

PLANNING & ZONING COMMISSION

MEETING AGENDA

AUGUST 14, 2023, 7:00 PM



PLANNING & ZONING COMMISSION REGULAR MEETING

HISTORIC CHURCH BUILDING - 403 N 7TH STREET, SANGER, TEXAS

CALL THE REGULAR MEETING TO ORDER AND ESTABLISH A QUORUM

INVOCATION AND PLEDGE

CITIZENS COMMENTS

This is an opportunity for citizens to address the Commission on any matter. Comments related to public hearings will be heard when the specific hearing begins. Citizens are allowed 3 minutes to speak. Each speaker must complete the Speaker's Form and include the topic(s) to be presented. Citizens who wish to address the Commission with regard to matters on the agenda will be received at the time the item is considered. The Commission is not allowed to converse, deliberate or take action on any matter presented during citizen input.

CONSENT AGENDA

All items on the Consent Agenda will be acted upon by one vote without being discussed separately unless requested by a Commissioner to remove the item(s) for additional discussion. Any items removed from the Consent Agenda will be taken up for individual consideration.

1. Consideration and possible action of the minutes from April 10, 2023, meeting.

PUBLIC HEARING ITEMS

2. Conduct a public hearing on a request for a rezoning from Agricultural (A) to Planned Development (PD) of approximately 20.504 acres of land, described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and East of Indian Lane.
3. Conduct a Public Hearing on a request for a Specific Use Permit (SUP) for a Food Truck use, at 904 S 5th Street, parking lot, located on approximately 0.291 acres of land described as A1241A TIERWESTER, TR, and generally located on the north side of 5th Street approximately 183 feet east of the intersection of 5th Street and Freese Drive.
4. Conduct a public hearing on a request for the Replat of Lot 1R, Block A of the Powell Addition, being 1.05 acres located within the City of Sanger, generally located along

the north side of Duck Creek Road approximately 511 feet west of the intersection of Duck Creek Road and South Stemmons Frwy.

- [5.](#) Conduct a public hearing on a rezoning from Planned Development-Townhome (PD-TH) to Planned Development-SF-1 (PD-SF-1) of approximately 14.908 acres of land, described as A0029A R BEEBE, 72B(2A), within the City of Sanger, and generally located on west side of Marion Road approximately 820 feet south of the intersection of Marion Road and Huling Road.

ACTION ITEMS

- [6.](#) Consideration and possible action on the Final Plat of the Bentley Addition, being 1.064 acres of land described as A0658A JANUARY TR 33A, 34A, and 35A(PT) located in the City of Sanger's ETJ, and generally located on the east side of FM 2450 approximately 162 feet north of the intersection of FM 2450 and FM 455.
- [7.](#) Consideration and possible action on a rezoning from Agricultural (A) to Planned Development (PD) of approximately 20.504 acres of land, described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and East of Indian Lane.
- [8.](#) Consideration and possible action on a request for a Specific Use Permit (SUP) for a Food Truck use, at 904 S 5th Street, parking lot, located on approximately 0.291 acres of land described as A1241A TIERWESTER, TR, and generally located on the north side of 5th Street approximately 183 feet east of the intersection of 5th Street and Freese Drive.
- [9.](#) Consideration and possible action on a request for the Replat of Lot 1R, Block A of the Powell Addition, being 1.05 acres located within the City of Sanger, generally located along the north side of Duck Creek Road approximately 511 feet west of the intersection of Duck Creek Road and South Stemmons Frwy.
- [10.](#) Consideration and possible action on a rezoning from Planned Development-Townhome (PD-TH) to Planned Development-SF-1 (PD-SF-1) of approximately 14.908 acres of land, described as A0029A R BEEBE, 72B(2A), within the City of Sanger, and generally located on west side of Marion Road approximately 820 feet south of the intersection of Marion Road and Huling Road.
- [11.](#) Consideration and possible action on the Minor Plat of Sims Street Addition, Block A, Lot 1 being 0.129 acres, located in the City of Sanger, and generally located on the east side of Sims Street approximately 97 feet north of the intersection of Sims St and Kirkland St.
- [12.](#) Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Vape Shop.

- [13.](#) Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Tattoo Shop.
- [14.](#) Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Tattoo Shop.
- [15.](#) Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Vape Shop.

FUTURE AGENDA ITEMS

The purpose of this item is to allow the Chairman and Commissioners to bring forward items they wish to discuss at a future meeting, A Commissioner may inquire about a subject for which notice has not been given. A statement of specific factual information or the recitation of existing policy may be given. Any deliberation shall be limited to a proposal to place the subject on an agenda for a subsequent meeting. Items may be placed on a future meeting agenda with a consensus of the Commission or at the call of the Chairman.

INFORMATIONAL ITEMS

ADJOURN

NOTE: The Commission reserves the right to adjourn into Executive Session as authorized by Texas Government Code, Section 551.001, et seq. (The Texas Open Meetings Act) on any item on its open meeting agenda in accordance with the Texas Open Meetings Act, including, without limitation Sections 551.071-551.087 of the Texas Open Meetings Act.

CERTIFICATION

I certify that a copy of this meeting notice was posted on the bulletin board at City Hall is readily accessible to the general public at all times and posted on the City of Sanger website on August 11, 2023

Stefani Dodson
Stefani Dodson, Secretary

The Historical Church is wheelchair accessible. Request for additional accommodations or sign interpretation or other special assistance for disabled attendees must be requested 48 hours prior to the meeting by contacting the City Secretary's Office at 940.458.7930.



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Stefani Dodson, Secretary

AGENDA ITEM: Consideration and possible action of the minutes from April 10, 2023, meeting.

SUMMARY:
N/A

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:
N/A

ATTACHMENTS:
Minutes from April 10, 2023

PLANNING & ZONING COMMISSION

MEETING MINUTES

APRIL 10, 2023, 7:00 PM



PLANNING & ZONING COMMISSION REGULAR MEETING

HISTORIC CHURCH BUILDING - 403 N 7TH STREET, SANGER, TEXAS

CALL THE REGULAR MEETING TO ORDER AND ESTABLISH A QUORUM

There being a quorum Phillip Surles called the Planning and Zoning meeting to order at 7:00 P.M.

BOARD MEMBERS PRESENT

Commissioner, Place 2	Sally Amendola
Commissioner, Place 3	Jackie Turner
Commissioner, Place 4	Allen McAlister
Commissioner, Place 5	Matt Fuller
Commissioner, Place 7	Phillip Surles

BOARD MEMBERS ABSENT

Commissioner, Place 1	Shane Stone
Commissioner, Place 6	Jason Miller

STAFF MEMBERS PRESENT:

Director of Development Services Ramie Hammonds, and Secretary Stefani Dodson

CITIZENS COMMENTS

No citizens came forward.

CONSENT AGENDA

1. Consideration and possible action of the minutes from March 13, 2023, meeting.

Commissioner McAlister makes a motion to approve the consent agenda.
Commissioner Fuller seconded the motion.

Voting Yea: Commissioner Amendola, Commissioner Turner, Commissioner McAlister, Commissioner Surles. The motion passes unanimously.

PUBLIC HEARING ITEMS

2. Conduct a public hearing on a zoning amendment to Ordinance No. 10-28-22 for Planned Development Sanger Preserve for approximately 12.01 acres of land, described as A1241A TIERWESTER, TR 264 AND TR 265 generally located on the southeast corner of 5th Street and Cowling Road.

Commissioner Surles opens the public hearing at 7:02 P.M.

Director Hammonds explains this project has been here earlier but they have made a few changes to the PD.

Brian with Arrive Architect explains to the board about the project and shows the board the new look of the apartments.

Commissioner Surles closed the public hearing at 7:11 P.M.

ACTION ITEMS

3. Consideration and possible action on a zoning amendment to Ordinance No. 10-28-22 for Planned Development Sanger Preserve for approximately 12.01 acres of land, described as A1241A TIERWESTER, TR 264 AND TR 265 generally located on the southeast corner of 5th Street and Cowling Road.

Commissioner Surles makes a motion to approve. Commissioner Fuller seconded the motion.

Voting Yea: Commissioner Amendola, Commissioner Turner, Commissioner McAlister, Commissioner McAlister. The motion passes unanimously.

4. Consideration and possible action on the Preliminary Plat of Belz Road Retail Addition being 129.25 acres, described as A1241A TIERWESTER. TR 56, TR 57, and TR 40 are generally located along Chapman Drive and I-35 approximately 234 feet west of the intersection of I-35 and Chapman Drive.

Commissioner Surles makes a motion to approve with the condition all comments are met by City Council. Commissioner McAlister seconded the motion.

Voting Yea: Commissioner Amendola, Commissioner Turner, Commissioner McAlister, Commissioner Fuller. The motion passes unanimously.

5. Consideration and possible action on the Final Plat of Palomino Bay Addition, being 54.34 acres, located in the City of Sanger's ETJ, and generally located on the west side of Jones Road approximately 782 feet north of the intersection of FM 1190 and Jones Road.

Commissioner Fuller makes a motion to approve with the condition all comments are met by City Council. Commissioner Turner seconded the motion.

Voting Yea: Commissioner Amendola, Commissioner McAlister, Commissioner McAlister, Commissioner Surles. The motion passes unanimously.

FUTURE AGENDA ITEMS

No items were discussed.

INFORMATIONAL ITEMS

No items were discussed.

ADJOURN

There being no further items Commissioner Surles adjourns the meeting at 7:30 P.M.



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Conduct a public hearing on a request for a rezoning from Agricultural (A) to Planned Development (PD) of approximately 20.504 acres of land, described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and East of Indian Lane.

SUMMARY:

- The applicant has acquired additional acreage adjacent to PD 04-11-22
- The applicant is proposing to rezone the additional acreage of approximately 20.504 acres from Agricultural (A) to Planned Development (PD).
- The new acreage will follow the same PD regulations as PD 04-11-22.
- The added acreage will add 54 Manor Lots (50' x 120') and 88 Garden Lots (40' x 120'). No new estates will be added.
- Total Open Space increased from 83.783 acres to 86.25 acres.
- The trail system increased from 2.56 miles to 3.07 miles.
- Staff mailed out 3 public hearing notices to owners of properties within 200 feet of the subject property and at the time of this report had received no response.

FISCAL INFORMATION:

Budgeted: N/A Amount: N/A GL Account: N/A

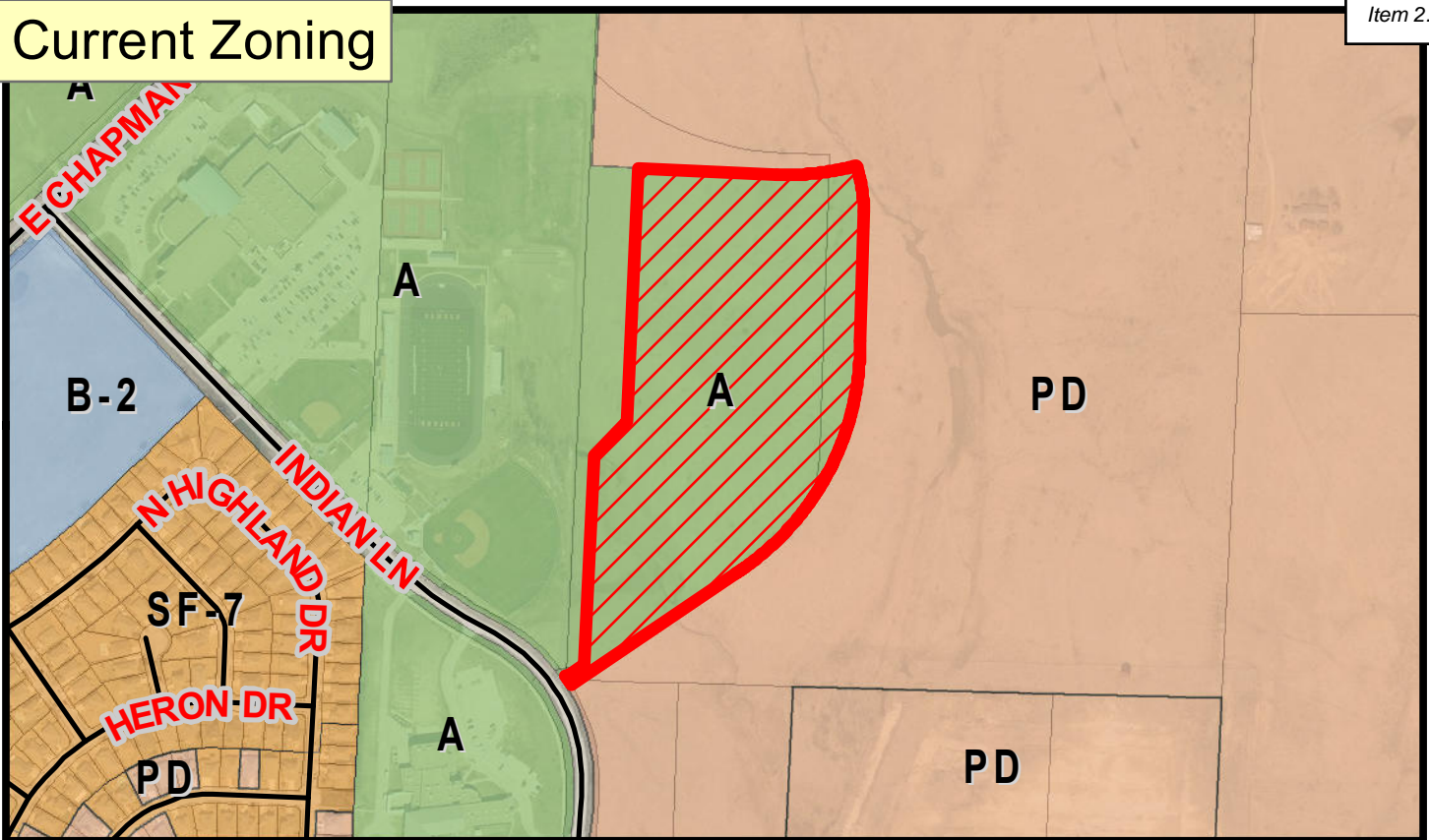
RECOMMENDED MOTION OR ACTION:

N/A

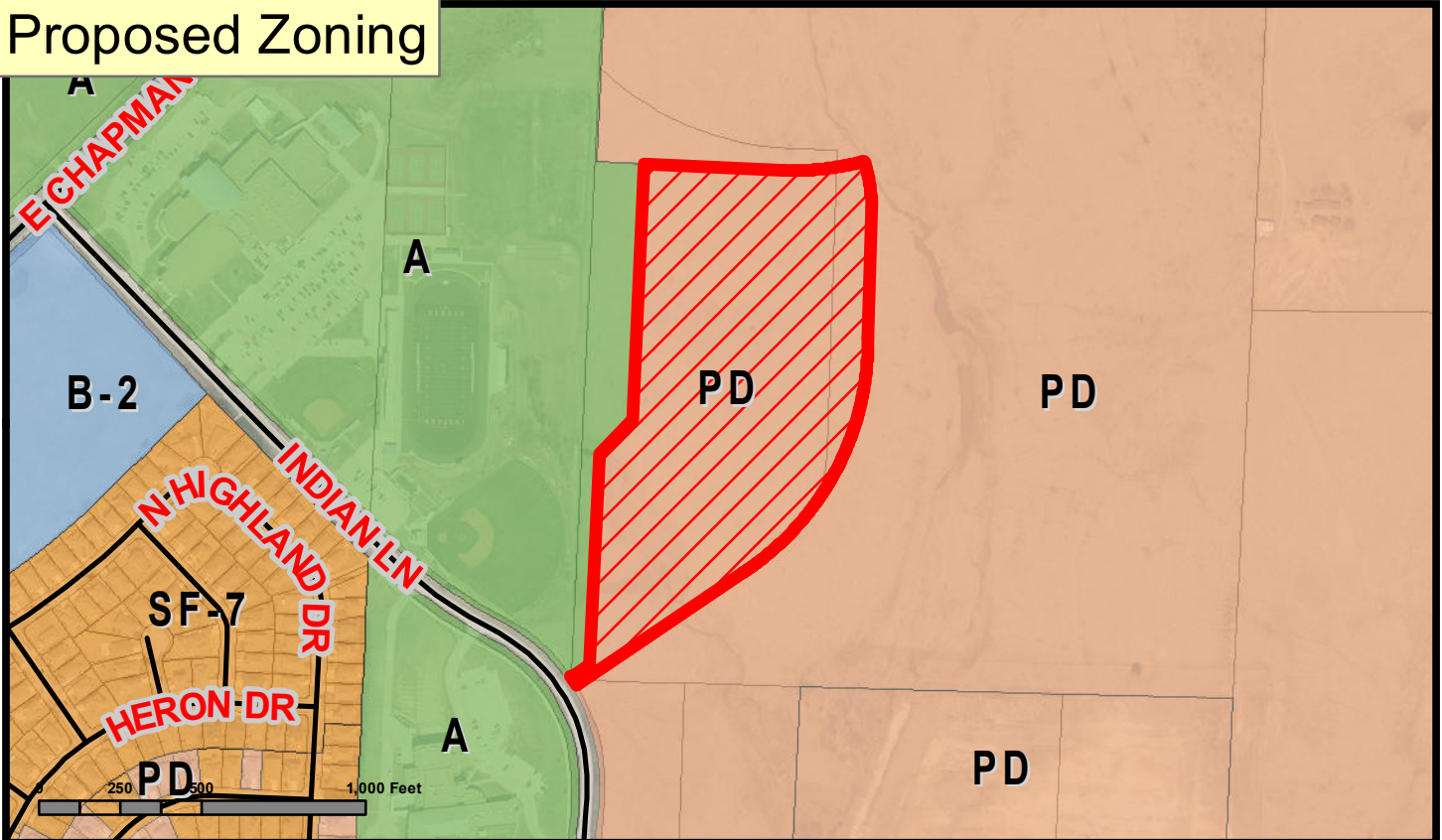
ATTACHMENTS:

Location Map

Current Zoning



Proposed Zoning



Location: Lane Ranch
PD Zoning Change
Project: 23SANZON-0027

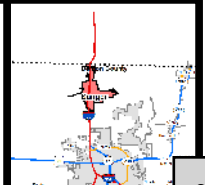


City Limits



Exhibits

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ZONING BOARD OF ADJUSTMENT COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Service Director

AGENDA ITEM: Conduct a Public Hearing on a request for a Specific Use Permit (SUP) for a Food Truck use, at 904 S 5th Street, parking lot, located on approximately 0.291 acres of land described as A1241A TIERWESTER, TR, and generally located on the north side of 5th Street approximately 183 feet east of the intersection of 5th Street and Freese Drive.

