funded using CDBG Program Income funds

RECOMMENDATION

Staff recommends the following actions:

1. Conduct a public hearing regarding the final Housing Element
2. Re-adopt the July 19, 2022 Notice of Exemption as the appropriate environmental document.
3. Adopt the February 6, 2023 Revised Draft Housing Element as the Final draft
4. Authorize submittal to the California Department of Housing and Community Development (HCD) for their certification.
5. Adopt Resolution 9132.

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ATTACHMENTS

1. March 16, 2023 preliminary approval letter from HCD
2. February 6, 2023 Revised Draft Housing Element (redline version showing changes from July 19, 2022)
3. Resolution No. 9132
4. July 19, 2022 Council Staff report and approved CEQA exemption

RESOLUTION NO. 9132

A RESOLUTION OF THE CITY OF OROVILLE CITY COUNCIL ADOPTING AND AUTHORIZING RE-SUBMITTAL OF THE 2022-2030 HOUSING ELEMENT TO THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT (GENERAL PLAN AMENDMENT GPA 22-02).

WHEREAS, safe and affordable housing for all persons is a goal of the City of Oroville (the "City"); and

WHEREAS, the Housing Element of the General Plan provides an opportunity for the City to demonstrate how this goal will be achieved; and

WHEREAS, the City is required by State law to prepare a Housing Element which provides information, policies, and programs to encourage the development of housing to meet the needs of all the City's residents in conformance with State laws and regulations; and

WHEREAS, in has been determined that preparation and adoption of the 2022 Housing Element is exempt from environmental review pursuant to California Environmental Quality Act (CEQA) Section 15061(b)(3); and

WHEREAS, the Planning Commission conducted a public hearing on the Draft 2022 Housing Element on June 23, 2022 and recommended approval; and

WHEREAS, the City Council also conducted a public hearing on the Draft 2022 Housing Element on July 19, 2022 and considered the comments from staff, the consultant, the public and the Planning Commission; and

WHEREAS, the February 6, 2023 revised draft is acceptable to HCD and can be certified once the City Council adopts it; and

WHEREAS, the City Council conducted another public hearing on the Final 2022 Housing Element on April 18, 2023, after the document was revised to meet all statutory requirements of the California Department of Housing and Community Development.

NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF OROVILLE:

1. Reconfirms the Notice of Exemption as the appropriate environmental document for the Housing Element Update.
2. Adopts the Final 2022 Housing Element with the changes required by the California Department of Housing and Community Development to meet statutory requirements and with changes suggested by the public: and.

2. Authorizes staff to submit the Final 2022 Housing Element to the State Department of Housing and Community Development for their certification.

I HEREBY CERTIFY that the foregoing resolution was duly introduced and passed at a regular meeting of the Oroville City Council held on the 18th of April 2023, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: APPROVE:

_____ _____
JACKIE GLOVER, ASSISTANT CITY CLERK DAVID PITTMAN, MAYOR

APPROVED AS TO FORM:

_____
SCOTT HUBER, CITY ATTORNEY

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF HOUSING POLICY DEVELOPMENT
2020 W. El Camino Avenue, Suite 500
Sacramento, CA 95833
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www.hcd.ca.gov

March 16, 2023

Dawn Nevers, Assistant Director
Community Development Department
City of Oroville
1735 Montgomery Street
Oroville, CA 95965

Dear Dawn Nevers:

RE: City of Oroville's 6th Cycle (2022-2030) Revised Draft Housing Element

Thank you for submitting the City of Oroville's (City) revised draft housing element update received for review on February 16, 2023. Pursuant to Government Code section 65585, subdivision (b), the California Department of Housing and Community Development (HCD) is reporting the results of its review. The review was expedited to enable the jurisdiction to meet funding criteria for the Permanent Local Housing Allocation Program.

The revised draft element meets the statutory requirements described in HCD's October 25, 2022 review. The housing element will comply with State Housing Element Law (Article 10.6 of the Gov. Code) when it is adopted, submitted to, and approved by HCD, in accordance with Government Code section 65585.

Public participation in the development, adoption and implementation of the housing element is essential to effective housing planning. Throughout the housing element process, including adoption, the City must continue to engage the community, including organizations that represent lower-income and special needs households, by making information regularly available while considering and incorporating comments where appropriate. Please be aware, any revisions to the element must be posted on the local government's website and to email a link to all individuals and organizations that have previously requested notices relating to the local government's housing element at least seven days before submitting to HCD.

Several federal, state, and regional funding programs consider housing element compliance as an eligibility or ranking criteria. For example, the CalTrans Senate Bill (SB) 1 Sustainable Communities grant; the Strategic Growth Council and HCD's Affordable Housing and Sustainable Communities programs; and HCD's Permanent Local Housing Allocation consider housing element compliance and/or annual reporting requirements pursuant to Government Code section 65400. With a compliant housing

element, the City will meet housing element requirements for these and other funding sources.

For your information, some general plan element updates are triggered by housing element adoption. HCD reminds the City to consider timing provisions and welcomes the opportunity to provide assistance. For information, please see the Technical Advisories issued by the Governor's Office of Planning and Research at: https://www.opr.ca.gov/planning/general-plan/guidelines.html.

HCD appreciates the hard work and dedication the City's housing element team provided throughout the preparation of the City's housing element and looks forward to receiving the City's adopted housing element. If you have any questions or need additional technical assistance, please contact Jose Ayala, of our staff, at Jose.Ayala@hcd.ca.gov.

Sincerely,



Paul McDougall
Senior Program Manager



~~Adopted~~ Revised Draft 2022-2030 Housing Element

~~July 19, 2022~~February 6, 2023

TABLE OF CONTENTS

Chapter 1: Introduction and Background.....3

Chapter 2: Review of Previous Housing Element.....18

Chapter 3: Housing Program 28

Chapter 4: Housing Needs Assessment.....~~450~~8

Chapter 5: Resource Inventory.....20~~6~~1

Chapter 6: Constraints Analysis.....~~225~~232

Appendices:

A: Review of Progress on Previous Housing Element.....~~272~~281

B: Sites Inventory Form.....~~283~~292

C: Community Meeting #1 Polls.....~~285~~294

D: Community Meeting #2 Polls.....~~288~~297

Cover photo by: J. Candela

CHAPTER 1: INTRODUCTION AND BACKGROUND

PURPOSE OF THE HOUSING ELEMENT

California requires that all local governments (cities and counties) adequately plan to meet the housing needs of everyone in the community. California's local governments meet this requirement by adopting Housing Elements as part of their General Plan. General Plans serve as the local government's "blueprint" for how the ~~city~~City and/or county will grow and develop over a 15–20-year period and include a minimum of seven mandatory elements: land use, transportation, conservation, noise, open space, safety, and housing. The Housing Element must be consistent with the other elements of the General Plan. General Plans are updated approximately every 20 years, while Housing Elements are on 8-year cycles to ensure relevancy and accuracy, since the housing market and needs are most closely tied to shifts in the economy. The current Oroville Housing Element was adopted in 2014 and covers the period of 2014-2022.

California's Housing Element law acknowledges that in order to address the spectrum of housing needs, local governments must adopt plans and regulatory systems that provide opportunities for and do not unduly constrain housing development. It also establishes that each ~~city~~City and county accommodate their fair share of affordable housing as an approach to distributing housing needs throughout the region and state.

This Housing Element update covers the eight-year period from June 2022-June 2030. It is intended to provide the ~~City~~City of Oroville with a comprehensive strategy to promote the production of safe, decent, and affordable housing for all of its residents. It assesses current and projected housing needs, constraints to housing production, and resources available to meet the needs. It then establishes a set of housing goals, policies, and ~~actions~~ programs which are targeted to meet the housing needs over the Housing Element planning period. A key part of the Housing Element lays out strategies to address the needs of community residents that are not typically met by the private market, including low-income households, seniors, homeless individuals, and people with disabilities. The ~~City~~City does not generally build or own housing, but facilitates production by guiding zoning policies, coordinating with community partners, and in the case of affordable housing, by partnering with developers, lenders, and nonprofits on funding opportunities.

The Housing Element consists of the following chapters, as required by State regulations:

- Chapter 1 (Introduction and Background) provides an introduction and background to the Housing Element, including its purpose, local context, regulatory framework, a description of the public participation process, and the inter-governmental review process.

- Chapter 2 (Review of Previous Housing Element) reviews the most recent Housing Element for the period 2014-2022 by summarizing its actions and accomplishments, its affordable housing production goals and results, and the findings from this analysis that are relevant to the 2022-2030 Housing Element Goals, Policies, and Programs.
- Chapter 3 (Housing Program) provides the ~~City~~City's updated Goals, Policies, and Programs for 2022-2030, along with a Quantified Objectives Summary.
- Chapter 4 (Housing Needs Assessment) provides data and analysis in the following areas: Assessment of Fair Housing, demographics, employment, household characteristics, housing stock characteristics, housing affordability, and the special housing needs of households who are extremely low-income, seniors, persons with a disability, female-headed, large households, people experiencing homelessness, and farmworkers.
- Chapter 5 (Resource Inventory) analyzes sites available to accommodate the ~~City~~City's share of the Regional Housing Needs Allocation (RHNA) by income level, including the sites' capa~~city~~city, environmental constraints, and infrastructure/utility availability. This chapter also describes financial resources available to address the identified needs and opportunities for energy conservation.
- Chapter 6 (Constraints Analysis) assesses the various governmental and market factors that may serve as potential constraints to housing development and improvement in Oroville.
- Appendix A provides a detailed review of the ~~City~~City's progress on the previous Housing Element, which is summarized in Chapter 2.
- Appendix B is the Sites Inventory Form mandated by the State Department of Housing and Community Development to be submitted with the Housing Element document. Information on these sites used to meet the ~~City~~City's RHNA is also further described in Chapter 5.
- Appendix C is the Community Meeting #1 polls document.
- Appendix D is the Community Meeting #2 polls document.

CONTEXT

Since the ~~City~~City's Housing Element was last updated in 2014, two significant events have occurred that have impacted housing demand and cost, as well as the development of this Housing Element update: the 2018 Camp Fire and the COVID-19 pandemic which began in early 2020.

Camp Fire

The year 2018 was the deadliest year for wildfires in California's history, with numerous unprecedented wildfires throughout the state. On November 8, 2018, a wildfire which began near Pulga in ~~Butte County~~Butte County quickly spread to the communities west of it, driven by heavy winds and drought conditions. Named the Camp Fire, it largely destroyed the communities of Paradise, Concow, and Magalia, with significant structure loss in Butte Creek

Canyon and up to the eastern edge of the ~~City~~City of Chico. It destroyed approximately 14,000 residential units and 85 lives were lost. As noted in the 2020 Peloton Research & Economics report, "The Impacts of the Camp Fire Disaster on Tri-County Housing Markets" are discussed below (the Tri-County region includes the three counties of Butte, Glenn, and Tehama):

- In 2018, the largest cities in the tri-county region were in ~~Butte County~~Butte County; ~~City~~City of Chico (92,861), ~~City~~City of Oroville (18,091) and the Town of Paradise (26,432). Following the Camp Fire, the Town of Paradise experienced a population loss of 82.9% from 2018. During that same time, the ~~City~~City of Oroville saw a 19.1% growth in population. This basically equated to a decade of growth in one year. A very large proportion of residents whose homes burned down fled to Chico and Oroville, the nearest communities that had not suffered physical damage from the wildfire, to seek short-term shelter and long-term housing.
- This sudden population increase placed an enormous strain on Oroville's public infrastructure, including roadways, water systems, and public services such as community support functions and case management.
- At the time of the Camp Fire, the tri-county region was already experiencing a very competitive housing market, with rental vacancy rates of less than 2%, very long wait lists for affordable housing and very limited housing inventory available for sale. After the fire, the rental vacancy rate became less than 0.5%.
- Over the first six months following the disaster, there was a substantial surge that resulted in record-high home prices and rent rates throughout the tri-county region that displaced residents coupled with a shortage of housing, backlog of housing construction, and rapidly rising homelessness.
- One dynamic shift in the housing market which is particularly important to note was the loss of large neighborhoods of naturally occurring, affordable housing in Paradise. Paradise was known to be the most affordable community in ~~Butte County~~Butte County (both for renters and homeowners) and the vast majority of its housing stock was not subsidized. Housing stock consisted of older homes and mobile homes. Replacing these naturally affordable units in today's market, with unprecedented demand and soaring land and construction costs, is a challenge that will take time and effort to overcome.
- Displacement due to the fire affected not only those whose homes were directly destroyed or damaged by the fire, but also the renters whose landlords chose to either sell their rental home to take advantage of higher demand and sales prices, or to rent to a family member or friend who had lost their home. This issue is more fully described and analyzed in the Chapter 4 Needs Assessment.

While this Housing Element update is being prepared three full years after the Camp Fire, the impacts on housing within Oroville have not subsided. There continue to be ongoing challenges with housing inventory, affordability, and displacement.

There are, however, many strides also being made, with the ~~City~~City's receipt of HOME funding for the development of multi-family housing for low-income seniors, which should support the construction of 40 affordable rental units, and the receipt of Disaster Low Income Housing Tax Credits, which will produce 312 affordable multi-family units. More projects are on the horizon, but they will take time to secure land and financing, in addition to navigating the current challenges of ever-increasing construction costs. The impact of the Camp Fire will be a key factor influencing the housing market in Oroville for many years, made even more significant by the broader housing challenges experienced in California as a whole, and the impacts of the COVID-19 pandemic.

North Complex Fire

The North Complex Fire, the 6th largest and 5th most destructive wildfire in California history, burned 318,930 acres on the Plumas National Forest between August 2020 and October 2020. The fire tragically destroyed the town of Berry Creek and several rural communities near Oroville. The incident resulted in 16 deaths and damaged 2,455 structures ("*The Forgotten Fire?"* Ken Smith, Sacramento News & Review, October 2021). The impacts of the North Complex Fire on Oroville and surrounding communities are discussed further in Assessment of Fair Housing section of Chapter 4.

COVID-19

The COVID-19 pandemic and accompanying shutdown began in earnest in California in March 2020. This resulted in a statewide lockdown which closed many businesses in Oroville for nearly one year and forced those businesses which did remain open to implement different operational models. There were significant reductions in employment, especially for restaurants, retail and small businesses. While the lockdown was largely rescinded in July 2021, ongoing labor and supply shortages continue to impact the local economy. The pandemic also affected the usual community outreach and engagement strategies for the Housing Element update. The ~~City~~City implemented a menu of interactive virtual engagement opportunities, in recognition that the usual in-person outreach would not be possible. For example, in compliance with State and local public health orders, community meetings were moved to an online format, rather than in-person meetings. Meetings used polls and breakout rooms to engage the residents in conversation. The ~~City~~City developed a Housing Element website to serve as a central hub for residents to provide input via online surveys and learn about a variety of Housing Element topics. Efforts to adapt the process to ensure the participation of marginalized populations are fully described in the public participation process below. Despite these efforts, it must be acknowledged that some individuals who would usually participate in person at community meetings are not comfortable with an online format or may not have access to a computer or reliable internet and telephone services.

In terms of the housing market itself, what is known is that many of those who lost employment due to the pandemic found themselves doubling up with family and friends, or

became homeless, even with rent relief measures that were enacted at the Federal level and the increase/extension of unemployment benefits. The pandemic's economic pressures have exacerbated the need for affordable housing and a range of housing types to meet the needs of the community.

REGULATORY FRAMEWORK

Since 1969, Housing Elements have been a required part of each local government's General Plan process. The State has found that "Local and state governments have a responsibility to use the powers vested in them to facilitate the improvement and development of housing to make adequate provision for the housing needs of all economic segments of the community." California Government Code Sections 65580-65589 codify the requirements for the content of, and process to develop the local Housing Element. The State Department of Housing and Community Development (HCD) is charged with reviewing and approving each jurisdiction's Housing Element for compliance with State law.

California State law mandates that all localities adopt a Housing Element Update every eight years. The law also requires that Housing Elements address the following issues, among others:

- Include all economic segments of the community in the planning ~~process;~~process.
- Review the progress and effectiveness of previous Housing ~~Elements;~~Elements.
- Assess housing needs, including those of special needs populations, such as seniors, individuals experiencing homelessness, female-headed households, large households, and persons with ~~disabilities;~~disabilities.
- Assess the fair housing issues and trends in four key areas, contributing factors to these issues and trends, as well as the local jurisdiction's fair housing enforcement and ~~capacity;~~capacity.
- List units at risk of conversion from restricted rents to market ~~rents;~~rents.
- Inventory whether there are an adequate number of appropriately zoned sites to accommodate growth for all income groups, as projected by the State Department of Housing and Community ~~Development;~~Development.
- Describe available financial and energy efficiency ~~resources;~~resources.
- Address constraints to housing production; and
- Outline a housing program with goals, policies, and programs that are consistent with the General Plan and that address housing needs, constraints, and available resources, including any fair housing issues that have been identified. The housing program must include a timeline of programs during the planning period.

Since Oroville's Housing Element was last adopted in 2014, the State Legislature has passed a significant number of laws which mandate new analyses or programs in each Housing Element, as well an entire slate of laws regarding Accessory Dwelling Units (ADUs). These new laws apply

to the 2022-2030 ~~City~~City of Oroville Housing Element update, and wherever available, HCD guidance memos have been followed in its development. These include, but are not limited to:

- ADUs (AB 3182, AB 671, AB 68, AB 587, AB 670, AB 881, SB 13)—These new laws limit local jurisdictions' ability to restrict the development of ADUs in a variety of ways and mandate streamlined, ministerial approval of ADUs within defined conditions. For the purpose of the Housing Element, they clarify that a local agency may identify an ADU or JADU as an adequate site to satisfy RHNA housing needs. AB 671 specifically requires that Housing Elements include a plan to incentivize and promote the creation of ADUs that can offer affordable rents for very-low, low-, or moderate-income households.

- Affirmatively Furthering Fair Housing (AB 686)—All Housing Elements adopted on or after January 1, ~~2021~~2021, must contain an Assessment of Fair Housing (AFH) conducted in accordance with HCD program guidance, and must include a program of actions that promote and affirmatively further fair housing opportunities throughout the community.

- No Net Loss (SB 166)— As jurisdictions make decisions regarding zoning and land use, and as development occurs, jurisdictions must have a program to assess their ability to accommodate new housing on the remaining sites in their Housing Element site inventories. A jurisdiction must add adequate sites if land use decisions or development results in a shortfall of sufficient sites to accommodate its remaining housing need for each income category.

- Site Inventory (SB 6, AB 1397, AB 1486, AB 686, AB 725)—The Housing Element establishes a jurisdiction's strategy to plan for and facilitate the development of housing over the planning period by providing an inventory of land adequately zoned or planned to be zoned for housing and programs to implement the strategy. These laws modified the content of the site inventory, including new analyses for capa~~city~~city calculations, infrastructure requirements, suitability of non-vacant sites, size of site and density requirements, location requirements, sites identified in the previous Housing Element and rezone program requirements, among others.

PUBLIC PARTICIPATION PROCESS

Broad public participation is an essential component of the Housing Element update ~~process, and~~process and is required by State law (Government Code Section 65583(c)(8)). Community outreach must be conducted through a variety of mechanisms to include all economic and cultural segments of the community. This has been furthered strengthened and expanded through the passage of AB 686 which mandates meaningful, frequent, and ongoing community participation, consultation, and coordination that is integrated with the broader stakeholder outreach and community participation process for the overall Housing Element.

The Oroville Housing Element update process for 2022-2030 employed an extensive outreach effort to engage a wide spectrum of the community within the necessary restrictions imposed by COVID-19. This effort included a Housing Element website, a comprehensive contact list, utilization of a variety of methods to disseminate information and engage residents in the process, an outreach event at the annual Salmon festival, two online community workshops and two online surveys.

After the draft document was completed, it was posted on the ~~City~~City's Housing Element webpage, with notice to the public as to its availability, and scheduled for review and comment at public hearings with the Oroville Planning Commission on June 23, ~~2022~~2022, and ~~City~~City Council on July 19, 2022. The public was provided with a 30-day public comment period from June 19 to July 19 before it was submitted to State HCD for review. The ~~City~~City received a State HCD review letter dated October 25, 2022. This current version of the Housing Element includes revisions in response to the HCD review letter as shown in ~~redline, and~~redline and was made available for public comment February 7-1~~5~~, 2023.

Outreach

At the beginning of the Housing Element update process, a community outreach contact list was developed to email announcements about public meetings and progress and was updated throughout the process. This contact list included over 150 individuals and encompassed representatives from the following interests and organizations:

- ~~City~~City and County elected ~~officials~~officials.
- ~~City~~City of Oroville staff
- ~~Butte County~~Butte Countywide Homeless Continuum of Care
- Butte-Glenn 211 (information and resource referrals)
- Far Northern Regional Center
- Northern Circle Indian Housing Authority
- Ethnic and cultural groups such as the Hispanic Resource Council of Northern California, North State Hispanic Chamber of Commerce, African American Family & Cultural Center and the Hmong Cultural Association
- Housing Authority of the County of Butte
- Affordable housing developers
- Water, transportation, and recreation organizations
- Disability rights advocates
- Legal services
- Senior services and advocacy groups
- Domestic violence and rape crisis services
- Education representatives
- Real estate brokers
- Property management association
- Chamber of Commerce and local businesses
- Healthcare organizations
- Civic organizations, such as the League of Women Voters
- Various non-profit organizations, including homelessness ~~services~~services.
- Neighborhood associations

- Building industry representatives
- General interested community ~~members~~members.

Methods for Information Dissemination and Engagement

- **Website:** A website dedicated to the Housing Element update process was made available in three languages: English, ~~Spanish~~Spanish, and Hmong (toggle option at the top of the page); this webpage functioned as the central location for all information related to the Housing Element update. It included background information on the purpose of the Housing Element, how to participate, the update timeline, resources, and an opportunity to sign up for an email list to receive direct emails on the update process. Most of the resources, including the presentation slides and recordings from the community meetings, are provided in both English and Spanish. Website address: www.orovillehousingelement.com
- **Social media:** The ~~City~~City's Facebook and Instagram pages were used to notify residents of opportunities to participate in events such as community meetings and online surveys, as well as notifying them when new resources were posted to the website. Facebook events were created for the community meetings. Posts were made available in English, ~~Spanish~~Spanish, and Hmong.
- **Direct email:** Parallel to the Facebook and Instagram posts, all stakeholders and interested community members who signed up for email notifications received periodic "email blasts" throughout the process.
- **Flyers:** A trilingual (English/Spanish/Hmong) flyer announcing Community Meeting #1 was distributed to visitors at the Salmon Festival, a large community event. Flyers provided information on the options to join the meeting online or by calling in via phone, so residents with various levels of access to technology could ~~participate~~participate.
- **Newspaper articles:** The ~~City~~City sent public services announcements (PSAs) to local newspapers (Mercury Register and the Chico Enterprise Record) and news stations regarding the community meetings. These brief articles gave the public notice about their opportunity to participate in the meetings, with the meeting details.

Salmon Festival Outreach Event (focus group)

Due to the COVID-19 pandemic, which limited in-person gatherings due to safety and disease control/prevention, the ~~City~~City was not able to hold a conventional focus group for low-income residents. Instead, the ~~City~~City held an outdoor community outreach event at the Salmon Festival in an effort to abide by the guidelines set forth by the Centers for Disease Control and Prevention. The Salmon Festival, which was held 10:00 – 4:00 pm on September 25, 2021, in Historic Downtown Oroville, is a well-attended, outdoor annual community

festival that celebrates the migration of salmon up the Feather River in Oroville and brings together diverse members of the community.

The ~~City~~City set up a booth at the festival, conducting in-person outreach in an effort to encourage the participation of historically underrepresented community members in the Housing Element Update process. This included educating residents about the Housing Element Update process, answering questions, collecting feedback through paper and electronic surveys, and informing residents of upcoming community meetings. The materials were provided in English, Spanish, and Hmong.

The event and surveys provided residents with the opportunity to provide input on their housing needs and options as well as discuss any barriers or discrimination they faced in accessing housing. They also recommended housing types that are in the greatest need and ways to help people with limited means get into housing. Participants included residents from a variety of demographic, racial, and economic backgrounds, including low-income residents, residents with disabilities, residents experiencing homelessness, seniors, and single mothers.

Below are key takeaways from residents:

- Many residents were unaware or uninformed of the Housing Element Update process or ways to meaningfully participate.
- The 2018 Camp Fire made it even more challenging to find an available affordable housing unit in the ~~City~~City and many individuals were unhoused.
- Residents could benefit from case management services to secure safe and decent housing and/or navigate housing discrimination.
- Special populations, especially people with disabilities, could benefit from a housing navigation center model and staff or peer-support at the center for help with accessing resources and navigating systems.

Community Workshops and Online Surveys

Community workshops were held on October 20 and November 17, 2021. These meetings were held on the virtual meeting Zoom platform due to COVID-19. The purpose of the workshops was to solicit input on housing needs, review previous Housing Element Goals, Policies and Programs, and recommend new actions to address unmet needs. Both the community meetings and surveys were advertised on the Housing Element website, the ~~City~~City's Facebook, and Instagram pages, and in newspaper PSAs. These resources were promoted in English, Spanish, and Hmong. Each meeting included a presentation using PowerPoint slides, which were made available in English, Spanish, and Hmong and included definitions of commonly used terms in the Housing Element. Live Spanish interpretation was provided as option for participants during both meetings and Live Hmong interpretation was provided as an option for the second community meeting, as well as closed captions (Zoom

"live transcript") for those who are deaf, hard of hearing, or preferred a visual transcript of the meeting conversation. Interactive polls and a question and answer (Q&A) session helped make the meetings interactive and informative for participants.

Workshop #1 opened with a presentation on the background of the Housing Element process and its purpose; previous Housing Element progress; an overview of the housing needs, funding available to address those needs, and economic context; and an introduction to the previous Housing Element's Goals, Policies and Programs. In the breakout group, participants then discussed the types of housing most needed in Oroville; what challenges are encountered in finding affordable housing; the special need for large household housing for low-income families and disability accommodations for residents with disabilities; fair housing; the role of ADUs in addressing unmet needs, overall constraints to the development of housing, SROs and why they haven't been built, impacts from the Camp Fire, and to what degree home ownership should be a priority.

Workshop #2 opened with a presentation on the key findings from the Needs Assessment and an overview of the current Housing Element Goals, Policies, and Programs. In the breakout group, participants then discussed: Fair Housing, Patterns of Segregation, Home Ownership, Special Needs Housing, Promoting a Wide Range of Housing Types, Rehabilitation of Existing Neighborhood and Housing, After-effects of the Camp Fire, Energy Conservation and Affordable Housing. Resources from Workshop#1 and #2 can be found here: https://www.orovillehousingelement.com/community-surveys

Two online surveys, utilizing the SurveyMonkey platform, were available for community members to participate in. The surveys were advertised on the Housing Element Update website, social media, direct email, flyers, newspapers, and at both community meetings and the focus group. The first survey was open from September 25, ~~2021~~2021, to October 22, 202~~0~~1, and the second survey was open from December 20, ~~2021~~2021, to January 3, 2022. The surveys were provided in English, Spanish, and Hmong. The first survey consisted of 16 questions which asked residents about:

- Their demographics
- The type of housing they live in
- Whether they rent or own their home
- If they were satisfied with their housing
- The physical condition of their home
- Challenges they have experienced in finding housing to meet their needs, especially ~~affordability~~affordability.
- Barriers to home ownership
- The types of housing most needed in ~~Oroville~~Oroville.
- Discrimination they have encountered in searching for and securing ~~housing~~housing.

- Accommodations they or a family member need for a disabling condition and their ability to obtain those ~~accommodations~~accommodations.
- Their prioritization of the ~~City~~City's current Housing Element Goals

The second survey consisted of 7 questions which addressed the following topics:

- Their demographics
- Their ability to secure safe and decent housing in ~~Oroville~~Oroville.
- The types of housing they would like to live in
- Impacts of the Camp Fire on housing displacement
- Potential actions to promote a mix of dwelling types and ~~sizes~~sizes.
- How to incentivize the construction of ADUs that offer affordable rents to lower-income households

A total of 65 responses were collected from both surveys. Survey participants represented a diverse set of backgrounds, including college students, seniors, single mothers, low-income residents, local government officials, and both renters and owners. In the first survey, most residents wanted to live in a detached, single-family homes and over half of participant's residences needed repair, ranging from minor to major improvements. Over 60% of residents felt that the range of housing options in the ~~City~~City did not meet their needs, with the majority of participants citing that there is an insufficient amount of affordable housing and housing options, including housing for seniors and people with disabilities, affordable rental units, and permanent, supportive housing. The survey indicated that 70% of participants felt that there is a need for affordable apartments, 50% felt that there is a need for housing close to services, 60% felt there is a need for single-family homes, and 45% indicated that there is a need for special needs housing in Oroville. About 60-70% of participants reported that residents could benefit from information on assistance programs, down payment assistance, and loans or assistance for repairs and rehabilitation. Many participants cited a recent increase in homelessness.

Participants in the second survey also represented a diverse set of backgrounds. About 60% of participants had trouble purchasing a home due to increases in home prices following the Camp Fire. About 25% of participants reported that increasing partnerships between local governments and agencies, promoting affordable development in the ~~City~~City center, prioritizing development in areas of high segregation and poverty, and decreasing impact fees for affordable housing development are actions that should be given the highest priority. Most participants indicated that offering pre-approved building plans and providing funding for construction costs or forgivable loan programs would be beneficial in promoting the construction of Accessory Dwelling Units.

Summary reports of both community surveys can be found at this link:
https://www.orovillehousingelement.com/community-surveys

Community Input Summary

In evaluating the input received through these varied engagement efforts, ~~a number of~~several consistent themes were expressed by community members. They are summarized here with a description of how they are being addressed through the Housing Element programs noted in Chapter 3:

- The Camp Fire had a significant impact on housing displacement and choice because many Camp Fire survivors relocated to Oroville. Given the ongoing risk posed by wildfire in communities surrounding Oroville, as demonstrated by the North Complex Fire in 2020 and the Dixie Fire in 2021, intergovernmental and interorganizational collaboration on housing issues in ~~Butte County~~Butte County is needed.

  This input is to be addressed through:

  Goal 1, Program 1.2.1 "Continue to work with the ~~Butte County~~Butte County Homeless Continuum of Care Coalition to facilitate the provision of shelter and services for individuals experiencing homelessness, with the goal of rapidly re-housing individuals."

  Goal 1, Program 1.2.4: "The ~~City~~City will work to provide technical assistance in grant funding applications for the development of new facilities to serve individuals experiencing homelessness as needed."

- There continues to be a significant shortage of affordable rental units which was exacerbated by the loss of naturally occurring affordable housing due to the Camp Fire. This limits the housing options for the lowest-income households, including seniors, persons with disabilities and those experiencing homelessness.

  This input is to be addressed through:

  Goal 1, Program 1.2.2 "Amend the ~~City~~City's Zoning Code to allow Low Barrier Navigation Center development as a use by right in areas zoned for mixed uses and nonresidential zones permitting multifamily uses if it meets specified requirements, as defined and delineated in AB 101."

  *Goal 2, Program 2.1.5 "**Transitional Housing Code Amendments.** The ~~City~~City will add a provision to its Municipal Code that will allow Transitional Housing, as defined by Section 50675.2 of the Health and Safety Code, by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use."*

  *Goal 2, Program 2.1.6 "**Supportive Housing Code Amendments.** The ~~City~~City will add a provision to its Municipal Code that will allow Supportive Housing, as defined by*

Section 50675.14 of the Health and Safety Code, by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use."

This input is to be addressed through:

Goal 4, Program 4.2.1 "The ~~City~~City will install and upgrade public service facilities (streets, curb, gutter, drainage, and utilities) to increase private market investment in declining, deteriorating, and infrastructure deficient neighborhoods.

Goal 4, Program 4.3.1: "To the extent that funding is available, the ~~City~~City will purchase abandoned ~~homes, and~~homes and provide rehabilitation assistance to improve deteriorated neighborhoods. Rehabilitated homes will be sold to low-income residents."

Goal 4, Program 4.3.2: "To the extent that funding is available, the ~~City~~City will support the rehabilitation of approximately 5 units over the next planning period."

- The ~~City~~City's Municipal Zoning Code may be constraining housing development and/or hindering the development of new housing to meet the needs of all ~~residents~~residents.

This input is to be addressed through:

*Goal 2, Program 2.1.5: **"**The ~~City~~City will add a provision to its Municipal Code that will allow Agricultural Worker Housing for six or fewer persons by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use "*

*Goal 2, Program 2.1.6: **"**The ~~City~~City will add a provision to its Municipal Code that will allow Transitional Housing, as defined by Section 50675.2 of the Health and Safety Code, by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use."*

Goal 2, Program 2.1.7: "The ~~City~~City will add a provision to its Municipal Code that will allow Supportive Housing, as defined by Section 50675.14 of the Health and Safety Code, by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use."

Goal 2, Program 2.1.8: "Establish a comprehensive program to remove constraints to the production of Accessory Dwelling Units (ADUs) in accordance with State law."

Goal 2, Program 2.1.9: "Amend the Municipal Code to revise emergency shelter parking requirements to comply with AB 139, to not require the number of parking spaces beyond what is necessary for staff that work at the shelter."

This input is to be addressed through:

Goal 6, Program 6.1.3: "The ~~City~~City will meet with Community Housing Improvement Program (CHIP) and Butte Habitat for Humanity (Habitat) once per year to discuss potential development opportunities in the ~~City~~City and methods for collaboration "

Goal 6, Program 6.4.3: "Meet with Disability Action Center, ~~Butte County~~Butte County, and Legal Services of Northern California (LSNC) at least once per year to coordinate information, referrals, and outreach to residents."

Affirmatively Furthering Fair Housing: Accessibility and Language

As described in the sections above, the ~~City~~City designed and implemented public outreach in accordance with AB 686, Affirmatively Furthering Fair Housing. This section describes these efforts in greater detail.

- **Accessibility:** The first survey was made available online and in paper copy, with the second survey made available online. Both surveys were provided in English, Spanish, and Hmong for three to four weeks so residents could access it in their preferred format, language, day of the week, and time of the day. The Focus Group and Community Workshops were held mid-week in the evenings to minimize barriers to participation based on work hours. Due to COVID-19, they were held virtually using Zoom. This minimized barriers to participation related to transportation and childcare. Flyers advertised both online and call-in methods for joining the meeting so barriers related to access to technology would be minimized. Challenges encountered included designing virtual meetings to be as similar as possible to in-person meetings, and some residents who would usually participate in person at community meetings not being comfortable with an online format or not having access to a computer or reliable internet and telephone services.
- **Language:** As of 2019, 84.5% of Oroville residents over the age of five speak English, 5.6% Spanish, and 6.6% Asian and Pacific Islander languages at home *(U.S. Census 2015-2019 American Community Survey)*. Thus, the ~~City~~City focused its efforts on robust trilingual materials and interpretation for English, Spanish, and Hmong languages and contracted with a professional translator for services. In addition, Zoom's "live transcript" closed captions feature was used for the Focus Group and Community Workshops so residents who are deaf or hard of hearing or who prefer to read closed captions were able to access information. Technical support instructions

were provided at the beginning of the workshops to orient residents to the accessibility and language features. Recordings of the Community Workshops in English, Spanish, and Hmong were posted on YouTube with closed captions and linked to the Housing Element website. Bilingual presentation slides, breakout group notes, and bilingual definitions of frequently used terms are linked on the Housing Element website: https://www.orovillehousingelement.com/resources

INTERGOVERNMENTAL REVIEW PROCESS

As required in Government Code Section 65589.7, the ~~City~~City has provided its water and sewer providers with an opportunity to participate in the Housing Element so that housing production can be coordinated with infrastructure plans. The ~~City~~City of Oroville has several utility providers, which are Thermalito Water and Sewer (TWSD), South Feather Water and Power, Lake Oroville Area Public Utilities District (LOPUD) California Service Company (CAL Water), and Sewage Commission- Oroville Region (SCOR). At the outset of the Housing Element planning process, the ~~City~~City sent letters to all providers. The letters requested confirmation that the provider has written policies and procedures granting priority for the provision of their services to proposed developments that include low-income housing (per SB 1087, adopted in 2005). The letters also requested that providers review the Housing Element draft, and a keep a copy of the final Housing Element on file. Following adoption of the Housing Element, the ~~City~~City will continue to work with water and sewer providers to coordinate housing and infrastructure plans.

CHAPTER 2: REVIEW OF PREVIOUS HOUSING ELEMENT

BACKGROUND

The Oroville ~~City~~City Council adopted the most recent Housing Element in June 2014 for the planning period of 2014-2022. The ~~City~~City's 2014 Housing Element was adopted during a time of significantly reduced funding, compared to the 2009 Housing Element. In 2012 the State of California had eliminated Redevelopment Agencies (RDA), and along with them, the ~~City~~City's primary source of affordable housing funding, the Redevelopment Agency Housing Set Aside. Due to the loss of the RDA funding, along with ongoing cuts to both CDBG and HOME at the federal level, the ~~City~~City's funding sources decreased significantly. Though there were cuts due to the dissolution of the RDA, the Housing Department was successful in the applying for CDBG and HOME funding to maintain these programs.

Key initiatives included:

- Provide homebuyer and first-time homebuyer assistance up to $100,000 or 45% of the purchase price of the home; whichever is less (Action 1.1.1)
- Ensure the ~~City~~City's policies and codes promote fair housing and equal access by amending the ~~City~~City's reasonable accommodation procedure for persons with disabilities (Action 1.3.1)
- A number of actions to protect existing neighborhoods from deterioration and encroachment, including augmenting code enforcement activities to supplement the graffiti removal program, fund neighborhood clean-up fairs, and code enforcement and community beautification efforts (Action 4.1.1); Install and upgrade public facilities such as streets, curb, gutter, and utilities to encourage private market investment in neighborhoods in need of revitalization (Action 4.2.1) purchase abandoned homes, and provide rehabilitation assistance to improve deteriorated neighborhoods (Action 4.3.1); Fund the rehabilitation of owner occupied single family homes (Action 4.3.2)
- Promote the development of affordable housing through a diverse set of strategies, including maintaining and publicizing a list of housing developments that serve lower-income households, persons with disabilities, or other special needs households (Action 1.2.3); Provide technical assistance to developers, nonprofits, or other private sector interests in seeking federal and state financing for affordable housing (Action 3.2.1)

STATE REQUIREMENTS

State Housing Element law (Government Code Section 65588) requires that Housing Elements review the previous Housing Element in the following ways:

- Progress in implementation, including a description of the actual results or outcomes of previous Housing Element goals, policies, and ~~actions~~programs.
- Effectiveness, including a comparison of what was projected or planned in the previous Housing Element and what was actually achieved.
- A description of how past programs were effective in addressing the housing needs of special populations, including seniors, farmworkers, those with disabilities and people experiencing homelessness.
- Appropriateness of goals, policies and ~~actions~~programs, including a description of what has been learned based on the analysis of progress and effectiveness of the previous Housing Element, and how the Housing Program is being changed or adjusted to incorporate what has been learned from the results of the previous Housing Element.

This chapter of the Housing Element addresses these requirements as follows:

- Progress in Implementation**: Appendix A** provides a detailed assessment of the accomplishments and effectiveness of each 2014 Housing Element Action. It also includes notes indicating whether the Action is proposed to be deleted, ~~continued or~~continued or modified.
- Effectiveness: The subsections on **Housing Production Goals and Results** and **Results of Previous Housing Element Actions** compare what was projected or planned to what was actually achieved. Information on whether Actions are proposed to be deleted, ~~continued~~continued, or modified is also summarized here.
- Addressing Housing Needs of Special Populations: The subsection on **Results of Previous Housing Element Actions** analyzes how past actions were effective in addressing the housing needs of special populations.
- Appropriateness of goals, policies and ~~actions~~programs: The subsection on **Implication of Findings for the 2022 Housing Element** addresses what has been learned through the analysis of the previous Housing Element's effectiveness and progress, and what is being changed or adjusted in the 2022 Housing Element based on this information.

HOUSING PRODUCTION GOALS AND RESULTS

State law requires regions to plan for housing needs based on future growth projections through the Regional Housing Needs Allocation (RHNA), per Government Code Section 65584. The State Department of Housing and Community Development allocates numeric RHNA unit production goals to regional councils of government, which then allocate these goals to each community within its area of governance. For ~~Butte County~~Butte County and each of its incorporated cities the regional council of government is the ~~Butte County~~Butte County Association of Governments (BCAG). The RHNA goals identify the housing units needed to accommodate growth over the

planning period for each of four different income levels: Very-Low (which includes Extremely-Low), Low-, Moderate- and Above-Moderate Income.

State law does not require that communities meet the RHNA production goals. Instead, State law requires that communities employ planning and funding mechanisms that enable them to achieve the goals. One mechanism that carries a specific State mandate is the Adequate Sites Inventory, described in Chapter 5, per Government Code Section 65583.2. This section requires that each community ensure that there is adequate appropriately zoned land within its jurisdiction to accommodate its RHNA. If a community did not comply with this requirement at the time of submission of the last Housing Element to the State, it must show how this was corrected in the next Housing Element planning period through re-zoning, ~~annexation~~annexation, or other means. Oroville's 2014 Housing Element Adequate Sites Inventory demonstrated that the ~~City~~City had sufficient vacant land appropriately zoned to provide for the RHNA.

Figure 1 shows Oroville's RHNA for the period of January 1, ~~2014~~2014, to June 30, 2022, and the number of units produced from 2014 through 2021 that are affordable to each income level.

Figure 1: Regional Housing Needs Allocation and Production, January 2014-June 2022

Income Level	RHNA Allocation	Units Produced	% of RHNA Produced
Extremely Low	209	0	0.0%
Very Low	210	0	0.0%
Low	284	205	72.2%
Moderate	306	0	0.0%
~~Above-Moderate~~Above Moderate	784	250	31.9%
Total	1,793	674	37.6%

Sources: ~~Butte County~~Butte County Association of Governments, 2014 Regional Housing Needs Plan, ~~City~~City of Oroville Community Development Department, 2021

In addition to the production of new affordable units, the ~~City~~City assisted 164 households through its Homebuyer Downpayment Assistance Program through January 2022 and 3 households through its Owner Occupied Housing Rehabilitation Program through January 2022.

RESULTS OF PREVIOUS HOUSING ELEMENT ACTIONS

The 2014 Housing Element included a Housing Program of six Goals. Within each Goal was a set of Policies and Actions. Below is a summary of the Goals and the number of Actions associated with each.

1: Increase housing opportunities and accessibility (6 Actions)

2: Remove constraints to housing (3 Actions)

3: Promote construction of a wide range of housing types (3 Actions)

4: Improve, rehabilitate, and revitalize existing neighborhoods (6 Actions)

5: Promote Fair Housing (2 Actions)

6: Encourage energy efficiency in housing (2 Actions)

The ~~City~~City's progress on these Goals and Actions is summarized below within the categories of

- One Time Actions Completed
- Ongoing Actions That Made Progress
- Actions That Did Not Make Progress
- Effectiveness of Actions to Address ~~The~~the Needs of Special Populations

One Time Actions Completed

Update ~~City~~City zoning regulations for Emergency Shelters, Transitional and Supportive Housing, and SROs to be consistent with state law—Action 1.2.2: As a part of Ordinance 1804, the ~~City~~City Council amended zoning codes for emergency shelters, transitional and supportive housing, and SROs to ensure consistency with the State Law in 2014. Action 1.4.1: As a part of Ordinance No. 1804, the ~~City~~City amended local zoning, development standards, and permit processing to be in compliance with Health and Safety Code Section

65583. However, further amendments to the ~~City~~City Municipal Code are necessary to ensure compliance with all parts of Section 65583, as described in the Chapter 6 Constraints Analysis.

Track Housing Element implementation progress—Action 2.1.2: The ~~City~~City's Housing Element is in compliance; the ~~City~~City has submitted its Annual Progress Report to the Department of Housing and Community Development.

Ensure availability of adequate sites to accommodate RHNA—Action 3.1.2: In 2015, the ~~City~~City updated zoning codes and maps to coincide with the General Plan land use designations. The ~~City~~City's MXC and MXN mixed-use zones now permit multi-family, high-density residential development.

Mandate compliance with Title 24 of the California Administrative Code—Action 6.1.1: The Building Department updated zoning codes to require all new residential development to comply with energy conservation requirements set forth by Title 24 of the California Administrative code.

Ongoing Actions That Made Progress

Provide homebuyer assistance—Action 1.1.1: The ~~City~~City applied for and was rewarded 2016 and 2018 HOME funds each in the amount of $1,000,000 and CDBG Homeownership funds in the amount of $1,000,000. The homebuyer assistance program has been so well-utilized by residents that these funds have been expended. The ~~City~~City also applied for and was awarded $1,000,000 in 2019 HOME funds, $1,000,000 in CDBG NOFA, and $1,000,000 in 2020 CDBG funds to continue this program. Action 1.2.3: The ~~City~~City maintains an updated list of affordable housing projects on the ~~City~~City's website.

Monitor and improve the development review process—Action 2.1.1: The ~~City~~City offers concurrent processing to streamline development and the zoning ordinance has been updated to provide incentives for low-income housing development, such as fast-track processing and density bonuses. The ~~City~~City has also developed a pre-application/development review process to help minimize processing times and increase information symmetry. In 2020, the ~~City~~City also developed a program to defer development impact fees by deed of trust until occupancy is issued.

Periodically survey fees to ensure they are reasonably related to the cost of services provided—Action 2.1.3: The master fee schedule was last updated in 2020 and is currently in the process of being updated for 2022. In addition, the ~~City~~City developed and instituted a fee deferral program for subdivisions of all income types.

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Regularly update the ~~City~~City's GIS system—Action 3.1.1: The ~~City~~City maintains a list of vacant lands that is shared with the public by request.

Secure funding for the production of new affordable housing—Action 3.2.1: The ~~City~~City secured federal and state financial assistance to produce 40 units through 2021. The ~~City~~City also donated vacant land where 12 townhomes will be developed by Veteran Housing development corporation and is working on a 60-unit supportive housing project in the ~~City~~City that will be constructed in two phases.

Secure grants to augment code enforcement and clean up neighborhoods—Action 4.1.1: The ~~City~~City applied for and received 2017 CDBG funds and Cal OES funds to continue code enforcement activities. In addition, the ~~City~~City assembled a task force of law enforcement, code enforcement, and staff from Parks and Trees to identify code issues and housing complaints. The ~~City~~City has continued the ~~City~~City's Code Enforcement efforts through increased staffing.

Install and upgrade public infrastructure—Action 4.2.1: The ~~City~~City is evaluating the condition, demands, and future needs of public facilities. The ~~City~~City developed a Capital Improvement program that will be implemented annually with roadway, sewer, and drainage infrastructure improvements to support infill development.

Purchase Abandoned Homes and Provide Rehabilitation Assistance—Action 4.3.1: The ~~City~~City does not have funding to provide rehabilitation assistance but is actively acquiring and reselling properties in default. The ~~City~~City acquired and paid off primary loans for several foreclosed homes in this reporting period. Some homes have been sold for fair market value while others were donated to VHDC to sell to income-qualified veterans. The ~~City~~City uses Housing Program Funds (previously RDA funds) and ~~City~~City Revolving loans funds to cure the defaults. The ~~City~~City was awarded PLHA funds to continue this activity.

Support the ~~Owner Occupied~~Owner-Occupied Single-family Rehabilitation Program—Action 4.3.2: The ~~City~~City rehabilitated one ~~home, and~~home and is currently seeking a contractor to oversee future rehabilitation projects. The ~~City~~City applied for and was awarded $750,000 in 2020 CDBG Owner-occupied rehabilitation funds and have procured a contractor to oversee up to 10 projects over the next three (3) years.

Promote Fair Housing—Action 5.1.1: ~~City~~City staff attends fair housing training and has coordinated fair housing workshops and distributed fair housing informational flyers in public spaces.

Publicize energy conservation incentives—Action 6.1.2: In, 2016, the ~~City~~City approved the inclusion of properties within the ~~City~~City of Oroville for three different Property Assessed Clean Energy (PACE) programs. 1)Ygreene Works, 2) HERO, and 3) Open PACE.

Actions That Did Not Make Progress

Provide Funding Assistance for Rehabilitation of Multi-family Units—Action 4.3.3: Due to lack of funding, the ~~City~~City was unable to rehabilitate multi-family units.

Preserve Existing Affordable Rental Housing Stock—Action 4.4.1: Due to lack of funding, the ~~City~~City has been unable regularly coordinate with the California Housing Corporation to identify and preserve at-risk units. However, a review of at-risk units has been conducted for this Housing Element and will continue as described in the Chapter 3 Housing Program under Action 4.1.2.

Effectiveness of Actions to Address ~~The~~the Needs of Special Populations

Secure funding for low-income senior housing— Action 3.2.1: The ~~City~~City was awarded HOME Funding for the development of the Sierra Heights Project for seniors. Phase I of the project is completed and provides 40 units for extremely-low-income seniors and Phase II is underway and is expected to be completed in September 2022.

Inform residents of senior independent living facilities—Action 5.1.2: The ~~City~~City works with the Housing Authority of the County of Butte, the Community Action Agency, and other special interest groups to provide senior housing informational materials to residents. The ~~City~~City also administered a survey to seniors to identify their unique housing needs.

Secure funding for housing that serves small and Extremely ~~Low-Income~~Low-Income households— Action 3.2.1: The ~~City~~City worked with developers to fund 5 multifamily housing projects using Disaster Low Income Housing Tax Credits that provide 312 units for low income and extremely low-income tenants. Although this is not an SRO project, the demographics of the ~~City~~City of Oroville indicate that most low-income households consist of 1-2 occupants. Therefore, small households will benefit from the development of new, multi-family rental units.

Secure funding for housing people experiencing homelessness— Action 3.2.1: The ~~City~~City worked with developers to secure funding for a permanent supportive housing project by providing a loan in the amount of $1,000,000 of Housing program funds. In addition, the ~~City~~City assisted a Veteran Permanent Supportive Housing Project by providing land donation and a loan in the amount of $1,750,000 to developer. This project will begin construction in ~~2023, and~~2023 and offer occupancy in 2024. Lastly, the ~~City~~City donated 5 homes and 3 vacant lots to the Veterans Housing Development Corporation to sell to low-income and extremely low-income veterans. While this is not technically a project for people with disabilities, it contributes towards meeting the housing needs of people with physical disabilities or mental health conditions.

Work with the ~~Butte County~~Butte County Homeless Continuum of Care to reduce homelessness—Action 1.2.1: A ~~City~~City Council member meets with the ~~Butte County~~Butte Countywide Homeless Continuum of Care regularly throughout the year to further COC objectives.

Amend the zoning code to allow reasonable accommodation without discretionary review for persons with disabilities—Action 1.3.1: As a part of Ordinance No. 1804, the ~~City~~City created an administrative mechanism for a disabled person to file a request for reasonable accommodation to make specific housing available to one or more individuals.

The ~~City~~City also made progress in the development of Permanent Supportive Housing as follows:

- Base Camp Village is a 12-unit permanent supportive housing project for people experiencing homelessness with a mental illness diagnosis. The housing project opened in April 2020.
- Prospect View will be another newly constructed project which will offer 39 units of permanent supportive housing for people experiencing homelessness with a mental illness. Construction is slated to begin in 2022 with units available for occupancy in 2023.

A detailed assessment of the accomplishments and effectiveness of each 2014 Housing Element Action can be found in **Appendix A,** with notes indicating if the Action is proposed to be deleted, ~~continued or~~continued or modified.

IMPLICATION OF FINDINGS FOR THE 2022 HOUSING ELEMENT

Analysis

Given the environment of largely constrained resources between 2014 and 2021, the ~~City~~City made considerable progress on its 2014 Housing Element Programs. Of the 23 actions, only 3 made no progress. The reasons included limited resources (lack of adequate staffing and appropriate funding), the housing market, and high building costs.

When looking at the ~~City~~City's progress in meeting the 2014-2022 RHNA target goals, it is clear that the private market made significant progress towards meeting the housing needs of low-income residents. It is equally clear that the lack of available public subsidies significantly impeded progress on the development of units for very-low and low-income households.

The Actions in the 2014-2022 Housing Element that were constrained by lack of funding are now poised to take advantage of the myriad of new or augmented funding programs

available from the State and Federal governments. As described earlier, much of this funding was received as a result of the Camp Fire (CDBG-DR-MHP and Disaster Tax Credits). In addition, the ~~City~~City applied for and received SB-2, LEAP, REAP and PLHA funds. This will significantly support the development of new affordable housing, including permanent supportive housing targeted to individuals with disabilities and those experiencing homelessness, as well as strengthening the ~~City~~City's planning efforts around housing and investing in the South Oroville ~~neighborhood~~neighborhood.

The Actions in the ~~City~~City's 2022-2030 Housing Program, as shown in Chapter 3, are reflective of taking advantage of these new or augmented funding opportunities in partnership with developers, undertaking changes to the Municipal Code to equitably integrate patterns of development, and addressing recent State laws to remove constraints to the development of housing and shelter services for people experiencing homelessness.

Process

~~City~~City staff conducted an initial review of the 2014 Housing Element Actions to document accomplishments, assess effectiveness and recommend whether the Action should be continued, ~~modified~~modified, or deleted in the 2022 Housing Element update. Following this review, the Actions were discussed at Community Workshop #2, and public input on their relevance and feasibility was obtained. Based upon both the ~~City~~City and community review:

- the completed Actions which were intended to be one-time efforts have been removed. In addition, some Actions which are no longer feasible due to a lack of funding or community resources to carry them out have been removed.
- some Actions have been revised to bring them up to date with the most recent State legislation or to more appropriately address community resources that are available to support their execution.
- some actions that still have relevance and/or were intended to be ongoing efforts remain the same as the previous Housing Element.
- new Actions that were identified through the Community Outreach efforts, Needs Assessment, Assessment of Fair Housing, Constraints Analysis and/or are required by new State legislation have been added.

~~All of~~All the Actions are detailed in the Housing Program (Chapter 3) and those which are new or modified are summarized below.

New Actions

- Goal 1, "Increase the availability of permanent housing for all community residents" includes new ~~actions~~ Programs to provide technical assistance in grant funding applications for the development of new facilities to serve individuals experiencing homelessness and incentivize the production of Accessory Dwelling Units (ADUs) that can be offered at affordable rents to Low- to Moderate-Income households per AB 671.
- Goal 2, "Remove governmental constraints to the development of housing" adds new P~~p~~rograms to amend the Oroville Municipal Code, including: amendments ~~for compliance~~to comply with AB 139 (parking standards for emergency shelters and by right zoning to address shelter capa~~city~~city requirements) ~~, as well as~~and AB 101~~, which~~ (allowing~~s~~ Low Barrier Navigation Centers as a use "by right" in areas zoned for mixed-use and non-residential zones permitting multi-family uses)~~, decreases parking requirements for emergency shelters, and includes a~~ ; provisions to allow transitional housing, supportive housing, ~~and~~ agricultural farmworker housing, and residential care facilities housing seven or more persons in all residential zoning districts; redefinition of "Family" to allow more flexibility for housing persons with disabilities; ~~. It also establishes a comprehensive program to~~ removal of~~e~~ constraints to the production of Accessory Dwelling Units (ADUs) in accordance with State laws AB 3182, AB 68, AB 881, SB 13, AB 687, AB 680 and AB 681; streamlined permit review processes for projects that request AB 2162 (permanent supportive housing) or SB 35 (affordable housing) reviews; and revision of the use permit approval criteria to promote greater objectivity. In addition, Program 2.1.4 commits the ~~City~~City to support the development of agricultural housing by coordinating with developers.~~.~~
- Goal 3, "Support and encourage the construction of new housing at a range of costs, types, and tenures and in quantities to meet the needs of all income groups, including the very low-, low- and moderate-income groups" includes ~~actions~~ Programs to develop a community engagement program to help identify and meet the housing needs of residents.
- Goal 4, "Improve, rehabilitate and revitalize existing homes and neighborhoods" includes new ~~actions~~ Programs to guide redevelopment efforts in neighborhoods that ~~are in need of~~need reinvestment.
- Goal 5, "Promote energy conservation in residential neighborhoods" includes a new ~~goal~~ Program to bring green energy to residents with a focus on reducing costs.
- Goal 6, "Improve fair housing choice and equitable access to opportunity." The requirements of AB 686 (Affirmatively Furthering Fair Housing) have resulted in a new set of ~~8~~ 11 new ~~actions~~ Programs within this goal.

Modified Actions

- Goal 3, ~~Action~~ Program 3.1.3 updates the existing annual workshops offered to the community by working with one of the region's largest employers.
- Goal 4, Program 4.3.1 expands the Low-Income Home Rehabilitation program to include mobile ~~homes, and~~homes and commits the ~~City~~City to work with HCD's ~~Mobilehome~~Mobile home Division to improve mobile home parks.
- Goal 6, ~~Action~~ Program 6.~~1~~3.2 expands the existing flyers that the ~~City~~City provides to residents, by including information regarding new programs available to residents.

BACKGROUND

This chapter describes a Housing Program comprised of a comprehensive set of goals, policies and programs designed to address the ~~City~~City of Oroville's housing needs. These needs have been identified through the needs assessment, assessment of fair housing, constraints analysis, site inventory, and resource inventory. The terms "goals, policies and ~~actions~~programs" are defined as follows for the purpose of the Housing Element:

- Goals: The goals are broad statements of the community's vision and values for itself and are not time dependent. They indicate the direction the community wishes to move towards in providing healthy, safe, sustainable, and affordable housing for all residents.
- Policies: The policies are the commitments that the ~~City~~City is making to achieve the related goal or vision and a statement of its operational philosophy around housing.
- Actions: These are the specific actions or activities that will carry out the related policies and move the community towards its goals in a concrete and measurable way over time.

The Goals of the Housing Element and the number of Policies and Actions within each Goal are as follows:

Goal 1: Increase the availability of permanent housing for all community residents (3 Policies, 6 Program~~Action~~s)

Goal 2: Remove constraints that could hinder the development of housing (1 Policy, 8 ~~Actions~~Programs)

Goal 3: Provide housing that is affordable to low-income households (2 Policies, 3 ~~Actions~~Programs)

Goal 4: Promote construction of a wide range of housing types (2 Policies, 5 ~~Actions~~Programs)

Goal 5: Promote the conservation of energy in residential neighborhoods (1 Policy, 2 ~~Actions~~Programs)

Goal 6: Improve fair housing choice and equitable access to opportunity (4 Policies, 9 Program~~Action~~s)

Within each goal area, the information is organized as follows, per State requirements:

- Statement of the goal
- Statement of the policy(ies) to achieve the ~~goal~~goal.
- Description of the program which is directly related to the ~~policy~~policy.
- The party(ies) responsible for the program's implementation. This will include specific ~~City~~City staff, as well as community partners where appropriate. The responsibility for approving and directing all ~~City~~City actions rests with the ~~City~~City Council, which is then carried out by designated ~~City~~City staff.
- Potential financing or funding source(s). The availability of funding resources is not guaranteed and is subject to change. More or fewer resources may be available during the planning period. This will impact the feasibility of carrying out the programs stated.
- Timeframe for completion. These timeframes provide a reasonable expectation for starting and/or completing programs, given current staff resources and workloads. Like funding, these are subject to change due to circumstances beyond the control of the ~~City~~City.

GOALS, POLICIES, AND PROGRAMS

Expand Housing Opportunity and Accessibility

This section addresses how the ~~City~~City of Oroville will concentrate and focus efforts and resources on increasing the availability of permanent housing for all residents of the community.

Goal 1: Increase the availability of permanent housing for all community residents.

Policy 1.1: Encourage home ownership.

Program: 1.1.1 Homeownership Program. The ~~City~~City will continue providing first-time homebuyer assistance of up to $100,000 or 45% of the purchase price of the home; whichever is less. The maximum purchase price allowed is $314,000 for each qualified household, with the goal of assisting five units per year. At least one unit will be in Census Tract 30.01 if deemed feasible.

Responsible Party: Business Assistance and Housing Development

Financing: CDBG and HOME grant funds and both HOME and CDBG Program Income

Time Frame: Annually fund the ~~program, and~~program and assist five units per year (minimum of one unit in Census Tract 30.01, if deemed feasible).

Policy 1.2: Work cooperatively with other governmental entities and local organizations to facilitate the provision of shelter and services for individuals experiencing homelessness, with the goal of rapid re-housing services.

Program: 1.2.1 Partnerships with Local Organizations. The ~~City~~City will maintain a representative on the Council of the ~~Butte County~~Butte Countywide Homeless Continuum of Care to facilitate the provision of shelter and services for individuals experiencing homelessness, with the goal of rapidly re-housing individuals. The ~~City~~City will maintain and publish information which assists residents in applying for rental assistance, Emergency Housing (Section 8) Vouchers, and utility assistance or connecting residents to shelter and supportive services.

Responsible Party: Business Assistance and Housing Development

Financing: Grant funds

Time Frame: Ongoing, Update website annually

Program: 1.2.2 Low Barrier Navigation Centers. Amend the ~~City~~City's Zoning Code to allow Low Barrier Navigation Center development as a use by right in areas zoned for mixed uses and nonresidential zones permitting multifamily uses if it meets specified requirements, as defined and delineated in AB 101.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: ~~Within 6 months of adoption of the 2022-2030 Housing Element~~August 2023

Program: 1.2.3 Affordable Housing Projects Listing. The ~~City~~City will maintain and publicize a comprehensive listing of housing developments that serve low-income households,

persons with disabilities, and other special needs populations. This list can be accessed by the public from the ~~City~~City's website under the Services tab.

Responsible Party: Planning Division Business Assistance and Housing Development

Financing: General fund

Time Frame: Update annually or as projects are placed into ~~service~~service.

Program: 1.2.4 Technical Assistance Program. The ~~City~~City will work to provide technical assistance to local homelessness services agencies in grant funding applications for the development of new facilities to serve individuals experiencing homelessness as needed.

Responsible Party: ~~City~~City Administrator and Building Department

Financing: General fund

Time Frame: The ~~City~~City will meet with local homelessness service providers annually to ascertain and plan for technical assistance needs.

Numeric Goal: Provide technical assistance for 2-3 projects and grant applications per year.

Program: 1.2.5 ADU Incentives/Affordable Rentals. Develop a formal program that offers incentives to property owners who develop ADUs that offer affordable rents for very-low, low-, or moderate-income households, with recorded regulatory restrictions on rents. Incentives in the form of reduced fees, exceptions to customary development requirements, pre-approved and no cost plans, expedited processing times, and funding sources to subsidize construction costs will be considered.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: ~~Within two years of adoption of the Housing Element~~February 2025

Numeric Goal: After program is established, assist 4-5 ADU applications with incentives each year.

REMOVE CONSTRAINTS TO HOUSING

This section ~~address~~addresses how the ~~City~~City will remove constraints that could hinder the provision of housing through zoning and land use policies.

Policy 2.1: Minimize constraints to the development of affordable housing through supportive codes, ordinances, policies, and guidelines.

Program: 2.1.1 Development Process Review Program. The ~~City~~City will ensure that the ~~City~~City's review and approval process for residential development, including multi-family housing and housing affordable to low-to-moderate income households, is expeditious. The ~~City~~City provides pre-application and development review meetings to help minimize processing times. The ~~City~~City will complete an annual review as part of the ~~City~~City's Housing Element Annual Report to evaluate application processing times and conditions of approval to determine whether improvements could reduce processing times without jeopardizing other public policy objectives. If the ~~City~~City's review and approval processes are found to unreasonably constrain development, the ~~City~~City will take action to amend the process or establish guidelines and other mechanisms to promote increased application certainty and reduce processing time to the extent deemed feasible. In addition, the ~~City~~City will amend the definition of "Family" in the Municipal Code definitions to remove the requirement that a Family "maintain a single lease or rental agreement for all members of the household and other similar characteristics indicative of a single household." This revision will allow more flexibility for housing persons with disabilities.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Council

Financing: General fund

Time Frame: Annually

Program: 2.1.2 No Net Loss /Unit Production Evaluation Program. Develop and implement a formal ongoing Unit Production Evaluation pursuant to Government Code section 65863 (No Net Loss law). The Unit Production Evaluation will be carried out annually to track the number of extremely low-, very-low, low-, moderate- and above moderate-income units constructed to calculate the remaining unmet RHNA and the sites available to meet the RHNA. It will also track the number of units built on the identified sites to determine the remaining site ~~capacity~~capacity by income category and maintain a database of all developable land within the ~~City~~City. If sites identified in the Housing Element to meet RHNA are developed with non-residential uses during the Housing

Element planning period, the Unit Production Evaluation will include a plan to replace those sites, which may involve identification of new residentially zoned sites, rezoning of non-residential sites and/or annexation of new sites. The evaluation procedure will be updated annually and when sites identified in the Housing Element to meet RHNA are approved for development. The ~~City~~City will encourage the development of multi-family housing units in all zones by not requiring a conditional use permit.

Responsible Party: ~~City~~City Administrator and Contract Planner

Financing: General Fund

Time Frame: ~~Within one year of adoption of the 2022-2030 Housing Element~~February 2024

Program: 2.1.3 Development Impact Fee Review Program. The ~~City~~City will continue to periodically survey the development application, plan check, and inspection fees, impact fees, and utility connection fees of other cities in the ~~Butte County~~Butte County region to ensure that these ~~City~~City fees are reasonably related to the cost of services provided.

Responsible Party: Planning Division, Finance Department, and ~~City~~City Council

Financing: General fund

Time Frame: Every 2 years, last updated in ~~2020~~2020.

Program: 2.1.4 Agricultural Worker Housing ~~Code Amendments~~. The ~~City~~City will add a provision to its Municipal Code that will allow Agricultural Worker Housing for six or fewer persons by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use. The ~~City~~City will also coordinate with developers and the Housing Authority of the County of Butte (HACB) to produce farmworker housing. The ~~City~~City will provide technical support and incentives for the production of farmworker housing.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: ~~Within 6 months of adoption of the 2022-2030 Housing Element~~August 2023. Coordinate with developers and HACB annually to identify farmworker housing development opportunities.

Numeric Goal: Assist the development of one farmworker housing project prior to January 2030.

Program: 2.1.5 Transitional Housing Code Amendments. The ~~City~~City will add a provision to its Municipal Code that will allow Transitional Housing, as defined by Section 50675.2 of the Health and Safety Code, by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: ~~Within 6 months of adoption of the 2022-2030 Housing Element~~August 2023

Program: 2.1.6 Supportive Housing Code Amendments. The ~~City~~City will add a provision to its Municipal Code that will allow Supportive Housing, as defined by Section 50675.14 of the Health and Safety Code, by-right in all residential zoning districts, with no additional requirements than what would be applied to any other residential use. In addition, the ~~City~~City will amend the Municipal Code to establish procedures that comply with AB 2162 requirements and Government Code Section 65651 to streamline permit processing for Supportive Housing.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: ~~Within 6 months of adoption of the 2022-2030 Housing Element~~August 2023

Program: 2.1.7 Accessory Dwelling Unit Code Amendments. Establish a comprehensive program to remove constraints to the production of Accessory Dwelling Units (ADUs) in accordance with State laws AB 3182, AB 68, AB 881, SB 13, AB 687, AB 680 and AB 681, as delineated in HCD's "Accessory Dwelling Handbook" (December 2020 and any subsequent updates This will require a thorough analysis of the ~~City~~City's zoning code, planning processes and development standards, with subsequent amendments to bring the ~~City~~City into compliance with the stated laws.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Council~~s~~

Financing: General fund

Time Frame: ~~Within 6 months of adoption of the 2022-2030 Housing Element~~August 2023

Program: 2.1.8 Emergency Shelter Code Amendments. Amend the Municipal Code to revise emergency shelter parking requirements to comply with AB 139, to not require the number of parking spaces beyond what is necessary for staff that work at the shelter.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: ~~Within 6 months of adoption of the 2022-2030 Housing Element~~August 2023

Program: 2.1.9 Streamline Affordable Housing Permit Processing. The ~~City~~City will amend the Municipal Code to establish procedures that complies with SB 35 requirements and Government Code Section 65913.4 to streamline permit processing for Affordable Housing.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: August 2023

Program 2.1.10 Expand Permitted Use of Residential Care Facilities in Residential Zoning Districts. The ~~City~~City will amend its Municipal Code to permit Residential Care Facilities housing seven or more persons in all residential zoning districts with a Conditional Use Permit (CUP). Applications for Residential Care Facility use permits will only be subject to those restrictions that apply to residential uses in the same zone. As described in Program 2.1.11, the criteria for approving the CUP will be amended in the Municipal Code to promote objectivity.

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: August 2023

Program 2.1.11 Promote Objectivity in the Use Permit Review Process. The required findings for approval of a Use Permit, as currently found in Subsection E.4 of 17.48.010 of the Municipal Code, will be amended to: 1) remove non-objective language as described in Chapter 6, Permitting Process Section; and 2) add requirements that the Use Permit determination is in "compliance with federal and state fair housing law" and that "the characteristics of future residents, including their protected class status under state fair housing law, will not be a consideration in making findings."

Responsible Party: Planning Division, Planning Commission, and ~~City~~City Councils

Financing: General fund

Time Frame: August 2023

FACILITATE HOUSING PRODUCTION

This section ~~address~~addresses how the ~~City~~City will facilitate the development of housing that meets the needs of the community. The ~~City~~City maintains a goal to facilitate the development of a range of housing that varies sufficiently in terms of cost, design, size, location, and tenure to meet the housing needs of all economic segments of the community at a level which can be supported by the utility, water and street infrastructure. Because the ~~City~~City does not build housing itself, the ~~City~~City will take actions to support and facilitate the development of housing through land use policies, zoning, incentives, and funding acquisition. Ultimately, housing development will be carried out by private, for-profit, and non-profit ~~developers~~developers.

Goal 3: Support and encourage the construction of new housing at a range of costs, types, and tenures and in quantities to meet the needs of all income groups, including the very low-, low- and moderate-income groups.

Policy 3.1: Ensure that the ~~City~~City's inventory of ~~residentially zoned~~residentially zoned land is sufficient to accommodate development for all housing types and income levels commensurate with growth needs and the Regional Housing Needs Allocation.

Program: 3.1.1 Vacant Parcel List. The ~~City~~City will continue to perform regular updates to the ~~City~~City's GIS system to track development and maintain an accurate list of vacant residential land in the ~~City~~City.

Responsible Party: Planning Division and Engineering Division

Financing: General fund

Time Frame: Update annually

Program: 3.1.2 Community Engagement Program. The ~~City~~City will coordinate an annual workshop with Oroville Hospital to identify the housing needs of employees and ensure that the ~~City~~City's land use plans support the development of housing suitable for the local workforce as part of the ~~City~~City's overall economic development program.

Responsible Party: Planning Division, Business Assistance and Housing Development

Financing: General fund

Time Frame: The ~~City~~City will engage Oroville Hospital on an annual basis to discuss needs, opportunities and resources. ~~This will be completed within 1 year of adoption of the Housing Element.~~The initial engagement will be before February 2024.

Numeric Goal: Hold an annual workshop with Hospital administrators and employees, and initiate plans to assist 20 employees.

Policy 3.2: Provide technical assistance to developers, nonprofit organizations, or other qualified private sector interests in seeking federal and state financing for affordable housing, including units affordable to extremely-low-income households and supportive housing for persons with developmental disabilities.

Program: 3.2.1 Technical Assistance Program. The ~~City~~City will actively work to identify sources of funding and provide technical assistance to interested developers in seeking funding for the construction of new affordable multi-family housing including units for large family households, extremely low-income households, and persons with development disabilities. Funding to be pursued includes tax-exempt mortgage revenue bonds; HCD's Multifamily Housing Program; and low-income housing tax credits (LIHTC). The ~~City~~City shall also assist by providing letters of support for funding applications during the application process to increase the chances of a project receiving a funding award.

Responsible Party: Planning Division and Business Assistance and Housing Development

Financing: LIHTC, Tax Exempt Bonds, and HCD

Time Frame: The ~~City~~City will develop a list of affordable housing developers who have developed or have indicated an interest in developing in Oroville. On at least an annual basis, the ~~City~~City will monitor grant funding opportunities and notify developers of the availability of funding and technical assistance to be provided by the ~~City~~City, if interested.

PRESERVE, REHABILITATE, AND ENHANCE EXISTING HOUSING

This section addresses how the ~~City~~City will initiate all reasonable efforts to preserve the quality of existing housing opportunities and to conserve as well as enhance the quality of existing dwelling units and residential neighborhoods.

Goal 4: Preserve, rehabilitate, and enhance existing housing and neighborhoods.

Policy 4.1: Protect existing residential neighborhoods from deterioration and encroachment of incompatible or potentially disruptive land uses and/or activities.

Program: 4.1.1 Code Enforcement. The ~~City~~City will assemble a taskforce of law enforcement, code enforcement, and staff from Parks and Trees to identify code issues and housing complaints.

The taskforce will identify code enforcement grants to augment current code enforcement activities to supplement the graffiti removal program, to fund neighborhood clean-up fairs, and general code enforcement and community beautification efforts. Utilize neighborhood resources, including neighborhood groups (e.g., Neighborhood Watch) to supplement ~~City~~City code enforcement activities~~.~~, including mobile home parks when possible. Where possible, link code enforcement activities to available funding for improvements and correction of violations.

Responsible Party: Business Assistance and Housing Development and Community Development

Financing: CDBG and CalOES funds

Time Frame: ~~Establish taskforce within one year of adoption of the Housing Element.~~ February 2025

Numeric Goal: Conduct one cleanup event every six months, with a focus on low-income areas with greater need.

Program: 4.1.2 At-Risk Unit Monitoring Program. Support the preservation of affordability for at-risk units (currently the ~~City~~City does not have any qualifying properties). The ~~City~~City will annually assess the status of projects with project-based rental subsidy contracts that restrict rents to affordable levels to determine the contract expiration

dates and communicate with property owners regarding their noticing requirements to tenants under Government Code Section 65863.10. For projects with contracts that will expire in the next 3 years, consult with the Housing Authority of ~~Butte County~~Butte County and develop a proactive plan to preserve affordable rents at these properties, including initiation of discussion with owners and exploration of financial resources to extend contracts.

Responsible Party: Business Assistance and Housing Development

Funding Source: Housing Program Fund

Timeframe: Annually throughout the planning period

Program: 4.1.3 Tobacco Education Program. Assist in disseminating information about tobacco/second-hand smoke education provided by the Leadership in Equity and Development (LEAD), the ~~Butte County~~Butte County Public Health, or California Health Collaborative to help improve environmental health outcomes. The ~~City~~City will work with LEAD to develop a 1-page educational handout to distribute to affordable housing complexes, recipients of the ~~City~~City's home loan or funding assistance programs, and interested property managers. The ~~City~~City will refer property managers with an interest in smoke-free housing to ~~Butte County~~Butte County Public Health.

Responsible Party: Business Assistance and Housing Development

Funding Source: General Fund

Timeframe: Disseminate information to all affordable housing complexes by July 2023, disseminate information to recipients of home loan or funding assistance programs on an ongoing basis, and refer property managers with an interest in smoke-free housing to ~~Butte County~~Butte County Public Health on an annual basis.

Policy 4.2: Ensure adequate public facilities to support housing development.

Program: 4.2.1 Capital Improvement Program. The ~~City~~City will install and upgrade public service facilities (streets, curb, gutter, drainage, and utilities) to increase private market investment in declining, deteriorating, and infrastructure deficient neighborhoods. The ~~City~~City will evaluate public facilities on condition, demands, and future needs. The Capital Improvement Program will prioritize areas for investment for annual roadway,

sewer, and drainage infrastructure as deemed feasible. The ~~City~~City will prioritize areas of high segregation and poverty for investment, which include Census Tracts 25, 28, 30.01, 30.02, and 37.

Responsible Party: Business Assistance and Housing Development, Planning Division, Engineering Division, Planning Commission, ~~City~~City Council

Financing: General Fund, CDBG

Time Frame: The ~~City~~City will identify and fund a minimum of one project in a Census Tract with high segregation and poverty (Census Tracts 25, 28, 30.01, 30.02, and 37) by January 2027.

Policy 4.3: Facilitate housing rehabilitation and stabilize existing neighborhoods, especially those with high foreclosure and vacancy rates.

Program: 4.3.1 Low-Income Home Rehabilitation Program. The ~~City~~City will apply for funding sources to continue this program. To the extent that funding is available, the ~~City~~City will purchase abandoned ~~homes, and~~homes and provide rehabilitation assistance to improve deteriorated neighborhoods and mobile home parks, and sell rehabilitated homes to low-income residents. In addition, the ~~City~~City may donate acquired land or properties to local nonprofits for development or redevelopment Rehabilitated homes will be sold to low-income residents. The ~~City~~City will work with HCD's ~~Mobilehome~~Mobile home Division to secure funding and coordinate services to improve mobile home parks. The ~~City~~City will focus redevelopment efforts in areas of high segregation and poverty, which include Census Tracts 25, 28, 30.02 and 37 and utilize the results of from the Study Oroville Blight study to guide redevelopment efforts.

Responsible Party: Planning Division, Building Division, Business Assistance and Housing Development

Financing: General Fund, Housing Program Fund, PLHA funds

Time Frame: Apply annually for appropriate available funding. Once funding is secured, provide rehabilitation services to a minimum of 8 homes by January 2030.

Numeric Goal: Provide funding assistance for at least 8 homes.

Program: 4.3.2 Owner-Occupied Single-Family Home Rehabilitation Assistance Program. The ~~City~~City will apply for funding sources to continue this program. To the extent that funding is available, the ~~City~~City will support the rehabilitation of approximately 10 owner-occupied units over the next planning period. The ~~City~~City will focus redevelopment efforts in Census Tracts 25, 28, 30.02 and 37, which are areas of high segregation and poverty.

Responsible Party: Planning Division, Building Division, Business Assistance and Housing Development

Financing: CDBG, HOME

Time Frame: Apply annually for appropriate available funding. Once funding is secured provide rehabilitation services to a minimum of 10 owner-occupied units by January 2030.

Numeric Goal: Provide funding assistance for at least 10 owner-occupied units.

ENCOURAGE RESIDENTIAL ENERGY CONSERVATION

The ~~City~~City of Oroville maintains a goal to encourage energy conservation in residential neighborhoods, which can reduce energy bills and enhance housing affordability. The use of available energy conservation measures and programs directly impacts residents' monthly housing costs by saving them money on their energy bills, increases comfort and safety, and contributes to the conservation of limited resources.

Goal 5: Promote the conservation of energy in residential neighborhoods.

Policy 5.1: Encourage residential energy conservation through required compliance with current building codes and incentives for voluntary conservation efforts.

Program: 5.1.1 Energy Conservation Outreach. The ~~City~~City shall assist in publicizing utility incentives for energy conservation through flyers on the ~~City~~City's website. In 2016, the ~~City~~City approved the inclusion properties within the ~~City~~City of Oroville for three Property Assessed Clean Energy (PACE) programs, which are Green Works, HERO, and Open PACE. The ~~City~~City will create and update flyers that detail information on programs and their eligibility requirements.

Responsible Party: Planning Division, Business Assistance and Housing Development

Financing: General Fund

Time Frame: Update flyers by July 2023, and annually thereafter as ~~needed~~needed.