SUMMARY:

- The applicant is proposing a Food Truck at 904 S 5th Street.
- The applicant has a business Oscar's Street Tacos that he would like to operate at this site.
- The property is zoned "PD-B1" Planned Development B-1 which allows Quick Service Food and Beverage with a SUP.
- The truck would have to remain at the site full-time and not be mobile.
- All necessary health permits would be required prior to opening.
- The space would be leased from July 2023 to July 2024.
- Staff mailed 22 public hearing notices to owners of properties within 200 feet of the subject property and at the time of this report had received no responses.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

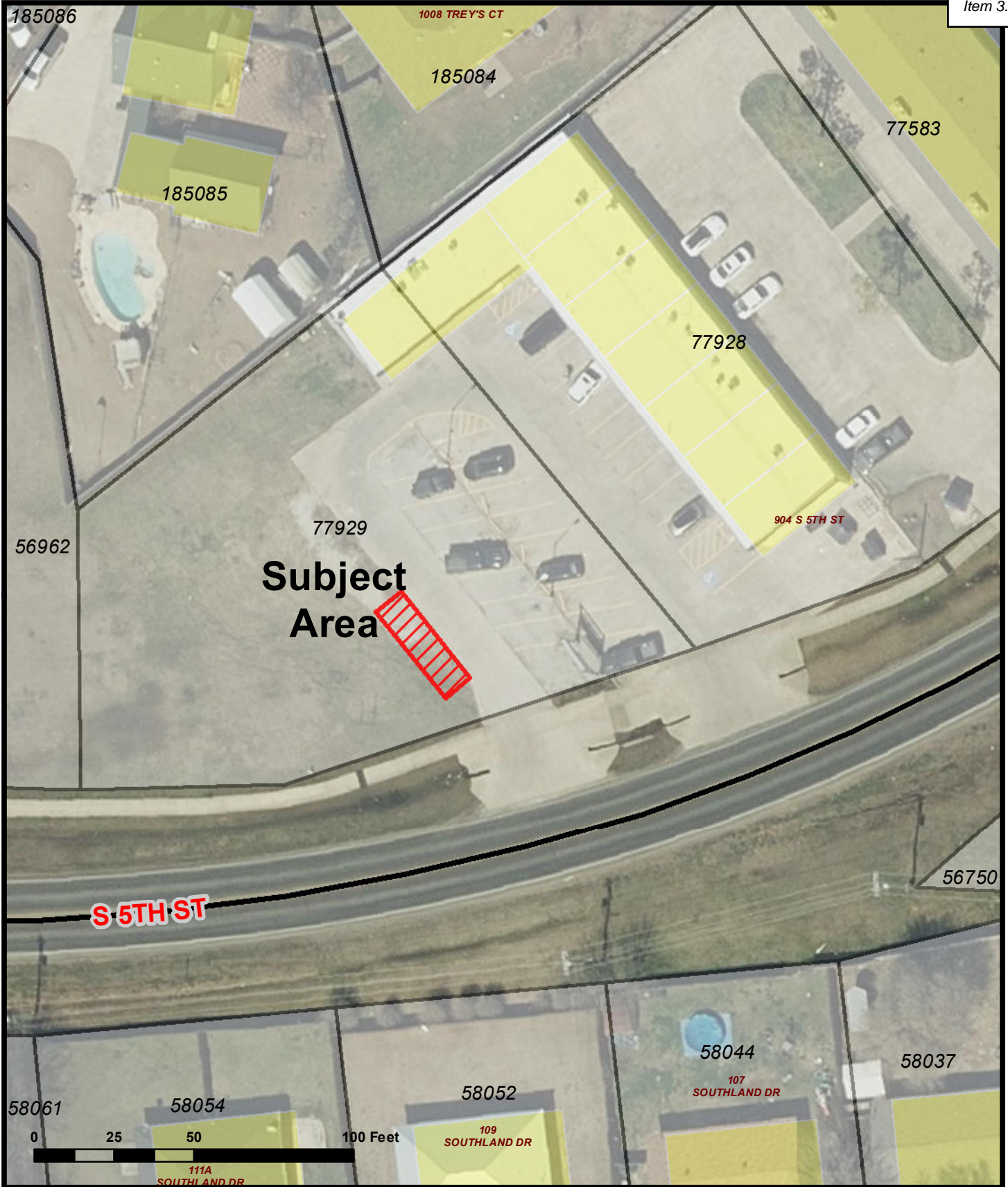
GL Account: N/A

RECOMMENDED MOTION OR ACTION:

N/A

ATTACHMENTS:

Location Map



Project Name: 904 S. 5th St.
Oscars Tacos - SUP
Project: 23SANZON-0034

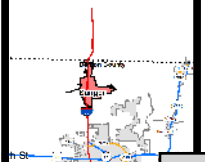


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Date: 7/23/2023 2:48:43 PM
Doc Name: 23SANZON-0034_SUP Oscars Tacos 904 S





PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Conduct a public hearing on a request for the Replat of Lot 1R, Block A of the Powell Addition, being 1.05 acres located within the City of Sanger, generally located along the north side of Duck Creek Road approximately 511 feet west of the intersection of Duck Creek Road and South Stemmons Frwy.

SUMMARY:

- The applicant is proposing to create 1 commercial lot of 1.05 acres, from 1 previously platted tract.
- The site is zoned Business District 2.
- The existing building is currently over the build line.
- The owner states the building will be utilized as a church.
- There was right-of-way dedication of 0.01 acres.
- The replat will establish all easements required to make the site developable.
- Staff mailed out 12 notices and at the time of this report has not received any responses.
- The property is located in the City of Sanger.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

N/A

ATTACHMENTS:

Location Map



Project Name: 1609 Duck Creek Rd.
Tuff Powder Coating Replat
Project: 23SANZON-0031



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Date: 7/23/2023 2:31:40 PM
Doc Name: 23SANZON-0031_1609 Duck Creek Replat





PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Conduct a public hearing on a rezoning from Planned Development-Townhome (PD-TH) to Planned Development-SF-1 (PD-SF-1) of approximately 14.908 acres of land, described as A0029A R BEEBE, 72B(2A), within the City of Sanger, and generally located on west side of Marion Road approximately 820 feet south of the intersection of Marion Road and Huling Road.

SUMMARY:

- The applicant is proposing to rezone the subject property of approximately 14.908 acres from PD-TH to PD_SF-1.
- They will create 64 single-family lots on the site.
- This zoning would conform to the future land use map.
- The property adjoins a single-family property and a townhome property.
- The development would meet the R-1 zoning requirements with the following changes
 - Minimum lot square footage would 6000 square feet.
 - Minimum lot depth would be 120 feet.
 - Minimum dwelling size would be 1850 with a 15% max of lots below 2000.
 - Minimum front yard setback 25 feet with features such as overhangs, stoops, bay windows, front porches allowed to extend a maximum of 5 feet into the front yard setback.
 - Minimum side yard setback 5 feet and 10 feet adjacent a street.
 - Minimum rear yard setback 20 feet with feature such as porches, courtyards, masonry chimneys, and bay windows allowed to extend a maximum 5 feet into setback
 - Maximum lot coverage 65%
 - Enclosed parking area of at least 400 square feet (this does not count toward minimum house size) and face of garage door must be located at least 20 feet from street right-of-way. The garage door does not have to be behind the street-facing façade of the house.
 - Lot widths shall be measured at the rear of the required front yard setback.
 - Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks.
 - Single-family lots shall have an irrigation system in the front yard and street corner side yard.
 - Each home will have a minimum of 2 shade trees.
 - Each home will have a minimum of 12 three gallon shrubs.
- Staff mailed out 34 public hearing notices to owners of properties within 200 feet of the subject property and at the time of this report had received one response in favor and one response opposed. Responses are attached.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

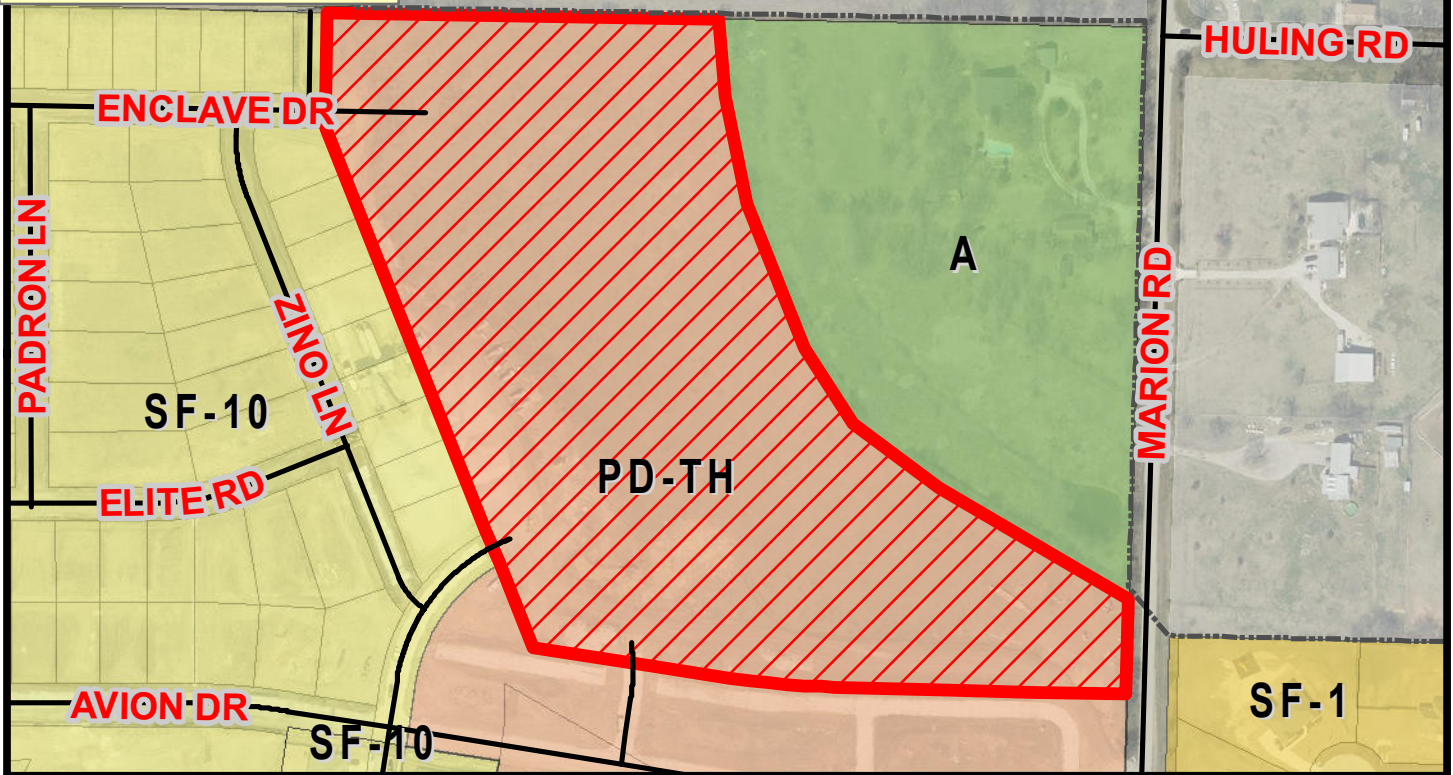
RECOMMENDED MOTION OR ACTION:

N/A

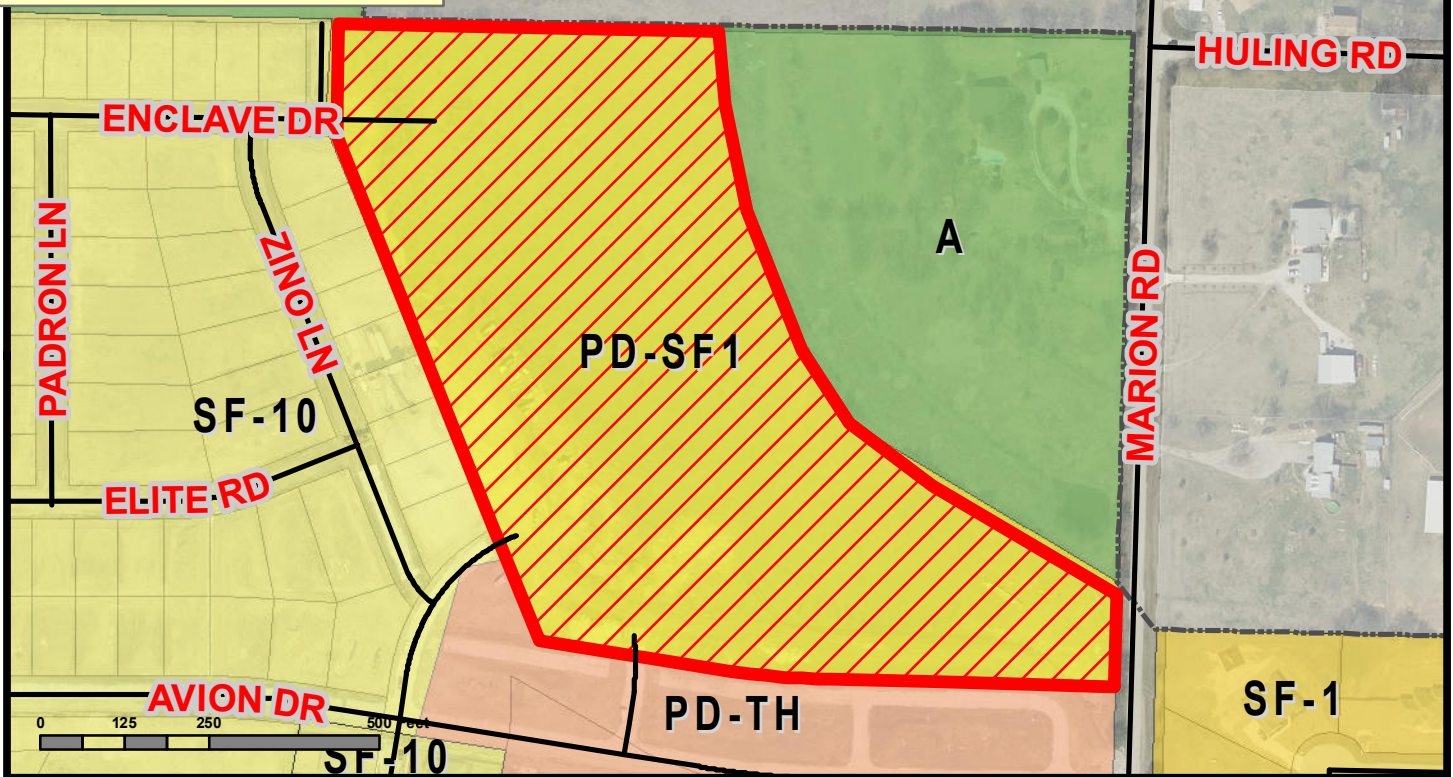
ATTACHMENTS:

Location Map

Current Zoning



Proposed Zoning



Location: Sanger Circle Phase 7
PD Zoning Change
Project: 23SANZON-0028



City Limits



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PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Consideration and possible action on the Final Plat of the Bentley Addition, being 1.064 acres of land described as A0658A JANUARY TR 33A, 34A, and 35A(PT) located in the City of Sanger's ETJ, and generally located on the east side of FM 2450 approximately 162 feet north of the intersection of FM 2450 and FM 455.

SUMMARY:

- The applicant is proposing to create 1 lot from an unplatted tract.
- This site is located on the east side of FM 2450 approximately 162 feet east of the intersection of FM 2450 and FM 455.
- The lot would have access from FM 2450.
- The lot is being developed as a single-tenant commercial building.
- The lot will be serviced by Bolivar Water Supply Corporation and have on-site sanitary sewer facilities.
- The property is located in the City of Sanger's ETJ.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

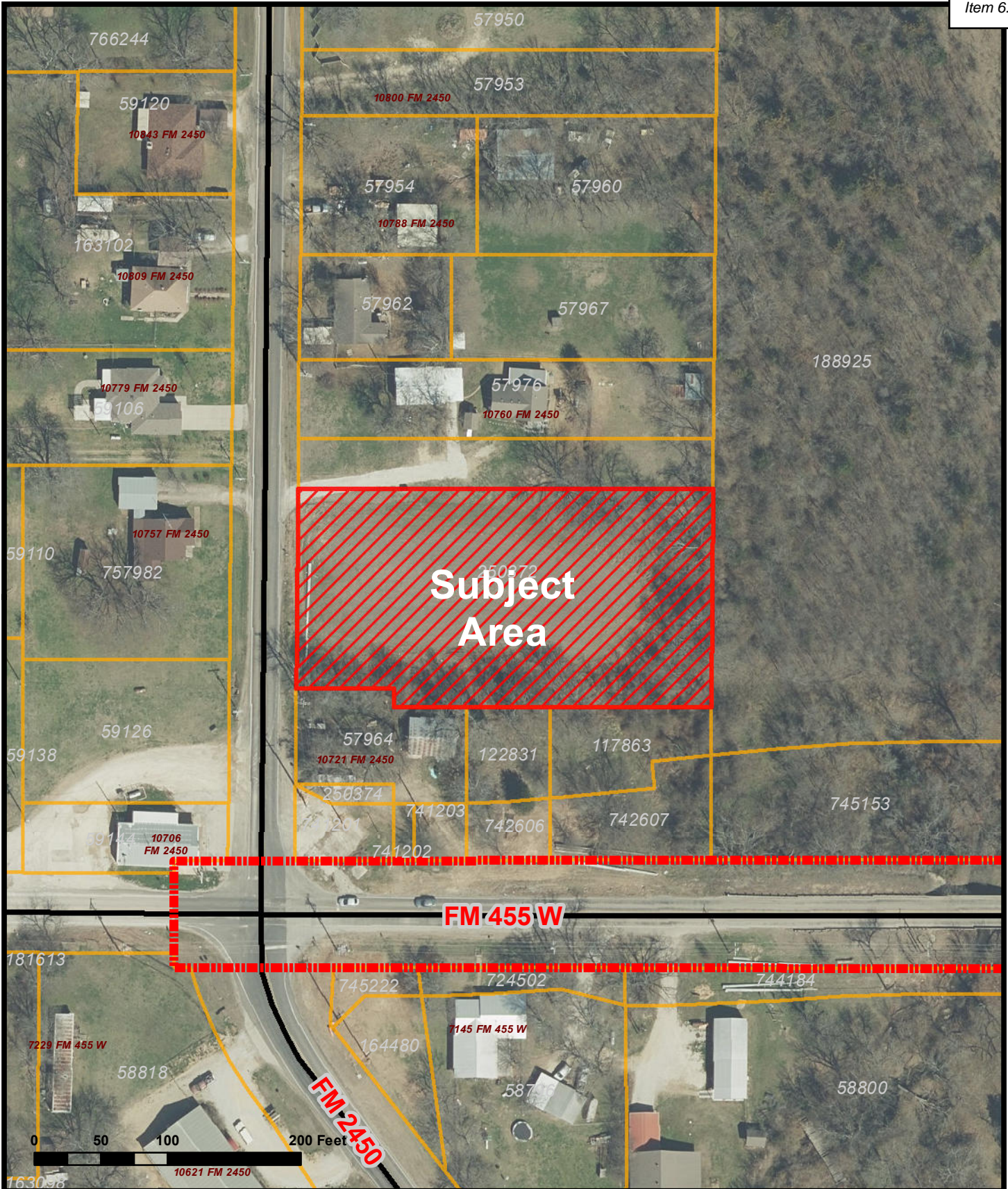
GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends APPROVAL with the condition all comments are satisfied prior to City Council approval.