Program: 5.1.2 Energy Savings. The ~~City~~City will join the ~~Butte County~~Butte County Community Choice Aggregation fund to incentivize the use of green energy for both residents and businesses. The ~~City~~City will take an active role in providing educational materials that discuss the benefits of this program.

Responsible Party: Planning Division, Business Assistance, and Housing Development

Financing: General Fund

Time Frame: The ~~City~~City will join the fund by July 2023 and develop promotional materials by December 2023

AFFIRMATIVELY FURTHER FAIR HOUSING

With the passage of AB 686, state and local public agencies are required to affirmatively further fair housing through deliberate action to explicitly address, combat, and relieve disparities resulting from past and current patterns of segregation to foster more inclusive communities. Following the guidance from State HCD, the ~~City~~City of Oroville first analyzes patterns and trends of disparate housing needs and disproportionate access to opportunities through outreach efforts, the assessment of fair housing, and the site inventory. Then, the ~~City~~City identifies and prioritizes significant contributing factors to fair housing choice. Finally, the ~~City~~City establishes strategic policies, goals, and actions to affirmatively further fair housing based on the analysis of contributing factors *(California State Department of Housing and Community Development, Affirmatively Furthering Fair Housing, 2021)*. This section includes the goal, policies, and actions which were informed by the four affirmatively furthering fair housing sections: outreach ~~(pg.)~~, assessment of fair housing ~~(pg.)~~, site inventory ~~(pg.)~~ and identification of contributing factors ~~(pg.)~~.

Goal: 6: Improve fair housing choice and equitable access to opportunity.

Policy: 6.1: Move toward more balanced and integrated living patterns by addressing concentrations of naturally occurring affordable housing, low-income households, poverty, and low access to opportunity in the ~~City~~City.

Program 6.1.1: Community Development Block Grant Funds. The ~~City~~City will coordinate with the Department of Housing and Community Development to evaluate whether the ~~City~~City's Community Development Block Grant (CDBG) Housing Rehabilitation Program can be used for housing rehabilitation for renters as well as homeowners. Approximately 70% of households who experience 1 of 4 Housing Problems or 1 of 4 Severe Housing Problems in the ~~City~~City are renter ~~households~~households, and that trend is increasing. In addition, the ~~city~~City will prioritize future rehabilitation, community revitalization, or other investment efforts in Census Tract 30.01, when deemed financially feasible. To the extent possible, ~~City~~City to focus other redevelopment efforts in areas of high segregation and poverty (Census Tracts 25, 28, 30.02 and 37).

Responsible Party: Business Assistance and Housing Development

Financing: Allocation of staff time and cost of trilingual outreach (English, Spanish, and Hmong) materials through General Fund

Timeframe: At least three qualifying properties in Census Tract 30.01 to receive funding through the ~~City~~City's Housing Rehabilitation Program every year~~, starting in the 2nd year of the Housing Element cycle~~, beginning January 2024, provided a qualified pool of applicants.

Numeric Goal: Fund at least one property in Census Tract 30.01 annually.

Program 6.1.2: **Affordable Housing Incentive Program.** The ~~City~~City will encourage the development of affordable housing in high resource areas or areas that do not experience high segregating poverty, ~~such as~~which include Census Tracts 27, 29, and 31 to encourage more balanced and integrated development. The ~~City~~City will develop a program of incentives, such as increases in the density bonus and flexibility in development standards in new growth areas.

Responsible Party: Community Development Department and Assistance and Housing Development

Financing: Allocation of staff time through General Fund

Timeframe: Staff will analyze the opportunities for affordable housing development in new growth areas and present their findings and recommendations to both the Planning Commission and ~~City~~City Council by December 2023. Any needed modifications to the Municipal Code will be completed by December 2024.

Program 6.1.3: **Affordable Housing Development.** The ~~City~~City will meet with Community Housing Improvement Program (CHIP) and Butte Habitat for Humanity (Habitat) once per year to discuss potential development opportunities in the ~~City~~City and methods for collaboration. The focus will be on feasibility of self-help housing that includes low-interest loan and down payment assistance programs and permanent supportive housing. The ~~City~~City and developers will consider coordinating self-help housing projects in Census Tract 28, which has a high concentration of rental units. ~~.~~ Assist developers with affirmative outreach to people of color, including Spanish and Hmong language materials. Evaluate if the ~~City~~City's Community Development Block Grant (CDBG) Homebuyer Program can be used for down payment assistance.

Responsible Party: Community Development Department and Business Assistance and Housing Development

Financing: Allocation of staff time and cost of trilingual outreach materials through General Fund

Timeframe: The ~~City~~City will engage at least one affordable housing developer on an annual basis to discuss needs, ~~opportunities~~opportunities, and resources, including funding. ~~CHIP and Habitat to be in development on at least two projects each or in collaboration by the end of the Housing Element cycle.~~

Numeric Goal: CHIP and Habitat to be in development on at least two projects each or in collaboration by ~~the end of the Housing Element cycle~~January 2030. Develop one self-help housing project in Census Tract 28.

Program 6.1.4: Participate in Wildfire Recovery Efforts. Participate in the Camp Fire Collaborative, a long-term recovery group, the ~~Butte County~~Butte County Homeless Continuum of Care, a multi-agency planning body, or other appropriate organization involved in long-term recovery efforts from recent wildfires.

Responsible Party: ~~City~~City Administrator & Planning Department

Financing: General Fund

Timeframe: Participate in meetings and/or serve on boards beginning in June 2023

Policy 6.2: Meet the housing needs of protected classes, including persons with disabilities and tribal populations.

Program: 6.2.1 Accessibility Improvements Fund. An average of 20-30% of the population has a disability, which is significantly higher than other areas of ~~Butte County~~Butte County. The ~~City~~City will strive to pool funding resources to provide accessibility improvements for sidewalks, public facilities and infrastructure, residences, and businesses if deemed feasible. Per the ~~City~~City's existing Municipal Code an individual with disability may file a request to the ~~City~~City for reasonable accommodation.

Responsible Party: Planning Division and Engineering Division

Financing: General fund

Time Frame: As part of its annual Capital Improvement planning, the ~~City~~City will evaluate if there are certain areas of the ~~city~~City that should be prioritized for public accessibility improvements and annually budget funds accordingly.

Program 6.2.2: Affordable Housing Outreach. The ~~City~~City will meet with the Northern Circle Indian Housing Authority (NCIHA) Tribal HDAP Task Force at least bi-annually to identify opportunities for collaboration, which may include facilitating partnerships with local agencies, identifying funding resources, pooling funding resources, identifying sites for development or redevelopment, and working to increase community awareness, education, and support for future affordable housing developments.

Responsible Party: Community Development Department and Business Assistance and Housing Development

Financing: General Fund

Timeframe: Bi-annually, beginning December 2024 ~~starting by the end of the second year of the Housing Element cycle.~~

Policy 6.3: Increase fair housing outreach and engagement and expand materials to meet the linguistic needs of the ~~City~~City's residents.

Program 6.3.1: Community Needs Assessment. The ~~City~~City will confer with the Southside Oroville Community Center, school districts, ~~Butte County~~Butte County Office of Education, the Disability Action Center, Youth for Change, the Hmong Cultural Center, and/or other local agencies at least once per year to assess community needs and issues. Information can be collected informally or formally through meetings, surveys, at community events, or other methods of engaging with the community. The information will be used to better understand the community's issues and inform future planning processes.

Responsible Party: Community Development Department and Business Assistance and Housing Development

Financing: Allocation of staff time and cost of trilingual outreach materials through General Fund

Timeframe: Coordinate information, referrals, and outreach by ~~the end of the 1st year of the Housing Element cycle~~December 2023. The ~~City~~City will evaluate its outreach efforts at least once per year and adjust as necessary.

Program 6.3.2: Fair Housing Outreach and Enforcement Program. The ~~City~~City will meet with Legal Services of Northern California, Southside Oroville Community Center, Butte-Glenn 2-1-1, school districts, ~~Butte County~~Butte County Office of Education, the Disability Action Center, Housing Authority of the County of Butte, and/or other local agencies at least once per year to coordinate information, referrals, resources, and outreach to residents for available services related to emergencies, employment, housing, assistance programs, and income. This may include providing direct case management services to residents, posting links on the ~~City~~City's website and Facebook page, and posting physical flyers at ~~City~~City Hall in English, Spanish, and Hmong. In addition, the ~~City~~City will establish a process to receive, review, and respond to fair housing complaints in collaboration with Legal Services of Northern California to better assist residents.

Responsible Party: Community Development Department and Business Assistance and Housing Development

Financing: Allocation of staff time and cost of trilingual outreach materials through General Fund

Timeframe: Coordinate information, referrals, and outreach by ~~the end of the 1st year of the Housing Element cycle~~December 2023. The ~~City~~City will evaluate its outreach efforts at least once per year and adjust as necessary.

Program 6.3.3: **Community Engagement Program**. The ~~City~~City will strive to engage residents in areas experiencing high levels of segregation and poverty (Census Tracts 25, 28, 30.01, 30.02 and 37) to serve on boards, committees, task forces, and other local government decision-making bodies.

Responsible Party: ~~City~~City Manager, Community Development Department

Financing: Allocation of staff time.

Timeframe: The ~~City~~City will develop an outreach strategy and application process ~~within 18 months of adoption of the Housing Element~~by August 2024.

Program 6.3.4: Accessory Dwelling Unit Outreach Program. The ~~City~~City will work to provide educational information and outreach to residents that may be interested in constructing Accessory Dwelling Units (ADUs), especially units with accessibility improvements. This may include and creating a short, 1–3-page Development Checklist for ADUs. In addition, the ~~City~~City will provide resources and materials both on the ~~City~~City's website and at ~~City~~City Hall in English, Spanish, and Hmong.

Responsible Party: Community Development Department and Business Assistance and Housing Development

Financing: General Fund

Timeframe: Complete by ~~the end of the first year of Housing Element Cycle~~December 2023, and update annually.

Program 6.3.5: Apply for Funding Sources. The ~~City~~City will apply for Community Development Block Grant Funds for Public Services to fund public service activities for residents, especially low-income residents, single mothers, persons with physical disabilities, persons with mental health conditions, and senior residents.

Responsible Party: Community Development Department and Business Assistance and Housing Development

Financing: General Fund

Timeframe: By ~~the end of the eight year of the 2022-2030 Housing Element cycle~~January 2030

HOUSING PROGRAM CONSISTENCY WITH THE GENERAL PLAN

Government Code, Section 65583(a)(7) requires that the Housing Element identify the means by which the Housing Program, including its Goals, Policies and ~~Actions~~Programs, will be consistent with other General Plan Elements and community goals. Responsible parties within the ~~City~~City organization are listed for each action above. The Community Development Department, Planning Division, is responsible for creating, implementing, and tracking progress on the 2030 General Plan. The Business Assistance/Housing Development Department, is responsible for administering the ~~City~~City's housing programs, including federal CDBG and HOME funds, and the RDA Housing Set Aside, currently Housing Program Fund, which holds loan repayments from the former RDA housing loan portfolio. The Planning and Housing staff closely collaborated on the Housing Element update to ensure consistency with the other General Plan Elements. The Goals, Policies and ~~Actions~~ Programs in this Housing Element update support and compliment the Oroville 2030 General Plan Goals, Policies and ~~Actions~~Programs, specifically the Land Use, Downtown, Economic Development, and Parks, Public Facilities and Services Elements.

In addition to preparing planning documents, the Community Development Department and Business Assistance/Housing Development Department prepares annual General Plan and Housing Element progress reports and presents them to the ~~City~~City Council. Housing Element progress is also provided to the State Department of Housing and Community Development through the filing of the Annual Progress Report (APR) at that time. These annual reviews provide opportunity for ~~City~~City staff, the ~~City~~City Council and the general public to review progress and consistency between the General Plan Elements.

Based on the policies and actions outlined above, the following objectives in *Figure 2,* represent a reasonable expectation of the maximum number of housing units that will be produced, rehabilitated, and preserved during this Housing Element cycle. Rehabilitation refers to low-income, owner-occupied, single-family homes and renter-occupied, multi-family units that are the focus of rehabilitation activities. Preservation refers to affordable rental units at risk of losing affordability without ~~City~~City and/or developer intervention within this planning cycle.

Figure 2: Quantified Objectives Table

Income Level

	Extremely-Low	Very-Low	Low	Moderate	Above-Moderate	Total
New Construction	50	50	50	350	100	600
Preservation of Affordable Rental Units ~~At Risk Due to Expiring Contracts~~	N/A	~~N/A~~5	~~N/A~~5	N/A	N/A	~~N/A~~10
Rehabilitation	2	44	98	0	0	144
Total	52	~~94~~99	~~148~~153	350	100	75~~4~~4

CHAPTER 4: HOUSING NEEDS ASSESSMENT

In order to determine the housing needs for the ~~City~~City of Oroville, a comprehensive assessment of demographic, economic, and housing market data was conducted. This provides a baseline for identifying the ~~City~~City's greatest housing needs, and forms the development of Goals, Policies, and ~~Actions~~Programs. Data sources for this assessment included: the U.S. Census Bureau, Department Housing and Urban Development, and Department of Agriculture; the California Departments of Development Services, Economic Development, Education, Finance, and Housing and Community Development (HCD); and the ~~Butte County~~Butte County Association of Governments, Sierra North Valley Realtors Multiple Listing Service, National Housing Preservation Database, and the ~~City~~City of Oroville.

The Housing Needs Assessment has been organized by topic into the following sections. In response to recent State Housing Element affirmative fair housing legislation, this update to the Housing Needs Assessment includes an Assessment of Fair Housing.

- Assessment of Fair Housing
- Demographics
- Employment
- Household Characteristics
- Housing Stock Characteristics
- Rental Market
- For Sale Market
- At-Risk Units
- Housing Affordability
- Extremely Low-Income Households
- Special Needs Households

AFFIRMATIVELY FURTHERING FAIR HOUSING: ASSESSMENT OF FAIR HOUSING

The California Department of Housing and Community Development released a new guidance titled "Affirmatively Furthering Fair Housing" (AFFH) on April 23, 2021, to assist jurisdictions in meeting the requirements set forth by AB 686. AB 686 creates new requirements for all state and local agencies to ensure that their laws, programs, and activities affirmatively further fair housing and that they take no action inconsistent with this obligation.

The AFFH guidance establishes new processes and guidelines for public entities to improve existing and institute new programs and policies to increase affordable housing for all residents, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, disability, and all other protected characteristics. The ~~City~~City will take an active role in

promoting inclusive communities, further housing choice, and address racial and economic disparities through goals, policies, and programs.

The purpose of the Assessment of Fair Housing is to analyze the elements and factors that cause, increase, contribute to, maintain, or perpetuate segregation, racially or ethnically concentrated areas of poverty, significant disparities in access to opportunity, and disproportionate housing needs. In addition, this analysis considers the ~~City~~City's role in conducting fair housing outreach and enforcement. This section of the Housing Element includes identification and analysis of patterns and trends, local data and knowledge, other relevant factors, and conclusions and summary of issues *(California State Department of Housing and Community Development, Affirmatively Furthering Fair Housing, 2021).*

The authors primarily use census tract and block group data in this analysis. Counties are subdivided into census tracts and each census tract is further subdivided into block groups. All census tracts and block groups are uniquely numbered with a numerical code. There are nine census tracts that encompass the ~~City~~City of Oroville and surrounding unincorporated areas. These census tracts are Census Tracts 25, 27, 28, 29, 30.01, 30.02, 31, 33, and 37. The ~~City~~City is further divided into block groups, but these block groups do not include a small portion of the south end of the ~~City~~City encompassed by Census Tract 32 and a small portion at the east end of the ~~City~~City encompassed by Census Tract 26.02.

The Assessment of Fair Housing considers patterns and trends over times, local data and knowledge, and other relevant factors for the following five subsections:

A. Fair Housing Enforcement and Outreach

B. Segregation and Integration

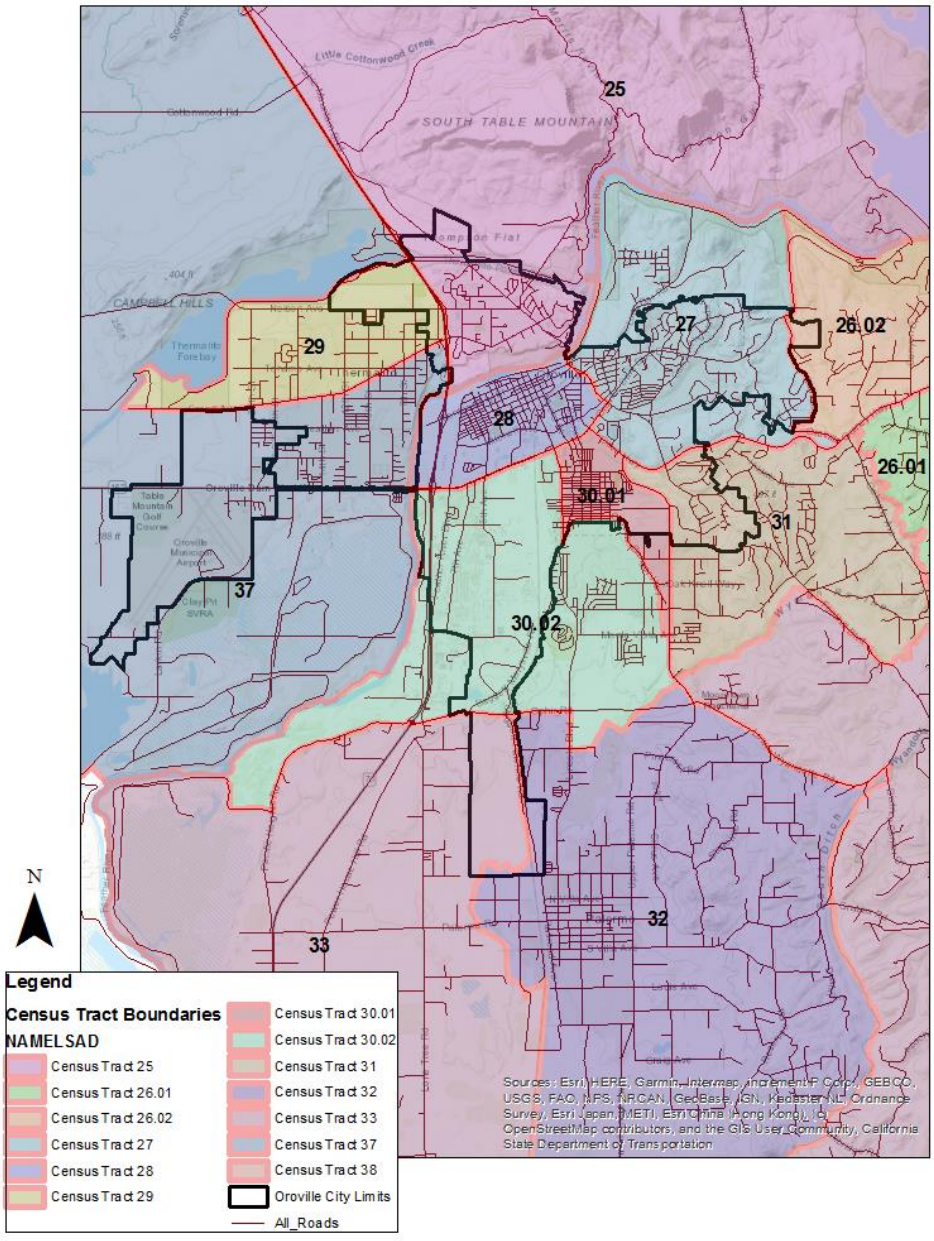
C. Racially/Ethnically Concentrated Areas of Poverty

D. Disparities in Access to Opportunity

E. Disproportionate Housing Needs and Displacement Risk

The authors of this report created a Census Tract Map, depicted below, that identifies the census tracts discussed in this analysis. The map below depicts Census Tracts 25, 27, 28, 29, 30.01, 30.02, 31, 33, and 37, each outlined in red. Each census tract is color-coded and named by its numerical code. The ~~City~~City of Oroville's boundaries are outlined in black.

Figure 2.1: Census Tract Map



A. FAIR HOUSING ENFORCEMENT AND OUTREACH CAPA~~CITY~~CITY

The first subsection of the Assessment of Fair Housing is an assessment of the jurisdiction's fair housing enforcement and outreach capa~~city~~city.

Pursuant to the California Fair Employment and Housing Act [Government Code Section 12921 (a)], the opportunity to seek, obtain, and hold housing cannot be determined by an individual's "race, color, religion, sex, gender, gender identity, gender expression, sexual orientation, marital status, national origin, ancestry, familial status, source of income, disability, veteran or military status, genetic information, or any other basis prohibited by Section 51 of the Civil Code."

Local and Regional Patterns and Trends

This section includes data tables, narratives, and maps to illustrate local and regional patterns and trends regarding fair housing enforcement and outreach capa~~city~~city. For the purposes of this analysis, fair housing enforcement and outreach includes the number of Housing Choice Vouchers, fair housing inquiries, and public housing buildings in the ~~City~~City. The Housing Choice Voucher Program provides rental assistance to very low-income families.

Housing Choice Vouchers

The table *"~~City~~City of Biggs, ~~City~~City of Gridley, ~~City~~City of Oroville, ~~City~~City of Chico, and ~~Butte County~~Butte County, Number of Households with Housing Choice Vouchers, 2021"* depicts the number of households who hold Housing Choice Vouchers in Biggs, Oroville, Chico, Gridley, and ~~Butte County~~Butte County in 2021. Housing Choice Vouchers provide financial assistance to allow very low-income families to choose and rent market-rate safe, decent, and affordable privately-owned rental housing *(U.S. Department of Housing and Urban Development, 2021)*. The Housing Authority of the County of Butte provided 552 Housing Choice Vouchers (HCV) to residents in the ~~City~~City of Oroville. In comparison, 993 households hold vouchers in Chico, 48 households hold vouchers in the ~~City~~City of Gridley, and 6 households hold vouchers in the ~~City~~City of Biggs. There are 1,684 vouchers in use in ~~Butte County~~Butte County in total.

The map *"~~City~~City of Oroville, Housing Choice Vouchers, 2021"* depicts the percentage of renter-occupied housing units that hold Housing Choice Vouchers (HCV) within each Census Tract in the ~~City~~City of Oroville in 2021. Census Tract 28 has the highest concentrations of renter-occupied households that hold HCVs in the entire ~~City~~City at 15-30% of all HCVs. Census Tract 31 has the lowest concentration of renter occupied households that hold HCVs, ranging from 0-5%. HCVs are distributed evenly in the remaining census tracts at concentrations ranging from 5-15% of renter-occupied households.

The map, *"~~Butte County~~Butte County, Housing Choice Vouchers, 2021"* depicts Housing Choice Vouchers (HCVs) as a percentage of renter occupied housing units in ~~Butte county~~Butte County. Much of the unincorporated county does not have data available. Census tracts west of Magalia/Paradise and west of Gridley have 0-5% of renter occupied housing units as households with an HCV. Many of the census tracts surrounding Thermalito and Oroville have 5-15% of renter occupied housing units as households with an HCV. The ~~city~~City of Oroville is the only area in the county with 15-30% of renter occupied housing units as households with an HCV (*HCD AFFH Data Resources and Mapping Tool: U.S. Housing and Urban Development).*

Figure 3: ~~City~~City of Biggs, ~~City~~City of Gridley, ~~City~~City of Oroville, ~~City~~City of Chico, and ~~Butte County~~Butte County, Number of Households with Housing Choice Vouchers Table, 2021

Jurisdiction	Number of Households with Housing Choice Vouchers
~~City~~City of Biggs	6
~~City~~City of Gridley	48
~~City~~City of Oroville	552
~~City~~City of Chico	993
Balance of County	85
~~Butte County~~Butte County (Total)	1,684

Source: Housing Authority of the County of Butte, May and August 2021 Correspondence

57

Figure 3.1: ~~City~~City of Oroville, Housing Choice Vouchers Map, 2021

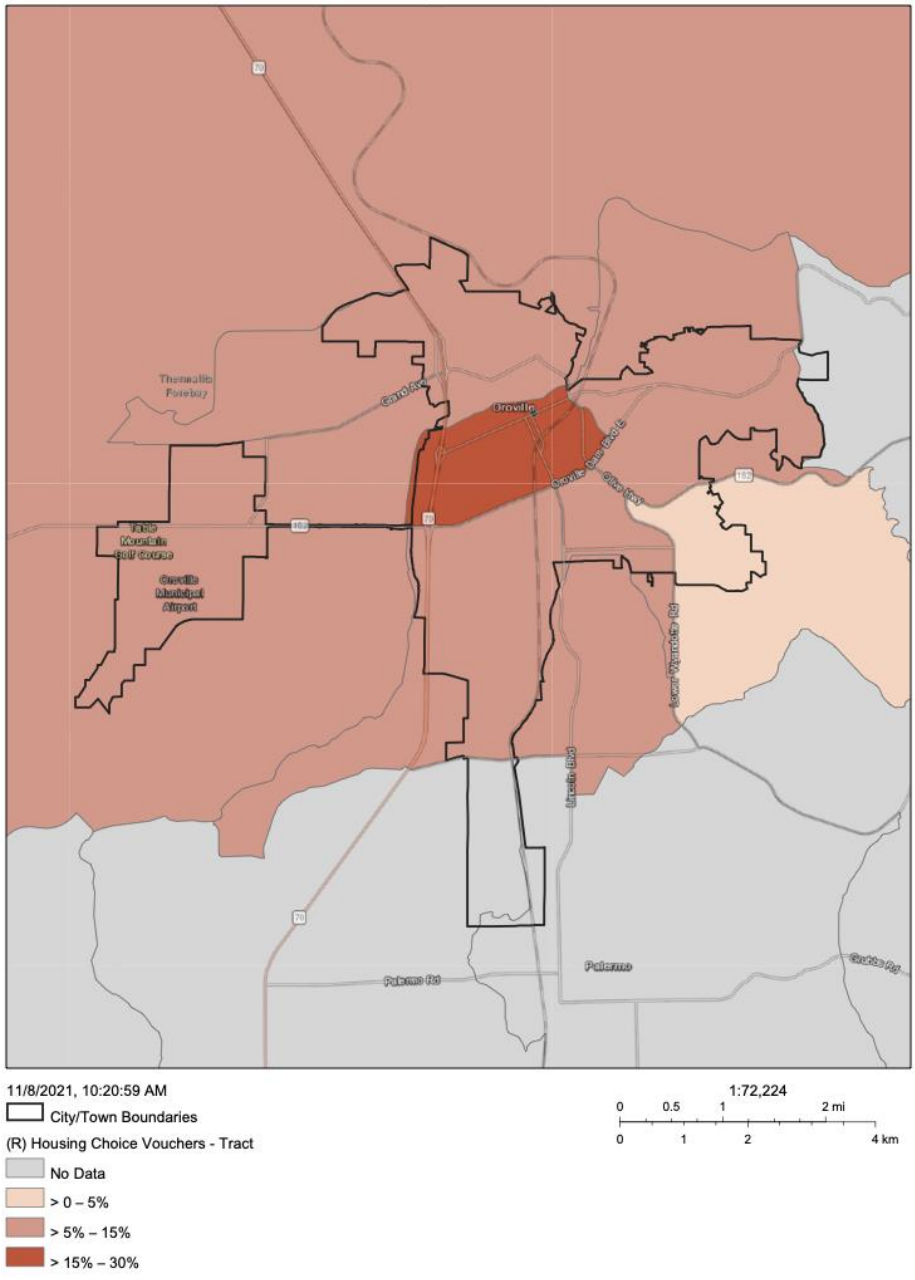
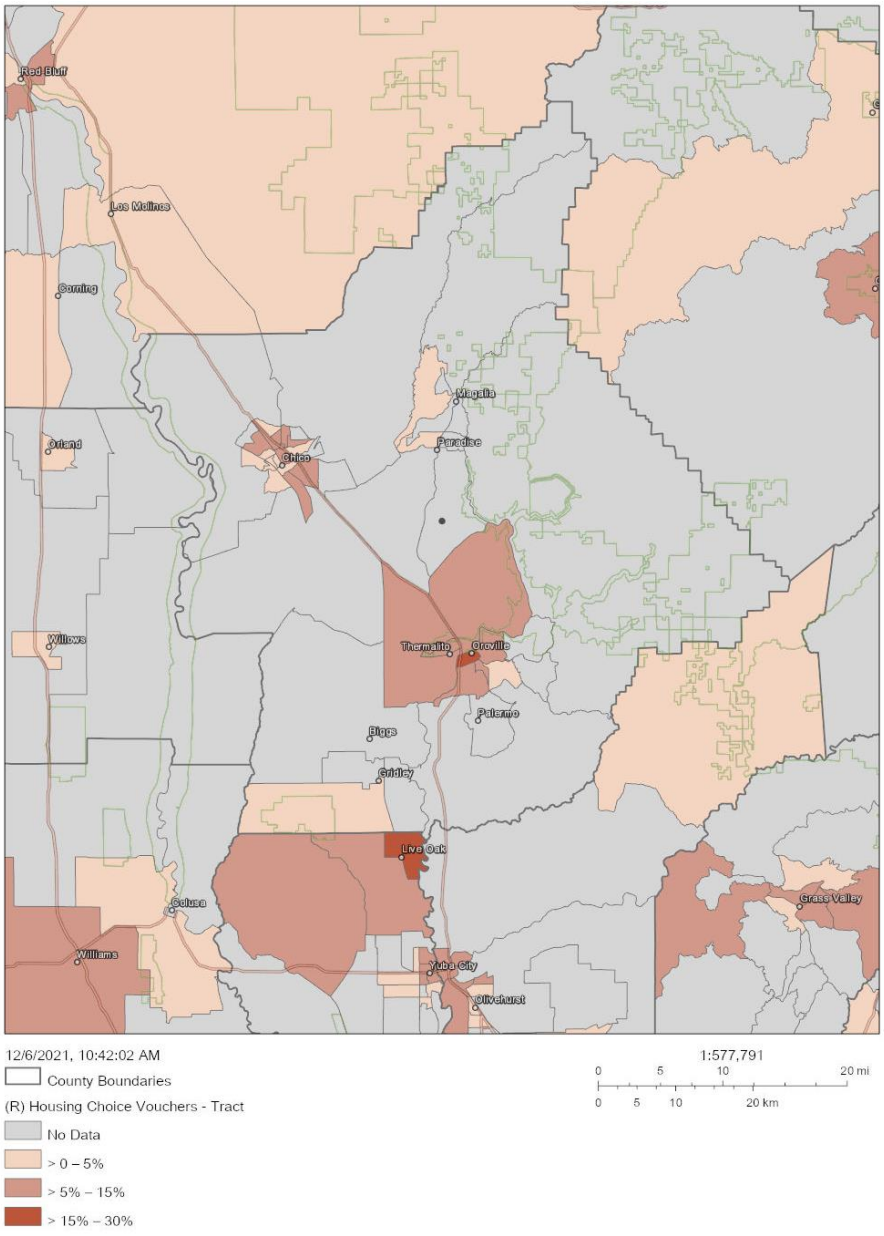


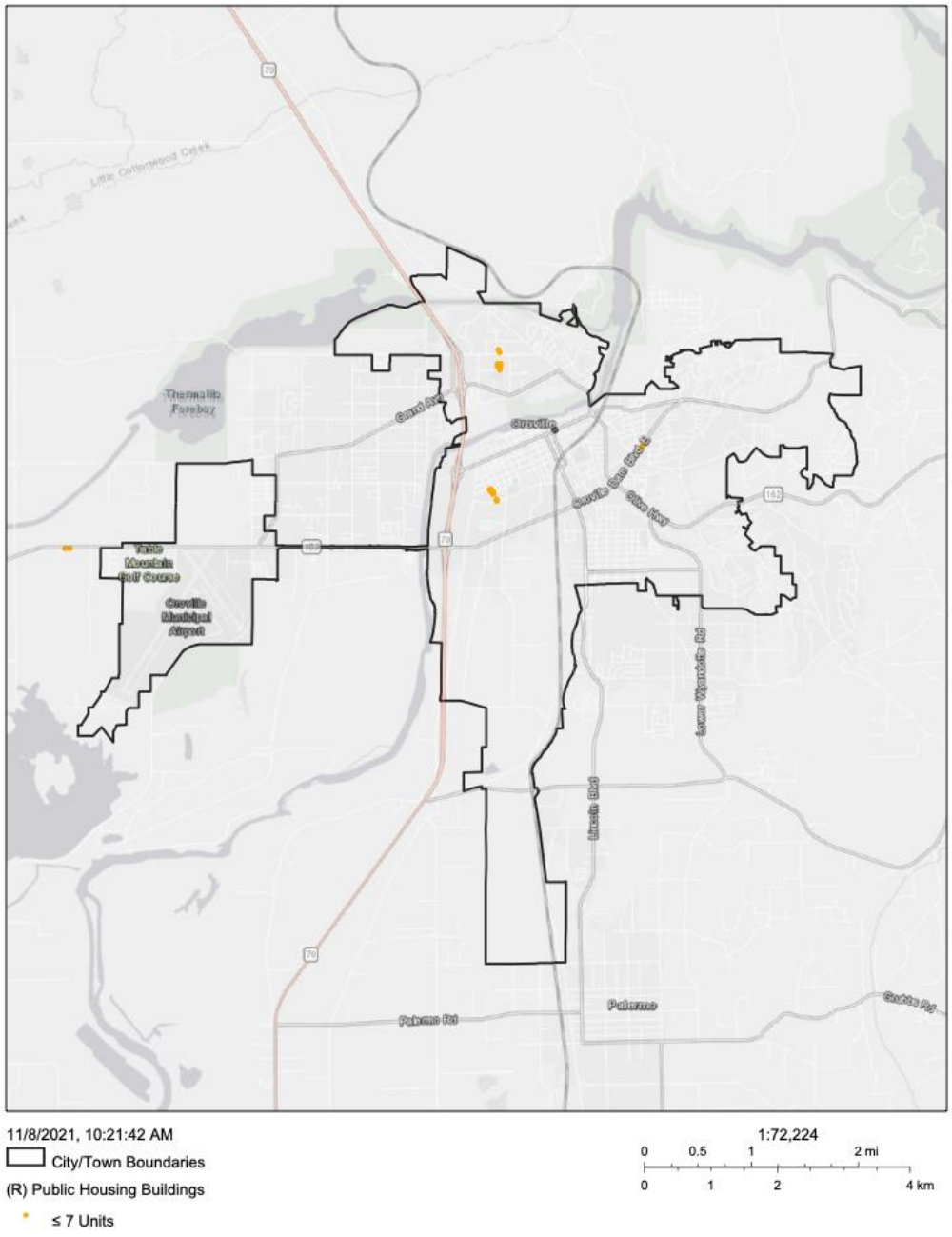
Figure 3.2: ~~Butte County~~Butte County, Housing Choice Vouchers Map, 2021



Public Housing Buildings

The map *"~~City~~City of Oroville, Public Housing Buildings"* depicts the location of public housing buildings in the ~~City~~City in 2021. Public housing was created to provide safe and decent housing for low-income families, the elderly, and persons with disabilities. There are 54 public housing buildings which are located in clusters throughout the ~~City~~City. There are 24 public housing building in Census Tract 25 at the north end of the ~~City~~City. There are 13 public housing buildings in Census Tract 28 and 9 in Census Tract 27, located in the central parts of the ~~City~~City. There are eight located in the unincorporated areas of ~~Butte County~~Butte County to the west of the ~~City~~City.

Figure 4: ~~City~~City of Oroville, Public Housing Buildings



Fair Housing Inquiries

Figure 5: ~~*City*~~*City of Oroville, Fair Housing Inquiries* depicts the number of fair housing cases the ~~City~~City received in 2013-2021 that warrant possible discrimination. The ~~City~~City received 19 fair housing inquiries, and three of those were regarding a disability. The ~~City~~City of Oroville received significantly more housing inquiries than any other ~~city~~City in the County.

The map, *"~~Butte County~~Butte County, FHEO Inquires by ~~City~~City, 2013-2021"* depicts the geographic distribution of fair housing inquiries by residents in ~~Butte county~~Butte County per one-thousand people. This data is not official cases, but represents concerns that residents have about possible discrimination. Data by ~~city~~City is listed below *(HCD AFFH Data Resources and Mapping Tool: U.S. Housing and Urban Development)*.

~~City~~City of Chico: Less than one fair housing inquiry per one-thousand people.

~~City~~City of Biggs: Less than one fair housing inquiry per one-thousand people.

~~City~~City of Gridley: Less than 0.5 fair housing inquiries per one-thousand people.

~~City~~City of Oroville: Greater than one fair housing inquiry per one-thousand people

Town of Paradise: Less than 0.25 fair housing inquiries per one-thousand people.

Figure 5: ~~City~~City of Oroville, Fair Housing Inquiries

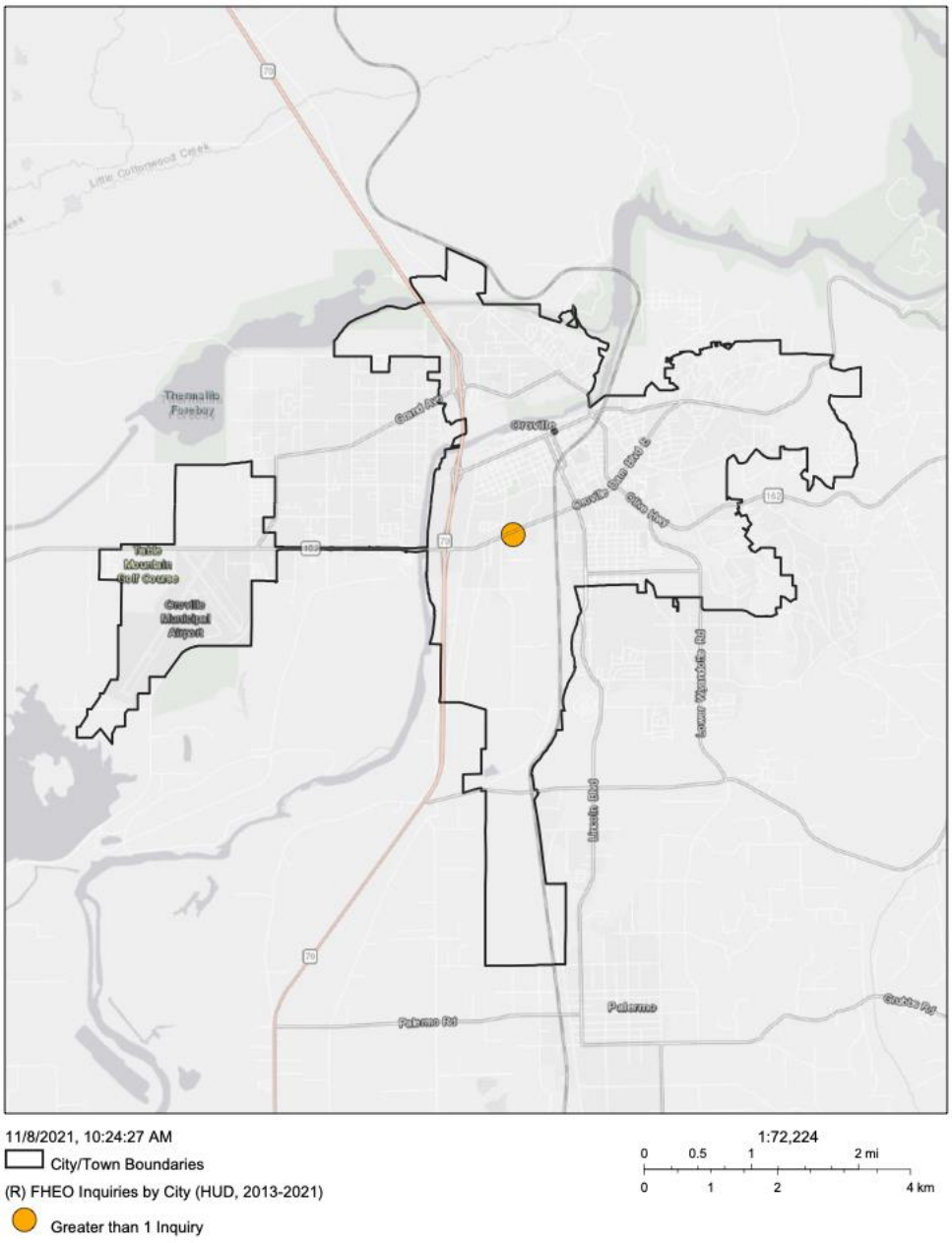


Figure 5.1: ~~Butte County~~Butte County, FHEO Inquires* by ~~City~~City Map, 2013-2021

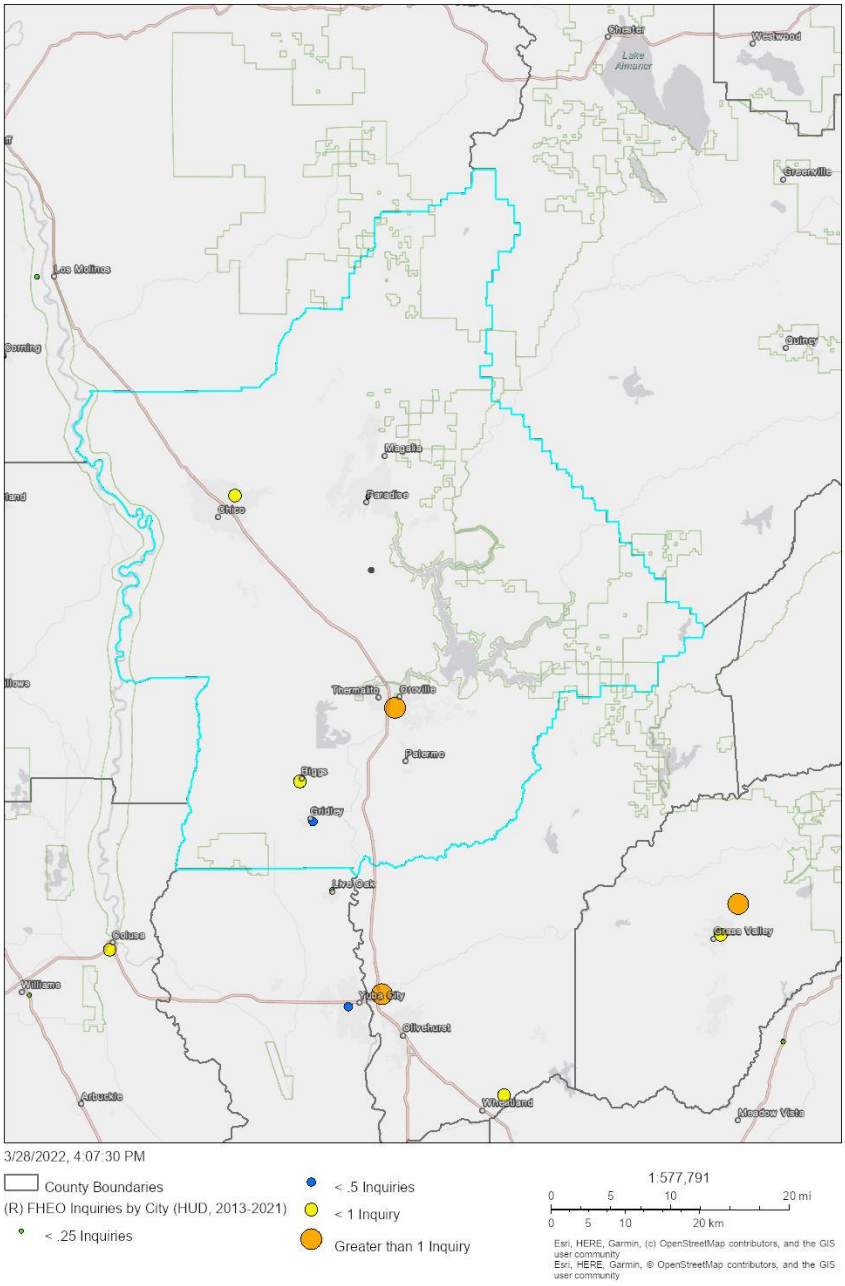


Figure 5.2: ~~Butte County~~Butte County, FHEO Cases - Total Map, 2020 depicts Title VIII fair housing cases filed by FHEO in ~~Butte county~~Butte County per one-thousand people. ~~Butte county~~Butte County had one case filed, thus the map illustrates less than 0.01 cases per one-thousand people *(HCD AFFH Data Resources and Mapping Tool: U.S. Housing and Urban Development)*.

Figure 5.3: ~~Butte County~~Butte County, FHEO Cases – Disability Bias Map, 2020 depicts the percent of total cases with a disability bias for Title VIII fair housing cases filed by FHEO in ~~Butte county~~Butte County per one-thousand people. ~~Butte county~~Butte County had one case filed and that one case was for disability bias. Thus, the map shows greater than 85% of total cases as having a disability bias *(HCD AFFH Data Resources and Mapping Tool: U.S. Housing and Urban Development)*.

Figure 5.4: ~~Butte County~~Butte County, FHEO Cases – Race Bias Map, 2020 depicts the percent of total cases with a race bias for Title VIII fair housing cases filed by FHEO in ~~Butte county~~Butte County per one-thousand people. ~~Butte county~~Butte County had one case filed and that one case was not for race bias. Thus, the map shows 0% of total cases as having a race bias *(HCD AFFH Data Resources and Mapping Tool: U.S. Housing and Urban Development)*.

Figure 5.2: ~~Butte County~~Butte County, FHEO Cases - Total Map, 2020

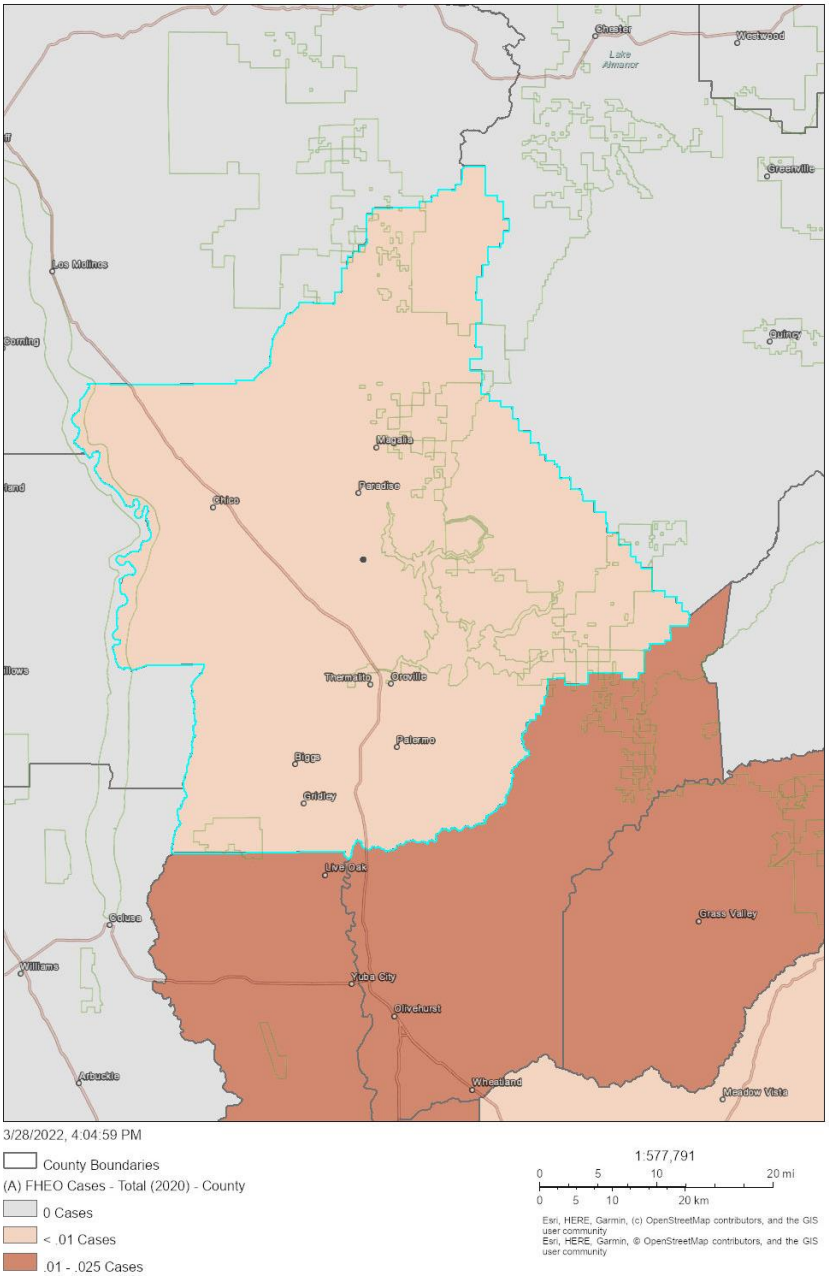


Figure 5.3: ~~Butte County~~Butte County, FHEO Cases – Disability Bias Map, 2020

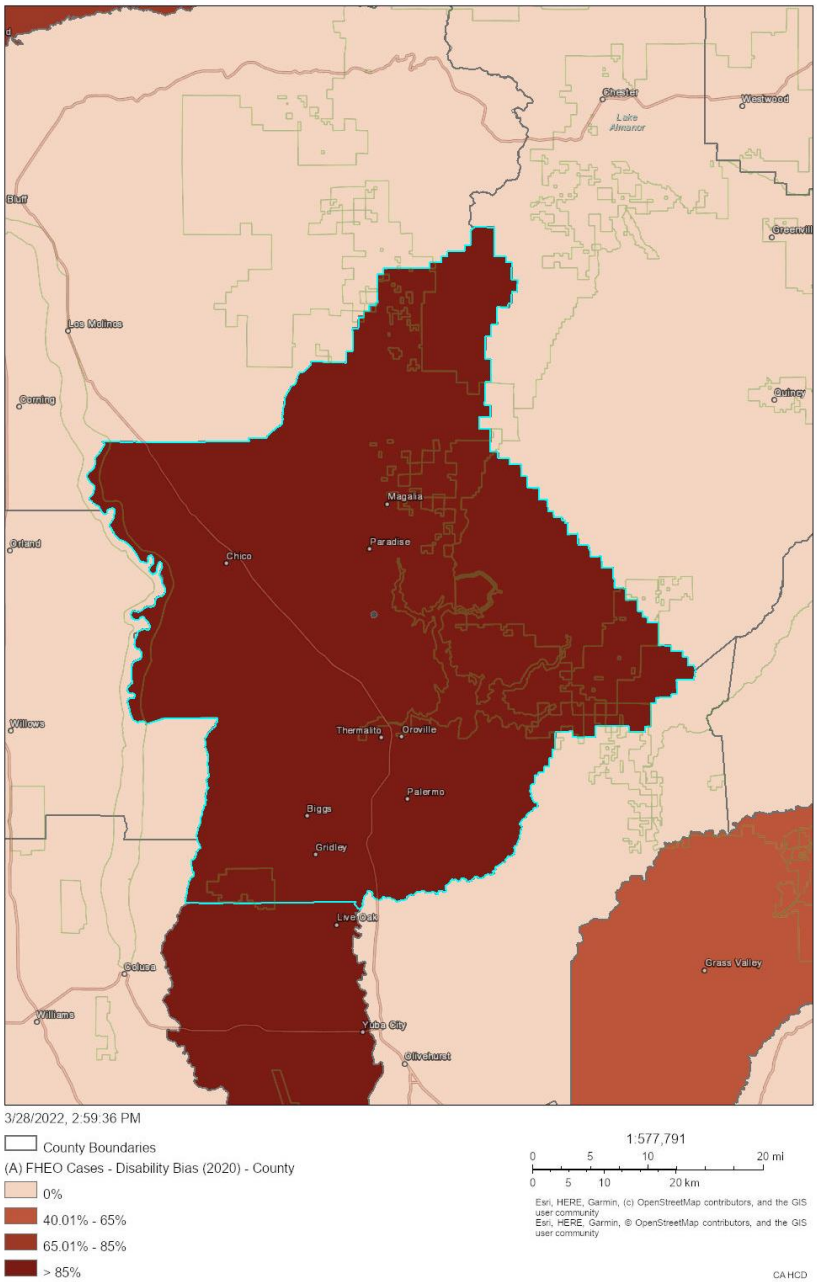
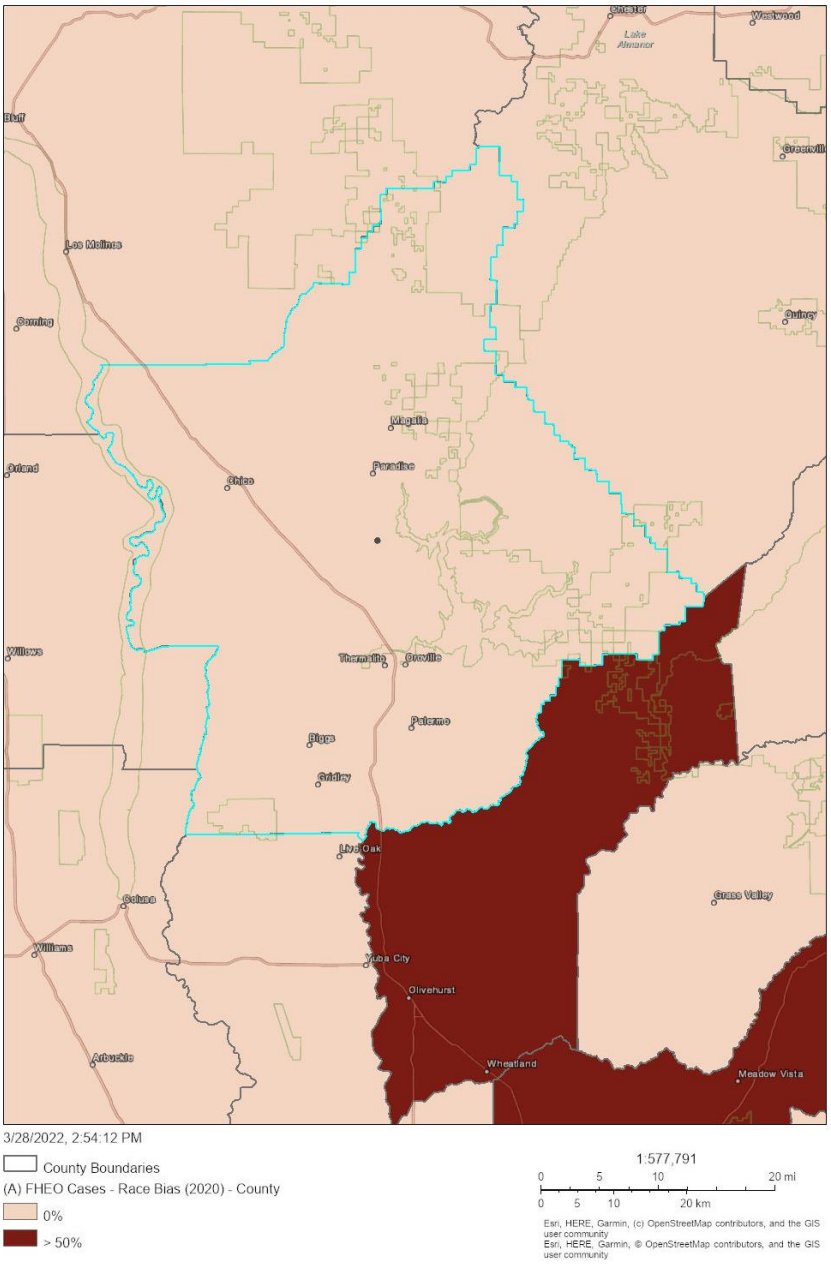


Figure 5.4: ~~Butte County~~Butte County, FHEO Cases – Race Bias Map, 2020



Local Data and Knowledge

Local data and knowledge was collected through interviews with regional stakeholders whose service areas include the ~~City~~City of Oroville.

Legal Services of Northern California

On August 12, 2021, authors conducted an online interview over Zoom with a staff member from the Legal Services of Northern California (LSNC) office in Chico, which provides legal services to low-income residents (200% of the poverty level) residing Butte, Tehama, and Glenn Counties. LSNC's goal is to identify and defeat the causes and effects of poverty by utilizing all available resources. LSNC provides legal services for housing, government benefits, health, and other civil legal issues.

Staff works with residents in Butte and Glenn County who are 60 years and over and have significant disabilities that impact their ability to work or secure housing. Many clients have trouble finding and acquiring housing due to mental illness, credit requirements, and lack of financing for security deposits. Staff indicated there is a need for supportive housing that provides wraparound services. Landlords also need support or education to better assist clients that have special needs.

Due to lack of housing in the region, clients have been unable to utilize Housing Choice (Section 8) and Emergency Housing Vouchers. Furthermore, there is a shortage of accessible units in the region. Staff reported that recent wildfires destroyed naturally occurring affordable housing such as mobile home parks, market-rate substandard housing, and apartment complexes in the burn scar. The Town of Paradise in ~~Butte County~~Butte County lost 40 mobile home parks, which have not been restored or reintroduced.

Staff noted that fair housing issues are often reported to the state, not municipalities. Therefore, the number of fair housing cases within cities is likely larger.

~~City~~City of Oroville

The ~~City~~City would like to improve outreach by integrating its services with the County. Currently, affordable housing programs and services are difficult for residents to navigate because ~~City~~City and County services may conflict or overlap and there is not a singular point-of-contact to answer questions. The ~~City~~City has conducted fair housing outreach by distributing flyers to various organizations and posting ads to radios and local newspapers in English, Spanish, and Hmong. However, the ~~City~~City has not conducted fair

housing enforcement, which is beyond the ~~City~~City's organizational capa~~city~~city~~city~~. The ~~City~~City of Oroville does not have a formal process to receive, review, and respond to fair housing complaints. Due to limited staff and capa~~city~~city, fair housing complaints are currently referred to either Legal Services of Northern California, the California Department of Fair Employment and Housing, or the U.S. Department of Housing and Urban Development's Fair Housing and Equal Opportunity (FHEO) office. Program 6.3.2 in the Chapter 3 Housing Program commits the ~~City~~City to establish a process to receive, review, and respond to fair housing complaints in collaboration with Legal Services of Northern California. No fair housing lawsuits have been filed against the ~~City~~City of Oroville over the previous Housing Element planning period.

The ~~City~~City of Oroville is in compliance with all fair housing laws in its policies and procedures. ~~In addition, t~~The ~~City~~City does not have the ~~capacity~~capacity to promote fair housing through outreach. However, the staff has hosted two community workshops in the South Oroville neighborhood to assess community needs and prioritize areas and opportunities for investment. Workshops have focused on topics such as housing, infrastructure, code enforcement, and neighborhood watch.

Other Relevant Factors

Local Compliance with State and Federal Fair Housing Laws

The Housing Element Update includes a suite of new housing goals, programs, and actions to address state fair housing laws and local compliance, which is discussed further in *Chapter 2: Review of Previous Housing Element* of the Housing Element Update and *Chapter 3: Housing Programs* of the Housing Element Update. The ~~City~~City of Oroville did not receive fair housing complaints or undergo lawsuits during the previous housing element cycle.

Summary of Findings

As of 2021, 552 households held Housing Choice Vouchers in the ~~City~~City, which is a significantly high number, at 25% of all renter households. Census Tract 28 has the highest concentration of HCVs, at 15-30% of renter-occupied housing units and Census Tract 31 has the lowest concentration of HCVs at 0-5% of renter-occupied housing units. Many of the census tracts surrounding Thermalito and Oroville have 5-15% of renter occupied housing units as households with an HCV. The ~~city~~City of Oroville is the only area in the county with 15-30% of renter occupied housing units as households with an ~~HCV~~HCV.

Of the 54 public housing buildings in the ~~City~~City, 13 are in Census Tract 28 and 24 in Census Tract 25. The ~~City~~City has received 19 fair housing inquiries in 2013-2021, which is significantly high compared to other cities in ~~Butte County~~Butte County. These findings indicate that there is a concentration of affordable housing in Census Tract 28 and significantly less affordable housing in Census Tract 31. In addition, there are a significant number of fair housing issues occurring in the ~~City~~City.

Interviews with Legal Services of Northern California indicate that households who have been awarded Housing Choice or Emergency Vouchers may not be able to utilize them due to the shortage of housing in ~~Butte County~~Butte County.

The ~~City~~City of Oroville does not have a formal fair housing complaint, review, and enforcement process. Therefore, residents report fair housing inquiries to local agencies and state governments. The ~~City~~City would like to integrate its services with the County to improve fair housing outreach.

B. SEGREGATION AND INTEGRATION

The second subsection of the Assessment of Fair Housing is an assessment of segregation and integration in the jurisdiction. Segregation is defined as housing policies, practices, or procedures – both public and private - that exclude or separate individuals based on their race, ethni~~city~~city, disability, or income. This can include overt and covert housing discrimination through land use policy, shifting housing markets, and patterns of investment or disinvestment. Historic patterns of segregation persist in California despite the Fair Housing Act in 1968. The analysis of integration considers the equal distribution of people and resources within communities (*California Department of Housing and Community Development, Affirmatively Furthering Fair Housing, April 2021 Update).*

Local and Regional Patterns and Trends

This section includes data tables, narratives, and maps to illustrate local and regional patterns and trends regarding segregation and integration. For the purposes of this analysis, segregation and integration includes trends and place-based data on race and ethni~~city~~city, linguistic isolation, familial status, persons with disabilities, and income disparity, and identifies the groups that experience the highest levels of segregation.

People of Color

The table *"~~City~~City of Oroville and ~~Butte County~~Butte County, Race and Ethni~~city~~city, 2010 and 2019"* compares data on race and ethni~~city~~city for the ~~City~~City of Oroville and ~~Butte County~~Butte County from in 2010 and 2019. As of 2019, most of the population or 64.2% of residents identify as White (not Hispanic/Latino), 13.6% identify as Hispanic or Latino (of any race), and 8.6% identify as Asian in the ~~City~~City of Oroville. The remainder of the population identify as two or more races, Black/African American, American Indian/Alaska Native, and Native Hawaiian/Other Pacific Islander.

The ~~City~~City of Oroville experienced a large increase in population of 26.2% from 2010 to 2019, while ~~Butte County~~Butte County's population only increased by 3.3% over that period. This is likely due in part to the 2018 Camp Fire and residents relocating from eastern ~~Butte County~~Butte County to the ~~City~~City of Oroville. The ~~City~~City of Oroville's Asian population increased by 3.4% and the Hispanic/Latino population increased by 3.2%. The number of White, not Hispanic/Latino individuals increased by 965 individuals, but the overall percentage decreased by 10.5% due to significant increases in non-white populations.

In comparison, ~~Butte County~~Butte County's Asian population increased by 0.5% and its Hispanic/Latino population increased by 2.8%. The number of White, not Hispanic/Latino individuals decreased by 3,926 individuals and the overall percentage decreased by 4.1%. The ~~City~~City of Oroville is steadily becoming more diverse.

Figure 6: ~~City~~City of Oroville and ~~Butte County~~Butte County, Race and Ethni~~city~~city Table, 2010 and 2019

Race or Ethni~~city~~city	~~City~~City of Oroville					~~Butte County~~Butte County				
	2010		2019		2010-2019	2010		2019		2010-2019
	Number of Persons	Percent of Total Population	Number of Persons	Percent of Total Population	Change	Number of Persons	Percent of Total Population	Number of Persons	Percent of Total Population	Change
Hispanic/Latino (of any race)	1,600	10.4%	2,646	13.6%	+3.2%	29,512	13.5%	36,916	16.3%	+2.8%
White, not Hispanic/Latino	11,480	74.7%	12,445	64.2%	-10.5%	166,463	76.1%	162,537	72%	-4.1%
Black or African American, not Hispanic/Latino	445	2.9%	801	4.1%	+1.2%	3,012	1.4%	3,342	1.5%	+0.1%
American Indian and Alaska Native, not Hispanic/Latino	139	0.9%	265	1.4%	+0.5%	2,050	0.9%	1,699	0.8%	-0.1%
Asian, not Hispanic/Latino	801	5.2%	1,674	8.6%	+3.4%	8,658	4%	10,057	4.5%	+0.5%
Native Hawaiian and Other Pacific Islander, not Hispanic/Latino	24	0.2%	89	0.5%	+0.3%	481	0.2%	476	0.2%	0%
Some other race, not Hispanic/Latino	0	0%	8	0%	0%	243	0.1%	321	0.1%	0%
Two or more races, not Hispanic/Latino	880	5.7%	1,465	7.6%	+1.9%	8,216	3.8%	10,469	4.6%	+0.8%
Total	***15,369***	--	***19,393***	--	***+26.2%***	***218,635***	--	***225,817***	--	***+3.3%***

Source: U.S. Census 2006-2010 and 2015-2019 American Community Survey

Continued…

The maps *"~~City~~City of Oroville, Percent of People of Color, 2018," "~~City~~City of Oroville, Percent of People of Color, 2010," "~~Butte County~~Butte County, Percent of People of Color, 2018,"* and *"~~Butte County~~Butte County, Percent of People of Color, 2010"* depict block group data on the total percentage of people of color, or the non-white population for residents in the ~~City~~City of Oroville and ~~Butte County~~Butte County in 2010 and 2018.

For the purposes of this analysis, non-white individuals are those that identify as any other racial or ethnic subgroup than "White," including individuals that identify as two or more races. People who identify as nonwhite are considered "people of color."

In most areas of the ~~City~~City in 2018, the percentage of the total non-white population ranges from 21-40%. However, the percentage of the total non-white population ranges from 41-60% in areas falling in Census Tracts 25, 29, 30.01, 30.02, and 33. The highest concentration of non-white residents ranges from 61-80%, and these areas fall within Census Tract 30.01.

In ~~Butte County~~Butte County in 2018, the portion of non-white residents is significantly smaller, ranging from 20-40% in roughly half of the County and less than 20% in the other half. There are few areas that have a concentration of non-white residents ranging from 41-60% in the County. These areas fall within Oroville, Biggs, Chico, and Gridley, and southern portions of the County.

The percent of the total non-white population increased significantly in both the ~~City~~City of Oroville and ~~Butte County~~Butte County in 2018 compared to 2010. In 2010, less than 20% of the population was non-white in most areas of ~~Butte County~~Butte County. In 2010, Census Tract 25, 29, and 33 in the ~~City~~City of Oroville had a non-white population of 21-40% and Census Tracts 30.01 and 30.02 had a non-white population ranging from 21-60%. The concentration of non-white residents increased to 41-80% in Census Tracts 30.01 and 30.02 and 41-60% in Census Tracts 25, 29, and 33 in 2018 compared to 2010. The maps below depict that diversity has substantially increased in all parts of ~~Butte County~~Butte County between 2010 and 2018. Trends over time indicate the ~~City~~City's growth in diversity was concentrated within Census Tracts 25, 29, 30.01, 30.02, and 33.

Figure 6.1: ~~City~~City of Oroville, Percent of People of Color Map, 2018

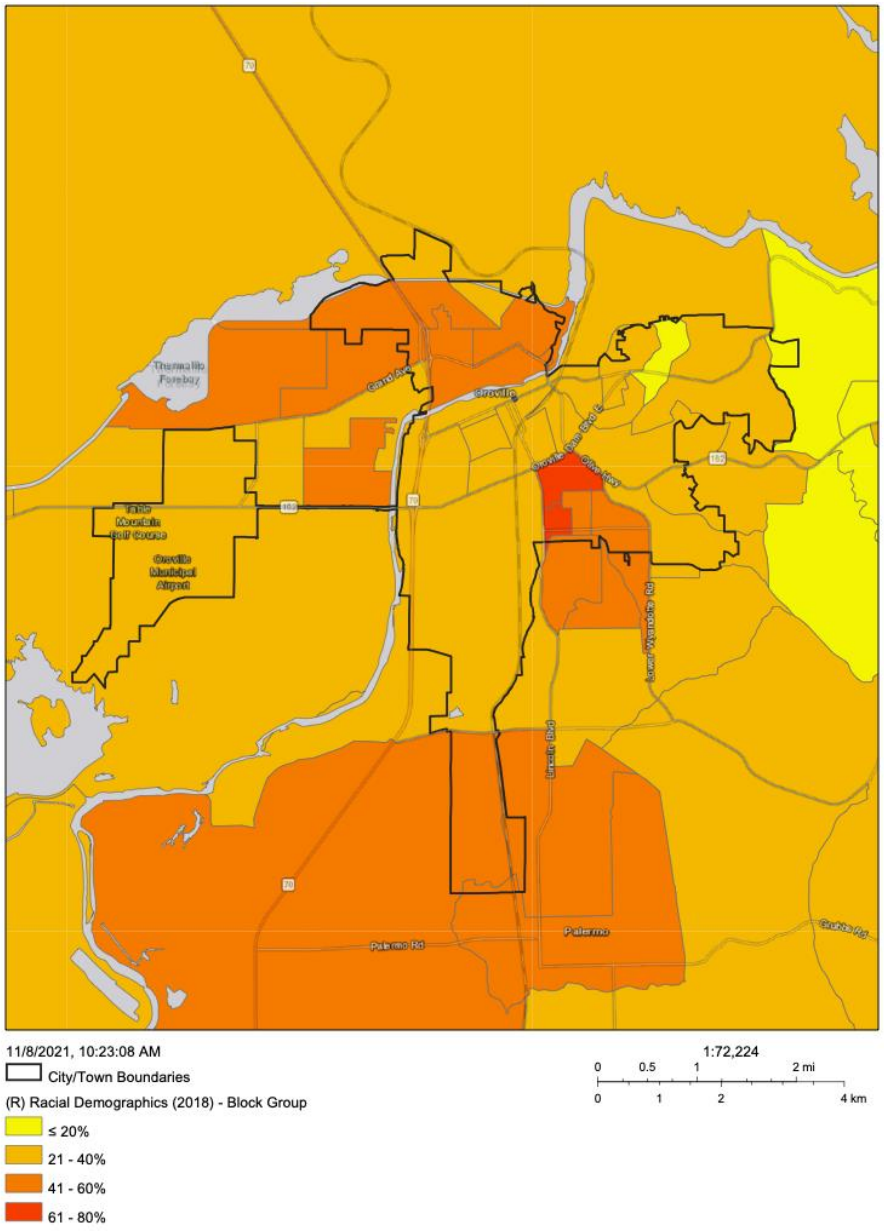


Figure 6.2: ~~City~~City of Oroville, Percent of People of Color Map, 2010

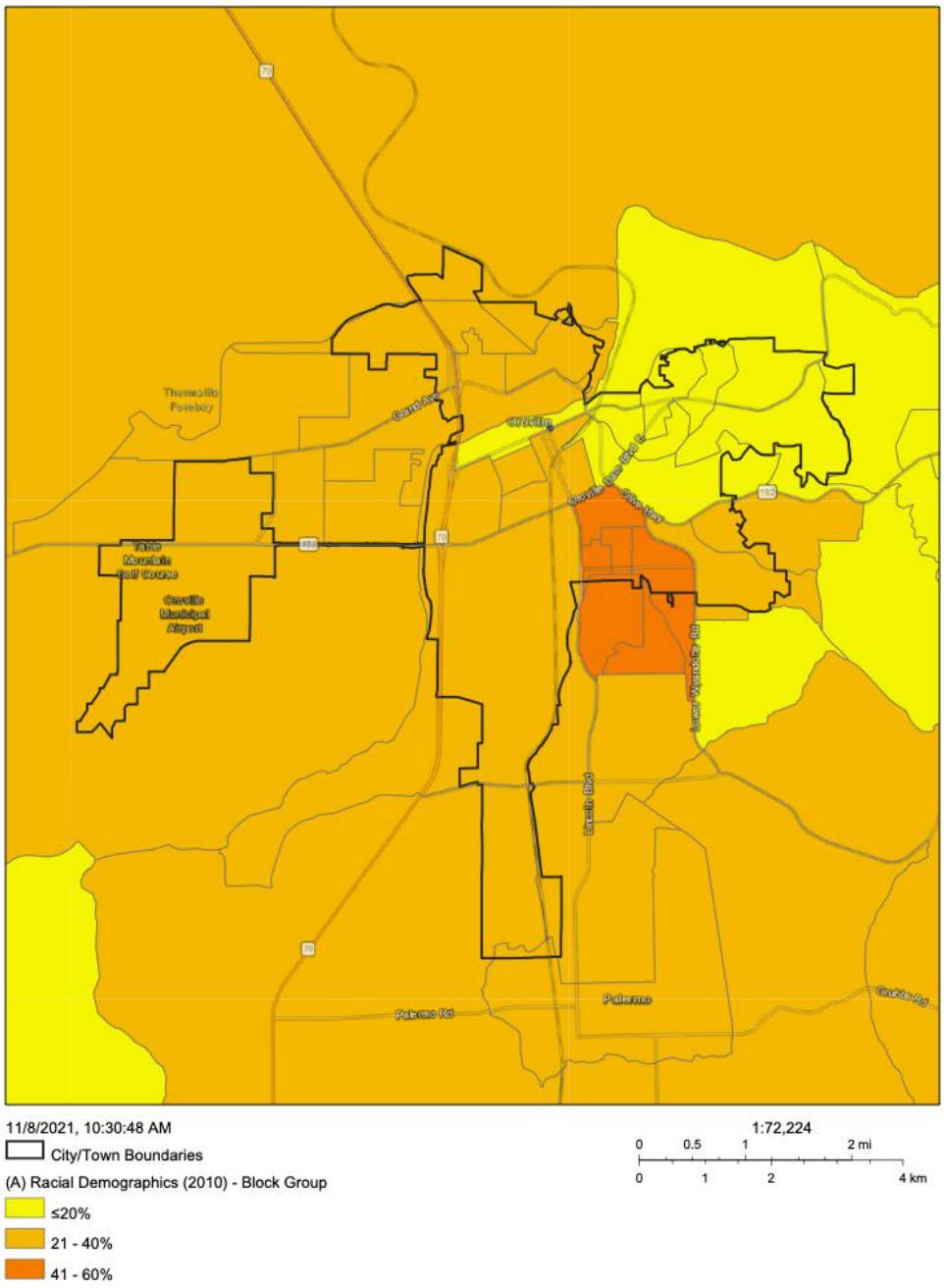


Figure 6.3: ~~Butte County~~Butte County, Percent of People of Color Map, 2018

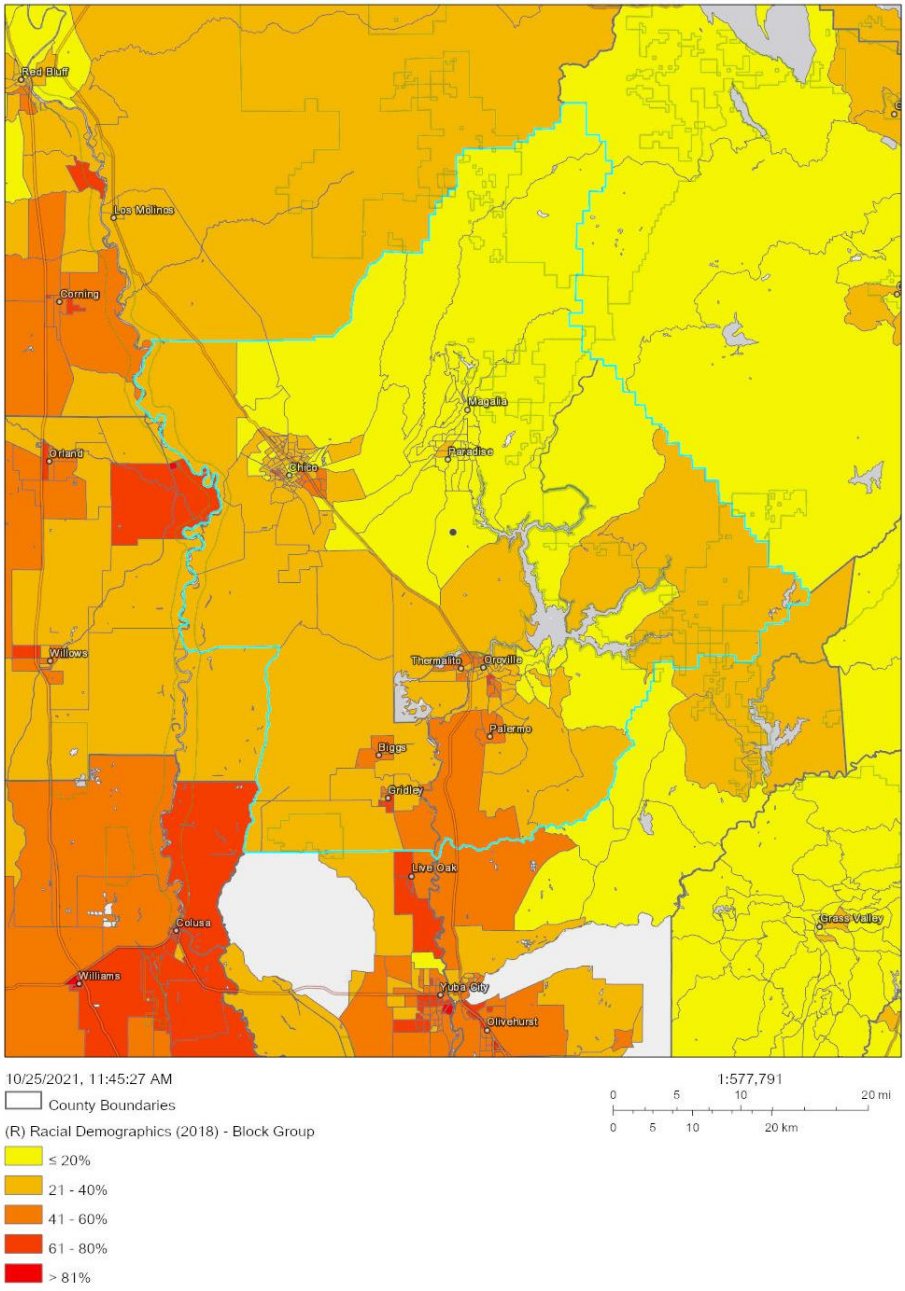
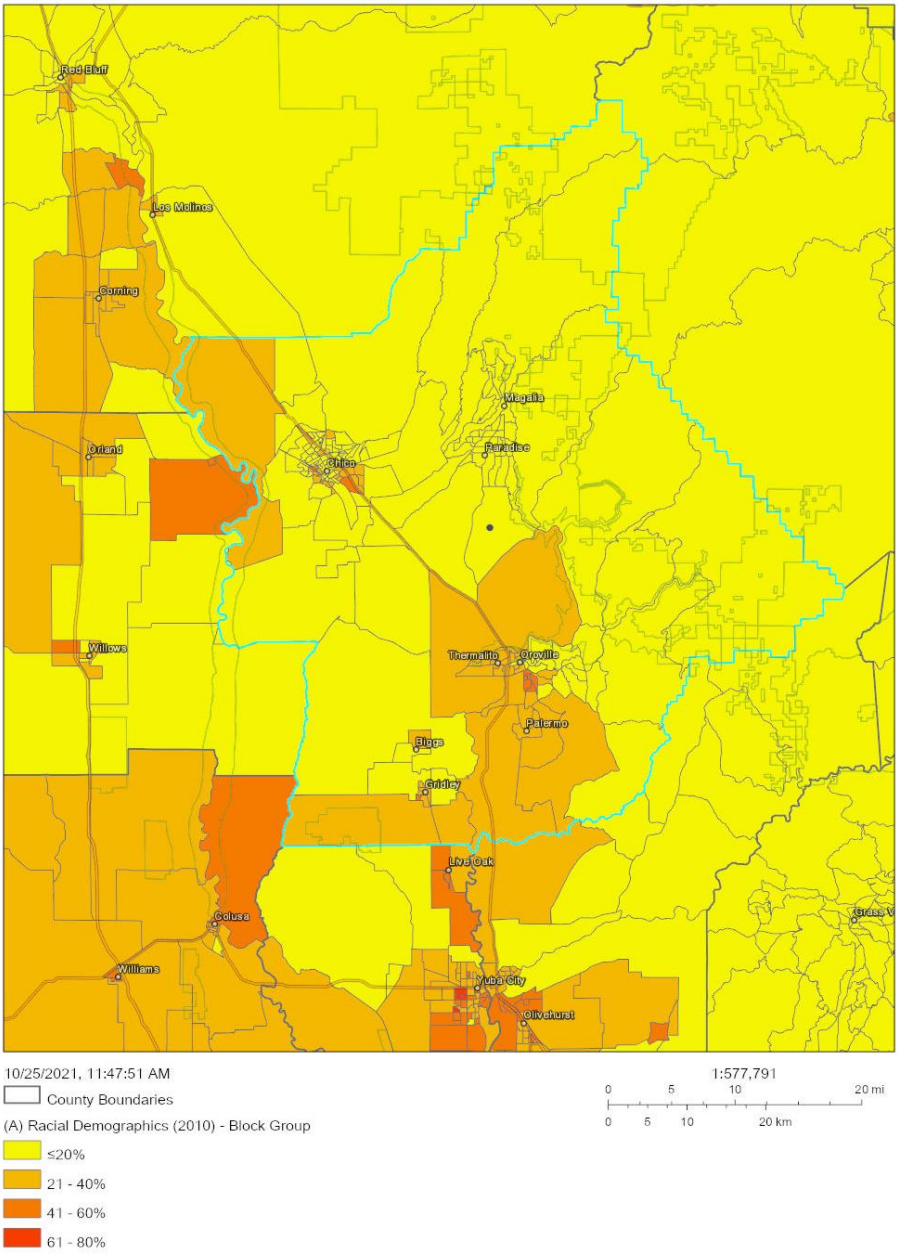


Figure 6.4: ~~Butte County~~Butte County, Percent of People of Color Map, 2010



Linguistic Isolation: Language

The table *"~~City~~City of Oroville and ~~Butte County~~Butte County, Languages Spoken at Home, 2010 and 2019"* compares data on language and fluency for the ~~City~~City of Oroville and ~~Butte County~~Butte County in 2010 and 2019. In 2019, more than 15.5% of the population spoke a language other than English at home, with Asian and Pacific Islander languages as the most common language at 6.6%, Spanish at 5.6%, and other Indo-European languages at 2.4% of the population. An estimated 6.8% of the total population is not fluent in English.