ATTACHMENTS:

Location Map
Final Plat
Application
Letter of Intent
Planning Comments
Engineering Comments
Denton County Comments



Project Name: Vaquero DG FM2450
Partners - Final Plat
Project: 23SANZON-0032

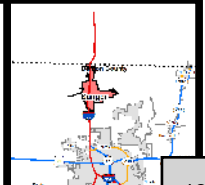


City Limits



Exhibits

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Date: 7/23/2023 2:37:11 PM
Doc Name: 23SANZON-0032_FM2450 Final Plat





201 Bolivar Street/PO Box 1729 * Sanger, TX 76265
940-458-2059(office) www.sangertexas.org

SUBDIVISION APPLICATION

Item 6.

☐

Preliminary
Plat Minor
Plat

☒

Final
Plat/Replat
Amended Plat

☐

Vacating Plat
Conveyance
Plat

Applicant

Owner (if different from applicant)

Name: Kelly Agnor	Name: BR Bentley, Jr. & Michelle Bentley
Company: Vaquero DG FM 2450 Partners, LP	Company:
Address: 2627 Tillar Street, Suite 111	Address BR Bentley, Jr. & Michelle Bentley
City, State, Zip: Fort Worth, TX 76107	City, State, Zip: BR Bentley, Jr. & Michelle Bentley
Phone 512-983-1793	Phone: BR Bentley, Jr. & Michelle Bentley
Fax:	Fax:
Email: KAgnor@vaqueroventures.com	Email: BR Bentley, Jr. & Michelle Bentley

KAgnor@vaqueroventures.com

Submittal Checklist BR Bentley, Jr. & Michelle Bentley

<input type="checkbox"/>	Pre-Application Conference (Date: ___/___/___)
<input type="checkbox"/>	One (1) Paper Copy of Plat (24"x36", folded to 1/4 size)
<input type="checkbox"/>	Letter of Intent
<input type="checkbox"/>	Non-Refundable Application Fee (Check Payable to City of Sanger)
<input type="checkbox"/>	Application Form (Signed by Owner)
<input type="checkbox"/>	Applicable Plat Checklist (Completed)
<input type="checkbox"/>	Additional Required Documents/Traffic & Drainage Studies etc.
<input type="checkbox"/>	One (1) PDF Copy of all Documents Provided on a CD/DVD or Emailed to development@sangertexas.org

Supporting Materials (List if provided): _____

R Number(s): _____

BR Bentley Jr
Owner's Signature

Michelle A. Bentley

Kelly Agnor
Applicant's Signature

6-3-23
Date

5.31.2023

Date

Office Use: Reviewed by Director of Development Services ___/___/___

Vaquero DG FM 2450 Partners, LP
2627 Tillar Street, Suite 111
Fort Worth, TX 76107
(254)715-5100
cpipkin@vaqueroventures.com

City of Sanger
Permits/Planning & Zoning
502 Elm Street
P.O. Box 1729
Sanger, TX 76266

RE: Final Plat – Letter of Intent

To Whom It May Concern,

Vaquero DG FM 2450 Partners, LP is making this final plat submittal to create a platted lot for closing and development purposes. We plan to develop the 1.064-acre lot, which is located near the corner of FM 2450 and FM 455, as a single tenant commercial building.

The contact for this project going forward will be Caitlin Pipkin, her contact information is in the above header.

We request that the final plat be received and considered by the city staff, Planning & Zoning Commission, and the City Council.

Thank you,



Vaquero DG FM 2450 Partners, LP
Caitlin Pipkin



DATE: 08/02/2023

1st REVIEW COMMENTS – Final Plat (Bentley Addition)

The request is for a Final Plat of Bentley Addition containing 1 lot, being approximately 1.064 acres in the JAMES B. P. JANUARY SURVEY, ABSTRACT NO 658, prepared by JPH Land Surveying, Inc. submitted on 07/19/2023. Below are the comments that should be addressed before City Council approval. Resubmit the revised plat along with a response letter addressing all comments.

Planning

Provide the following

1. Show the centerline of existing streets and dimensions from the centerline to the edges of existing and proposed right-of-way on **both** sides of the centerline.
2. Provide a signed notarized copy of private restrictions (if any), that are filed for record in the office of the County Clerk.
3. Provide will-serve letters from all utilities providing service to the development.
4. Add all Denton County Standard notes.

Informational Comments

1. The property is within the City of Sanger's ETJ.
2. The Final Plat will be scheduled for the Planning and Zoning (P&Z) Commission meeting on Monday, August 14, 2023, and the City Council meeting on Tuesday, September 5, 2023.

August 7, 2023
AVO 37449.004

Ms. Ramie Hammonds
Development Services Director/Building Official
City of Sanger
201 Bolivar Street
P.O. Box 1729
Sanger, Texas 76266

Re: **Bentley Addition Drainage Study/Downstream Assessment -Review #1**

Dear Ms. Hammonds,

Halff Associates, Inc. was requested by the City of Sanger to review the drainage study in support of the engineering plans for the Bentley Addition located near the intersection of FM 2450 and FM 455 W. The subject tract is located within the City of Sanger's ETJ. The submittal was prepared by Triangle Engineering LLC and dated June 21, 2023.

Rules and Regulation citations have been provided in this letter. Our preliminary comments are as follows:

General Comments

1. Please address comments on attached markups and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses.
2. Please address construction plans comments provided separately. Please note, an accepted drainage study is required prior to plans acceptance.

Hydrology and Hydraulics

1. Please note a Downstream Assessment will be needed to verify no negative impacts for the Hydrology.
2. Please note an Environmental Assessment will be needed on the existing channel to determine existing impact on wetlands.
3. Existing and proposed ditches and channels will need to be analyzed using a computation model. HEC-RAS is recommended. For specific requirements, refer to Denton County Subdivision Rules and Regulations → Section VIII Engineering Plans → IV. Drainage Design.
4. Channel improvement shall conform to Denton County Subdivision Rules and Regulations, or City of Sanger Code of Ordinances 10.106(d)(9), whichever is more restrictive. Please review, revise, and provide channel design information.
5. The Drainage Area Maps (between Sheet C-4.0 and C-5.0) were for FM Hwy 2450 hydraulic calculation's purpose. Please include extra offsite drainage area per mark-ups on Sheet C-5.0.
6. The hydrologic parameters shall be consistent with Denton County Subdivision Rules and Regulations IV.1.2 Rational Method. Please review and revise.

7. Please include calculations for the existing time of Concentration (T_c). If proposed T_c uses the minimum T_c , no calculations are needed, but please specify.
8. Please note 10-year storm calculations shall be included for closed storm sewer systems per City of Sanger Code of Ordinances 10.106(d)(3). Please add it to your calculations/analysis.

The Engineer shall revise the hydrologic study and/or plans in accordance with the above comments and/or provide a written response that addresses each comment. If you have any questions or need additional information, please do not hesitate to call me at (214) 937-3921.

Sincerely,
HALFF
TBPELS Firm No. 312



Yangbin Tong, CFM
Project Manager



Parker C Moore, PE, CFM
Project Manager

Attachments:

- Plans markups

SITE DEVELOPMENT PLANS

FOR

DOLLAR GENERAL

NE QUADRANT OF FM 2450 & CHAPMAN ROAD

CITY OF SANGER ETJ

DENTON COUNTY, TEXAS 76266

JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658

1.064 ACRES

BENCHMARKS

SITE BENCH MARK IS A MAG NAIL WITH A WASHER STAMPED "JPH LAND BENCHMARK" SET IN A CONCRETE SLAB IN THE NORTHEAST CORNER OF THE INTERSECTION OF F.M.HIGHWAY 455 AND F.M.HIGHWAY 2450.BENCHMARK ELEVATION=677.33' . SEE SURVEY FOR GENERAL LOCATION.

PROJECT CONTACT LIST

ENGINEER
TRIANGLE ENGINEERING LLC
1782 McDERMOTT DR
ALLEN, TX. 75013
KARTAVYA PATEL
214-609-9271

OWNER/DEVELOPER
VAQUERO DG FM 2450 PARTNERS, LP
2627 TILLAR ST, STE 111
FORT WORTH, TX 76107
KELLY AGNOR
512-983-1793

SURVEYOR
JPH LAND SURVEYING,INC
785 LONESOME DOVE TRAIL,
HURST, TX 76054
JEWEL CHADD
817-431-4971

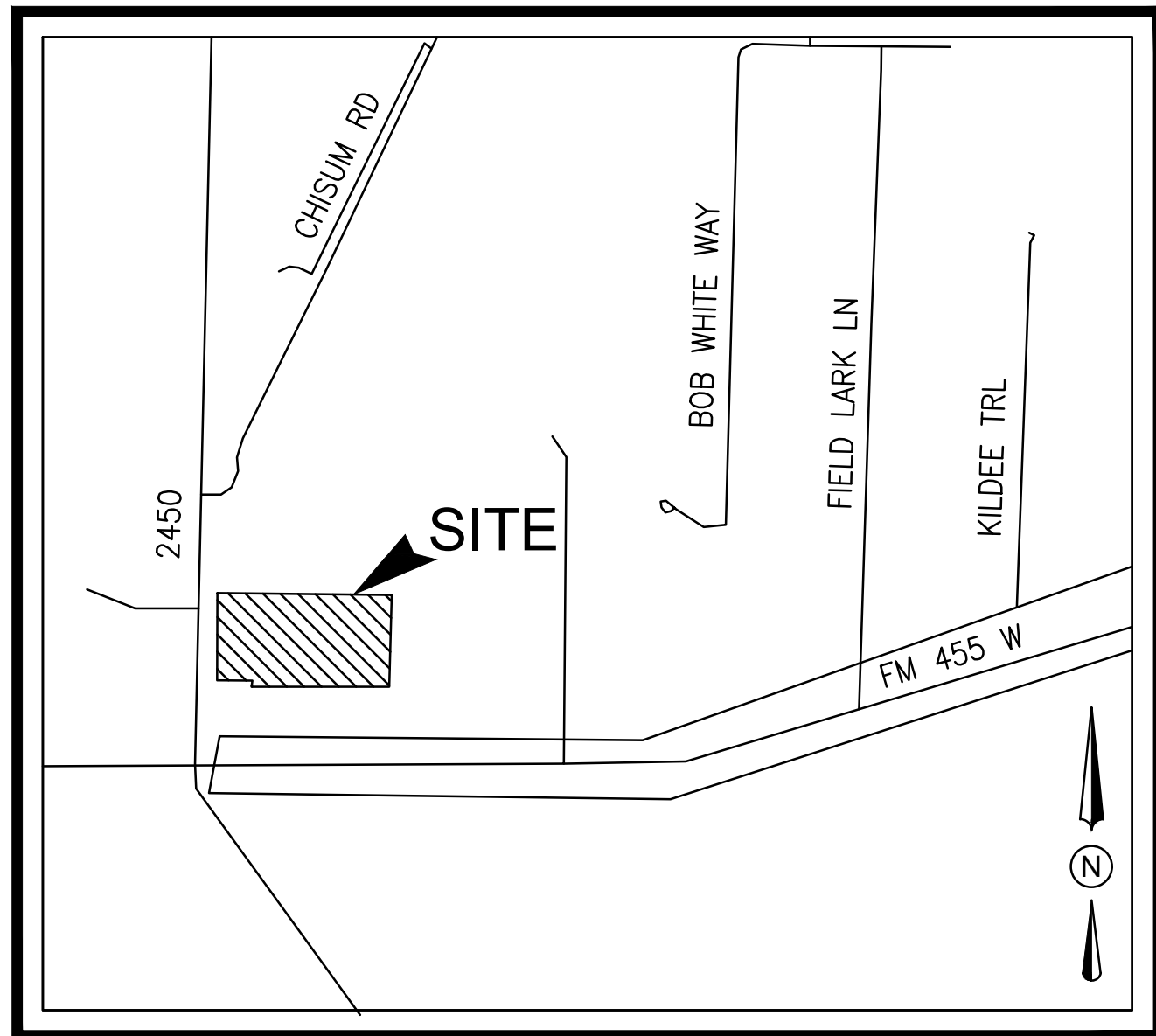
ARCHITECT
FRANZ ARCHITECTS
4055 INTERNATIONAL PLAZA, STE 100
FORT WORTH, TX 76109
AVI KAIKOV
817-632-0079

FLOOD PLAIN NOTE

THIS PROPERTY LIES WITHIN ZONE(S) X (UNSHADED) OF THE FLOOD INSURANCE RATE MAP FOR DENTON COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO.48121C0205G, DATED 2011/04/18, VIA SCALED MAP LOCATION AND GRAPHIC PLOTTING AND/OR THE NATIONAL FLOOD HAZARD LAYER (NFHL) WEB MAP SERVICE (WMS) AT <http://hazards.fema.gov>.

TXDOT GENERAL NOTES

- "ALL CONSTRUCTION WITHIN THE STATE RIGHT OF WAY WILL REQUIRE COMPLIANCE TO TXDOT STANDARD SPECIFICATIONS, STANDARD PLANS, AND TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES"
- BY SEALING AND SIGNING THERE PERMIT PLANS AS A PROFESSIONAL CIVIL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS , I CERTIFY THAT THE PROPOSED DRIVEWAY OR PUBLIC STREET CONNECTIONS TO THE STATE ROADWAY MEETS OR EXCEEDS THE MINIMUM STOPPING SIGHT DISTANCE REQUIRED FOR A DESIGN SPEED OR 55 MILES PER HOUR, BASED ON THE MOST RECENT ON-LINE TXDOT ROADWAY DESIGN MANUAL REQUIREMENT.
- POSTED SPEED LIMIT IS 40 MILES PER HOUR
- "SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014, AND SPECIFICATION ITEMS LISTED AS FOLLOWS SHALL GOVERN ON THIS PROJECT FOR ALL WORK WITHIN THE STATE RIGHT OF WAY"
- TRAFFIC CONTROL MUST BE MAINTAINED THROUGHOUT THE DURATION OF WORK WITHIN TXDOT ROW
- ALL DISTRIBUTED ROW MUST BE RE-VEGETATED WITH SOD AND MAINTAINED UNTIL VEGETATION IS RE-ESTABLISHED.
- ALL LANE ENCLOSURE MUST BE COORDINATED WITH BOTH TXDOT AND MUNICIPALITY INSPECTORS.
- NO CONSTRUCTION SHALL BE PERMITTED WITHIN TEXAS DEPARTMENT OF TRANSPORTATION(TXDOT) RIGHT OF WAY PRIOR TO TXDOT APPROVAL AND ISSUANCE OF PERMIT.
- ANY UTILITY RELOCATION UNDER TXDOT ROW , REQUIRED SEPERATE "UIR" PERMIT.



VICINITY MAP

N.T.S.

SHEET LIST TABLE

C-1.0	COVER SHEET
	SURVEY
C-1.1	GENERAL NOTES
C-2.0	DEMOLITION PLAN
C-3.0	SITE PLAN
C-3.1	SITE DETAILS
C-3.2	DIMENSION CONTROL PLAN
C-4.0	GRADING PLAN
	DRAINAGE AREA MAP(TXDOT AS BUILT)
	24" PIPE CULVERT DATA (TXDOT AS BUILT)
C-5.0	PRE-DRAINAGE PLAN
C-6.0	POST-DRAINAGE PLAN
C-7.0	EROSION CONTROL PLAN
C-7.1	EROSION CONTROL DETAILS
C-8.0	PAVING PLAN
C-8.1	PAVING DETAILS
C-9.0	UTILITY PLAN
C-9.1	UTILITY DETAILS
	TXDOT DETAILS
L.1	LANDSCAPE PLAN
L.2	LANDSCAPE DETAILS
L.3	IRRIGATION PLAN
L.4	IRRIGATION DETAILS

COVER SHEET

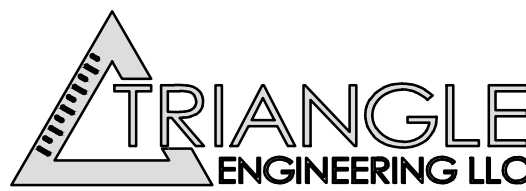
DOLLAR GENERAL

NE QUADRANT OF FM 2450 & CHAPMAN ROAD

CITY OF SANGER ETJ

DENTON COUNTY, TEXAS 76266

JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658



T: 469.331.8566 | F: 469.213.7145 | E: info@triangle-engr.com
W: triangle-engr.com | O: 1784 McDermott Drive, Suite 110, Allen, TX 75013

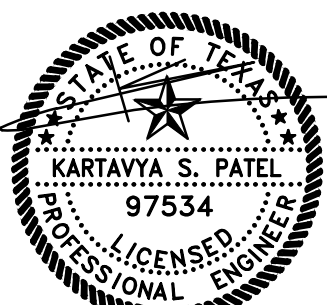
Planning | Civil Engineering | Construction Management

P.E.	DES.	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	AP	06-02-23	SCALE BAR	050-23	C-1.0
TX. P.E. FIRM #11525					



Know what's below.
Call before you dig.

NO.	DATE	DESCRIPTION	BY
1	06-08-23	1st CITY SUBMITTAL	AP
2	06-21-23	REVISED PER CLIENT COMMENT	AP
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Field:AT
Drafter:ML-DFW6203
Revision:
Revision:

TEXAS811 MARKED UTILITY LEGEND

ELECTRIC	⊗
ELECTRIC-GAS-OIL-STEAM	⊗
COMMUNICATION-CATV	⊗
WATER	⊗
SEWER	⊗

NOTE REGARDING UTILITIES:

Utility locations are per observed evidence and sources listed below:
TEXAS811 - ticket number(s) 2351205691.
<https://portal.texas811.org/#/ticket/2351205691>
UTILITY MAPS - Provided by Katy Hall, Customer Service Representative (Katy@bolivarwaterse.com)

SURVEYED DESCRIPTION: Written because the recorded deed did not close by 1.7 feet.

FIELD NOTES to that certain tract situated in the James B. P. January Survey, Abstract No. 658, City of Sanger ETJ, Denton County, Texas, said tract being the same tract described in the deed to B. R. Bentley, and wife Michelle Ann Bentley, recorded in Volume 5177, Page 911, Deed Records, Denton County, Texas (D.R.D.C.T.); the subject tract, surveyed by JPH Land Surveying, Inc., is more particularly described as follows (bearings are based on the Texas Coordinate System of 1983, North Central Zone):

BEGINNING at a 1/2 inch capped rebar stamped "Alliance" found on the monumented east line of FM Highway 2450 (no dedicating document found) at the northwest corner of said Bentley tract;

THENCE with the perimeter and to the corners of the Bentley tract, the following calls:

- SOUTH 89°21'28" EAST, a distance of 298.04 feet to a found 1/2 inch capped rebar stamped "Alliance";
- SOUTH 01°28'01" WEST, a distance of 157.02 feet to a found 1/2 inch capped rebar stamped with an illegible cap, from which a found 5/8 inch capped rebar stamped "Texas Department of Transportation" bears SOUTH 01°28'01" WEST a distance of 36.57 feet;
- NORTH 89°52'22" WEST, a distance of 119.00 feet to a found 1/2 inch capped rebar;
- SOUTH 89°59'25" WEST, a distance of 116.85 feet to a set 1/2 inch capped rebar stamped "JPH Land Surveying";
- NORTH 08°03'59" EAST, a distance of 10.26 feet to a set 1/2 inch capped rebar stamped "JPH Land Surveying";
- NORTH 89°11'20" WEST, a distance of 60.64 feet (deed call 60.00 feet) to a set 1/2 inch capped rebar stamped "JPH Land Surveying", from which a found 5/8 inch capped rebar stamped "Texas Department of Transportation" monumenting the said east line of FM 2450 bears SOUTH 00°24'08" WEST a distance of 69.19 feet;
- NORTH 00°24'08" EAST, a distance of 149.05 feet (deed call 149.95 feet) returning to the **POINT OF BEGINNING** and enclosing 1.064 acres (±46,357 square feet).