The percentage of people who spoke a language other than English at home increased by 4% for the ~~City~~City of Oroville and decreased by 2.6% for ~~Butte County~~Butte County in 2019 compared to 2010. In addition, the number of persons over 5 years of age who are not fluent in English increased slightly for the ~~City~~City of Oroville but decreased slightly for ~~Butte County~~Butte County. Households that experience linguistic isolation speak limited English, which can make it difficult to access the information or services they need. About 1,200 individuals are not fluent in English, which is nearly half of the population that speaks a language other than English at home.

Figure 7: ~~City~~City of Oroville and ~~Butte County~~Butte County, Languages Spoken at Home Table, 2010 and 2019

Language & Fluency	~~City~~City of Oroville					~~Butte County~~Butte County				
	2010		2019		2010-2019	2010		2019		2010-2019
	Number of Persons	Percent of Total Population	Number of Persons	Percent of Total Population	Change	Number of Persons	Percent of Total Population	Number of Persons	Percent of Total Population	Change
Persons 5 years and over that speak Spanish at home	747	5.3%	997	5.6%	+0.3%	19,196	9.3%	20,877	9.8%	+0.5%
Persons 5 years and over that speak Asian and Pacific Islander languages at home	651	4.6%	1,169	6.6%	+2%	5,986	2.9%	7,482	3.5%	+0.6%
Persons 5 years and over that speak other Indo-European languages	156	1.1%	432	2.4%	+1.3%	4,334	2.1%	3,208	1.5%	-0.6%
Persons 5 years and over that speak other languages at home	68	0.5%	155	0.9%	+0.4%	619	0.3%	1,104	0.5%	+0.2%
Total persons 5 years and over that speak a language other than English at home	1,627	11.5%	2,753	15.5%	+4.0%	30,135	14.6%	20,692	12%	-2.6%
Total persons 5 years and over that are not fluent in English	809	5.7%	1,207	6.8%	+1.1%	12,591	6.1%	11,570	5.4%	-0.7%

Source: U.S. Census 2006-2010 and 2015-2019 American Community Survey

Familial Status

To assess segregation and integration of familial status, this report analyzes data on percent of children in single parent, female households, and percent of children in married couple households within the ~~City~~City of Oroville and ~~Butte County~~Butte County. Census tract level data is used because block group level data is not available.

Married Couple Households

The maps *"~~City~~City of Oroville, Married Couple Households with Children, 2019"* and *"~~Butte County~~Butte County, Married Couple Households with Children, 2019"* indicate the percent of children residing in married couple households in the ~~City~~City of Oroville and ~~Butte County~~Butte County. Living arrangements for children vary significantly withing the ~~City~~City, ranging from 20% to greater than 80% of children residing in married couple households.

In Census Tract 31, greater than 80% of children reside in married couple households, which is the highest concentration in the entire ~~City~~City. In Census Tracts 27, 29, 30.01, and 33 that figure is 60-80% of households. However, in Census Tracts 25, 28, and 27 only 40-60% of children reside in married couple households. Census Tract 30.02 has the lowest concentration at 20-40% of households.

Similarly, in ~~Butte County~~Butte County, the number of children residing in married couple households range from 21-61%. However, Census Tract 30.02 has one of the lowest concentrations of children residing in married couple households in the entire County *(HCD AFFH Data Resources and Mapping Tool: U.S. Census 2015-2019 American Community Survey).*

Figure 8: ~~City~~City of Oroville, Percent of Children in Married Couple Households Map, 2019

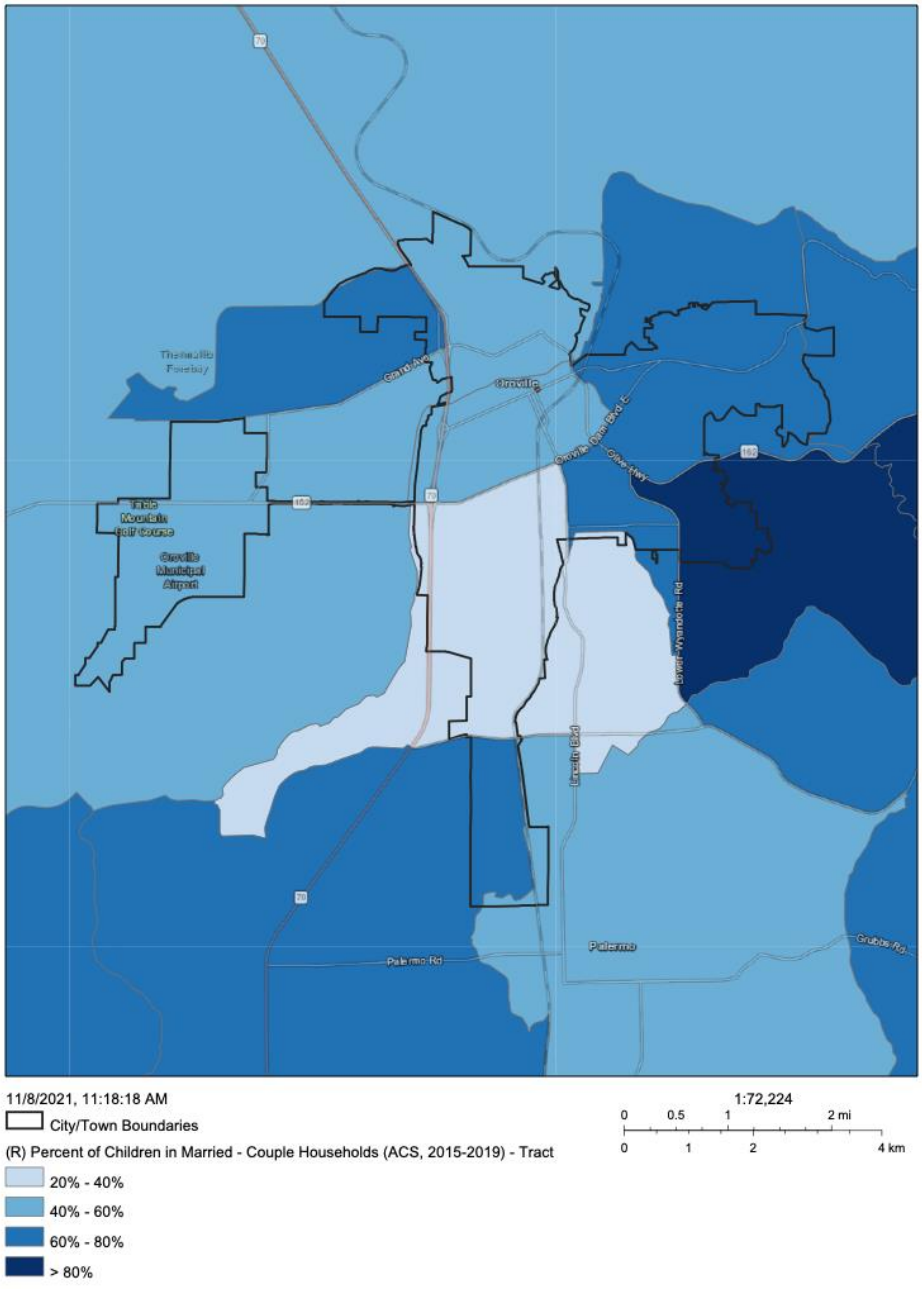
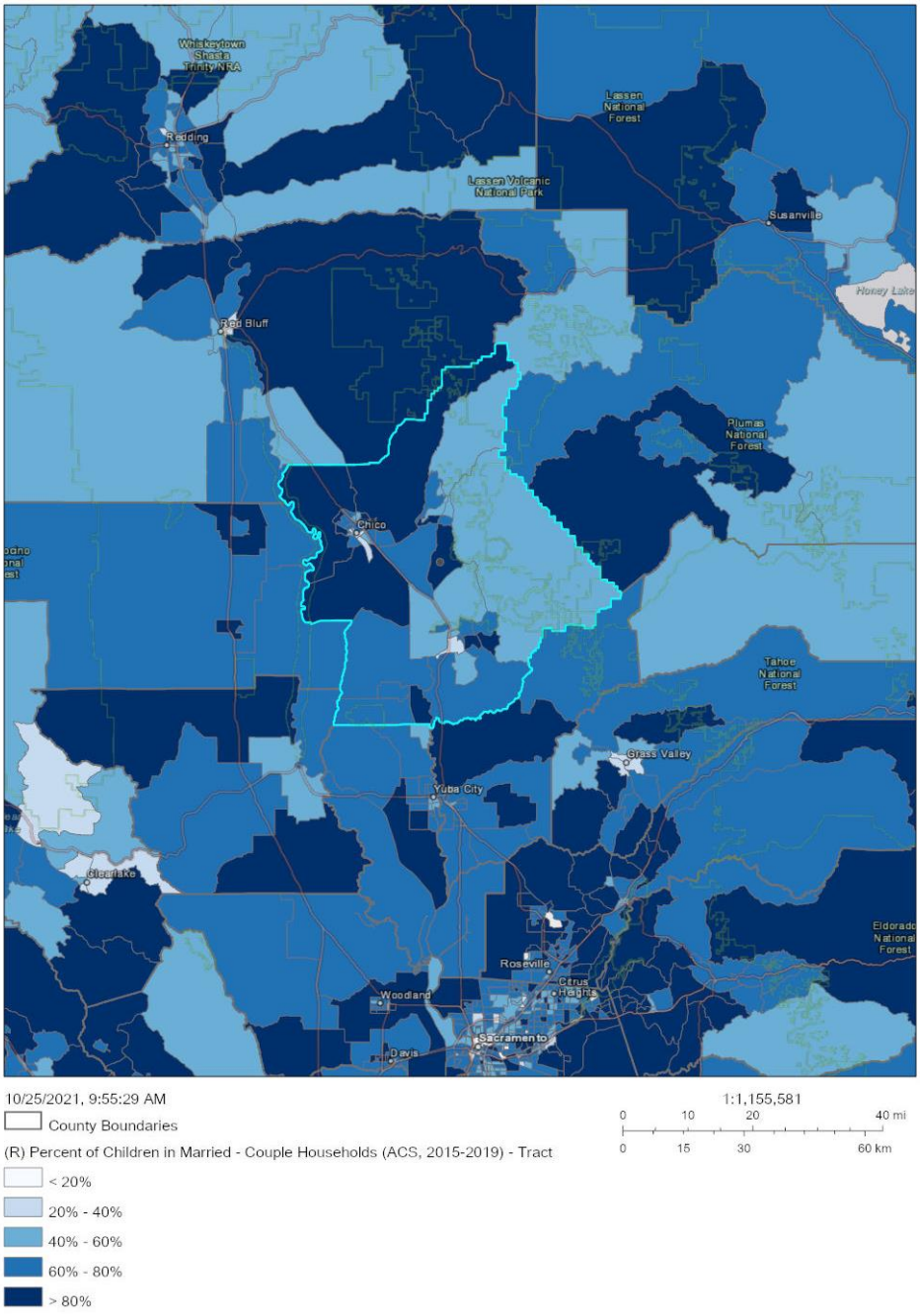


Figure 8.1: ~~Butte County~~Butte County, Percent of Children in Married Couple Households Map, 2019



Single Parent, Female Households

The maps *"~~City~~City of Oroville, Percent of Children in Single Parent, Female Households, 2019"* and *"~~Butte County~~Butte County, Percent of Children in Single Mother Households, 2019"* indicate the percent of children residing in female householder, no spouse/partner present households in the ~~City~~City of Oroville and ~~Butte County~~Butte County.

The findings indicate that 20-40% of children reside in households headed by single mothers in Census Tracts 28, 30.01, 30.02, and 37. Less than 20% of children reside in households headed by single mothers in Census Tracts 25, 27, 29, 31, and 33.

In most areas of ~~Butte County~~Butte County, less than 20% of children live in households headed by single mothers. In some areas of ~~Butte County~~Butte County, such as northern parts of the County, south Oroville, south Chico, and the ~~City~~City of Gridley, 20-40% of children reside in households headed by single mothers. The ~~City~~City of Oroville is one of few areas in the County where greater than 20% of households are headed by single mothers *(HCD AFFH Data Resources and Mapping Tool: U.S. Census 2015-2019 American Community Survey).*

Figure 8.2: ~~City~~City of Oroville, Percent of Children in Single Parent, Female Households Map, 2019

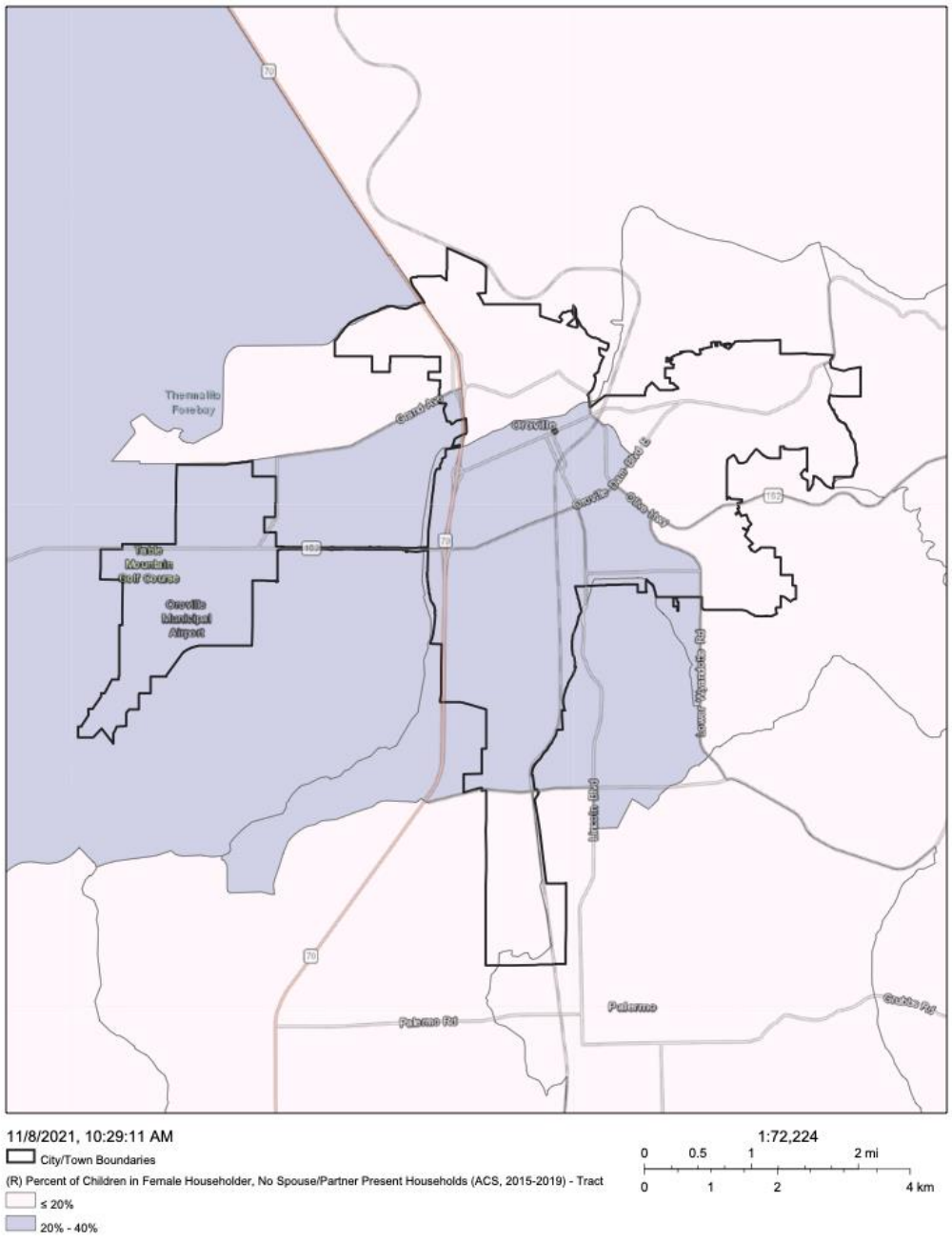
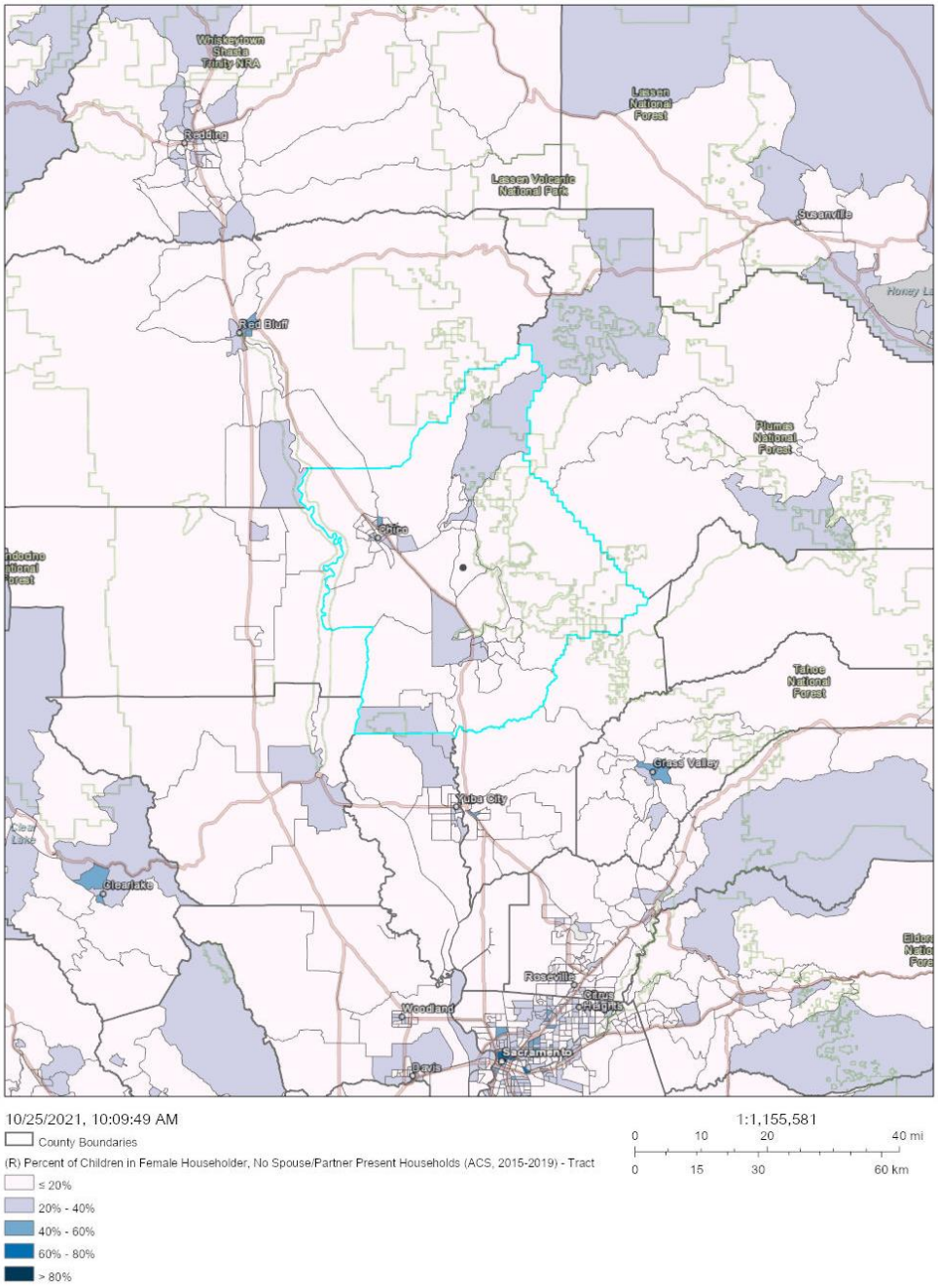


Figure 8.3: ~~Butte County~~Butte County, Percent of Children in Single Parent, Female Households Map, 2019



Single Parent Female Households Living Below the Poverty Level

The table *"~~City~~City of Oroville and ~~Butte County~~Butte County, Percent of Single Parent Female Households Living Below the Poverty Level, 2010 and 2019"* shows the percent of single parent female households whose income in the past 12 months is below the poverty level. Over the past 10 years the ~~City~~City of Oroville has experienced an increase in the number of single parent female householders living below the poverty level.

The ~~City~~City of Oroville has experienced slight increases in single parent female households living below the poverty level in the past 10 years. Single parent female households living below the poverty level in the ~~City~~City of Oroville increased by 40 households in 2019 compared to 2010. Families that had related children under 18 years old of the single parent female householder and who were living below the poverty level increased by 42 households in 2019 compared to 2010.

In comparison, ~~Butte County~~Butte County experienced decreases in single parent female households living below the poverty level and those with related children of the householder under 18 years in 2019 compared to ~~2010~~2010.

Figure 8.4: ~~City~~City of Oroville and ~~Butte County~~Butte County, Percent of Single Parent Female Households Living Below the Poverty Level Table, 2010 and 2019

Percent of Families Whose Income in the Past 12 Months is Below the Poverty Level	~~City~~City of Oroville			~~Butte County~~Butte County		
	2010	2019	Change	2010	2019	Change
Families with female householder, no spouse present	207	247	+40	2,126	2,131	+5
With related children of the householder under 18 years	205	247	+42	1,873	1,776	-97
With related children of the householder under 5 years only	81	42	-39	426	443	+17

Source: U.S. Census, 2006-2010 and 2015-2019 American Community Survey

People with Physical Disabilities

The maps *"~~City~~City of Oroville, Percent of Population with a Physical Disability, 2019"* and *"~~Butte County~~Butte County, Percent of Population with a Physical Disability, 2019"* indicate the percent of the population with a disability in the ~~City~~City of Oroville and ~~Butte County~~Butte County. As illustrated below, 20-30% of the population in most areas of the ~~City~~City have a disability. In Census Tracts 25, 29, and 31 only 10-20% of the population has a disability. However, Census Tract 30.01 has the highest concentration of residents with a disability, at 30-40% of the population, which is the highest concentration of residents experiencing disability in any census tract in the County.

In comparison, 10-20% of the population has a disability in about half of the areas of ~~Butte County~~Butte County, and about 20-30% of the population has a disability in the other half of ~~Butte County~~Butte County *(HCD AFFH Data Resources and Mapping Tool: U.S. Census 2015-2019 American Community Survey).*

Figure 9: ~~City~~City of Oroville, Percent of Population with a Disability Map, 2019

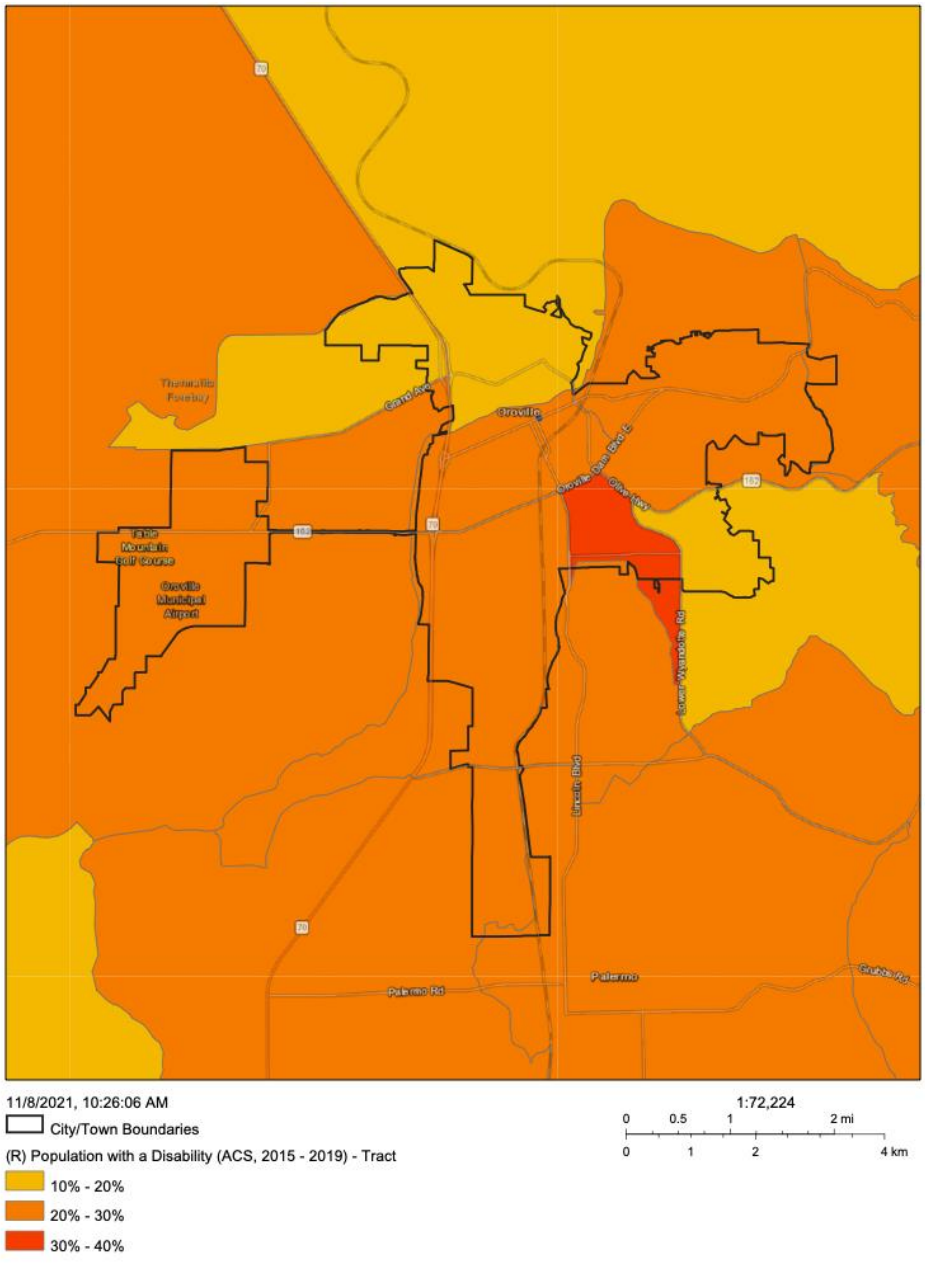
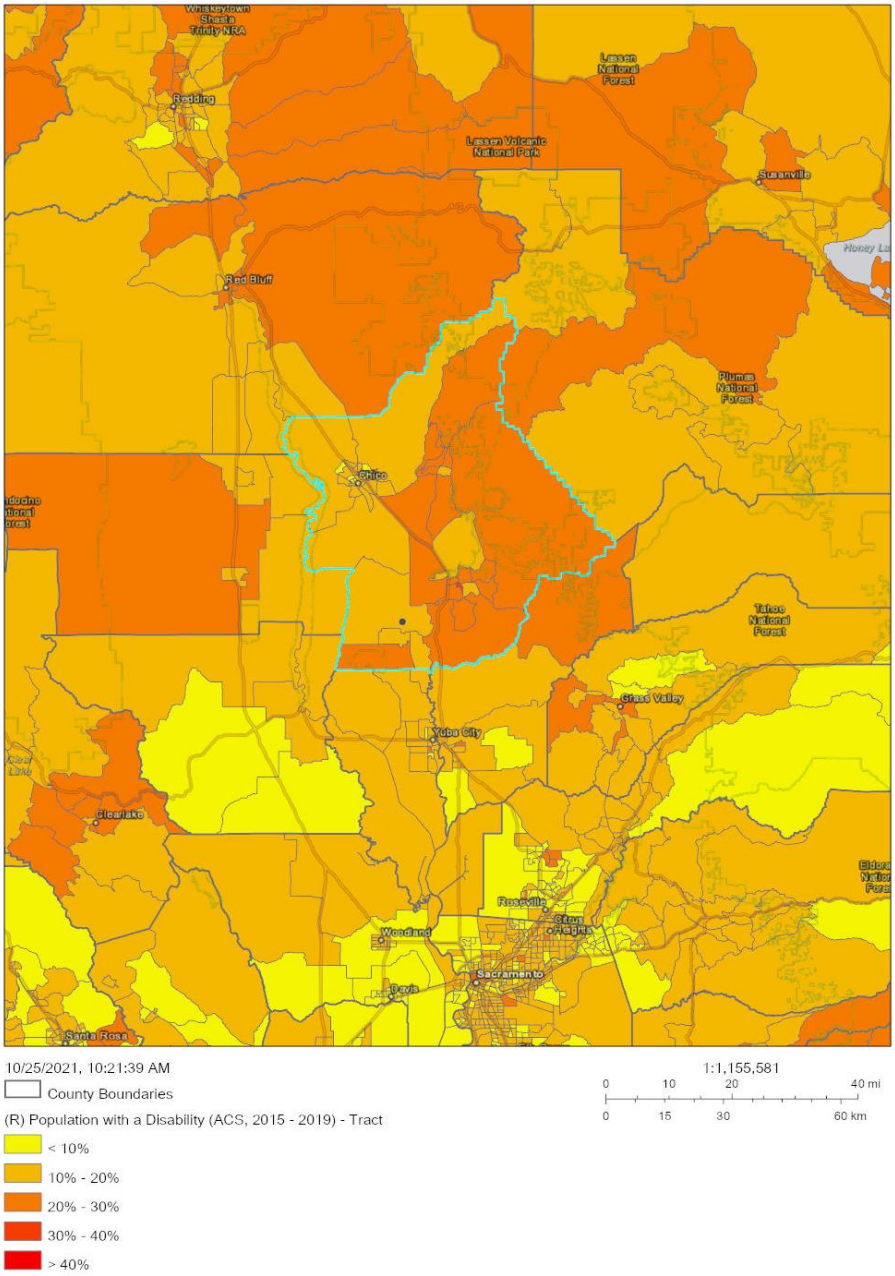


Figure 9.1: ~~Butte County~~Butte County, Percent of Population with a Disability Map, 2019



Income Disparity

This section provides an overview of the percentage of residents experiencing poverty, the median household income, and Gini index in both the ~~City~~City of Oroville and ~~Butte County~~Butte County.

Median Household Income

The maps *"~~City~~City of Oroville, Median Household Income, 2019"* and *"~~Butte County~~Butte County, Median Household Income, 2019"* depicts block group data on median household income in the ~~City~~City of Oroville and ~~Butte County~~Butte County in 2019. The median household income in the State was $87,1100 in 2020. Areas that are light blue represent residents with the lowest median household income which includes most block groups located within Census Tract 28, 30.01, and 30.02. Residents in these areas have a median household income that is less than $30,000, and these areas make up nearly half of the ~~City~~City of Oroville. Residents in Block Group 2, Census Tract 28 have the lowest median household income at $15,179.

Areas that are medium blue represent concentrations of residents that earn between $30,000-55,000, which includes most of the remaining areas of the ~~City~~City. Areas that are dark blue represent residents with the highest median household income in the ~~City~~City, and these areas are primarily located at the northeast end of the ~~City~~City, in Census Tracts 27 and 31. Residents living in Block Group 3, Census Tract 27 earn the highest median household income at $66,083. This is still $20,000 below the State average. The difference between areas of the highest and areas of lowest median household income is greater than $50,000, which represents significantly large disparities in income based on residential location.

In ~~Butte County~~Butte County, most block groups that have a median household income less than $55,000 or between $55,000 and $87,100. Several areas have a median household income between $87,100 and $125,000. Households that have a median household income between $87,100 and $125,000 are primarily located within Chico and its surrounding areas, as well as south of Biggs, near Gridley. There are a few block groups near Chico where the median household income is greater than $125,000, which is substantially more than the State average.

Figure 10: ~~City~~City of Oroville, Median household income, 2019

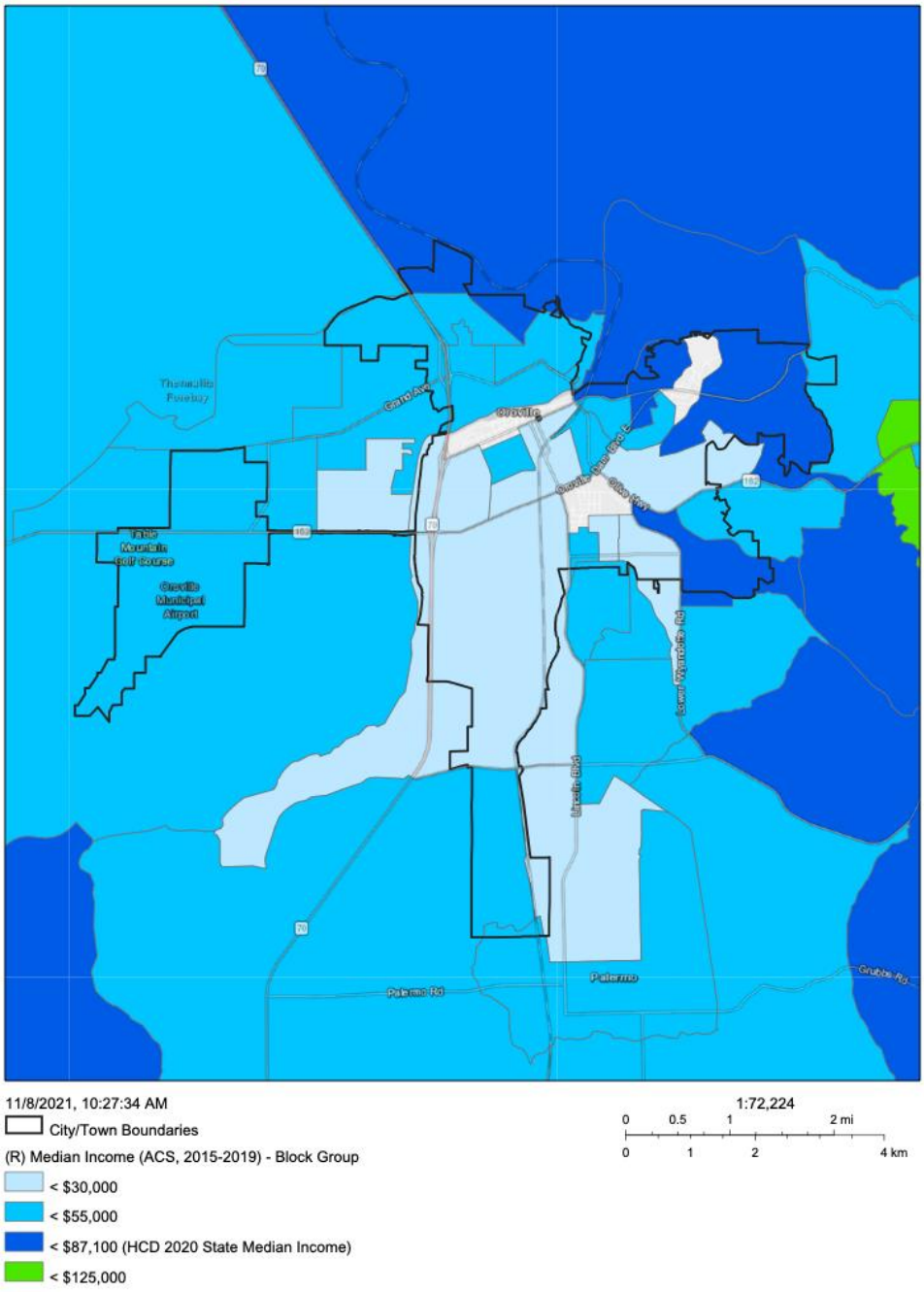


Figure 10.1: ~~Butte County~~Butte County, Median household income, 2019

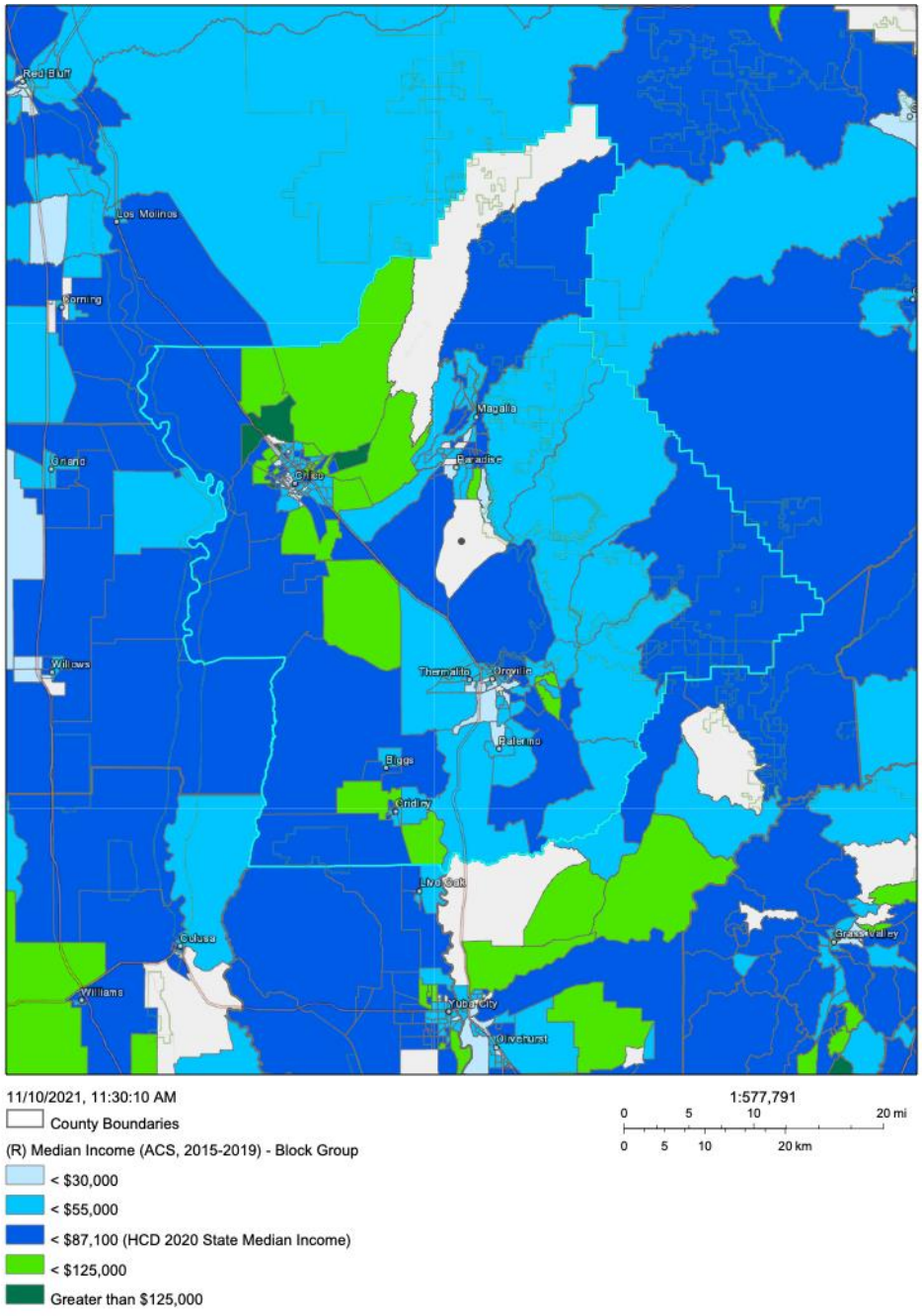


Figure 10.2: The ~~City~~City of Oroville, the ~~City~~City of Chico, and ~~Butte County~~Butte County, Gini Index, 2020 illustrates the Gini index of income inequality values, which is a measure of the distribution of income across a population. A higher gini index score indicates greater income inequality, or that high-income individuals receive much larger percentages to the total income of the population. The table below indicates that Oroville has a relatively lower gini index, or relatively less income inequality than its neighboring ~~city~~City Chico, and less than ~~Butte County~~Butte County and the State of California as a whole.

Figure 10.2: ~~City~~City of Oroville, ~~City~~City of Chico, and ~~Butte County~~Butte County, Gini Index, 2020

	Gini Index of Income Inequality
Oroville	.45
Chico	.50
~~Butte County~~Butte County	.49
California	.49

Source: 2016-2020 ACS 5-Year Estimates Detailed Tables

Poverty Status

The table *"~~City~~City of Oroville, ~~Butte County~~Butte County and the State of California, Poverty, 2012 and 2019"* compares data on individuals and families experiencing poverty for the ~~City~~City of Oroville, ~~Butte County~~Butte County, and the State of California in 2019 compared to 2012. In this case, 2012 data was used instead of 2010 data because it was the oldest dataset available.

The percent of families experiencing poverty in Oroville is significantly greater that of the State of California as a whole: 25.5% compared to 13.4%. The percent of individuals experiencing poverty in Oroville is also greater than the State of California as a whole: 17.2% compared to 9.6%. These values are also significantly greater than ~~Butte County~~Butte County. Individuals and families residing in ~~Butte County~~Butte County are significantly more likely to experience poverty than in the State of California.

The percent of both families and individuals experiencing poverty decreased for ~~Butte County~~Butte County and the State of California by an average of almost 2% in 2019 compared to 2012. However, those values increased for the ~~City~~City of Oroville by 5.4% and 0.5%, respectively. There are significantly more individuals and families in poverty in the ~~City~~City of Oroville and ~~Butte County~~Butte County than the State of California

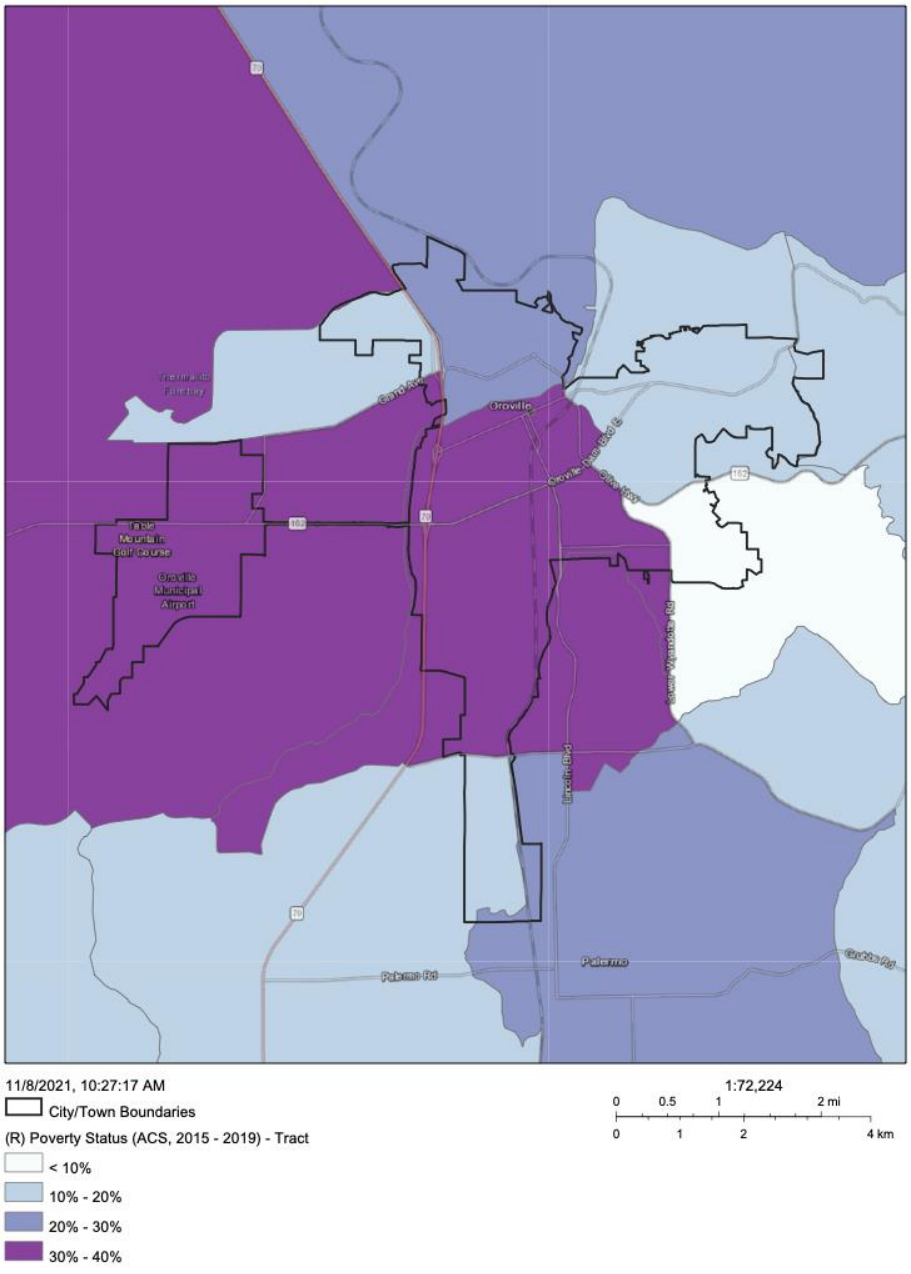
Figure 10.3: ~~City~~City of Oroville, ~~Butte County~~Butte County, and State of California, Poverty, 2012 and 2019

Jurisdiction	Measure of Poverty	2012		2019		2012-2019
		Percent	Estimated Number	Percent	Estimated Number	Change
~~City~~City of Oroville	Families whose income in the past 12 months is below the poverty level	11.8%	321	17.2%	541	+5.4%
	Individuals whose income in the past 12 months is below the poverty level	25%	3,668	25.5%	4,538	+0.5%
~~Butte County~~Butte County	Families whose income in the past 12 months is below the poverty level	12.9%	6,707	11.1%	5,711	-1.8%
	Individuals whose income in the past 12 months is below the poverty level	20.6%	44,156	19.1%	41,974	-1.5%
State of California	Families whose income in the past 12 months is below the poverty level	11.5%	983,254	9.6%	860,010	-1.9%
	Individuals whose income in the past 12 months is below the poverty level	15.3%	5,590,100	13.4%	5,149,742	-1.9%

Source: U.S. Census, 2008-2012 and 2015-2019 American Community Survey

The map *"~~City~~City of Oroville, Poverty Status, 2019"* depicts the geographic distribution of poverty in the ~~City~~City of Oroville in 2019. For this analysis, census tract data is used because block group data is not available. Approximately 30-40% of the population is living below the poverty level in Census Tracts 28, 30.01, 30.02, and 37, which is greater than most areas of ~~Butte County~~Butte County. In contrast, less than 10% of the population is living below the poverty level in Census Tract 31, and 10-20% of the population is living below the poverty level in Census Tracts 27 and 29. In Census Tract 25, 20-30% of the population is living below the poverty level.

Figure 10.4: ~~City~~City of Oroville, Poverty Status, 2019



Data and Knowledge from Local Stakeholders

Local data and knowledge is collected through interviews with regional stakeholders whose service areas include the ~~City~~City of Oroville.

Disability Action Center

On September 13, 2021, the authors received a written response to interview questions from a staff member at the Disability Action Center (DAC) located in Chico. DAC is a non-profit, Chico-based organization that provides free support to assist community members in Northern California who have disabilities to achieve their optimal level of self-reliance. DAC serves Butte, Colusa, Glenn, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Tehama Counties. DAC accomplishes this mission thorough provision of informational services, housing assistance, and provider referrals.

Staff noted that the tri-county region of Butte, Tehama, and Glenn County lacks affordable and permanent housing. Low-income residents experience barriers to accessing housing due to poor credit, poor rental histories, income requirements, and felony records. In addition, low-income residents can benefit from robust services and programs to complement housing, such as childcare and educational programs. There are a significant number of single parent female-headed households in the region who may not have the time or resources to access daycare or service programs. Some residents who are transitioning from homelessness to long-term housing may lack knowledge regarding responsible tenant practices and expectations.

Staff commented that ~~Butte County~~Butte County has a significant population of residents who are experiencing homelessness. Many are unsheltered and cannot access shelter services because they are not allowed to bring companion animals, which provide support and companionship. In addition, residents who are experiencing unsheltered homelessness do not have access to reliable transportation, food programs, a community kitchen, showers, laundry facilities, internet, electri~~city~~city, or a place to receive mail. Many are survivors of recent fires, especially senior women who have not been able to reconstruct their life, due to lack of identification documentation and the loss of naturally affordable housing in the region. Regions of the burn scars in the town of Paradise and community of Berry Creek still lack power and infrastructure required to build new housing. Survivors are living in temporary shelters or vehicles while searching for permanent housing options. These communities are located approximately 20 miles from the ~~City~~City of Oroville.

Despite these factors, addressing homelessness and affordable housing shortages is a contentious issue in the community. Staff believes that local, State, and Federal administrative support in zoning and development application fees could incentivize low-income housing developments.

Stonewall Alliance Center

On August 4, 2021, authors conducted an online interview over Zoom with a staff member that works at Stonewall Alliance Center (SAC) and Safe Space Winter Shelter (SSWS). SAC is a nonprofit agency based in Chico that serves the Northern Sacramento Valley lesbian, gay, bisexual, transgender*, and queer (LGBTQ+) community by providing support, resources, advocacy, and education. SSWS is a non-profit agency based in Chico that provides low-barrier emergency shelter from December to March for people experiencing homelessness, primarily those with severe mental health conditions.

Staff reported that there are few rental vacancies and a lack of assisted living facilities for residents with severe mental health conditions, substance use disorder, or those experiencing homelessness. Staff noted a need to increase awareness around the factors that contribute to or perpetuate homelessness such as housing shortages, job insecurities, mental health conditions, and drug or substance use issues.

Staff reported that the local LGBTQ+ community faces barriers to accessing housing and homelessness services. LGBTQ+ residents, including the staff member interviewed, felt like they had to hide their identity to avoid harassment from a landlord or roommates. In both Glenn and Butte Counties, staff reported it is common for young, trans people of color to get kicked out of their house and experience homelessness. There are no publicly accessible shower or laundry services in the region. During the COVID-19 pandemic, many public gathering spaces that provided electri~~city~~city and public water fountains were shut off for health and safety. This made it difficult for residents experiencing homelessness to access services that are increasingly provided online.

There are several faith-based shelters in the region, including the Oroville Rescue Mission and the Jesus Center, but no trans or LGBTQ+ friendly shelters in Butte or Glenn County. The LGBTQ+ community in ~~Butte County~~Butte County often experiences harassment or denial of services due to their sexual orientation. Couples also face barriers due to dormitory sleeping policies that do not allow them to sleep together. In addition, for community members who are employed, it may be challenging to access shelters who close evening intake at 6:00 pm. Drug testing requirements and ownership of companion animals can also be barriers to accessing shelter services.

Summary of Findings

The ~~City~~City's total population size grew by more than 25% in 2019 compared to 2010, which is an exponential increase in population size. The majority of the population in the ~~City~~City identifies as White, but diversity has increased substantially. The ~~City~~City experienced large increases in its minority population. A significantly large number of residents identify as Asian, and that number is increasing. Only 13.6% of the population identifies as Hispanic/Latino. About 1,200 individuals are not fluent in English.

Census Tract 30.02 has one of the lowest concentrations of children residing in married coupled households in the County, at 20-40% of households. Census Tract 31 has the highest concentration of

children residing in married couple households at greater than 80% of households. Approximately 20-40% of children reside in households headed by single mothers in Census Tracts 28, 30.01, 30.02, and 37, which is significantly greater than most other areas in the County. In 2019, 247 single mother households were living in poverty. In most areas of the ~~City~~City, 20-30% of the population is living with a disability. Census Tract 30.01 has the highest concentration of residents with a disability, at 30-40% of the population, which is greater than any other census tract in the County.

Residents in Census Tracts 28, 30.01, and 30.02 have the lowest median household income, which is less than $30,000 on average. These areas make up nearly half of the ~~City~~City of Oroville. Census Tract 27 and 31 have the highest median household income. The difference between areas of the highest and areas of lowest median household income is greater than $50,000, which represents significantly large disparities in income based on residential location. The Gini index of income inequality indicates that this income disparity is slightly less than the state level of income disparity. One in four families is experiencing poverty in the ~~City~~City of Oroville. Approximately 30-40% of the population is living below the poverty level in Census Tracts 28, 30.01, 30.02, and 37, which is greater than most areas of ~~Butte County~~Butte County. In contrast, less than 10% of the population is living below the poverty level in Census Tract 31, and 10-20% of the population is living below the poverty level in Census Tracts 27 and 29. These findings indicate that low-income residents, residents with a disability, and single parent households are concentrated in Census Tracts 28, 30.01, 30.02, and 37. Affluent resident and married-couple households are concentrated in Census Tract 27 and 31. These census tracts also have the least amount of single mother households and residents who are experiencing poverty.

Staff at the Stonewall Alliance Center noted there is a lack of assisted living facilities for residents with severe mental health conditions, substance abuse disorders, and individuals experiencing homelessness. Residents who identify as LGBTQ+ may face harassment from landlords or denial of shelter services due to their orientation. Staff at Disability Action Center indicated that the tri-county region lacks affordable housing and permanent supportive housing. Many low-income residents face barriers acquiring housing due to poor credit, poor rental histories, income requirements, and felony records. Single mothers, senior women, and residents who are precariously housed could benefit from robust services and programs to complement housing.

C. RACIALLY AND ETHNICALLY CONCENTRATED AREAS OF POVERTY (R/ECAP)

The third section of the Assessment of Fair Housing addresses racially and ethnically concentrated areas of poverty (R/ECAP).

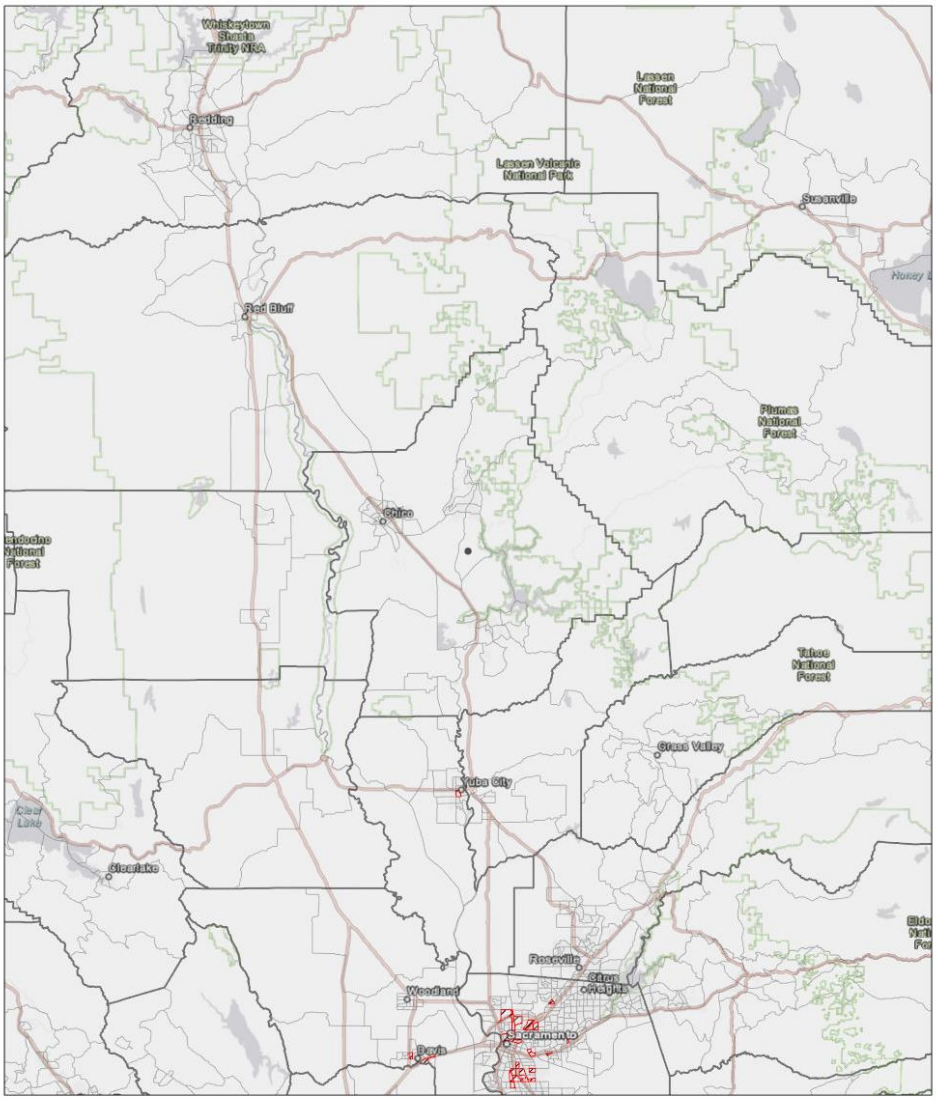
Local and Regional Patterns and Trends

This section includes data tables, narratives, and maps to illustrate local and regional patterns and trends regarding racially and ethnically concentrated areas of poverty. For the purposes of this analysis, racially and ethnically concentrated areas of poverty include R/ECAP areas, areas of high segregation and poverty, and racial or ethnic concentrations of people of color or people who identify as White.

R/ECAP Areas

The map *"~~Butte County~~Butte County, R/ECAP, 2020"* depicts block group data on racially or ethnically concentrated areas of poverty, which are areas 50 percent or more of the population is nonwhite and 40 percent or of people are living below the poverty threshold. Areas outlined in red experience high levels of racial or ethnic concentrations of poverty. As depicted below, the ~~Butte County~~Butte County does not have any of these areas.

Figure 11: ~~Butte County~~Butte County, R/ECAP Areas, 2020



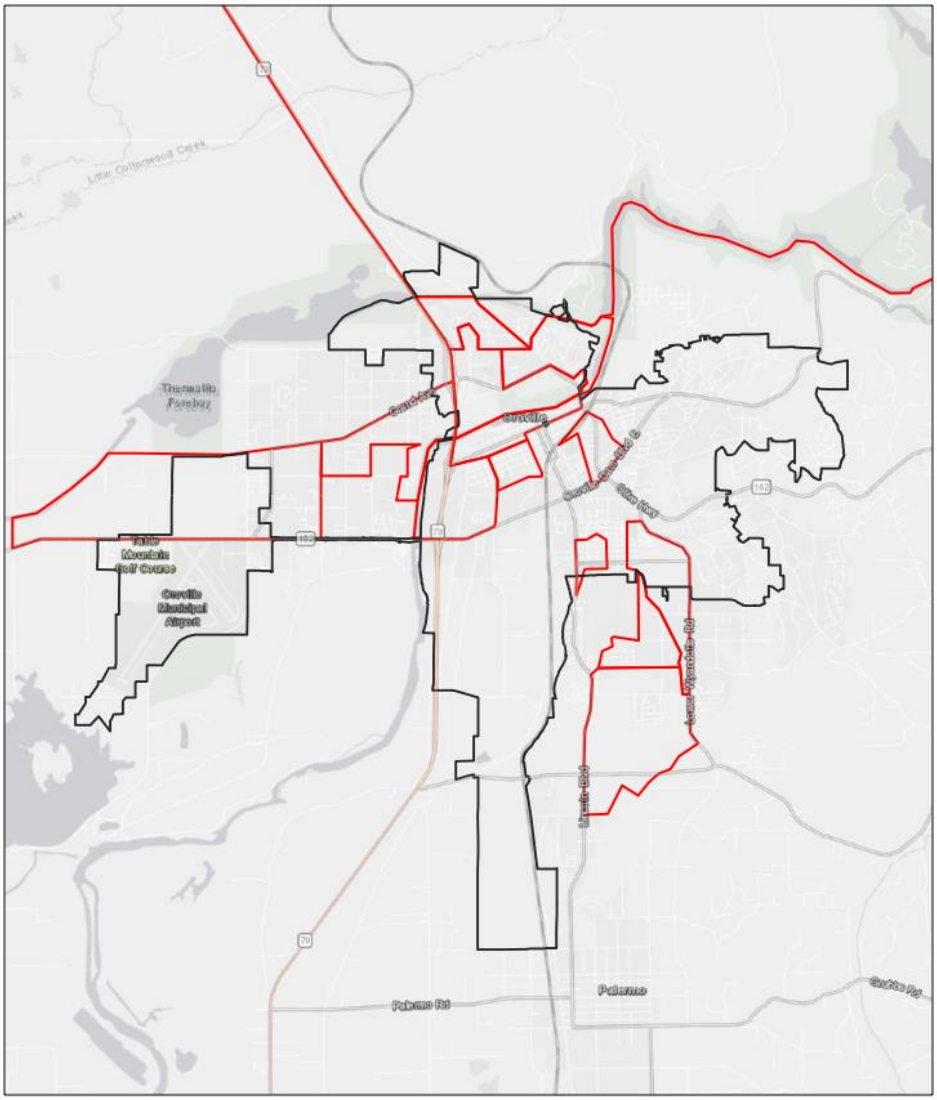
Racially Concentrated Areas of Affluence

Racially Concentrated Areas of Affluence (RCAA) are areas that have a high proportion of white, affluent residents and a low proportion of people of color and low-income residents. RCAAs tend to have better access to resources such as schools, jobs, healthcare, and higher property values. Because all areas of the ~~City~~City of Oroville have a median income lower than the State's average, there are no racially concentrated areas of affluence.

Tax Credit Allocation Committee (TCAC) Areas

The Department of Housing and Community Development and the California Tax Credit Allocation Committee created a group of organizations and researchers called the California Fair Housing Task Force to identify areas in every region that have been shown by research to support positive economic, educational, and health outcomes for children as well as areas that experience high segregation and poverty. Areas outlined in red meet standards for poverty and racial segregation, in which 30% or more of the population is below the poverty line and there is an overrepresentation of people of color relative to the county within that block group. The ~~City~~City of Oroville has several block groups that experience high segregation and poverty, which are in Census Tracts 25, 28, 30.01, and 30.02, and 37.

Figure 12: ~~City~~City of Oroville, Areas of High Segregation and Poverty Map, 2020



Summary of Findings

The findings indicate that there are no R/ECAP areas, however, there are several areas within the ~~City~~City that experience high levels of segregation and poverty. These areas are primarily located in Census Tracts 25, 28, 30.01, and 30.02, and 37. Census Tracts 25, 29, 30.01, 30.02, and 33 experienced the largest increases in diversity in 2019 compared to 2010. These findings suggest that Census Tracts 25, 30.01, and 30.02 are areas in which concentrations of diversity and poverty is substantially growing. There are no racially concentrated areas of affluence.

D. DISPARITIES IN ACCESS TO OPPORTUNITY

The fourth section of the Assessment of Fair Housing addresses disparities in access to opportunity. "Access to opportunity is a concept to approximate place-based characteristics linked to critical life outcomes. Access to opportunity oftentimes means both improving the quality of life for residents of low-income communities, as well as supporting mobility and access to 'high resource' neighborhoods" *(California State Department of Housing and Community Development, Affirmatively Furthering Fair Housing, 2021).*

Local and Regional Patterns and Trends

This section includes data tables, narratives, and maps to illustrate local and regional patterns and trends regarding disparities in access to opportunity. For the purposes of this analysis, disparities in access to opportunity include economic opportunity scores, environmental scores, educational opportunity, proximity to jobs, commuting patterns, and occupational data.

Access to Opportunity

The California Fair Housing Task Force created an opportunity map to identify regions whose characteristics have been shown by research to support positive economic, educational, and health outcomes for low-income families, particularly long-term outcomes for children. The maps below ~~provides~~provide composite scores for each block group as well as economic scores, education scores, and environmental scores.

Access to Opportunity, Composite Score

The map, *"~~City~~City of Oroville, Access to Opportunity, 2021"* depicts block group level data on disparity in access to opportunity in the ~~City~~City of Oroville.

The map indicates that most areas in the ~~City~~City of Oroville are low resource areas or areas of high segregation and poverty, as mentioned earlier. Several areas have missing or insufficient

data. Block Group 6, located at the northeast end of the ~~City~~City in Census Tract 27, is considered a moderate resource area.

In comparison, Chico and northern parts of ~~Butte County~~Butte County are considered high and highest resources areas, eastern parts of the County are low resource areas, and western parts of the County are moderate resource areas. In comparison to ~~Butte County~~Butte County, the ~~City~~City of Oroville is an area with significantly fewer resources.

Figure 13: ~~City~~City of Oroville, Access to Opportunity Map, 2021

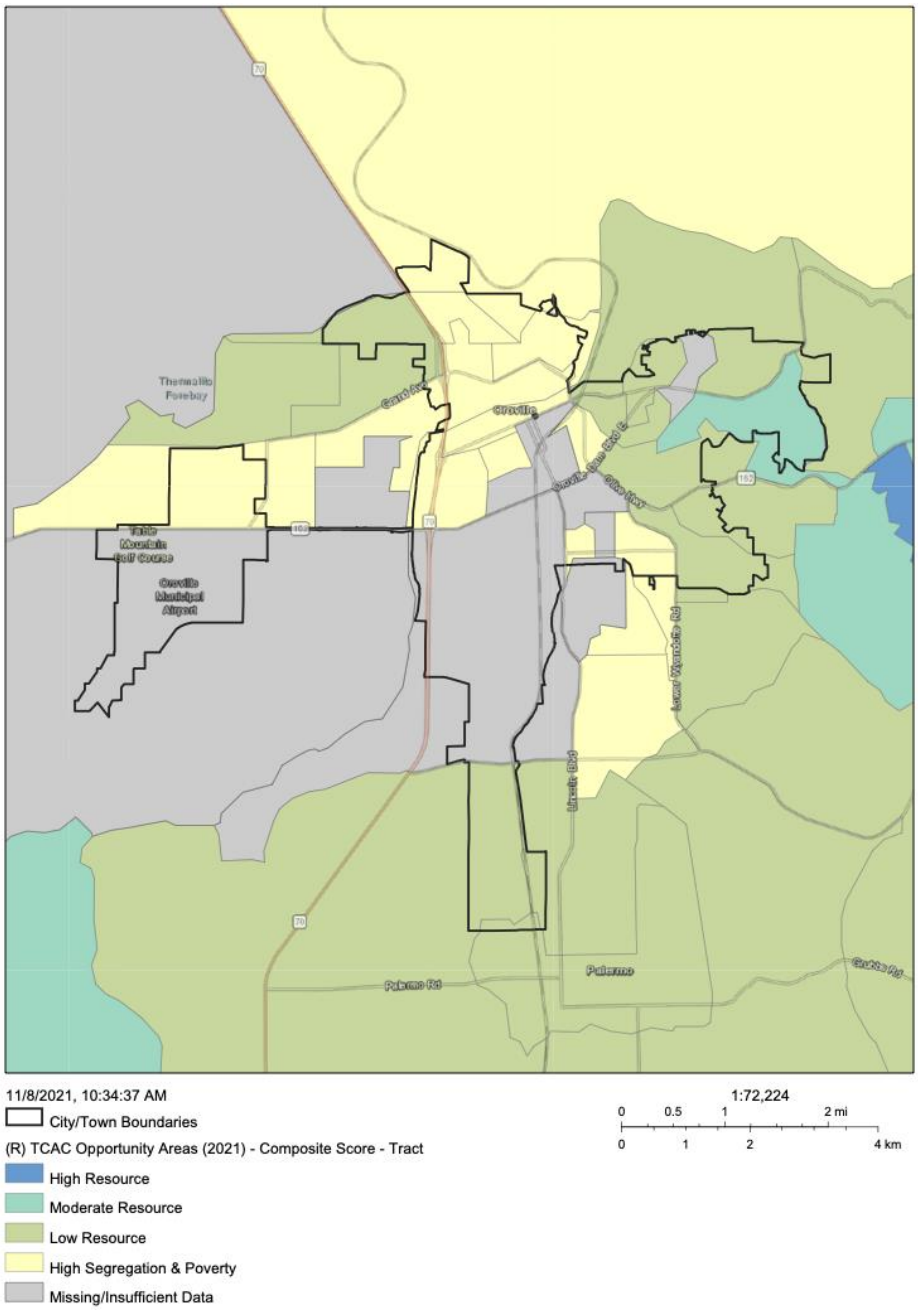
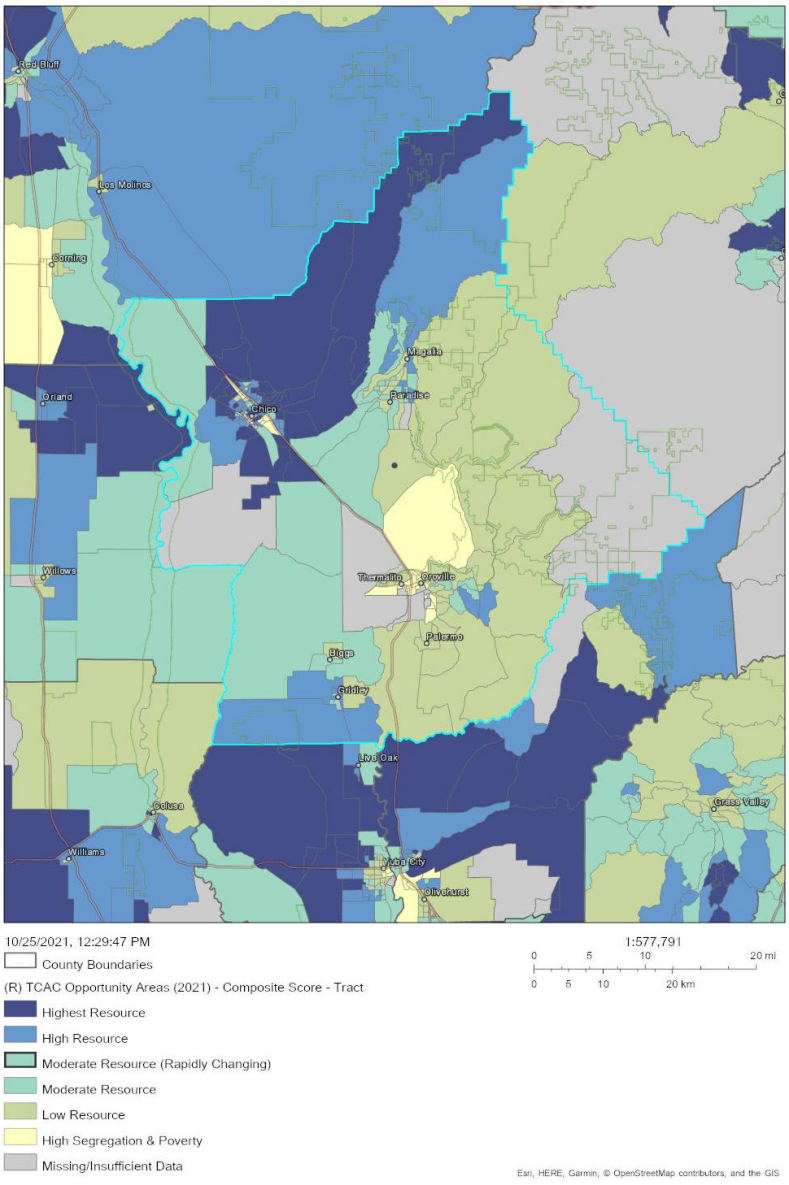


Figure 13.1: ~~Butte County~~Butte County, Access to Opportunity Map, 2021



Access to Economic Opportunity

The map, *"~~City~~City of Oroville, Economic Opportunity, 2021"* depicts block group level data on disparity in access to economic opportunity in the ~~City~~City of Oroville. The map indicates that residents in most parts of the ~~City~~City experience the least positive economic outcome, except for a few areas in Census Tract 27 and 29, where economic outcomes are slightly more positive. Block Group 6 located in Census Tract 27 has the most positive economic outcome in the entire ~~City~~City.

The map, *"~~Butte County~~Butte County, Access to Economic Opportunity, 2021"* depicts census tract level data in ~~Butte county~~Butte County based on economic scores. Generally, the northwest portion of the county around Chico is identified as "more positive economic outcome" and the east and south portions of the county near Biggs, Gridley, Magalia, Oroville, and Paradise are identified as "less positive economic outcome" (*HCD AFFH Data Resources and Mapping Tool: 2021 TCAC).*

Economic scores are calculated by data indicators of poverty, adult education, employment, job proximity, and median home value found in the U.S. Census 2014-2018 American Community Survey and the U.S. Census 2017 Longitudinal Employer-Household Dynamics. Scores based on these indicators range from less positive economic outcome to more positive economic outcome. How data indicators are measured is detailed below *(California Fair Housing Task Force, 2021 TCAC/HCD Opportunity Map Methodology, December 2020).*

- **Poverty:** Percent of population with income above 200% of federal poverty line
- **Adult education:** Percent of adults with a bachelor's degree or above
- **Employment:** Percent of adults aged 20-64 who are employed in the civilian labor force or in the armed forces
- **Job proximity:** Number of jobs filled by workers with less than a bachelor's degree that fall within a given radius (determined by the typical commute distance of low-wage workers in each region) of each census tract population-weighted centroid
- **Median home value:** Value of owner-occupied homes

Figure 13.2: ~~City~~City of Oroville, Access to Economic Opportunity Map, 2021

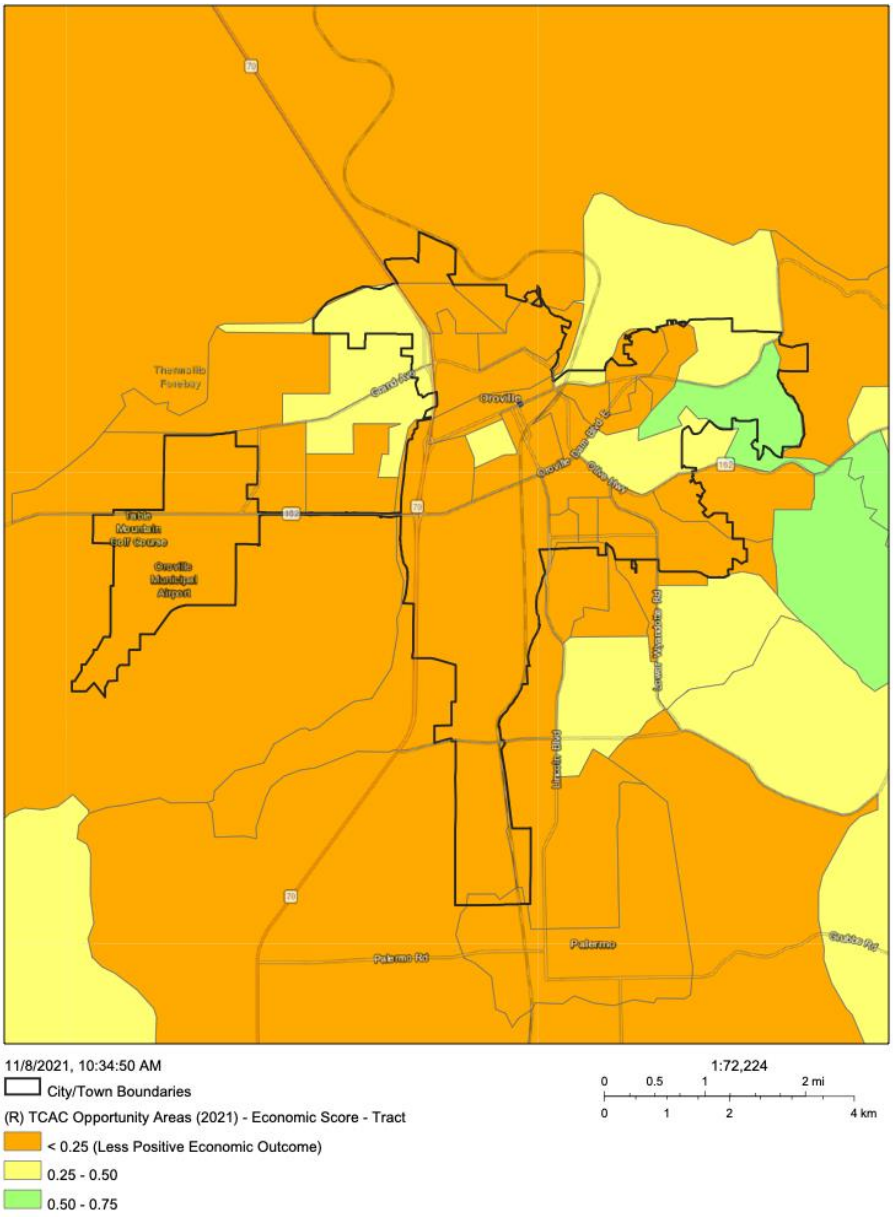
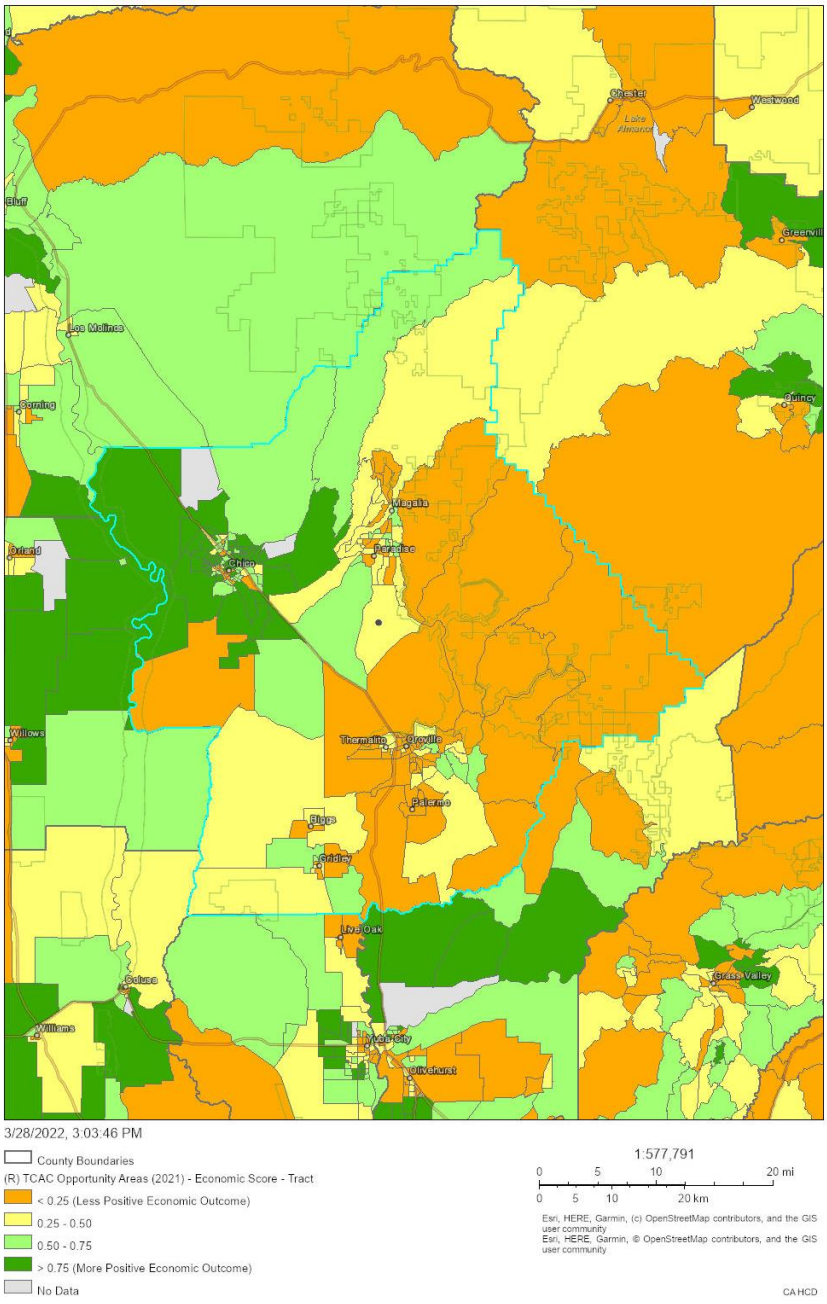


Figure 13.3: ~~Butte County~~Butte County, Access to Economic Opportunity Map, 2021



Access to Environmental Opportunity

The map, *"~~City~~City of Oroville, Environmental Score, 2021"* depicts block group level data on disparity in environmental scores in the ~~City~~City of Oroville. The map indicates that residents in Census Tract 25, 27, 29, and 31 experience the most positive environmental outcomes in the ~~City~~City. Residents in Census Tracts 30.01, 20.02, 33, and 37 experience the least positive environmental outcomes.