UTILITY WARNING

Regarding Table A items 11(a) & 11(b), unless otherwise stated, the client or client's representative did not provide JPH with plans and/or reports, and JPH did not coordinate a private utility locate request. If these Table A items are listed in the certification, the client, being aware of the factors listed above, has agreed for these Table A item(s) to be addressed from a combination of online GIS maps, markings from locate request(s) to municipalities and 811 and observed evidence of utilities. The client is aware locate requests to 811 and the like, may be ignored or result in an incomplete response, in which case utilities may not have been marked, or not completely marked, at the time the fieldwork was performed. Therefore, utilities may exist which are not shown on this survey. Lacking excavation and/or a private utility locate request, the exact location of underground features cannot be accurately, completely, and reliably depicted.

FLOOD ZONE CLASSIFICATION

This property lies within ZONE(S) X (UNSHADED) of the Flood Insurance Rate Map for Denton County, Texas and Incorporated Areas, map no. 48121C0205G, dated 2011/04/18, via scaled map location and graphic plotting and/or the National Flood Hazard Layer (NFHL) Web Map Service (WMS) at <http://hazards.fema.gov>.

MONUMENTS / DATUMS / BEARING BASIS

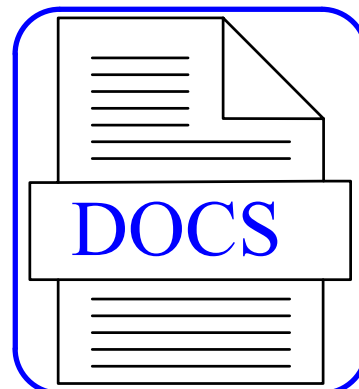
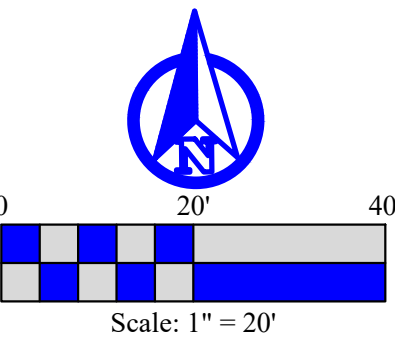
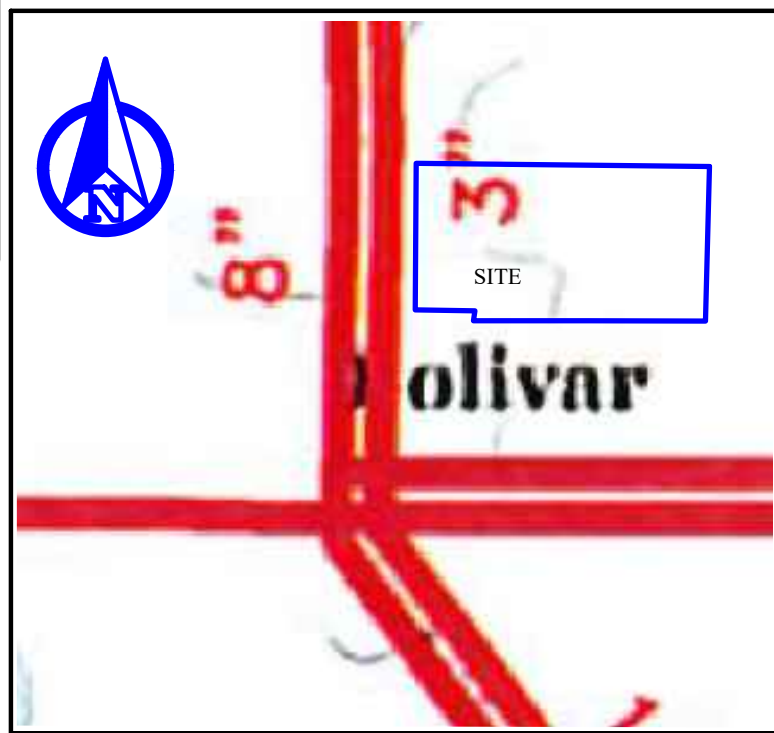
Monuments are found if not marked MNS or CRS.
CRS ⊗ 1/2" rebar stamped "JPH Land Surveying" set
MNS ⊗ Mag nail & washer stamped "JPH Land Surveying" set
TBM ⊕ Site benchmark (see vicinity map for general location)
"4" ⊕ "4" cut in concrete
○ Vertex or common point (not a monument)
Coordinate values, if shown, are U.S. Syft/TxCS, 83, NCZ Elevations, if shown, are NAVD'88 (Geoid 18)
Bearings are based on the TxCS, 83, NCZ
Distances & areas shown are represented in surface values
TYPE I ⊗ TxDOT Right of Way tapered concrete monument.
TYPE II ⊗ TxDOT Right of Way bronze cap in concrete.
TYPE III ⊗ TxDOT Right of Way aluminum cap.

LEGEND OF ABBREVIATIONS

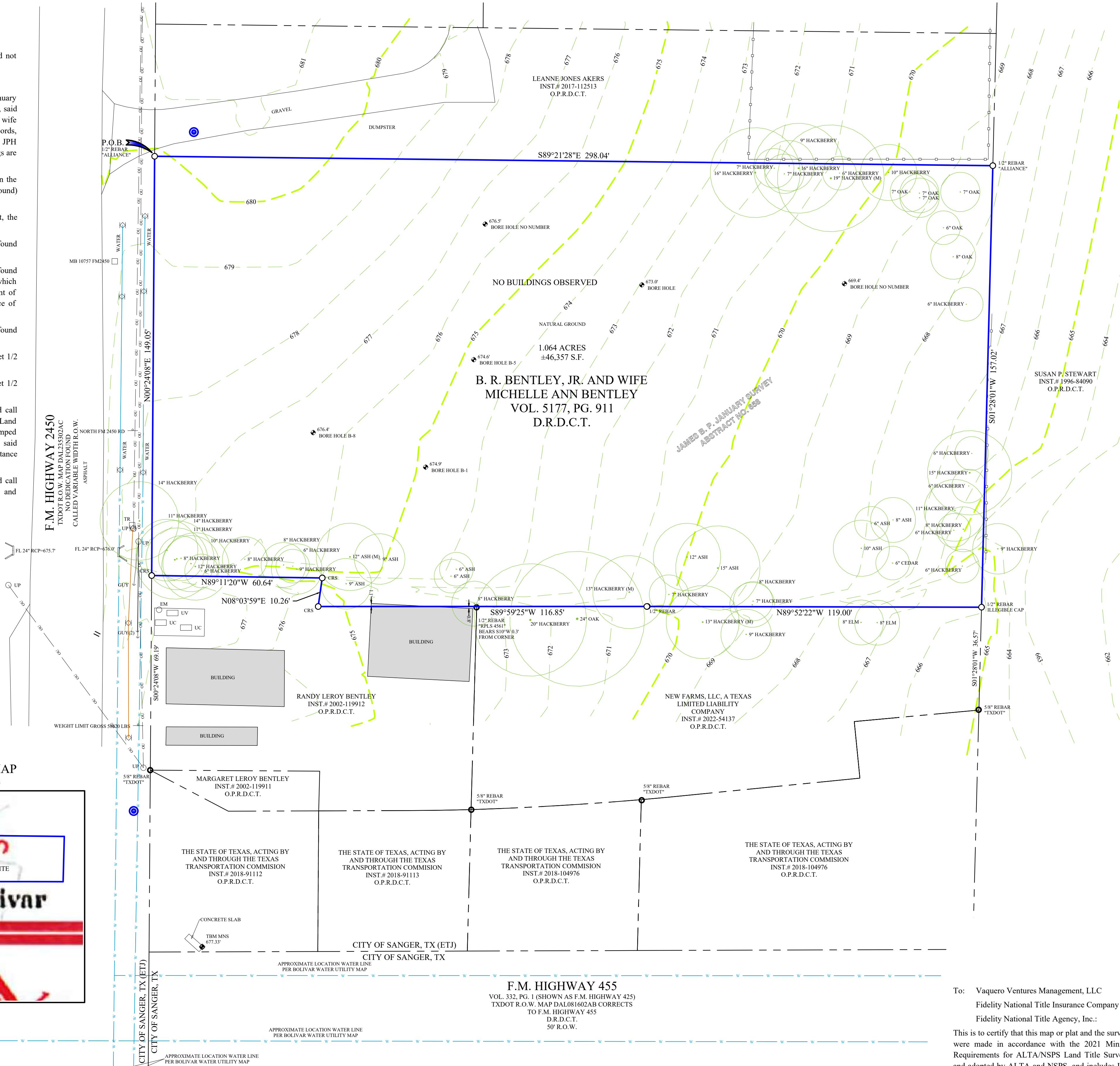
US Syft. United States Survey Feet
TxCS, 83, NCZ Texas Coordinate System of 1983, North Central Zone
NAVD'88 North American Vertical Datum of 1988
P.R.D.C.T. Plat Records of Denton County, Texas
O.P.R.D.C.T. Official Public Records of Denton County, Texas
D.R.D.C.T. Deed Records of Denton County, Texas
VOL/Pg/INST# Volume/Page/Instrument Number
POB/POC Point of Beginning/Point of Commencing
ESMT/BL Easement/Building Line
PVC/RCP Polyvinyl Chloride Pipe/Reinforced Concrete Pipe

UTILITY MAP

NOT TO SCALE



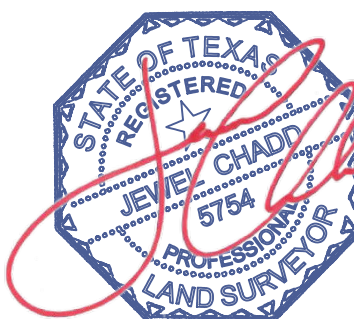
JPH Job/Drawing No. (see below)
2023.022.001 FM 2450 Sanger, Denton Co., Tx - ALTA.dwg
© 2023 JPH Land Surveying, Inc. - All Rights Reserved
785 Lonesome Dove Trail, Hurst, Texas 76054
Telephone (817) 431-4971 www.jphlandsurveying.com
TBPELS Firm #10019500
DFW | Central Texas | West Texas | Houston



To: Vaquero Ventures Management, LLC
Fidelity National Title Insurance Company
Fidelity National Title Agency, Inc.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6(a), 7(a,b), 8, 9, 11(a,b), 13, 14, 16 & 17 of Table A thereof. The fieldwork was completed on February 10, 2023.

Jewel Chadd
Registered Professional
Land Surveyor No. 5754
jewel@jphls.com
February 20, 2023



TITLE COMMITMENT NOTES:

This survey was performed with the benefit of a title commitment provided by Fidelity National Title Insurance Company, GF# FT-44122-9001222202680-TW, Commitment # 9001222202680, effective August 29, 2022, and issued September 8, 2022. Complete copies of the record description of the property, any record easements benefiting the property, the record easements or servitudes and covenants affecting the property ("Record Documents"), documents of record referred to in the Record Documents, and any other documents containing desired appropriate information affecting the property being surveyed and to which the survey shall make reference were not provided to this surveyor for notation on the survey **except for those items listed within Schedule B of said commitment**. Therefore, easements, agreements, or other documents, either recorded, or unrecorded may exist that affect the subject property that are not shown on this survey.

The following Schedule B items were addressed according to the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Section 6(c)(ii) and identified by the tract designator listed in the title commitment.

If more than one tract is being addressed, the chart below will use the tract designators used in the title commitment.									
Schedule B Exception #	Recording Information (may include grantee and exception type)	Is the title shown in the title commitment (see edge of sheet for grid values)	Is the title shown in the title commitment (see edge of sheet for grid values)	Is the title shown in the title commitment (see edge of sheet for grid values)	Is the title shown in the title commitment (see edge of sheet for grid values)	Is the title shown in the title commitment (see edge of sheet for grid values)	Is the title shown in the title commitment (see edge of sheet for grid values)	Is the title shown in the title commitment (see edge of sheet for grid values)	Is the title shown in the title commitment (see edge of sheet for grid values)
10.f	Oil, Gas and Mineral Lease Vol. 355, Pg. 201, D.R.D.C.T.								
10.g*	Right-of-way Easement for Oil & Gas Transmission Vol. 386, Pg. 339, D.R.D.C.T.								
10.h	Oil, Gas and Mineral Lease Vol. 595, Pg. 484, D.R.D.C.T.								
10.i*	Right-of-way Easement for a Water Line Vol. 639, Pg. 558, D.R.D.C.T.								

10.g*: Document does not describe a specific location of oil/gas pipeline. Texas Railroad Commission GIS (<https://gis.rtc.texas.gov/GISviewer/>) does not show a pipeline near subject property.

10.i*: Document does not describe a specific location of water line. Boliva Water utility map and water lines marked per Texas 811 ticket indicate 2 lines within the right-of-way of F. M. Highway 2450.

SURVEYOR'S NOTES:

- Parent tract's record description's error of closure, 1.68'.
- Zoning District: No Zoning according to the Property Requirements Report provided by Zoning-Info, Inc., Zoning-info.com (817) 886-85964. Dated: February 8, 2023.
- Site benchmark is a mag nail with a washer stamped "JPH BENCHMARK" set in a concrete slab in the northeast corner of the intersection of F. M. Highway 455 and F. M. Highway 2450. Benchmark Elevation = 677.33'. See vicinity map for general location.
- No evidence of ongoing earth moving work, building construction, or building addition on site were observed in the process of conducting the fieldwork.
- There are no visible marked parking spaces or fire lane striping within the limits of the surveyed property.
- There are no visible evidence of physical access (e.g. curb cuts, driveways) to any abutting streets, highways, or other public or private ways.
- The site lies on the east side of F. M. Highway 2450, approximately 200' north of the intersection of F. M. Highway 2450 and F. M. Highway 455.
- No evidence of existing building(s) were observed in the process of conducting the fieldwork.
- Texas Department of Transportation's Project Tracker lists F. M. Highway 2450 as "Construction begins within 4 years". Project id 235302026, with a description of Reconstruct Existing Roadway. No evidence of ongoing street or sidewalk construction or repairs were observed in the process of conducting the fieldwork.

ZONING REQUIREMENTS

NO ZONING

Zoning

Denton - Texas

NZR

Denton County only has zoning restrictions in place in the land areas immediately surrounding Lake Ray Roberts. All other areas of the ETJ are considered "No Zoning" and follow any local HOA bylaws and/or deed restrictions.

Allowed Uses/Parking

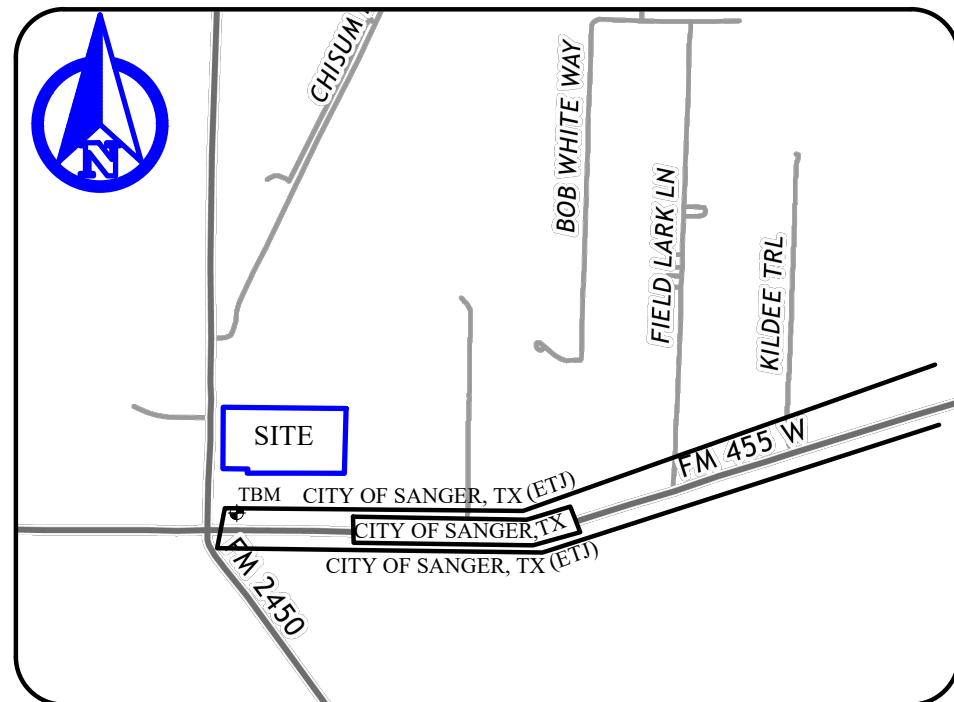
Bulk Requirements

Table 1: NZR Bulk Requirements Table

Requirement	Minimum	Maximum
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VICINITY MAP

NOT TO SCALE



ALTA / NSPS LAND TITLE SURVEY
1.064 ACRES

SITUATED IN THE
JAMES B. P. JANUARY SURVEY
ABSTRACT NO. 658

CITY OF SANGER ETJ, TEXAS
DENTON COUNTY, TEXAS

ADDRESS: NO ADDRESS ASSIGNED (CENTRAL APPRAISAL DISTRICT)

DEMOLITION GENERAL NOTES

1. ANY DEMOLITION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE CITY, COUNTY AND STATE, AND/OR GOVERNING BODY'S STANDARDS.
2. EROSION AND SEDIMENT CONTROL MEASUREMENTS SHALL BE MAINTAINED AT ALL TIMES DURING DEMOLITION.
3. THE PURPOSE OF THIS DRAWING IS TO CONVEY THE OVERALL SCOPE OF WORK AND IT IS NOT INTENDED TO COVER ALL DETAILS OR SPECIFICATIONS REQUIRED TO COMPLY WITH GENERALLY ACCEPTED DEMOLITION PRACTICES. CONTRACTOR SHALL THOROUGHLY GET FAMILIARIZED WITH THE SITE, SCOPE OF WORK, AND ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO BIDDING AND COMMENCING THE WORK. THE DEMOLITION CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, OR PROCEDURES USED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND IS LIABLE FOR THE SAFETY OF THE PUBLIC OR CONTRACTOR'S EMPLOYEES DURING THE COURSE OF THE PROJECT.
4. THE DEMOLITION PLAN IS INTENDED TO SHOW REMOVAL OF KNOWN SITE FEATURES AND UTILITIES AS SHOWN ON THE SURVEY. THERE MAY BE OTHER SITE FEATURES, UTILITIES, STRUCTURES, AND MISCELLANEOUS ITEMS BOTH BURIED AND ABOVE GROUND THAT ARE WITHIN THE LIMITS OF WORK THAT MAY NEED TO BE REMOVED FOR THE PROPOSED PROJECT THAT ARE NOT SHOWN HEREON. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY, ENGINEER AND/OR OWNER PRIOR TO REMOVING ITEMS NOT SHOWN ON THE PLANS.
5. THE CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY COMPANIES PRIOR TO DEMOLITION TO COORDINATE DISCONNECTION AND REMOVAL OF EXISTING UTILITIES WITHIN THE AREA OF WORK.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES THAT ARE INTENDED TO CONTINUE TO PROVIDE SERVICE WHETHER THESE UTILITIES ARE SHOWN ON THE PLAN OR NOT.
7. UPON DISCOVERY OF ANY UNDERGROUND TANKS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE. NO REMOVAL OF TANKS SHALL OCCUR UNTIL AUTHORIZED BY OWNER.
8. BUILDING AND APPURTENANCES DESIGNATED FOR DEMOLITION SHALL NOT BE DISTURBED BY THE CONTRACTOR UNTIL HE HAS BEEN FURNISHED WITH NOTICE TO PROCEED BY THE OWNER. AS SOON AS SUCH NOTICE HAS BEEN GIVEN, THE CONTRACTOR SHALL PERFORM THE DEMOLITION, UNDER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
9. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL LAWS AND ORDINANCES.
10. AS SOON AS DEMOLITION WORK HAS BEEN COMPLETED, THE FINAL GRADE OF BACKFILL IN DEMOLITION AREAS SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT. CONTRACTOR TO PREVENT WATER FROM DRAINING ONTO ADJACENT PROPERTIES.
11. EXISTING TREES TO REMAIN SHOULD BE PROTECTED FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.

EROSION CONTROL GENERAL NOTES

1. EVERY SOIL DISTURBING ACTIVITY SHALL HAVE AN ACCOMPANYING EROSION CONTROL PLAN .
2. THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) SHALL BE READILY AVAILABLE FOR REVIEW BY FEDERAL, STATE, OR LOCAL OFFICIALS.
3. NO SOIL DISTURBING ACTIVITIES WILL OCCUR PRIOR TO THE SWP3 AND ASSOCIATED BEST MANAGEMENT PRACTICES (BMP) BEING FULLY IMPLEMENTED AND THEN INSPECTED.
4. THE CONTRACTOR SHALL COMPLY WITH THE CITY'S STORM WATER ORDINANCE, THE TPDES GENERAL CONSTRUCTION PERMIT TXR150000 AND ANY OTHER STATE AND/OR LOCAL REGULATIONS.
5. THE SITE SHALL BE INSPECTED BY THE CONTRACTOR OR HIS REPRESENTATIVE WEEKLY, AND AFTER ANY MAJOR STORM. ADJUSTMENTS/REPAIRS TO THE EROSION CONTROL MEASURES SHOULD BE MADE AS NEEDED.
6. CONTRACTOR SHALL VEGETATE ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF GRADING ACTIVITIES. FINAL ACCEPTANCE OF A SITE SHALL BE CONTINGENT UPON VEGETATION BEING ESTABLISHED IN ALL DISTURBED AREAS.
7. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE ERODED AREA TO ORIGINAL CONDITION OR BETTER.
8. TEMPORARY STONE STABILIZED CONSTRUCTION ENTRANCE SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 24' WIDE X 50' LONG X 6" DEEP. (3'-5" COARSE AGGREGATE). PLACE FILTER FABRIC UNDER STONE .
9. THE CONCRETE WASHOUT AREA IS TO BE USED AS A VEHICLE WASH DOWN AREA FOR DEBRIS AND SOIL REMOVAL PRIOR TO EXITING THE SITE.

ADA GENERAL NOTES

1. MAXIMUM SLOPE OF CURB RAMP SHALL BE 1:12 (8.33%). 5% RECOMMENDED.
2. MAXIMUM SLOPE OF CURB RAMP "FLARED SIDES" SHALL BE (8.33%) MAX.
3. SLOPE AND CROSS SLOPE OF A SIDEWALK LEADING INTO A CURB RAMP'S SYSTEM SHALL BE A MAXIMUM OF 1:20 (5%) AND 1:50 (2%) CROSS SLOPE.
4. MAXIMUM SLOPE OF A HANDICAPPED ACCESSIBLE ROUTE ALONG A SIDEWALK LEADING INTO A CURB RAMP, BEFORE IT MUST BE CONSIDERED A RAMP IS 1:20 (5%) AND 1:50 (2%) CROSS SLOPE.
5. ALL SLOPED SURFACES AT CURB RAMP SYSTEMS MUST HAVE A "SIGNIFICANT COLOR CONTRAST" FOR THE SEEING IMPAIRED. THEREFORE ALL SUCH SLOPES MUST HAVE "INTEGRAL COLOR IN CONCRETE" OR "STAINED" (SCOFFIELD), COMPARED TO THE ADJACENT "FLAT" SIDEWALK/PAVING SURFACE.
6. SLOPED CURB-RAMP SURFACE TO HAVE TEXTURE (IE. FORMED/SAWCUT GROVES 3/4" WIDE X 1/4" DEEP @ 2" ON-CENTER). FORMED PERPENDICULAR TO PATH OF TRAVEL FOR THE BLIND TO FEEL TEXTURE BENEATH THEIR FEET & FOR WHEELCHAIR TRACTION. ARRANGED SO WATER WILL NOT ACCUMULATE.
7. MAXIMUM SLOPE AND CROSS SLOPE OF HANDICAPPED ACCESSIBLE PARKING SPACE & ADJACENT ACCESS AISLE IS 1:50 (2%) IN ANY DIRECTION.

SITE GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CITY OR LOCAL JURISDICTION STANDARDS.
2. THE LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS IS TAKEN FROM AS-BUILTS, UTILITY PLANS OR SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND UTILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND UTILITIES. IF EXISTING UNDERGROUND UTILITIES ARE DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRING THE UTILITY.
3. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES OR SERVICE LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS WITH UTILITIES.
4. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U. S. DEPARTMENT OF LABOR, OSHA, CONSTRUCTION SAFETY AND HEALTH REGULATIONS AND ANY AMENDMENTS THERETO.
5. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO TRENCH BACKFILL, SIDE SLOPES, FENCES, DRAINAGE DITCHES, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS.
6. ANY CHANGES NEEDED AFTER CONSTRUCTION PLANS HAVE BEEN RELEASED, SHALL BE APPROVED BY THE CITY ENGINEER. THESE CHANGES MUST BE RECEIVED IN WRITING.
7. THE CONTRACTOR SHALL PROVIDE "RED LINED" MARKED PRINTS TO THE ENGINEER PRIOR TO FINAL INSPECTION INDICATING ALL CONSTRUCTION WHICH DEVIATED FROM THE PLANS OR WAS CONSTRUCTED IN ADDITION TO THAT INDICATED ON THE PLANS.
8. ALL CURB RADIUS TO BE 10' OR 2' UNLESS OTHERWISE NOTED ON THE SITE PLAN.

PAVING GENERAL NOTES

1. STRIP & REMOVE FROM THE CONSTRUCTION AREA ALL TOPSOIL, ORGANICS & VEGETATION TO A MINIMUM DEPTH OF 6 INCHES.
2. CONTROL JOINTS FORMED BY SAWING ARE RECOMMENDED BOTH LONGITUDINAL AND TRANSVERSE DIRECTIONS. CONTROL JOINT SHALL BE SAWED WITHIN 3 HOURS AFTER PLACING CONCRETE. JOINTS SHALL BE PROPERLY CLEANED AND SEALED AS SOON AS POSSIBLE AFTER JOINTS ARE CUT.
3. DRAINAGE SHOULD BE MAINTAINED AWAY FROM THE FOUNDATION, BOTH DURING AND AFTER CONSTRUCTION. WATER SHOULD NOT BE ALLOWED TO POND NEAR THE FOUNDATION. THE FOLLOWING ITEMS SHOULD PROVIDE FOR POSITIVE DRAINAGE OF WATER AWAY FROM THE FOUNDATION: SIDEWALKS AND OTHER CONCRETE FLAT WORK, PARKING AREAS, DRIVEWAYS AND OTHER SURFACE DRAINAGE FEATURES, AND LANDSCAPING.
4. FRENCH DRAINS ARE RECOMMENDED AROUND ANY SLABS WHERE SEEPING GROUND WATER IS ENCOUNTERED DURING CONSTRUCTION.
5. SIDEWALK AROUND THE BUILDING SHALL NOT BE STRUCTURALLY CONNECTED TO THE BUILDING FOUNDATION UNLESS IT'S NOTED ON THE STRUCTURAL PLANS.
6. ALL EXPANSION JOINTS AND CRACK CONTROL JOINTS SHOULD BE SEALED TO PREVENT THE INFILTRATION OF WATER INTO THE SUBSURFACE. THIS IS PARTICULARLY IMPORTANT AROUND IRRIGATED LANDSCAPING AND ALONG THE DRAINAGE PATH OF ROOF DOWNSPOUTS.
7. LANDSCAPE ISLANDS SHOULD BE BACKFILLED WITH LOW PLASTICITY CLAYS TO REDUCE WATER INTRUSION INTO THE SUBSURFACE PAVEMENT STRUCTURES. CURBS SHOULD BE PROVIDED WITH WEEP HOLES IN LANDSCAPE AREAS TO REDUCE THE BUILD UP OF HYDROSTATIC PRESSURE AND TO REDUCE THE INTRUSION OF WATER INTO THE SUBSURFACE MATERIAL.
8. CURB AND GUTTER SHALL CONSIST OF STEEL REINFORCED CONCRETE AND SHALL BE SIX (6") INCHES HIGH, UNLESS OTHERWISE NOTED ON THE SITE/GRADING PLANS.
9. THE CONTRACTOR SHALL PROCEED WITH PAVING NO MORE THAN SEVENTY-TWO (72) HOURS AFTER DENSITY/MOISTURE TESTS HAVE BEEN TAKEN AND PASSED BY A REGULAR TESTING FIRM.
10. MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, ETC. SHALL BE ADJUSTED TO FINISHED GRADE BY THE PAVING CONTRACTOR AT THE TIME OF PAVING.
11. SEE IRRIGATION PLAN FOR IRRIGATION SLEEVE PLACEMENT PRIOR TO PAVING CONSTRUCTION.

DIMENSION CONTROL GENERAL NOTES

1. ALL DIMENSIONS ARE MEASURED TO FACE OF CURB AS SHOWN. CONTACT ENGINEER/ARCHITECT IF THERE IS ANY DISCREPANCIES IN THE DIMENSIONS.
2. REFER TO ARCHITECTURAL FLOOR PLAN FOR EXACT BUILDING DIMENSIONS.
3. LIGHTED MONUMENT SIGN SHALL BE BY SEPARATE PERMIT.
4. BARRIER-FREE RAMPS ARE REQUIRED ON ALL STREET FRONTAGES. RAMPS WITH DETECTABLE WARNING SURFACES ARE REQUIRED AT ALL INTERSECTIONS.

GRADING GENERAL NOTES

1. ALL SURPLUS EXCAVATION AND WASTE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND IT SHALL BE HIS SOLE RESPONSIBILITY TO REMOVE SUCH SURPLUS EXCAVATION AND WASTE MATERIAL FROM THE SITE TO A PUBLIC DUMP SITE APPROVED FOR THE DISPOSAL OF SUCH MATERIALS. IF SURPLUS EXCAVATION IS REMOVED FROM THIS SITE TO ANOTHER PROPERTY, IT SHALL BE PLACED ON SUCH PROPERTY WITH THE WRITTEN CONSENT OF THE OWNER(S) OF SUCH PROPERTY. A COPY OF SUCH WRITTEN CONSENT SHALL BE PROVIDED TO THE OWNER. IF THE CONTRACTOR WISHES TO DISPOSE OF SURPLUS EXCAVATION ON-SITE, IT SHALL BE ONLY WITH THE PRIOR APPROVAL OF THE OWNERS PROJECT REPRESENTATIVE AND CARE SHOULD BE TAKEN TO AVOID BLOCKING NATURAL DRAINAGE AND INCREASING STEEP SLOPES. IF ANY OF THE HAULED EXCAVATION MATERIAL IS TAKEN TO ANOTHER LOCATION WITHIN THE CITY LIMITS, THE OWNER OF THE PROPERTY IS REQUIRED TO OBTAIN A LOT GRADING PERMIT BEFORE MATERIAL IS DELIVERED.
2. THE CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN STAKING AND TO VERIFY PROJECT ELEVATIONS. "MATCH EXISTING" SHALL BE UNDERSTOOD TO APPLY TO BOTH VERTICAL ELEVATION AND HORIZONTAL ALIGNMENT.
3. THE CONTRACTOR SHALL PREPARE ALL LANDSCAPE AREAS INCLUDING STREET RIGHT-OF-WAY AREAS TO AN ACCEPTABLE SUBGRADE CONDITION IN ACCORDANCE WITH THE LANDSCAPE PLANS. IF THE CONTRACTOR IS NOT EMPLOYED TO PROVIDE AND INSTALL LANDSCAPING, HE SHALL PREPARE A FINISHED AND COMPACTED SUB-GRADE IN THE LANDSCAPING AREAS.
4. NO SLOPES TO EXCEED 3H:1V WITHOUT SLOPE STABILIZATION.

UTILITY GENERAL NOTES

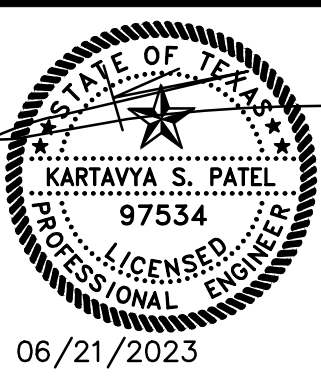
1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CITY/UTILITY COMPANY STANDARDS.
2. FIELD VERIFY LOCATION OF EXISTING WATER MAIN , SEWER MAIN, GAS, TELEPHONE AND ELECTRICAL LINE. POT HOLE RECOMMENDED PRIOR TO CONSTRUCTION BEGIN. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH UTILITY SERVICE PROVIDERS.
3. THE LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS IS TAKEN FROM AS-BUILTS, UTILITY PLANS OR SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND UTILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND UTILITIES. IF EXISTING UNDERGROUND UTILITIES ARE DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRING THE UTILITY.
4. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES OR SERVICE LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS WITH UTILITIES.
5. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U. S. DEPARTMENT OF LABOR, OSHA, CONSTRUCTION SAFETY AND HEALTH REGULATIONS AND ANY AMENDMENTS THERETO.
6. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE ERODED AREA TO ORIGINAL CONDITION OR BETTER.
7. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE DITCHES, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS.
8. ANY CHANGES NEEDED AFTER CONSTRUCTION PLANS HAVE BEEN RELEASED, SHALL BE APPROVED BY THE CITY ENGINEER. THESE CHANGES MUST BE RECEIVED IN WRITING.
9. THE CONTRACTOR SHALL PROVIDE "RED LINED" MARKED PRINTS TO THE ENGINEER PRIOR TO FINAL INSPECTION INDICATING ALL CONSTRUCTION WHICH DEVIATED FROM THE PLANS OR WAS CONSTRUCTED IN ADDITION TO THAT INDICATED ON THE PLANS.

STORM SEWER GENERAL NOTES

1. ALL STORM DRAIN CONSTRUCTION, TESTING, AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY'S CURRENT STANDARDS, DETAILS, AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL VERIFY EXISTING LOCATIONS, SIZES AND FLOW LINES FOR ALL STORM SEWER SYSTEMS AND DRAINAGE STRUCTURES SHOWN ON THE PLANS PRIOR TO CONNECTING PROPOSED STORM SEWER PIPES.
3. TWO WEEKS PRIOR TO CONNECTING TO EXISTING STORM DRAIN LINES, THE CONTRACTOR SHOULD INSPECT THE EXISTING LINE AND CONTACT THE STORM WATER INSPECTOR SHOULD THE LINE NEED TO BE CLEANED.
4. CONTRACTOR SHOULD INSPECT ALL STORM DRAIN OUTFALLS NO EARLIER THAN TWO WEEKS PRIOR TO FINAL INSPECTION AND REMOVE ALL SILT AND DEBRIS.