The map, *"~~Butte County~~Butte County, Environmental Score, 2021"* depicts census tract level data in ~~Butte county~~Butte County based on environmental scores. Generally, the portions of the county that are more mountainous and less populated are identified as having "more positive environmental outcomes." These areas are located east of Chico, north of Magalia, and east of Magalia, Paradise, and Oroville. North and west county around Chico and between Chico and Oroville are identified as having "less positive environmental outcomes." The very east corner of the county is also identified as having "less positive environmental outcomes" (*HCD AFFH Data Resources and Mapping Tool: 2021 TCAC).*

Environmental scores are calculated by data indicators of pollution, exposures, and environmental effect from CalEnviroScreen 3.0. Scores based on these indicators range from less positive environmental outcomes to more positive environmental outcomes. How data indicators are measured is detailed below *(California Fair Housing Task Force, 2021 TCAC/HCD Opportunity Map Methodology, December 2020).*

- CalEnviroScreen 3.0: Variables include Ozone, PM2.5, Diesel PM, Drinking Water, Pesticides, Tox. Release, Traffic, Cleanup Sites, Groundwater Threats, Hazardous Waste, Impaired Water Bodies, and Solid Waste Sites

Figure 13.4: ~~City~~City of Oroville, Environmental Score, 2021

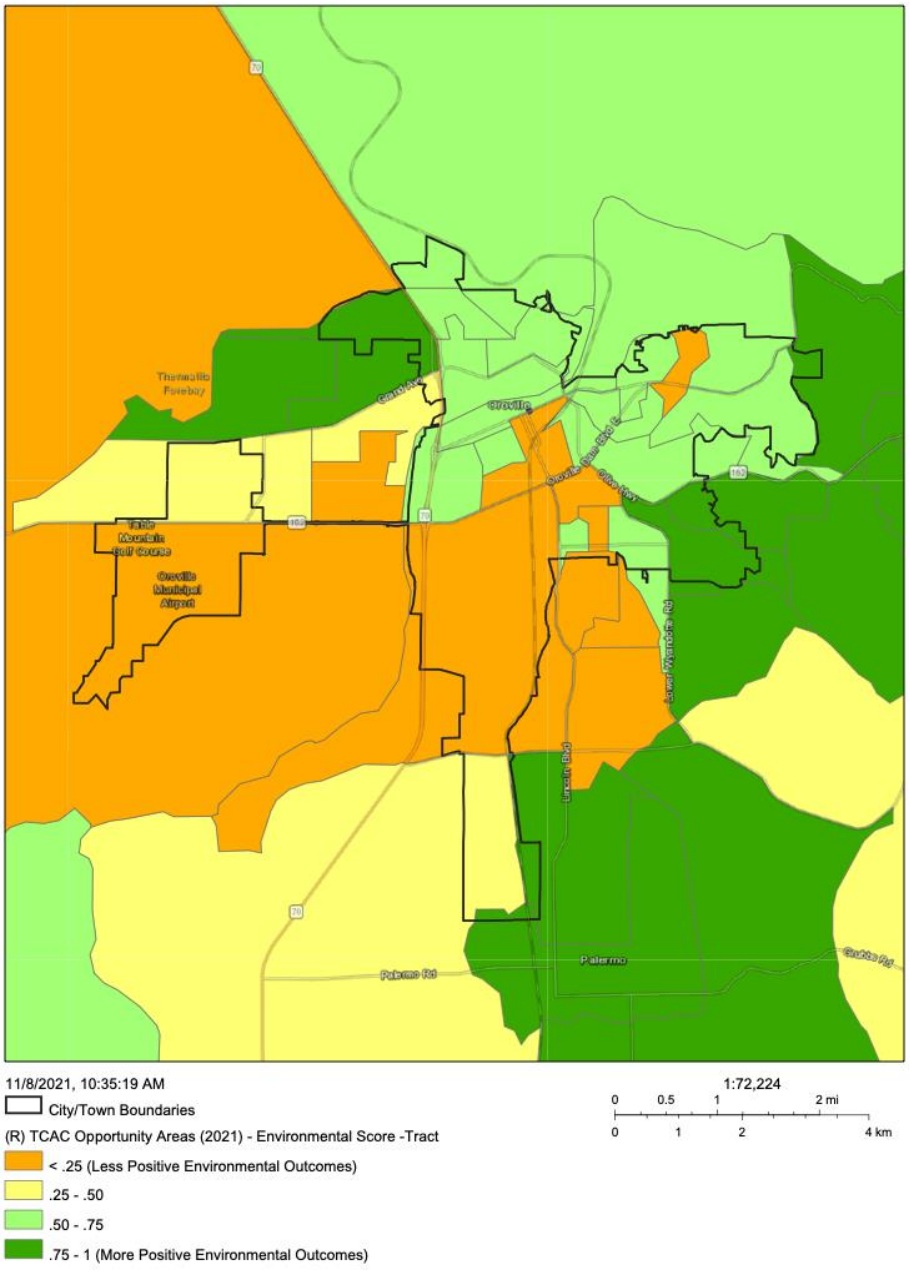
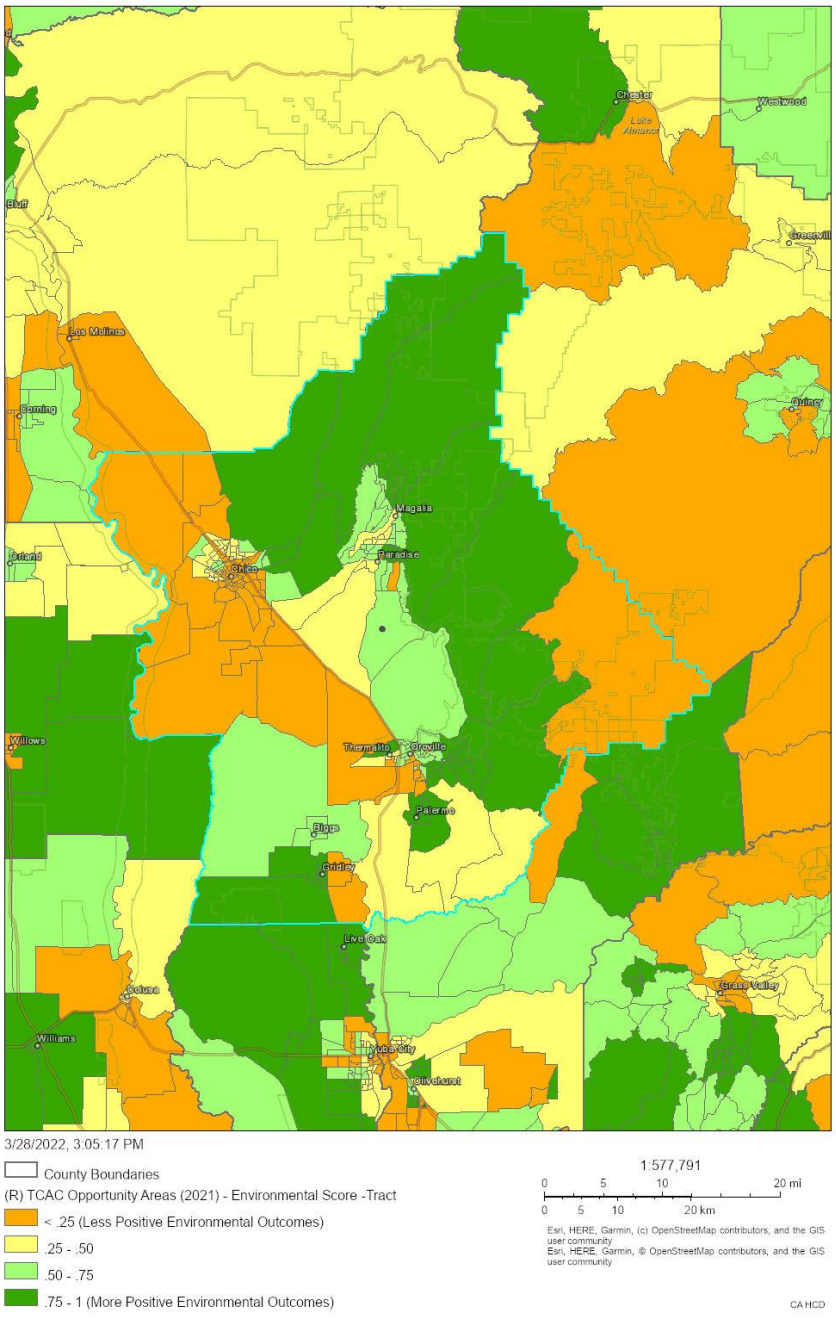


Figure 13.5: ~~Butte County~~Butte County, Environmental Score, 2021



Access to Educational Opportunity

The map, *"~~City~~City of Oroville, Educational Opportunity, 2021"* depicts block group level data on disparity in access to educational opportunity in the ~~City~~City of Oroville. The map indicates that residents in all of the census tracts that encompass the ~~City~~City experience the least positive education outcomes, except residents residing in Census Tract 33. Residents in this part of the ~~City~~City experience slightly more positive education outcomes.

The map, *"~~Butte County~~Butte County, Educational Opportunity, 2021"* depicts census tract level data in ~~Butte county~~Butte County based on education scores. Generally, the north portions of the county around Chico, and between Chico and Magalia including the communities of Butte Creek Canyon, Cohasset, and Forest Ranch (not listed on map), are identified as "more positive education outcome." The east and south portions of the county near Oroville, Palermo, and Thermalito, and between Oroville and Paradise, are identified as "less positive education outcome" (*HCD AFFH Data Resources and Mapping Tool: 2021 TCAC).*

Education scores are calculated by data indicators of math proficiency, reading proficiency, high school graduation rates, and student poverty rate from the 2018-2019 California Department of Education. Scores based on these indicators range from less positive education outcomes to more positive education outcomes. How data indicators are measured is detailed below *(California Fair Housing Task Force, 2021 TCAC/HCD Opportunity Map Methodology, December 2020).*

- **Math proficiency:** Percentage of 4th graders who meet or exceed math proficiency ~~standards~~standards.
- **Reading proficiency:** Percentage of 4th graders who meet or exceed literacy ~~standards~~standards.
- **High school graduation rates:** Percentage of high school cohort that graduated on ~~time~~time.
- **Student poverty rate:** Percent of students not receiving free or reduced-price ~~lunch~~lunch.

Figure 13.6: ~~City~~City of Oroville, Educational Opportunity, 2021

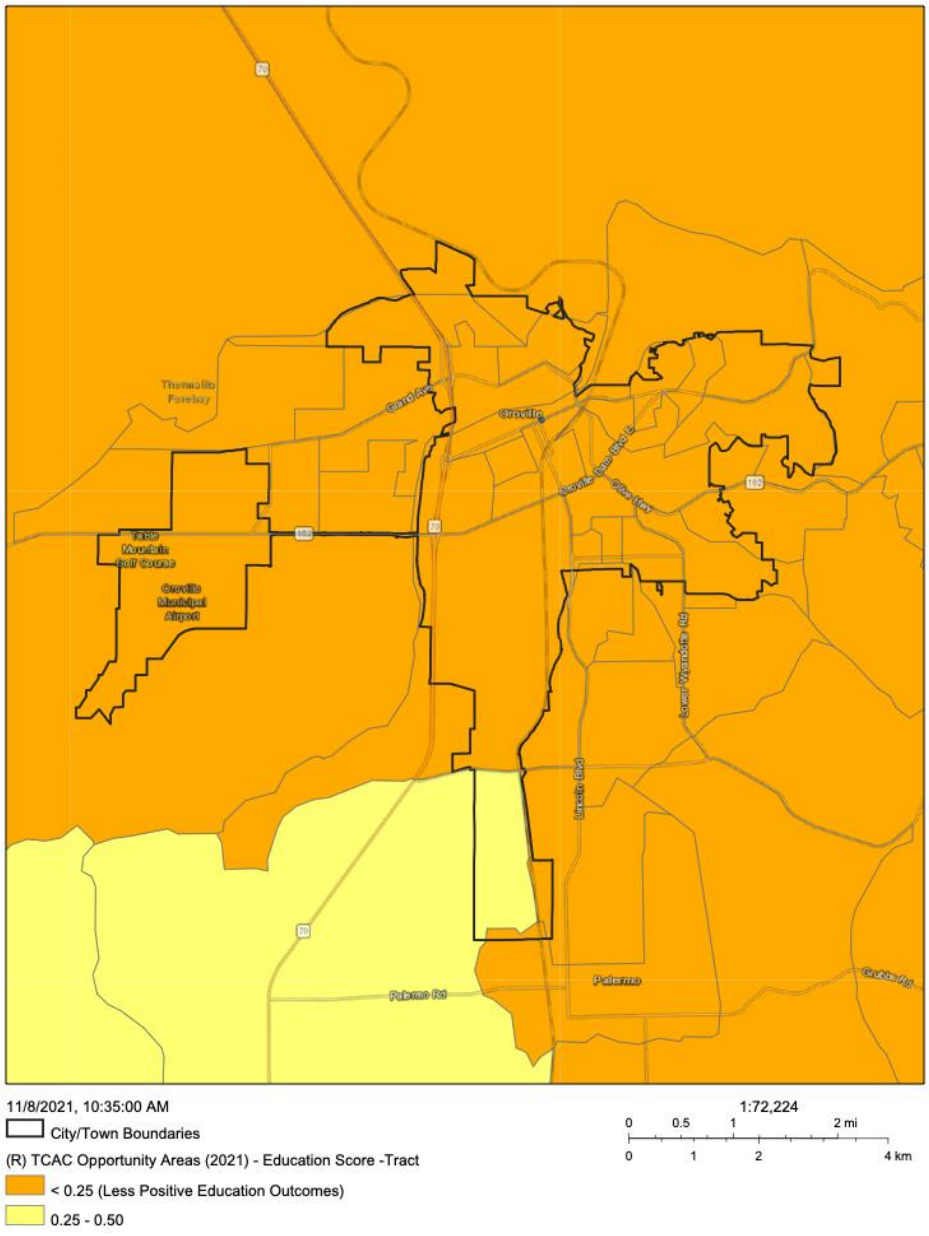
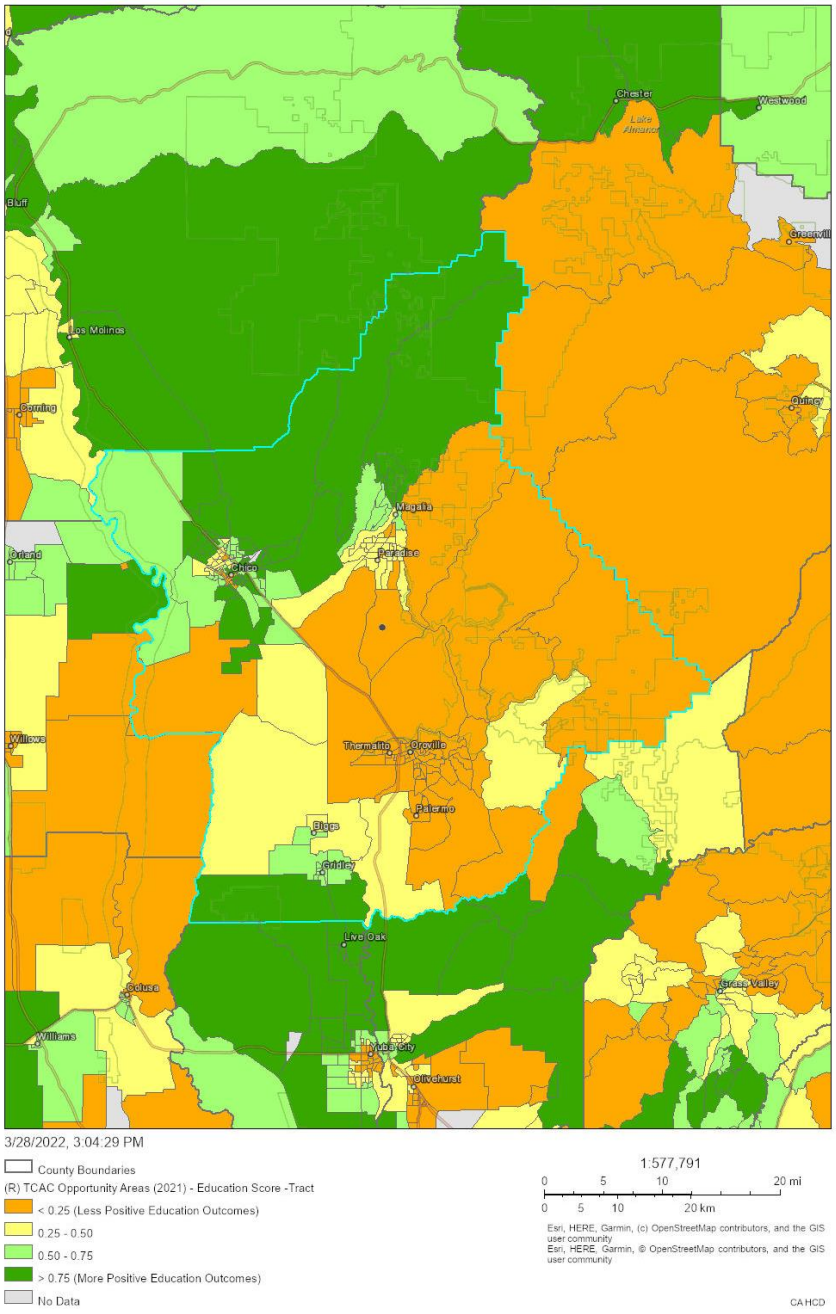


Figure 13.7: ~~Butte County~~Butte County, Educational Opportunity, 2021



Proximity to Jobs

The map *"~~City~~City of Oroville, Job Proximity Index, 2017"* depicts block group data on residents' proximity to jobs in the ~~City~~City of Oroville. The Jobs Proximity Index scores the accessibility of a given neighborhood to all job locations within an area. The index weighs the distance to employment centers, the amount of employment opportunities, and the competition for jobs.

Proximity to jobs in the ~~City~~City varies from furthest proximity to closest proximity. On average, residents in Census Tract 30.02 are in the closest proximity to jobs followed by residents in Census Tract 28 who are in relatively close proximity to jobs. Residents in Census Tract 33 have low proximity to jobs while residents in Census Tract 29 are in the furthest proximity from jobs. Residents in Census Tract 27 have moderate access to jobs.

In comparison, the map *"~~Butte County~~Butte County, Job Proximity Index, 2017"* illustrates that nearly half of ~~Butte County~~Butte County is in furthest proximity to jobs with index scores less than 20. These scores are concentrated in the eastern parts of the County. In contrast, many areas in the western parts of the County are in close or closest proximity to jobs. It is important to note that the block groups that cover unincorporated areas of ~~Butte County~~Butte County are geographically larger than the block groups closer to the County's cities. Therefore, a resident may reside in a block group with a high index score but still have a significant commute to work.

Figure 14: ~~City~~City of Oroville, Job Proximity Index, 2017

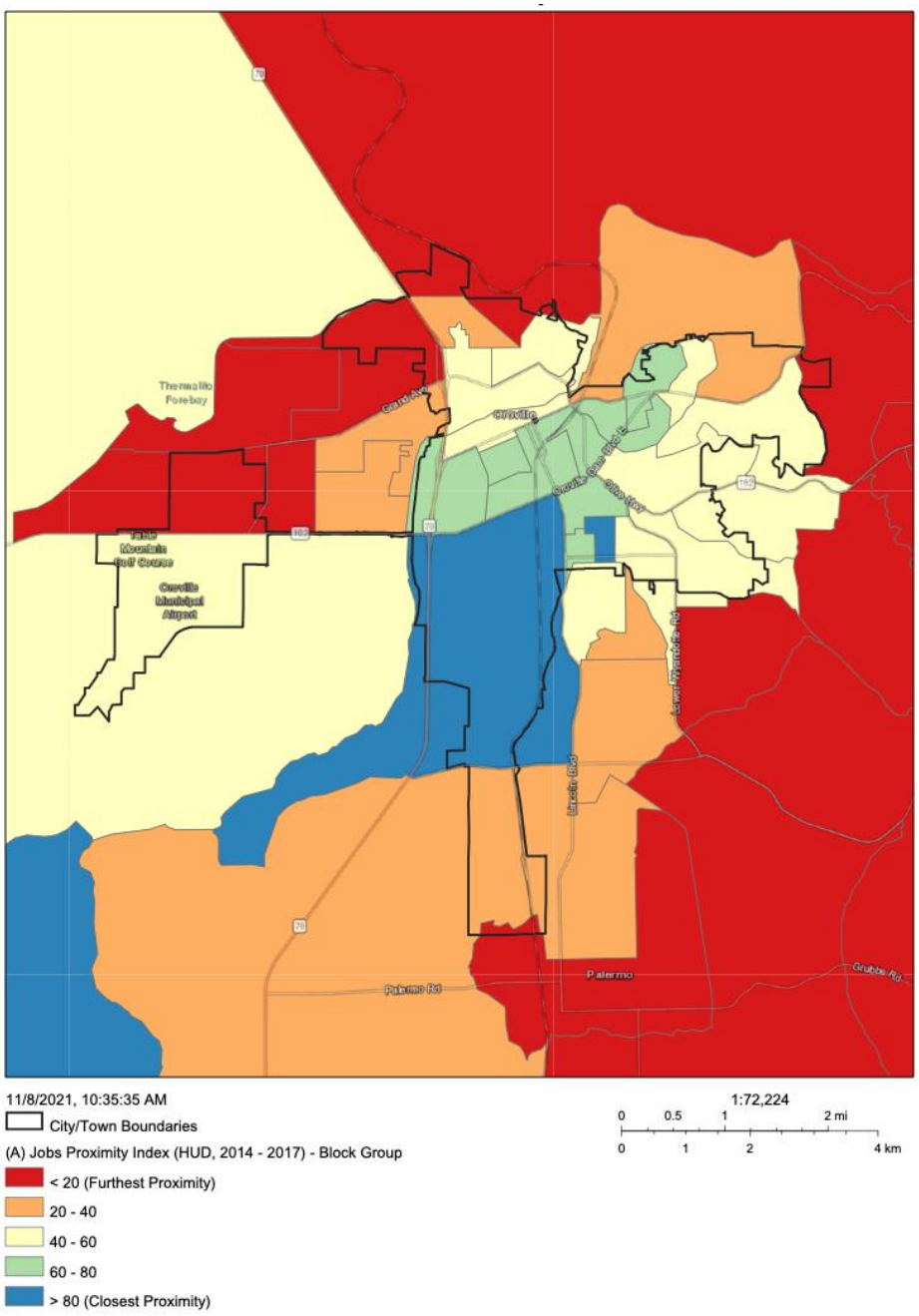
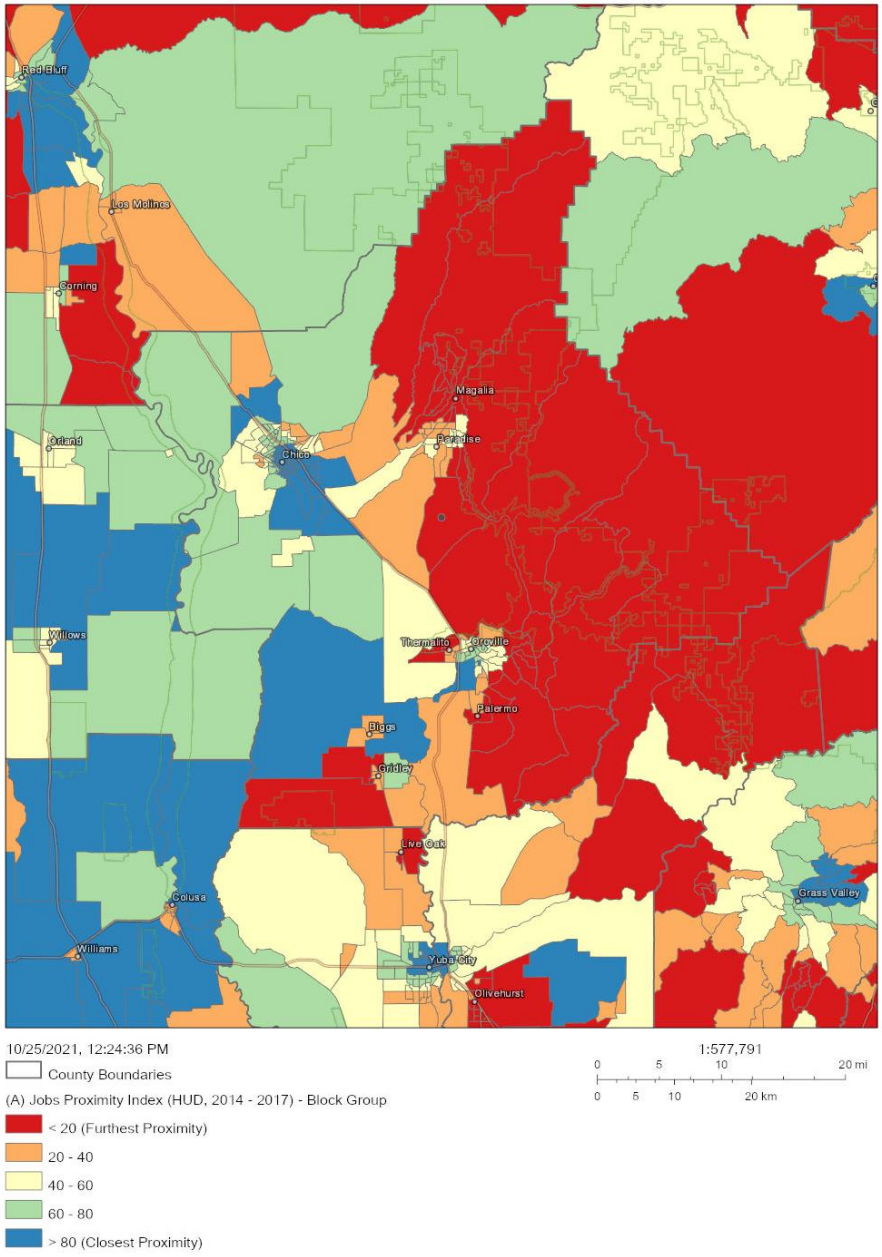


Figure 14.1: ~~Butte County~~Butte County, Job Proximity Index Map, 2017



Commuting Patterns

The table *"~~City~~City of Oroville and ~~Butte County~~Butte County, Commuting Data, 2019"* depicts data on commuting patterns for residents in the ~~City~~City of Oroville and ~~Butte County~~Butte County in 2019. In both the ~~City~~City of Oroville and ~~Butte County~~Butte County, a little over 70% of the working population drove alone to work. Approximately 15% of workers carpooled in the ~~City~~City of Oroville, which is slightly higher than the number of residents that carpooled in ~~Butte County~~Butte County. A significantly large portion of residents, or 46% of residents, work outside their place of residence, indicating that the ~~City~~City of Oroville is a commuter town. Interviews with local organizations indicate that many of these residents are employed in Chico.

The mean travel time to work is 19.1 minutes in the ~~City~~City of Oroville and 20.9 in ~~Butte County~~Butte County. Half of the residents in the ~~City~~City of Oroville have a commute time of 14 minutes or less, which is slightly more than ~~Butte County~~Butte County. Commute times in Oroville are similar to ~~Butte County~~Butte County.

Figure 15: ~~City~~City of Oroville and ~~Butte County~~Butte County, Commuting Data Table, 2019

	~~City~~City of Oroville	~~Butte County~~Butte County
WORKERS 16 YEARS AND OVER	6,050	93,125
MEANS OF TRANSPORTATION TO WORK		
Drove alone in a car, truck, or van	72.9%	75.9%
Carpooled	14.8%	10.8%
PLACE OF WORK		
Worked in county of residence	91.9%	90.6%
Worked outside county of residence	8.1%	9.2%
Worked in place of residence	53.8%	47.8%
Worked outside place of residence	46.2%	39.1%
Not living in a ~~city~~City, town, or census-designated place	0%	13.1%
TRAVEL TIME TO WORK		
Mean travel time to work (minutes)	19.1	20.9
Less than 10 minutes	30%	23.1%
10 to 14 minutes	23.2%	22.7%
15 to 19 minutes	10%	16.3%
20 to 24 minutes	7.7%	8.2%
25 to 29 minutes	3.4%	5.2%
30 to 34 minutes	15.8%	11.3%
35 to 44 minutes	1.6%	3.3%
45 to 59 minutes	2.6%	4.3%
60 or more minutes	5.8%	5.7%

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Occupations and Earnings

The table *"~~City~~City of Oroville and ~~Butte County~~Butte County, Occupations by Number of Persons and Median Earnings, 2015 and 2019"* compares 2015 data to 2019 data on occupation and median earnings for the ~~City~~City of Oroville and ~~Butte County~~Butte County. In this case, 2015 data was used instead of 2010 data because it was the oldest dataset available. According to the

U.S. Bureau of Labor Statistics, the rate of inflation increased by 7.7% from 2015 to 2019. As of 2019, median earnings were $25,509. “Management, business, science, and arts occupations” earned the highest median earnings at $49,557 whereas “service occupations” earned the lowest at $16,219.

The ~~City~~City experienced overall decreases in median earnings for all employment sectors, ~~with the exception of~~except for “Management, business, science, and arts occupations,” which increased by $9,889. In comparison, ~~Butte County~~Butte County had higher median earnings overall and saw increases in the median earnings of all employment sectors. These factors indicate that the economic prosperity of all residents may have significantly decreased in recent years.

Overall median earnings decreased by $955 in the ~~City~~City and increased by $4,489 in ~~Butte County~~Butte County in 2019 compared to 2015. ~~Butte County~~Butte County experienced 8% growth in the employed population or an increase of 6,684 employed individuals within that period.

Figure 16: ~~City~~City of Oroville and ~~Butte County~~Butte County, Occupations and Earnings, 2019

Occupation	~~City~~City of Oroville					~~Butte County~~Butte County				
	2015		2019		2015-2019	2015		2019		2015-2019
	Number of Persons	Median Earnings	Number of Persons	Median Earnings	Total Change	Number of Persons	Median Earnings	Number of Persons	Median Earnings	Total Change
Civilian employed population 16 years and over	N/A	$26,464	N/A	$25,509	-$955	89,411	$26,752	96,095	$31,241	+$4,489
Management, business, science, and arts occupations	N/A	$39,688	N/A	$49,577	+$9,889	30,898	$46,339	$35,393	$53,166	+$6,827
Service occupations	N/A	$18,562	N/A	$16,219	-$2,343	20,843	14,449	20,530	$16,715	+$2,266
Sales and office occupations	N/A	$21,719	N/A	$26,386	-$4,667	21,162	$24,044	20,278	$26,750	+$2,706
Natural resources, construction, and maintenance occupations	N/A	$34,408	N/A	$31,538	-$2,870	8,158	$30,649	8,591	$36,409	+$5,760
Production, transportation, and material moving occupations	N/A	$28,221	N/A	$21,310	-$6,911	8,350	$27,045	11,303	$27,580	+$535

Local Data and Knowledge

Local data and knowledge is collected through interviews with regional stakeholders whose service areas include the ~~City~~City of Oroville.

North Valley Housing Trust

On October 25, 2021, the authors conducted a phone interview with a staff member from the North Valley Housing Trust, which is an independent funding tool for locally driven affordable housing solutions in Northern California. The North Valley Housing Trust's office ~~is located in~~is in Chico. The staff member also assists in organizing the Safe Space Winter Shelter in Chico and is a local realtor.

Staff commented that ~~Butte County~~Butte County first-time homebuyers who can afford are home are often unable to find one because they are competing with all-cash offers in a competitive housing market. Those that have settled in satellite communities around Chico, including Oroville, where housing is more affordable, often become cost-burdened with increased transportation costs.

Extremely low-income households are unable to afford deposits, provide rental histories, or pay utility bills, which inhibits their ability to secure rental housing. They also have difficulty finding housing that meets their needs, which includes studios or one-bedrooms. Renters of all income backgrounds are facing price gouging, which involves large increases in rent exceeding 10% of the current cost. Executive Order No. N-85-20 issued by Governor Newsom protects counties impacted by wildfires from price gouging, but some residents do not have the resources to take legal action. Staff noted a rental registry could be beneficial in tracking rents and preventing price discrimination in the region.

Developers are having difficulty finding the finances or funds to get projects off the ground. The local governments in the region do not have the staff to apply for State or Federal funding sources which are complicated and can require costly consulting services. Policies such as the competitive public bid process, costly local utility requirements, or environmental reviews are especially prohibitive for small developers.

Other Relevant Factors

Education

HCD guidance for the Assessment of Fair Housing: Access to Opportunity section calls for data on educational disparities using school performance data from the California Department of Education's the California School Dashboard database.

Figure 16.1: ~~City~~City of Oroville, Performance Level by State Indicator, 2019 shows grades served and performance level on six state indicators for each school located within the ~~City~~City of Oroville. The

most recent available data is from 2019. The six state indicators are as follows: chronic absenteeism, suspension rate, graduation rate, college/career, and academic (which includes performance in English language arts/literacy and mathematics). Performance for these measures is based on current year results and whether results improved from the prior year. Performance on state measures, using comparable statewide data, is represented by one of five colors. The performance level (color) is not included when there are fewer than 30 students in any year (i.e. N/A). The order of colors from highest performance to lowest performance is as follows:

- Blue (highest performance)
- Green
- Yellow
- Orange
- Red (lowest performance)

(California Department of Education, California School Dashboard, 2019).

When considering the locations of schools and performance levels of the schools from Figure 15, the authors can then compare to **Figure 13: ~~City~~City of Oroville, Access to Opportunity, 2021** to conduct an analysis on educational disparities as it relates to access to opportunity. Figure 13 depicts census tract level data on access to opportunity in the ~~city~~City of Oroville based on composite scores of economic, education, and environmental scores. As mentioned earlier in the analysis, 13 of 14 census tracts in the ~~City~~City are areas of TCAC areas of high segregation and poverty or low resources.

There are 39 schools located in Oroville according to the California Schools Dashboard. It is important to note that school performance data is limited. As depicted in Figure 15, numerous data indicators are not available for schools, such as English Learn Progress and College/ Career readiness. Therefore, the conclusions of this analysis are limited and may not accurately depict school performance due to the very limited data available.

The majority of Oroville schools score relatively poorly in relation to other schools in the state in measures of chronic absenteeism and suspension rates, ranging from red to orange, with the exception of STREAM charter. Many schools also score relatively low scores in suspension rates, ranging from red to orange with the exception of Bird Street Elementary, Hearthstone School, and Poplar Avenue Elementary. High suspension rates and chronic absenteeism is correlated with poor academic performance. Many schools range from red to orange on English and Language Arts and Mathematics performance indicators. In conclusion, most Oroville schools score relatively low in performance in comparison to other schools in the state.

STREAM charter has the best overall performance scores in the ~~City~~City of Oroville, scoring green in chronic absenteeism, orange in suspension rate, blue in English and Language arts and green in mathematics. STREAM charter is located just South of East Oroville Dam Blvd, which does not have a TCAC opportunity score due to missing/insufficient data. Therefore, the authors of this report cannot make conclusions based on missing information.

Because the ~~City~~City of Oroville primarily consists of “high segregation and poverty” and “low resource” areas, the geographic location of schools has marginal to no impacts on their access to opportunity. Furthermore, most schools have relatively low performance scores. Thus, this analysis concludes that there are no significant educational disparities that correlate to access to opportunity as defined by TCAC.

Figure 16.1: ~~City~~City of Oroville, Performance Level by State Indicator, 2019

School Name	Grades Served	Chronic Absenteeism	Suspension Rate	English Learner Progress	Graduation Rate	College/ Career	English Language Arts	Mathematics
Nelson Avenue Middle	6-8	Yellow	Orange	N/A	N/A	N/A	Orange	Orange
Feather Falls Union Elementary	K-12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prospect High Continuation	9-12	N/A	Yellow	N/A	Yellow	Red	N/A	N/A
Helen M. Wilcox Elementary	K-3	Yellow	Yellow	N/A	N/A	N/A	Yellow	Yellow
Pioneer Community Day	1-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ophir Elementary	K-5	Orange	Orange	N/A	N/A	N/A	Green	Yellow
Stanford Avenue Elementary	K-5	Red	Yellow	N/A	N/A	N/A	Yellow	Yellow
Las Plumas High	9-12	N/A	Orange	N/A	Yellow	Yellow	Green	Yellow
Golden Hills Elementary	4-5	Orange	Red	N/A	N/A	N/A	Orange	Orange
Honcut	K-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Feather Falls Elementary	K-8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wyandotte Academy	K-5	Orange	Yellow	N/A	N/A	N/A	Yellow	Yellow
Oroville Union High	9-Adult	N/A	Orange	N/A	Yellow	Yellow	Green	Yellow
Come Back Butte Charter	9-12	N/A	Blue	N/A	Red	Orange	N/A	N/A
Table Mountain	K-12	N/A	Blue	N/A	N/A	N/A	N/A	N/A
Concow Elementary	K-8	Red	Red	N/A	N/A	N/A	N/A	N/A

Ishi Hills Middle	6-8	Orange	Orange	N/A	N/A	N/A	Yellow	Yellow
Bird Street Elementary	K-3	Red	Green	N/A	N/A	N/A	N/A	N/A
Ipakanni Early College Charter		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Golden Feather Union Elementary	K-8	Red	Red	N/A	N/A	N/A	N/A	N/A
Hearthstone School	K-12	Yellow	Blue	N/A	Green	Yellow	Yellow	Orange
Heritage Community Day	4-8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Berry Creek Elementary	K-8	Orange	Orange	N/A	N/A	N/A	N/A	N/A
~~Butte County~~Butte County Special Education	K-12	Orange	Red	N/A	N/A	N/A	N/A	N/A
Oroville ~~City~~City Elementary	P-8	Orange	Yellow	N/A	N/A	N/A	Yellow	Yellow
BASES Learning Center		N/A	N/A	N/A	N/A	N/A	N/A	N/A
STREAM Charter	K-8	Green	Orange	N/A	N/A	N/A	Blue	Green
Oakdale Heights Elementary	K-5	Red	Yellow	N/A	N/A	N/A	Red	Orange
Sierra Avenue Elementary	K-5	Red	Yellow	N/A	N/A	N/A	Red	Orange
Sierra Del Oro Inclusive Preschool	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A
~~Butte County~~Butte County Office of Education	K-12	Orange	Orange	N/A	N/A	N/A	N/A	N/A
Thermalito Union Elementary	K-8	Yellow	Orange	N/A	N/A	N/A	Orange	Orange
Poplar Avenue Elementary	K-5	Orange	Green	N/A	N/A	N/A	Orange	Orange

Pioneer Union Elementary	K-8	Orange	Orange	N/A	N/A	N/A	N/A	N/A
Oroville Adult Education Center	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Central Middle	5-8	Yellow	Orange	N/A	N/A	N/A	Orange	Red
Oroville High Community Day	9-12	N/A	Orange	N/A	N/A	N/A	N/A	N/A
Oroville High	9-12	N/A	Orange	Green	Green	Yellow	Yellow	Yellow
Plumas Avenue Elementary	K-5	Orange	Yellow	N/A	N/A	N/A	Green	Yellow

Source: California Department of Education, California School Dashboard, 2019

Public Transportation

The ~~City~~City of Oroville's public transportation system includes bus services but does not include air or train services. Residents can access Butte Regional Transit (B-Line) services, which is operated by the ~~Butte County~~Butte County Association of Governments and provides both fixed-route and shared paratransit services.

The B-line bus service provides inter~~city~~city transportation within Oroville and regional transportation to Biggs, Chico, Gridley, and Paradise. In an interview with the ~~Butte County~~Butte County Association of Governments, staff reported that all fixed route and paratransit buses are ADA compatible. However, some of Oroville's bus stops do not provide ADA-compliant facilities, bus-route maps, or shelters to protect riders *(Balanced Mode Circulation Plan, ~~City~~City of Oroville, 2015)*. B-line services operate seven days a week apart from six public holidays, but some routes do not operate every day. In 2019, B-Line bus services offered an average of 5,822 rides to residents in the ~~City~~City of Oroville (*~~Butte County~~Butte County Association of Governments, 2019).*

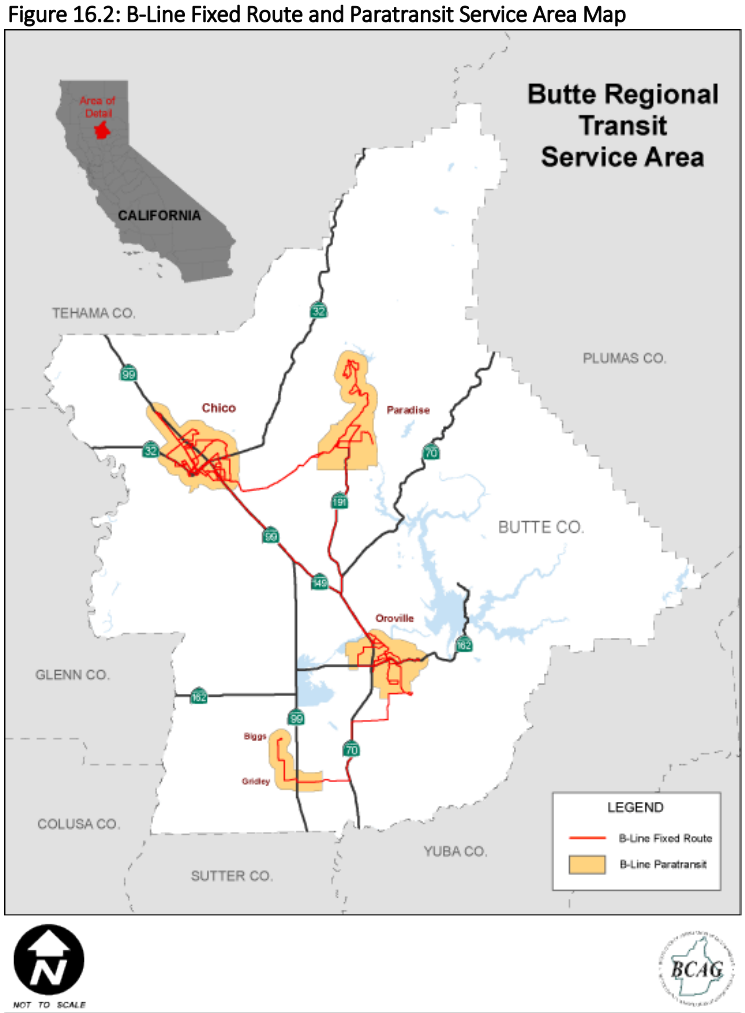
Residents can access more information such as schedules, maps, and fare prices here: http://www.blinetransit.com/documents/B-LineWeb2019.pdf

The B-Line Paratransit service offers on-demand, door-to-door shared ride services for seniors 70 years and older or persons with physical disabilities who are not able access the fixed-route service. This service is available at a low-cost to residents per request. In 2019, B-Line Paratransit offered an average of 1,214 rides to residents in the ~~City~~City of Oroville (*~~Butte County~~Butte County Association of Governments, 2019).*

Residents can estimate the cost of a fare using the paratransit Fare Estimator here: https://gicwebsrv.csuchico.edu/webmaps/bcag_paratransit/prod/

The map below depicts the service areas for the B-Line Fixed Route and Paratransit services in ~~Butte County~~Butte County.

Figure 16.2: B-Line Fixed Route and Paratransit Service Area Map



In accordance with the California State Transportation Development Act, the ~~Butte County~~Butte County Association of Governments must identify any unmet public transit needs. In general, ridership rates have been decreasing over the past few years. After the 2018 Camp Fire, several routes were modified as a result of the displacement of people. The report concluded that there are no unmet transit needs that are reasonable to meet. The analysis concluded that Oroville East, Oroville South, and Oroville include transit dependent and transit disadvantaged places or areas with high concentrations of poverty or riders that are most likely to use transit. In general, persons 65 and over and youth 5-19 are most likely to use transit services and qualify for reduced fares in ~~Butte County~~Butte County. (*Unmet Transit Needs Assessment- 2021-2022, ~~Butte County~~Butte County Association of Governments, 2022*). ~~Butte County~~Butte County Association of Governments is currently in the process of updating its bus lines to increase transit ridership and improve transit accessibility.

The ~~City~~City of Oroville last updated its "Balanced Mode Circulation Plan" in 2015, which details transit options and plans for future development for bicycle and pedestrian infrastructure. The plan improves the safety, accessibility, connectivity, education, maintenance, and implementation of bicycle and pedestrian infrastructure and facilities.

Housing Accessibility

Due to the high proportion of low-income, senior residents and residents with a disability, this section considers the number of affordable housing options with ADA accommodations in the ~~City~~City. Currently, the Housing Authority of the County of Butte manages 130 affordable housing units in Oroville and 63 units are accessible for people with disabilities. There are also 69 privately-owned and managed, affordable housing units in Oroville, and 40 units are for the elderly. In total, there are approximately 103 public housing units in Oroville that are ADA accessible.

Summary of Findings

Nearly all of the Census Tracts in the ~~City~~City of Oroville are considered low resource areas or areas of high segregation and poverty with very low economic and educational outcome scores. Block Group 6, Census Tract 27 is a moderate resource area with the highest economic outcome score in the entire ~~City~~City. Census Tracts 25, 27, 29, and 31 experience the most positive environmental outcomes in the ~~City~~City whereas residents in Census Tracts 30.01, 20.02, 33, and 37 experience the least positive environmental outcomes. The ~~City~~City of Oroville experiences less positive economic and education outcomes than other portions of ~~Butte County~~Butte County, but more positive environmental outcomes. On average, schools in Oroville perform relatively poorly to other schools in the State of California.

Residents in Census Tract 33 have low proximity to jobs while residents in Census Tract 29 are in the furthest proximity from jobs. Most residents have a commute time that is 14 minutes or less. A significantly large portion of residents, or 46% of residents work outside their place of residence. Data from BCAG indicates that residents appear to have equitable access to transportation. The ~~City~~City experienced overall decreases in median earnings for all employment sectors except the "Management, business, science, and arts occupations" sector, which may indicate decreases in the economic prosperity of residents. The average median earnings decreased by $955, whereas that number increased in ~~Butte County~~Butte County.

Staff from North Valley Housing Trust indicated that residents in ~~Butte County~~Butte County are having trouble purchasing homes because due to an increase in competitive bidders that may offer all-cash offers, much like other regions of the state. Renters from all income backgrounds are facing rent gouging and are having trouble finding units that fit their needs, including small units and accessible units.

E. DISPROPORTIONATE HOUSING NEEDS AND DISPLACEMENT RISK

The fifth and final section of the Assessment of Fair Housing is disproportionate housing needs and displacement risk. This part of the analysis considers how people with protected characteristics (such as race, ethni~~city~~city, income class, sexual orientation, people with disabilities, etc.) and households with low incomes experience disproportionate housing needs when compared to ~~othe r~~other populations.

Local and Regional Patterns and Trends

This section includes data tables, narratives, and maps to illustrate local and regional patterns and trends regarding disproportionate housing needs and displacement risk. For the purposes of this analysis, disproportionate housing needs and displacement risk includes the income needed to afford housing, housing tenure, housing problems, displacement due to natural disaster, and mobile home parks.

Income Needed to Afford Rental Housing

The table *"~~Butte County~~Butte County, Annual Income Needed to Afford Rental Housing, 2021"* depicts the annual income needed to afford zero to four-bedroom rental units located in ~~Butte County~~Butte County. The annual income needed to afford a one-bedroom unit is $36,160 and a two-bedroom unit is $47,680. A 2019 survey indicated that more than half of the population in the ~~City~~City of Oroville has a household income less than $34,999, which means more than half of the population cannot afford a one-bedroom unit. In 2019, the median household income for a household of two persons was $48,558 and for a household of three persons was $33,309 (refer to: Figure 17: ~~Butte County~~Butte County, Annual Income Needed to Afford Rental Housing Table, 2021). These findings indicate that most three-person households in Oroville can only afford the average-priced studio in ~~Butte County~~Butte County.

Figure 17: ~~Butte County~~Butte County, Annual Income Needed to Afford Rental Housing Table, 2021

Unit Size	Annual Income Needed to Afford Unit
Zero-bedroom (studio)	$33,000
One-bedroom	$36,160
Two-bedroom	$47,680
Three-bedroom	$67,680
Four-bedroom	$82,560

Source: National Low Income Housing Coalition, 2021 Out of Reach

Housing Tenure

The table *"~~City~~City of Oroville, Race and Ethni~~city~~city, 2010 and 2019"* depicts housing tenure (own versus rent) for the ~~City~~City of Oroville in 2010 and 2019. The table *"~~Butte County~~Butte County, Race and Ethni~~city~~city, 2010 and 2019"* depicts housing tenure (own versus rent) for ~~Butte County~~Butte County in 2019 compared to 2010.

In 2019 in the ~~City~~City of Oroville, White households made up 83% of owner-occupied housing units, but only 64% of the population. As mentioned in the previous data tables, 64% of the population of the ~~City~~City of Oroville identifies as White, 14% identifies as Hispanic or Latino, and 9% identifies as Asian. However, 11% of Hispanic or Latino households are owner-occupied and only 4.6% of Asian households are owner-occupied. These findings suggest that Asian residents are significantly less likely to own a home than White and Hispanic or Latino residents.

The number of owner-occupied units increased by 7.4% and the number of renter-occupied increased by 0.2% for Hispanic or Latino residents in the ~~City~~City of Oroville in 2019 compared to 2010. For units that belong to White households, the number of owner-occupied decreased by 8.8% while the number of renter-occupied units increased by 1.8%. This could be due to the significant increase in the number of households that identify as Hispanic or Latino, Asian, or two or more races during that same time period.

In comparison, ~~Butte County~~Butte County experienced a significant decrease in the number of White households while the number of households that identify as Hispanic or Latino increased significantly. However, ownership trends remained relatively steady with a slight uptick in the number of Hispanic residents that reside in owner-occupied units by 1.7%.

Figure 18: ~~City~~City of Oroville, Housing Tenure by Race and Ethni~~city~~city Table, 2010 and 2019

Race/Ethni~~city~~City	~~City~~City of Oroville									
	2010				2019				2010-2019	
	Owner-occupied Housing Units		Renter-occupied Housing Units		Owner-occupied Housing Units		Renter-occupied Housing Units		Owner-occupied	Renter-occupied
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Change	
One Race										
White	2,393	91.6%	2403	77.8%	2,438	82.8%	2,771	79.6%	-8.8%	+1.8%
Black or African American	39	1.5%	108	3.5%	28	1%	193	5.5%	-0.5%	+2%
American Indian and Alaska Native	0	0%	62	2%	64	2.2%	61	1.8%	+2.2%	-0.2%
Asian	42	1.6%	173	5.6%	134	4.6%	218	6.3%	+3%	+0.7%
Native Hawaiian or Pacific Islander	3	0.1%	15	0.5%	0	0%	0	0%	-0.1%	-0.5%
Some Other Race	42	1.6%	136	4.4%	64	2.2%	11	0.3%	+0.6%	-4.1%
Two or More Races	94	3.6%	198	6.4%	215	7.3%	229	6.6%	+3.7%	+0.2%
Ethni~~city~~city										
Hispanic or Latino Origin	91	3.5%	210	6.8%	320	10.9%	244	7%	+7.4%	+0.2%
White, not Hispanic/Latino	2,348	89.9%	2,363	76.5%	2,195	74.6%	2,556	73.4%	-15.3%	-3.1%

Source: U.S. Census 2006-2010 and 2015-2019 American Community Survey

Figure 18.1: County of Butte, Housing Tenure by Race and Ethni~~city~~city Table, 2010 and 2019

Race/Ethni~~city~~City	~~Butte County~~Butte County									
	2010				2019				2010 vs. 2019	
	Owner-occupied Housing Units		Renter-occupied Housing Units		Owner-occupied Housing Units		Renter-occupied Housing Units		Owner-occupied	Renter-occupied
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Change	
One Race										
White	47,874	91.5%	27,410	82.7%	45,588	90.6%	28,683	82.0%	-0.9%	-0.7%
Black or African American	419	0.8%	663	2.0%	185	0.4%	826	2.4%	-0.4%	+0.4%
American Indian and Alaska Native	471	0.9%	530	1.6%	507	1.0%	511	1.5%	+0.1%	-0.1%
Asian	942	1.8%	1,326	4.0%	1,104	2.2%	1,530	4.4%	+0.4%	+0.4%
Native Hawaiian or Pacific Islander	52	0.1%	66	0.2%	30	0.1%	46	0.1%	0%	-0.1%
Some Other Race	1,308	2.5%	1,591	4.8%	1,269	2.5%	1,719	4.9%	0%	+1%
Two or More Races	1,308	2.5%	1,591	4.8%	1,648	3.3%	1,674	4.8%	+0.8%	0%
Ethni~~city~~city										
Hispanic or Latino Origin	3,715	7.1%	4,309	13.0%	4,420	8.8%	5,468	15.6%	+1.7%	+2.6%
White, not Hispanic/Latino	45,624	87.2%	25,289	76.3%	42,883	85.2%	25,376	72.5%	-2%	-3.8%

Source: U.S. Census 2006-2010 and 2015-2019 American Community Survey

Percent of Renter-Occupied Housing Units

The map, *"~~City~~City of Oroville, Renter-occupied Housing Units, 2021"* indicates the proportion of renter-occupied housing units present within each census tract. The map below indicates that 60-80% of residents live in rental units in Census Tract 28, which is the largest concentration of rental units within the entire ~~City~~City. In addition, 40-60% of residents live in rental units in Census Tracts 25, 29, 30.01, and 30.02. High concentrations of rental units may be associated with the low median household income and high occurrence of poverty that is also present in these areas.

The ~~City~~City of Oroville has significantly more renter-occupied housing units than ~~Butte County~~Butte County. Roughly 40% or less of the population resides in renter-occupied housing units in most areas of ~~Butte County~~Butte County. A larger proportion of renters reside in areas surrounding the Cities of Chico, Oroville, and small portion of the County near the ~~City~~City of Gridley. Chico's large number of rental housing units is likely correlated to Butte College and Chico State University, which brings in many students that reside in Chico while attending college.

Figure 18.2: ~~City~~City of Oroville, Renter-occupied Housing Units, 2021

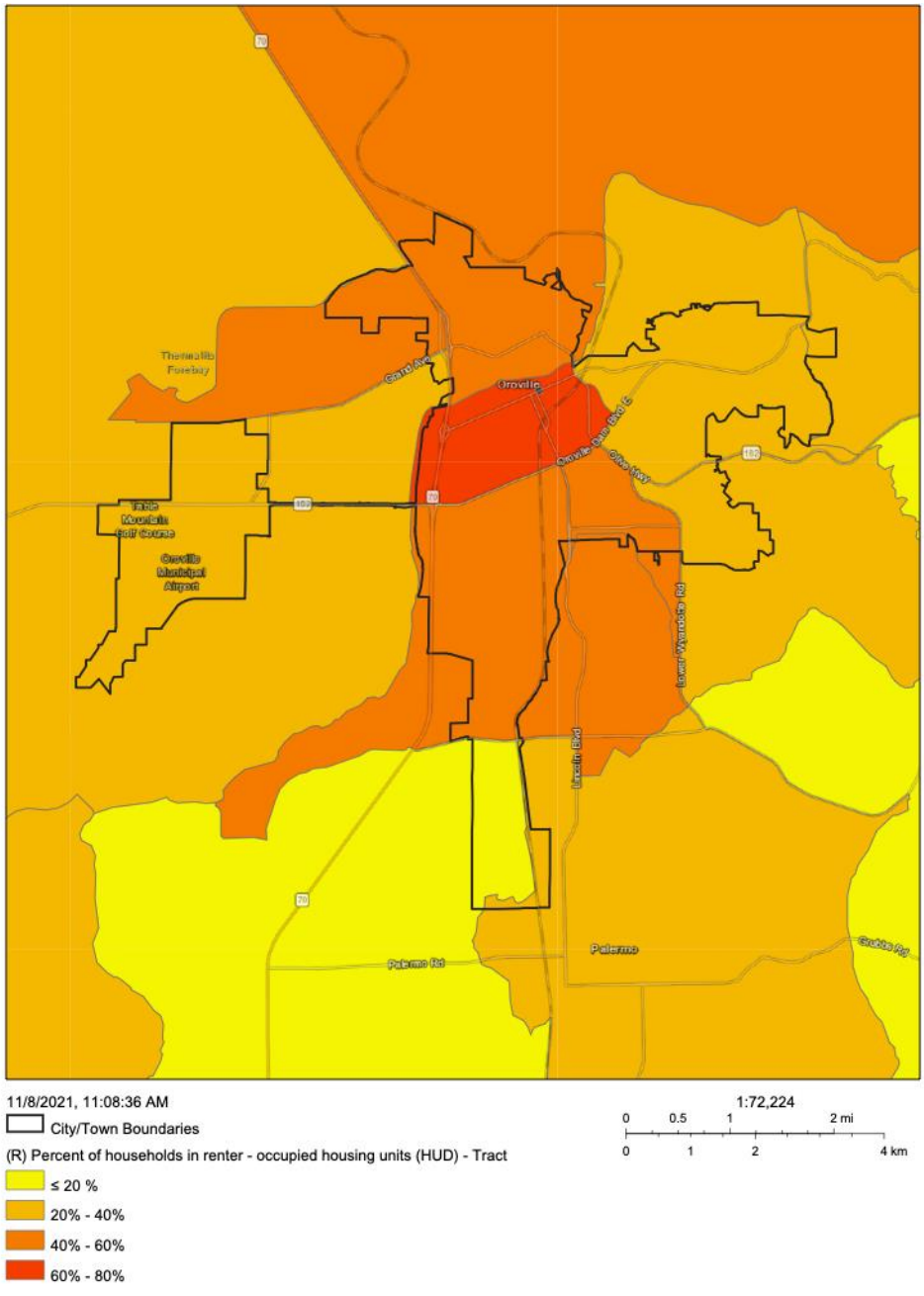
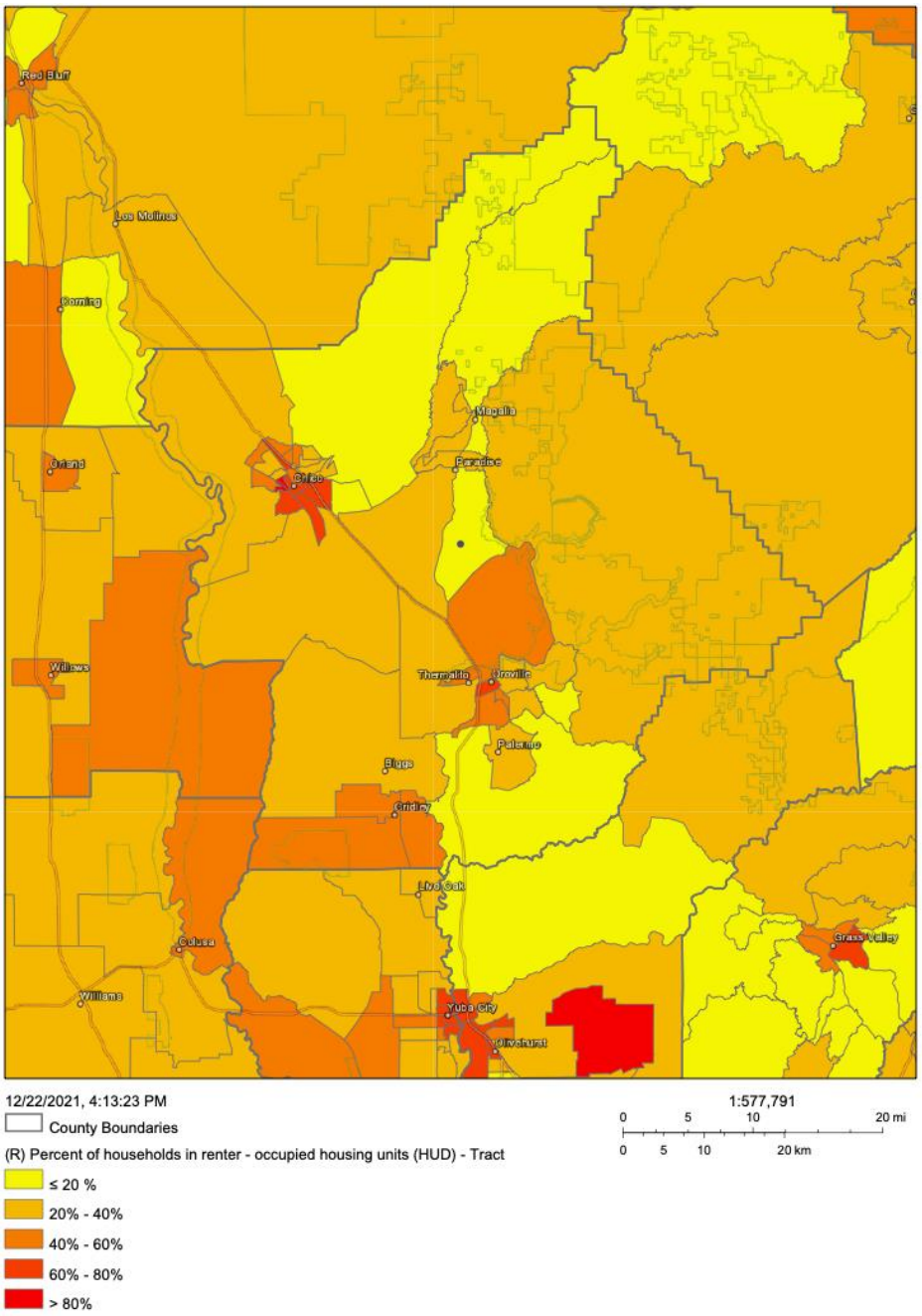


Figure 18.3: ~~Butte County~~Butte County, Renter-occupied Housing Units, 2021



Housing Problems

The table *"~~City~~City of Oroville, Housing Problems, 2010 and 2018"* and the table *"~~Butte County~~Butte County, Housing Problems, 2010 and 2018"* compare the number of owners and renters in the ~~City~~City of Oroville and ~~Butte County~~Butte County in 2010 compared to 2018. Data from 2018 is used as it is the most recent available data as of October 2021.

A Housing Problem, as defined by HUD, is a unit that: 1) Lacks complete kitchen facilities; 2) Lacks complete plumbing facilities; 3) Has more than 1 person per room; or 4) Has a housing cost burden over 30% of income. A Severe Housing Problem, as defined by HUD, is a unit that: 1) Lacks complete kitchen facilities; 2) Lacks complete plumbing facilities; 3) Has more than 1.5 persons per room; or 4) Has a housing cost burden over 50% of income. As of 2018, 70% of occupants that have at least one of four Housing Problems and one of four Severe Housing Problems are renters. From 2010 to 2018, the number of total households experiencing Housing Problems increased significantly for both renters and owners in the ~~City~~City.

In comparison to ~~Butte County~~Butte County, the number of renters experiencing Housing Problems in Oroville is significantly larger. However, the number of renters experiencing Housing Problems increased significantly from 2010 to 2018 in ~~Butte County~~Butte County. These findings indicate the renters are more likely to experience Housing Problems than homeowners, and that trend is worsening.

Figure 19: ~~City~~City of Oroville, Housing Problems Table, 2010 and 2018

Housing Problems	2010					2018					2010 vs. 2018	
	Owners	Owner % of Total	Renters	Renter % of Total	Total	Owners	Owner % of Total	Renters	Renter % of Total	Total	Owner % Change	Renter % Change
Household has at least 1 of 4 Housing Problems	850	34.6%	1,610	65.4%	2,460	910	30.7%	2,050	69.3%	2,960	-3.9%	+3.9%
Household has at least 1 of 4 Severe Housing Problems	390	30%	910	70%	1,300	515	28.7%	1,280	71.3%	1,795	-1.3%	+1.3%

Source: U.S. Department of Housing and Urban Development, 2006-2010 and 2014-2018 Comprehensive Housing Affordability Strategy (CHAS) Data

Figure 19.1: ~~Butte County~~Butte County, Housing Problems Table, 2010 and 2018

Housing Problems	2010					2018					2010 vs. 2018	
	Owners	Owner % of Total	Renters	Renter % of Total	Total	Owners	Owner % of Total	Renters	Renter % of Total	Total	Owner % Change	Renter % Change
Household has at least 1 of 4 Housing Problems	18,765	49.5%	19,165	50.5%	37,930	14,520	41.1%	20,815	58.9%	35,335	-8.4%	+8.4%
Household has at least 1 of 4 Severe Housing Problems	8,135	42.2%	11,135	57.8%	19,270	6,735	34.4%	12,865	65.6%	19,600	-7.8%	+7.8%

Source: U.S. Department of Housing and Urban Development, 2006-2010 and 2014-2018 Comprehensive Housing Affordability Strategy (CHAS) Data

Overcrowded Households

The map, "~~*City*~~*City of Oroville, Overcrowded Households, 2015"* depicts the number of households that have greater than one occupant per room. In areas that are light green, 8.2% of households are overcrowded. In areas that are green, 8.3-12% of households are overcrowded, which includes Census Tracts 30.02 and 37. In areas that are blue, 15-20% of households are overcrowded, which is double the State average and this includes Census Tracts 29 and 30.01.

The map, *"~~Butte County~~Butte County, Overcrowded Households, 2015"* shows the percentage of overcrowded households (more than 1.0 persons per room) by census tract in ~~Butte County~~Butte County. The most recent available data is from 2015. Most census tracts in the county are at or below the statewide average of 8.2% overcrowded households. The census tracts around Oroville and Thermalito have higher than average overcrowded households – between 8.3% to 20% of all households in those census tracts. Chico has one census tract with higher-than-average overcrowded households. *(HCD AFFH Data Resources and Mapping Tool: 2015 Healthy Communities Data and Indicators Project).*

Figure 19.2: ~~City~~City of Oroville, Overcrowded Households, 2015

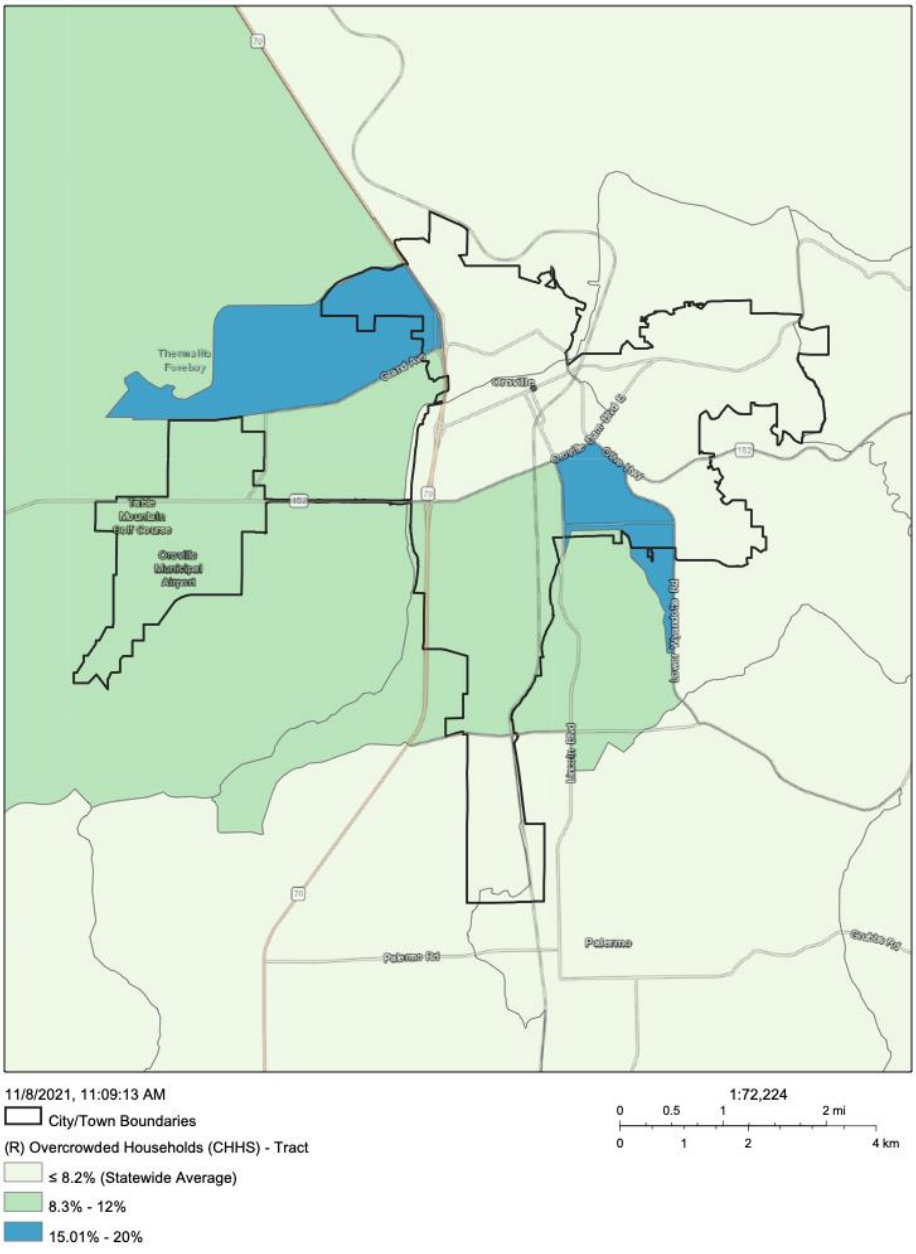
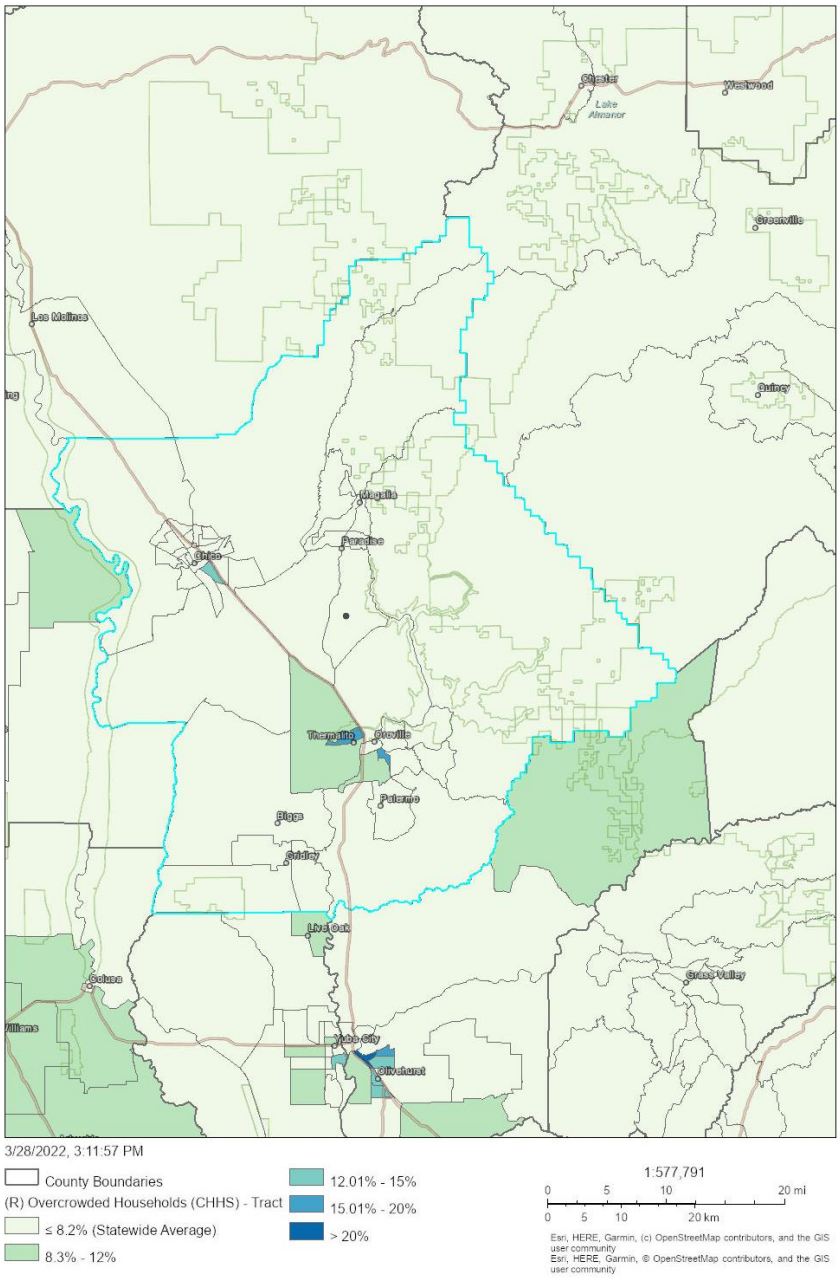


Figure 19.3: ~~Butte County~~Butte County, Overcrowded Households Map, 2015



Overpayment by Homeowners

The map, *"~~City~~City of Oroville, Overpayment by Homeowners, 2019"* depicts the number of households that pay 30% or more of their income toward homeownership costs. An estimated 40-60% of owners residing in areas that are shaded in orange pay more than 30% of their income toward housing costs. This includes Census Tracts 25 and 37. An estimated 60-80% of homeowners residing in areas that are shaded red pay more than 30% of their income toward housing costs. This includes Census Tract 30.01. Finally, an estimated 20-40% of homeowners residing in areas that are shaded yellow pay more than 30% of their income toward housing costs, which includes the rest of the census tracts that encompass the ~~City~~City.

The map, *"~~Butte County~~Butte County, Overpayment by Owners Map, 2019"* depicts the percentage of owner households with mortgages whose monthly owner costs are 30% or more of household income. Household income is based on earnings in the past 12 months prior to the survey. The only census tracts with 60-80% of owner households with overpayment are located in Chico and Oroville. Most of the county has 20-40% or 40-60% of owner households with overpayment. The census tract in northeast ~~Butte County~~Butte County between Chico and Magalia/Paradise has less than 20% of owner households with overpayment. *(HCD AFFH Data Resources and Mapping Tool: 2015-2019 American Community Survey).*

Figure 19.4: ~~City~~City of Oroville, Overpayment by Homeowners, 2019

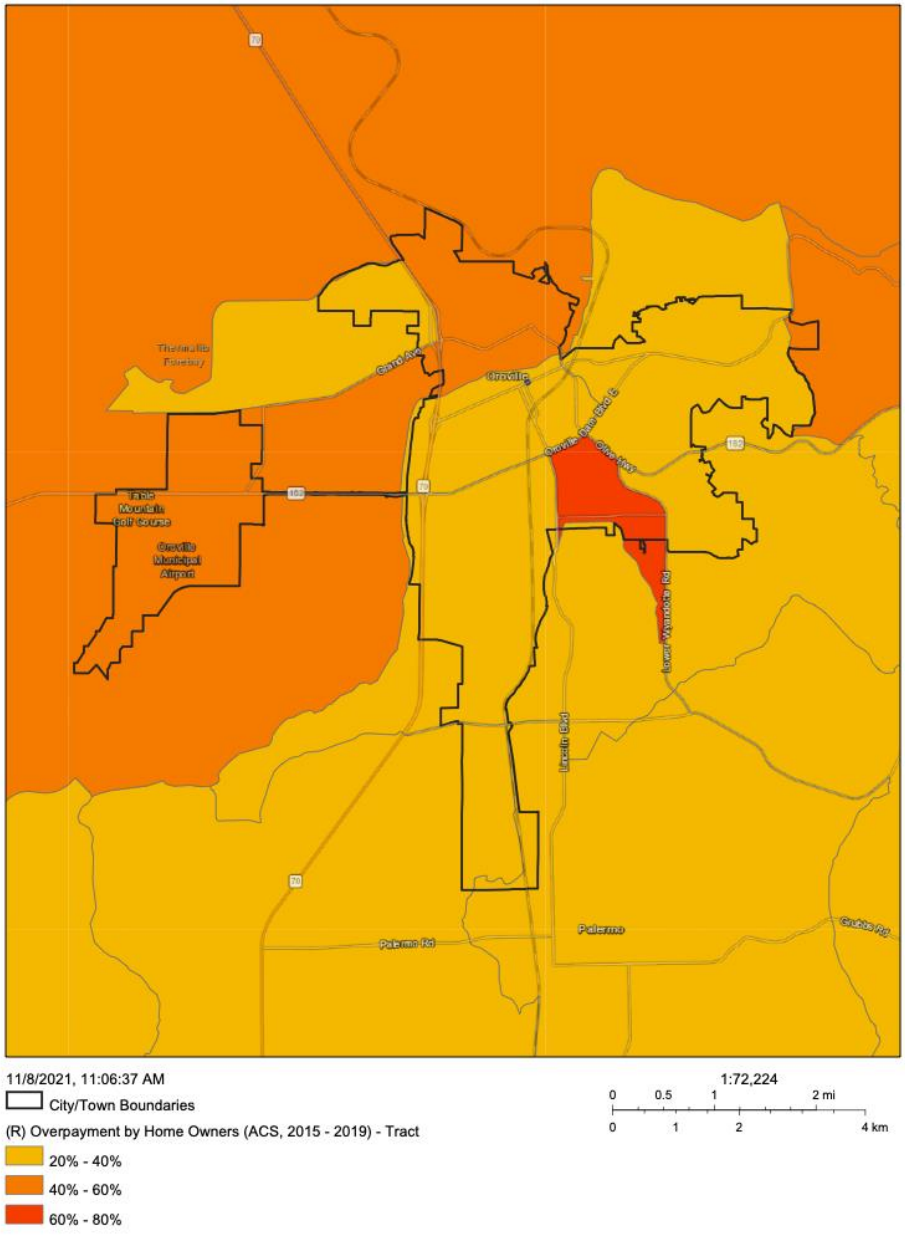
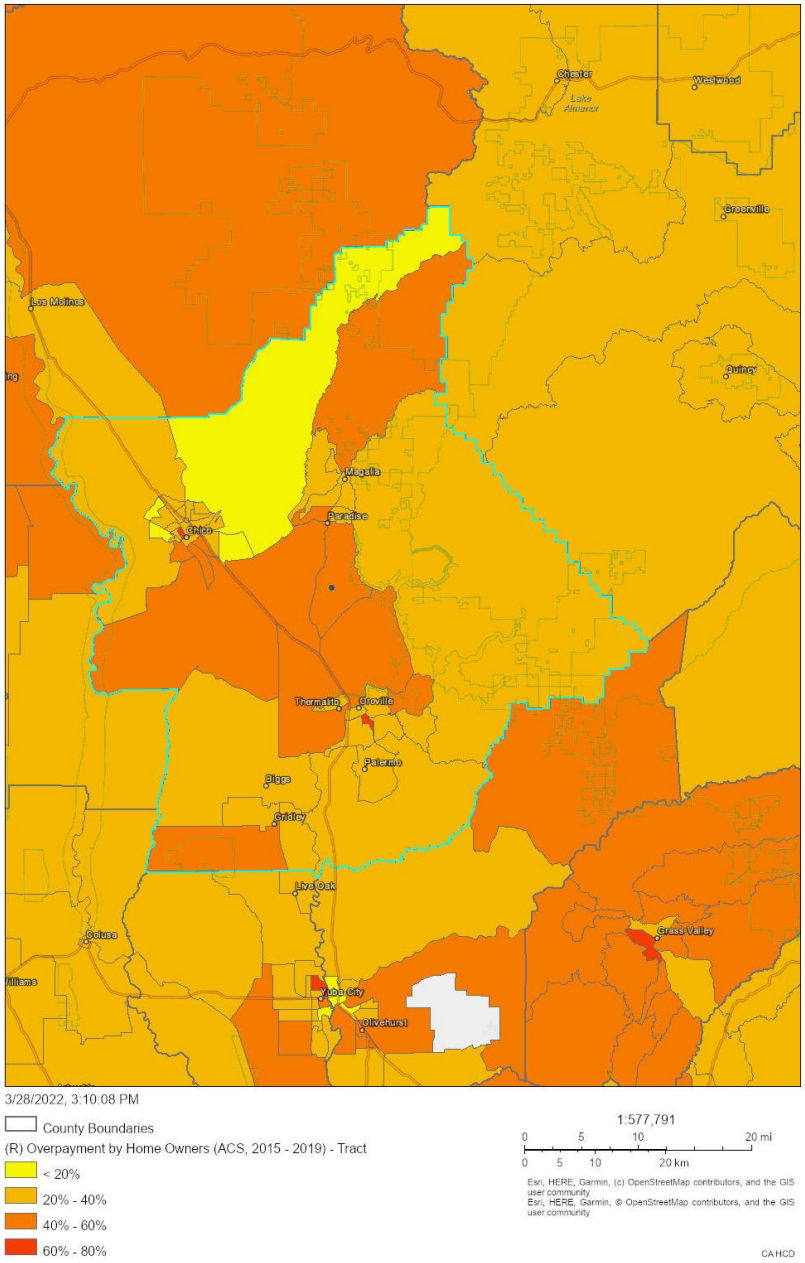


Figure 19.5: ~~Butte County~~Butte County, Overpayment by Owners Map, 2019



Overpayment by Renters

The map, *"Figure 19.6: ~~City~~City of Oroville, Overpayment by Renters, 2019"* depicts the number of households that pay 30% or more of their income toward the cost of renting a home. The map indicates that most renters in the ~~City~~City are paying more than 30% of their income toward the cost of renting a home. An estimated 40-60% of renters residing in areas that are shaded dark orange pay more than 30% of their income toward housing costs. This includes Census Tracts 25, 29, 30.01 and 33. An estimated 60-80% of renters residing in areas that are shaded red pay more than 30% of their income toward housing costs, which includes Census Tracts 27, 28, 30.01, and 37.

The map, *"Figure 19.7: ~~Butte County~~Butte County, Overpayment by Renters Map, 2019"* depicts the percentage of renter households for whom gross rent (contract rent plus tenant-paid utilities) is 30% or more of household income. Household income is based on earnings in the past 12 months prior to the survey. Generally, the eastern and western parts of the county have 20-40% of renter households with overpayment. The more populated census tracts near communities, cities, and towns have 40-60% or 60-80% of renter households with overpayment. Only the census tract east of Oroville has less than 20% of renter households with overpayment *(HCD AFFH Data Resources and Mapping Tool: 2015-2019 American Community Survey).*

Figure 19.6: ~~City~~City of Oroville, Overpayment by Renters, 2019

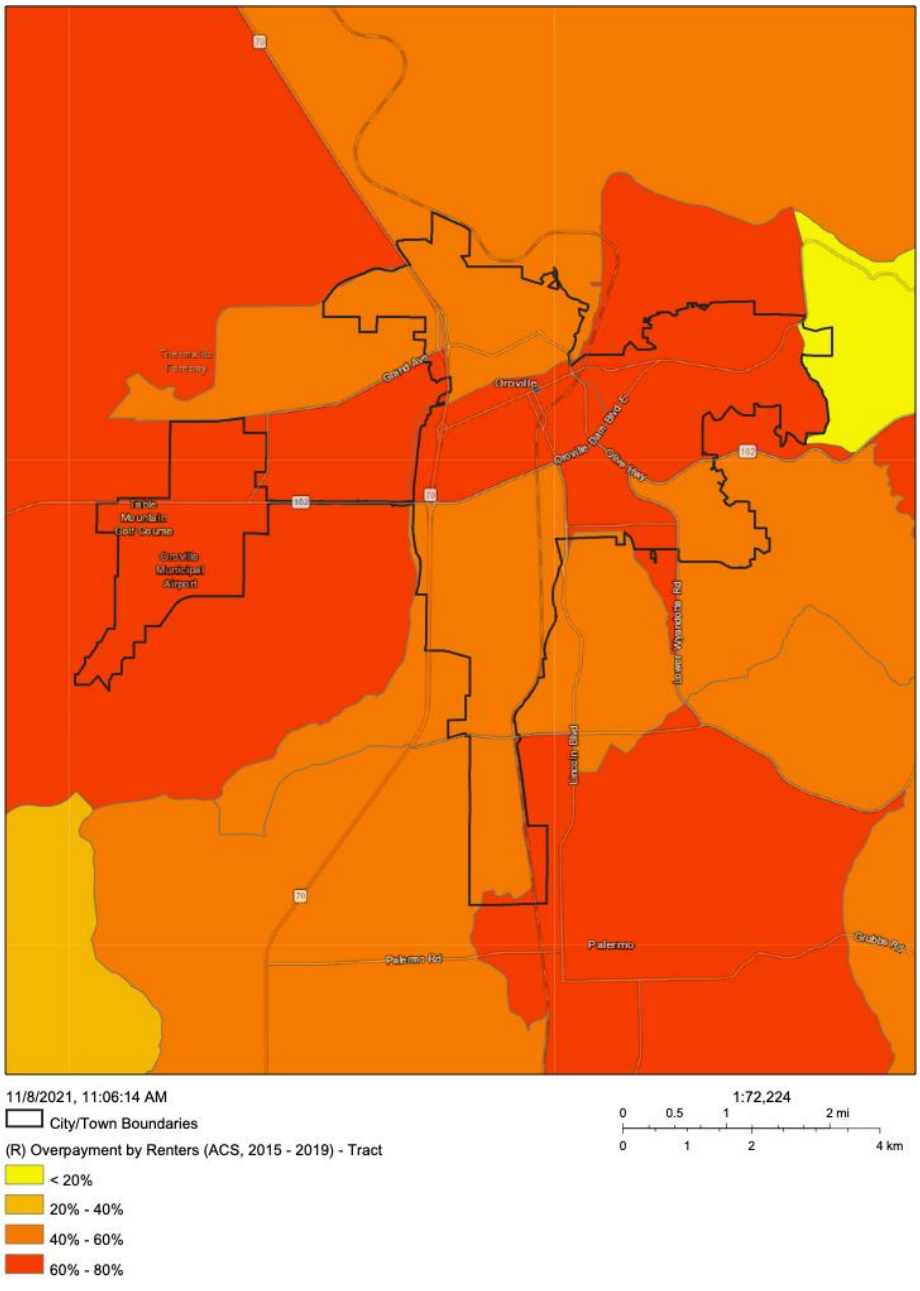
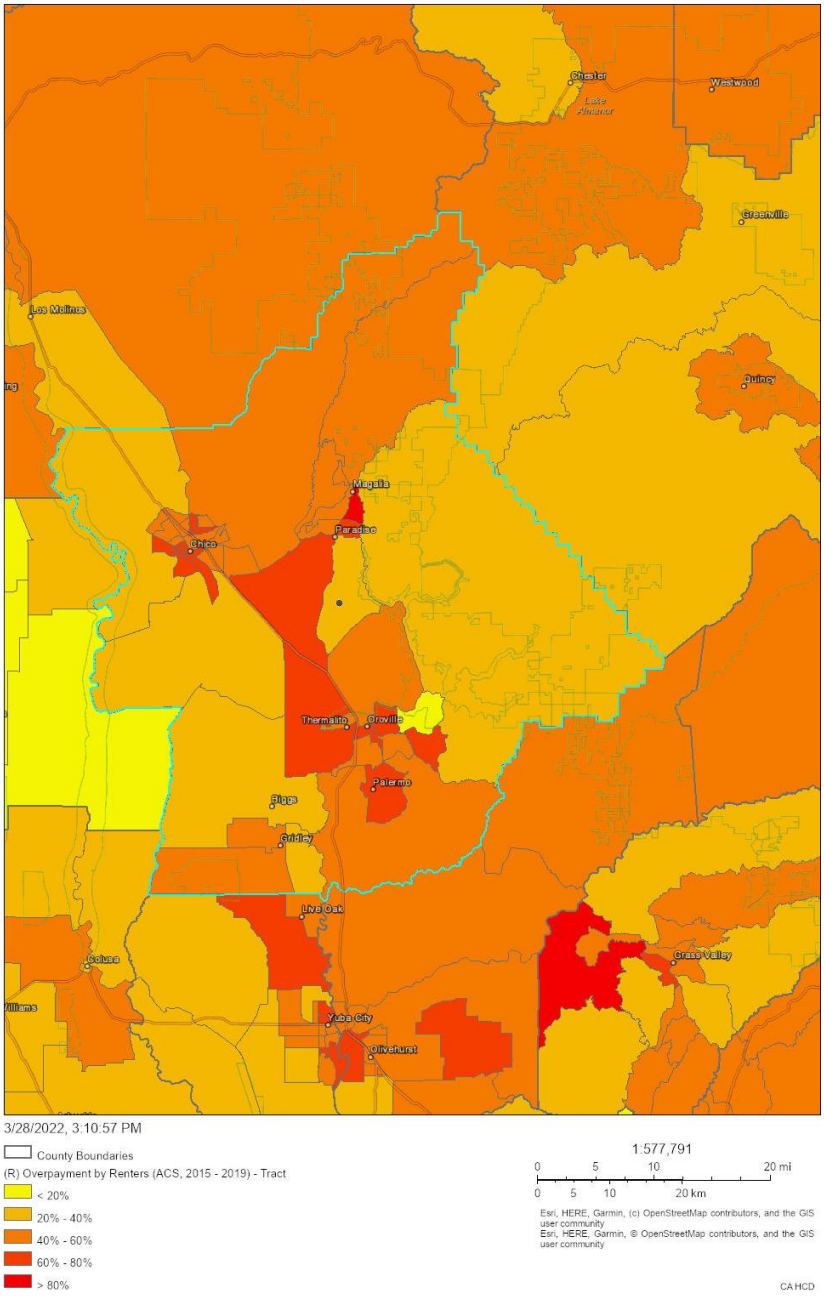


Figure 19.7: ~~Butte County~~Butte County, Overpayment by Renters Map, 2019



Homelessness

The following tables depict point-in-time counts of all individuals experiencing homelessness and point-in-time counts of unsheltered individuals experiencing homelessness.

Figure 20: ~~Butte County~~Butte County, Point in Time Count Results, 2009-2019 depicts the total number of individuals experiencing homelessness in jurisdictions within ~~Butte County~~Butte County from 2009 to 2019. From 2009 to 2019, Oroville has experienced steady increases in the number of residents experiencing homelessness, peaking at 713 individuals in 2017. This is equivalent to a 14% increase in homelessness in the last decade. Oroville has the second largest number of people experiencing homelessness in ~~Butte County~~Butte County. Due to impacts of the Camp Fire in November 2018, outreach efforts during the 2019 yielded fewer volunteers and fewer surveys completed than previous efforts. The decrease in the number of individuals counted during 2019 could be due to of fewer volunteers, rather than a decrease of people experiencing homelessness.

Figure 20: ~~Butte County~~Butte County, Point in Time Count Results, 2009-2019

Jurisdiction	2009	2010	2011	2013	2015	2017	2019	'09-'19 % Change
Chico	668	865	1043	804	571	1096	864	29%
Oroville	364	386	545	579	390	713	415	14%
Paradise, Magalia, and other Ridge Communities	62	83	71	89	49	120	21	-471%
Gridley and Biggs	2	79	97	65	36	28	23	1050%
Other	10	9	16	16	81	26	0	-100%
	1106	1422	1772	1553	1127	1983	1323	20%

Source: ~~Butte County~~Butte County Continuum of Care

Figure 20.1: ~~Butte County~~Butte County, Point in Time Count Unsheltered Results, 2009-2019 depicts the number of unsheltered individuals experiencing homelessness in jurisdictions within ~~Butte County~~Butte County from 2009 to 2019. Oroville experienced a steep increase of 116% in the number of individuals experiencing unsheltered homelessness from 2009 to 2019. In 2019, 80% of individuals experiencing homelessness were unsheltered.

Figure 20.1: ~~Butte County~~Butte County, Point in Time Count Unsheltered Results, 2009-2019

Jurisdiction	2011	2013	2015	2017	2019	'11-'19 % Change
Chico	304	267	147	433	454	49%
Oroville	154	173	100	236	333	116%
Paradise, Magalia, and other Ridge Communities	28	19	8	61	15	-46%
Gridley and Biggs	50	12	20	10	23	-54%
Other	4	8	8	5	0	-100%
	540	479	283	745	825	53%

Source: ~~Butte County~~Butte County Continuum of Care

During the process of the Housing Element Update, the ~~City~~City of Oroville surveyed residents experiencing homelessness during an in-person outreach event at a local festival. In addition, the ~~City~~City of Oroville held two community workshops and administered two community surveys, which asked participants to answer questions about residents experiencing homelessness in the community. The key findings of this outreach and the actions taken to address the outcomes of the analysis are included in *Chapter 1: Introduction and Background* of the Housing Element Update.

Specific actions taken to address the needs of special populations, which includes residents experiencing homelessness, are also addressed in *Chapter 2: Review of Previous Housing Element* of the Housing Element Update and *Chapter 3: Housing Programs* of the Housing Element Update. These actions include Program 1.2.1 Partnerships with Local Organizations, Program 1.2.4: Technical Assistance Program, and Program 6.1.4: Participate in Wildfire Recovery Efforts.

Furthermore, in *Special Needs Households Section of Chapter 4: Needs Assessment* of the Housing Element Update, several organizations in the community provided information regarding patterns and characteristics of residents experiencing homelessness, which include the Disability Action Center and Stonewall Alliance Center. In addition, "The Impacts of the Camp Fire Disaster on Housing Market Conditions and Housing Opportunities in the Tri-County Region, North Valley Community Foundation" report includes information regarding homelessness in ~~Butte County~~Butte County, which is summarized and included in this chapter.

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Mobile Home Parks

In an interview with the ~~City~~City of Oroville conducted on January 12, 2023, staff indicated that most mobile home parks are located outside of ~~city~~City limits, but there are currently ~~6~~six mobile home parks dispersed throughout the ~~City~~City. The ~~City~~City has not permitted a new mobile home park in several decades. Many of the parks are old, and in need of significant rehabilitation and infrastructure improvements. The Oak Street Trailer Park, located in the central downtown area, is a dilapidated mobile home park that the ~~City~~City is interested in targeting for development improvements.

In written correspondence received from the ~~City~~City of Oroville's Code Enforcement Department on January 24, 2023, staff noted that all parks are connected to power, water, waste, and sewer infrastructure. There are a total of 483 mobile home spaces in parks that are located within the ~~City~~City of Oroville jurisdiction, which make up a significant portion of the affordable housing stock in the ~~City~~City ~~of Oroville~~.

The ~~City~~City's mobile home parks are listed below:

- Oak Hill Mobile Home Park: South Oroville, 125 spaces
- Cottonwood Estates: Central Oroville, 105 spaces
- Oro Lake Mobile Home Park: East Oroville, 107 spaces
- Shady Rest Mobile Home Park: Southeast Oroville, 50 spaces
- Pleasant Valley Mobile Home Park: East Oroville, 84 spaces
- Oak Street Mobile Home Park: Central Oroville, 12 spaces

Oak Hill Mobile Home Park and Cottonwood Estates house predominantly older residents aged 55 and over and are in relatively good condition. The remaining four parks, Oro Lake, Shady Rest, Pleasant Valley, and Oak Street mobile home parks, are known to house a variety of residents, including families with children, young adults, and elderly residents. The units in these parks are also older, and in need of repair. Several parks have issues with the outside storage of personal property.

Staff indicated that many of the parks could benefit from better management. Most of the units in Pleasant Valley, Oro Lake, and Oak Street mobile home parks are in need of significant rehabilitation or replacement. Staff also noted that these three parks are associated with significantly higher rates of crime including illegal drug use and distribution.

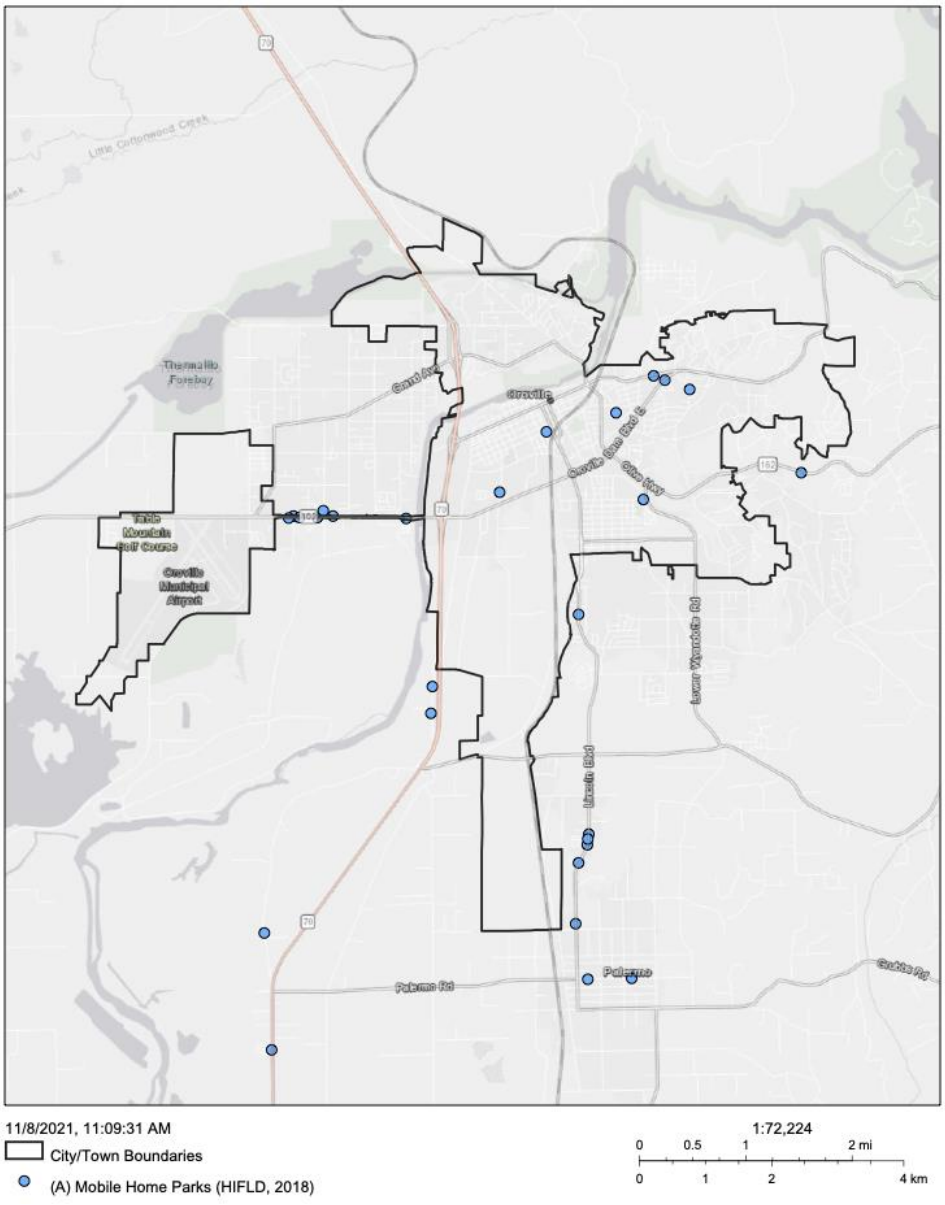
In 2022, Pleasant Valley mobile home park had the highest volume of police calls received from any mobile home park in the ~~City~~City. These calls were associated with domestic disturbances, thefts, trespass, and stolen vehicle cases. Shady Rest and Oak Street mobile home parks also had a disproportionately high volume of police calls in relation to other parks, which were associated with domestic disturbances, welfare checks, theft, and 911 calls.

According to Table A-53 in ~~Butte County~~Butte County's 2022-2030 Housing Element Update, the cost for a new manufactured home in ~~Butte County~~Butte County ranges from $203,000-208,000. Table A-22 in the ~~Butte County~~Butte County's Housing Element Update indicates that a four-person extremely low-income household in ~~Butte County~~Butte County can afford a maximum sales price of about $165,000 and a low-income household can afford a maximum sales price of about $220,000, making manufactured housing generally affordable to V~~v~~ery L~~l~~ow and L~~l~~ow ~~i~~income households *(~~Butte County~~Butte County 2022-2030 Housing Element Update, 2022)*.

Mobile homes are often the only affordable housing option available to Very- ~~Low Income~~Low-Income households, and these households are at-risk of experiencing homelessness if their unit becomes uninhabitable due to deferred maintenance. Program 4.3.1 (Chapter 3 Housing Program) commits the ~~City~~City to include mobile homes as part of its rehabilitation program, and to apply for funds that can assist mobile homeowners and renters. Program 4.3.1 also commits the ~~City~~City to partner with the State HCD Mobile Homes Division to improve living conditions and operations in mobile home parks within the ~~City~~City.

The map, *"~~City~~City of Oroville, Mobile Home Parks, 2019"* depicts the location of mobile parks within the ~~City~~City. The map indicates that mobile home parks are dispersed throughout the ~~City~~City and surrounding areas. The majority of mobile home parks are located outside of ~~City~~City limits.

Figure 21: ~~City~~City of Oroville, Mobile Home Parks, 2019



Housing Conditions

"Figure 19.6: ~~City~~City of Oroville, Overpayment by Renters, 2019" shows that an overwhelming majority of renters in the ~~City~~City are overpaying and *"Figure 18.2: ~~City~~City of Oroville, Renter-occupied Housing Units, 2021"* shows that there is a significantly large number of renter-occupied housing units. In addition, *"Figure 19: ~~City~~City of Oroville, Housing Problems, 2010 and 2018"* shows that 70% of households that have 1 in 4 Housing Problems or 1 in 4 Severe Housing Problems are renters. This data indicates that there is a significant number of renters who are overpaying and living in poor housing conditions in the ~~City~~City of Oroville.

During the interviews and community meetings conducted as a part of the Housing Element Update, both residents and stakeholders identified South Oroville, which is an older, low-income neighborhood, as an area most in need of substantial rehabilitation and infrastructure improvements. South Oroville is a historically disenfranchised community that was recently annexed into the ~~City~~City and has been the target of recent rehabilitation efforts.

In 2021, the ~~City~~City of Oroville completed a housing conditions survey for South Oroville. The survey concluded that about 25% of existing units need significant rehabilitation, which totals ~~to~~ 316 units. These findings are ~~discussed~~illustrated further in *"Figure 25.6: Code Enforcement Cases for Substandard Housing, ~~City~~City of Oroville, 2014-2021."*

Local Data and Knowledge

Local data and knowledge is collected through interviews with regional stakeholders whose service areas include the ~~City~~City of Oroville and reports that discuss the 2020 North Complex Fire and the 2018 Camp Fire in ~~Butte County~~Butte County.

~~City~~City of Oroville

On October 13, 2021, the authors conducted an online interview with three staff members from the ~~City~~City of Oroville over Zoom. The ~~City~~City commented that there is a shortage of market-rate, executive housing for government and hospital staff as well as a shortage of rental units, particularly single-family units for all income levels. In addition, a significant number of units do not meet health and safety standards and need rehabilitation. Rents are relatively high in the region, and many residents do not qualify for housing based on income or credit. To meet these diverse needs, the ~~City~~City is interested in encouraging mixed income development.

Despite the constraint on available housing, the ~~City~~City houses a significant number of 2018 Camp Fire and 2020 North Complex Fire survivors from the Town of Paradise and Berry Creek communities. Many are still staying in hotels, while others are occupying single-family homes and are settling in permanently. The ~~City~~City is experiencing continuous impacts from the fires. Home insurance costs have increased by $6,000-$8,000 annually and many residents are still living in RVs at local campgrounds, empty lots, and rural parts of the ~~City~~City. Many more residents are unable to secure homeowner's insurance, which makes it difficult to qualify for a mortgage and purchase a home.

Youth for Change

On October 19, 2021, the authors conducted a phone interview from a staff member at Youth for Change, which is a nonprofit that provides services, support, and treatment to children and families in Butte, Sutter-Yuba, Glenn, Shasta, and Trinity Counties. The staff member interviewed works with young adults from 18-24 years that are unhoused. Youth for Change has an estimated 40 active cases of unhoused young adults in ~~Butte County~~Butte County at the time of the interview.

Staff indicated that clients may have difficulty with life skills and are living with severe mental illness, substance addiction, and trauma which may inhibit their ability to secure housing. Clients have difficulty applying for or demonstrating eligibility due to lack of time, education, resources, or mental disability. Staff provides administrative services to assist clients in applying for social service programs, legal identification documentation, Community Housing Improvement Program, and health services in addition to providing direct transportation, career-building, education, and mental health services.

Clients have difficulty finding housing that fits their needs and affordability, which includes one-bedroom or studio apartments and large homes with three or more bedrooms that can be shared by multiple tenants.

Other Relevant Factors

This section considers the impacts of fire disasters on housing in the ~~City~~City of Oroville. The analysis primarily focuses on the impacts of the North Complex Fire that occurred in 2020 and the Camp Fire that occurred in 2018.

2020 North Complex Fire

According to the Incident Information System (InciWeb), the North Complex Fire began on August 17, 2020 and continued for several months, burning a total of 318,935 acres. The incident resulted in 16 deaths and damaged 2,455 structures.

The fire destroyed homes, businesses, and public buildings in the Berry Creek community, east of the ~~City~~City of Oroville, where many residents currently live in campers, tents, and RVs. Residents who are interested in rebuilding their town face high building and permitting costs, criminal activity in the area, and a perceived lack of assistance from the county government and outside agencies. Local data and knowledge indicate that many fire survivors continue to experience precarious housing situations and challenges with mental health such as post-traumatic stress disorder. Staff at the ~~City~~City indicated that many survivors of the fire have relocated in Oroville.

Rebuilding requires coordination with multiple ~~Butte County~~Butte County departments, the Federal Emergency Management Agency, CalFire, and Pacific Gas & Electric Company (PG&E). Stricter State regulations that ensure homes are more resistant to fire and increases in the costs of building materials are driving up costs. In addition, residents must pay to clean up toxic debris and install power poles. The costs to insure homes have been greatly inflated. Residents could benefit from waived permit fees and assistance in development and permitting processes. ("*The Forgotten Fire?"* Ken Smith, Sacramento News & Review, October 2021)

2018 Camp Fire

Most data for this section are from two studies: 1. The Impacts of the Camp Fire Disaster on Housing Market Conditions and Housing Opportunities in the Tri-County Region produced by North Valley Community Foundation, a local community foundation; and 2. The Camp Fire Regional Economic Impact Analysis produced by 3CORE, a local economic development organization. These two studies, the former on housing impacts and the latter on economic impacts, focus on the tri-county region of Butte, Glenn, and Tehama Counties. This section also includes related data from a local non-profit.

The Impacts of the Camp Fire Disaster on Housing Market Conditions and Housing Opportunities in the Tri-County Region, North Valley Community Foundation, September 2020

Prior to the 2018 Camp Fire, the tri-county region of Butte, Glenn, and Tehama Counties was already experiencing housing challenges including rising housing costs, rising building costs, low vacancies, limited workforce housing, lack of affordable housing production, and limited types of housing, coupled with economic challenges of slow wage growth, limited number of higher paying jobs, and challenges attracting and retaining employees due to the cost of housing.

The COVID-19 pandemic has threatened the tri-county region in several ways. The medical system is overburdened, residents are spending less money, stores are closing, housing construction has reduced or slowed, and homelessness is increasing, which is adding to the number of residents in precarious economic conditions.

After the 2018 Camp Fire, the tri-county region experienced additional housing challenges including lack of available housing inventory, record high rental rates and housing costs, insufficient assistance for fire survivors, and lack of insurance or underinsurance for many residents. Disaster case management intake records from Butte-Glenn 211 and the Camp Fire Collaborative illustrate unmet needs for fire survivors experiencing homelessness or in precarious housing situations. A substantial surge in home prices and monthly rent rates in the tri-county region in the six months following the Camp Fire disproportionately affected senior households – single people and couples – who had lived in older, lower-cost housing in the burn scar of Concow, Magalia, Paradise, Yankee Hill, and surrounding communities. These households experienced challenges finding homes within their budgets that matched the needs of their families. ~~Butte County~~Butte County's limited housing inventory went to near record lows and home prices in the County went up 46.7% from November 2018 to September 2019.

There is a shortage of affordable and market-rate multi-family units in the tri-county region. The Housing Authority of the County of Butte (HACB) which also serves ~~Butte County~~Butte County, had a waitlist of 300 households for Butte and Glenn Counties combined prior to the Camp Fire. Openings for available affordable units are limited and the waitlist increased to over 2,800 households in August 2019. The ~~City~~City of Willows in Glenn County, the ~~City~~City of Oroville in ~~Butte County~~Butte County, and the Cities of corning and Red Bluff in Tehama County tend to attract more demand for market-rate single-family development activity rather than market-rate multi-family development activity.

There is site availability in the tri-county region for large-scale projects. However, developers express challenges for moving projects forward due to high development costs relative to household incomes, including the needed infrastructure required to build and the imbalance of what homes can be delivered and what homebuyers can afford. Additional housing solutions in the region include alternative building techniques such as modular options; manufactured homes; Accessory Dwelling Units (ADUs); tiny homes; better financing options for alternative housing types; and community land trusts, housing trusts, and private bonds.

The Camp fire Regional Economic Impact Analysis, 3CORE, January 2021

The tri-county region of Butte, Glenn, and Tehama Counties is predominantly rural with an economy propelled by agriculture and related activities such as processing, packaging, and wholesale trade of row and field crops, orchard and tree products, and livestock. Short-term growth projections for ~~Butte County~~Butte County expect employment gains to be centered in agriculture, manufacturing, and leisure.

The 2018 Camp Fire resulted in substantial inter-regional and extra-regional population shifts. Residents displaced by the Camp Fire relocated primarily to Chico and Oroville in ~~Butte County~~Butte County and to a lesser extent, Glenn and Tehama Counties. Unincorporated areas of ~~Butte County~~Butte County and the ~~City~~City of Oroville experiences larger-than-average population increases and noted nominal increases related to housing demand, business activity, and traffic impacts.

The study concludes that based on available information, the Camp Fire resulted in the loss of many middle-income workers who are unlikely to return to the region. This may result in a demographic distribution that is skewed to lower- and higher-income groups. The study suggests the key to replacing workers and re-balancing income groups is the ability to produce new, affordable housing in the region.

Butte-Glenn 211 Informational and Referral Data, July 2021

"Figure 21.1: Butte-Glenn 211, Camp Fire Contacts and Referred Services Data Table, November 2018 to October 2021" depicts information on the number of Camp Fire contacts and referred services in Butte-Glenn 211's database system. Butte-Glenn 211 is an information and referral non-profit agency serving Butte and Glenn Counties by connecting people with assistance services. From the time period of November 1, 2018, to October 31, 2021, the number of referred services to Camp Fire contacts who contacted Butte-Glenn 211 by phone from ~~Butte County~~Butte County was 27,134. The total number of Camp Fire contacts to Butte-Glenn 211 originating from ~~Butte County~~Butte County was 23,832 and the total number of Camp Fire contacts from all counties and states was 34,892 *(Butte-Glenn 211, November 2021 Email Correspondence)*. This data illustrates the magnitude of the impact of the Camp Fire on ~~Butte County~~Butte County residents. Over 30,000 people contacted Butte-Glenn 211 for assistance during and after the Camp Fire, and Butte-Glenn 211 referred over 25,000 services to Camp Fire phone callers from ~~Butte County~~Butte County.

Time Period	Number of Referred Services to Camp Fire Phone Callers Originating from ~~Butte County~~Butte County	Total Number of Camp Fire Callers Originating from ~~Butte County~~Butte County	Total Number of Camp Fire Callers to 211 (all counties/states)
November 1, 2018 to October 31, 2021	27,134	23,832	34,892

Source: Butte-Glenn 211, November 2021 Email Correspondence

"Figure 21.2: ~~Butte County~~Butte County Department of Employment and Social Services, Financial Assistance Provided to Camp Fire Survivors Table, January 2019 to July 2021" depicts the dollar amount of assistance the ~~Butte County~~Butte County Department of Employment and Social Services provided to Camp Fire survivors by assistance type. Vehicles and RVs, home repairs/rebuilds, rent and mortgage, and vehicle items/RV repair were the assistance types with the largest amount of assistance provided in dollars. These findings illustrate that both temporary and permanent housing was a significant need following the Camp Fire. ~~Butte County~~Butte County Department of Employment and Social Services (~~Butte County~~Butte County DESS) administers employment and social services to ~~Butte County~~Butte County residents. ~~Butte County~~Butte County DESS provided its "*Camp Fire Relief Grant Final Report, January 2019 through July 2021*" for use in this report on October 5, ~~2021~~2021, via email correspondence. In January 2019, North Valley Community Foundation provided a one-million-dollar grant to ~~Butte County~~Butte County DESS to assist 2018 Camp Fire survivors with housing, mental health, and replacing belongings.

Figure 21.2: ~~Butte County~~Butte County Department of Employment and Social Services, Financial Assistance Provided to Camp Fire Survivors Table, January 2019 to July 2021

Assistance Type	Total Assistance Provided in Dollars
Vehicles and RVs	$289,978
Home Repairs/Rebuilds	$214,806
Rent and Mortgage	$170,031
Vehicle Items/RV Repair	$165,540
Property Replacement	$69,747
Shelter	$55,166
Utilities	$12,703
Deliveries	$11,716
Miscellaneous	$10,192
Total	***$999,968.70***

Source: ~~Butte County~~Butte County Department of Employment and Social Services, Camp Fire Relief Grant Final Report, January 2019 to July 2021

The Camp Fire Collaborative (CFC)

The Camp Fire Collaborative (CFC) is based in Chico, California and is a community collaboration made up of 50+ nonprofits, private, and public organizations working to address unmet needs of Camp Fire survivors in ~~Butte County~~Butte County. It was formed as a Long-Term Recovery Group after the 2018 Camp Fire. The CFC helps to coordinate disaster case management (DCM) currently provided by five organizations in the County. In an interview for this report on October 25, ~~2021~~2021, staff commented that ~~Butte County~~Butte County has the greatest need for affordable housing, accessible housing, and senior housing following the Camp Fire. The DCM works mostly with seniors with fixed incomes due to the demographics on The Ridge (Magalia, Town of Paradise) prior to the Camp Fire. Staff noted barriers to housing include access to and navigating internet and phone communication as well as temporary address changes, a lack of housing inventory, and units that will accept pets. There are Camp Fire survivor households that

have been displaced multiple times since the fire and continue to couch surf. Some Camp Fire survivors want to re-settle in the burn scar area to stay close to resources, medical care, and supports systems. Relocating to the Cities of Chico or Oroville is not ideal for them.

When asked about specific barriers that people of color of people with disabilities experience in accessing housing, staff commented that people of color and people who speak English as a second language were a small population on The Ridge and in the DCM caseload. Barriers experienced by these populations include concerns about citizenship status and accessing or accepting resources that may jeopardize information like immigration status. Staff noted that people with disabilities who are Camp Fire survivors and experiencing homelessness is uniquely challenging for long-term recovery. Survivors may be living in RVs and trailers that are not accessible, and there are not many options for accessible housing on The Ridge. Mobile home parks on The Ridge were destroyed in the Camp Fire.

When asked about ongoing impacts of the Camp Fire on the ~~City~~City of Oroville, staff noted that a significant number of clients relocated to Oroville, which resulted in increases in housing costs and decreases rental unit availability in the ~~City~~City due to the significant increase in housing demand in that region. Staff commented that their clients tend to be living in the Cities of Oroville, Corning, Red Bluff, or Redding instead of Chico or Biggs/Gridley, due to the availability of units, and size and price of housing. Many RV campgrounds are now being used as permanent housing for Camp Fire survivors who have a RV/trailer.

Staff noted that the ~~City~~City needs affordable rental housing, family units, and mobile home parks. Many clients have funding for a mobile ~~home, but~~home but cannot afford to park it because rents increased from $300-500/month prior to the fire to $600-800/month after the fire.

Summary of Findings

Most residents in the ~~City~~City have a low income. A 2019 survey indicated that more than half of the population in the ~~City~~City of Oroville has a household income of less than $34,999, which means more than half of the population can only afford a studio. Asian residents are significantly less likely to own a home than White and Hispanic or Latino residents.

In Census Tract 28, 60-80% of residents live in rental units which is the largest concentration of rental units in the entire ~~City~~City. In Census Tracts 25, 29, 30.01, and 30.02, 40-60% of residents live in rental units, which is greater than most other regions of the County. About 70% of households with one of four Housing Problems or one of four Severe Housing Problems are renters. In Census Tracts 29 and 30.01, the level of overcrowding is double that of the State

average. The majority of homeowner households are paying greater than 30% of their income toward housing costs, but 60-80% of homeowners pay more than 30% of their income toward housing costs in Census Tract 30.01 and 40-60% of homeowners in Census Tracts 25 and 37. In comparison to ~~Butte County~~Butte County, households in the ~~City~~City of Oroville are more likely to be overcrowded and overpaying.

Most renters in the ~~City~~City pay more than 30% of their income toward housing costs. However, 60-80% of renters residing in areas that are shaded red in Figure 19.4 Overpayment by Renters pay more than 30% of their income toward housing costs, which includes Census Tracts 27, 28, 30.01, and 37. Naturally occurring affordable housing such as mobile home parks are dispersed evenly throughout the ~~City~~City, but many units are older and in need of rehabilitation. Most units in Pleasant Valley, Oro Lake, and Oak Street mobile home parks need substantial rehabilitation or replacement. These three mobile parks also experience disproportionately higher volumes of crime or disturbances. Homelessness has increased by 14% in the last decade, and the ~~City~~City of Oroville has the second largest population of individuals experiencing homelessness in ~~Butte County~~Butte County. Of those individuals, 80% are unsheltered. This data indicates that a significant number of renter households live in poor housing conditions. Both residents and stakeholders identified South Oroville as an area in need of substantial rehabilitation and improvements.

The ~~City~~City commented that there is a shortage of market-rate housing, rental units for all income levels, and many units that need rehabilitation. The ~~City~~City is interested in mixed-income development. Many fire survivors have settled in the region. Increased home insurance costs or inability to obtain homeowners insurance is making it difficult for residents to purchase a home. Staff from Youth for Change also indicated that low-income tenants have trouble securing small units and qualifying for housing.

Furthermore, over 30,000 Camp Fire survivors needed assistance and contacted Butte-Glenn 211. Butte-Glenn 211 referred over 25,000 services to Camp Fire survivors in ~~Butte County~~Butte County. The ~~Butte County~~Butte County Department of Employment and Social services provided over one million dollars in assistance for vehicles/RVs, home repairs/rebuilds, vehicle/RV repair, property replacement, shelter, utilities, deliveries, and other forms of assistance.

The shortage of housing in the ~~City~~City of Oroville was exacerbated by the Camp Fire, which destroyed naturally occurring affordable housing in the tri-county region of Butte, Glenn, and Tehama Counties and disproportionately impacted low-income and senior residents. Many residents have relocated throughout the region, but some are still unable to find housing, which is resulting in increases in overcrowding and displacement. Rents and housing costs reached record highs after the Camp Fire, which added to the number of households experiences precarious housing conditions. Housing prices in ~~Butte County~~Butte County have increased by more than $100,000 because of the Camp Fire. Fires continue to haunt the region. The North Complex Fire destroyed homes, businesses, and public building in the Berry Creek community, where many residents are living in temporary housing solutions such as RVs and campers.

Interviews with local agencies concluded that single residents, seniors, fixed-income residents, and low-income residents are most impacted by rising housing costs. Community organizations would like to see the ~~City~~City take an active role in promoting and facilitating that development of mixed-density, mixed-use, market-rate, and affordable housing as well as housing that meets the needs of protected classes, especially those experiencing homelessness, mental health conditions, or disabilities. Community organizations requested improved permitting and development processes, such as flexible allowances, mixed-use and high-density zoning, and incentives for infill development.

DEMOGRAPHICS

Population

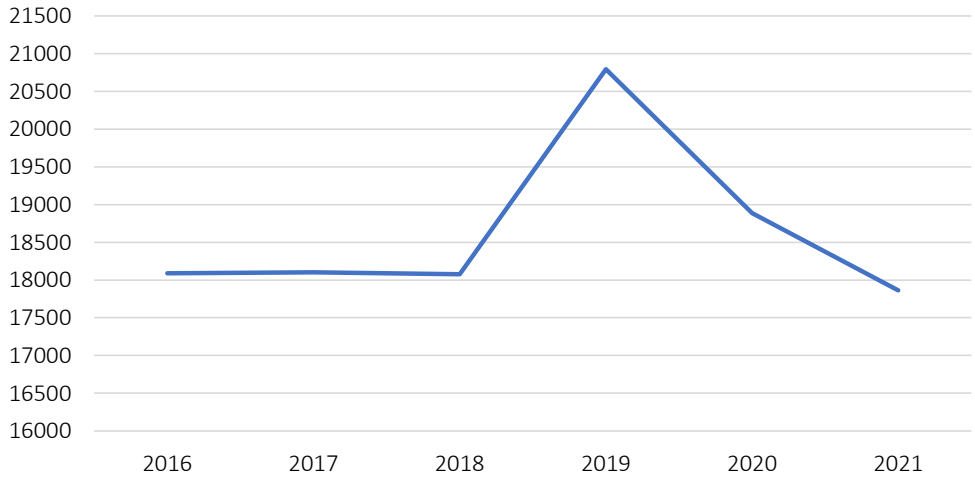
As of January 1, 2021, the population of Oroville was estimated at 17,863 by the California Department of Finance. "*Figure 22: Population Growth, ~~City~~City of Oroville and ~~Butte County~~Butte County, 2016-2021*" shows that the population of Oroville declined by 224 persons between 2016 and 2021, with an increase of 2,707 persons between 2016 and 2019 and a decrease of 2,931 persons from 2019 to 2021. ~~Butte County~~Butte County's population declined by 21,317 between 2016 and 2021, with an increase of 2,112 persons between 2016 and 2018 and a decrease of 23,429 between 2018 and 2021. The change in population trends for ~~Butte County~~Butte County occurred around the same time as the Camp Fire at the end of 2018. The population of Oroville decreased by about 1.2%, and the population of ~~Butte County~~Butte County decreased by about 10%, from 2016 to 2021.

Figure 22: Population Growth, ~~City~~City of Oroville and ~~Butte County~~Butte County, 2016-2021

	2016	2017	2018	2019	2020	2021	Average Annual Change
Oroville	18,087	18,101	18,075	20,794	18,888	17,863	
~~Butte County~~Butte County	223,986	225,468	226,098	220,855	208,951	202,669	
Oroville-Yearly Change	--	+14	-26	+2,719	-1,906	-1,025	
Butte-Yearly Change	--	+1,482	+630	-5,243	-11,904	-6,282	5,109

Source: California Department of Finance, 2021

Figure 22: Population Growth Chart, ~~City~~City of Oroville and ~~Butte County~~Butte County, 2016-2021



"Figure 22.2: Population Forecast, ~~City~~City of Oroville and ~~Butte County~~Butte County, 2020-2040" shows projected population growth as forecast by the ~~Butte County~~Butte County Association of Governments in their Post Camp Fire Study published in 2020. It is forecast that Oroville will increase in population by 2,017 between 2020 and 2040, which is a much slower growth rate than for ~~Butte County~~Butte County, which is projected to increase by 51,727 over this period. This projection model assumes that most of ~~Butte County~~Butte County's growth will occur in the Paradise and Magalia area as those communities rebuild from the Camp Fire.

Figure 22.2: Population Forecast, ~~City~~City of Oroville and ~~Butte County~~Butte County, 2020-2040

	2020	2025	2030	2035	2040	2020-2040 Change	2020-2040 Percent Change
Oroville	19,440	19,621	20,052	20,550	21,457	2,017	10.4%

~~Butte County~~Butte County	210,291	230,056	241,333	251,266	262,018	51,727	24.6%

Source: ~~Butte County~~Butte County Association of Governments, Post Camp Fire Study, 2020

Population by Age

"Figure 22.3: Population by Age, ~~City~~City of Oroville, 2019" shows the distribution of the population by age for Oroville. Note that this data has a different source (U.S. Census) and time period (2019) than the data used for the Population Growth figures above. The largest 20-year cohort is 20 to 39 years at 30.3%. The largest 10-year cohort is 20 to 29 years old at 15.7% of the population, closely followed by under 10 years old at 15.6% of the total population. About one in five Oroville residents is over 60 years old at 20.8% The median age for Oroville is 34 years old, which is younger than the statewide median age of 36.5 years old.

Figure 22.3: Population by Age, ~~City~~City of Oroville, 2019

Age	Persons	Percent of Total
Under 10 years	3,037	15.6%
10 to 19 years	2,251	11.6%
20 to 29 years	3,043	15.7%
30 to 39 years	2,832	14.6%
40 to 49 years	1,809	9.3%
50 to 59 years	2,254	11.6%
60 to 69 years	2,040	9.9%
70 to 79 years	1,346	6.9%
80 years and over	781	4.0%
Total		

Source: U.S. Census Bureau, 2015-2019 American Community Survey

EMPLOYMENT

Total employment in Oroville in December 2020 was 5,500, as estimated by the California Employment Development Department. Employment has ranged between 5,500 and 6,400 from 2010 to 2020. The Labor Force, which is the population that is actively seeking employment, has ranged between 6,100 and 6,800. The unemployment rate decreased from 16.2% in 2010 to 5.3% in 2018, before rising again to 9.8% in 2020. Trends in the unemployment rate have followed national and state trends. *(Figure 23: Total Employment and Unemployment, ~~City~~City of Oroville 2010-2020) and (Figure 23.1: Unemployment Rate Chart, ~~City~~City of Oroville, 2010-2020)*

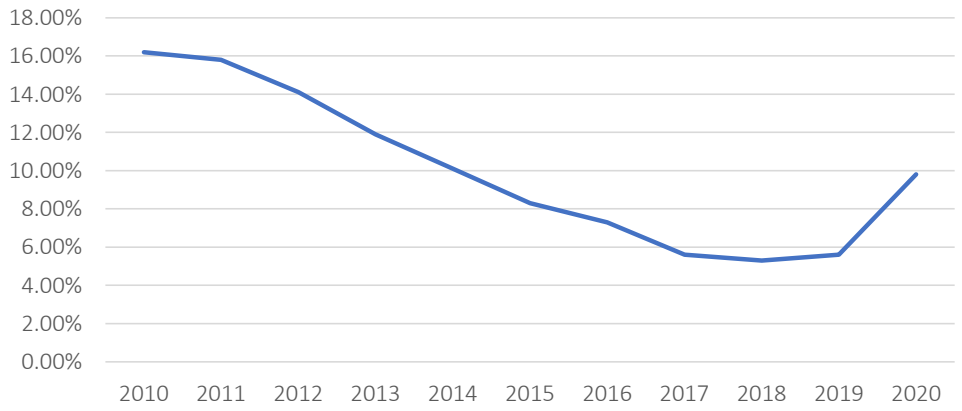
Figure 23: Total Employment and Unemployment, ~~City~~City of Oroville 2010-2020

	Labor Force	Employment	Unemployment	Unemployment Rate
2010	6,600	5,500	1,100	16.2%
2011	6,400	5,400	1,000	15.8%
2012	6,400	5,500	900	14.1%
2013	6,400	5,700	800	11.9%
2014	6,400	5,800	600	10.1%
2015	6,400	5,800	500	8.3%
2016	6,800	6,300	500	7.3%
2017	6,800	6,400	400	5.6%
2018	6,100	5,800	300	5.3%
2019	6,400	6,100	400	5.6%
2020	6,100	5,500	600	9.8%

Ave. Annual Percent Change				1.54%

Source: Employment Development Department, 2021

Figure 23.1: Unemployment Rate Chart, ~~City~~City of Oroville, 2010-2020



"Figure 23.2: Employment by Industry, ~~City~~City of Oroville, 2019" shows employment by industry for Oroville residents. The Educational services, and health care and social assistance Industry has significantly more employment than any of the other industries, with 24% of all jobs. The industries with the next largest shares of employment are Arts, entertainment, and recreation, and accommodation and food services (9.4%); Manufacturing (9.4%); Finance and insurance, and real estate and rental and leasing (9.2%); and Professional, scientific, and management, and administrative and waste management services (8.1%).

Figure 23.2: Employment by Industry, ~~City~~City of Oroville, 2019

Industry	Estimate	Percent
Civilian employed population 16 years and over	3,565	100%
Agriculture, forestry, fishing and hunting, and mining	94	2.6%
Construction	183	5.1%
Manufacturing	336	9.4%
Wholesale trade	64	1.8%
Retail trade	327	9.2%
Transportation and warehousing, and utilities	161	4.5%
Information	11	0.3%
Finance and insurance, and real estate and rental and leasing	329	9.2%
Professional, scientific, and management, and administrative and waste management services	289	8.1%
Educational services, and health care and social assistance	856	24%
Arts, entertainment, and recreation, and accommodation and food services	335	9.4%
Other services, except public administration	200	5.6%
Public administration	380	10.7%

Source: U.S. Census Bureau, 2015-2019 American Community Survey

HOUSEHOLD CHARACTERISTICS

Household Income

"Figure 24: State Income Categories, ~~Butte County~~Butte County, 2021" shows household incomes by category and percent of area income for ~~Butte County~~Butte County, as calculated by the State Department of Housing and Community Development. These income categories are referenced in the RHNA Sites Inventory that is part of this Housing Element and are also used in setting target rents for affordable housing programs and projects.

Figure 24: State Income Categories, ~~Butte County~~Butte County, 2021

		Maximum Income by Persons in the Household				
Income Category	**% of Area Median Income**	**1**	**2**	**3**	**4**	**5**
Extremely Low	0-30%	$14,640	$16,740	$18,840	$20,910	$22,590
Very Low	31-50%	$24,400	$27,900	$31,400	$34,850	$37,650
Low	51-80%	$39,040	$44,640	$50,240	$55,760	$60,240
Median	100%	$48,800	$55,800	$62,800	**$69,700**	$75,300
Moderate	81-120%	$58,560	$66,960	$75,360	$83,640	$90,360

Source: California Department of Housing and Community Development, 2021 State Income Limits

"Figure 24.1: Household Income, ~~City~~City of Oroville, 2019" shows the number of households in in Oroville by income category. The largest income category is $25,000 to $34,999 annually at 18.4%, followed by $50,000 to $74,999 annually at 18.2%. Almost one-third of households earn less than $25,000. The median household income is $34,428, much lower than the statewide median income at $75,235.

Figure 24.1: Household Income, ~~City~~City of Oroville, 2019

	Number of Households	% of Total
Less than $15,000	1,000	15.6%
$15,000 to $24,999	1,071	16.6%
$25,000 to $34,999	1,180	18.4%
$35,000 to $49,999	845	13.1%
$50,000 to $74,999	1,169	18.2%
$75,000 to $99,999	449	7.0%
$100,000 or more	712	11.1%
Total Households	6,426	--

Source: U.S. Census Bureau, 2015-2019 American Community Survey

"Figure 24.2: Household Income by Housing Tenure, ~~City~~City of Oroville, 2019" shows that the median household income for households in owner-occupied housing units is about twice the median income for households in renter-occupied housing units. The largest income category of households in owner-occupied housing units have incomes from $50,000 to $74,999 (23.1%), followed by households with incomes from $35,000 to $49,999 (17.4%). The largest income category of households in renter-occupied housing units also have incomes from $25,000 to $34,999 (22.7%), followed by households with incomes from $50,000 to $74,999 (14.0%). Almost one-half of households in renter-occupied units earn less than $25,000 (44.4%). This data shows that there are very few renters earning $75,000 or more (9.9%) compared to households in owner-occupied units (28.4%).

Figure 24.2: Household Income by Housing Tenure, ~~City~~City of Oroville, 2019

Household Income (in past 12 Months)	Owner-occupied Housing Units	Percentage Owner-occupied	Renter-occupied Housing Unit	Percentage Renter-occupied
Less than $5,000	31	1.1%	128	3.7%
$5,000 to $9,999	102	3.5%	195	5.6%
$10,000 to $14,999	135	4.6%	409	11.7%
$15,000 to $19,999	130	4.4%	431	12.4%
$20,000 to $24,999	127	4.3%	383	11.0%
$25,000 to $34,999	389	13.2%	791	22.7%
$35,000 to $49,999	512	17.4%	333	9.6%
$50,000 to $74,999	681	23.1%	487	14.0%
$75,000 to $99,999	308	10.5%	140	4.0%
$100,000 to $149,999	339	11.5%	110	3.2%
$150,000 or more	189	6.4%	76	2.2%
Median household income (dollars)	$52,854			$26,865

Occupied housing units	2,943	45.8%	3,483	54.2%

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Housing Tenure

The majority of units in Oroville are renter-occupied, with 3,483 (54.2%). There are 2,943 units in Oroville that are owner-occupied (45.8%). The proportion of renter-occupied housing units in Oroville is similar to the State of California as a whole, for which 55% of units are owner-occupied.

Figure 24.3: Occupied Housing Units by Tenure, ~~City~~City of Oroville, 2019

	Number	Percent
Owner-occupied housing units	2,943	45.8%
Renter-occupied housing units	3,483	54.2%
Total	7,174	--

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Householder Age

"Figure 24.4: Tenure by Age of Householder, ~~City~~City of Oroville, 2019" shows that the largest percentage of owner householders are 55 to 64 years old (24.7%), while only 12.5% of owner households are under 35 years old. Of renter householders, 32.2% are under 35 years old and 51.1% are under 45 years old.

Figure 24.4: Tenure by Age of Householder, ~~City~~City of Oroville, 2019

Householder	Owner-occupied	Pct. of Total	Renter-occupied	Pct. of Total	Total	Pct. of Total
Under 35 years	367	12.5%	1,120	32.2%	1,487	23.1%
35 to 44 years	401	13.6%	659	18.9%	1,060	16.5%

45 to 54 years	327	11.1%	395	11.3%	722	11.2%
55 to 64 years	788	26.8%	643	18.5%	1,431	22.3%
65 to 74 years	516	17.5%	300	8.6%	816	12.7%
75 to 84 years	434	14.7%	295	8.5%	729	11.3%
85 years and over	110	3.7%	71	2.0%	181	2.8%
Total	2,943		3,483		6,426	

Source: U.S. Census Bureau, 2015-2019 American Community Survey

HOUSING STOCK CHARACTERISTICS

Population and Housing Units

As of January 1, ~~2021~~2021, in Oroville, there were an estimated 7,439 housing units and a population of 17,863, according to the State of California Department of Finance. As shown in "*Figure 25: Population and Housing Units, ~~City~~City of Oroville, 2010 & 2021*," between 2010 and 2021 Oroville's population increased by 2,317, while the number of housing units increased by 1,245. The persons per household decreased from 2.60 in 2010 to 2.50 in 2021. The vacancy rate decreased from 8.8% in 2010 to 8.6% in 2021.

Figure 25: Population and Housing Units, ~~City~~City of Oroville, 2010 & 2021

Year	Population	Persons in Households	Persons in Group Quarters	Total Housing Units	Vacancy Rate	Person per Household
2010	15,546	14,662	884	6,194	8.8%	2.60
2021	17,863	17,006	857	7,439	8.6%	2.50

Source: California Department of Finance, 2021

The overall vacancy rate decreased slightly from 8.8% in 2010 to 8.6% in 2021. The total number of estimated vacancies in 2021 as estimated by the California Department of Finance was 640. Another data point for vacancies is the U.S. Census 2019 American Community Survey. Figure

25.1 below shows vacancies by vacancy status. This data shows 472 vacant rental units (including "For rent", "Rented, not occupied", and "For seasonal, recreational, or occasional use" categories) and 276 for-sale units (including "For sale only", "Sold, not occupied", and "Other vacant" categories), for a total of 748 vacant units. This estimate is higher than the 640 vacancies estimated by the California Department of Finance for 2021. If the "Rented, not occupied" units are removed from the count, the estimate is 513.

Figure 25.1: Vacancy Status, ~~City~~City of Oroville, 2019

Vacancy Status	Number of Units
For rent	189
Rented, not occupied	235
For sale only	54
Sold, not occupied	0
For seasonal, recreational, or occasional use	48
For migrant workers	0
Other vacant	222
Total Vacant Units	748

Source: U.S. Census, 2014-2019 American Community Survey

Housing Units by Type

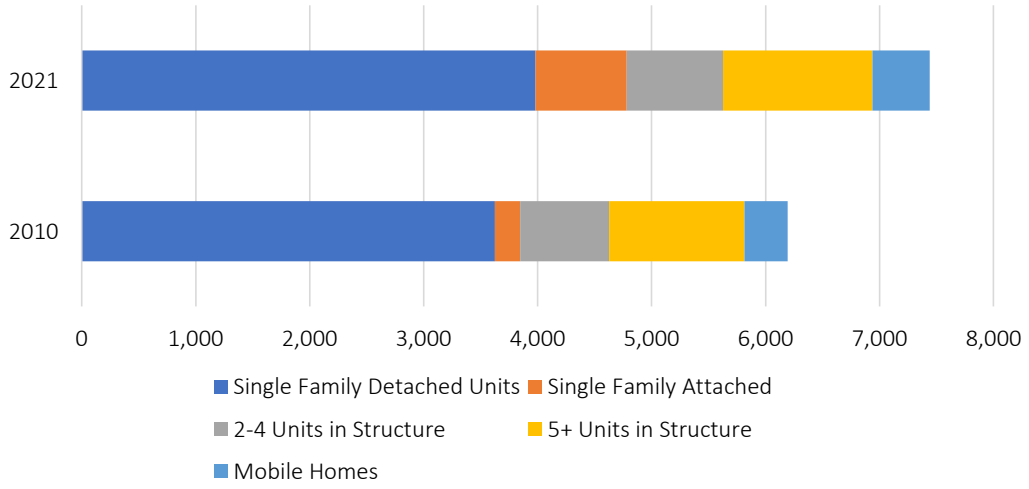
"Figure 25.2: Housing Units by Type, ~~City~~City of Oroville, 2010 & 2021" shows the breakdown of housing units by type as estimated by the State Department of Finance in 2010 and 2021. While just over half of housing units are in single-family detached structures at 53.5%, there has been a significant increase in share of units in single-family attached structures and mobile homes from 2010 to 2021. There is a much greater variety in housing types in Oroville than ~~Butte County~~Butte County as a whole, for which 82.0% of housing units are in single-family detached structures.

Figure 25.2: Housing Units by Type, ~~City~~City of Oroville, 2010 & 2021

Year	Total Housing Units	Single Family Detached Units	Single Family Attached	2-4 Units in Structure	5+ Units in Structure	Mobile Homes
2010	6,194	3,625	221	782	1,187	379
2021	7,439	3,980	802	845	1,310	502
Change	1,245	355	581	63	123	123
Percent Change	20.1%	9.8%	262.9%	8.1%	10.4%	32.5%

Source: California Department of Finance, 2021, E-5 Population and Housing Estimates for Cities

Figure 25.3: Housing Units by Type Chart, ~~City~~City of Oroville, 2010 & 2021



Overcrowding

Overcrowding is an important measure to help determine if there is adequate housing stock for the population. "*Figure 25.4: Tenure by Occupants per Room, ~~City~~City of Oroville, 2019"* identifies the number of units that are considered by the federal government as Overcrowded (more than one occupant per room) and Severely Overcrowded (1.5 or more occupants per room). In 2019, there were an estimated 442 Overcrowded housing units in Oroville, which was 6.9% of all units. There were an estimated 113 Severely Overcrowded housing units estimated, which was 1.8% of all units. (Note that the 6,426 estimated total number of housing units are occupied units rather than total units, from a different source (U.S. Census Bureau) and for a different year (2019) than the estimated number of housing units in "*Figure 25.2: Housing Units by Type, ~~City~~City of Oroville, 2010 & 2021*.") There is a significantly larger share of Overcrowded units in Oroville than in ~~Butte County~~Butte County as a whole, in which 3.2% of units were Overcrowded in 2019.

Figure 25.4: Tenure by Occupants per Room, ~~City~~City of Oroville, 2019

Occupants per Room	Owner-occupied	Renter-occupied	Total
0.50 or less occupants per room	2,097	1,764	3,861
0.51 to 1.00 occupants per room	732	1,391	2,123
1.01 to 1.50 occupants per room	86	243	329
1.51 to 2.00 occupants per room	28	64	92
2.01 or more occupants per room	0	21	21
Total	***2,943***	***3,483***	***6,426***
Overcrowded (1.01 or more)	114	328	442
Severely overcrowded (1.5 or more)	28	85	113

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Housing Conditions

"Figure 25.5: Housing Units by Year Structure Built Chart, ~~City~~City of Oroville, 2019" shows a breakdown of the number of units by the year in which their structure was built. In general, Oroville's housing stock is older in age, with about three in four units built before 1980. Almost half of Oroville's units were built between 1950 and 1979 and about one-quarter were built before 1950. This figure shows that construction of residential structures has slowed considerably since 2009, with just 2.2% of all units built in 2010 and later. The large proportion of older units in Oroville indicates a high need for rehabilitation, as many of these units are likely to be in poor condition due to deferred maintenance, as further illustrated by code enforcement data below.

Figure 25.5: Housing Units by Year Structure Built Chart, ~~City~~City of Oroville, 2019

	Units	Percentage
Built 2010 or later	163	2.2%
1980 to 2009	1,688	23.5%
1950 to 1979	3,470	48.4%
1949 or earlier	1,853	25.9%
Total	7,174	--

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Code enforcement data provides another window to housing conditions. A high number of code enforcement cases relative to the overall number of units, or particular trends by year, type of code enforcement, or location of code enforcement may provide indicators of the level of rehabilitation need in the ~~City~~City. Therefore, trends in the number of code enforcement cases and the type of code enforcement involved were analyzed. The ~~City~~City of Oroville provided data for this report. Of the total of 444 substandard housing cases opened between January 1,

~~2014~~2014, and October 4, 2021, 217 of these cases related to the structural integrity of residential buildings, damages caused by flooding, sewer leaks, fire, poor roof conditions, damaged foundations, and cracked walls and floors, as shown in Figure 25.6. This data shows that these types of code enforcement cases peaked in 2016 with 71 cases, and then declined significantly from 2017 to 2021. Single-family housing unit code enforcement cases declined from 38 in 2016 to 12 in 2017, and 7 to 16 from 2018 to 2021. Multi-family housing unit code enforcement cases declined from 24 in 2016 to 7 in 2017, and to just 3-4 cases from 2018 to 2021. Figure 25.6 does not include building violation code enforcement cases. Out of the 408 opened cases in this category, 37 were related to structural integrity of residential structures, damages caused by flooding, sewer leaks, fire, poor roof conditions, damaged foundations, and cracked walls and floors (~~City~~City of Oroville, October 5, 2021).

Figure 25.6: Code Enforcement Cases for Substandard Housing, ~~City~~City of Oroville, 2014-2021

	Single-family	Multi-family	Total
2014	11	27	38
2015	14	20	34
2016	38	24	71
2017	12	7	19
2018	16	4	20
2019	16	3	19
2020	7	3	10
2021	11	4	15
Total	125	92	217

Source: ~~City~~City of Oroville, 2021

The ~~City~~City of Oroville commissioned a housing conditions survey for South Oroville, which was completed in 2021. This survey encompassed 1,220 units in the South Oroville neighborhood, which is an older low-income neighborhood in the ~~City~~City of Oroville that was recently annexed. Of the surveyed units, 25.9%, or 316 units, were determined to be in need of rehabilitation, with the most common types of deterioration present in roofs, walls or columns, windows, and doors.

The number and proportion of foreclosures are other data points for assessing housing conditions since many foreclosed dwellings have deferred maintenance. Real estate sales data was collected for 2014 through 2021. Over this period, there were only 15 sales reported as "Real Estate Owned", or through foreclosure, ranging from zero to six in each of the years. Overall, the number of foreclosures from 2014 through 2021 represented 0.3% of all sales in Oroville.

The data reviewed above was used to estimate the number of units in Oroville that are in need of significant rehabilitation. Code enforcement data shows that between January 1, 2014 and October 4, 2021, there were 217 substandard housing cases that related to the structural integrity of residential buildings. Of the building violation code enforcement cases over this period, 37 were related to structural integrity of residential buildings. This totals 254 units

identified by the ~~City~~City of Oroville as in need of significant rehabilitation over the past seven years. In addition, the housing conditions survey of South Oroville found that an estimated 316 units are in need of significant rehabilitation. Adding these two numbers brings the estimate of units in need of rehabilitation in Oroville to 570 units. This is about 11% of the estimated total units built earlier than 1980.

Housing Production

"Figure 25.7: Housing Production, ~~City~~City of Oroville, 2014-2020" shows housing production by RHNA income level over the previous Housing Element planning period. The total number of units produced over this period was 224, which was 12.5% of the 2014-2022 RHNA goal for total units. Most of the units produced were in the Above Moderate-Income level.

Figure 25.7: Housing Production, ~~City~~City of Oroville, 2014-2020

RHNA Income Level	2014	2015	2016	2017	2018	2019	2020	2021	Total
Very Low		2	8						10
Low	57	4	6			1			68
Moderate									
Above Moderate	14	11	1	3	9	56	52		146
Total	71	17	15	3	9	57	52		224

Source: ~~City~~City of Oroville, 2021

A large number of affordable multi-family residential projects are currently in development. This includes six projects with 226 units that have secured entitlements but have not secured building permits, and six projects with 357 units that have secured building permits. These projects total 12 affordable rent-restricted projects with 583 units that will be placed in service within the next 2-3 years (~~City~~City of Oroville, October 27, 2021).

RENTAL MARKET

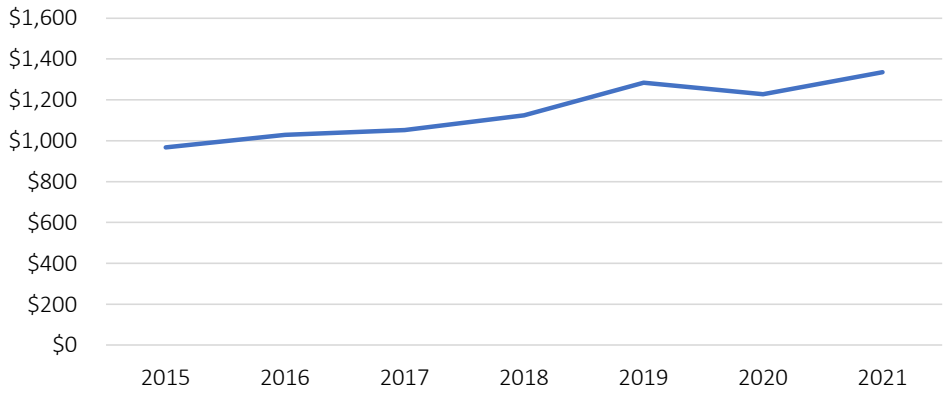
Rental market surveys that track average asking rents and vacancy rates are not available for the ~~City~~City of Oroville. However, HUD establishes a Fair Market Rent by unit size annually in order to set contract rents for their subsidy programs. The Fair Market Rents for ~~Butte County~~Butte County by unit size over the past seven years are shown in *"Figure 26: Fair Market Rent, ~~Butte County~~Butte County, 2015-2021."* The average Fair Market Rent increased by $367 over this period, from $968 in 2015 to $1,335 in 2021. This was a 38% increase over that seven-year period. The largest annual increase was after the Camp Fire, between 2018 and 2019, when the average Fair Market Rent increased by $160. Fair Market Rent declined slightly from 2019 to 2020 most likely due to COVID-19 rent freezes, and then increased again in 2021 to levels higher than in 2019.

Figure 26: Fair Market Rent, ~~Butte County~~Butte County, 2015-2021

	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	Average
2015	$527	$660	$870	$1,242	$1,541	$968
2016	$622	$713	$907	$1,318	$1,584	$1,029
2017	$656	$729	$923	$1,344	$1,614	$1,053
2018	$712	$785	$992	$1,443	$1,689	$1,124
2019	$808	$894	$1,144	$1,654	$1,921	$1,284
2020	$761	$842	$1,090	$1,567	$1,881	$1,228
2021	$825	$904	$1,192	$1,692	$2,064	$1,335

Source: U.S. Department of Housing and Urban Development, Fair Market Rents 2015-2021

Figure 26.1: Fair Market Rent Chart, ~~Butte County~~Butte County, 2015-2021



"Figure 26.2: Average Asking Rent by Building Age, ~~City~~City of Oroville, 2020" shows average rents as of 2020. Units built prior to 1970 rent for approximately 67%-75% of new units. Overall average rent was $1,059.

Figure 26.2: Average Asking Rent by Building Age, ~~City~~City of Oroville, 2020

Year Built	Rent
Before 1970	$817
1970-1979	$1,018
1980-1989	$1,250
1990-1999	$0
2000-2009	$1,225
2010+	$0

All	$1,059

Source: Kinetic Valuation Group Market Study, 2020

FOR-SALE MARKET

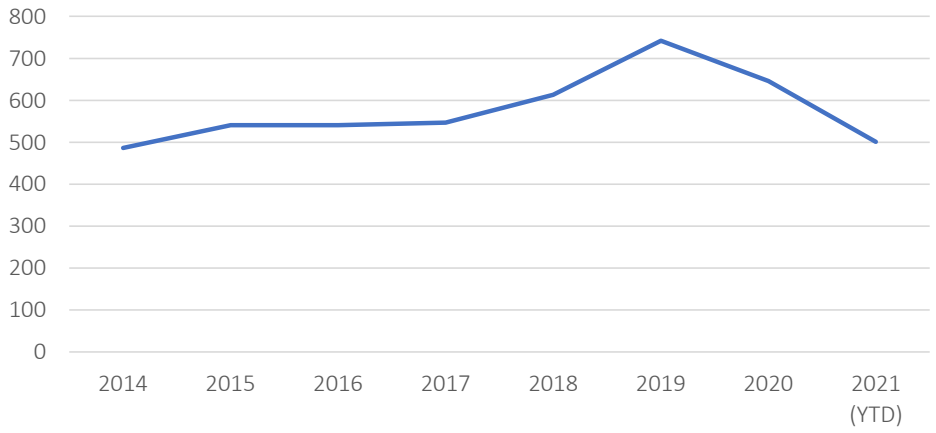
The number of homes sold in Oroville has gradually increased from 2014 to 2019, as shown in "*Figure 27: Number of Homes Sold by Type, ~~City~~City of Oroville, 2014-2021*." From 2019 to 2021, the number of homes declined again, following population trends over the same period. A significant portion of homes sold have been manufactured homes, at 18.3% of homes sold in 2020.

Figure 27: Number of Homes Sold by Type, ~~City~~City of Oroville, 2014-2021

Year	SF	Manufactured	Other	Total
2014	382	104	0	486
2015	432	108	1	541
2016	423	116	2	541
2017	433	110	4	547
2018	497	116	0	613
2019	591	151	0	742
2020	522	118	6	646
2021	408	91	2	501

Source: Sierra North Valley Realtors, September 2021 Multiple Listing Service

Figure 27.1: Number of Homes Sold Chart, ~~City~~City of Oroville, 2014-2021



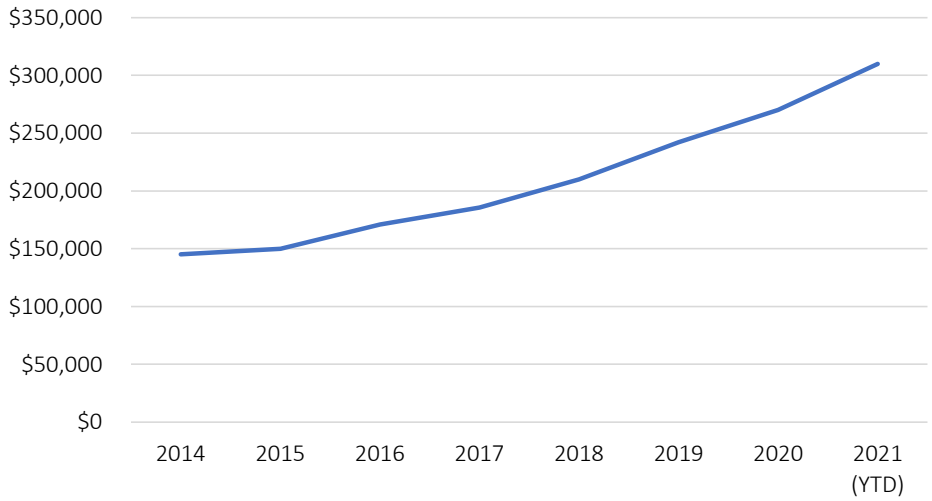
"Figure 27.2: Median Sales Price by Type of Sale, ~~City~~City of Oroville, 2014-2021" shows the median sales price for homes sold in Oroville from 2014 through 2021. The median sales price more than doubled from 2014 to 2021, a dramatic increase of $165,000 or 114%. The largest increase within that time period was from 2018 to 2019, when the median sales price jumped by $32,050 or 15%. Median sales prices in nearby Chico rose in a similar fashion at this time, which was the year following the Camp Fire.

Figure 27.2: Median Sales Price by Type of Sale, ~~City~~City of Oroville, 2014-2021

Year	SF	Manufactured	Other	Total
2014	$ 152,450	$ 110,000	$ -	$ 145,000
2015	$ 164,950	$ 117,000	$ 300,000	$ 150,000
2016	$ 185,000	$ 125,000	$ 195,750	$ 171,000
2017	$ 208,000	$ 139,500	$ 158,250	$ 185,600
2018	$ 218,575	$ 162,250	$ -	$ 209,950
2019	$ 255,000	$ 184,837	$ -	$ 242,000
2020	$ 285,220	$ 195,000	$ 220,000	$ 270,000
2021 (YTD)	$ 325,000	$ 267,500	$ 847,500	$ 310,000

Source: Sierra North Valley Realtors, September 2021 Multiple Listing Service

Figure 27.2: Median Sales Price by Type of Sale Chart, ~~City~~City of Oroville, 2014-2021



AT-RISK UNITS

Housing Element law (Government Code Section 65583(a)(9)) requires that Housing Elements identify assisted housing developments with contracts restricting rents to affordable levels that will expire within the next 10 years. "Assisted housing developments" include multi-family rental housing that receives government assistance under federal programs, state and local multi-family revenue bond programs, local redevelopment programs, inclusionary housing programs, or local in-lieu fees. There are no housing developments in the ~~City~~City of Oroville that meet these criteria as confirmed by a review of the National Housing Preservation Database and consultation with ~~City~~City of Oroville records.

HOUSING AFFORDABILITY

Overpayment

Housing affordability can be measured by the percent of income paid toward housing costs. HUD considers households that pay over 30% of their income to housing as *rent burdened*. Households that pay over 50% of their income to housing are considered *severely rent burdened*. This metric indicates the extent of household *overpayment*.

Figure 28 and 28.1 shows a breakdown of payment for housing costs by renter-occupied units. Figure 28 shows payment that is less than or more than 30% of income toward housing costs

(rent-burdened households). Figure 28.1 shows payment that is less than or more than 50% of housing costs (severely rent burdened households).

Figure 28 shows that the majority of renter households in Oroville earn less than $35,000 annually, at 67% of all renter households. An estimated four in five of these households earning less than $35,000 annually (81%) pay 30% or more of income toward housing ~~costs, or~~costs or are rent burdened. Figure 28.1 shows that 24% of renter households in Oroville pay 50% or more of income toward housing ~~costs, or~~costs or are severely rent burdened.