NO.	DATE	DESCRIPTION	BY
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GENERAL NOTES

DOLLAR GENERAL

NE QUADRANT OF FM 2450 & CHAPMAN ROAD

CITY OF SANGER ETJ

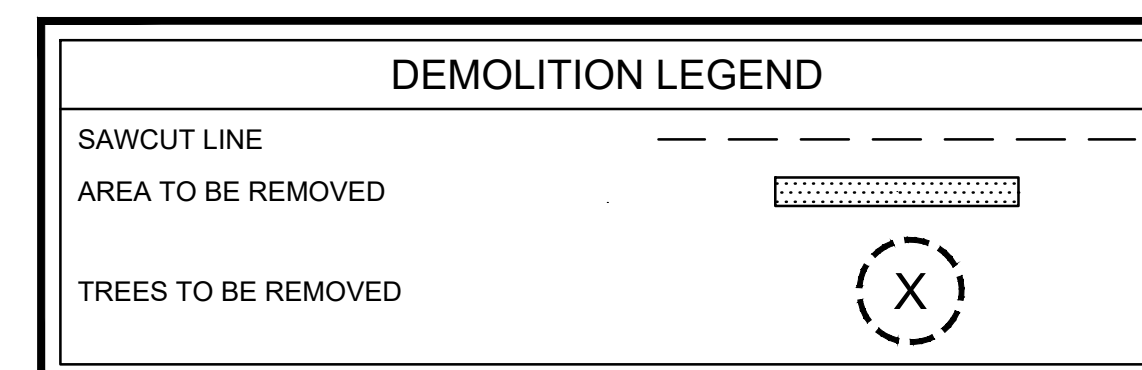
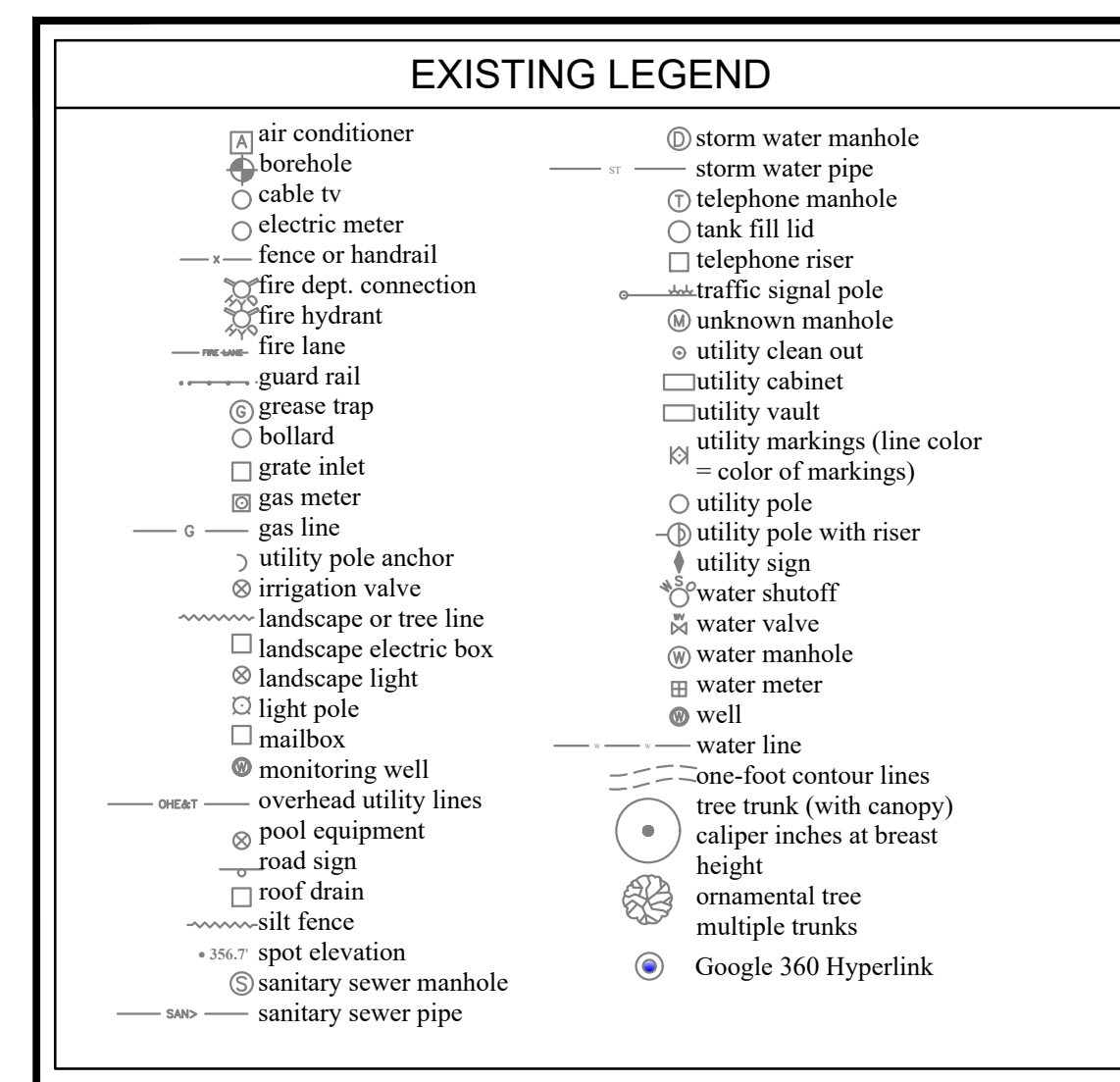
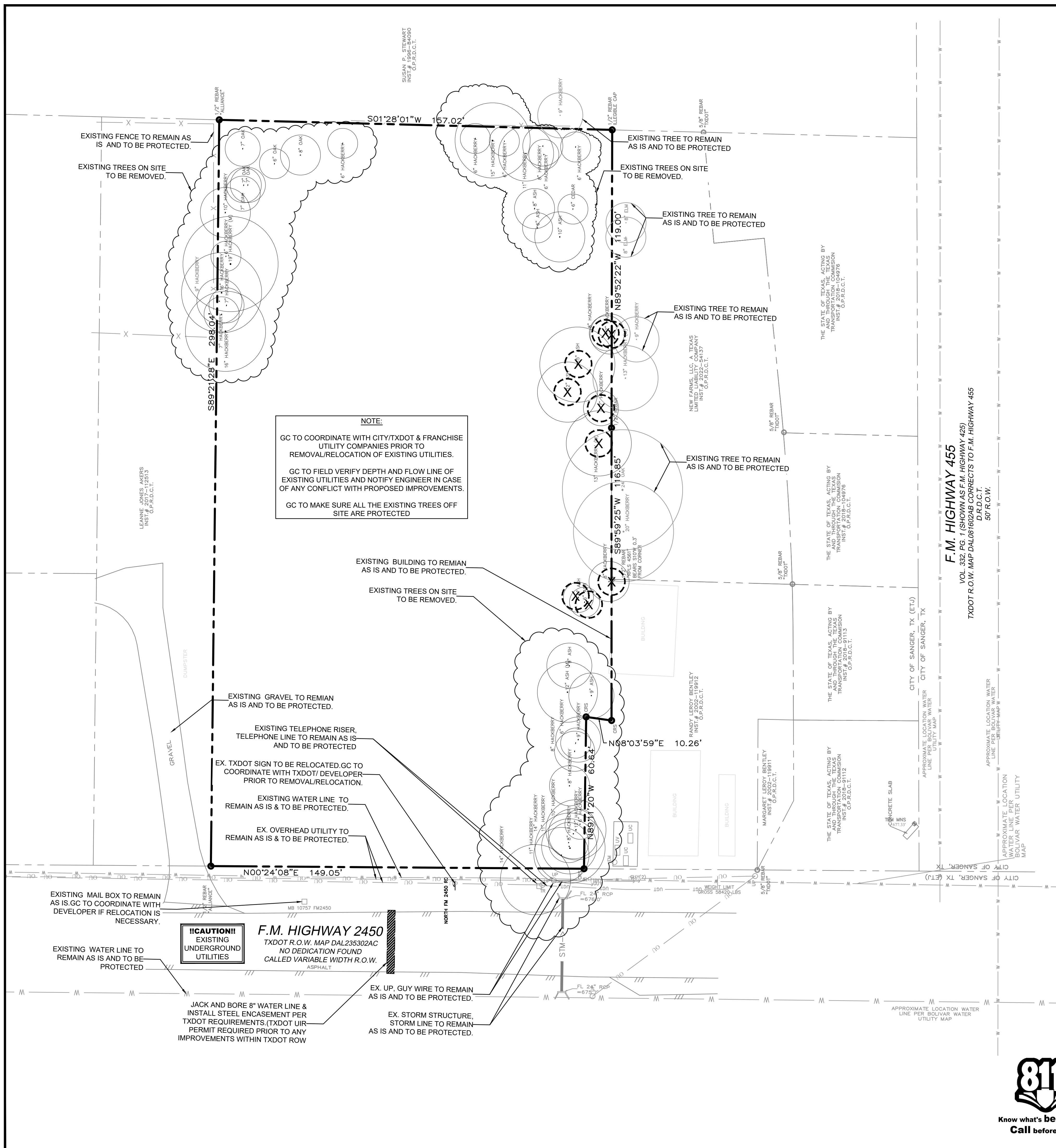
DENTON COUNTY, TEXAS 76266

JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658

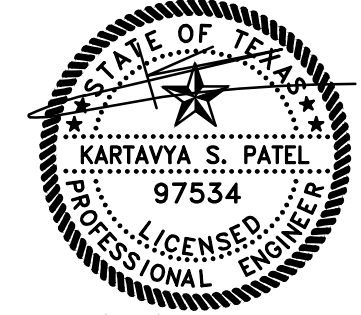
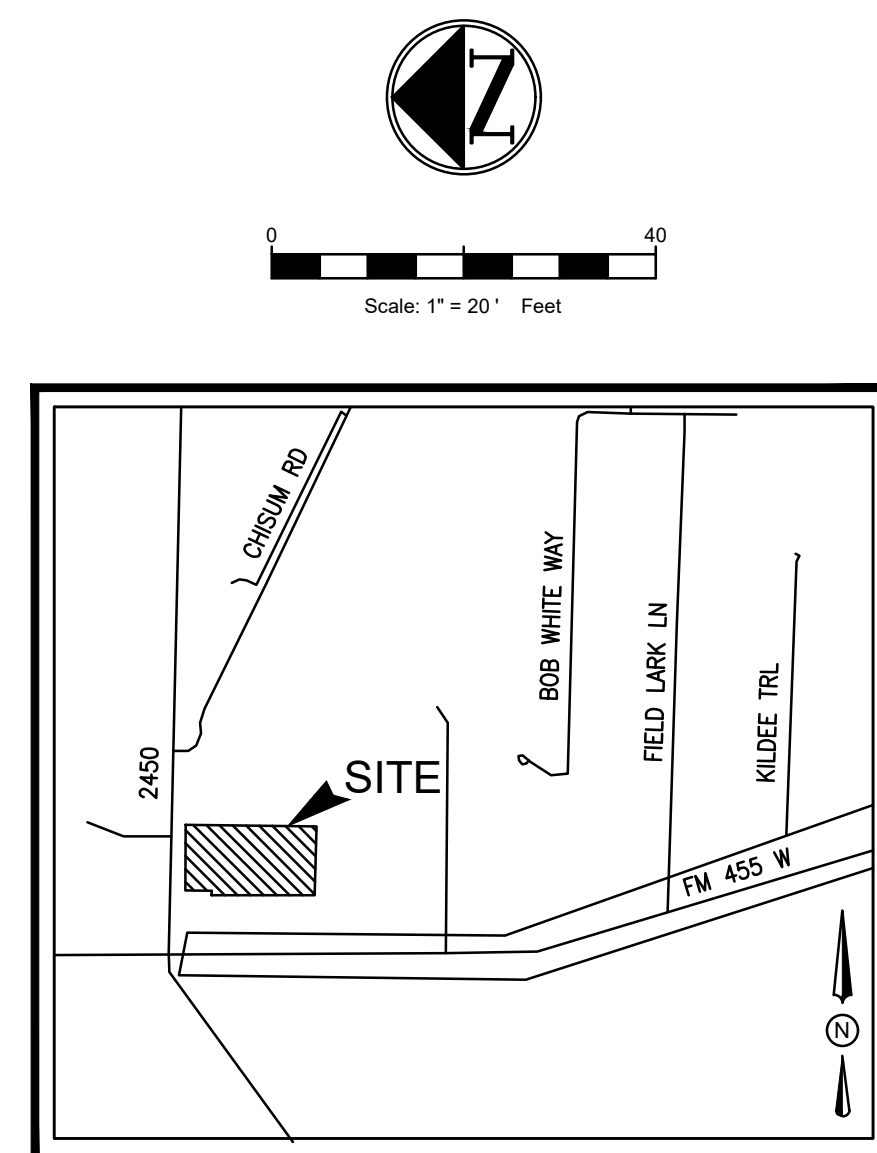
T: 469.331.8566 | F: 469.213.7145 | E: info@triangle-engr.com
W: triangle-engr.com | O: 1784 McDermott Drive, Suite 110, Allen, TX 75013

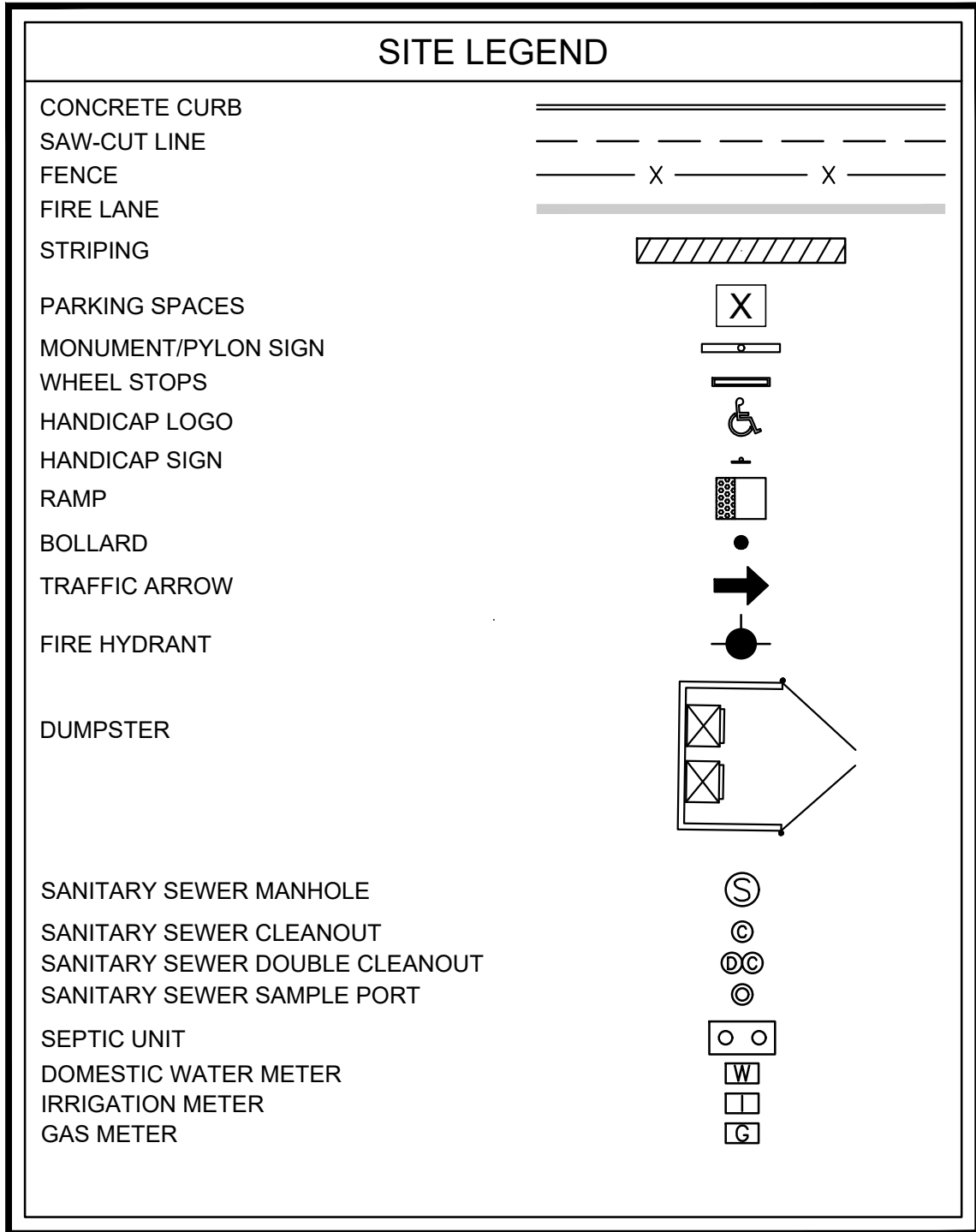
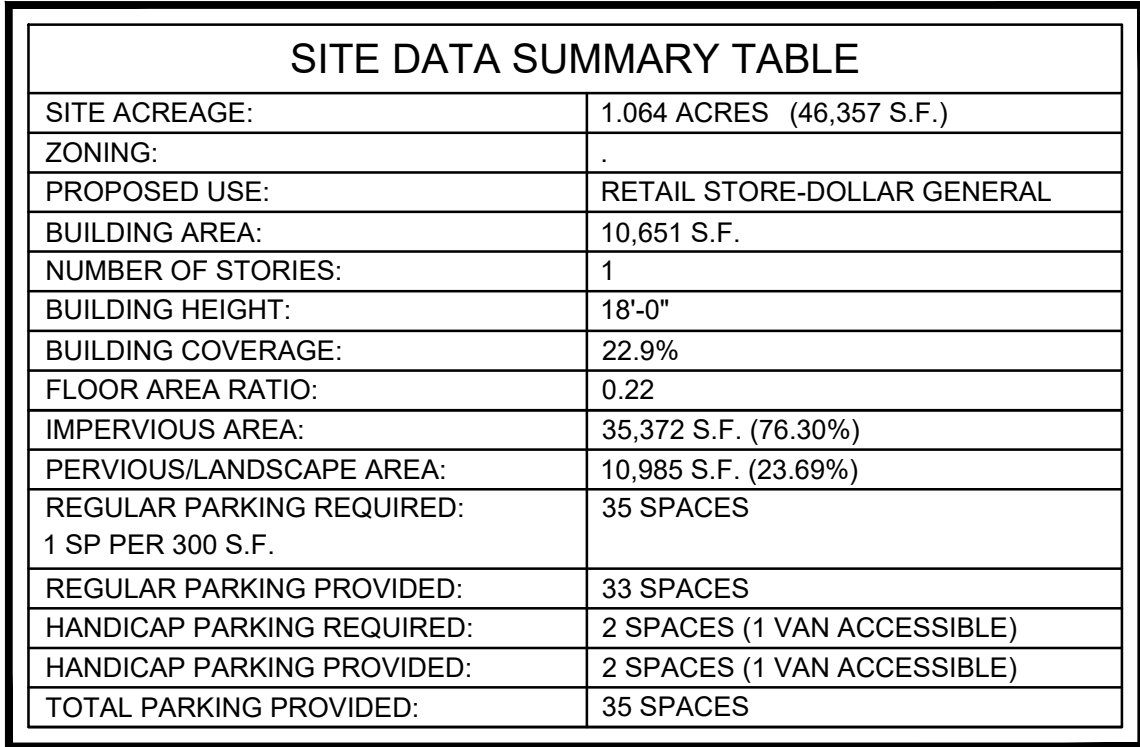
Planning | Civil Engineering | Construction Management

P.E.	DES.	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	AP	06-02-23	SCALE BAR	050-23	C-1.1
TX. P.E. FIRM #11525					



- ### DEMOLITION GENERAL NOTES
- ANY DEMOLITION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE CITY, COUNTY AND STATE, AND/OR GOVERNING BODY'S STANDARDS.
 - EROSION AND SEDIMENT CONTROL MEASUREMENTS SHALL BE MAINTAINED AT ALL TIMES DURING DEMOLITION.
 - THE PURPOSE OF THIS DRAWING IS TO CONVEY THE OVERALL SCOPE OF WORK AND IT IS NOT INTENDED TO COVER ALL DETAILS OR SPECIFICATIONS REQUIRED TO COMPLY WITH GENERALLY ACCEPTED DEMOLITION PRACTICES. CONTRACTOR SHALL THOROUGHLY GET FAMILIARIZED WITH THE SITE, SCOPE OF WORK, AND ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO BIDDING AND COMMENCING THE WORK. THE DEMOLITION CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, OR PROCEDURES USED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND IS LIABLE FOR THE SAFETY OF THE PUBLIC OR CONTRACTOR'S EMPLOYEES DURING THE COURSE OF THE PROJECT.
 - THE DEMOLITION PLAN IS INTENDED TO SHOW REMOVAL OF KNOWN SITE FEATURES AND UTILITIES AS SHOWN ON THE SURVEY. THERE MAY BE OTHER SITE FEATURES, UTILITIES, STRUCTURES, AND MISCELLANEOUS ITEMS BOTH BURIED AND ABOVE GROUND THAT ARE WITHIN THE LIMITS OF WORK THAT MAY NEED TO BE REMOVED FOR THE PROPOSED PROJECT THAT ARE NOT SHOWN HEREON. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY, ENGINEER AND/OR OWNER PRIOR TO REMOVING ITEMS NOT SHOWN ON THE PLANS.
 - THE CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY COMPANIES PRIOR TO DEMOLITION TO COORDINATE DISCONNECTION AND REMOVAL OF EXISTING UTILITIES WITHIN THE AREA OF WORK.
 - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES THAT ARE INTENDED TO CONTINUE TO PROVIDE SERVICE WHETHER THESE UTILITIES ARE SHOWN ON THE PLAN OR NOT.
 - UPON DISCOVERY OF ANY UNDERGROUND TANKS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE. NO REMOVAL OF TANKS SHALL OCCUR UNTIL AUTHORIZED BY OWNER.
 - BUILDING AND APPURTENANCES DESIGNATED FOR DEMOLITION SHALL NOT BE DISTURBED BY THE CONTRACTOR UNTIL HE HAS BEEN FURNISHED WITH NOTICE TO PROCEED BY THE OWNER. AS SOON AS SUCH NOTICE HAS BEEN GIVEN, THE CONTRACTOR SHALL PERFORM THE DEMOLITION, UNDER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
 - DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL LAWS AND ORDINANCES.
 - AS SOON AS DEMOLITION WORK HAS BEEN COMPLETED, THE FINAL GRADE OF BACKFILL IN DEMOLITION AREAS SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT. CONTRACTOR TO PREVENT WATER FROM DRAINING ONTO ADJACENT PROPERTIES.
 - EXISTING TREES TO REMAIN SHOULD BE PROTECTED FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.