Figure 28: Renters Paying 30% or More of Income Toward Housing Costs, ~~City~~City of Oroville, 2019

Household Income	Less than 30% of Income Toward Housing Cost	30% or More of Income Toward Housing Costs	Total Renter Occupied Housing Units
Less than $35,000	418	1,790	2,208
$35,000-49,999	84	223	307
$50,000-74,999	328	144	472
$75,000 or more	286	5	291
Zero or Negative Income, No Cash Rent, Not Computed	--	--	222
Total	1,116	2,162	3,483

Source: US Census, 2015-2019 American Community Survey

Figure 28.1: Renters Paying 50% or More of Income Toward Housing Costs, ~~City~~City of Oroville, 2019

Household Income	Less than 50% of Income Toward Housing Cost	50% or More of Income Toward Housing Costs	Total Renter Occupied Housing Units
Less than $35,000	1,520	817	2,337
$35,000-49,999	333	0	333
$50,000-74,999	474	13	487
$75,000 or more	326	0	326
Total	2,653	830	3,483

Source: US Census, 2015-2019 American Community Survey

Figure 28.2 shows that households in owner-occupied housing units are fairly evenly distributed across the income spectrum, with 30% earning less than $35,000 annually and 28% earning $75,000 or more. Of owner households earning less than $35,000, 62% pay 30% or more of income toward housing costs. Overall, 28% of owners pay 30% or more of income toward housing costs.

Figure 28.2: Owners Paying 30% or More of Income Toward Housing Costs, ~~City~~City of Oroville, 2019

Household Income	Less than 30% of Income Toward Housing Cost	30% or More of Income Toward Housing Costs	Total Owner Occupied Housing Units
Less than $35,000	341	550	891
$35,000-49,999	354	158	512
$50,000-74,999	565	116	681
$75,000 or more	825	11	836
Zero or Negative Income, No Cash Rent	23	--	23
Total	2,108	835	2,943

Source: US Census, 2015-2019 American Community Survey

"Figure 28.3: Market Rent Compared to Affordable Rent, ~~Butte County~~Butte County, 2021" shows market rent compared to affordable rent by income level. Affordable rent is calculated at 30% of monthly income. A three-person Very Low-Income household earning 50% of Area Median Income can afford rent at $796, which is $396 less than the Fair Market Rent for a two-bedroom unit in ~~Butte County~~Butte County. A three-person Extremely Low-Income household earning 30% of Area Median Income can afford rent at $549, which is $643 less than the Fair Market Rent for a two-bedroom unit in ~~Butte County~~Butte County.

Figure 28.3: Market Rent Compared to Affordable Rent, ~~Butte County~~Butte County, 2021

Affordability Category	Affordable Rent	Income (3-person Household)	Rent Affordability Gap
~~Butte County~~Butte County 2-bdrm Fair Market Rent	$1,192	$47,680	
Low Income Household	$1,272	$50,900	
Very Low Income Household	$796	$31,850	$396
Extremely Low Income Household	$549	$21,960	$643

Source: U.S. Department of Housing and Urban Development, 2021 Fair Market Rent and Section 8 Income Limits

Availability of Affordable Units

"Figure 29: Publicly Subsidized Permanent Rental Units, ~~City~~City of Oroville, 2021" lists publicly subsidized affordable rental units within the ~~City~~City of Oroville. It includes 17 projects with 839 total publicly subsidized permanent rental units, including 63 studios, 248 one-bedrooms, 245 two-bedrooms, 235 three-bedrooms, and 48 four-bedrooms. Seven of the projects are public housing owned by the Housing Authority of the County of Butte. These projects charge rent at 30% of tenant income, regardless of income. The other 10 projects are financed by Low Income Housing Tax Credits (LIHTC), as well as other funding sources. In addition to units listed below, there are an additional 12 projects with a cumulative total of 563 units that are currently in development and will be placed in service within the next three years.

Figure 29: Publicly Subsidized Permanent Rental Units, ~~City~~City of Oroville, 2021

Project Name	Funding Source/ Target Population	1 BR	2 BR	3 BR	4 BR	Total Assisted Units	Average Household Rental Contribution
7th Street	Housing Authority, Family – 80% of Area Median Income			3		3	30% of Income
Boulder Creek	LIHTC - 60% of Area Median Income		88	48	20	156	$863-$1,099
Casey Court	Housing Authority, Family – 80% of Area Median Income			8		8	30% of Income
Gardella Street	Housing Authority, Family – 80% of Area Median Income			12		12	30% of Income
Hammon Park	Housing Authority, Family – 80% of Area Median Income			27		27	30% of Income
The Highland Apartments	LIHTC, Family - 60% of Area Median Income	32	54			86	N/A
Hillview Ridge Apartments I	LIHTC, Family and Special Populations - 60% of Area Median Income		23	40	8	71	$772-$984
Hillview Ridge Apartments II	LIHTC, Family - 60% of Area Median Income		15	33	8	56	$356-$916
Orange Tree Senior Apartments	HUD Multifamily, LIHTC, Senior - 60% of Area Median Income	49				49	$325
Oro Dam Blvd	Housing Authority, Family – 80% of Area Median Income			17		17	30% of Income

Oroville Apartments	HUD Multifamily, LIHTC - Section 8, 60% of Area Median Income	11	30	20		61	$282
Oroville Inn	LIHTC, Northwest Lineman College Housing					59	$580
Oroville Manor	LIHTC, Senior - 60% of Area Median Income	67				71	N/A
Pomono Avenue	Housing Authority, Family – 80% of Area Median Income			3		3	30% of Income
Sierra Heights Senior Apartments	LIHTC, Senior	32	8			40	N/A
Sierra Village	LIHTC, Family - 60% of Area Median Income		24	24	12	60	N/A
Winston Gardens	Housing Authority, Senior/Disabled – 80% of Area Median Income	57	3			60	30% of Income
Total		**248**	**245**	**235**	**48**	**839**	

Sources: Cambridge Real Estate Services, 2021; ~~City~~City of Oroville, 2021; Housing Authority of the County of Butte, 2021; Oroville Inn, 2021; PolicyMap, 2021

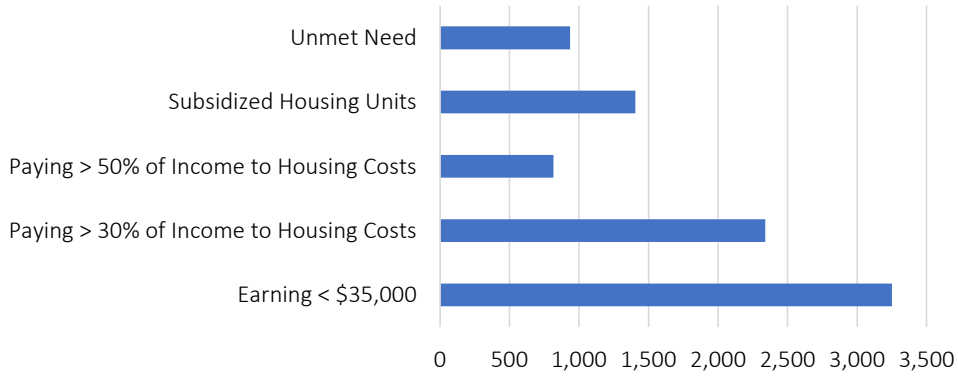
"Figure 29.1: Low-Income Households Relative to Subsidized Housing Units, ~~City~~City of Oroville, 2021" illustrates the affordable housing gap in Oroville. As of 2019, there were an estimated 3,251 households in Oroville earning less than $35,000 in the previous 12 months, which is roughly equivalent to a four-person Very Low-Income household in ~~Butte County~~Butte County per the State Income Limits. Of these households, 2,340 pay over 30% of income or more toward housing costs. As shown on Figure 28.3, these households cannot afford the Fair Market Rent. When compared to the number of subsidized housing units in Oroville at 1,404, this leaves a gap of 936 affordable units that are needed to assist households earning less than $35,000 that are rent-burdened. The number of subsidized housing units includes 839 ~~publicly-subsidized~~publicly subsidized rent-restricted units, 552 households with Section 8 Housing Choice Vouchers that reside in Oroville, and 13 households with HUD VASH vouchers that reside in Oroville.

Figure 29.1: Low-Income Households Relative to Subsidized Housing Units, ~~City~~City of Oroville, 2021

	Number of Households
Earning < $35,000	3,251
Paying > 30% of Income to Housing Costs	2,340
Paying > 50% of Income to Housing Costs	817
Subsidized Housing Units	1,404
Unmet Need	936

Source: Housing Authority of the County of Butte, 2021; U.S. Census Bureau, 2015-2019 American Community Survey

Figure 29.2: Low-Income Households Relative to Subsidized Housing Units Chart, ~~City~~City of Oroville, 2021



For-sale Home Affordability

"Figure 30: For-Sale Home Affordability, ~~City~~City of Oroville, 2021" breaks down the median income affordable home price compared to the price of a typical new starter home, the median home price, and the typical mid-range new home price. The median home price is about 17% lower than the price affordable to a ~~Butte County~~Butte County four-person median income household. The estimated price of a mid-range new home is about 5% higher than the price affordable to a four-person median income household.

Figure 30: For-Sale Home Affordability, ~~City~~City of Oroville, 2021

	Median Income Affordable Home Price	Typical New Starter Home Price (1,200 sq. ft.)	Median Home Price	Starting Mid-Range New Home Price (2,000 sq. ft,)
Household Income	$70,700	$45,397	$59,172	$75,434
Affordable Monthly Housing Payment	$2,062	$1,324	$726	$2,200
Subtract Taxes, MI, and Property Insurance	$496	$347	$444	$571
Mortgage Payment	$1,547	$977	$1,282	$1,629
Affordable Mortgage	$355,363	$224,580	$294,500	$374,300

Down Payment	$18,703	$11,820	$15,500	$19,700
Affordable Home Price	$374,066	$236,400	$310,000	$394,000

Assumes affordable housing payment at 35% of monthly income, 3.25% interest rate, 30-year fixed-rate mortgage, 5% down payment, property taxes at 1.1%, monthly mortgage insurance payments of $80-$130, monthly property insurance payments of $50-$80. Median home price based on the 2020 median sales price.

Source: Sierra North Valley Realtors, December 2020 Multiple Listing Service, California Department of Housing and Community Development, April 2020

EXTREMELY LOW-INCOME HOUSEHOLDS

Income

Extremely Low-Income (ELI) households earn less than 30% of the Area Median Income, as defined by federal and state governments. In ~~Butte County~~Butte County, 30% of Area Median Income ranges from $14,850 for a one-person household to $31,040 for a five-person household. As of 2019, the U.S. Census estimated that there were 2,071 households in Oroville earning less than $25,000 annually, which is 32% of all households, as shown in "*Figure 24.1: Household Income, ~~City~~City of Oroville, 2019*."

The Federal Poverty Level is a measure of material need used by federal agencies to determine eligibility for certain programs and benefits. For 2021, the Federal Poverty Level ranged from $12,880 for a one-person household to $31,040 for a five-person household, which nearly aligns with ELI incomes for ~~Butte County~~Butte County. In 2019, there were an estimated 708 families with income below the Poverty Level in Oroville (18.1% of all families in Oroville). *(Figure 31: Families Living Below the Poverty Level, ~~City~~City of Oroville, 2019)*

Figure 31: Families Living Below the Poverty Level, ~~City~~City of Oroville, 2019

	Number of Households	% of Total
Income below poverty	708	18.1%

Income below poverty, nonfamily, female householder	352	9.0%
Income below poverty married-couple family	325	8.3%
Total Households	3,917	--

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Overpayment

Most ELI households are rent burdened, many live in overcrowded conditions, and many are at-risk of becoming homeless**. "***Figure 28: Renters Paying 30% or More of Income Paid Toward Housing Costs, ~~City~~City of Oroville, 2019"* shows that there were 1,790 renter households in Oroville that earned less than $35,000 annually as of 2019 (18% of all households). Of these households, 81% paid 30% or more of their income toward housing costs, and 35% paid 50% or more of their income toward housing costs, as shown in "*Figure 28.1: Renters Paying 50% or More of Income Paid Toward Housing Costs, ~~City~~City of Oroville, 2019*."

Overcrowding

Given the limited purchasing power of ELI households, and the large proportion of ELI households that are rent burdened, it is likely that a large proportion of Overcrowded households are ELI. "*Figure 25.3: Tenure by Occupants per Room, ~~City~~City of Oroville, 2019"* shows that in 2019, there were an estimated 442 Overcrowded and 113 Severely Overcrowded housing units in Oroville.

Available Units, Resources, and Policies

The Regional Housing Needs Allocation for Oroville estimates a need for the production of 171 units affordable to Very Low-Income households, half of which should be affordable to ELI households, over the 2022-2030 Housing Element planning period. The provision of ELI affordable housing usually requires significant public subsidy for capital costs as well as operations. The very low ELI affordable rents usually necessitate rental assistance such as Section 8 Project Based Vouchers to cover operating expenses. This type of rental assistance pays the landlord the difference between 30% of tenant income and Fair Market Rents as set by HUD. In addition to financing, various local policies can help facilitate the production of ELI housing. These are listed below:

- Allowance for Single-Room Occupancy (SRO), group homes, and/or tiny home projects as permitted uses in the zoning code; and

- Allowance for Transitional and Supportive Housing in all residentially zoned districts, with no restrictions beyond what would apply to any other types of residential development. Revisions to the Municipal Code to achieve this policy are laid out in the Chapter 3 Housing Program, Programs 2.1.6 and 2.1.7.

SPECIAL NEEDS HOUSEHOLDS

Seniors

As of 2019, there were an estimated 4,167 people 60 years and older in Oroville. This is approximately 21% of the population. Of householders in Oroville that are 65 years and older, half (864 households) have an annual income that is less than $30,000. An estimated 69% have income less than 45,000. This points to the need for affordable housing for seniors. Most seniors have fixed incomes because they are no longer employed. Seniors with limited fixed incomes require restricted affordable rents that provide predictability, security, and stability. *(Figure 32: Income for Householders 65 Years and Over, ~~City~~City of Oroville, 2019)*

Figure 32: Income for Householders 65 Years and Over, ~~City~~City of Oroville, 2019

	Number of Households	% of All Senior Householders
Less than $15,000	289	16.7%
$15,000 to $29,999	575	33.3%
$30,000 to $44,999	321	18.6%
$45,000 to $59,999	269	15.6%
$60,000 to 74,999	78	4.5%
$75,000 to $99,999	105	6.1%
Over $100,000	89	5.2%

Total	1,726	--

Source: U.S. Census Bureau, 2015-2019 American Community Survey

As shown in "*Figure 32.1: Persons with a Disability by Age, ~~City~~City of Oroville, 2019,"* an estimated 1,236 persons 65 years and older in Oroville have a disability. This is 32% of the estimated 3,904 persons with a disability in Oroville, and 43% of the 2,888 persons in this age group. This is higher than the proportion of persons 65 years and older with a disability for the State of California as a whole (35%).

Figure 32.1: Persons with a Disability by Age, ~~City~~City of Oroville, 2019

	Persons with a Disability	% of Total Population
Total population w/ a disability	3,904	21.9%
Under 18 years	246	1.4%
Age 18 to 64	2,422	13.6%
65 years and over	1,236	6.9%
Total Civilian Non-institutionalized Population	17,825	--

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Seniors benefit from a continuum of housing options that accounts for mental and physical disabilities, and restricted mobility challenges that may change over time. Publicly subsidized affordable housing typically helps seniors live independently and age in place for as long as possible. The physical design incorporates ADA units and ADA adaptable features for physical and sensory impairments, in addition to full accessibility to units and common areas for

wheelchair users. Semi-independent retirement communities and nursing facilities are other residential models that meet critical needs for seniors. There are currently eight state-licensed assisted living care facilities for the elderly with a cumulative ~~capacity~~capacity for 339 persons in Oroville (State of California Community Care Licensing Division, 2021). In addition, there are three senior low-income affordable rental properties in Oroville as listed below with a cumulative 160 units.

- Orange Tree Senior Apartments— 49 units (all one-bedroom)
- Oroville Manor—71 units (4 studios and 67 one-bedrooms)
- Sierra Heights Senior Apartments— 40 units (32 one-bedrooms and 8 two-bedrooms)

There are also three additional senior low-income affordable rental properties that are in development and expect to be placed in service within the next three years, as listed below:

- Olive Ranch Apartments, Phase 3— 51 units
- AMG Mitchell Avenue— 72 units
- Sierra Heights Apartments, Phase 2— 48 units

Persons with a Disability

Persons with disabilities have particular housing needs depending on their situation. Public funding sources for housing typically require that 5%-10% of units are fully accessible for persons with physical disabilities per the American with Disabilities Act, and that 2% are accessible to persons with sensory disabilities. In addition, publicly assisted affordable housing often offers resident services that connect tenants with local peer support and advocacy organizations, health services, and transportation assistance. A number of federal and state sources fund Permanent Supportive Housing for persons with mental disabilities, which include individualized case management and mental health services.

There were an estimated 3,904 persons with a disability in Oroville in 2019 according to the U.S. Census. This was 22% of the total civilian non-institutionalized population in Oroville. This was much higher than the proportion of persons with a disability statewide, which was about 11%. "*Figure 33: Disability Characteristics, ~~City~~City of Oroville, 2019*" shows persons with a disability by type of disability. One individual may have more than one type of disability. The most commonly identified type of disability listed is "cognitive difficulty", followed closely by "ambulatory difficulty".

Figure 33: Disability Characteristics, ~~City~~City of Oroville, 2019

	Persons
Total civilian non-institutionalized population	17,825
Persons with a disability	3,904
Hearing difficulty	788
Vision difficulty	639
Cognitive difficulty	2,097
Ambulatory difficulty	1,963
Self-care difficulty	1,060
Independent living difficulty	1,801

Source: U.S. Census Bureau, 2015-2019 American Community Survey (civilian noninstitutionalized population)

State Housing Element law also requires jurisdictions to specifically analyze needs for persons with developmental disabilities. The California State Department of Developmental Services provides data on Regional Center and Early Start consumers by zip code. The ~~City~~City of Oroville includes zip codes 95965 (which also includes Butte Valley, Pulga, and Yankee Hill) and 95966. In the 95965 zip code, there were 420 consumers (168 consumers under 18 years old and 252 consumers 18 years old or older) with developmental disabilities as of the end of ~~September,~~September 2021. The residency of these consumers included: 266 living at home of parent/family/guardian; 95 in independent/supported living; 46 in a community care facility; 7 in a foster/family home; and 6 others. In the 95966 zip code, there were 490 consumers (212 under 18 years old and 278 over 18 years old) with developmental disabilities as of the end of September 2021. The residency of these consumers included: 343 living at home of parent/family/guardian; 113 in independent/supported living; 20 in a community care facility; 7 in a foster/family home; and 7 others.

The Far Northern Regional Center manages services for persons with developmental disabilities in ~~Butte County~~Butte County. The Far Northern Regional Center provides early intervention and behavior services, respite care, licensed homes, adult day activities, supported employment, and healthcare coordination. There are two low-income, publicly subsidized housing complexes with units targeted to persons with disabilities in Oroville.

The ~~City~~City of Oroville does have a reasonable accommodation policy for persons with disabilities to request zoning and building code variances. Reasonable accommodation requests can be approved at a staff level either the Zoning Administrator or their designee.

Female-Headed Households

Almost over one in three families in Oroville (31%) are female-headed households with no spouse present, which is an estimated 1,217 families. These families have a much lower median income than married-couple families, and families in general, as shown in "*Figure 34: Family Median Income, ~~City~~City of Oroville, 2019*." The median income for female-headed families is 62% of the median income for married-couple families.

Figure 34: Family Median Income, ~~City~~City of Oroville, 2019

	Median Income
Families	$48,664
Married-couple families	$56,973
Female householder, no spouse present	$30,306
Male householder, no spouse present	$44,567
Households (All)	$34,428

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Another indicator of economic well-being is the number of families with income below the poverty level. A larger proportion of female-headed families in Oroville has income below the poverty level (28.9%) than families overall (18.1%). For female householders with related children under 18 years old, the percentage of families below the poverty level is much higher, at 56.1%. *(Figure 34.1: Female Householder Families Below Poverty Level, ~~City~~City of Oroville, 2019)*

Figure 34.1: Female Householder Families Below Poverty Level, ~~City~~City of Oroville, 2019

	Number of Female Householder Families, No Spouse Present	% of Female Householder Families, No Spouse Present	Number of Female Householder Families, No Spouse Present, With Related Children of the Householder Under 18 Years	% of Female Householder Families, No Spouse Present, With Related Children of the Householder Under 18 Years

Below poverty level	352	28.9%	303	56.1%
At or above poverty level	865	71.1%	237	43.9%
Total	1,217		540	

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Female-headed households can benefit from a number of features offered by publicly subsidized housing. Most importantly this type of housing offers affordable restricted rent. In addition, many of these types of housing projects offer after-school programs and youth recreation programs. Many also have amenities such as computer labs, community rooms for youth activities and adult education, and playgrounds. Affordable childcare is also a critical need for these families.

Large Households

"Figure 37: Household Size, ~~City~~City of Oroville, 2019" depicts the size and tenure of all households in Oroville. Nearly 60% of all households have two or fewer persons. Most owner households are two-person ~~households~~households, and most renter households are one-person households. Households with three or more persons are more likely to be renter households than owner households. An estimated 11.8% of all households have five persons or more, which is an estimated 763 households. Of these large households, 58.8% are renters.

Figure 37: Household Size, ~~City~~City of Oroville, 2019

	All Households	% of Total	Owner Households	Renter Households
1-person	1,938	30.2%	851	1,087
2-person	1,858	28.9%	1,066	792

3-person	1,120	17.4%	406	714
4-person	747	11.6%	306	441
5-person	426	6.6%	197	229
6-person	225	3.5%	83	142
7-or-more-person	112	1.7%	34	78

Source: U.S. Census Bureau, 2015-2019 American Community Survey

"Figure 35.1: Median Family Income by Family Size, ~~City~~City of Oroville, 2019" shows that families with six or more persons have slightly higher median income than families with fewer persons. Insufficient data is available to calculate median family income for families with five persons.

Figure 35.1: Median Family Income by Family Size, ~~City~~City of Oroville, 2019

	Median Income
2-persons	$48,558
3-persons	$33,309
4-persons	$49,299
5-persons	--
6-persons or more	$54,575

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Due to expensive housing costs and other costs of living, many large households earning near or less than median income may struggle to make ends meet. Large households also face challenges securing housing that is not overcrowded. The 2021 Fair Market Rent for a four-bedroom unit in ~~Butte County~~Butte County is $2,064, which would be affordable for a household

earning at least $82,560 annually, which is much higher than the Oroville median income for families with six persons or more. This rent is also unaffordable for four-person families earning 80% of Area Median Income at $63,350.

Publicly subsidized housing with three-bedroom or four-bedroom units addresses the needs of Low-Income large families. In Oroville, there are 11 affordable rental complexes with a cumulative total of 235 three-bedroom apartments. In addition, four of these affordable rental complexes have a cumulative total of 48 four-bedroom apartments.

People Experiencing Homelessness

The ~~Butte County~~Butte Countywide Homeless Continuum of Care conducts a Point-In-Time Homeless Census every other year. People experiencing homelessness complete voluntary surveys that provide information about the characteristics and causes of homelessness. This is not an exhaustive survey of every individual experiencing homelessness throughout the year, but a snapshot of the number of individuals surveyed on one particular day of the year. The actual number of persons experiencing homelessness at any point during the year is likely higher than the number surveyed in the Point-In-Time Homeless Census.

The most recent Point-In-Time Census for ~~Butte County~~Butte County was conducted in January of 2019. The 2021 Point-In-Time Census was rescheduled to January of 2022 due to the COVID-19 pandemic. The 2019 Point-In-Time Census counted 415 individuals experiencing homelessness in Oroville. Below are noteworthy data points.

- One quarter of these individuals were “chronically homeless”, which means that they had a disability and lived in a shelter, safe haven, or place not meant for human habitation for 12 continuous months or for four separate occasions in the last three years.
- In terms of nighttime habitation, 37% were sleeping on the street or sidewalk, 24% were sleeping at an outdoor encampment, and 13% were staying with a friend or family member.
- Of the 415 individuals surveyed, 85% lived in ~~Butte County~~Butte County when they lost their housing, and 47% reported this was their first time they have experienced homelessness.
- The 2018 Camp Fire had been a significant factor in causing homelessness in Oroville, as 15% of the individuals surveyed reported being survivors of the Camp Fire and had lived in Camp Fire affected areas.

Beyond permanently affordable rental housing, there are a variety of sheltering strategies that have been implemented across the country to assist persons experiencing

homelessness. Emergency shelters provide short term shelter, often with referral to other longer-term housing options as well as community services. Transitional housing provides temporary housing, usually for periods of up to 24 months at a time, with supportive services that assists residents to build self-sufficiency and transition to permanent housing. Permanent Supportive Housing is housing without a limit on the length of residency that provides a variety of supportive services to help residents stabilize and progress in terms of health, income, and/or employment. The Oroville Rescue Mission is a nonprofit organization that runs two emergency shelters in Oroville— Timothy Housing, which is a men's shelter with 24 beds; and Bethel House, a Women and Children's shelter with 14 beds. The Oroville Rescue Mission also provides clothing and food distribution, and drug and alcohol support services. The ~~City~~City also made progress in the development of Permanent Supportive Housing as follows:

- Base Camp Village is a 12-unit permanent supportive housing project for people experiencing homelessness with a mental illness diagnosis. The housing project opened in April 2020.
- Prospect View will be another newly constructed project which will offer 39 units of permanent supportive housing for people experiencing homelessness with a mental illness. Construction is slated to begin in 2022 with units available for occupancy in 2023.

Farmworkers

An estimated 94 people were employed in the Agriculture, Forestry, Fishing and Hunting, and Mining Industry in Oroville as of 2019, which was 1.5% of all employed residents. There is a higher proportion of people employed in these industries in ~~Butte County~~Butte County as a whole, and the State of California. *(Figure 36: Agriculture and Related Occupations, ~~City~~City of Oroville, 2019)*

Figure 36: Agriculture and Related Occupations, ~~City~~City of Oroville, 2019

	Number of People Employed in Agriculture, Forestry, Fishing and Hunting, and Mining Industry	% of Total Employed Population
~~City~~City of Oroville	94	1.5%

~~Butte County~~Butte County	3,874	4.0%
State of California	415,545	2.2%

Source: U.S. Census Bureau, 2015-2019 American Community Survey

The Census of Agriculture is conducted every five years by the U.S. Department of Agriculture (USDA), and is a count of U.S. farms and ranches and the people who operate them. This data is available at the county level but not the ~~city~~City level and is provided for additional context about farmworkers in ~~Butte County~~Butte County. About 13% of all workers on farms with hired labor in ~~Butte County~~Butte County are migrant workers. This means these workers travel from their permanent place of residence to find work at one or more agricultural employers. *(Figure 36.1: Farm and Labor Characteristics, ~~Butte County~~Butte County, 2017)*

Figure 36.1: Farm and Labor Characteristics, ~~Butte County~~Butte County, 2017

Jurisdiction	Number of Farms	Number of Farms with Hired Labor	Number of Workers on Farms with Hired Labor	Total Migrant Workers on Farms with Hired Labor
~~Butte County~~Butte County	1,912	709	4,348	580

Source: U.S. Department of Agriculture, 2017 Census of Agriculture

The Housing Authority of the County of Butte (HACB) owns farm labor housing (also known as farmworker housing) in the ~~City~~City of Gridley which is located in south ~~Butte county~~Butte County. The farmworker housing in Gridley is located approximately 30 miles from Chico via Highway 99. This is the only farmworker housing owned by HACB in ~~Butte County~~Butte County.

HACB and property management firm AWI Management Corporation staff provided information about the Gridley farmworker housing via email correspondence on April 7 and April 19, 2022. There are 79 occupied units with an average rental contribution of $524 per month. There are 4 one-bedroom units, 59 two-bedroom units, 12 three-bedroom units, and 4 four-bedrooms units. At the time of the correspondence, there were eight households on the waiting list for a unit. AWI Management Corporation had started marketing for units using local radio, printing leasing banners, and generating flyers for distributing to local agricultural employees.

Community Housing Improvement Program (CHIP) is a private, non-profit 501(c)(3) corporation serving Butte, Glenn, Tehama, Shasta, Sutter, Yuba, and Colusa counties. CHIP assists low-income and rural disadvantaged residents, seniors, and others who lack financial resources or knowledge to improve or provide adequately for their housing. CHIP has built more than 2,600 housing units in its seven-county service area *(Community Housing Improvement Program, Website, 2022).*

In an interview for the Housing Element on April 11, ~~2022~~2022, via Zoom and email correspondence on April 4 and 22, 2022, CHIP staff shared farmworker housing needs and resources in Butte and Glenn counties where their properties are located. CHIP has three farmworker housing projects, with the first coming online in the 1980s. La Vista Verde in Chico (~~Butte County~~Butte County) has 33 units, Las Palmas in Hamilton ~~City~~City (Glenn County) has 12 units, and Rancho de Soto in Orland (Glenn County) has 33 units. All three properties have U.S. Department of Agriculture (USDA) funding, and Rancho de Soto also has Joe Serna, Jr. Farmworker Housing Grant Program and Low-Income Housing Tax Credits (LIHTC) funding.

La Vista Verde in Chico has 14 two-bedroom, 14 three bedroom, and 4 four-bedroom units in addition to 1 four-bedroom manager's unit. The average tenant rental contribution per month is $423. The waitlist is minimal with two households as of April 11, 2022. Staff commented this is due to difficulty with qualifying households and filling units, which is explained in more detail in the following paragraphs.

CHIP's farmworker housing tenants typically work locally in fields, orchards, dairies, factories, and warehouses that process agricultural products. Some of the tenants work seasonally and others work year-round. Some seasonal workers have different employment in different seasons. Workers are busiest during harvest May through June and September through October. According to property management staff, tenants' employment was not affected much by the COVID-19 pandemic.

All three farmworker housing projects in Butte and Glenn counties require eligible immigration status (~~e.g.~~e.g., permanent resident, citizen, etc.), and a low-income of 50% AMI or less. If one member of the household is working full-time at the California minimum wage of $15 per hour, any overtime puts the household over the income requirement. Overtime is common for farmworkers at certain times of the year due to seasonal crop harvest. Thus, to meet income requirements with one person of the household working full-time with some overtime, a household would need to be at least three-persons and some households would need to be at least four-persons to qualify. Staff observed that workers with eligible immigration status tend to earn more than what the income limits allow for the housing projects. Rancho de Soto in Orland has LIHTC funding which requires between 30-50% AMI, which staff commented makes it more challenging to find qualified households. Staff shared their perspective that Area Median Income (AMI) is too low for ~~Butte county~~Butte County. Farmworkers with eligible immigration status are typically paid at least minimum wage. With a two-income household, this means they are not eligible for CHIP's housing because they are over income at higher than 50% AMI.

CHIP staff shared unmet needs of farmworker housing in Butte and Glenn counties. These unmet needs include housing that does not require eligible immigration status. There is a mismatch of income and status occurring. Farmworkers with eligible status have higher incomes and do not qualify for housing, whereas farmworkers without documentation have lower incomes but do not qualify for housing due to lack of eligible status. The typical reason for denying an applicant is due to a lack of eligible immigration status. While CHIP staff has had periodic conversations with USDA about these regulations they do not know of organized statewide advocacy on this issue. Though temporary waivers for projects are possible from USDA, USDA and HCD would have to work together to address regulation issues because both funding sources are typically part of farmworker housing projects.

After the 2018 Camp Fire, USDA temporarily waived the farmworker requirement for farmworker housing. Camp Fire survivors who were not farmworkers were able to move into La Vista Verde in Chico and Las Palmas in Hamilton ~~City~~City. This did not happen at Rancho de Soto in Orland due to LIHTC requirements. CHIP's property management staff stated that at one point after the Camp Fire, La Vista Verde had almost one-third of units filled by fire survivors who were not farmworkers. Effects of this atypical dynamic included more pets and service animals and some tension between long-term farmworker tenants and the new Camp Fire survivor tenants, the latter of which was not strongly welcomed into the community by the former. Long-term farmworker tenants cited issues of fairness, wondering why the new tenants did not have to be farmworkers to qualify for the housing while they did.

In conclusion, there are four farmworker housing projects in Butte and Glenn counties owned by HACB and CHIP. While these counties are known as agriculturally rich areas, issues persist with matching housing needs to available resources for farmworker households. A mismatch of need to regulated resources is occurring, causing resources to be underutilized and households not being able to be housed.

CHAPTER 5: RESOURCE INVENTORY

This chapter will describe the various resources that can be employed to produce a variety of housing types to meet the needs described in Chapter 4. The principal resources required are adequate appropriately zoned land and financing. There are opportunities to use these resources to not only produce housing, but also further energy conservation, as residential structures are a major energy user and greenhouse gas producer. This chapter will explore available resources in the following sections:

- Adequate Sites Inventory
- Financial Resources
- Energy Conservation Opportunities

ADEQUATE SITES INVENTORY

Regional Housing Needs Allocation

State Housing Element Law requires local governments to plan for their housing needs based on future growth projections that established by the Regional Housing Needs Allocation (RHNA). The RHNA establishes goals for the production of housing affordable to various income levels—Above Moderate-, Moderate-, Low-, and Very Low-Income. The goals for Extremely Low-Income and Very Low-Income affordable units are even (50/50) split of the Very Low-Income goal as shown below (85.5 Extremely Low- and 85.5 Very Low-Income). The goals are generally set every 7.5 years and correspond with Housing Element planning periods. "*Figure 37: Regional Housing Needs Allocation, ~~City~~City of Oroville, 2022-2030*" lists the RHNA goals by income level for the 2022-2030 planning period (January 1, ~~2022~~2022, through June 30, 2030).

Figure 37: Regional Housing Needs Allocation, ~~City~~City of Oroville, 2022-2030

Affordability Tier	Number of Units Allocated	Percentage
Very Low	171	27.4%
Low	6	1.0%
Moderate	73	11.7%
Above Moderate	375	60.0%
Total	625	100%

Source: ~~Butte County~~Butte County Association of Governments, 2020 6th Cycle Regional Housing Needs Plan

Analysis of Density to Accommodate Lower Income Housing

Government Code Section 65583.2 requires each community to ensure that there is adequate appropriately zoned land within its jurisdiction to accommodate its RHNA. This process is implemented through the Adequate Sites Inventory, which identifies sites that are appropriately zoned and can feasibly developed within the Housing Element planning period. The local jurisdiction's allowable density as laid out in its zoning code is used to determine the RHNA income level that will apply to each site identified in the Adequate Sites Inventory. State Housing Element Law recognizes that higher densities generally facilitate greater affordability in housing. Government Code Section 65583.2(c)~~©~~(3) requires that Housing Elements establish a reasonable baseline density to feasibly develop Lower Income housing for the Low- and Very Low-Income RHNA income levels for the Adequate Sites Inventory if development plans are not already in place with specific unit counts. However, the ~~City~~City has identified three projects with development plans in place for specific unit counts, so these projects were used for the Low- and Very Low-Income Sites Inventory. ~~For this purpose~~For comparison ~~puposes~~purposes, the development density of six developments that have recently secured entitlements and tax credit allocations in 2020 in Oroville have been analyzed. The ~~baseline density has been established by averaging the~~average density of these Oroville projects that are listed in "*Figure 37.1: Low Income Density Analysis*." Sierra Heights Phase II ~~and Riverbend Family Apartments are~~is on a MXC-zoned parcel~~s~~ that ~~are~~ is being developed at a density~~ies~~ lower than the average density of the ~~six~~ four other affordable ~~development~~projects~~s~~ .~~.~~ ~~Sierra Heights Phase II is being developed at the~~This project has the lowest density due to a steep slope on the site. ~~However, the City has recently received proposals for multi-family housing in MXC zones at much higher densities. Cascade Apartments has submitted a proposal for planning permit that is 42 units on 1.55 acres for 27.1 units per acre. Lincoln Affordable Apartments has submitted a proposal for planning permit that is 408 units on 13.56 acres for 30 units per acre. As demonstrated, recent multi-family proposals in the R-3 zone are trending toward higher densities.~~ The average density of the projects listed in Figure 37.1 is 18.2~~7~~ units per acre. ~~Therefore, any site identified to meet the~~

~~Lower Income RHNA in the Adequate Sites Analysis must allow residential uses by right or have secured entitlements, and be in a zoning district that allows at least 18 units per acre.~~By comparison, the average density of projects in development that are listed in Figure 37.2 Low- and Very-Low Income Sites Inventory is 18.5 units per acre. All of the parcels listed in the Low- and Very-Low Income Sites Inventory are in zoning districts that allow a density of at least 18 units per acre.

Figure 37.1: Low Income Density Analysis

Project Name	Zoning	Allowable Density (du/ac)	Units	Acres	Units/Acre
Sierra Heights Phase II	MXC	10-30	48	3.76	12.77
Oroville Heights Apartments	R-3	14-20	66	4.96	13.31
Olive Ranch Phase I	R-4	20-30	81	3.15	25.71
Olive Ranch Phase II	R-4	20-30	80	2.74	29.20
~~Mitchell Avenue Senior Apts.~~	~~R-3~~	~~20-30~~	~~36~~	~~1.99~~	~~18.09~~
Riverbend Family Apartments	R-3	20-30	72	4.36	16.51
Average			~~64~~69	3.~~49~~79	18.2~~7~~

Source: ~~City~~City of Oroville, 2021

Analysis of Realistic Capa~~city~~city

Government Code Section 65583.2(c)~~©~~ (1&2) requires that the Housing Element establish a realistic ~~capacity~~capacity for each parcel listed in the Adequate Sites Inventory. However, all sites in the Low- and Very-Low Income Sites Inventory have development plans with specific unit counts. Therefore, the actual planned number of units are used for the Sites Inventory instead of an assumption of realistic capa~~city~~city. The average density of projects listed in the ~~Low Income~~Low-Income Density Analysis is very close to the average density of projects listed in the Low- and Very-Low ~~Incopme~~Income Sites Inventory. The zoning districts for all of the sites allow

for residential development that is at least 18 units per acre.~~For this purpose, Figure 37.1 lists the multifamily densities for six low-income affordable projects that were recently entitled and secured tax credit allocations in 2020, as described above. The average density of these projects is 18.27 units per acre. The City of Oroville zoning code permits residential uses with densities of 18 units per acre by right in the R-3 and MXC zoning districts. The minimum density in the R-4 zoning district is 20 units per acre. In certain circumstances developers may apply an affordable housing density bonus that allows much greater densities. Therefore, 18 units per acre is a reasonable conservative assumption of capacity for sites identified as Lower Income in the Adequate Sites Inventory.~~

Sites Inventory

The sites listed in "*Figure 37.2: Adequate Sites Inventory, Low and Very Low Income"* are currently vacant and zoned for residential uses at densities that will allow for development that meets the RHNA for Low- and Very Low-Income levels. Three of the sites have Mixed Use General Plan Designations and MXC Zoning that allows 10-30 dwelling units per acre. The other site has a High Density Residential General Plan Land Use Designation and R-3 Zoning that allows 20-30 dwelling units per acre. The ~~capacity~~capacity for the Mixed Use sites listed are projected at 18 units per acre, which is within the allowable density range for MXC zoning. The ~~Capacity~~capacity for the Medium High Density Residential site is 20 units per acre, which is within the allowable density range for R-3 zoning. All of the sites are vacant and none of them have development constraints. The location of all Low- and Very Low-Income housing sites are also shown on the "*Figure 38: Lower-Income Sites Inventory Map"* under the AFFH: Site Inventory section of this chapter. A detailed description of each project, including affordability and development schedule, is provided below.

APNs 035-250-054

This is a 3.91-acre ~~City~~City-owned parcel that will be developed by Veterans Housing Development Corporation (VHDC) with 64 one-bedroom units for low-income veterans. In January 2022 the parcel was rezoned to R-3 to accommodate the project. A Disposition and Development Agreement between the ~~City~~City and VHDC will include a requirement that the units are rented at levels affordable to Low Income Households for at least 40 years after receiving certificates of occupancy. All NEPA and CEQA environmental clearances have been obtained. The site is cleared and vacant and ready for development. VHDC plans to pull building permits for the project in the summer of 2023.

APN 035-240-100

This project, named "Cascade Apartments", will be a 35-unit affordable apartment project on a 1.55-acre parcel zoned Corridor Mixed Use (MXC). This infill parcel is appropriately zoned for multifamily residential without a discretionary use permit, with planning permits secured and environmental review completed. The units are planned to be rented at levels affordable to Low Income Households, but do not have a deed restriction. It is anticipated that building permits for the project will be pulled in the Spring of 2023.

APN 035-040-056

The Lincoln Street project will be 122 units in two phases with 61 units in each phase. Both phases have received funding commitments of CDBG-DR Multifamily Housing Program funds, which will restrict rents to levels affordable to Low Income Households for 55 years from certificates of occupancy. Both phases will also utilize 9% tax credits that will place affordability covenants on the property. Phase 1 has secured planning approvals and Phase 2 will submit a planning permit application next year. Only about half of the parcel is developable because about half of it is steeply sloped. The parcel is zoned Corridor Mixed Use (MXC), which will allow the proposed project by-right without a requirement for discretionary review of use permit. The project has secured a CEQA exemption. The developer plans to pull building permits in the Spring of 2023.

Figure 37.2: Adequate Sites Inventory, Low and Very Low Income

Map ID	APN	General Plan	Zoning	Acres	Developable Acres	Units Per Acre	Projected Units
1	035-250-054	~~MU~~MHDR	~~MXC~~R-3	~~2.72~~3.91	~~2.72~~3.91	~~18~~16.4	~~48~~64
~~2~~	~~035-250-002~~	~~MHDR~~	~~R-3~~	~~3.91~~	~~3.91~~	~~18~~	~~70~~
~~23~~	035-240-100	MU	MXC	1.55	1.55	~~18~~22.6	~~27~~35
~~34~~	035-040-056	MU	MXC	~~6.50~~13.56	6.50	18.8	~~117~~122
Total				~~14.73~~19.02	~~14.73~~11.96	18.5	~~262~~221

Source: ~~City~~City of Oroville, 2021

"Figure 37.3: Adequate Sites Inventory, Moderate-Income" lists two sites that will meet the RHNA for Moderate-Incomes. The sites are vacant and infill. The sites have a Medium Density Residential General Plan Land Use Designation and R-2 Zoning that allows 6-14 dwelling units per acre. The ~~capacity~~capacity for the site listed is projected at 6 units per acre, which is the minimum density for the R-2 zoning district. All of the sites are vacant and none of them have development constraints. The location of all Moderate-Income housing sites is also shown on the "*Figure 38.1: Moderate-Income Sites Inventory Map"* under the AFFH: Site Inventory section of this chapter.

Figure 37.3: Adequate Sites Inventory, Moderate-Income

Map ID	APN	General Plan	Zoning	Acres	Developable Acres	Units Per Acre	Projected Units
1~~1~~	031-100-008	MDR	R-2	9.50	9.50	6	57
2~~2~~	031-100-001	MDR	R-2	3.49	3.49	6	20
Total				12.99	12.99	6	77

Source: ~~City~~City of Oroville, 2021

"Figure 37.4: Adequate Sites Inventory, Above Moderate-Income" lists three sites that will meet the RHNA for Above Moderate-Incomes. The sites are vacant and infill. Two of the sites have a Rural Residential General Plan Land Use Designation and RR-20 Zoning that allows one unit per lot with a minimum lot size of 20,000 square feet, allowing about two units per acre. The ~~capacity~~capacity for the site listed is projected at 3 units per acre, which is the maximum density for the land use designation and similar to the density of recent subdivisions in this zoning district. One of the sites has a Medium Low Density General Plan Land Use Designation and R-1 Zoning that allows 3-6 dwelling units per acre. Based on the tentative subdivision map for this site, there will be 338 lots, calculating to a density of 6 units per acre. All of the sites are vacant and ~~none of them have development constraints~~can feasibly develop the number of units shown, taking into development constraints as described on page 212. The location of all Above Moderate-Income housing sites are also shown on the "*Figure 38.2: Above Moderate-Income Sites Inventory Map"* under the AFFH: Site Inventory section of this chapter.

Figure 37.4: Adequate Sites Inventory, Above Moderate-Income

Map ID	APN	General Plan	Zoning	Acres	Developable Acres	Units Per Acre	Projected Units
~~1~~1	031-100-024	RR	RR-20	8.87	8.87	3	26
~~2~~2	031-100-025	RR	RR-20	8.85	8.85	3	26
~~3~~3	031-020-043	MLDR	R-1	56.45	56.45	6	338
Total				74.17	74.17	5.26	390

Source: ~~City~~City of Oroville, 2021

"Figure 37.5: RHNA and Sites Inventory" shows the 2022-2030 RHNA and Adequate Sites Inventory total units by income level. This shows that there are more than enough units identified in the sites inventory to meet the RHNA goals. The ~~City~~City has not received any requests to develop housing below the identified densities in the Sites Inventory.

Figure 37.5: RHNA and Sites Inventory

Income Level	RHNA	Sites Inventory	Surplus (Deficit)
Lower Income (Very Low and Low Income)	177	~~262~~221	~~85~~44
Moderate Income	73	77	4
Above Moderate Income	375	390	15
Total	625	~~729~~688	~~104~~63

Source: ~~Butte County~~Butte County Association of Governments, 2020 6th Cycle Regional Housing Needs Plan

Environmental Constraints to Housing Development

Oroville is located in southeast ~~Butte County~~Butte County, 20 miles southeast of Chico, 30 miles east of the Sacramento River. It is bordered on the north by Lake Oroville, and on the west by the Thermalito Afterbay, which is connected to Lake Oroville. The Feather River flows southwest from the Lake Oroville Dam through the ~~city~~City and then runs to the west and parallel to Highway 70 south of the ~~city~~City. The terrain and flora surrounding Oroville is diverse, with the North Table Mountain Ecological Reserve and surrounding buttes to the north, the Sierra Mountain foothills immediately to the east, orchards to the south, and rice farms and other agriculture to the west.

Most of Oroville is in the Wildland Urban Interface, which is defined as residentially developed areas that are adjacent to vegetation subject to wildfire. CalFire has mapped fire hazard zones throughout California. The Fire Hazard Severity Zone Map for the Oroville shows Moderate and High Fire Hazard Severity Zones bordering the north and east sides of the ~~city~~City, with some High Fire Hazard Severity Zones extending into eastern portions of the ~~city~~City. (CalFire Wildland Urban Interface Map, CalFire Fire Hazard Severity Zones Maps)

There are some air and noise pollution impacts to parts of Oroville from Highway 70, which runs north to south along the west edge of the ~~city~~City. There are very few residential neighborhoods adjacent to Highway 70, however.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), significant areas within Oroville are in 100-year flood plain zones. These flood zones include areas on either side of the Feather River that flows through the ~~city~~City, which are Zone A Special Flood Hazard Areas. These areas are free of residential structures and consist of open space and parks. About a quarter of the urbanized area of the ~~city~~City are within Zone X Flood Hazard Areas. This flood hazard zone includes the northern part of the historic ~~city~~City center, extending to the western half of the historic ~~city~~City center parallel to the Feather River, and south parallel and to the east of the Feather River. There are also three pockets of Zone A Special Flood Hazard Areas on the east side of the ~~city~~City, and one pocket of Zone A Special Flood Hazard Area on the south side of the ~~city~~City. FEMA revaluates flood zones as needed and floodplain designations may change in the future with changing conditions.

The National Wetland Inventory shows wetlands bordering the Feather River in areas outside urban development. Most of these wetlands are classified as Riverine System, with smaller portions classified as Palustrine System. There are also a few narrow Riverine System wetland areas extending from the center of the ~~city~~City to the eastern Sierra foothills, following along natural creek beds and channels that have intermittent flowing water.

All of the sites within the Very-Low and ~~Low-Income~~Low-Income Sites Inventory have completed environmental review for the proposed projects. The environmental reviews concluded that there are not any environmental constraints that will impede the projects to develop as proposed.

With regard to the ~~Moderate-Income~~Moderate-Income Sites Inventory, below is a description of environmental constraints for the two sites listed.

031-100-008— This parcel is on an elevated flat plateau overlooking the Feather River, with adequate space for 57 apartment, condo, or townhome units. The development will avoid oak tree removal to the extent possible, and where necessary, will provide oak tree replacement.

031-100-001— Adjacent to 031-100-008, the parcel has similar site features, but with more slopes. There is adequate buildable space on the parcel for 20 apartment, condo, or townhome units that will complement the adjacent site.

With regard to the Above-Moderate Income Sites Inventory, below is a description of environmental constraints for the three sites listed.

031-100-024— About half of the site (4 acres) is developable and above the river's floodplain. There is adequate developable land to build the proposed number of units.

031-100-025— Previously approved as part of Riverview Subdivision (TSM 05-04), which included a CEQA and development review approval.

031-020-043— Previously approved for a 197-unit single-family Nelson 56 Subdivision (TSM 05-11), which included a CEQA and development review approval. The parcel is not in a 100-year flood zone since it is in FEMA Zone X. However, there are 16 acres of drainage area on the parcel and the development plan avoids construction of the 197 units and related improvements in that area.

Infrastructure Capa~~city~~city

After conducting an assessment of the Sites Inventory above and infrastructure needs, it was determined that the ~~City~~City of Oroville has adequate infrastructure to support the development of the new residential units included in the Sites Inventory. More information about infrastructure and ~~capacity~~capacity is described below.

Water

The ~~City~~City of Oroville is served by four different water utilities: South Feather Water and Power (SFWPA) serves the eastern and far south parts of the ~~city~~City; CalWater serves the western part of the ~~city~~City; the Thermalito Water and Sewer District (TWSD) serves the northern part of the ~~city~~City; and the Lake Oroville Area Public Utilities District (LOAPUD) serves small portions of the ~~city~~City on the south and southeast. Public water systems in California are regulated by the State Water Resources Control Board (SWRCB), Division of Drinking Water. Water Management Plans are required to be completed and adopted by water utilities every five years, per California Water Code Section I, Part 2.55 and Part 2.6. Water network descriptions for the two major water suppliers for Oroville, SFWPA and CalWater, are summarized below.

SFWPA adopted a 2020 Urban Water Management Plan and a Water Shortage Contingency Plan in July 2021. The agency provides water to just over 6,800 households that use approximately 1,437 acre-feet of water annually. WFWPA maintains a service area of over 31,000 acres supplied by 141 miles of ~~pipeline, and~~pipeline and delivers irrigation water seasonally to over 500 customers via 110 miles of canals. Domestic water facilities consist of two treatment plants and four storage facilities that are sourced by the South Fork of the Feather River and Slate Creek, a tributary to the North Fork Yuba River, including reservoirs with a combined storage of 164,577 acre-feet. SFWPA participated in the development of the Northern Sacramento Integrated Regional Water Plan, which covers ~~Butte County~~Butte County, and coordinates plans with the ~~Butte County~~Butte County Department of Water and Resource Conservation. SFWPA does not have any current plans for major system upgrades or expansions.

CalWater adopted a 2020 Urban Water Management Plan in June 2021. ~~CalWater's~~Cal Water's Oroville District operates a water system serving an estimated 10,849 residents with 3,547 municipal connections that use approximately 2,753 acre-feet of water annually. The system includes two storage tanks, six booster pumps, and 52 miles of pipeline supplied by the west branch of the Feather River and three groundwater wells. Supplemental water from the Thermalito Irrigation District is accessed when needed. CalWater participated in the development of the Northern Sacramento Integrated Regional Water Plan, which covers ~~Butte County~~Butte County, and coordinates plans with the ~~Butte County~~Butte County Department of Water and Resource Conservation. CalWater does not have any current plans for major system upgrades or expansions.

Sewer

The ~~City~~City of Oroville Public Works Department operates a sanitary sewer collection system consisting of over 91 miles of main lines and seven lift stations that convey wastewater to a treatment plant owned and operated by the Sewerage Commission- Oroville Region, which is a joint powers authority that includes the TWSD and LOAPUD. Wastewater flow ranges from 0.85 million gallons per day (mgd) minimum dry weather flow to 11.27 mgd peak wet weather flow. The ~~City~~City adopted a Sewer System Management Plan in October 2009, in

compliance with the Statewide General Waste Discharge Requirement. This plan describes management activities to effectively manage wastewater and reduce sanitary sewer overflows. A Sanitary Sewer Master Plan Update was adopted in January 2013 that evaluates the ~~capacity~~capacity of the existing wastewater collection system, proposes improvements to enhance system reliability and accommodate future growth, and calculate appropriate development impact and sewer service fees to support the Capital Improvement Program. The Capital Improvement Plan includes main line extensions and a new pump station that will cost a combined $40.4 million.

Storm Drainage

The ~~City~~City of Oroville Public Works Department manages the ~~city~~City's storm drainage system, which consists of approximately 60 miles of drainage pipes and trenches and six regional detention basins. The ~~City~~City's storm water infrastructure is engineered to protect residents from an extreme hydrologic event, also known as a 100-year storm event. The ~~City~~City's storm drain plans and management are regulated by the California State Water Resources Control Board and U.S. Environmental Protection Agency Storm Water Regulations. Planning and building permits require review by the ~~City~~City's Public Works Department for storm drainage impacts and management, and compliance with the ~~City~~City's Storm Water Pollution Prevention Plan (SWPPP). An adequately funded storm drainage infrastructure and compliance with state and federal regulations is particularly critical for the ~~City~~City of Oroville due to proximity to the Lake Oroville Dam, Feather River, and a number of identified 100-year floodplain areas, as described in the Environmental Constraints section above.

Dry Utilities

Pacific Gas & Electric (PG&E) provides gas and electri~~city~~city service to Oroville residents and businesses. The ~~City~~City coordinates with dry utility providers, including electri~~city~~city, gas, telephone, and cable, during community master planning efforts and during the ~~City~~City's project entitlement and building permit process. Refuse service is provided by Recology. Telephone and DSL internet services are offered by AT&T and available to 79.76% of residents. Cable internet provided by Comcast is available to 75.60% of residents. Other companies provide internet access via fixed wireless systems, including Digitalpath.net, AT&T, Succeed.net, and CCI Wireless. These internet providers cover 98.69% of the ~~city~~City (BestNeighborhood).

AFFIRMATIVELY FURTHERING FAIR HOUSING: SITE INVENTORY

In this section, sites included in the Site Inventory are identified, mapped, and evaluated on their ~~capacity~~capacity to Affirmatively Further Fair Housing. For the purposes of this analysis, the evaluation of fair housing includes patterns and trends of segregation and integration, racially and ethnically concentrated areas of poverty, access to opportunity, and disproportionate housing needs including displacement risk. The analysis includes data on the Regional Housing Needs Allocation (RHNA) and local data and knowledge, as well as a summary of conclusions and approach to policies and programs.

Isolation of RHNA

"Figure~~s~~ 38~~, 38.1, 38.2~~: ~~City~~City of Oroville, Site Inventory Map" depicts ~~nine~~ ~~eight~~8 sites which the ~~City~~City has identified for future development to meet the Regional Housing Needs Allocation (RHNA) requirements. The map represents approximate locations. The sites identified in this analysis have the potential to bring ~~262~~ 221 units for very low-income and low-income households, 77 units for moderate income households, and 390 units for above moderate households, which surpasses the RHNA by ~~104~~ 63 units. There are 44~~85~~ surplus units for low and very low-income households, 4 surplus units for moderate income households, and 15 surplus units zoned for moderate and above moderate-income households.

The sites were chosen based on availability, zoning, and access to infrastructure. Figure 38: Site Inventory Map, 2022, depicts the location of the lower income sites (red), moderate income sites (yellow), and above moderate income sites (green) in the ~~City~~City. The low income and very ~~low income~~low-income sites are numbered 1-3, the moderate income sites are numbered 1-2, and the above moderate income sites are numbered 1-3.

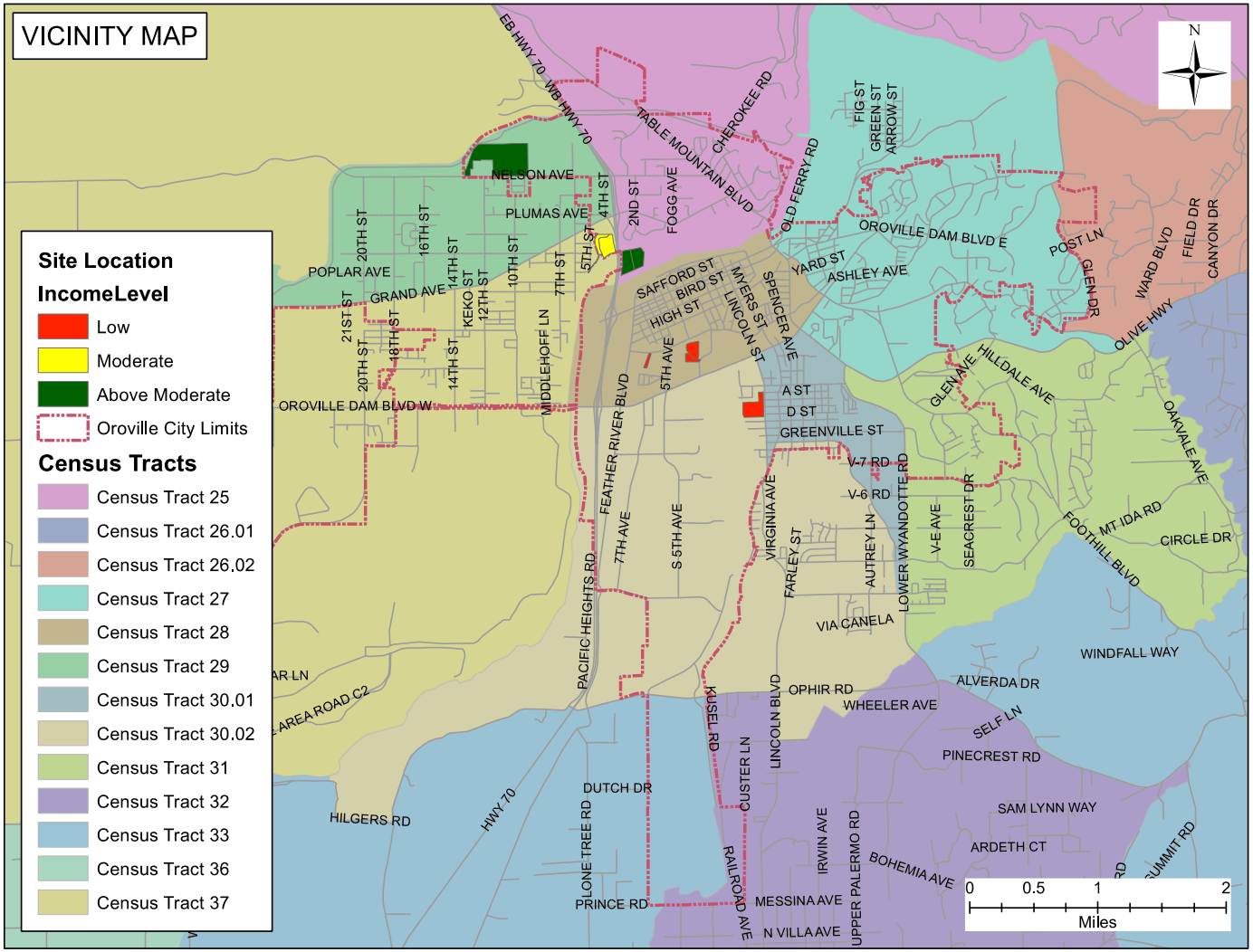
~~Three of the four~~Two of the three lower income sites are located in close proximity to one another at the ~~City~~City's center, which is encompassed by Census Tract 28. The ~~fourth~~ third lower income site is located at the north end of Census Tract 30.02, just south of the ~~City~~City's center. Areas that are zoned for multi-family development are located near the ~~city~~City center, which has limited land for development, better access to infrastructure, and is more feasible for affordable housing development. This encourages higher density developments, such as apartments, which can naturally concentrate residents with low-incomes or experiencing poverty in these areas.

The two moderate income sites are ~~is~~ located adjacent to one another in Census Tract 37, just above the ~~City~~City's center.

The three~~two~~ above-moderate income sites are located in Census Tracts 25 and 29. ~~The above~~Two of the above ~~moderate income~~moderate-income sites are located adjacent to one another in Census Tract 25, which is just slightly north of the downtown area. The other above

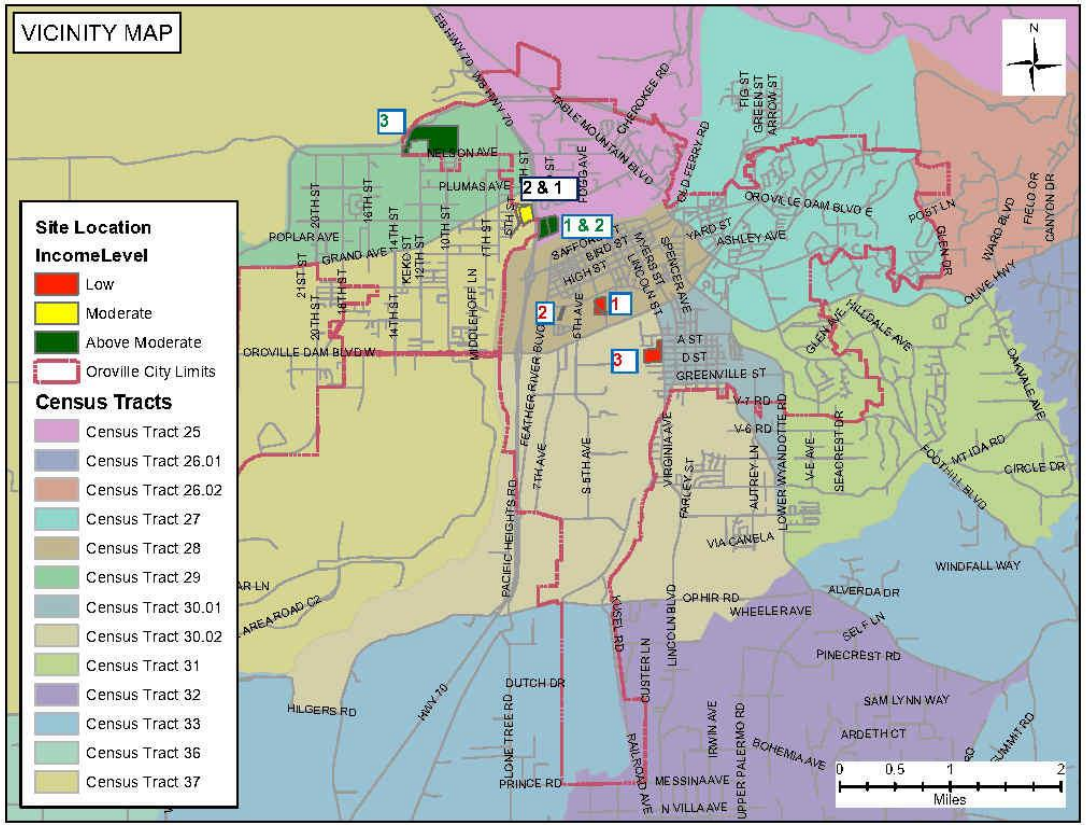
~~moderate income~~moderate-income site is located in Census Tract 29, which is at the north end of the ~~City~~City. The ~~capacity~~capacity of these sites to affirmatively further fair housing is analyzed in the Improved Conditions and Exacerbated Conditions sections.

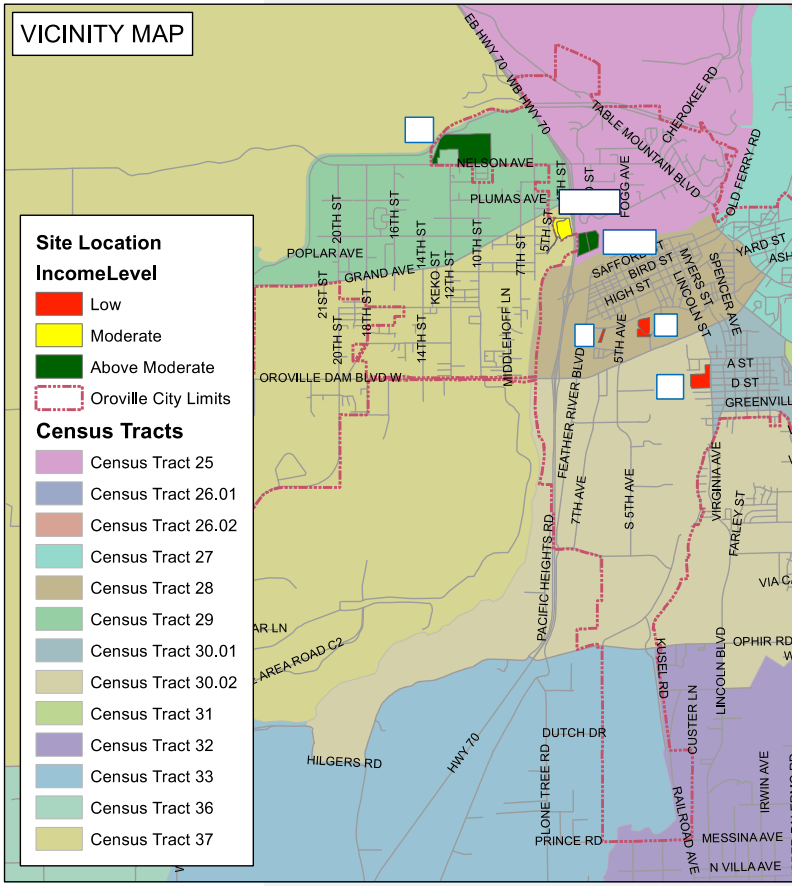
Figure 38: Site Inventory Map, 2022



226

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VICINITY MAP
Site Location
IncomeLevel
Low
Moderate
Above Moderate
Oroville City Limits
Census Tracts
Census Tract 25
Census Tract 26.01
Census Tract 26.02
Census Tract 27
Census Tract 28
Census Tract 29
Census Tract 30.01
Census Tract 30.02
Census Tract 31
Census Tract 32
Census Tract 33
Census Tract 36
Census Tract 37
3
2 & 1
1 & 2
2
1
3
N
0 0.5 1 2
Miles
NELSON AVE
PLUMAS AVE
POPLAR AVE
GRAND AVE
OROVILLE DAM BLVD W
OROVILLE DAM BLVD E
TABLE MOUNTAIN BLVD
CHEROKEE RD
OLD FERRY RD
FOGG AVE
HIGH ST
BIRD ST
MYERS ST
LINCOLN ST
SPENCER AVE
YARD ST
ASHLEY AVE
A ST
D ST
GREENVILLE ST
OLIVE HWY
FEATHER RIVER BLVD
7TH AVE
5TH AVE
VIRGINIA AVE
FARLEY ST
MIDDLEHOFF LN
PACIFIC HEIGHTS RD
AUTREY LN
V-7 RD
V-6 RD
V-E AVE
SEACREST DR
GLEN AVE
HILLDALE AVE
OAKDALE AVE
MT IDA RD
FOOTHILL BLVD
CIRCLE DR
VIA CANELA
WINDFALL WAY
ALVERDA DR
SELF LN
PINECREST RD
SAM LYNN WAY
ARDETH CT
OPHIR RD
WHEELER AVE
LINCOLN BLVD
CUSTER LN
IRWIN AVE
BOHEMIA AVE
UPPER PALERMO RD
MESSINA AVE
N VILLA AVE
RAILROAD AVE
DUTCH DR
HILGERS RD
HWY 70
PRINCE RD
LONE TREE RD
AREA ROAD C2


VICINITY MAP
Site Location
IncomeLevel
Low
Moderate
Above Moderate
Oroville City Limits
Census Tracts
Census Tract 25
Census Tract 26.01
Census Tract 26.02
Census Tract 27
Census Tract 28
Census Tract 29
Census Tract 30.01
Census Tract 30.02
Census Tract 31
Census Tract 32
Census Tract 33
Census Tract 36
Census Tract 37
NELSON AVE
PLUMAS AVE
POPLAR AVE
GRAND AVE
OROVILLE DAM BLVD W
TABLE MOUNTAIN BLVD
CHEROKEE RD
OLD FERRY RD
FOGG AVE
HIGH ST
BIRD ST
MYERS ST
LINCOLN ST
SPENCER AVE
YARD ST
A ST
D ST
FEATHER RIVER BLVD
7TH AVE
5TH AVE
VIRGINIA AVE
FARLEY ST
MIDDLEHOFF LN
PACIFIC HEIGHTS RD
OPHIR RD
LINCOLN BLVD
CUSTER LN
IRWIN AVE
DUTCH DR
HILGERS RD
HWY 70
PRINCE RD
LONE TREE RD
AREA ROAD C2
MESSINA AVE
N VILLA AVE
RAILROAD AVE

Improved Conditions

This section explores how the sites identified better integrates the community with a consideration for historical patterns and trends, number of existing households, and the impacts on patterns of socio-economic or racial/ethnic concentrations.

Racially or Ethnically Concentrated Areas of Poverty

As described in the Assessment of Fair Housing, there are no HUD (U.S. Department of Housing and Urban Development) defined racially or ethnically concentrated areas of poverty (R/ECAP) in the ~~City~~City of Oroville. Racially or ethnically concentrated areas of poverty rely on a racial or ethnic concentration threshold and a poverty test. A racially or ethnically concentrated area of poverty is defined as an area that: 1) has a non-white population of 50% or more for urban areas and 20% for rural areas, and 2) 40% or more of the population lives below the poverty line (or those where the poverty rate is three times the average poverty rate of the metropolitan area). In addition, there are no racially concentrated areas of affluence, which are areas that have high concentrations of affluent, white residents. All census tracts within the ~~City~~City have a median income below the State's average.

Segregation and Integration

This considers whether all the sites will receive the same amenities, whether the units are any combination of affordable, market-rate, rental, for-sale, multi-family, or single-family. It analyzes the opportunities for all income levels to reside in an area of new growth to improve fair housing choice and equitable access to opportunity.

~~One~~ Two of the above-moderate sites are~~is~~ located in Census Tract 25, which is an area of high segregation and poverty, increased diversity, and has the most public housing buildings in the entire ~~City~~City. The two moderate income sites are~~is~~ located in Census Tract 37, which is an area with high segregation and poverty and an area with a high concentration of single mother households. Attracting moderate and above-moderate income residents to these areas improves integration of residents from various income backgrounds. It also improves the likelihood of integrating residents with different household characteristics and racial or ethnic backgrounds, as more affluent residents tend to be White, married-couple households. Residents who are low-income or are experiencing poverty can benefit from increased access to resources and services that is associated with new development.

~~Three~~ Two of the low and very low-income sites are in Census Tract 28, which is also an area of high segregation and poverty. One site is located in Census Tract 30.02. Although this attracts low-income residents to the area, both Census Tract 28 and Census Tract 30.02 have been identified as priority areas for investment. Because the region lacks adequate housing and resources, the introduction of new housing stock to the region will likely have a positive effect.

Access to Opportunity

The location of sites in relation to educational opportunity, environmental score, economic opportunity, and transportation is analyzed below.

As mentioned, described in the Assessment of Fair Housing, "*Figure 22: ~~City~~City of Oroville, Access to Opportunity Map, 2021"* depicts that nearly all areas of the ~~City~~City are considered areas with low access to resources or areas experiencing high segregation and poverty, with the exception of Block Group 6 in Census Tract 27. The proposed moderate and above ~~moderate income~~moderate-income sites are located in Census Tract 25, 29, and 37, which would both benefit from investment. Attracting moderate and above moderate residents to low resource areas increases access to resources and investment in communities that need them the most. Areas of affluence tend to have higher educational outcomes. This could potentially increase the educational outcomes in Census Tract 25, 29, and 37.

The analysis of Access to Transportation, described in the Affirmatively Furthering Fair Housing section, concluded that there are no unmet transit needs that are reasonable to meet. Furthermore, because the low income and very ~~low income~~low-income sites are concentrated in the ~~City~~City's center, low-income residents will benefit the best access to transit.

Exacerbated Conditions

This section explores how the sites identified further segregates the community with a consideration for historical patterns and trends, number of existing households, and the impacts on patterns of socio-economic or racial/ethnic concentrations.

Disproportionate Housing Needs and Displacement Risk

Both quantitative and qualitative data indicate that there is a significant population of very-low-income residents and a small population of high-income residents. Approximately 50% of households earn less than 35,000 and 18% of households earn more than $75,000, which is greater than the area median income ($70,700). Lastly, about 60% of households have two or fewer persons. Most residents are overpaying and areas to the northwest and southeast of Oroville experience significant overcrowding. Anecdotally, South Oroville is known to be an area that experiences substandard housing conditions. Findings from the Assessment of Fair Housing indicate that 70% of residents who experience 1 of 4 Housing Problems or 1 of 4 Severe Housing Problems are renters and that trend is worsening.

As mentioned previously, 60-80% of the units in Census Tract 28 are renter-occupied units, which indicates that this neighborhood has a high concentration of rental units and more than 80% of renters are overpaying. In Census Tract 30.02, 40-60% of units are renter-~~occupied~~occupied, and 60-80% of residents are overpaying. The ~~City~~City should consider developing future, multi-family housing developments outside the ~~City~~City's center and redirect its effort to build owner-occupied housing in this region if deemed feasible. However, the ~~moderate income~~moderate-income sites are~~is~~ located in Census Tract 37, where more than 80% of renters are overpaying. Attracting moderate income residents to this area will help encourage income diversity and current residents will benefit from improved access to resources.

The ~~City~~City should consider identifying future lower income sites in census tracts that do not experience high segregation and poverty or overcrowding, which include Census Tracts 27, 29, and 31. Lastly, the ~~City~~City could consider mixed-income developments to integrate residents from varying income backgrounds. However, because these affordable housing projects have the potential to bring ~~262~~ 221 affordable units in census tracts where residents are historically overpaying, the benefits outweigh the costs.

Local Data and Knowledge

Interview Summaries

This section contains a summary of comments regarding housing in the ~~City~~City collected from the interviews discussed in the Assessment of Fair Housing.

Staff from the ~~City~~City of Oroville noted that there is a need for affordable housing and moderate and above ~~moderate income~~moderate-income housing. Many survivors from recent fires have relocated to the ~~City~~City but do not have a permanent place to live, placing a constraint on housing stock and availability. In addition, the ~~City~~City noted that a substantial amount of housing units are in need of repair or rehabilitation to meet health and safety standards.

Staff at Youth for Change noted that there is a need for studio, one-bedroom units, and large units with multiple bedrooms to meet the need of unhoused youth in the ~~Butte County~~Butte County area. Legal Services of Northern California staff indicated that there is a need for supportive housing that provides wraparound services. In addition, there is a shortage of accessible units in the ~~Butte County~~Butte County region. Staff from Stonewall Alliance Center reported that in ~~Butte County~~Butte County there are few rental vacancies and a lack of assisted living facilities for residents with severe mental health conditions, substance use disorder, or those experiencing homelessness.

Staff from the Disability Action Center noted that in ~~Butte County~~Butte County low-income tenants could benefit from supportive services to complement housing. Staff also noted that there is a significant population of unsheltered individuals experiencing homelessness. Staff believes that local, State, and Federal administrative support in zoning and development application fees could incentivize low-income housing developments.

Interviews with staff from multiple organizations found that residents have difficulty finding housing that fits their needs and affordability, which includes one-bedroom or studio apartments and large homes with three or more bedrooms that can be shared by multiple tenants. North Valley Housing Trust noted that Northern California developers are having difficulty finding the finances or funds to get affordable housing projects off the ground. Policies such as the competitive public bid process, costly local utility requirements, or environmental reviews are especially prohibitive for small developers.

Summary of Conclusions and Approach to Policies and Programs

This section on Affirmatively Furthering Fair Housing in the Site Inventory focuses on improving fair housing choice and equitable access to opportunity. The low-income, very-low-income, moderate, and above moderate-income sites proposed by the ~~City~~City surpass the RHNA requirements by ~~85~~ 63 units. The surplus of housing units will help meet the needs of fire survivors who have relocated to the region. Interviews with local agencies indicate that there is a need to create housing for all income levels, including affordable housing, small one-bedroom/studio units, permanent supportive housing, moderate and above ~~moderate income~~moderate-income housing, and shelters for those experiencing homelessness.

~~In the future,~~T ~~t~~he ~~City~~City will consider developing ~~very~~ very-low and low~~-~~income housing in areas that do not experience high segregation and poverty, such as Census Tracts 27, 29, and 31 to encourage more balanced and integrated living patterns. The ~~City~~City ~~should~~ will also consider developing self-help housing or other forms of affordable, owner-occupied housing units in Census Tract 28, which has an unusually high concentration of rental units. Other approaches to improve fair housing choice and opportunity are reflected in the Goals, Policies, and Programs section.

The proposed sites in the Sites Inventory Analysis meet the requirements of residents in the region by providing an excess of housing units to meet the regional housing needs of each income group. In addition, new development in traditionally low-income and under-resourced areas improves access to education and jobs and will help revitalize neighborhoods.

FINANCIAL INVENTORY

State Resources

Permanent Local Housing Allocation (Formula Funds)

Government Administrator/Application Process: ~~City~~City of Oroville/~~City~~City applies to ~~HCD~~HCD.

Eligible Uses: A wide range, which includes but is not limited to—affordable rental housing for households below 80% AMI; affordable rental and ownership housing, including

Current Status: On-going funding provided through SB2 Building Homes and Jobs Act. Funding will fluctuate based on revenues taken in by the State.

Permanent Local Housing Allocation (Competitive Funds)

Government Administrator/Application Process: HCD/~~City~~City applies to HCD in partnership with ~~developer~~developers.

Eligible Uses: New multi-family housing or rehabilitation of existing multi-family housing that is affordable to households at 60% AMI or less; permanent or transitional rental housing for those at risk ~~of, or~~of or experiencing homelessness.

Current Status: On-going funding provided through SB2 Building Homes and Jobs Act. The State issues one NOFA each year.

Government Administrator/Application Process: HCD/Developer can ~~apply~~apply.

Eligible Uses: Deferred payment loan for housing developments with rents affordable to low-income households.

Current Status: State funding for this program is expected to be exhausted in ~~2021, but~~2021 but may be renewed in subsequent years through General Fund allocations and/or new bonds.

No Place Like Home (NPLH)

Government Administrator/Application Process: HCD/Counties and Developers co-~~apply~~apply.

Eligible Uses: Deferred payment loan for housing developments that target a portion of units to homeless individuals with mental illness. An operating reserve is also provided to awardees based on the number of NPLH-assisted units. In order to be eligible, counties must prepare a plan to address homelessness and commit to provide supportive services to tenants in NPLH-assisted units.

Current Status: A 2018 housing bond and revenue generated from the Mental Health Services Act (MHSA) funded $2 billion for this program, with funding allocated through four different NOFAs released 2018-2021. The program may be refunded through State allocations and/or a new housing bond in future years.

Affordable Housing ~~And~~and Sustainable Communities Program (AHSC)

Government Administrator/Application Process: HCD/Developer applies jointly with local transportation ~~agency~~agency.

Eligible Uses: Grants for infill low-income affordable housing, and infrastructure that encourages reductions in vehicle trips and greenhouse gas emissions.

Current Status: State program funded by greenhouse cap-and-trade program. Recent revisions to regulations encourage greater participation from rural communities.

Infill Infrastructure Grant Program (IIG)

Government Administrator/Application Process: HCD/~~City~~City or developer ~~applies~~applies.

Eligible Uses: Gap funding for infrastructure improvements necessary for specific residential or mixed-use infill projects.

Current Status: This is funding from Proposition 1, the Veteran's and Affordable Housing Bond Act, therefore this funding will sunset when all bond proceeds are disbursed. The State generally issues one NOFA each year.