FLOOD PLAIN NOTE

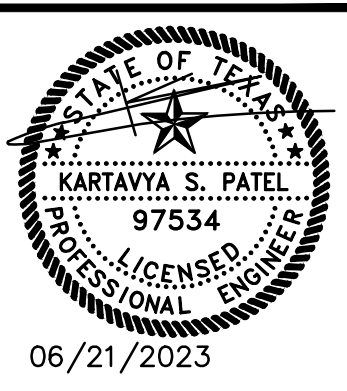
THIS PROPERTY LIES WITHIN ZONE(S) X (UNSHADED) OF THE FLOOD INSURANCE RATE MAP FOR DEWTON TOWNSHIP AND INCORPORATED AREAS, MAP NO.48121C0205G, DATED 2011/04/18. VIA SCALED MAP LOCATION AND GRAPHIC PLOTTING AND/OR THE NATIONAL FLOOD HAZARD LAYER (NFHL) WEB MAP SERVICE (WMS) AT <http://hazards.fema.gov>.

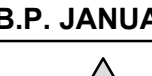
SITE GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CITY OR LOCAL JURISDICTION STANDARDS
2. THE LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS IS TAKEN FROM AS-BUILTS, UTILITY PLANS OR SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND UTILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND UTILITIES. IF EXISTING UNDERGROUND UTILITIES ARE DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRING THE UTILITY.
3. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE THE UTILITIES OR SERVICE LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS. AT HIS OWN COST AND EXPENSE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS WITH UTILITIES.
4. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U. S. DEPARTMENT OF LABOR, OSHA, CONSTRUCTION SAFETY AND HEALTH REGULATIONS AND ANY AMENDMENTS THERETO.
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6. ANY CHANGES NEEDED AFTER CONSTRUCTION PLANS HAVE BEEN RELEASED, SHALL BE APPROVED BY THE CITY ENGINEER. THESE CHANGES MUST BE RECEIVED IN WRITING.
7. THE CONTRACTOR SHALL PROVIDE "RED LINED" MARKED PRINTS TO THE ENGINEER PRIOR TO FINAL INSPECTION INDICATING ALL CONSTRUCTION WHICH DEVIATED FROM THE PLANS OR WAS CONSTRUCTED IN ADDITION TO THAT INDICATED ON THE PLANS.
8. ALL CURB RADIUS TO BE 10' OR 2' UNLESS OTHERWISE NOTED ON THE SITE PLAN.

PROJECT CONTACT LIST	
<u>ENGINEER</u> TRIANGLE ENGINEERING LLC 1782 McDERMOTT DR ALLEN, TX 75013 KARTAVYA PATEL 214-609-9271	<u>OWNER/DEVELOPER</u> VAQUERO DG FM 2450 PARTNERS, LP 2627 TILLAR ST, STE 111 FORT WORTH, TX 76107 KELLY AGNOR 512-983-1793
<u>SURVEYOR</u> JPH LAND SURVEYING, INC 785 LONESOME DOVE TRAIL, HURST, TX 76054 JEWEL CHADD 817-431-4971	<u>ARCHITECT</u> FRANZ ARCHITECTS 4055 INTERNATIONAL PLAZA, STE 100 FORT WORTH, TX 76109 AVI KAIKOV 817-632-0079

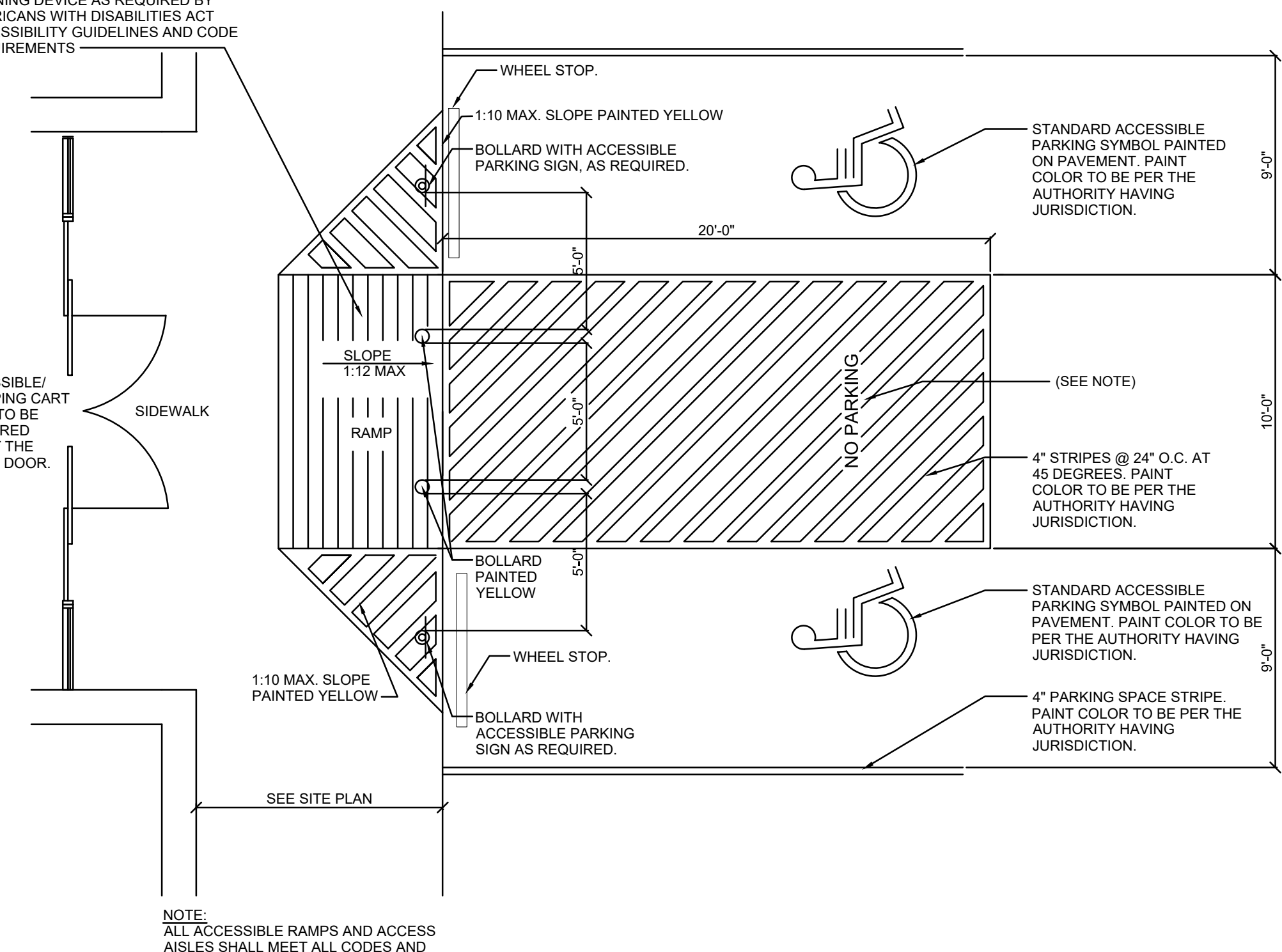
BENCHMARKS
<p>SITE BENCH MARK IS A MAG NAIL WITH A WASHER STAMPED "JPH LAND BENCHMARK" SET IN A CONCRETE SLAB IN THE NORTHEAST CORNER OF THE INTERSECTION OF F.M.HIGHWAY 455 AND F.M.HIGHWAY 2450. BENCHMARK ELEVATION=677.33'. SEE SURVEY FOR GENERAL LOCATION.</p>

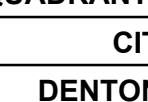
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<h1 style="margin: 0;">SITE PLAN</h1>			
<h2 style="margin: 0;">DOLLAR GENERAL</h2>			
NE QUADRANT OF FM 2450 & CHAPMAN ROAD			
CITY OF SANGER TX			
DENTON COUNTY, TEXAS 76266			
JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658			
			
T: 469.331.8566 F: 469.213.7145 E: info@triangle-engr.com W: triangle-engr.com O: 1784 McDermott Drive, Suite 110, Allen, TX 75013			
Planning Civil Engineering Construction Management			
P.E.	DES.	DATE	SCALE
KP	AP	06-02-23	SEE SCALE BAR
PROJECT NO.			SHEET NO.
050-23			C-3.0
TX. P.E. FIRM #11525			

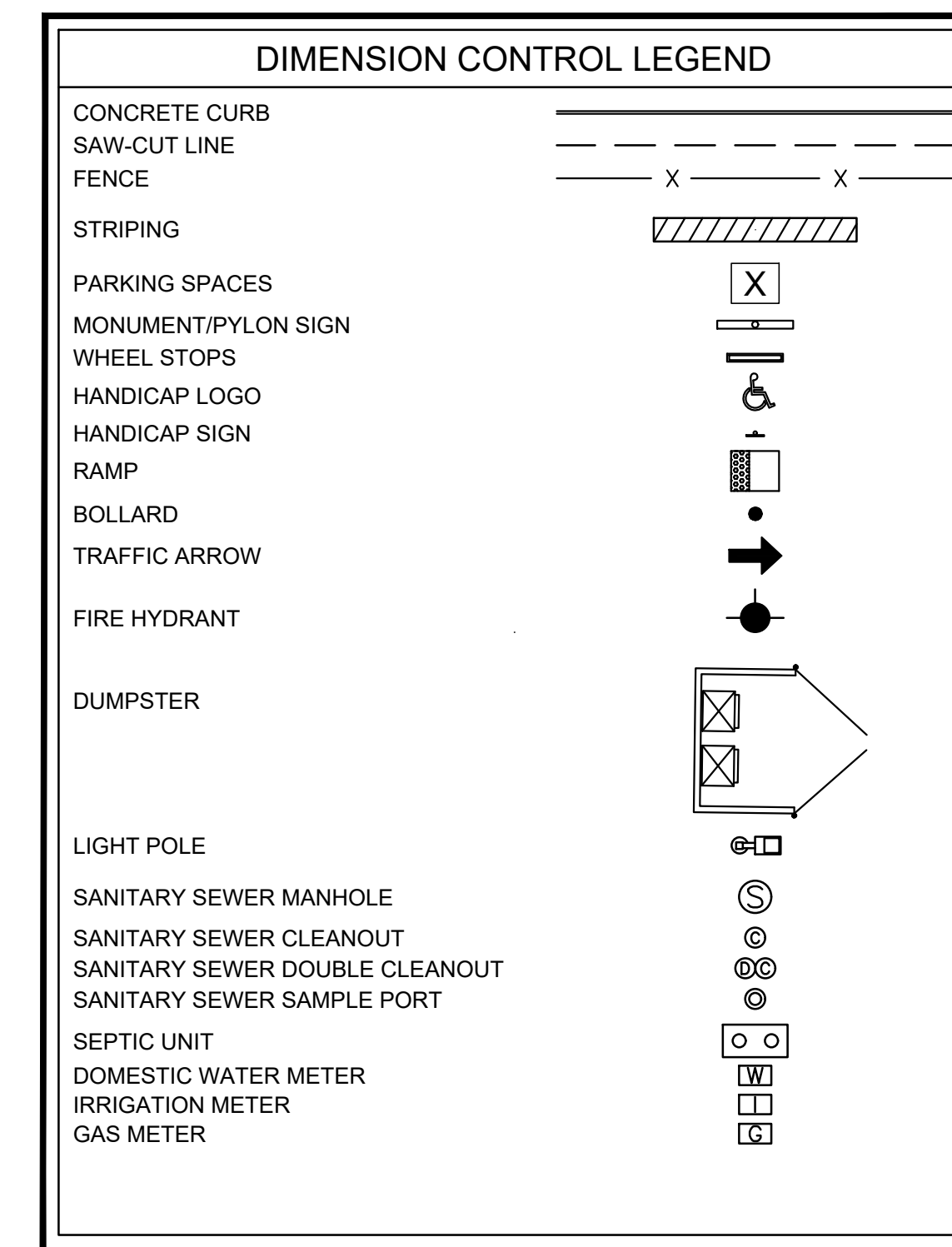


- DELIVERY RAMP & RECEIVING DOOR DETAILS
N.T.S.



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| SITE DETAILS | | | |
| DOLLAR GENERAL | | | |
| NE QUADRANT OF FM 2450 & CHAPMAN ROAD | | | |
| CITY OF SANGER ETJ | | | |
| DENTON COUNTY, TEXAS 76266 | | | |
| JAMES B.P. JANUARY SURVEY ABSTRACT NO #658 | | | |
|  | | | |
| T: 489 331 8556 F: 489 213 7145 E: info@triangle-engr.com
W: triangle-engr.com Q: 1784 McDermott Drive, Suite 110, Allen, TX 75013 | | | |
| Planning Civil Engineering Construction Management | | | |
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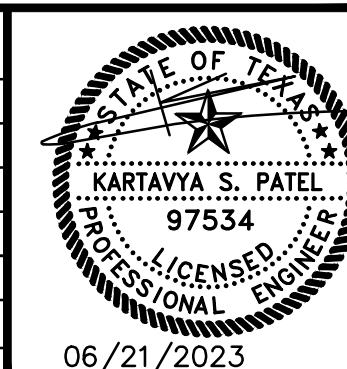



DIMENSION CONTROL GENERAL NOTES

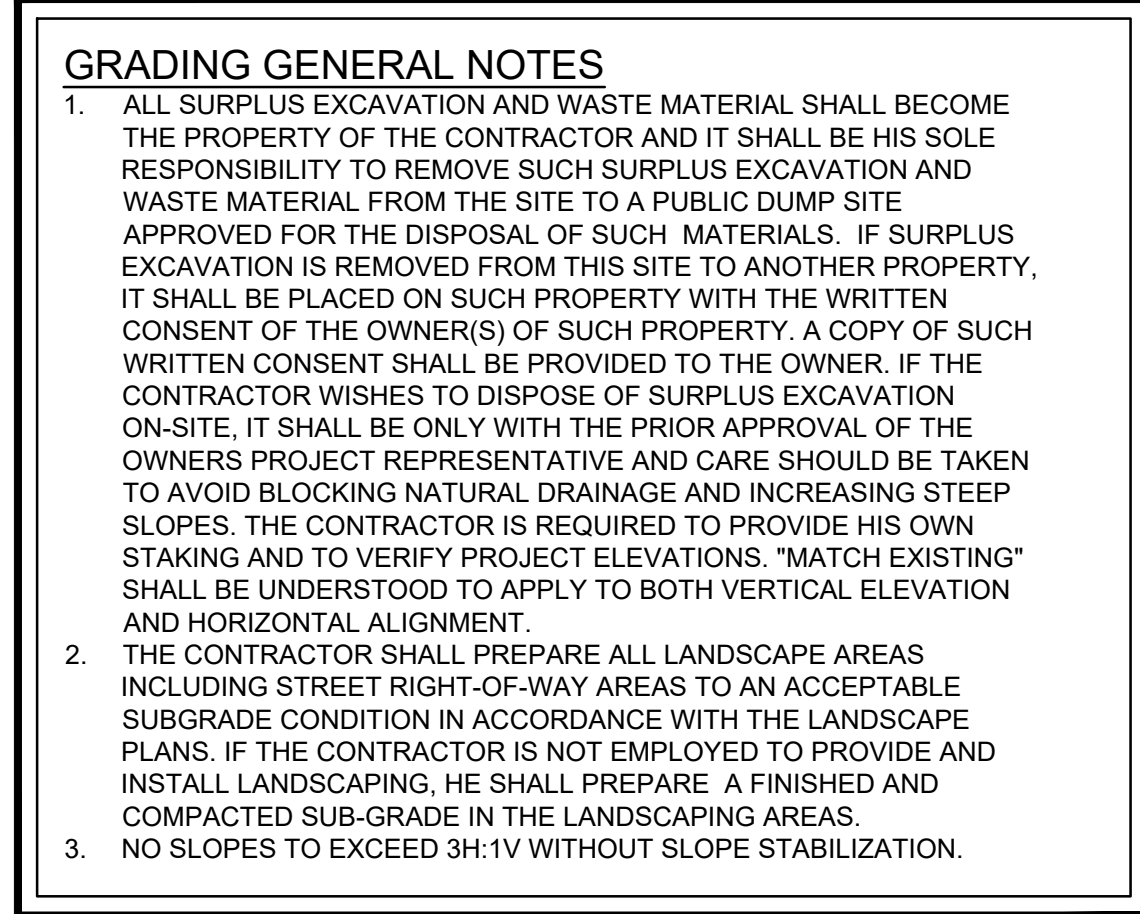
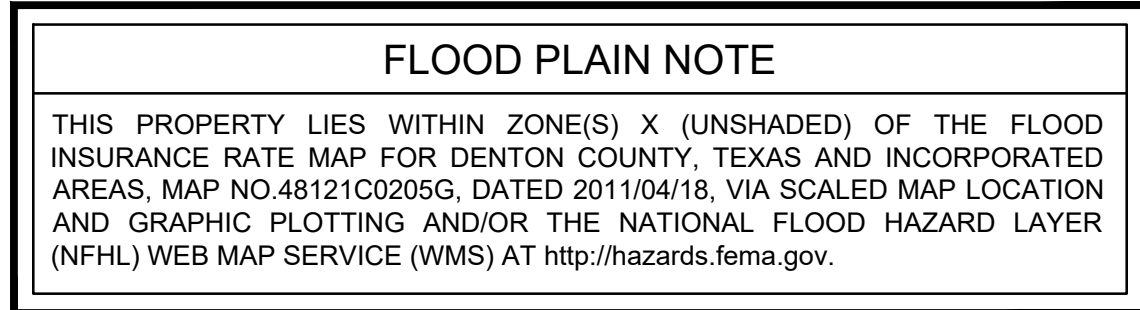
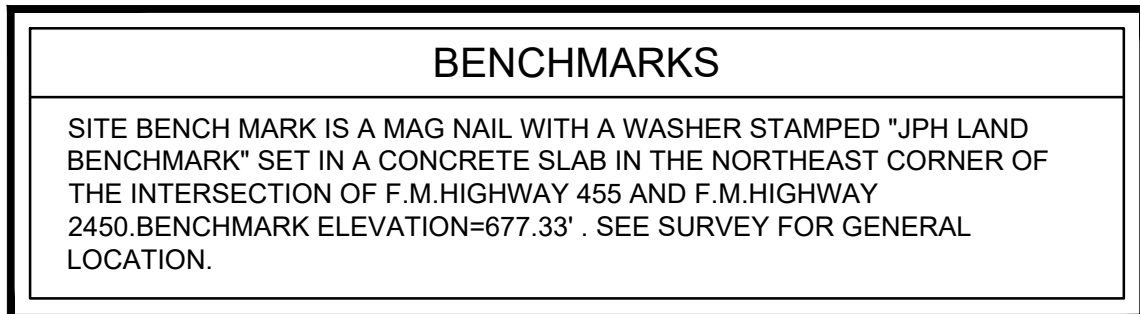
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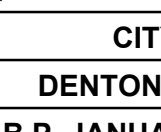