Low-Income Housing Tax Credit Program (LIHTC)

Government Administrator/Application Process: California Tax Credit Allocation Committee/Developer ~~applies~~applies.

Eligible Uses: New construction or rehabilitation of affordable housing; tax credits are purchased by investors that provide equity to ~~projects~~projects.

Current Status: Each state receives an allocation of federal tax credits for low-income housing. The California Tax Credit Allocation Committee administers allocations to affordable housing projects through a competitive application process. Most low-income affordable projects require the use of tax credits, as it typically provides the largest amount of funding.

Tax Exempt Revenue Bond Authority

Government Administrator/Application Process: California Debt Limit Allocation Committee/Qualifying bond issuer applies on behalf of ~~developer~~developer.

Eligible Uses: New construction or rehabilitation of affordable housing; banks purchase bonds and make loans with below-market terms to ~~projects~~projects.

Current Status: Each state receives an allocation of debt from the federal government with interest earnings that are exempt from federal taxes. The California Debt Limit Allocation Committee administers allocations to affordable housing projects through a competitive application process.

Federal Resources

Community Development Block Grant (CDBG)

Government Administrator/Application Process: HCD/~~City~~City applies to HCD on a competitive ~~basis~~basis.

Eligible Uses: Housing— Single-Family Housing Rehabilitation, Homebuyer Assistance, Infrastructure in Support of Housing, Multi-family Housing Rehabilitation.

Community Development— Infrastructure improvements in low-income neighborhoods.

Current Status: The Biden Administration proposed to increase the funding for this program by 8.5%, while the Senate proposed a 20.1% increase, in the HUD Fiscal Year 2022 budget. The Fiscal Year 2022 budget had not yet been enacted as of January 2022. HCD administers an annual Notice of Funding Availability to competitively award these federal funds across the State in alignment with its HUD Consolidated Plan.

Home Investment Partnership Program (HOME)

Government Administrator/Application Process: HCD/~~City~~City applies to HCD on a competitive ~~basis~~basis.

Eligible Uses: New rental affordable housing; rehabilitation of existing rental affordable housing; down payment assistance programs to promote home ownership; owner-occupied housing rehabilitation; tenant-based rental assistance to prevent homelessness.

Current Status: The Biden Administration proposed to increase the funding for this program by 37.0%, while the Senate proposed a 7.4% increase, in the HUD Fiscal Year 2022 budget. The Fiscal Year 2022 budget had not yet been enacted as of January 2022. HCD administers an annual Notice of Funding Availability to competitively award these federal funds across the State in alignment with its HUD Consolidated Plan.

Housing Choice Vouchers (HCV)

Government Administrator/Application Process: Housing Authority of the County of Butte (HACB), which receives HCV allocations from HUD/Tenants ~~apply~~apply.

Eligible Uses: Rental assistance for low-income households

Current Status: Local housing authorities receive funding for HCV (Section 8 of the United States Housing Act of 1937) from the Federal Government. As of 2021, HACB was administering six vouchers within the ~~City~~City of Oroville. While funding has been cut in recent years, the Biden Administration proposed to increase funding for this program by 8.3%, while the Senate proposed a 6.3% increase, in the HUD Fiscal Year 2022 budget. The Fiscal Year 2022 budget had not yet been enacted as of January 2022.

Project Based Section 8 Vouchers

Government Administrator/Application Process: Housing Authority of the County of Butte (HACB), which receives HCV allocations from HUD/Developers ~~apply~~apply.

Eligible Uses: Rental assistance for low-income households tied to units, which can be underwritten by loans that finance housing ~~projects~~projects.

Current Status: Housing authorities may dedicate a portion of their Housing Choice Vouchers as Project Based Vouchers. The Biden Administration proposed to increase the funding for this program by 4.4%, while the Senate proposed a 3.8% increase, in the HUD Fiscal Year 2022 budget. The Fiscal Year 2022 budget had not yet been enacted as of January 2022.

HUD VASH Vouchers

Government Administrator/Application Process: Housing Authority of the County of Butte (HACB), which receives HCV allocations from HUD/Tenants ~~apply~~apply.

Eligible Uses: Rental assistance and supportive services for homeless veterans

Current Status: This federally funded program is managed through a partnership between housing authorities and the U.S. Dept. of Veterans Affairs. Homeless veterans receive a rental subsidy from the housing authority and case management from the VA. HACB currently administers one VASH voucher in Willows. Funding for this program has been increasing in recent years with strong bipartisan support in Washington D.C.

Continuum Of Care (CoC) Programs

Government Administrator/Application Process: ~~Butte County~~Butte Countywide Homeless Continuum of Care/Lead Agency is the County of Butte, Department of Social Services, Housing and Homeless Branch

Eligible Uses: Rental subsidies, rapid re-housing, emergency shelter, homeless prevention

Current Status: The ~~Butte County~~Butte Countywide Continuum of Care is currently accessing State resources available to them (Emergency Solutions Grant, Homeless Housing Assistance and Prevention, Homeless Emergency Aid Program, etc.) and Federal CoC funding through HUD. Funds are passed through to service providers at the County level. The Biden Administration proposed to increase the funding for this program by 16.7%, while the Senate proposed an 8.7% increase, in the HUD Fiscal Year 2022 budget. The Fiscal Year 2022 budget had not yet been enacted as of January 2022.

OPPORTUNITIES FOR ENERGY CONSERVATION

As energy costs rise and nonrenewable resources are depleted, communities are utilizing energy conservation measures to offset rising costs. Typically, the use of alternative energy sources is most advantageous in new housing development. However, there are many energy-conserving measures that can be retrofitted onto older, existing housing which may conserve the ongoing use of nonrenewable fuels and reduce related costs. ~~Low income~~Low-income families, especially seniors on fixed incomes, are most threatened, spending an average of 16.3% of their income on energy costs.

Energy Conservation programs available to residents of the ~~City~~City of Oroville include:

- Family Electric Rates Assistance (FERA)
- California Alternate Rates for Energy Program (CARE)
- Department of Energy (DOE) Weatherization Program
- Low Income Home Energy Assistance Program (LIHEAP)
- Affordable Housing for Sustainable Communities (AHSC)
- Disadvantaged Communities and Single-Family Solar Homes Program (DAC-SASH)
- Building Initiative for Low Emissions Development (BUILD)

Family Electric Rates Assistance (FERA)

Residents can access energy, weatherization, and utility assistance through PG&E. PG&E provides a plethora of energy conservation services for residents. PG&E offers energy assistance programs for lower-income households to help community members conserve energy and reduce utility costs, which include the Family Electric Rates Assistance (FERA) and the California Alternate Rates for Energy Program (CARE). The FERA program, also administered by PG&E, offers monthly discount of 18% on ~~electricity~~electricity to households with three or more people. Participants qualify through income guidelines.

California Alternate Rates for Energy Program (CARE)

The CARE program offers a monthly discount of 20% or more on gas and ~~electricity~~electricity to households with qualified incomes, certain nonprofit organizations, homeless shelters, hospices, and other qualified group living facilities. Participants qualify through income guidelines or if enrolled in qualified public assistance programs.

Department of Energy Weatherization Program

A key providers of energy conservation services is the Community Action Agency of ~~Butte County~~Butte County (CAABC). Community Action Department manages a variety of grant-funded programs, including emergency services, housing services, income and employment, and community services and development for vulnerable, low-income seniors, youth, and families. The CAABC administers a weatherization program funded by the Department of Energy for low-income residents, which is typically audit-driven. The weatherization upgrades must pay back in costs over the lifetime of the improvements to be permitted.

LIHEAP

The CAABC also administers LIHEAP (Low Income Homeowner Energy Assistance Program), which is a federally funded program that services the ~~City~~City of Oroville. The program provides utility assistance, weatherization upgrades, and water heater or HVAC replacements to eligible, low-income households. The goal of the program is to assist low-income households with managing and meeting their immediate home heating and/or cooling needs and providing home weatherization upgrades. Both homeowners and renters in ~~Butte County~~Butte County are eligible to participate in this program.

Residents are typically eligible for weather-stripping, low-flow showerheads and sink aerators, thermostatic shower valves, attic insulation, replacement of standard light bulbs and fixtures with energy efficient versions, and energy education. Qualified households may also receive assistance in paying their utility costs. This may include electric, natural gas, propane, heating oil, cord wood or wood pellets. Lastly, qualified households can receive heating, cooling, or water heater replacements. There are specific emergency services for clients who have received shut-off notices from their utility provider. Energy education helps residents learn more ways to reduce monthly energy bills.

LIHEAP is designed assist low-income households that pay a high portion of their income to meet their energy needs. Residents interested in any of these services can apply here to determine their eligibility: https://www.caliheapapply.com/. **Below is data on households who been serviced in the ~~City~~City of Biggs and Oroville through LIHEAP since 2010**:

- Homes weatherized between 2010 – 2019: ~~1076~~1076.
- January – December 2020: 227

- Heating, Cooling, and/or Water Heater replacements made between 2010 – 2019: 321
- January – December 2020: 55

- Utility Assistance for help with electric bills between 2010 – 2019: 8753
- Number of payments made as of June 2021: 1417

Residents and community members can learn more about energy services administered by CAABC on their website at https://www.buttecaa.com/energy-environmental-services/

Affordable Housing for Sustainable Communities (AHSC)

Administered by the Strategic Growth Council and implemented by the Department of Housing and Community Development (HCD), the AHSC Program funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduce greenhouse gas ("GHG") emissions. Funding for the AHSC Program is provided from the Greenhouse Gas Reduction Fund (GGRF), an account established to receive Cap-and-Trade auction proceeds.

Disadvantaged Communities and Single-family Solar Homes Program (DAC-SASH)

AC-SASH is a ratepayer-funded program through the California Public Utilities Commission that provides up-front rebates to help low-income homeowners access the benefits of solar power. The DAC-SASH low-income solar program runs through 2030 in PG&E utility territory. In Orland, communities identified as "DACs" or disadvantaged communities in the state's CES 4.0 map will be eligible for the solar program based on geography. Households must still qualify based on income, owner occupancy and be connected to PG&E 's electric grid.

Under the original SASH fund, GRID Alternative installed systems on over 5,200 homes in California. GRID is a leading voice in low-income solar policy and one of the nation’s largest nonprofit solar installer, serving families throughout California, Colorado, the Mid-Atlantic region, and tribal communities nationwide. GRID also offers single-family, multifamily and community solar installation services, project development and technical assistance, along with multiple levels of workforce development and service-learning opportunities, from volunteerism to in-depth solar training and paid internships. GRID’s mission is to build community-powered solutions to advance economic and environmental justice through renewable energy.

DAC-SASH goals include:

- Maximize financial savings for low-income households in economically ~~and environmentally~~and environmentally disadvantaged communities.

- Enhance long-term economic self-sufficiency in low-income communities by providing community members with access to green jobs training and solar employment opportunities.

- Provide education on energy efficiency and existing programs that can provide further benefits to families.

Building Initiative for Low Emissions Development (BUILD)

Authorized by State of California Senate Bill 1477, the Building Initiative for Low-Emissions Development (BUILD) Program will provide incentives for the deployment of near-zero emissions building technologies in low-income residential buildings emissions significantly beyond what otherwise would be expected to result from the implementation of the prescriptive standards described in Part 6 of Title 24 of the California Code of Regulations (California Energy Code).

The BUILD Program is currently under development, with program goals to raise awareness of near-zero-emission building technologies and applications, test program and policy designs, and gain practical implementation experience and knowledge. The program is designed to be a market transformation program. Through outreach, technical support, and education, BUILD hopes to promote all electric building decarbonization. The first two years of the program is expected to be focused on affordable housing. In the ~~City~~City of Orland, there may be incentive funding for disadvantaged communities. BUILD program guidelines will be finalized by the Fall 2021 and launched be the end of 2021.

CHAPTER 6: CONTRAINTS ANALYSIS

This section analyzes how governmental policies and procedures, and market factors, may constrain housing development in Oroville. It also includes an assessment of the extent to which identified constraints impact residential production. Some of these constraints are addressed by Goals, Policies and Actions in the Chapter 3 Housing Program.

GOVERNMENTAL CONSTRAINTS

State Housing Element Law requires that local governments facilitate and promote the provision of housing affordable for all economic segments of the community. While the ~~City~~City does not develop or build housing, local government can establish a regulatory framework that is conducive to the production of housing. On the other hand, some governmental regulations can increase the cost of development and thus constrain the availability of affordable housing. Governmental constraints can increase costs by adding specific expenses to building costs, such as street improvements or impact fees, or by increasing development timelines and thereby increasing the builder's incidental costs such as interest payments, property holding costs, or labor. Efforts to modify processes to alleviate constraints may require collaboration with the County of Butte because the County administers building permits for residential projects proposed within the ~~City~~City of Oroville jurisdiction. The ~~City~~City provides information about zoning code, development standards and fees on its website in conformance with Government Code 65940.1(a)(1).

Governmental constraints can be classified in three basic categories: those which pose regulation; those which add direct costs; and those which result in time delays. Regulations and time delays result in increased costs, but they cannot be calculated as easily as direct costs such as fees. The most significant factors falling within the influence of local government are:

- Land use controls
- Site improvement requirements
- Building codes and their enforcement
- Fees and exactions
- Permit processing procedures
- Accommodations for persons with disabilities

General Plan

The ~~City~~City of Oroville adopted its 2030 General Plan in March 2015. The General Plan describes how the ~~City~~City has regulatory authority over land use within its jurisdictional boundaries, and is also permitted by law to establish future land use designations for areas outside its jurisdictional boundaries that are within its Sphere of Influence (SOI). The General Plan illustrates an abundance of vacant land within the ~~City~~City limits and within the SOI that is zoned for residential uses. Other relevant plans that guide the ~~City~~City of Oroville's development include the Airport Land Use Compatibility Plan, the Riverfront Master Plan, and the Community of South Oroville Redevelopment/Annexation Feasibility Study, which examines issues around annexing the South Oroville area that was outside the ~~city~~City boundaries as of the adoption of the General Plan. The document identifies the Rio ~~d'Oro~~d 'Oro, Oro Bay, and unincorporated South Ophir Specific Plan Areas as potential areas for future annexation.

The General Plan also includes general plan designations for land uses. These general plan designations, and related land use controls and regulations, are described in this section. The General Plan states that within the ~~city~~City limits there are 63 acres of land designated for High Density, 151 acres of land designated Medium High Density Residential, 105 acres designated for Medium Density, 1,952 acres designated for Medium Low Density Residential, 278 acres designated for Low Density Residential, 24 acres designated for Very Low Density and Rural Residential, and 953 acres designated for Mixed Use.

Below is a listing of the residential Land Use Designations and associated densities established in the General Plan.

- Rural Residential (RR)— 0-0.2 dwelling units/acre
- Very Low Density Residential (VLDR)— 0.2-1 dwelling units/acre
- Low Density Residential (LDR)— 1-3 dwelling units/acre
- Medium Low Density Residential (MLDR)— 3-6 dwelling units/acre
- Medium Density Residential (MDR)— 6-14 dwelling units/acre
- Medium High Density Residential (MHDR)— 14-20 dwelling units/acre
- High Density Residential (HDR)— 20-30 dwelling units/acre
- Mixed Use (MU)— 10-30 dwelling units/acre (up to 70 dwelling units/acre in Downtown ~~Mixed Use~~Mixed Use zoning designation based on provision of amenities per Policy 2.8 in the Land Use Element)

Residential and Mixed-Use Zoning Districts

As shown in "*Figure 39: Residential Zoning Districts*," the ~~City~~City of Oroville's residential zoning districts allow for a range of housing types. Single-family dwellings are allowed by-right in all the residential zoning districts except R-3, R-4, and RP. Multi-family dwellings are allowed by-right in

R-2, R-3, R-4, RP, MXN, and MXC zoning districts, and in the MXD zoning district on stories above ground floor commercial uses.

Figure 39: Residential Zoning Districts

Zoning District	General Plan Designation	Units Per Acre	Max. Lot Coverage	Max. Height (ft.)	Min. Lot Size (sf)
Rural residential one acre (RR-1)	RR	0-0.2	10,000 sf	40	43,560
Rural residential 20,000 sf (RR-20)	RR	0-0.2	40%	40	20,000
Rural residential 10,000 s (RR-10)	RR	0-0.2	40%	35	10,000
Large-lot residential (RL)	LDR	1-3	40%	30	8,000
Single-family residential (R-1)	MLDR	3-6	50%	30	5,000
Medium-density residential (R-2)	MDR	6-14	60%	35	3,000
High-density residential (R-3)	MHDR	14-20	65%	45	2,200
Urban-density residential (R-4)	HDR	20-30	70%	50	2,000
High-density residential/professional (RP)	MU	10-30	65%	45	2,200
Downtown Mixed-Use (MXD)	MU	10-70	2.0-3.5 FAR*	55	N/A
Neighborhood Mixed-Use (MXN)	MU	10-30	1.0 FAR	40	N/A
Corridor Mixed-Use (MXC)	MU	10-30	1.0 FAR	60	N/A

Source: ~~City~~City of Oroville Municipal Code, Chapter 17.28 and 17.34

The Residential Use Table for the Residential Zoning Districts is shown in Figure 39.1 below. The symbols used in Tables 39.1-39.3 have the following meanings:

P Permitted use, zoning clearance required

A Administrative permit required

UP Use permit required

S See use-specific regulations for permit requirement

Blank Use not allowed

Figure 39.1: Residential Zoning Districts Use Table

Residential Use	Permit Requirement For Zone					
	RL	**R-1**	**R-2**	**R-3**	**R-4**	**RP**
Boardinghouse				UP	UP	UP
Duplex			P	P	P	P
Emergency shelter				P	P	
Mobile home park	UP	UP	UP	UP	UP	UP
Multiple-family dwellings			P	P	P	P
Residential care facility- 6 units or fewer	P	P	P	P	P	P
Residential care facility- 7 units and more				UP	UP	
Second dwelling unit	AP	AP	AP	AP	AP	AP
Single-family dwelling, attached			P	P	P	P
Single-family dwelling, detached	P	P	P			
Single-family manufactured on permanent foundation	P	P	P			
Single-room occupancy				UP	UP	
Transitional housing				UP	UP	

Source: ~~City~~City of Oroville Municipal Code

The Residential Use Table for the Mixed Use Zoning Districts is shown in Figure 39.2 below. Mixed-use development is defined as including nonresidential uses on the ground floor of each street frontage while also including residential uses for up to 75% of the allowed floor area ratio, and is permitted by right in all Mixed Use Zoning Districts. Residential uses in the Downtown Mixed Use district are permitted only on upper stories above ground floor commercial uses. Also note that for Downtown Mixed-Use (MXD), the density can be up to 70 units per acre and up to 3.5 Floor Area Ratio based on the provision of amenities such as improving wayfinding in the Downtown; providing pedestrian, bicycle, or transit amenities; providing arts or cultural amenities; or incorporating programs to reduce commute trips, prevent crime, or improve sustainability.

Figure 39.2: Mixed Use Zoning Districts Residential Use Table

Residential Use	MXD	MXN	MXC
Caretaker residence	UP	UP	
Mixed-use development	P	P	P
Multiple-family dwellings	~~P~~(P (1)	P	P
Residential care facility- 6 units or fewer	P	P	P
Residential care facility- 7 units or more	UP	UP	

Note: (1) Residential uses permitted only on upper stories above ground floor commercial uses.

Source: ~~City~~City of Oroville Municipal Code

Commercial Zoning Districts

Commercial Zoning Districts include the following:

CN— Neighborhood commercial
C-1— Limited commercial
C-2— Intensive commercial
CH— Highway commercial corridor
CLM— Commercial/light manufacturing
OF— Office

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The Residential Use Table for the Commercial Zoning Districts is shown in Figure 39.3 below.

Residential Use	CN	C-1	C-2	CH	CLM	OF
Caretaker residence	UP	UP	UP	UP	UP	
Residential care facility- 6 units or fewer	P	P	P	P	P	
Residential care facility- 7 units or more						

Overlay Zones

The Planned development overlay district (PD-O) encourages maximum flexibility in site planning relating to design, clustering of development, and protecting environmental resources, while encouraging: innovation and development of affordable housing, particularly on properties with environmental constraints, natural resources, or other topographical, geographical, or public improvement and service-related constraints; protecting the public health, safety, and general welfare of the ~~city~~City; and ensuring consistency with the General Plan, applicable Specific Plans, and any design guidelines adopted by the ~~City~~City Council. Development standards may be adjusted or modified in this overlay district where necessary and justifiable, and in compliance with minimum fire safety standards, with exception of the maximum density and Floor Area Ratio (FAR).

Density Bonus

California's Density Bonus Law (Government Code Section 65915) allows developers to request density bonuses and concessions based on the percentage of affordable units in the proposed project. Before 2021, the maximum density bonus was 35% for housing projects, which included either 11% Very Low-income units, 20% lower income units, or 40% moderate income units. Recent legislation (AB 2345) increased the top range of the density bonus to 50% for housing projects with 15% Very Low-Income units, 24% lower income units, or 44% Moderate-Income units. AB 2345 does not modify the 80% density bonus required to be provided to 100% affordable projects. In addition to the density bonuses, projects meeting the affordability thresholds described above are entitled to one or more incentives or concessions, which could include exceptions to building standards such as setbacks or building coverage ratios. In addition, AB 2345 amends parking ratios for qualifying projects to one space per studio or one-bedroom

unit, 1.5 spaces per two-bedroom or three-bedroom unit, and 2.5 spaces per four-bedroom unit. Further reductions in parking standards are allowed for projects within a half-mile radius of a major transit stop, and for senior housing with paratransit service or access to a bus route that operates at least eight times per day.

The ~~City~~City of Oroville Density Bonus provision is located in Chapter 17.24 of the Municipal Code. Section 17.24.010 states that in the event of any conflict between Chapter 17.24 and Section 65915 of the State Government Code, the provisions of the Government Code shall apply.

Parking Requirements

The ~~City~~City's parking standards for residential development are found in Section 17.12.070 of the Municipal Code. Parking requirements are based on the number of units, bedrooms, or beds, depending on the housing type, as outlined below. For residential development, the off-street parking requirements are listed below:

- Single-family dwellings — 2 spaces per unit
- Duplex — 2 spaces per unit
- Triplex— 1 space for one bedroom units; 1.5 spaces for two or more bedroom units
- Multi-family— 1 space for studios and one-bedrooms; 2 spaces for two or more bedroom units if <14 units/acre; 1.5 spaces for two or more bedroom units if >= 14 units/acre; 1 guest space per 4 units
- Boardinghouses — 1 space per bedroom
- Caretaker dwelling unit — 1 space per unit
- Emergency shelter — 1 space per 10 adult beds
- Residential care facility for 6 persons or fewer— same as requirements for applicable type of dwelling unit
- Residential care facility for 7 persons or more — 1 space per 3 beds
- Second dwelling unit — 1 space per unit

Required Setbacks

For the RR-1, RR-20, and RR-10 zoning districts, minimum front and rear setbacks are 20 feet, and minimum side setbacks are 10 feet. For the RL zoning district, minimum front and rear setbacks are 20 feet, and minimum side setbacks are 5 feet or 10 feet along any street frontage. For the R-1 zoning district, the minimum front setbacks are 15 feet and 20 feet for garages,

minimum rear setbacks are 20 feet, and minimum side setbacks are 5 feet or 10 feet along any street frontage. For the R-2, R-3, R-4, and RP zoning districts, the minimum front setbacks are 10 feet and 20 feet for garages, minimum rear setbacks are 20 feet, and minimum side setbacks are 5 feet or 10 feet along any street frontage. For the MXD zoning district, the minimum front setback is 0 ~~feet~~feet, and the maximum front setback is 5 feet, the minimum rear setback is 10 feet, and the minimum side setback is 10 feet if adjacent to a residential zone or 0 feet if adjacent to other uses. For the MXN and MXC zoning districts, there are no setback requirements unless adjacent to residential uses, in which case the minimum front setback is the same as for the adjacent residential zoning district, the minimum rear setback is 20 feet, and the minimum side setback is 10 feet.

Site Coverage Ratio and Floor Area Ratio

Site Coverage is a ratio of the building footprint square footage to lot square footage. Floor Area Ratio (FAR) is the ratio of total building square footage to lot square footage. For example, a two-story building that covers the entire lot area would have a 2.0 FAR. For Oroville, site coverage is applied to residential zoning districts, with a maximum site coverage ratio of 40% to 70%, and FAR is applied to mixed-use zoning districts, with a maximum FAR of 1.0 to 3.5.

Growth Controls

The ~~City~~City does not have any growth controls or caps on the number of units that can be built over a designated period of time, in conformance with SB 330. The 2030 General Plan, municipal code, and design guidelines adequately support community character and public safety. ~~City~~City expansions through annexations must be reviewed and approved by the ~~Butte County~~Butte County Local Agency Formation Commission (LAFCo), which is a countywide commission established by the State of California to ensure the orderly formation of local government agencies, the preservation of agricultural lands and open space, limitation of urban sprawl, and efficiency in local government services. The ~~City~~City does not have any inclusionary requirements. The ~~City~~City is in compliance with the Housing Accountability Act.

Zoning for a Variety of Housing Types

Zoning codes should provide adequate flexibility for the development of a variety of housing types that meet the range of needs documented in the Chapter 4 Needs Assessment. These housing types help meet residents' needs according to income, age, current housing status,

household size, and employment. Below is a description of how the ~~City~~City of Oroville zoning code accommodates each housing type listed below and where amendments to the zoning code are needed to comply with Government Code Section 65583(a)(4), (c)(1), and subdivision 65583.2(c).

Multifamily Rental Housing— allowed by-right (without discretionary permit review) in the R-2, R-3, R-4, RP, MXN, and in the MXD zoning district on stories above ground floor commercial uses. Incentives to allow greater densities, exceptions to development standards, and design flexibility are provided through the PD-O Overlay and the Density Bonus. Muni Code Section 17.040.060 defines a "family" as a "household" and "household" is defined as: "Household. One or more persons, whether or not related by blood, marriage or adoption, sharing a dwelling unit in a living arrangement usually characterized by sharing living expenses, such as rent or mortgage payments, food costs and utilities, as well as maintaining a single lease or rental agreement for all members of the household and other similar characteristics indicative of a single household." ~~This definition does not cause a constraint to housing development since this definition of "Family" is not restricted beyond persons sharing a housing unit (i.e. requirements that the persons are related by blood or marriage)~~This definition in the Muni Code will be revised to remove "as well as maintaining a single lease or rental agreement for all members of the household and other similar characteristics indicative of a single ~~household "~~household" as described in Program 2.1.1.~~-~~

Housing for Agricultural Employees— This housing type is not defined in the Municipal Code, nor is it identified as a permitted use for residential zoning districts. Program 2.1.5 describes how the Municipal Code will be amended to add a provision for Agricultural Worker Housing consisting of six or fewer persons is permitted as a by-right use in all residential zoning districts, in compliance with Health and Safety Code 17021.5. There are no agricultural zoning districts in Oroville that would apply to Health and Safety Code 17021.6 or 17021.8.

Low Barrier Navigation Centers— Low Barrier Navigation Centers are facilities that connect people experiencing homelessness to permanent housing through on-site services. State Law, per AB 101, requires that local government jurisdictions allow Low Barrier Navigation Centers by right in areas zoned for mixed uses and nonresidential zones permitting multifamily uses if it meets specified requirements. The ~~City~~City of Oroville Zoning Code does not include Low Barrier Navigation Center as a defined residential use. Therefore, Program 1.2.2 has been included in the Chapter 3 Housing Program to amend the zoning code in order to comply with AB 101.

Transitional Housing— Transitional housing is defined in Section 50675.2 of the Health and Safety Code as rental housing for stays of at least six months but where the units are re-circulated to another program recipient after a set period. The ~~City~~City's Municipal Code currently includes Transitional housing in its definitions section of the ~~City~~City Municipal Code, Section 17.04.060 consistent with Health and Safety Code Section 50675.2. Transitional Housing is only allowed with a Conditional Use Permit in the R-3 and R-4 zoning districts. In order to comply with Health and Safety Code Section 65583, Transitional Housing

must be treated no differently than other residential uses and allowed by-right in all residential zoning districts. Therefore, Program 2.1.6 has been included in the Chapter 3 Housing Program to amend the zoning code in order to comply with State Law.

Supportive Housing— Supportive housing is defined by Section 50675.14 of the Health and Safety Code housing with linked on-site or off-site services with no limit on the length of stay and is occupied by a target population as defined in Health and Safety Code Section 53260 (i.e., low-income person with mental disabilities, AIDS, substance abuse or chronic health conditions, or persons whose disabilities originated before the age of 18). Services linked to supportive housing are usually focused on retaining housing, living and working in the community, and/or health improvement. The ~~City~~City's Municipal Code does not include Supportive Housing as a permitted use. In order to comply with Health and Safety Code Section 65583, Supportive Housing must be treated no differently than other residential uses and allowed by-right in all residential zoning districts. Therefore, Program 2.1.7 has been included in the Chapter 3 Housing Program to amend the zoning code in order to comply with State Law.

Single-Room Occupancy Units— The ~~City~~City's Municipal Code, Section 17.04.060 defines Single-Room Occupancy (SRO) as "Housing (consisting of single room dwelling units with a minimum size of 150 square feet) that is the primary residency off its occupant or occupants. The unit must contain either food preparation or sanitary facilities if the project consists of new construction, conversion of non-residential space, or reconstruction. For acquisition or rehabilitation of an existing residential structure or hotel, neither food preparation nor sanitary facilities are required to be in the unit. If any unit does not contain food preparation or sanitary facilities, the building must contain those facilities in a common area shared by tenants." SRO units are allowed with a Conditional Use Permit in the R-3 and R-4 zoning districts.

Manufactured Homes— The ~~City~~City's Municipal Code, Section 17.04.060, defines a Manufactured Home in accordance with Section 18007 of the Health and Safety Code. Government Code 65852.3 requires that manufactured homes on foundation systems, as defined in the statute, are allowed by-right on lots zoned for conventional single-family residential dwellings. Manufactured Homes on permanent foundations are allowed by-right in all residential zoning districts except R-3, R-4, and RP. Manufactured Homes are also an allowable Second Dwelling Unit as defined in the Municipal Code.

Mobile Homes and Mobile Home Parks—As defined in the ~~City~~City's Municipal Code, Section 17.04.060, Mobile Home is defined in accordance with 18008 of the Health and Safety Code. It is defined as "a structure transportable in one or more sections, designed and equipped to contain no more than two dwelling units to be used with or without a foundation system." Mobile Home Parks are defined in the ~~City~~City's Municipal Code, Section 17.04.060 as "any area or premises where space or mobile homes is rented, held or rent or on which free occupancy is permitted to house trailer owners and users for the purpose of securing their trailer, but not including automobile or trailer dealerships on which unoccupied house

trailers are parked for inspection or sale." Mobile home parks are allowed with a Conditional Use Permit in all residential zoning districts.

Accessory Dwelling Units (ADUs)

Accessory Dwelling Units (ADUs), also known as granny flats, in-law units, backyard cottages, or secondary units, are attached or detached dwelling units with complete independent living facilities that are built on the same parcel as an existing main dwelling unit. They are a flexible housing type that can be more affordable to build because they are smaller in size than the typical dwelling unit, and do not require acquisition of a separate lot and construction of new complimentary improvements such as off-street parking. On January 1, 2020, six new bills intended to promote the development of ADUs became State Law. Five of the bills limit the ability of local government to restrict the development of ADUs in a variety of ways. They also set the rules for counting ADUs in a ~~city~~City's Adequate Site Inventory for the purpose of meeting RHNA in the Housing Element. The sixth law, AB 671, requires local government Housing Elements to include a plan to incentivize and promote the development of ADUs at affordable rents to Very Low-, Low- or Moderate-Income households.

Second Dwelling Units are defined in Municipal Code, Section 17.04 as "an attached or detached dwelling unit that is provided as an adjunct to an existing single-family dwelling unit and that includes complete, independent living facilities, including, but not limited to, an efficiency unit as defined in Section 17958.1 of the Health and Safety Code, or a manufactured home, as defined in Section 18007 of the Health and Safety Code." Second dwelling units are allowed with an Administrative Permit in all residential zoning districts. Administrative permits are ministerial and can only be denied if a project does not meet the applicable development standards. Applicable development standards are outlined in Section 17.16.010 of the Municipal Code. The ~~City~~City's Second Dwelling Unit standards will need to be modified in order to meet the latest updates to State ADU law. Program 2.1.7~~8~~ in the Chapter 3 Housing Program establishes a program for updating the ~~City~~City's Second Dwelling Unit section of the Municipal Code to conform with State Law. The ~~City~~City will comply with current State ADU laws in the interim by adhering to the State ADU Handbook in the processing of ADU applications. In addition, Program 1.2.6 will develop a program that offers incentives to property owners who develop ADUs that offer affordable rents for very-low, low-, and moderate-income households, with recorded regulatory restrictions on rents.

Emergency Shelters

California Health and Safety Code (Section 50801) defines an emergency shelter as "housing with minimal supportive services for homeless persons that is limited to occupancy of six months or less by a homeless person." In compliance with Government Code Section 65583(a)(4), emergency shelters are allowed by-right in the R-3 and R-4 zoning districts. There are currently two Emergency Shelters in Oroville.

AB 139 requires that local governments use their most recent Point-In-Time Homeless Census to determine whether there is adequate ~~capacity~~capacity in Zoning Districts where emergency shelters are permitted by-right. If adequate ~~capacity~~capacity is not available in these Zoning Districts, the jurisdiction must allow emergency shelters by-right in another Zoning District in order to provide adequate ~~capacity~~capacity to meet the need. The 2019 Point-In-Time Homeless Census counted 415 individuals experiencing homelessness in Oroville. The 2030 General Plan estimated as of 2015 that there were about 1,635 acres of vacant residential land in the Oroville. Approximately 8.3% of the ~~City~~City's residential land has High Density and Medium High Density Residential Land Use Designations that correspond with the R-3 and R-4 zoning districts. Applying the 8.3% share of R-3 and R-4 zoned land to the 1,635 vacant acres yields 136 acres. Based on the size of other emergency shelter improvements and land, it is estimated that two 108-bed shelters would conservatively require about four acres each, for a total of eight acres. If it is assumed that all 415 individuals counted in the 2019 Point-In-Time Homeless Census were served in two emergency shelters in Oroville, there would be more than adequate space to shelter them within the vacant 136 acres of the R-3 and R-4 zoning districts. As emergency shelters are allowed by-right in these two zones with more than adequate capa~~city~~city, ~~City~~City of Oroville regulations in the R-3 and R-4 zoning districts are the same as would apply to multifamily housing and are not a constraint to the development emergency shelters. All emergency shelter permit reviews are subject to development standards outlined in Municipal Code 17.16.210, which ensures adequate care and safety of guests and staff. The standards include: minimum 50 gross feet of personal living space; written management plan approved by the Zoning Administrator; no two emergency shelters within 300 feet from each other; occupancy limited to six months during any 12 consecutive month period; full-time on-site management staff; on-site security; and adequate refuse collection.

AB 139 also requires local governments to ensure that emergency shelter parking standards do not require any parking spaces beyond what is necessary for staff that work at the shelter. Program 2.1.9 of the Chapter 3 Housing Program describes how the ~~City~~City will amend its parking standards in order to comply with AB 139.

Extremely Low-Income Households

As described in Chapter 4, there are a large number of Extremely Low-Income households in Oroville that have a variety of housing needs. Some Extremely Low-Income households include persons experiencing homelessness or near-homelessness, persons with substance abuse problems, or persons with disabilities. Housing types that may be appropriate for this population

include the housing types described above, or one of the following housing types, with ~~City~~City of Oroville zoning code permitting requirements described:

Boardinghouses— defined in Municipal Code Section 17.04.060 as a building or portion of a building, other than a temporary lodging facility such as a bed and breakfast, hotel or motel, where sleeping facilities and meals for five or more persons are provided for compensation on a regular basis, are permitted with a Conditional Use Permit in the R-3, R-4, and RP zoning districts.

Residential Care Homes— defined in Municipal Code Section 17.04.060 in accordance with Section 1502 of the Health and Safety Code, with six or fewer clients are permitted by-right in all residential zoning districts, all mixed-use zoning districts, and all commercial zoning districts except the OF zoning district. This meets the requirements of Health and Safety Code Sections 1267.8(g), and 1566.3. Residential Care Homes with seven or more clients are permitted with a Conditional Use Permit in the R-3, R-4, MXD, and MXN zoning districts.

Persons with Disabilities

As part of a governmental constraints analysis, housing elements must analyze constraints upon the development, maintenance, and improvement of housing for persons with disabilities, per California Government Code Section 65583(a)(4). The Housing Element must demonstrate local efforts to remove any such constraints and provide for reasonable accommodations for persons with disabilities through programs that remove constraints.

Residential Care Homes

In accordance with the Community Care Facilities Act, the Oroville zoning code permits Residential Care Homes for six or fewer residents by-right in all residential districts. Residential Care Homes with seven or more clients are permitted with a Conditional Use Permit in the R-3, R-4, MXD, and MXN zoning districts. The use permits are approved if they meet the following seven findings: 1) not detrimental to general health, safety or public welfare of surrounding area or the ~~city~~City as a whole; 2) suitable location with regard to transportation facilities, public services, and other land uses in the vicinity; 3) adequate infrastructure; 4) compatible with surrounding neighborhood and not adversely affecting abutting properties; 5) site is physically suitable for the proposal; 6) provides services that are necessary or desirable for the community; and 7) permit complies with all applicable laws and regulations, including the General Plan and the ~~City~~City Municipal Code. On February 15, 2022, the ~~City~~City Council heard a presentation outlining this regulatory process and heard testimony from several owners/operators of supportive and other housing types, and did not find an impetus to make any changes at this time. There are no development standards that regulate the concentration or

spacing of residential care homes. Constructing a new facility or structurally modifying an existing facility would require a building permit.

Reasonable Accommodation

The ~~City~~City of Oroville has a Reasonable Accommodation provision in Section 17.08.160 of its Municipal Code. It is intended to provide equal access to housing throughout the ~~city~~City regardless of an individual's physical or mental abilities. The provision enables a disabled person to file a request for reasonable accommodation variance from Municipal Code with the Zoning Administrator. The criteria for approval of reasonable accommodation include: (1) applies only to the specific disabled person; (2) the accommodation is subject to all uniform building codes as adopted by the ~~city~~City; (3) changes affecting building exteriors are designed to be substantially similar to the architectural character, colors, and texture of materials of its surrounding dwelling units; and (4) the accommodation does not run with the land and constitutes a permit issued to a specific disabled person. The Zoning Administrator can approve the application without discretionary review by the Planning Commission or ~~City~~City Council. Any application denial must be accompanied by the reasons for denial.

Building Code

Standard requirements regarding accessibility for persons with disabilities are found in California's Title 24, which is enforced locally by the ~~City~~City's Community Development Department, Planning and Building Divisions. Special accessibility requirements are required for multi-family residential projects with three or more units.

Conclusion

The ~~City~~City of Oroville General Plan policies and zoning code include a number of provisions that do not constrain development of housing or remove regulatory constraints. Adequate land is zoned for residential uses at a variety of densities, and development standards for zoning districts are adequately flexible and do not unduly increase the cost or decrease the feasibility for housing production. Emergency shelters are permitted by-right in two different residential zoning districts. Residential Care Homes housing six or fewer clients are allowed by-right in all residential zoning districts, as well as mixed-use zoning districts.

To further remove regulatory barriers to a variety of housing types for special needs groups, and meet Housing Element Law requirements, the ~~City~~City must take a number of additional steps that have been incorporated into the Chapter 3 Housing Program. These include:

- allowance for the development of Low Barrier Navigation Centers by-right in areas zoned for mixed uses and nonresidential zones permitting multifamily uses if they meet specified requirements (Program 1.2.2);
- revisions to Second dwelling unit standards to bring them in conformance with State Law (Program 2.1.8~~);~~).
- implement incentives to property owners who develop ADUs that offer affordable rents for very-low, low-, and moderate-income households, with recorded regulatory restrictions on rents (Program 1.2.6)
- add a provision for Agricultural Worker ~~Housing, and~~Housing and allow for this type of housing of six or fewer persons to be permitted by-right use in all residential zoning districts (Program 2.1.5~~);~~).
- add a provision that treats Transitional Housing no differently than other residential uses and allow this housing type by-right in all residential zoning districts (Program 2.1.6~~);~~).
- add a provision that treats Supportive Housing no differently than other residential uses and allow this housing type by-right in all residential zoning districts (Program 2.1.7); and
- amend parking standards for Emergency Shelters in order to comply with AB 139 (Program 2.1.9).

Building Codes and Enforcement

Building standards are essential to ensure safe housing, although some codes and standards may constrain the development or preservation of affordable housing. The ~~City~~City currently uses the 2019 California Building Standards Code. This includes the California Electric Code, California Mechanical Code, and the California Plumbing Code. The Code Enforcement Division in the Community Development Department addresses code violations, interfaces with the general public to address concerns regarding code issues, removes abandoned vehicles, and cleans up blighted properties. Code enforcement is handled in response to community concerns and complaints. The ~~City~~City has a Multi-family Inspection Ordinance that identifies blighted and deteriorated housing stock and ensures the rehabilitation or elimination of housing that does not meet minimum building code and housing code ~~standards, or~~standards or is not safe to occupy.

PERMITTING PROCESS

The ~~City~~City of Oroville has established a process for reviewing housing projects to make sure they meet the requirements of the ~~City~~City's Zoning Ordinance and the General Plan. Section

17.48 of the Municipal Code outlines the process for reviewing and approving different types of permits, which include: Use Permits (also known referred to in this document as Conditional Use Permits), Minor Use Permits, Administrative Permits, Variances, and Rezonings.

Use Permits

The Use Permit submission, review and approval process follows the steps below.

1) The application and fee for Use Permit is submitted to the Zoning Administrator that includes the components as listed in Subsection E.1 of 17.48.010.

2) The Planning Commission holds a minimum of one public hearing to review the application, with a public notice provided 10 days before the hearing.

3) The Planning Commission may grant the Use Permit ~~only~~ upon making all of the findings listed ~~in~~ below (Municipal Code Subsection E.4 of 17.48.010). The Planning Commission may attach conditions to the use permit as deemed necessary to ensure compliance with the zoning code, general plan and to protect the public health, safety, and general welfare. In order to promote objectivity in making findings for approval of a Use Permit, Program 2.1.11 commits the ~~City~~City to amend Subsection E.4 of 17.48.010 of the Municipal Code as shown with strikethroughs and additions (highlighted in yellow) below.

   a. The granting of the permit will not be incompatible with or detrimental to the general health, safety or public welfare of the surrounding area or of the ~~city~~City as a whole.

   b. The proposed use follows sound principles of land use by having a suitable location relative to the community as a whole, as well as to transportation facilities, public services and other land uses in the vicinity.

   c. Public utilities and facilities, including streets and highways, water and sanitation, are adequate to serve the proposed use or will be made adequate prior to the establishment of the proposed use.

   ~~d. The location, size, design and operating characteristics of the proposed use will be harmonious and compatible with the surrounding neighborhood and will not adversely affect abutting properties.~~

   e. The subject site is physically suitable for the type and intensity of land use being proposed.

   f. The size, intensity and location of the proposed use will provide services that are ~~necessary or desirable~~ appropriate for the neighborhood and community as a whole.

~~3)~~g. The permit complies with all applicable laws and regulations, including the requirements of the general plan, of this title and of the ~~city~~City municipal code, as well as with federal and state fair housing law; and the characteristics of future residents, including their protected class status under state fair housing law, will not be a consideration in making findings.

4) The Planning Commission written determination is issued to the applicant within 10 days of the public meeting in which the determination was made.

5) The applicant or any person dissatisfied with the Planning Commission determination may appeal to the ~~City~~City Council within 15 days after the determination as provided in 17.56.100.

6) Within 45 days of the filing of an appeal, the ~~City~~City Council holds a public hearing to consider the Planning Commission's action and the appeal. The ~~City~~City Council renders its decision within 30 days of the public hearing and provides immediate verbal notice of the decision. The ~~City~~City Council decision is final.

Minor Use Permits

A proposed project that is exempt from the California Environmental Quality Act (CEQA) may be reviewed as a Minor Use Permit. The Use Permit submission, review and approval process follows the steps below.

1) The application and fee for Minor Use Permit is submitted to the Zoning Administrator.

2) The Development Review Committee reviews the application.

3) The Zoning Administrator holds a public hearing to review the application, with a public notice provided 10 days before the hearing.

4) The Zoning Administrator approves or denies the ~~application, and~~application and may attach conditions to the Minor Use Permit as deemed necessary to ensure compliance with the zoning code, general plan and to protect the public health, safety, and general welfare.

5) Applications may be referred to the Planning Commission if it is found to be necessary for further review or on appeal of the applicant or any person dissatisfied with the Zoning Administrator determination.

Administrative Permits

The Administrative Permit submission, review and approval process follows the steps below.

1) The application and fee for Minor Use Permit is submitted to the Zoning Administrator.

2) The Zoning Administrator approves or denies the application.

3) The Zoning Administrator's written determination is issued to the applicant within 10 days of the determination.

4) The applicant or any person dissatisfied with the Zoning Administrator determination may appeal to the Planning Commission within 15 days after the determination as provided in 17.56.100.

5) Within 45 days of the filing of an appeal, the Planning Commission holds a public hearing to consider the Zoning Administrator's action and the appeal. The Planning Commission renders its decision within 30 days of the public hearing and provides immediate verbal notice of the decision. If the Planning Commission's decision is not appealed to the ~~City~~City Council, the decision is final.

Variances

The Planning Commission has the authority to grant variances to the zoning code in order to prevent discrimination and undue hardship, and no variance is allowed to be granted that would provide a special privilege not shared by other property in the same vicinity. A variance does not permit any land use that is not allowed in the applicable zoning district. The Variance submission, review and approval process follows the steps below.

1) The application and fee for Variance is submitted to the Planning Commission.

2) The Planning Commission holds a minimum of one public hearing to review the application, with a public notice provided 10 days before the hearing.

3) The Planning Commission may grant the Variance only upon making all of the findings listed in Subsection E.3 of 17.48.080.

4) The applicant or any person dissatisfied with the Planning Commission determination may appeal to the ~~City~~City Council within 15 days after the determination as provided in 17.56.100.

5) Within 45 days of the filing of an appeal, the ~~City~~City Council holds a public hearing to consider the Planning Commission's action and the appeal. The ~~City~~City Council renders its decision within 30 days of the public hearing and provides immediate verbal notice of the decision. The ~~City~~City Council decision is final.

General Plan Amendment/Rezone

An amendment to the General Plan or a rezoning may be initiated by the Planning Commission, the ~~City~~City Council, or a request by one or more property owners affected by the proposed by the amendment. The request for General Plan Amendment or Rezone follows the steps below.

1) The application and fee is filed with the Planning Commission.

2) The Planning Commission holds a minimum of one public hearing to review the proposed General Plan Amendment or Rezone, with a 10-day public notice provided, which includes a mailing of the notice to the applicant, anyone who has requested a written notice, all property owners that own property within 300 feet of the property to be rezoned.

3) After reviewing the evidence, the Planning Commission submits its recommendation in written form to the ~~City~~City Council, which includes the reasons for the recommendation and the relationship of the proposed amendment to the adopted General Plan.

4) The ~~City~~City Council holds a public hearing to consider the matter and the Planning Commission's recommendation, with a public notice provided 10 days before the hearing.

5) The ~~City~~City Council approves, modifies, or disapproves the Planning Commission recommendation upon a majority vote of the ~~City~~City Council.

Subdivision/Parcel Maps

Subdivisions are governed by Title 16 of the Municipal Code. The Planning Commission is designated as the "advisory agency" per the Subdivision Map Act. The following process is used to review and approve subdivision map proposals. A Tentative Subdivision Map and Final Subdivision Map are required for all land subdivisions creating five or more parcels or five or more condominiums, with the following exceptions:

- The land before division contains less than five acres and each parcel created by the division abuts a maintained public street or highway and no dedications or improvements are ~~required;~~required.
- Each parcel created by the division has a gross area of 20 acres or more and has approved access to a maintained public street or ~~highway;~~highway.
- The land consists of a parcel or parcels having approved access to a public street or highway which comprises part of a tract of land zoned for industrial or commercial development, and which has the approval of the ~~City~~City Council as to street alignments and ~~widths;~~widths.

- Each parcel created by the division has a gross area of 40 acres or more; or
- The land is to be subdivided solely for biotic and wildlife purposes, pursuant to Section 66418.2 of the Government Code.

The following steps are followed for reviewing and approving subdivision map proposals.

1) The applicant files a Tentative Map with the Zoning Administrator in accordance with Municipal Code Section 16.12.020.

2) The Zoning Administrator reviews the application and notifies the applicant of whether it is complete or incomplete within 30 days from the date of submission.

3) Within 5 days after the Tentative Map is deemed complete, the Zoning Administrator sends the Tentative Map to each agency that is entitled to review the map, as provided in Section 16.12.020.

4) Within 15 days of receiving the Tentative Map, each agency may submit recommendations to the Zoning Administrator for consideration before making a decision on the Tentative Map.

5) The ~~City~~City Engineer prepares a written report to the Planning Commission on the Tentative Subdivision Map, which shall consider the relationship of the Tentative Map to the zoning code, other ~~city~~City ordinances, the General Plan and applicable Specific Plans, and comments from other ~~City~~City departments and public agencies. The report recommends conditions to be placed on the Tentative Map. The report is provided to the applicant at least 5 working days prior to any hearing or action on the Tentative Map.

6) The Planning Commission holds a public hearing to review the Tentative Map within 30 calendar days after the application has been deemed complete and the ~~City~~City has certified the project's CEQA review and determination, with a public notice provided 10 days before the hearing. The Planning Commission reviews the submitted Tentative Map, the Zoning Administrator report, and any available recommendations from public agencies and other interested parties.

7) The Planning Commission approves as submitted by the applicant, approves with conditions, or disapproves the Tentative Map. Grounds for disapproval are laid out in subsection F. of 16.12.020. The Planning Commission's action is final unless appealed to the ~~City~~City Council as provided in Section 16.04.060. The Tentative Map is valid for 36 months after approval.

8) At any time before the expiration of an approved Tentative Map, the applicant presents a Final Map to the Zoning Administrator in accordance with Section 16.12.030.

9) The ~~City~~City Engineer reviews the Final Map, and if in compliance with code, it is signed by all parties required by the Subdivision Map Act.

10) The Zoning Administrator reviews and approves or disapproves the Final Map. The Zoning Administrator may not deny approval of if the Final Map is consistent with the previously approved Tentative Map. Within 15 days of the Zoning Administrator action, the applicant may appeal to the ~~City~~City Council as provided in Section 16.04.060.

11) Upon final approval, the Final Map is sent by the ~~City~~City Clerk to the County Recorder for recording as specified in Sections 66464 and 66468 of the Government Code.

Boundary Line Modification/Minor Land Division

A request for boundary line modification or minor land division must be submitted to the Zoning Administrator in accordance with Municipal Code Chapter 16.32 After review of the application, the Zoning Administrator approves or disapproves the lot line adjustment pursuant to California Government Code Section 66412(d). The Zoning Administrator decision may be appealed by the applicant to the ~~City~~City Council as provided in Section 16.04.060.

Development Review

The purpose of Development Review is to allow the Development Review Committee (DRC) to review all discretionary development applications, such as General Plan Amendments, Rezones, Subdivision Maps, Conditional Use Permits, Variances, etc. In addition, DRC also reviews the design of new construction multi-family projects and single-family dwelling units within the historic area or Downtown Historic Overlay District (DH-O) in order to ensure compliance with the Municipal Code and harmony of appearance in the ~~City~~City's neighborhoods. The Development Review process follows these steps:

1) An application for Development Review is submitted in accordance with Municipal Code Section 17.52.030.

2) The DRC reviews the application in light of the requirements of the General Plan and any Specific Plan, as well as Municipal Code and any design guidelines adopted by ~~City~~City Council. The applicant may participate in the DRC meetings.

3) The DRC prepares a written report recommending approval, approval with conditions, or denial, unless the action is appealed as provided in Section 17.56.100.

4) Within 45 days of the filing of an appeal, the ~~City~~City Council holds a public hearing to consider the DRC's action and the appeal. The Planning Commission renders its decision within 30 days of the public hearing and provides immediate verbal notice of the decision. If the Planning Commission's decision is not appealed to the ~~City~~City Council, the decision is final.

By-Right Single-Family and Multifamily Permit Processing

Permit applications for single-family and multifamily development are reviewed by Planning Staff for eligibility as by-right applications that are not subject to discretionary review. Proposal site plans for single-family developments are then reviewed by the Planning, Engineering, and Building Departments. The first review normally takes 3-5 weeks. Following this review, by-right applications are eligible to start construction. Multifamily project applications follow the same process as single-family applications, but also include design review by the DRC, who does not have the authority to deny an ~~application, but~~application but can require modifications to site plan design to ensure compliance with the General Plan, and community health and safety standards, and the ~~City~~City's Design Guidelines. After design review, the project may apply for building permit.

SB-35, Permanent Supportive Housing, and Navigation Centers

The ~~City~~City does not have a specific procedure for SB-35 applications, or reviewing Permanent Supportive Housing planning permit applications, but will comply with SB-35 and AB 2162 as applicable. Program 2.1.6 includes a ~~City~~City commitment to amend the Municipal Code to comply with AB 2162 for streamlined processing of permit applications for Permanent Supportive Housing. SB 35 allows 60 days for a jurisdiction to determine if a project is eligible for streamlining, and then allows 90 days to complete design review before Planning Commission review and approval. The ~~City~~City of Oroville has never taken that long to process affordable housing ~~projects, and~~projects and has never received a request to process a project under SB 35. Nevertheless, Program 2.1.9 commits the ~~City~~City to amend the Municipal Code to comply with SB-35 in order ~~to streamline~~to streamline permit processing for affordable housing. Navigation Centers are not currently defined or addressed in the ~~City~~City's Municipal Code, but will be added in order to comply with AB 101 as described in Program 1.2.2 in the Chapter 3 Housing Program.

On- and Off-Site Improvement Standards

Construction of street frontage are required to conform with the ~~City~~City of Oroville Construction Standards as published and made available on the ~~City~~City's website at https://www.~~city~~Cityoforoville.org/services/public-works-department/engineering-division/improvement-standards. Some of the key improvement standards are listed below.

- The standard residential street designs have a ~~60 foot~~60-foot right-of-way with 35-40 foot street width curb to curb, a 5-6 foot park strip, and a 4.5-5 foot sidewalk.
- The standard cul-de-sac design has a ~~120 foot~~120-foot right-of-way at the widest extent of the right-of-way with 97 foot street width curb to curb, a 6 foot park strip, and a 5 foot sidewalk.
- Curbs and gutters are required, and design specifications are part of the ~~City~~City's Construction Standards.

Additional subdivision improvements standards are found in the Municipal Code, Section 16.16.070 as follows:

- Any newly created block shall be no longer than 800 feet along any distance between two ~~intersections, unless~~intersections unless an exception is made based on topography or other factors as provided in Section 16.04.040.
- Cul-de-sac streets in a residential subdivision shall not exceed 600 feet in length and shall not serve more than 25 parcels.
- The centerlines of streets that extend along existing or planned streets must continue the centerlines of the existing streets as far as practical.

On- and off-site improvement standards are not considered a constraint to housing development. All multi-family projects have been able to access existing water and sewer infrastructure, and complete required street improvements.

Historic Overlay Districts

The downtown historic overlay district (DH-O) covers most of the downtown area and is found in the Oroville Municipal Code 17.44.040, which includes specific development standards for all residential building types. The district's goal is to encourage revitalization and a vibrant downtown. In addition to the applicable residential and commercial zoning, proposed projects are reviewed for compliance with section 17.44.040 by the Planning Commission, which acts as the Historic Advisory Commission.

Estimated Time Between Planning Permit and Building Permit Submittal

In the past year, existing developer/builder applicants who have been eligible to receive the state's 9% disaster tax credits for affordable housing have spent an average of 3-6 weeks preparing building permit applications once receiving entitlements. Applicants not motivated by the tax credit timetable typically take 12 weeks between planning permit approval and building permit submittal. In terms of the time it takes for the ~~City~~City to process permits, on average, Administrative Permits require 2.5 hours, Density Bonuses take 20 hours, Use Permits take 20-36 hours, Zone Change requests require 16 hours, Variance requests require 20 hours, and tentative subdivision maps take 16 hours.

Conclusion

The ~~City~~City of Oroville's planning and building permit review procedures require similar processing times to other Northern California cities. The ~~City~~City's permit review processes do not present a significant constraint to residential development. While project review has increasingly become a complex process, the ~~City~~City of Oroville continues to seek ways to make this process more efficient without sacrificing the public's welfare or safety.

FEES AND EXACTIONS

Permit and Impact fees fund services necessary to carry out local government functions. Permit fees compensate local government staff for reviewing project proposals to ensure that they are consistent with the General Plan, Municipal Code, and State Law. Impact fees fund capital improvements necessitated by the cumulative demand of development. A review of both of these types of fees ~~are~~ is critical to this constraints analysis in order to determine whether the fees unduly add to the cost of development and thereby constrain the provision of housing.

Permit Fees

Permit fees include planning fees, building permit fees, and plan check fees. Planning fees are charged when an applicant submits a proposal for constructing or rehabilitating improvements. They compensate ~~City~~City staff time for reviewing the proposal. Building permit and plan check fees are charged to review the construction plans to ensure compliance with local and state building codes, and to inspect the project for habitability at completion. Planning Permit fees for the ~~City~~City of Oroville are listed in "*Figure 40: Planning Permit Fees*," and Building Permit fees are shown in Figure 41.

Figure 40: Planning Permit Fees

Description	Fee
PLANNING FEES	
Administrative Permit	$ 585.78
Amendment/Modification Fee (Use Permits, Variance, TSM, etc.)	$ 1,024.09
Annexation	$ 3541.30 (Deposit)
Appeal to ~~City~~City Council (Discretionary Items)	$ 1,121.38
Appeal to ~~City~~City Council (Ministerial Items)	$ 225.00
"Burn-Down" Letter	$ 67.59
Condition Compliance	$ 512.05 (Deposit)
Development Review Committee	$ 230.42
EIR Deposit	$ 5,120.45
Final Map	$ 1543.30 (Deposit)
Fire Design Review	$ 444.46
General Plan Amendment	~~$ 3,946.84~~$ 3,946.84 (Deposit)
Sign Review	$ 172.44
Specified Plan Amendment	$ 2,364.00
Specific Plan Deposit	$ 3,337.41
Tentative Parcel Map	~~$ 3,500.34~~$ 3,500.34 (Deposit)
Tentative Subdivision Map	$ 4,041.06
Per Resulting Lot Tentative Maps	$ 20.48
Use Permit	~~$ 2,889.98~~$ 2,889.98 (Deposit)
Variance	~~$ 2,317.52~~$ 2,317.52 (Deposit)
Zone Change	~~$ 3,104.02~~$ 3,104.02 (Deposit)
Zoning/General Plan Compliance Letters	$ 158.73

Source: ~~City~~City of Oroville

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Figure 40.1: Building Permit Fees

Building Permit Fees	
Total Valuation	Current Fee
Structural	
$1.00 to $500.00	$24
$501.00 to $2,00.00	$24.00 for the first $500; plus $3.00 for each additional $100 or fraction thereof, to and including $2,000.00
$2,001.00 to $40,000.00	$69.00 for the first $2,000.00; plus $11.00 for each additional $1,000.00 or fraction thereof, to and including $40,000.00
$40,001.00 to $100,000.00	$487.00 for the $40,000.00; plus $9.00 for each additional $1,000.00 or fraction thereof, to and including $100,000.00
$100,001.00 to $500,000.00	$1,027.00 for the first $100,000.00; plus $7.00 for each $1,000.00 or fraction thereof, to and including $500,000.00
$500,001.00 to $1,000,000.00	$3,827.00 for the first $500,000.00; plus $5.00 for each additional $1,000.00 or fraction thereof, to and including $1,000,000.00
$1,000,001.00 to $5,000,000.00	$6,327.00 for the first $1,000,000.00; plus $3.00 for each $1,000.00 or fraction thereof, to and including $5,000,000.00
Other Inspections and Fees	
Inspections outside normal business hours (minimum 2 hours)	$85.00 per hour*
Re-inspection fees assessed under the provisions of Section 6-1.7; 110.7 of the Oroville ~~City~~City Ordinance 1767.	$85.00 per hour*
Additional plan review required due to changes, additions, or revisions to plans (minimum 1/2 hour)	$42.50 per 1/2 hour

For use of outside consultants for plan review and inspections, or both	Actual Cost**
Plan Review: When a plan or other date is required to be submitted for review, the plan review fee for each building, structure, utility, etc. shall be 65% of the building permit fee shown in the Building Permit Fee Table.	
Disabled Access Review: For the review of California Code of Regulation Title 24 requirements for accessibility for the physically disabled, the fee shall be:	$85.00 per hour*
Energy Conservation Review: For review of the California Code of Regulation Title 24 requirements for energy conservation, the fee shall be equal to 10% of the building permit fee as shown in the Building Permit Fee Table.	
Green Building Standards Review: For review of California Code of Regulations Title 24 requirements for green building standards, the fee shall be equal to 15% of the building permit fee as shown in the Building Permit Fee Table.	
*= or the total hourly cost to the jurisdiction, whichever is greatest. The cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employee involved.	
**= Actual cost includes administrative and overhead costs.	

Source: ~~City~~City of Oroville, 2021

Impact Fees

Impact fees fund infrastructure improvements to accommodate growth in the community. Impact Fees are listed in "*Figure 40.2: Impact Fees*."

Figure 40.2: Impact Fees

DEVELOPMENT IMPACT FEE SUMMARY	Oroville		Orland		Difference Orland	
Fee Category	Single Family Residential	Multi-Family Residential	Single Family Residential	Multi-Family Residential	Single Family Residential	Multi-Family Residential
Sewer Impact Fee	~~$ 1,794.00~~ $ 1,794.00	$ 1,794.00	$ 2,515.00	$ 2,465.82	$ (721.00)	$ (671.82)
Drainage Impact Fee	~~$ 2,572.00~~ $ 2,572.00	$ 1,029.00	$ 1,588.00	$ 1,344.00	$ 984.00	$ (315.00)
Water Impact Fee	$ -	$ -	$ 2,711.00	$ 2,657.82	$ (2,711.00)	$ (2,657.82)
Roads	$ 961.00	$ 745.00	$ 1,736.41	$ 1,065.91	$ (775.41)	$ (320.91)
Parks and Recreation Impact Fee	~~$ 3,843.00~~ $ 3,843.00	$ 3,095.00	$ 5,051.59	$ 4,329.94	$ (1,208.59)	$ (1,234.94)
General Government Impact Fee	~~$ 1,135.00~~ $ 1,135.00	$ 676.00	$ 5,140.44	$ 4,406.09	$ (4,005.44)	$ (3,730.09)
Police Impact Fee	~~$ 1,393.00~~ $ 1,393.00	$ 1,122.00	$ -	$ -	$ 1,393.00	$ 1,122.00
Fire Impact Fee	$ 804.00	$ 648.00	$ -	$ -	$ 804.00	$ 648.00
Library	$ -	$ -	$ 1,356.07	$ 1,162.35	$ (1,356.07)	$ (1,162.35)
Total Per Unit	$ 12,502.00	$ 9,109.00	$ 20,098.51	$ 17,431.93	$ (7,596.51)	$ (8,322.93)

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School Fees (Sq Ft)	$ 4.08	$ 4.08	$ 4.08	$ 4.08	$ -	$ -

Source: ~~City~~City of Oroville, Oroville Unified School District, 2021

Fee Cost Reasonableness

The impact fees for Oroville were compared to Orland, a town with a population of 8,527 that is also in the northern Central Valley and about 45 miles from Oroville. As shown, total impact fees per unit for single-family and multi-family are much lower in Oroville than for Orland.

As part of the Impact Fee cost reasonableness assessment, land, construction, and fees costs for a typical single-family and multi-family unit were estimated, as shown in "*Figure 40.3: Estimated Single-family Development Costs"* and **"***Figure 40.4: Estimated Multi-family Development Costs*." Soft costs such as architecture, engineering, financing, and developer profit are not included. For the single-family construction costs estimate, a 1,500 square-foot home was modeled. The model shows that for a typical single-family home, the total Permit and Impact Fees are estimated at $21,049, which accounted for 5.5% of the total land and construction costs. For the multi-family construction costs estimate, an apartment complex with 40 units, each 900 square feet in size, was modeled. The model shows that for a typical two-bedroom apartment, the total Permit and Impact Fees are estimated at $16,885, which accounted for 4.7% of total land and construction costs. The fees in both of these models include School Impact Fees that are charged by the Oroville Unified School District in addition to fees charged by the ~~City~~City of Oroville.

Figure 40.3: Estimated Single-family Development Costs

Single Family Home Example		
# of Sq. Ft.	1500	Per Sq Ft Cost
Construction Price Sq. Ft	$ 200.00	
Lot Cost (10k sq ft)	$ 37,530.14	$ 25.02
Construction Cost	$ 300,000.00	$ 200.00
Contingency and Overhead (10%)	$ 30,000.00	$ 20.00
Permit Fees	$ 2,427.00	$ 1.62
Impact Fees	$ 12,502.00	$ 8.33
School Fees	$ 6,120.00	$ 4.08
Total	$ 382,459.14	$ 254.97

Note: This model does not include A&E, Developer Profit and other assorted soft costs.

Sources: Permit and Impact Fees— ~~City~~City of Oroville. School Fees— Oroville Unified School District.

Figure 40.4: Estimated Multi-family Development Costs

Multifamily Example			
# of Sq. Ft. per unit	900		
# of Units	40		
Costs		Per Sq Ft Cost	Per Unit Cost
Construction Price Sq. Ft	$ 260		
Lot Cost (2 acres @ $244,860 per)	$ 489,720.00	$ 13.60	$ 12,243.00
Construction Cost	$ 8,684,607.00	$ 241.24	$ 217,115.18
Other Costs ($115,953 per unit)	$ 4,638,120.00	$ 128.84	$ 115,953.00
Permit Fees	$ 28,433.00	$ 0.79	$ 710.83
Impact Fees	$ 500,080.00	$ 13.89	$ 12,502.00
School Fees	$ 146,880.00	$ 4.08	$ 3,672.00
Total	$ 14,340,960.00	$ 398.36	$ 358,524.00
Based on 2020 TCAC-DR Oroville Projects. *Sources: Permit and Impact fees— ~~City~~City of Oroville. School fees— Oroville Unified School District.*			

Conclusion

Based on an analysis of fee increases, development models, and comparison to other cities, the fees in the ~~City~~City of Oroville do not represent a significant constraint on the construction of new housing. The fees charged by the ~~City~~City of Oroville are lower than other similar size cities in the region. The ~~City~~City of Oroville does not have any ordinances that significantly impact the cost and supply of housing, such as inclusionary zoning or short-term rental ordinances.

NON-GOVERNMENTAL CONSTRAINTS

Non-governmental constraints are largely driven by the market forces of supply and demand that are shaped within the context of government policy at the federal, state, and local levels. By responding to market factors that impact housing availability and affordability, local governments, in cooperation with federal and state agencies, can help improve access to affordable housing for their residents. This section includes an analysis of land prices, construction costs, and residential real estate financing to better understand the challenges and opportunities to addressing housing needs in the ~~City~~City of Oroville.

Land Prices

Land cost is a fundamental component of the cost of housing. The price of property is impacted by market supply and demand, government land use policies, and the availability of acquisition financing. An analysis of multi-family and single-family residential land prices ~~follows~~follows.

Multi-family Residential Land

"Figure 41: Multifamily Residential Land, ~~City~~City of Oroville, 2020" shows data from properties for six affordable projects that received tax credit allocations and are currently in development in Oroville. The average price per acre of the six properties is $244,860 and the average price per square foot is $5.62.

Figure 41: Multifamily Residential Land, ~~City~~City of Oroville, 2020

Multi-family Land Sales							
Project Name	Address	~~City~~City	Site Acreage	Site Sq. Ft.	Land Cost	Price per Acre	Land Price Sq Ft
Sierra Heights Phase II	No Address	Oroville	3.76	163,786	$499,000	$132,712.77	$3.05
Oroville Heights Apartments	1409 & 1451 Oro Dam Blvd. W	Oroville	4.96	216,058	$ 1,190,500	$240,020.16	$5.51
Olive Ranch Apartments Phase I	Table Mtn and Grand	Oroville	3.15	137,214	$ 1,120,000	$355,555.56	$8.16
Olive Ranch Apartments Phase II	Table Mtn and Grand	Oroville	2.74	119,354	$ 1,120,000	$408,759.12	$9.38
Mitchell Avenue Senior Apartments	Mitchell Ave between FRB and 5th	Oroville	1.99	86,684	$330,000	$165,829.15	$3.81
Riverbend Family Apartments	205 Table Mountain	Oroville	4.36	189,922	$725,000	$166,284.40	$3.82
					Average	$244,860.19	$5.62

Source: ~~City~~City of Oroville 2020 TCAC-DR

Single-family Residential Land

"Figure 41.1: Single-family Residential Land, ~~City~~City of Oroville, 2021" shows land in Oroville zoned Single-Family Residential that closed sales from October through ~~December,~~December 2021. The price per square foot ranged from $2.61 to $5.17 for lots that ranged from 4,792 to 8,886 square feet. The average lot size was 7,289 square feet and the average price was $3.75 per square foot.

Figure 41.1: Single-family Residential Land, ~~City~~City of Oroville, 2021

Single Family Lot Assumptions					
Address	~~City~~City	Price	Lot Size	Date Sold	Price per Sq Ft
Yacht Court	Oroville	~~$ 35,000~~$ 35,000	8,276	12/2/21	$ 4.23
A Street	Oroville	~~$ 40,500~~$ 40,500	7,841	11/16/21	$ 5.17
2346 C Street	Oroville	~~$ 12,500~~$ 12,500	4,792	11/15/21	$ 2.61
498 Lodgeview Drive	Oroville	~~$ 24,000~~$ 24,000	7,405	11/5/21	$ 3.24
Lodgeview Drive	Oroville	~~$ 24,000~~$ 24,000	6,534	10/31/21	$ 3.67
7 Hawley Trail	Oroville	~~$ 32,000~~$ 32,000	8,886	10/13/21	$ 3.60
		Average	7,289		$ 3.75

Source: Realtor.com, 2021

Construction Costs

Construction costs vary widely depending on the type of structure being built. For instance, the total construction cost of a multi-family structure will cost much more than a single-family home, though the cost of each unit in the multi-family structure will generally cost less due to the economies of scale. The development models shown in Figures 41 and 41.1 demonstrate that multi-family construction is generally more expensive per square foot but usually has lower costs per unit due to smaller unit sizes. Multifamily and single-family construction costs in ~~Butte County~~Butte County are comparable to other similar size counties in the Central Valley, and generally lower than in the Sacramento Metropolitan Area.

An analysis of total development costs for six affordable tax credit projects in Oroville currently in development was conducted and listed in "*Figure 41.2: Multi-family Construction Costs, ~~City~~City of Oroville, 2021*." Total construction costs for these projects averaged $239,548 per unit and $260 per square foot. If funding sources require payment of State Prevailing Wages, construction costs are generally about 15%-20% higher. Senior and studio subsidized apartment complexes generally cost less per unit and more per square foot. Subsidized apartments are generally more expensive to build than market rate apartments because costs, such as developer overhead and profit, financing, and reserves, must be front-loaded into the development budget instead of future year operating budgets. This is because publicly subsidized project rents are restricted to levels affordable to ~~low-incomes~~low incomes. Operating income largely covers annual expenses only, with narrow profit margins over the operating period. Furthermore, rent restriction covenants limit price appreciation, as subsidized projects cannot be resold at market prices until 30 to 55 years after they are built.

Figure 41.2: Multi-family Construction Costs, ~~City~~City of Oroville, 2021

Project Name	Address	Total Development Cost (TDC)*	Land Cost	Construction Cost	All Other Costs	Construction Cost (Sq. Ft)	Construction Cost (Unit)
Sierra Heights Phase II		$16,414,489	$499,000	$9,056,000	$6,859,489	$210.00	$192,680.85
Oroville Heights Apartments	1409&1451 Oro Dam Blvd. W	$23,722,012	$1,190,500	$14,161,000	$8,370,512	$197.00	$217,861.54
Olive Ranch Apartments Phase I	Table Mtn and Grand	$30,650,580	$1,120,000	$21,261,340	$8,269,240	$281.00	$265,766.75
Olive Ranch Apartments Phase II	Table Mtn and Grand	$30,331,815	$1,120,000	$20,998,000	$8,213,815	$281.00	$262,475.00
Mitchell Avenue Senior Apartments	Mitchell Ave between FRB and 5th	$12,323,761	$330,000	$7,663,161	$4,330,600	$304.00	$218,947.46
Riverbend Family Apartments	205 Table Mountain	$27,924,953	$725,000	$19,848,570	$7,351,383	$287.00	$279,557.32
	Average	$23,561,268	$830,750	$15,498,012	$7,232,507	$260.00	$239,548.00

Source: ~~City~~City of Oroville and California Tax Credit Allocation Committee, 2021

Construction costs have increased significantly over the past five years. These increases have been driven by increases in labor and material costs. The Terner Center for Housing Innovation at UC Berkeley conducted an analysis of multi-family construction costs across California in 2020. In their report, they pointed out that construction costs increased by 24% statewide between 2009 and 2018. For the period of 2014 and 2018, the increase was 44% percent. The average per square foot hard cost was $177 in 2009, and in 2018 it was $222.

According to the Terner Center report, wages for the Construction and Extraction Occupations category saw an increase of 28.7% between 2006 and 2018. Cement Masons and Concrete Finishers saw the most significant increase in wages at 32.5%. Some of these wage increases were attributed to higher levels of overhead, profit, and contingency by general contractors and subcontractors to mitigate the risk and costs associated with a restricted workforce, and to ensure that they retain workers in a competitive labor shortage environment. (Source: *The Hard Costs of Construction: Recent Trends in Labor and Materials Costs for Apartment Buildings in California.* The Terner Center for Housing Innovation, UC Berkeley, March 2020.)

Construction costs have been further accelerated by large increases in the cost of materials. Between 2010 and 2018, the cost of concrete increased by 28%, finishes and gypsum increased 65%, and lumber increased 110%. Metals was the only material that decreased over that time period, with a 39% drop. The COVID-19 pandemic has contributed to further cost increases. In some areas, the cost of lumber tripled as supplies became constrained due to sawmills shutdowns.

The increase in construction costs can be attributed to many ~~factors, but~~factors but is most significantly due to large increases in materials costs and a restricted workforce. It is not clear if these factors will continue during the next housing element period, but if they do, it could significantly impact not only the number of units that are built, but also their affordability as well.

Financing Availability

Over the past eight years, financing for residential real estate has gradually recovered from the recession of 2008. Interest rates over the past three years have remained at historically low levels, influenced by a federal funds rate near zero percent and federal investment in securities to shore up the economy during the coronavirus pandemic. At the same time, the risky lending practices that precipitated the housing bubble and subsequent recession have been reformed and defaults have declined significantly. After some uncertainty in 2020, equity and debt were much more aggressively employed in 2021 and are expected to continue to be readily available for a variety of residential real estate investments over the next few years.

Multifamily Rental Financing

Multifamily lending is forecast to reach about $421 billion in 2022, up from the record $409 billion estimated for 2021, which was a 13% increase from 2020 according to the Mortgage Bankers Association. Fannie Mae and Freddie Mac plan to increase their levels of multifamily investment in 2022 by increasing purchase caps, broadening the scope of eligible borrowers and projects, and expanding their products with flexible terms and low interest rates. (Source: *Why a Lending Bounty Awaits Multifamily Borrowers.* Multi-Housing News, November 30, 2021).

Most multifamily loan interest rates are currently tied to the 30-day LIBOR or U.S. Treasury 10-Year Note. The 30-day LIBOR has been stable between December 2020 and 2021, varying between 0.07% to 0.16%, with a rate as of December 2021 at 0.10%. LIBOR is expected to be phased out as a benchmark lending index over the next couple ~~years, and~~years and will be replaced by another index that broadly measures bank borrowing costs. The 10-Year Treasury Note has risen from about 0.9% in December 2020 to about 1.5% in December 2021 (Wall Street Journal, December 10, 2021). Over the next year, interest rates on multi-family debt should continue to be in the 2%-4% range for tax-exempt bond funded construction loans and the 3%-5% for permanent loans and market rate commercial construction loans (Commercial Real Estate Finance Company of America, December 2021). Fannie Mae's current multifamily loan interest rates are roughly 3.6%-4.0% for a fixed 30-year amortized term (Fannie Mae, December 2021). Current FHA 223(f) multifamily loan interest rates are generally 2.65%-3.65% for a fixed 35-year amortization term (Federal Housing Administration, December 2021). Most affordable housing in California is financed by tax-exempt bonds that are allocated to projects by the California Debt Limit Allocation Committee (CDLAC).

Freddie Mac tracks an Apartment Investment Market Index (AIMI) to measure the relative value of investing in multi-family properties in select major metropolitan areas. From the second quarter of 2020 to the second quarter of 2021, the AIMI rose from 129.2.3 to 132.6. Freddie Mac stated that the increase in the index over the past year was the result of growth in net operating income for apartment complexes and lower mortgage rates, which offset strong growth in property prices (Freddie Mac Apartment Investment Index, 2nd Quarter, 2021. Equity for market rate multifamily housing is usually invested by Real Estate Investment Trusts (REITs). Publicly traded REITs have performed well over the last 10 years, with average annual return of 11.29% between October 2011 and October 2021 (Nareit Industry Fact Sheet, October 2021).

Equity for affordable housing is usually invested by banks and corporations that receive tax credits and deductions in return for their investment. Tax credit investors negotiate an equity price per dollar of tax credit received for each affordable housing project. Equity pricing for Federal Low Income Housing Tax Credits (LIHTC) in California has been gradually rising after a

drop in investor interest in 2020. While LIHTC pricing varies greatly depending on project particulars, the partners involved, and location, national pricing averaged about $0.90 per tax credit dollar in the second half of 2021 (CohnReznick Housing Tax Credit Monitor, November 2021 and Novogradac LIHTC Equity Pricing Trends, August 2021). While projects in major California metropolitan markets such as Los Angeles and the Bay Area tend to draw significantly higher pricing than the nationwide average, projects in rural areas of California have historically seen pricing closer to the nationwide average.

Federal funding for affordable multifamily housing is projected to expand over the next few years based on the recently passed American Rescue Plan and HUD budgets, proposed federal budgets for FY 2022, and the housing components of the proposed Build Back Better Act. These initiatives will significantly bolster resources for federal tax credits, entitlement grants for housing production, rental assistance, and homeless services. At the State level, budget surpluses and the Governor's commitment to addressing California's housing needs figures to continue financial support for housing programs.

At the beginning of the new Housing Element period, Chico and the surrounding area will see increased investment in subsidized multifamily rental financing through the Community Development Block Grant- Disaster Recovery (CDBG-DR) program. The purpose of this program is to use federal funds made available through the Presidential Disaster Declaration associated with the Camp Fire to replace destroyed units. ~~Butte County~~Butte County has received an allocation of $61 million dollars, with $6.6 million planned for three new construction affordable multifamily projects in Oroville.

Homeownership Financing

The full-year average interest rate on a 30-year fixed rate mortgage was 3.0% in 2021 (Freddie Mac Market Rates Survey, December 9, 2021). After large monthly purchases of treasuries and mortgage securities over the past two years, the Federal Reserve has indicated that it is ready to start diminishing its purchases of treasuries and mortgage securities through 2022. At the same time, it is expected that the Federal Reserve will slightly increase the Federal Funds Rate over 2022. These factors are expected to push mortgage interest rates modestly upward between 0.3% and 0.5% on a 30-year fixed rate loan by the end of 2022 (*Kiplinger's Interest Rates Forecast.* Kiplinger, September 2021.) Freddie Mac projects that refinance activity will soften towards the end of 2022 as interest rates rise, and total mortgage originations will decline from $4.5 trillion in 2021 to $3.1 trillion in 2022 (*Quarterly Forecast.* Freddie Mac, October 15, 2021).

Natural Disaster Impacts

COVID-19

On March 13, 2020, the President declared the ongoing Coronavirus Disease 2019 (COVID-19) pandemic of sufficient severity and magnitude to warrant an emergency declaration for all states, tribes, territories, and the District of Columbia pursuant to section 501 (b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121-5207 (the "Stafford Act"). This declaration shut down "non-essential" businesses such as bars, restaurants and most retail stores. Essential businesses included hardware stores, supermarkets, and other retailers that sold food or medical supplies. Housing construction was considered an essential business, however, COVID still had a severe impact in that sector. Construction sites had to deal with shutdowns due to COVID outbreaks. Many factories supplying building materials experienced shutdowns or reduced staffing. This led to severely constrained supply inventories. Construction projects were delayed due to materials shortages. These delays resulted in fewer units being built to meet the high demand for housing. This contributed to higher home prices and rents. With the increase in vaccinations and the decline in COVID-19 cases, housing construction began to recover in the second half of 2021.

Camp Fire

On November 18, 2018, a faulty electrical line sparked the deadliest and most destructive wildfire in the history of the State of California in the foothills of ~~Butte County~~Butte County. When the fire was finally fully contained on November 25th, 2018, it had killed 85 people, burned almost 240 square miles, and destroyed 18,000 structures, most of which were dwelling units. The towns of Paradise and Concow were almost completely destroyed, and 56,000 people were evacuated with 20,000 of them relocating permanently.

A study was conducted by Economic and Planning Systems that was released in January of 2021 that examined the impact of the Camp Fire in Butte, Glenn and Tehama counties. According to the study, most of the residents relocating from Paradise, Magalia, and Concow initially moved to Chico, with a much smaller portion also relocating to Oroville and Orland. The ~~City~~City of Oroville grew by 2,707 persons between 2016 and 2019 and decreased of 2,931 persons from 2019 to 2021. The population of ~~Butte County~~Butte County as a whole decreased dramatically by 23,429 (10.4%) between 2018 and 2021.

Local Response to Non-governmental Constraints

While the ~~City~~City of Oroville cannot directly impact non-governmental constraints, the ~~City~~City will address these constraints by working toward goals that reduce governmental constraints as outlined below.

~~City~~City Actions that Address Non-governmental Constraints

The following actions in the Chapter 3 Housing Program address non-governmental constraints that are described above.

Land Prices

Program 2.1.8 addresses high land prices by facilitating ADU development on existing land developed with single-family residences.

Construction Costs

Program 2.1.2 will defer ~~City~~City development impact fee payments through a deed of trust until a certificate of occupancy is issued for affordable projects utilizing the Density Bonus Program. This will reduce construction financing costs for these projects. *Program 2.1.4* commits the ~~City~~City to periodically survey permit and impact fees of other cities in ~~Butte County~~Butte County to ensure that ~~City~~City fees are reasonably related to the cost of services provided. This will help keep permit and impact fees in check, which are a significant portion of housing development costs.

Programs 4.1.2, 4.1.3, and 4.3.2 address high construction costs by implementing strategies to preserve, rehabilitate, and/or convert existing structures to rent-restricted affordable housing with long-term rent restrictions. Preservation and rehabilitation is generally much less expensive than new construction.

Financing Availability

Program 3.2.1 directs the ~~City~~City to partner with developers to leverage federal, state, and private sources to meet the ~~City~~City's housing goals.

Program 6.2.1 directs the ~~City~~City to collaborate with NCIHA to provide Permanent Local Housing Allocation (PLHA) funds to affordable housing in the form of grants or deferred payment loans.

Natural Disaster Impacts

Program 6.2.2 directs the ~~City~~City to address the impacts of the 2018 Camp Fire and 2020 North Complex Fire by analyzing the permitting and development process to provide expedited processing times for mixed-income, high density, infill, and multi-family housing development.

AFFIRMATIVELY FURTHERING FAIR HOUSING: IDENTIFICATION AND PRIORITIZATION OF CONTRIBUTING FACTORS

With the passage of AB 686, the Housing Element now includes a section on affirmatively furthering fair housing called "identification of contributing factors." A fair housing contributing factor is one that creates, contributes to, perpetuates, or increases the severity of one or more fair housing issues, focusing on the topics in the assessment of fair housing: segregation, racially and ethnically concentrated areas of poverty, disparities in access to opportunity, and disproportionate housing needs. *(California State Department of Housing and Community Development, Affirmatively Furthering Fair Housing, 2021)*. As recommended by State HCD, *"Figure 42: Affirmatively Furthering Fair Housing: Identification of Contributing Factors"* identifies fair housing issues, contributing factors, meaningful ~~City~~City action, and the priority of the issues from high to low.

Figure 42: Affirmatively Furthering Fair Housing: Identification of Contributing Factors

Priority (high, medium, low)	Fair Housing Issue	Contributing Factors	Meaningful ~~City~~City Action
High	*Patterns and trends of segregation based on income, household characteristics, disability, and/or race ethni~~city~~city.* **Census Tract 30.01:** Significantly disadvantaged area which has been prioritized for redevelopment. The findings indicate 30-40% of the population is living with a disability (highest in ~~Butte County~~Butte County), 60-80% of homeowners are overpaying, 60-80% of renters are overpaying, 30-40% of the population is living in poverty, it is an area of high segregation and poverty, and the level of overcrowding is double the State's average at 15-20% of households. The area median income is less than $30,000. **Census Tracts 25, 28, 30.01, 30.02, and 37:** Areas of high segregation and poverty, which	Lack of public or private investments in specific neighborhoods. Lack of community revitalization strategies.	1. Work with the State government to consider using CDBG funds for rehabilitation of both renter households and owner-occupied households (Program 6.1.1). 2. ~~City~~City to prioritize future rehabilitation, community beautification, infrastructure improvements or other investment efforts in Census Tract 30.01, when deemed financially feasible. To the extent possible, ~~City~~City to focus redevelopment efforts in Census Tracts 25, 28, 30.02 and 37 as well (Program 6.1.1 and Program 4.2.1). 3. Incentivize affordable housing, such as mixed income and multi-family development, in Census Tracts 27 and 31, which are

	disproportionately experience more housing issues and burdens than other areas in the ~~City~~City.		areas that experience more affluence, to encourage patterns of integration (Program 6.1.2). 4. Assess community needs and issues in areas experiencing high segregation and poverty (Program 6.3.1) 5. Need for improved permitting and development processes, such as flexible allowances, and incentives for infill development (Program 6.1.2). 6. ~~City~~City to consider donating acquired land or foreclosures for redevelopment in areas of high segregation and poverty to nonprofits or work with nonprofits to develop housing that fits the needs of residents (Program 4.3.1). 7. Capital improvements in areas of high segregation and poverty (Program 4.2.1)

High	Wildfires in the region, including the North Complex Fire and the Camp Fire, have impacted housing availability and costs. Renters experience a higher risk of displacement than owners and there is a significantly large number of renter-occupied housing units in the ~~City~~City of Oroville.	Displacement of residents due to natural disaster and resulting economic pressures.	1. Involve the community in future ~~City~~City planning processes, with an emphasis on residents residing in areas of high segregation and poverty (Program 6.3.3). 2. Encourage the production of ADUs (Program 6.3.4) 3. Collaborate with the Northern Circle Indian Housing Authority on affordable housing development (Program 6.2.2) 4. Participate in groups involved in recent wildfire long-term recovery efforts, such as the Camp Fire collaborative, Bear Fire Long Term Recovery Group, and ~~Butte County~~Butte County Continuum of Care (Program 6.1.4).
Medium	The household income of half of the population is less than $35,000, which means more than half the population cannot afford the average-priced one-bedroom unit in	Lack of affordable housing in a range of sizes. Need for one-bedroom/studio units, accessible units, and three- bedroom units.	1. Develop a low-income home rehabilitation program in which the ~~City~~City using PLHA funds utilizing Oroville Blight Study (Program 4.3.1)

	~~Butte County~~Butte County. An overwhelming majority of renters in the ~~City~~City are overpaying. Furthermore, an estimated 70% of households that have 1 in 4 Housing Problems or 1 in 4 Severe Housing Problems are renter households. Many mobile home parks in the ~~City~~City are dilapidated, and in need of significant rehabilitation.	Substandard housing conditions.	2. Work with Community Housing Improvement Program (CHIP), Habitat for Humanity, or other local nonprofit developers to identify areas for development/opportunities for homeownership (Program 6.1.3). 3. Apply for CDBG public services grant (Program 6.3.5) ~~3.~~4. Expand low-income rehabilitation program to include mobile homes and strive to pool more funding resources to improve mobile home parks.
Medium	According to qualitative data from interviews with key stakeholders, protected classes, including low-income residents, single mothers, persons with physical disabilities, persons with mental health conditions, and senior residents face barriers acquiring housing due to poor credit, poor rental histories, income requirements, and felony records.	Lack of community revitalization strategies.	1. Integrate ~~City~~City, County, and Butte-Glenn 2-1-1 services to better serve residents and determine eligibility for programs. Single point-of-contact for referrals/answering questions (Program 6.3.2). 2. Provide tobacco/ second-hand smoke educational information to affordable housing complexes,

			recipients of the ~~City~~City's funding or home loan assistance programs, and interested property managers (Program 4.1.3)
Low	An average of 20-30% of the population has a disability, which is significantly higher than other areas of ~~Butte County~~Butte County.	Lack of assistance for housing accessibility modifications.	1. Develop an accessibility improvements fund (Program 6.2.1). 2. Encourage the production of ADUs with accessibility improvements (Program 6.3.4).
Low	The ~~City~~City of Oroville does not have a formal process to receive, process, respond to, and enforce fair housing issues or complaints. Oroville has the most fair housing inquiries of any jurisdiction in ~~Butte County~~Butte County.	Lack of local private and public fair housing enforcement and outreach.	1. Develop and fund a formal process for receiving, reviewing, and responding to fair housing complaints in collaboration with Legal Services of Northern California (Program 6.3.2). 2. Meet with North Valley Property Owners Association (NVPOA) and Legal Services of Northern California (LSNC) at least once per year to coordinate information, referrals, and outreach to residents. Promote existing fair housing workshops to both residents and

			landlords. This may include creating informational materials to distribute at ~~City~~City Hall, posting on the ~~City~~City's website, and Facebook page, and sending an "email blast" to the ~~City~~City's stakeholder contact list (Program 6.3.2).

APPENDIX A

Review of Previous Housing Element Programs: 2014- 2022						
Goal	Action Number	Action Statement/Intended Objective	Timeframe in Housing Element	Accomplishments/Analysis	Continue, Modify or Delete?	Adjustment to Meet New State Laws
H.1: Expand housing opportunities and accessibility						
	1.1.1	Provide homebuyer and first-time homebuyer assistance up to $100,000 or 45% of the purchase price of the home, whichever is less (max purchase price is $200k/updated to HUD limits). Goal to assist 5 units per year.	Annually	**Objective met.** The program has been well-utilized and the ~~City~~City has applied for and been rewarded 2019 HOME funds, CDBG NOFA, and CDBG homebuyer funds ~~totalling~~totaling 3 million to continue the program.	Continue	
	1.2.1	Cooperate with ~~Butte County~~Butte County Continuum of Care to reduce the number of homeless individuals in the area	Ongoing	**Objective met.** ~~City~~City Council member meets with the Coalition on a regular basis to further COC objectives.	Continue	

	1.2.2	Ensure that zoning for emergency shelters, transitional and supportive housing, and SROs is consistent with State law. In addition, provide assistance with grant applications for the development of new facilities to serve the homeless.	2014	**Objective not met.** The ~~City~~City has been notified of changes to State legislation (AB 101) and will modify this program to allow low barrier navigation centers where residential uses are permitted.	Modify	The ~~City~~City will modify this program to meet the requirements set forth by AB 101 for Low Barrier Navigation Centers.
	1.2.3	Maintain and publicize a comprehensive listing of housing developments that serve lower-income households, persons with disabilities, and other special needs populations.	Annually	**Objective met**. The latest update is complete and posted on the ~~City~~City's website.	Continue	
	1.3.1	In accordance with SB 520, the ~~city~~City will allow for the approval of exceptions to land use regulations to provide reasonable ~~accomdation~~accommodation for persons with disabilities.	Ongoing	**Objective exceeded**. ~~City~~City Council's Ordinance No. ~~1804 created~~1804 created an administrative mechanism for a disabled person to file a request for reasonable accommodation to make specific housing available to one or more	Continue with modifications	

				individuals protected under the Fair Housing Laws.		
	1.4.1	Continue to ensure that local zoning, development standards, and permit processing do not conflict with Health and Safety Code.	2014	**Objective met.** ~~City~~City Council's Ordinance No. 1804 included provisions to allow farmworker and migrant housing.	Delete	
H.2: Remove constraints to housing						
	2.1.1	Ensure ~~City~~City's review and approval do not constrain residential development, including multi-family housing and housing affordable to low-to-moderate income households.	Annually	**Objective met**. The ~~City~~City offers concurrent processing to streamline development and the zoning ordinance provides incentives for low income housing including fast-track processing and density bonuses. The ~~City~~City also offers pre-application / development review meetings to ~~help minimize~~help minimize processing times and give developers information. In 2020, the ~~City~~City ~~approved deferring~~approved deferring development impact fees by	Continue	

				deed of trust until occupancy is issued.		
	2.1.2	Track HE implementation progress as part of annual report submitted to HCD	Annually	**Objective met**. The ~~City~~City has submitted an annual progress report on the Housing Element and is in compliance with State law. The ~~City~~City will modify this program to include No Net Loss provisions.	Modify/ Establish new program	The ~~City~~City will be implementing a formal Unit Production Evaluation (Per Government Code 65863 "No Net Loss") with a regular update to the Housing Element Site Inventory.
	2.1.3	Survey the development application, plan check, and inspection fees, impact fees, and utility connection fees of other cities in ~~Butte County~~Butte County to ensure these are reasonable cost.	Every other year beginning in 2015	**Objective met**. Latest update was completed in 2020. An additional update is in process. In the last update, the ~~city~~City approved a fee deferral program for subdivisions of all income types.	Continue	
Goal H.3: Facilitate the development of new housing						

	3.1.1	Update ~~City~~City's GIS system to track development and maintain a list of vacant residential lots.	By request	**Objective met.** The latest update was complete and posted on the ~~City~~City's website	Continue	
	3.1.2	Implement the Corridor Opportunity Site overlay through the use of incentives and flexibility in development. Incentivize development of 50 moderate-income units and 20 low-income units within the Corridor Opportunity Site by 2022.	Ongoing	**Objective Met**. In 2015, the ~~City~~City ~~updated zoning~~updated zoning code and maps to coincide with the General Plan land use designations. ~~City~~City's MXC and MXN mixed use zones now permit multi-family, high-density residential development.	Delete	
	3.1.3	Coordinate an annual workshop with the Oroville Economic Development Corporation to identify housing needs of employees	Annually	**Objective not met**. The ~~City~~City is no longer coordinating this workshop. The Oroville Economic Development Coordination is quiescent and the ~~City~~City will modify this program.	Modify	

	3.2.1	Work with developers to identify sources of funding and provide technical assistance to seek funding for new affordable multi-family housing, including units for large family households, extremely low income, and persons with developmental disabilities. Pursue tax-exempt mortgage bonds, HCD's multifamily housing program, and LIHTC	Annually	**Objective exceeded.** The ~~City~~City was awarded HOME funding for the development of the Sierra Heights Project for seniors, in which Phase 1 is complete (42 units for ELI seniors) and Phase 2 will begin. The ~~City~~City has donated land (12 townhomes to veterans under 80% AMI) and is working with Veteran Housing Development ~~Corporation to~~Corporation to develop and design a supportive housing project (60% and below AMI). The ~~City~~City has ~~also worked~~also worked with developers to apply for State tax credits for the development of 5 affordable multi-family projects (312 LI and ELI units). The ~~City~~City also assisted in the development of a supportive housing project on ~~Nelson road~~Nelson Road.	Continue	
Goal H.4: Preserve, rehabilitate, and enhance existing ~~neighborhood~~neighborhood.						

	4.1.1	Seek grants to augment current code enforcement activities to supplement the graffiti removal program, fund neighborhood cleanup fairs, and general code enforcement and community beautification efforts. Utilize groups (i.e. Neighborhood watch) to supplement activities. Where possible, link to available funding for improvements and correction of violations.	2017	**Objective exceeded**. Code enforcement activities are currently being funded with 2017 CDBG funds, which expire ~~in July~~in July 2022.The ~~City~~City has assembled a task force of law enforcement, code enforcement, and staff from Parks and Trees to identify code issues and housing complaints. The ~~City~~City was awarded CalOES funds due to disaster impact. There are currently 5 code ~~enforcement officers~~enforcement officers, and the ~~City~~City intends to add 2-4 more officers.	Continue	
	4.2.1	Install and upgrade public service facilities (streets, curb, gutter, drainage, and utilities) to increase private market investment in declining, ~~detiorating~~detonating, and infrastructure deficient neighborhoods.	Ongoing	**Objective not met**. The ~~City~~City is in the process of evaluating public ~~facilities on~~facilities on condition, demands, and future needs. Impact fees are used to make the infrastructure investments to support growth, infill, and ~~desification~~densification. The ~~City~~City is seeking	Continue	Modified to more fully address the requirements of AB 683 "Affirmative Furthering Fair Housing"

				funding. However, the ~~City~~City developed a Capital Improvement program that will be implemented annually with roadway, sewer, ~~and drainage~~and drainage infrastructure improvements..		
	4.3.1	Purchase abandoned homes and provide rehab assistance.	Annually	**Objective not met**. The ~~City~~City does not have funding. The ~~City~~City is transferring foreclosured housing to the Veterans Housing Development ~~Corporation to~~Corporation to sell to extremely low income and low income veterans. The last 2 homes were sold at market-value and the ~~City~~City is not currently doing rehabilitation. The ~~City~~City has applied for LEAP/PLHA funds to continue this program. The ~~City~~City is currently conducting a Blight study in South Oroville and will use the information retrieved from the survey to guide future redevelopment efforts.	Continue	Modified to more fully address the requirements of AB 683 "Affirmative Furthering Fair Housing"

	4.3.2	Continue Owner Occupied Single Family Rehabilitation Program, funding 5 units over the next planning period.	ongoing	**Objective not fully met.** The ~~City~~City assisted in 1 rehabilitation in 2016, but ~~cannot fund~~cannot fund more than 3 projects. The ~~City~~City received $750,000 for rehabilitation from ~~CDBG, but~~CDBG but has not been able to secure a contractor for the project and needs more funding to continue this program.	Continue	Modified to more fully address the requirements of AB 683 "Affirmative Furthering Fair Housing"
	4.3.3	Provide funding assistance for rehab of multi-family units.	ongoing	**Objective not met**. The ~~City~~City does not have the funding to continue this program.	Delete	
	4.4.1	Continue partnership with California Housing Partnership Corporation to identify at-risk units and apply for state and federal funding for preservation i.e. HOME, CDBG, MHP. Maintain relationships with developers and on-site managers.	Ongoing	**Objective not met**. The ~~City~~City does not have the funding to continue this program.	Modify/ Establish new program	
Goal H.5: Promote fair housing						

	5.1.1	Require that all recipients of ~~locally-administered~~locally administered housing funds acknowledge their responsibilities under the fair housing law and affirm commitment. Coordinate and host workshops to educate property owners, managers, real estate professionals, and tenants about fair housing laws, discrimination, and protections. Publicize fair housing and dispute resolution information through flyers/brochures at ~~city~~City Hall, the library, community centers, senior centers, local service offices, real estate offices, mortgage offices, management offices, and on the ~~City~~City's website.	Ongoing	**Objective not fully met**. ~~City~~City staff has attended fair housing training. The ~~City~~City would like to coordinate workshops ~~and education~~and education ~~and increase~~and increase promotion. The last workshop was coordinated in 2016. The ~~City~~City regularly posts flyers regarding fair housing information.	Modify	Modified to more fully address the requirements of AB 683 "Affirmative Furthering Fair Housing"

	5.1.2	Engage in a public noticing campaign to inform persons with disabilities of their ability to locate senior citizen independent living facilities.	Annually	**Objective met.** The ~~City~~City currently has information materials for available senior housing available at ~~City~~City Hall. The ~~City~~City works with ~~Butte County~~Butte County Housing Authority, Community Action Agency, and other special interest groups. The ~~City~~City administered a housing needs survey to seniors.	Modify	Modified to more fully address the requirements of AB 683 "Affirmative Furthering Fair Housing"
Goal H.6: Encourage energy conservation						
	6.1.1	~~City~~City to require all new residential development to comply with energy conservation requirements of Title 24 of California Administrative code.	ongoing	**Objective met.** The ~~City~~City's Building Department last updated requirements in 2019.	Delete	
	6.1.2	Publicize utility incentives for energy conservation through flyers and on the ~~City~~City's website.	Annually	**Objective met**. In 2016, the ~~City~~City approved to include properties within the ~~City~~City of Oroville in three different Property Assessed Clean Energy (PACE) programs. 1)Ygrene Works, 2) HERO, and 3) Open PACE and updated this	Modify	

				information on their website.		

APPENDIX B

Table A: Housing Element Sites Inventory

Jurisdiction Name	Site Address/Intersection	5 Digit ZIP Code	Assessor Parcel Number	Consolidated Sites	General Plan Designation (Current)	Zoning Designation (Current)	Minimum Density Allowed	Max Density Allowed (units/acre)	Parcel Size (Acres)	Existing Use/Vacancy	Infrastructure	Publicly-Owned	Site Status	Identified in Last/Last Two Planning Cycle(s)	Lower Income Capacity	Moderate Income Capacity	Above Moderate Income Capacity	Total Capacity
OROVILLE	Veatch Street	95965	035-250-054-000	A	MU	MXC	10	30	2.72	City Corp Yard	YES - Current	YES - City-Owned	Pending Project	Not Used in Prior Housing Element	48	0	0	48
OROVILLE	Veatch Street	95965	035-250-002-000	A	MHDR	R-3	14	20	3.96	City Corp Yard	YES - Current	YES - City-Owned	Pending Project	Not Used in Prior Housing Element	70	0	0	70
OROVILLE	Mitchell Avenue	95965	035-240-100-000		MU	MXC	10	30	1.55	Vacant	YES - Current	NO - Privately-Owned	Pending Project	Not Used in Prior Housing Element	27	0	0	27
OROVILLE	Butte Ave and 5th Street	95965	031-100-008-000	B	MDR	R-2	6	14	9.5	Vacant	YES - Current	NO - Privately-Owned		Not Used in Prior Housing Element	0	57	0	57
OROVILLE	Butte Ave and 5th Street	95965	031-100-001-000	B	MDR	R-2	6	14	3.49	Vacant	YES - Current	NO - Privately-Owned		Not Used in Prior Housing Element	0	20	0	20
OROVILLE	Maude Ave	95965	031-100-024-000	C	RR	RR-20	0.2	3	8.87	Vacant	YES - Current	NO - Privately-Owned		Not Used in Prior Housing Element	0	0	26	26

OROVILLE	Maude Ave	95965	031-100-025-000	C	RR	RR-20	0.2	3	8.85	Vacant	YES - Current	NO - Privately-Owned		Not Used in Prior Housing Element	0	0	26	26
OROVILLE	Nelson Ave	95965	031-020-043-000		MLDR	R-1	3	6	56.45	Vacant	YES - Current	NO - Privately-Owned		Not Used in Prior Housing Element	0	0	338	338
OROVILLE	Lincoln Street	95965	035-040-056-000		MU	MXC	10	30	6.5	Vacant	YES - Current	NO - Privately-Owned	Pending Project	Not Used in Prior Housing Element	117	0	0	117

APPENDIX C

~~City~~City of Oroville 2022 Housing Element Update

Community Meeting #1: Housing Needs & Issues

Live Poll Results

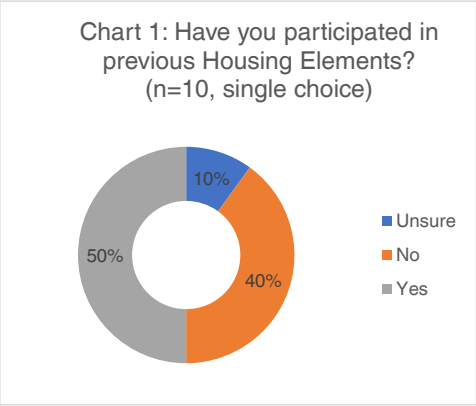
October 20, 2021

Community members responded to trilingual polls in English, Spanish, and Hmong that were launched live during the meeting. Both the polls and community members' aggregated responses are provided below.

Poll 1

Have you participated in previous Housing Elements? / ¿Ha participado en Elementos de Vivienda anteriores? / Koj puas tau tuaj koom hais txog Tsevnyob yav tas los?

a. Yes / Sí / Tau
b. No / No / Tsis tau
c. Unsure / No estoy seguro / Tsis paub

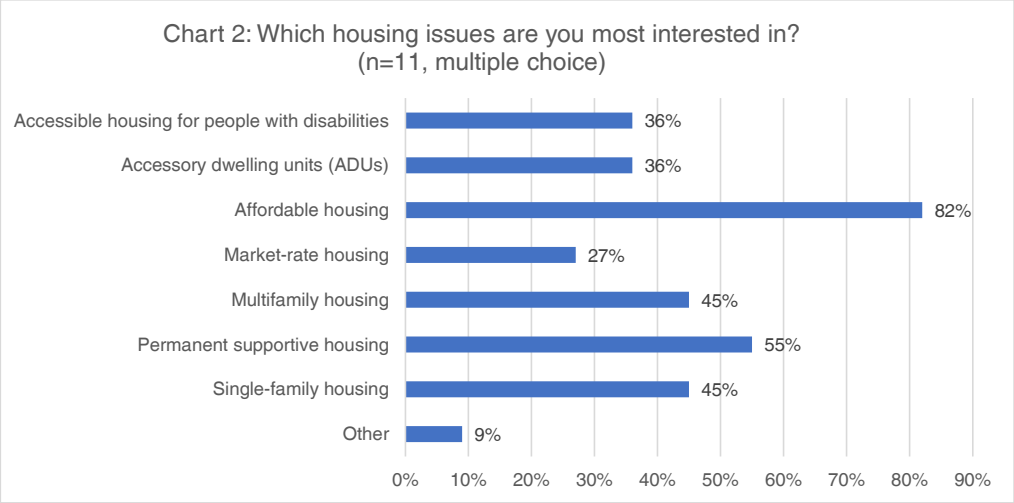


Poll 2

Which housing issues are you most interested in? Please select all that apply. / ¿En que problemas de vivienda está usted más interesado? Por favor seleccione todas las respuestas que correspondan. / Hom tsev nyob abtsi ua koj txausiab tshaj? Xaiv tag nrho cov raug rau koj.

a. Accessible housing for people with disabilities / Vivienda accesible para personas con discapacidades / Vajtsev rau cov neeg semcev

b. Accessory dwelling units (ADUs) / Unidades de Vivienda Accesorias (ADUs, siglas en Inglés) / Tsev nyob (ADUs)
c. Affordable housing / Viviendas asequibles / Cov tsev nyob ua them taus pheejyig
d. Market-rate housing / Viviendas a precio de mercado / Tsev nyob raws tus nqi kiabkhws
e. Multifamily housing / Viviendas multifamiliares / Ntau ntau lub tsev rau tsevneeg nyob sibpuab
f. Permanent supportive housing / Viviendas de apoyo permanente / Cov tsev nyob ua muaj kev pab mus li
g. Single-family housing / Viviendas unifamiliares / Tsev kheej ib lub ib lub
h. Other / Otro / Lwmyam

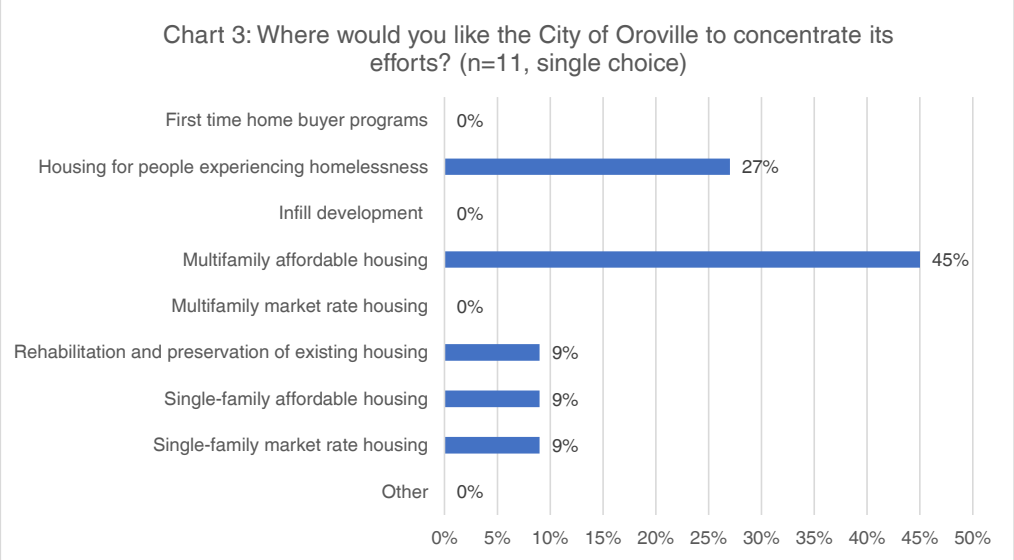


Poll 3

Where would you like the ~~City~~City of Oroville to concentrate its efforts? / ¿Dónde le gustaría que la Ciudad de Oroville concentre sus esfuerzos? / Koj xav kom lub Nroog Oroville ua abtsi?

a. First time home buyer programs / Programas para compradores de vivienda por primera vez / Muaj kev pab rau cov thawj zaug yuav tsev
b. Housing for people experiencing homelessness / Viviendas para personas que no tienen hogar / Muaj vajtsev pab rau cov neeg ua tau poob mus ua neeg tsis muaj vajtsev nyob lawm
c. Infill development / Desarrollo de rellenos/ Tsim kho
d. Multifamily affordable housing / Vivienda multifamiliar asequible / Cov tsev ntau ntau tsevneeg nyob uake pheejyig them tau
e. Multifamily market rate housing / Vivienda multifamiliar a precio de mercado / Cov tsev ntau ntau tsevneeg nyob uake tus nqi kiabkhw

f. Rehabilitation and preservation of existing housing / Rehabilitación y preservación de viviendas existentes / Vajtsev rau cov neeg los thum kev mob nkeeg yeeb tshuaj
g. Single-family affordable housing / Viviendas unifamiliares asequibles / Tsev kheej them tau pheejyig
h. Single-family market rate housing / Viviendas unifamiliares a precio de mercado / Tsev kheej tus nqi kiabkhw
i. Other / Otro / Lwmyam



APPENDIX D

~~City~~City of Oroville 2022 Housing Element Update

Community Meeting #2: Housing Goals & Programs

Live Poll Results

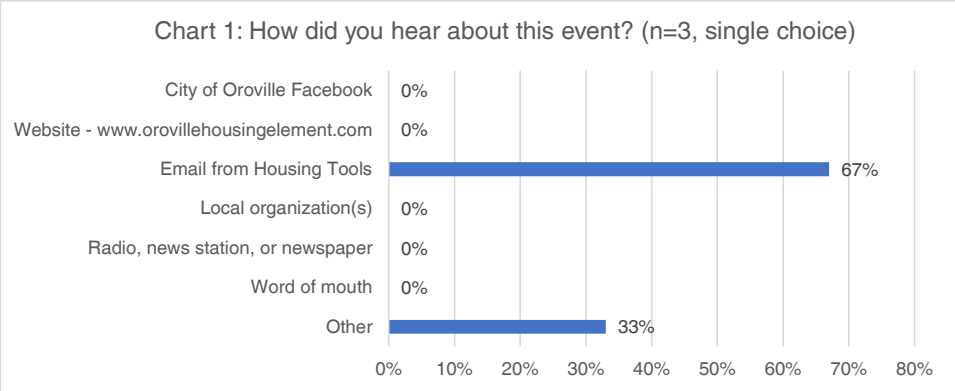
November 17, 2021

Community members responded to trilingual polls in English, Spanish, and Hmong that were launched live during the meeting. Both the polls and community members' aggregated responses are provided below.

Poll 1

How did you hear about this event? / ¿Cómo se enteró de este evento? / Koj hnov peb lub koob tsheej no tau licas?

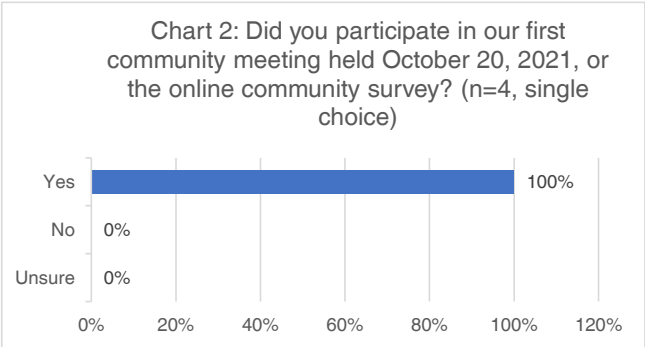
a. ~~City~~City of Oroville Facebook / Página de Facebook de la Ciudad de Oroville / Lub nroog Oroville qhov Facebook
b. Website – www.orovillehousingelement.com / Sitio de Web – www.orovillehousingelement.com / Lub Vasab www.orovillehousingelement.com
c. Email from Housing Tools / Email de Housing Tools / Email tuaj ntawm Housing Tools
d. Local organization(s) / Organización(es) local(es) / Cov koomhaum nyob hauv zejzog
e. Radio, news station, or newspaper / Radio, periódico, o estación de noticias / Xovtooj Cua, xovxwm thiab ntawv xovxwm
f. Word of mouth / Me pasaron la voz / Qhia los ntawm neeg
g. Other / Otro / Lwmyam



Poll 2

Did you participate in our first community meeting held October 20, 2021, or the online community survey? / ¿Participó en la primera reunión comunitaria el 20 de octubre de 2021, o en la encuesta comunitaria en línea? / Koj puas tuaj koom peb lub rooj sitham rau lub 10 hli tim 20, 2021 no thiab losis ua cov ntaubntawv tshuam xyuas lub zejzog nyob rau zaum huabcua thiab?

a. Yes / Sí / Tau
b. No / No / Tsis tau
c. Unsure / No estoy seguro / Tsis paub



Poll 3

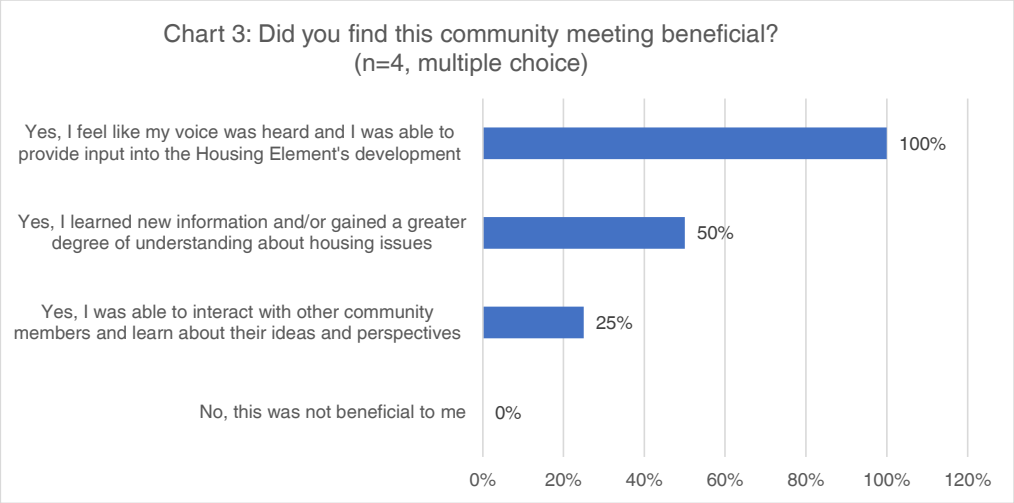
Did you find this community meeting beneficial? Please select all that apply. / ¿Le pareció servicial esta reunión comunitaria? Por favor seleccione todas las respuestas que correspondan. / Koj puas pom tau tias lub zejzog kev sibtham yeej pab tau thiab? Kos tagnrho cov ua pab tau.

a. Yes, I feel like my voice was heard and I was able to provide input into the Housing Element's development / Sí, siento que se escuchó mi voz y pude contribuir al desarrollo del Elemento de Vivienda. / Yog, kuv xav tias kuv cov suab yeej hnov thiab kuv yeej pab tau tswvyim rau Kev Tsimkho Vajtsev tseemceeb

b. Yes, I learned new information and/or gained a greater degree of understanding about housing issues / Sí, obtuve nueva información y/o adquirí un mayor grado de comprensión sobre los problemas de vivienda. / Yog, kuv kawm tau yam tshiab thiab/losyog paub totau zoo heev txog teebmeem vajtsev.

c. Yes, I was able to interact with other community members and learn about their ideas and perspectives / Sí, pude interactuar con otros miembros de la comunidad y conocer sus ideas y perspectivas. / Yog, kuv koom thiab kawm tau nrog rau lwm tus neeg nyob hauv zejzog cov tswvyim thiab kev xav.

d. No, this was not beneficial to me / No, esto no me benefició. / Tsis, yeej pab tsis tau kuv li


Chart 3: Did you find this community meeting beneficial?
(n=4, multiple choice)
Yes, I feel like my voice was heard and I was able to provide input into the Housing Element's development
100%
Yes, I learned new information and/or gained a greater degree of understanding about housing issues
50%
Yes, I was able to interact with other community members and learn about their ideas and perspectives
25%
No, this was not beneficial to me
0%
0%
20%
40%
60%
80%
100%
120%

CITY OF OROVILLE
STAFF REPORT

TO: **MAYOR REYNOLDS AND CITY COUNCIL MEMBERS**

FROM: **DAWN NEVERS, ASSISTANT COMMUNITY DEVELOPMENT DIRECTOR**
WES ERVIN, PRINCIPAL PLANNER

RE: **HOUSING ELEMENT UPDATE (2022-2030)**

DATE: **JULY 19, 2022**

SUMMARY

The City Council will conduct a public hearing to review the Draft 2022 General Plan Housing Element Update and consider its adoption.

DISCUSSION

State law requires each jurisdiction to update its Housing Element (one of the nine required elements of a General Plan) every eight years with specific deadlines established by the California Department of Housing and Community Development (HCD). The City of Oroville is required to submit its updated "Sixth Cycle" Housing Element to the State for certification in June 2022.

The Housing Element provides an analysis of a community's housing needs for all income levels, along with strategies and actions for responding to those needs. Unlike other elements in the General Plan, the Housing Element is required to be updated every eight years, which allows it to be more responsive to a rapidly changing housing market. The Housing Element is considered the primary policy document to guide the development, rehabilitation, and preservation of housing for all economic segments of the City's population. California law also specifies that for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems which provide opportunities for and do not unduly constrain housing development. It also establishes that each city and county accommodate its fair share of affordable and market rate housing. The Draft Housing Element is available for review at: www.orovillehousingelement.com

Regional Housing Needs Allocation (RHNA)

State law requires regions to plan for housing needs based on future growth projections through the Regional Housing Needs Allocation (RHNA) process. HCD allocates a numeric RHNA goal to regional planning organizations. Butte County's regional planning organization is the Butte County Association of Governments (BCAG), which coordinated with and provided each Butte County jurisdiction with its "fair share" RHNA goal. The RHNA goals

identify housing units needed to accommodate growth during the planning period for each of four different income levels: Very Low (includes Extremely Low), Low, Moderate and Above Moderate. Communities must use planning and funding mechanisms that enable them to achieve the RHNA goals, including the Adequate Sites Inventory to ensure that there is an adequate supply of appropriately zoned land within its jurisdiction to accommodate its RHNA. (***pages 199-204*** of the Housing Element).

HCD Courtesy Review and Formal Certification

The project team coordinated an informal pre-review of the Draft Housing Element with HCD staff and incorporated changes to address comments received. Following formal City submittal of the adopted Draft Housing Element to the State, HCD has up to 90 days to review and issue comments or a certification.

New State Legislation affecting the 6th Cycle

There are several new housing laws and HCD review requirements that have been added since the last Housing Element update was completed in 2014. These include:

1) New laws limiting a jurisdictions' ability to restrict the development of Accessory Dwelling Units (ADUs), that an ADU counts to satisfy RHNA goals, and that a Housing Element include a plan to incentivize and promote the creation of ADUs that can offer affordable rents for very low-, low- and moderate-income households. ***Staff will soon update existing City codes to these new requirements. Programs 1.2.5 and 2.1.7 in Chapter 3 address these requirements.***

2) Any new Housing Element must contain an Assessment of Fair Housing that includes actions that promote and affirmatively further fair housing opportunities through the community as required through AB 686. ***Chapter 4 is that assessment, with various findings on Pages 63, 91-92, 97, 125, & 153-155. An analysis of the Site Inventory's capacity to affirmatively further fair housing is on Pages 207-213. The prioritization of fair housing issues and the city's actions to address these issues can be found in the Contributing Factors Table, included in Attachment 2. Goal 6 in Chapter 3 addresses these requirements.***

3) Another law outlines the need for "No Net Loss" (SB 166), that requires jurisdictions to at all times maintain adequate sites to accommodate their unmet Regional Housing Needs Allocation by income category. ***See Pages 201-204 for Oroville's proposed site inventory, and Program 2.1.2 in Chapter 3.***

4) The site inventory and other housing sites must be adequately zoned and planned with adequate infrastructure, locations, suitability for development, and other requirements.

5) A number of laws pertaining to Agricultural Worker Housing, Emergency Shelters, Low Barrier Navigation Centers, Transitional Housing and Supportive Housing. These laws are intended to reduce or remove governmental constraints to the development of these types of special needs housing. ***Programs 1.2.2, 2.1.4,***

2.1.5, 2.1.6, and 2.1.8 in Chapter 3 address these requirements.

Required Contents of the Draft Housing Element

This Housing Element update covers the eight-year period from June 2022 to June 2030. It complies with State legislation regarding required components of a Housing Element and the requisite analysis. Key Housing Element components must address the following issues:

- Review of the progress and effectiveness of the previous Housing Element **(Chapter 2**);
- Analysis of all economic segments of the community in the planning process and their access to various services and economic opportunities **(in Chapter 4**);
- Assessment of housing needs, including those of special needs populations, such as seniors, individuals experiencing homelessness, female-headed households, large households, and persons with disabilities (Affirmatively Furthering Fair Housing**) (in Chapter 4**).
- Assessment of fair housing issues and trends, contributing factors to these issues and trends, as well as the local jurisdiction's fair housing enforcement and capacity **(in Chapter 4**);
- Identification of units at risk of conversion from restricted rents to market rents (**in Chapter 4**).
- Inventory of whether there are an adequate number of appropriately zoned sites to accommodate growth for all income groups, as projected by the Butte County Association of Governments **(Chapter 5, Pages 199-204**);
- Description of available financial and energy efficiency resources **(Chapter 5, Page 215 et seq.)**;
- Identification of governmental and non-governmental constraints to housing production **(Chapter 6**); and
- Provision of a housing program with goals, policies, and actions that are consistent with the General Plan and that address housing needs, constraints, and available resources, including any fair housing issues that have been identified. The housing program must include a timeline of actions during the planning period **(Chapter 3**).

Goals in the Update -- New and Carried Forward

- New and returning Goals with actions include:

  Goal 1 - Increasing the availability of permanent housing for all community residents through assistance, new facilities for the homeless, and incentivizing the development of ADU's. (Page 29)

Goal 2 - Remove regulatory constraints to housing development, including allowing transitional housing and supportive housing in all residential districts. Currently transitional and supportive housing over 7 beds is allowed only in R-3 and R-4 zoning. (Page 31)

Goal 3 - Support and encourage the construction of new housing at a range of costs, types, and tenures and in quantities to meet the needs of all income groups, including the very low-, low- and moderate-income groups.

Goal 4 - Preserve, rehabilitate, and enhance existing housing and neighborhoods.

Goal 5 - Promote energy conservation in residential neighborhoods.

Goal 6 - Improve fair housing choice and equitable access to opportunity.

PLANNING COMMISSION REVIEW

On June 23, 2022, the Planning Commission conducted a public hearing on the draft and recommended 5-0 that the City Council approve the Draft Element and approve submitting it to HCD for their required 90-day review and ultimate certification, with the following changes, as outlined in Attachment 2:

1. During public testimony a representative of the California Health Collaborative's Leadership in Equity Action & Development (LEAD) asked the Commission to insert language in the element to collaborate with public health agencies and to disseminate information about the health effects of smoking in multi-family environments. The Commission agreed to add new Program 4.1.3: Tobacco Education Program, as highlighted in Attachment 2.

2. Amend AFFH sections, as described in Attachment 2, including: updates to the Contributing Factors Figure 42, addition of Program 6.1.4: Participate in Wildfire Recovery Groups, addition of Program 6.3.5: Apply for Funding Sources for Public Activities, and modification of Programs 6.1.3, 6.2.2, 6.3.2, 6.3.4, and 4.3.1 to reflect common contributing factors identified by HCD, as highlighted in Attachment 2.

The Commission also discussed Programs 2.1.5 and 2.1.6 relating to Transitional Housing and Supportive Housing. The Commission noted that HCD will give the city 6 months to change our municipal codes to allow these types of housing in all sizes in all residential zones by right to comply with State requirements. The commission agreed with staff that much more work will be required on this topic and recommended accepting the programs as written, subject to further development of an ordinance addressing these issues. Oroville's current codes limit where transitional and supportive housing is allowed by-right without a conditional use permit.

Selected Findings in the 2022 Update

- The city made considerable progress on its 2014 Housing Element Programs, even given limited resources and an economic downturn (Page 25)

- Oroville's population grew by 25% in 2010 compared to 2019 – an exponential increase. Diversity has increased substantially, with 64.2% identifying as white (not Latino) and 13.6% as Latino in 2019. This is a change from 74.1% white (not Latino) and 10.4% Latino in 2010. Other minority groups saw changes, but less significantly (Page 65).
- 25% of all renter households (552) held Housing Choice Vouchers in the City. Oroville is the only area in the county with such a high number (page 63).
- The City of Oroville is one of the few areas in the County where greater than 20% of households are headed by single mothers (Page 76). Household income is lower for single female householder families than for married-couple families (Page 190).
- Over half of 1-person households are renter households, while over half of 2-person households are owner households (Page 193, Figure 37).
- In most census tracts within the City, 20-30% of the population is living with a disability (Page 91).
- One in four families is experiencing poverty. In most census tracts, 30-40% of the population is living below the poverty level (Page 91).
- Buyers and Renters from all income backgrounds are having trouble finding housing to fit their needs, including small units and accessible units (Page 125)
- More than half of Oroville's population have household incomes less than $34,999 which is only enough income to support a studio (Page 153).
- 60-80% of residents in Census Tract 28 (downtown) live in rental units – the highest concentration in town (Page 154).
- 60% - 80% of renters in census tracts 27, 28, 30.01, and 37, including Southside areas, pay more than 30% of their incomes towards housing costs. (Page 154)
- Oroville has no areas of concentrated minorities in poverty, but several areas of the city have high levels of segregation and poverty. Nor are there any racially concentrated areas of affluence. (Page 97)
- Nearly all areas of the city are areas of low resource or high segregation and poverty (Page 125).
- Oroville's housing shortage was exacerbated by the Camp Fire and the North Complex Fire after that, which disproportionally affected low-income and senior residents. Many residents are still living in temporary housing such as RV's and campers (Page 154).
- Commute time is 14 minutes or less for most residents (Page 125);

GENERAL PLAN CONSISTENCY

The Goals, Policies, and Actions in the Housing Element must be consistent with the General Plan and must support and compliment the Goals, Policies, and Actions found throughout

the Oroville 2030 General Plan. The policy framework reinforces the overall direction of the General Plan through consistency with the following General Plan Goals:

Goal LU-3: Provide housing in a range of residential densities and types to address the housing needs of all segments of the community, including all income groups expected to reside in Oroville.

Goal LU-3 includes several Policies guiding housing development, including developing multi-family development where appropriate, building cohesive neighborhoods with distinctive characters and parks and access to public and commercial facilities, and developing affordable housing.

In addition, under Oroville Municipal Code 17.04.050(H) all Zoning and other deliberations by the Planning Commission and City Council should "promote, protect and preserve the *general* public health, safety and welfare, and to implement the goals and objectives of the *General Plan* for the City of Oroville". (Ord. 1749 § 4)

FISCAL IMPACT

None. The Housing element Update was funded using CDBG Program Income funds

PUBLIC NOTICE

A detailed description of the extensive public outreach process during preparation is found on Pages 8-17 of the Draft Element.

The Draft was also available for public review for 30 days between June 12 and July 12 at https://www.orovillehousingelement.com/resources or at the front counter at City Hall.

The Planning Commission conducted a fully noticed public hearing on June 23

In addition, notice of this public hearing appeared on July 9, 2022, in the Oroville Enterprise Record-Mercury register.

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FISCAL IMPACT

None. The Housing Element Update was funded using CDBG Program Income funds

RECOMMENDATION

Staff recommends the following actions:

1. Conduct a public hearing regarding the Housing Element
2. Determine that the Housing Element is exempt from environmental review under CEQA, and
3. Adopt the Draft Element, including the Amendments described in Attachment 2, and
4. Authorize submittal to the California Department of Housing and Community

Development (HCD) for their certification.

5. Adopt Resolution 9075.

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ATTACHMENTS

1. Public Review Draft 2022-2030 Housing Element Update
2. Amendments to the Public Review Draft 2022-2030 Housing Element Update proposed by the Consultant, the Planning Commission and staff
3. Resolution No. 9075
4. Goals, Policies and Programs Reference Chart
5. Notice of Exemption

City of Oroville

COMMUNITY DEVELOPMENT DEPARTMENT

1735 Montgomery Street
Oroville, CA 95965-4897
(530) 538-2430 FAX (530) 538-2426
www.cityoforoville.org

NOTICE OF EXEMPTION

To:	Butte County Clerk 25 County Center Drive Oroville, CA 95965	From:	City of Oroville 1735 Montgomery Street Oroville, CA 95965

Project Title: City of Oroville 2022-2030 Housing Element Update: State law required that localities update their General Plan Housing Elements every eight years. The City of Oroville is updating is Housing Element to account for the 2022-2030 period.

Project Location -Specific: 2053 Montgomery Street
-City: City of Oroville
- County: Butte

Description of Nature, Purpose, and beneficiaries of project:
Update of the City's 2022-2030 Housing Element to comply with State law.

Name of Public Agency Approving Project: City of Oroville

Name of Person or Agency Carrying Out Project: City of Oroville

Exempt Status (Check One):

☐ Ministerial (Sec. 21080(b)(1); 15268)
☐ Declared Emergency (Sec. 21080(b)(3); 15269(a))
☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c))
☒ Categorical Exemption: State type & section number:
- General Rule Exemption; Title 14, CCR, §15061(b)(3)

☐ Statutory Exemption: State code number:

Reasons why project is exempt: This action has been determined to be exempt from the California Environmental Quality Act (CEQA) review as follows:

General Rule Exemption; Title 14, CCR, §15061(b)(3)
The City of Oroville City Council has determined that this project is exempt from CEQA as it can be seen with certainty that there is no possibility that the proposed update would have a significant effect on the environment, as no changes to land use, density, policies and programs, or other changes that would result in an impact to the physical environment would occur with the adoption of the Housing element. Therefore, the project is exempt pursuant to CEQA Guidelines Section 15061(b)(3).

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a notice of exemption been filed by the public agency approving the project? ☐ Yes ☐ No

Lead Agency Contact Person: Wes Ervin, Principal Planner
Telephone: (530) 538-2408

Signature: _____ Date: _____

☒ Signed by Lead Agency
☐ Signed by Applicant

City of Oroville

OFFICE OF THE CITY ADMINISTRATOR

1735 Montgomery Street
Oroville, CA 95965-4897
(530) 538-2433 FAX (530) 538-2468
www.cityoforoville.org

Monthly Department Report
March 2023

BUILDING

- Permits Issued – **74**
- Applications Received - **114**
- Total Permits Finalized – **85**
- Business Licenses/Occupancies Issued – **5** (2 new business/ 1 owner change/2 location change)
- ***Continued increase*** in commercial, retail & drive-thru development interest
- Permit Violations due to Code Enforcement Stop Work Notices **$1,117.00**
- Implemented new inspection sign off cards for permits
- Coordinating with SC-OR to better track projects that require new or updated sewer DFU counts
- Continue to work with all departments on plan reviews
- The long rainy season has slowed construction, we're anticipating a busy April with the coming sunny weather
- Solar submittals were busier than usual with the upcoming April 14th deadline for the new PGE solar billing rules

CODE ENFORCEMENT

CODE ENFORCEMENT ACTIVITIES	
Total Active Code Enforcement Cases	*176*
Cases Closed	*174*
New Cases Opened	*101*
Stop Work Notices Issued	*10*
Vacant Building Monitoring Fees Collected	*$677.98*

NEW CODE ENFORCEMENT CASES/ CASE DESIGNATIONS	
Abandoned Vehicle Abatement	*23*
Building Code Violation(s)	*20*
Graffiti	*1*
Multi-Family	*10*
Public Nuisance(s)	*53*
Sub-Standard Housing	*1*
New Vacant Building Monitoring	*2*

- During the month of March, the Code Enforcement Team exceeded one hundred new cases and ten stop work notices. Of the 101 new cases 31 of these cases were reported by citizens showing a proactive pattern with the team.
- The team attended two webinar training sessions on Code Enforcement Legal Update and Media Relations. Legal Update covered new case laws and a refresher on code enforcement procedure. Media Relations discussed when we should and should not disclose information to the press and how to promote your department.
- Julio, Pa Cha, Pa Nhia and Willow attended a weeklong Module 2 intermediate Code Enforcement training course in Sacramento. This valuable course put on by the California Association of Code Enforcement Officers is two of three core courses needed to become Certified Code Enforcement Officer in the State of California. At the end of the training week each student must pass a 75-question exam to successfully complete the course.
- Code Enforcement worked diligently with City Works to secure multiple residential and commercial properties entered by squatters. Code Enforcement assisted in boarding and reboarding these properties and have kept and open line of communication with the property owners to work towards a resolution.
- Code Enforcement with the assistance of Public Works and City Works served an abatement warrant at 3611 Ashley Ave. This was a vacant unsecured nuisance property where the property owner is nonresponsive to all notices. Over 11,000 pounds of junk and trash was abated for the front and rear yard. A hazardous covered porch area was demolished, and the home was boarded. A dilapidated boat was removed under the AVA program. Many of the neighbors thanked Code Enforcement for securing this hazardous public nuisance.
- Code Enforcement, Public Works and City Works demolished a city owned home at Myers and Ontario Ave. This was a home purchased by the city of Oroville about a year ago for future development. The home was open and accessible to the public and a hazard. After receiving complaints from near by businesses and residents the Code Enforcement Team and its partners resolved the issue in two days. This was a great team effort.

PLANNING

- Supported the March 23rd Planning Commission meeting. The Commission reviewed and approved two Use Permits, one for alcohol sales at Lucky's Food and Gas at 2301 Oroville Dam Blvd, and one for three garages for a private vehicle collection at 1801 Myers Street. The third and final extension to the Linkside Place 2 Subdivision Map was also reviewed and approved.
- Supported the March 9th Development Review Committee (DRC) meeting. Projects reviewed included those that were heard at the Planning Commission meeting on February 23rd as well as two other reviews; a new Tractor Supply building with associated site improvements at 2580 Feather River Blvd and a home addition on 2093 Fogg Avenue. The Ford Dealership façade improvements were then reviewed as a discussion item.
- Currently have about 100 active planning and building permit applications including building permit reviews, signs, zoning compliance letters, solar installations, re-zonings and use permits. Reviewing or completed reviewing 30 separate event, home occupation and other administrative permits.
- Continued a project to review all changes to the General Plan since 2015. This will culminate in an annual General Plan Update, which will be presented in May.
- Completed several questionnaires, workflows, and custom fields for the new permitting software system Tyler Technologies/Energov.
- Addressed dozens of phone, walk-in and email inquiries for potential annexations, commercial, industrial, ADU, fence, and setbacks. Helping potential applicants move their projects forward incrementally.
- The Draft 2022-2030 Housing Element adopted by the City Council on July 19. The document has been approved by HCD, subject to City Council adoption on April 18th.
- Reviewed the Administrative Draft EIR for the Feather Ranch Subdivision project, a 172-unit market rate housing project north of the Oroville Municipal Airport.

PARKS & TREES DEPARTMENT

The following is a list of things we are working on or accomplished in March:

- Cleaning parks and green areas on a routine basis
- Conducted and attended numerous trainings and safety meetings
- Worked in all LLAD areas cleaning, pruning, and weeding
- Trimming small and medium sized trees for site clearances
- Install numerous street, regulatory, and warning signs
- Ran street sweeper on a regular basis
- Spent 5 crew hours cleaning and repairing graffitied and vandalized areas throughout the parks and other facilities
- Filled over 480 potholes
- Trim small and medium sized trees in various areas

- Picked up illegally dumped items on a routine basis throughout town; assisted Code Enforcement and the City Works Crew with private property clean-ups including the removal of the house at Myers and Ontario
- Cleaned drop inlets, retention basin outflows, and ditches during storms
- Spray herbicides in various locations
- Replaced damaged guardrail on Table Mountain Blvd
- Landscaped park strip at Bolts Museum
- Conducted an Arbor Day celebration
- Performed alley cleaning
- Removed larger debris from dry creek during storms

*This is a partial list and does not include some of the smaller or remedial tasks that we conduct on a day-to-day basis.

AIRPORT DIVISION

- Hangar lease reassignments (ongoing)
- Fuel testing / tank simping
- Airport lighting inspections / replacements as needed
- Grant package to FAA for upcoming Airport Capital Improvement Projects (ACIP)
- Follow up on progress of System for Award Management (SAMs) renewal
- Prepare and submit documentation to FAA through Delphi invoicing for AIP 24 and AIP 27 as part of crack seal project on runway 2-20 and associated taxiways
- Order, accept and test load of AVGas 100LL
- Swept runways, taxiways and ramps to remove FOD (Fragments of Debris)
- Herbicide spraying for vegetation management

PUBLIC WORKS DEPARTMENT

Electrical

- Seek assistance from St. Francis Electric for personnel to sit on interview panel for Electrician interview
- Troubleshoot / reset conflict monitor on traffic signal FRB x Montgomery St.
- Repair inoperative Corp. yard gate.

Sewer Division

- Sewer pump station functional tests Mondays, Wednesday’s and Friday’s
- Monthly electrical generator and alarm system functional tests
- Monthly and quarterly “hot spot” sewer line cleaning
- USANorth utility locates daily.
- Ongoing condition assessment via sewer line cleaning and CCTV inspections
- Assess problematic storm drainpipe section at Power Mart and determine remedial action
- Grease and debris removal from wet-well at Riverview pump station
- Vegetation management on off-road manholes and easements

Fleet

MARCH 2023 SUMMARY BY DEPARTMENTS						
	auto / light truck	heavy equip.	trucks 1-ton plus	small equip.	misc. repair	TOTAL
POLICE	10					10
FIRE	3		4			7
PW	1	1	7	1		10
PARK			4			4
SEWER			4	1		5
BLDG.						0
HOUSING	1					1
ADM						0
ENGINEERING						0
PLANNING						0
CODE ENFORCEMENT	1					1
AIRPORT	1					1
INFORMATION TECHNOLOGY						0
TOTAL	17	1	19	2	0	39
						39

ENGINEERING

Capital Projects

PROJECTS AND OTHER ACTIVITIES

Project or Activity	Recent Activity	Next Milestone
Tyler Software	Development	
Lincoln St Apts	Map Recorded	
Bedrock Park	Property Transfers in Process	
Washington Paving	Surveying & Design	

Project or Activity	Recent Activity	Next Milestone
Trench Repair	Revisions to Specs	
Nelson At SB Ramp	Bid on Hold	
OHS – Yard at Bridge	Award in Process	
Stanford Ave Sch Lot Paving	90% Review underway	Final Review and Advertise
Tractor Supply	Plan Review – Grading Permit	
SC-OR Ruddy Crk L.S.	Review of 90% plans	County Permits
Wyandotte Creek GSA	Monthly Meeting	
Ruddy Creek Sub	Review of Phase 1 plans	Resubmittal Expected
Development Review Comm	Monthly Meeting	
Mono Ave Apts LLA	Construction Underway	
Table Mountain Blvd Art Wall	Construction Underway	Revisit Hatchery to Montgomery
Portland Loos	Award Underway	
Dutch Bro's.	Completed	
Riverbend Apartments Ph 1	Punchlist	
Mitchell Ave. Senior Apartments Ph1	Construction has begun.	
Mitchell Ave Sr Apartments Ph 2	Construction has begun	
Linkside II Subdivision	Plans approved. Final map under review.	Tentative Map Extended
Mission Olive Grove Subdivision	Staff provided Developer with a draft punch list.	Response from Developer.
The Bluffs Subdivision	Staff continues to work with the owners to resolve the problems they have with sewer and storm drains.	Developer will correct deficiencies prior to the City accepting the facilities.
Olive Ranch Apartments Phase I	C of O .	
Olive Ranch Apartments Phase II	Construction is underway.	
Olive Ranch Apartments Phase III	Construction is underway.	
Olive Ranch Frontage Imp	Construction underway	
Rte. 162 Ped-Bike-Mobility	Advertising for CM	
Prospect View	Under Construction	
Elgin & Fort Wayne Topography and Drainage (South Oroville Drainage)	Preliminary Engineering	
Tractor Supply TSM	Approved by Planning Comm	

Project or Activity	Recent Activity	Next Milestone
Feather Ranch VTSM	Design Review Comm	
5th Avenue Traffic Study	Petition Received from Citizen	Conduct Study
Pomona Traffic Study	Petition Received from Citizen	Conduct Study/

RECYCLING PROGRAM

- Attended the Northern California Recycling Association Update 2023 in San Francisco.
    - 20+ presenters on topics ranging from textile recovery pilots to ecosystem health.
- Visited the Napa Recycling & Composting Facility, Yuba-Sutter Transfer & MRF, and Neal Road Recycling & Waste Facility. I met with the individuals who run these facilities and toured the locations. This provided great insight into the challenges we will be facing with enforcement
    - of SB 1383.
- Reached out to individuals who declined Recycling and Green Waste services. And will be working with Recology on a follow-up plan.
- Began coordinating with Recology to receive data on commercial and residential accounts. This is necessary to stay up to date on what accounts are missing and how best to meet their needs.
- Continue to meet with Jennifer Arbuckle to strategize our efforts on better implementation of AB 341 and SB 1383.
- Started HAZWOPER 40hr Training. Learning how to properly handle hazardous materials and what to do in the event of an emergency.
- Continued education on SB 1383, Muni Code for trash and the franchise agreement.
- Have started commercial site visit preparation. Mapping locations and assembling commercial educational materials.

MUSEUMS

- After deep cleaning the museums during winter closures, we kicked off the 2023 year at the end of February during Explore Butte County's Museum Weekend. Attendance was strong and all 5 museums offered special programming. Total = 1,335
    - Bolt Museum (150)
    - Chinese Temple (500)
    - Feather River Nature Center (210)
    - C.F. Lott Home (200)
    - Pioneer Museum (275)
- This month our OLLI (Osher Lifelong Learning Institute) Class started called "Discover Oroville's Museum Mile". The class will be 5 weeks long, with 20 students (age 50+) visiting one of our city museums on Saturdays. On March 25th the class visited the Bolt Museum for a tour. During the month of April the class will visit the other 4 city museums.
- Two new docents joined the Docent Association in March.
    - KarroLynn is helping to revive our museum gift shops.

    - Debbie is a retired librarian from CSU, Chico who will focus her energy at the Chinese Temple working on archives and collections.
- Two student interns from CSU Chico's Museum Studies program continue to work on special projects as well as volunteer during public hours and tours with the docents.
    - Alexis – Chinese Temple Intern
        - Alexis re-freshing the photo panels display in Tapestry Hall at the Temple that is water damaged, helping with digitizing the archive, working on a tour script and helping with tours and public hours.
    - Carrisa – General Intern
        - Carissa helped with deep cleaning the museums during winter closures.
        - Working at the Pioneer Museum on Saturdays.
        - Working with Heather and the Visual Anthropology Laboratory at CSU, Chico to begin a documentary film on the Chinese Temple (grant funded through CSU Chico Grant).
- The Bolt Antique Tool Museum hosted the VacaValleyVets – a corvette car club from Vacaville in March which was covered in Mercury -Register.
- Heather helped docents curate a new exhibit in the Tandy Room at the C.F. Lott Home.
- The Daughters of the American Revolution did a tour at the Chinese Temple.
- The FRNC and Heather met several times planning an Earth Day event that will take place on April 22n in Centennial Plaza. Heather is doing marketing and helping guide and plan this new event for FRNC.
- Heather is meeting Jennifer Spangler (Art Education Coordinator with BCOE) and Dr. Sangmin Lee (CSU, Chico Arts Education Professor) planning the creation of a grant funded Teachers Guide for the Pioneer that will connect with Common Core Standards for Arts an Social Studies.
- Heather has designed new daily ledgers so that all 5 museums are now using the same forms.
- Heather is working with Vicki Paxton to designate the C.F. Lott Home as a site to place a marker designating it from the National Society of Colonial Dames XVII Century.
- Planning for the Feather Fiesta Craft Faire at the Lott has been in motion, with docent Victoria Arista taking the lead and Heather facilitating and supporting marketing and liaison to city.
- Website updates, ongoing.
- Facebook posts, ongoing.
- Marketing and PR, ongoing.
- Heather was asked to write an article for the "Our Town" insert in the Oroville Mercury Register that came out on March 29th. The article was titled, "Your City Museums: Exploring Oroville's Museum Mile."
- Heather and David Dewey met with Lynn Bakke , Workability Job Developer from Butte County SELPA (Special Education Local Plan Area) about volunteer opportunities.
- Heather distributed flyers and Docent Association Brochures to library and other public outlets throughout the month.
- Heather met with Bud Bolt and potential new docent for the Bolt Museum and is working with Bud on the creation of a new tour called "Ten Tools that Changed the World and 5 that Didn't" designed to a fun accessible tour guide to help train new docents in providing tours at the Bolt Museum.
- Heather has taken on the role of scheduler for the Docent Association and for tours (formerly a part of the Docent Association Secretary job duties).

- Heather has taken on the role of picking up city admissions from all 5 museums each month.
- The Docent Association currently has a vacancy for Bolt Lead Docent and the Secretary Role.
- Heather is preparing to move her office to the Chinese Temple.

BUSINESS ASSISTANCE & HOUSING DEVELOPMENT DEPARTMENT

- Loan Portfolio Monitoring (354) Loans, including monthly credit reporting sent 3/16/23, late payment notices (2), late insurance notices (4), annual inspections (0) and certification (222) and (4) incomplete certifications, and foreclosure processing (3). (ongoing)

  Current portfolio balance is $37,842,735.00.
  Payoffs received (15) for FY 22/23 are $786,979.00.

  Foreclosures in process - 4

  1) 2991 Lower Wyandotte-in process (City)-*Notice of Default Recorded*
  2) 58 Russell Proctor Way-(primary mortgage)-*Foreclosure has been recorded, however they are in the process of trying to sell the home*.
  3) 1218 Bird St-*Received Notice of Default/ Letter sent to Estate which is in probate.*
  4) 2236 Del Oro Ave.-*Received Notice of Default, letter sent to borrower.*

  Deceased Loan holders

  1) 2050-Gray St.-son is working on refinancing
  2) 6 Parkwood Dr.-Letter sent to estate to call the note.

  Foreclosures Rescinded

  1) 2809 El Noble Ave-- *This loan was paid off before foreclosure.*

- FTHB Program-closed 0 loan, 1 loans approved, received 3 application, currently reviewing/qualifying 3 applications.
- Owner-Occupied Rehabilitation Program-closed 0 loans, 0 new applications received, 0 application being reviewed/qualified.
- Currently in the process of reviewing expenditures for February and March reimbursements of twelve (12) grants.
- CDBG DR-MHP -received a Conditional Notice To Proceed (NTP) for Lincoln St. Phase I and has now received a Conditional Notice to Proceed for Lincoln St Phase II.
- NEPA for Lincoln St. Apartments complete and noticed 3/7/2023.
- City was awarded $2,733,374 in Encampment Resolution Funding-Mission Esperanza Project. Executed a Lease and Sublease with Oroville Rescue Mission and are currently working through all of the items needed to proceed.
- Submitted ERF application for second round 3/1/2023.

- Received notification that the City was awarded one PLHA application for competitive PLHA grant funding in the amount of $2,500,000 for Lincoln Street Apartments Phase I after an appeal was sent to HCD.
- Submitted CDBG application for $500,000 Neighborhood Cleanup Program-awaiting notification. Awaiting formal notification of award. The city's HCD Rep stated that we had been recommended for funding.
- Submitted 2022 PI Only Application for Oroville Convention Center Improvements, State is requesting additional information that I am currently working on obtaining.
- 2022-2030 Housing Element Update was submitted for second review 2/16/2023.
- Completed Housing Element Annual Progress Report and Successor Agency Annual Report
- Long Term Monitoring of four (4) HOME assisted properties:
    - 03-HOME-0684 Oroville Manor Apartments
    - 06-HOME-2407 Hillview Apartments
    - 07-HOME-3903 Hillview II Apartments
    - 15-HOME-10991 Sierra Heights Apartments

CITY CLERK

- Agenda and Meeting Management for 5 Meetings – December 2023
    - 17 meetings through March 31, 2023.
- Upcoming Meetings:
    - Council Meeting – May 2 and 16
    - Planning Commission – April 27, 2023
    - Arts Commission – June 13
    - Parks Commission – April 26
    - SBF Steering Committee – April 26
    - Citizens Oversight Committee – May 23
- Records Management for Council approved documents
- Monthly meeting room setup for LAFCO, OCESD and Chamber of Commerce
- Records Management for Planning Commission
- Received and Processed City Claims
- Continue to work on the City Hall Scanning Project
- Notarized and recorded documents and maps for all departments
- Assisted Departments with Record Searching and retrieval.
- Assisted departments with creation of Staff Reports, Resolutions and Ordinances
- Processed Council Mail, Legal Mail and Certificates of Insurance
- FPPC Compliance Reporting for From 700's
- Continue to complete other day to day duties of the Clerks Department

FINANCE DEPARTMENT

- Software deployment
    - Payroll Software, UKG Ready
        - Progress being made with a Go live date set for January 1st 2023
    - Financial Software, Tyler Technologies
        - Two full days are devoted each week to set up and trainings.
    - ClearGov Transparency software, still implementing

    - Digital Budget Book
    - Operational Budgeting
    - Transparency Portal
- Policy updating
    - Split the Budget and Purchasing Policy into two separate policies
    - Create a Sewer Fees policy
- Project to clean up and close the Deposits Payable Agency Fund
- Develop a new cost allocation for the new budget year
- Set up new web portal for administration of
    - Utility User Tax
    - Transient Occupancy Tax
- Updating the Master Fee Schedule
- Opening a new Investment Managed Account with Chandler Asset Mgmt
- This task is on hold while the market is in turmoilOpened a new investment account with LPL Financial and purchased 10 million in CD's
- Starting a project to audit Utility User Tax and Franchise Fee revenues with Muni Services
- Paid off the solar and energy loan in the amount of $2,274,000

HUMAN RESOURCES

- Recruitments for Police Officer, MLE, Associate Planner, Associate Engineer, Project Manager/Sr. Civil Engineer, Traffic Signal Technician/Electrician, Lead Tree Worker, Public Works Construction Inspector, Public Works Operator, HR Analyst, and Collection System Operator
- Hired 14 and Terminated 5 employees since January 1, 2023
- Distributed 2nd quarter performance evaluations
- Renewing Work Comp, Liability, Auto, Cyber, vehicle, etc. insurance with JPA
- Teamwork on Lexipol Policy Manual
- Drafting city proposals to labor groups for negotiations
- Overseeing Citywide compensation study
- Updating the City's Injury and Illness Prevention Program (IIPP) and Covid Prevention Program
- Claims for damage administration

INFORMATION TECHNOLOGY/ GIS SERVICES

- Managing day to day helpdesk requests. (Oroville and Gridley)
- Working on strengthening the cybersecurity infrastructure. (Oroville and Gridley)
- Updating IT policies. (Oroville and Gridley)
- Assisting on the financial software conversion. (Oroville)
- Assisting on the permitting software conversion. Currently mapping database fields for the conversion. (Oroville)
- Working on the IT budget for the 23/24 fiscal year. (Oroville and Gridley)

- Deploying cell phones along with mobile management. (Gridley)

PUBLIC SAFETY

Police Activity:

- Calls for Service 3,387
- Officer Initiated Incidents 639
  - **Total Incidents 4,026**
  - **Total Reports 356**
  - **Total Arrests 92**
  - **Total Citations 51**

OROVILLE CITY COUNCIL
MONTHLY REPORT

TO: MAYOR AND CITY COUNCIL MEMBERS
BRIAN RING, CITY ADMINISTRATOR

FROM: BILL LAGRONE, CHIEF OF POLICE

RE: POLICE DEPARTMENT MONTHLY REPORT FOR MARCH 2023

DATE: APRIL 18, 2023

SUMMARY

The Council will receive a monthly report regarding the activities, and general information for the Police Department.

Staffing:

Positions	Total staffed	Total Authorized	Total Vacant
Police Officer	20	29	9
Dispatcher	7	7	0
Municipal Law Enforcement	10	18	8
Administrative Personnel	4	4	0

Department Activity:

Events Year to Date 2023	Average Response Time for Crimes against persons *Priority 1 crimes	Average Response Time for all types of calls for Service	National Average Response Time
11,134	3:22 minutes	6:12 minutes	8 - 11 minutes

Patrol Checks and Park Patrols:

	Patrol Checks
MARCH 2023	295
Year to Date	616

Parking Enforcement Citations Issued:

MARCH 2023	Year to Date 2023	MARCH 2022	Year to date 2022
6	21	4	4

Police Activity:

Arrest	MARCH 2022	MARCH 2023	Year to date 2022	Year to date 2023
Misdemeanor	119	57	287	204
Felony	50	35	122	101

Citations	MARCH 2022	MARCH 2023	Year to date 2022	Year to date 2023
	66	45	154	162

Uniform Crime Reporting:

Crimes of Violence	MARCH 2023	Year to Date JANUARY – DECEMBER
Homicide	0	0
Rape	0	1
Robbery	0	7
Aggravated Assault	2	6

SPCA Statics:

Service Calls by Priority:

Priority Level	Number of Calls	Total Minutes per call type	Average response times
Urgent	20	127	6.34
Priority	34	181	5.32
At Officer Convenience	27	176	6.50
After Hours	20	113	5.65

Animal Intake and Outcome Stats:

Total Animals taken in from City	Total Animals outgoing	Cats	Dogs	Other	Bird	Livestock
64	92	22	41	1	0	0

*The remaining difference from intakes to outcome total represents animals that have not yet had an outcome and are still in the facility.

Animal Outcomes:

Outcome Type	Totals	Dogs	Cats	Livestock	Birds	Other
Adoption	10	6	4	0	0	0
Died	4	0	4	0	0	0
Disposal	9	3	5	0	1	3
Euthanasia	56	13	42	0	0	1
RTO	13	12	0	0	0	0
Escaped	0	0	0	0	0	0
Foster	0	6	0	0	0	0

*Others are wild animals such as bats, skunks, snakes, possums, etc

SPCA After-hours call outs:

MARACH 2023
20

Shoes for Kids:

Shoes Provided	Socks Provided
1	1 Pkg

This program provides shoes and socks for children of our community. This program is funded by Department member donations and community donations.

FISCAL IMPACT

No impact to the General Fund.

RECOMMENDATIONS

None

OROVILLE YMCA AND ARTISTS OF RIVERTOWN PRESENT:

OROVILLE VAPA SHOWCASE

APRIL 29TH, 10 AM - 5 PM | OROVILLE CONVENTION CENTER

Register to perform during an evening of Art with local Oroville schools and arts providers showcasing performances! Expand awareness of Dance, Theater, Music and Visual Arts through performances, school displays, and hands-on workshops by local Arts providers and vendors.

Full Name :

Full Address :

E-Mail : Phone :

Name of Presenting Company or Persons:

Please fill out the following:

Will you be in need of table or booth? ☐ Yes ☐ No

Will you be selling anything? ☐ Yes ☐ No

Will you need power cords or other electricity? ☐ Yes ☐ No

Would you be interested in presenting a workshop? ☐ Yes ☐ No

Title/Description of workshop:

Please check to accept that if selling items or services, you will be subject to a $25 service fee. ☐ I ACCEPT

Payment Method:
(Booths are FREE unless selling goods or services) ☐ $25 Cash or Check Included With Application

Send Filled-out Applications To:

OROVILLE YMCA RE: VAPA SHOWCASE
PO Box 1171
Oroville, Ca 95965

For More Information :

OROVILLE YMCA
1200 Myers Street
Oroville, CA 95965
530-533-9622
spierce@ymcasuperiorcal.org

ARTISTS OF RIVERTOWN STUDIO
1967 Montgomery Street
Oroville, CA 95965
530-781-3849
orovilleart@gmail.com







the YMCA

OROVILLE VAPA SHOWCASE

Join us for a day of Art with local Oroville schools and arts providers showcasing performances!

Expand awareness of Dance, Theater, Music and Visual Arts through performances, school displays, and hands-on workshops by local Arts providers and vendors.
The community members and school leaders who are interested will rotate to 4 arts-making experiences. Dance, Theater, Music, Visuals Arts.

Oroville Arts Commission

Saturday, April 29th
10:00 AM - 5:00 PM
Oroville Convention Center
1200 Myers St.

City of Oroville, California — Incorporated 1906

For questions or concerns, please contact

Birdcage Theatre
1740 Bird St.
Oroville, CA 95966

Butte County Office of Education
"WHERE STUDENTS COME FIRST"

Northern California Ballet School, Oroville

Ensuring the Arts for
ANY GIVEN CHILD
Butte County

The Kennedy Center