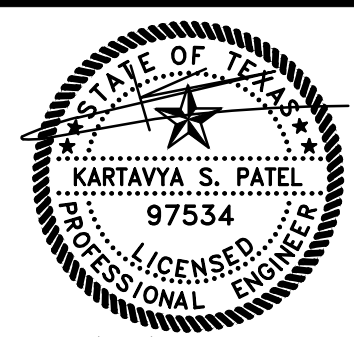
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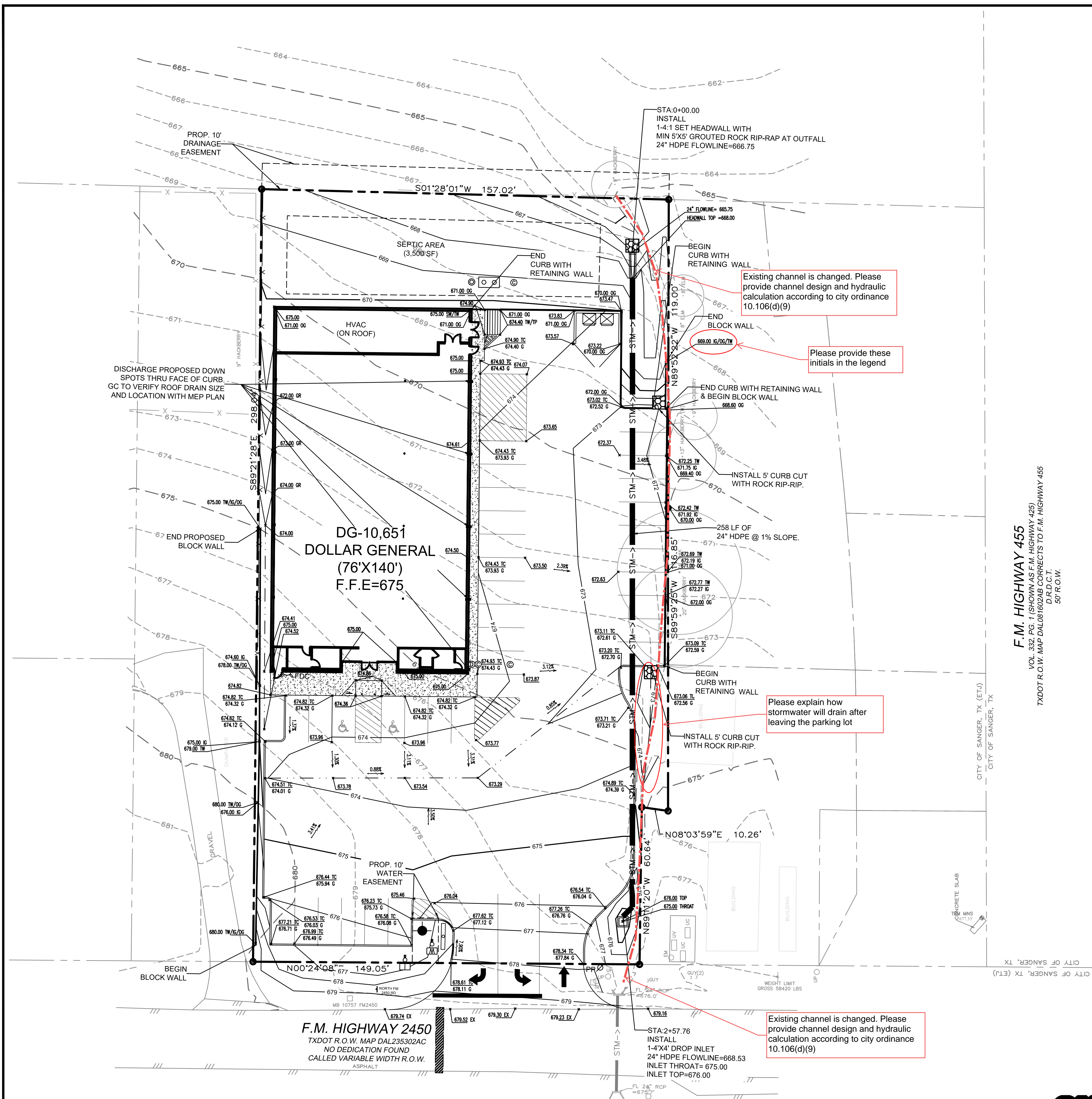
DIMENSION CONTROL PLAN			
DOLLAR GENERAL			
NE QUADRANT OF FM 2450 & CHAPMAN ROAD			
CITY OF SANGER ETJ			
DENTON COUNTY, TEXAS 76266			
JAMES B.P. JUANARY SURVEY ABSTRACT NO # 658			
			
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Planning Civil Engineering Construction Management			
P.E.	DES.	DATE	SCALE
KP	AP	06-02-23	SEE SCALE BAR
PROJECT NO.		050-23	
SHEET NO.			C-3.2
TX. P.E. FIRM #11525			



<h1 style="margin: 0;">GRADING PLAN</h1> <h2 style="margin: 0;">DOLLAR GENERAL</h2>							
<p>NE QUADRANT OF FM 2450 & CHAPMAN ROAD</p> <p>CITY OF SANGER ETJ</p> <p>DENTON COUNTY, TEXAS 76266</p>							
<p>JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658</p>							
							
<p>T: 469-331-8566 F: 469-213-7145 E: info@triangle-engr.com W: triangle-engr.com O: 1784 McDermott Drive, Suite 110, Allen, TX 75013</p>							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Planning </td> <td style="width: 25%;">Civil Engineering </td> <td style="width: 25%;">Construction Management </td> <td style="width: 25%;"></td> </tr> </table>				Planning	Civil Engineering	Construction Management	
Planning	Civil Engineering	Construction Management					
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<p>TX. P.E. FIRM #11525</p>							

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06/21/2023



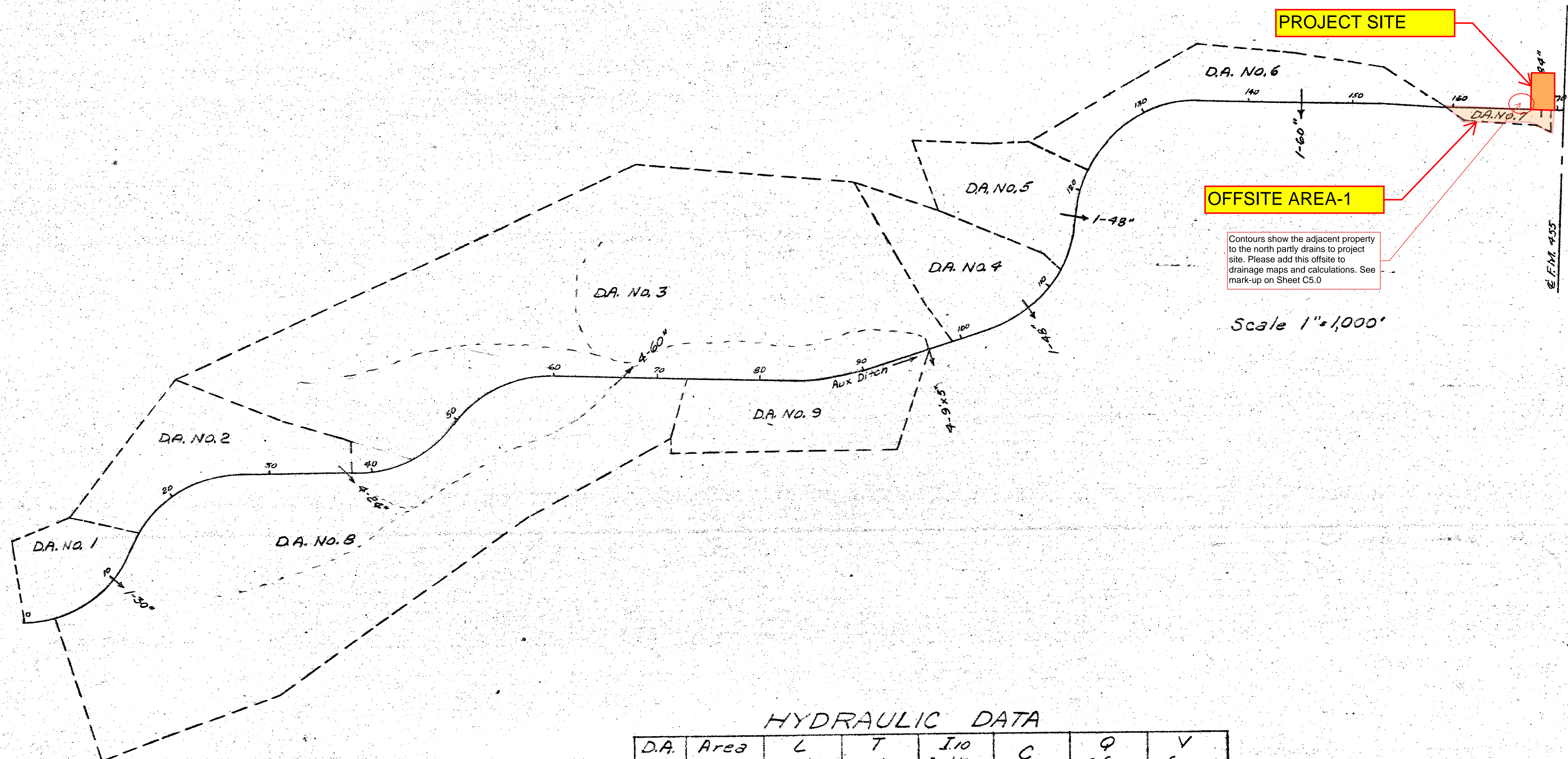
F.M. HIGHWAY 455
VOL. 332, PG. 1 (SHOWN AS F.M. HIGHWAY 425)
TXDOT R.O.W. MAP DAL081602AB CORRECTS TO F.M. HIGHWAY 455
D.R.D.C.T.
50' R.O.W.

Existing channel is changed. Please provide channel design and hydraulic calculation according to city ordinance 10.106(d)(9)

Please provide these initials in the legend

Please explain how stormwater will drain after leaving the parking lot

Existing channel is changed. Please provide channel design and hydraulic calculation according to city ordinance 10.106(d)(9)



DRAINAGE AREA MAP

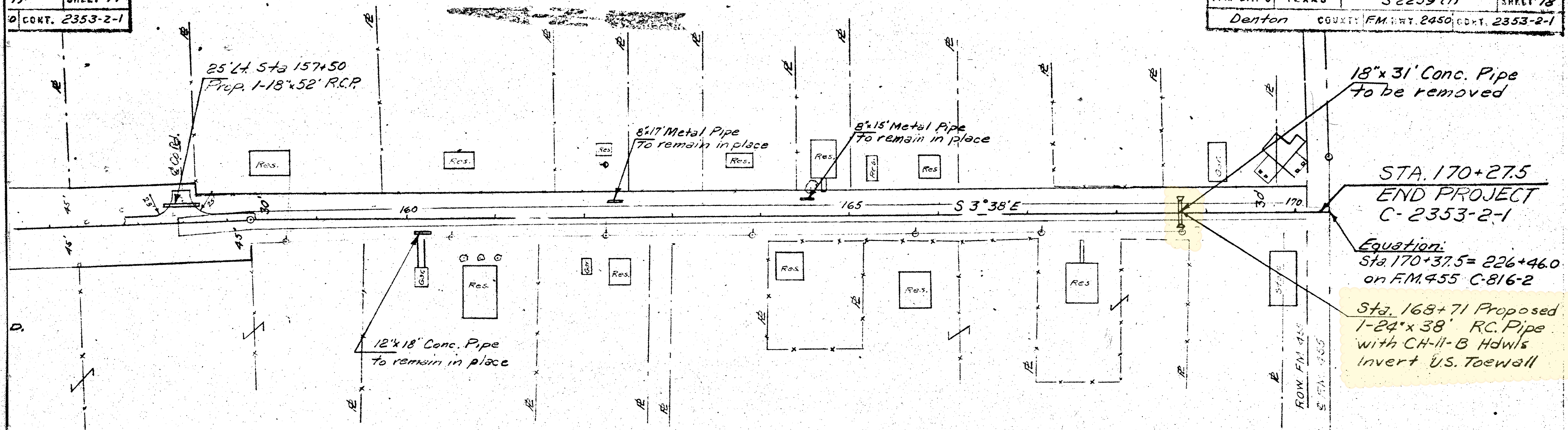
HYDRAULIC DATA

D.A. No.	Area Ac.	L Ft.	T Min.	I.10 In./Hr.	C	Q C.F.S.	V f.p.s.
1	18	1050	30	3.7	0.50	33	8.0
2	43	3130	30	3.7	0.45	72	6.5
1,2+8	280	6650	55	2.8	0.45	353	8.2*
1,2,3+8	525	9700	81	2.3	0.45	544	7.9
4	30	2050	30	3.7	0.40	45	7.0
5	30	1780	30	3.7	0.50	56	8.0
6	34	2700	30	3.7	0.50	63	7.3
7	3	950	30	3.7	0.50	6	4.6
9	39	2750	30	3.7	0.45	65	5.6

*Outfall channel is rock bottom

SHEET 17
CONT. 2353-2-1

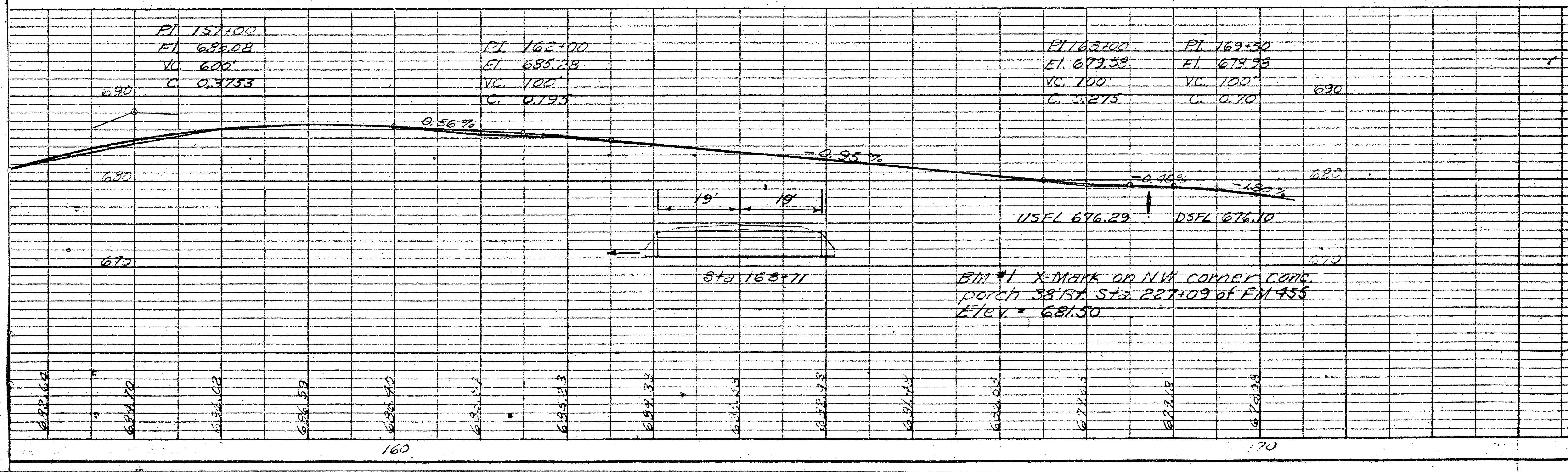
P.A. DIV. 6 TEXAS S 2259 (1) SHEET 18
Denton COUNTY FM HWY. 2450 CDXT. 2353-2-1

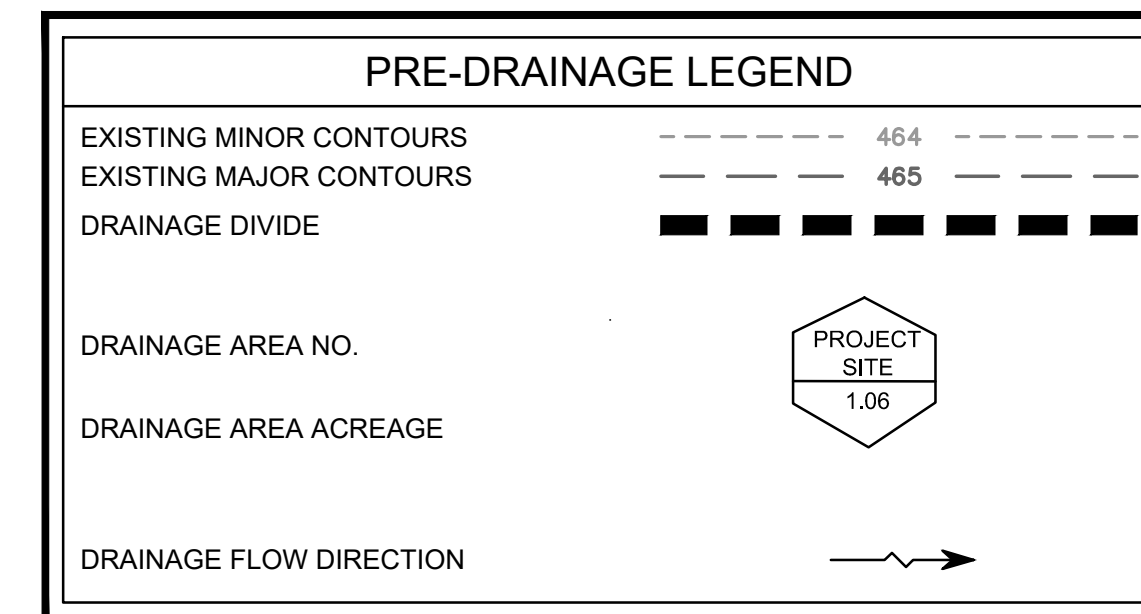
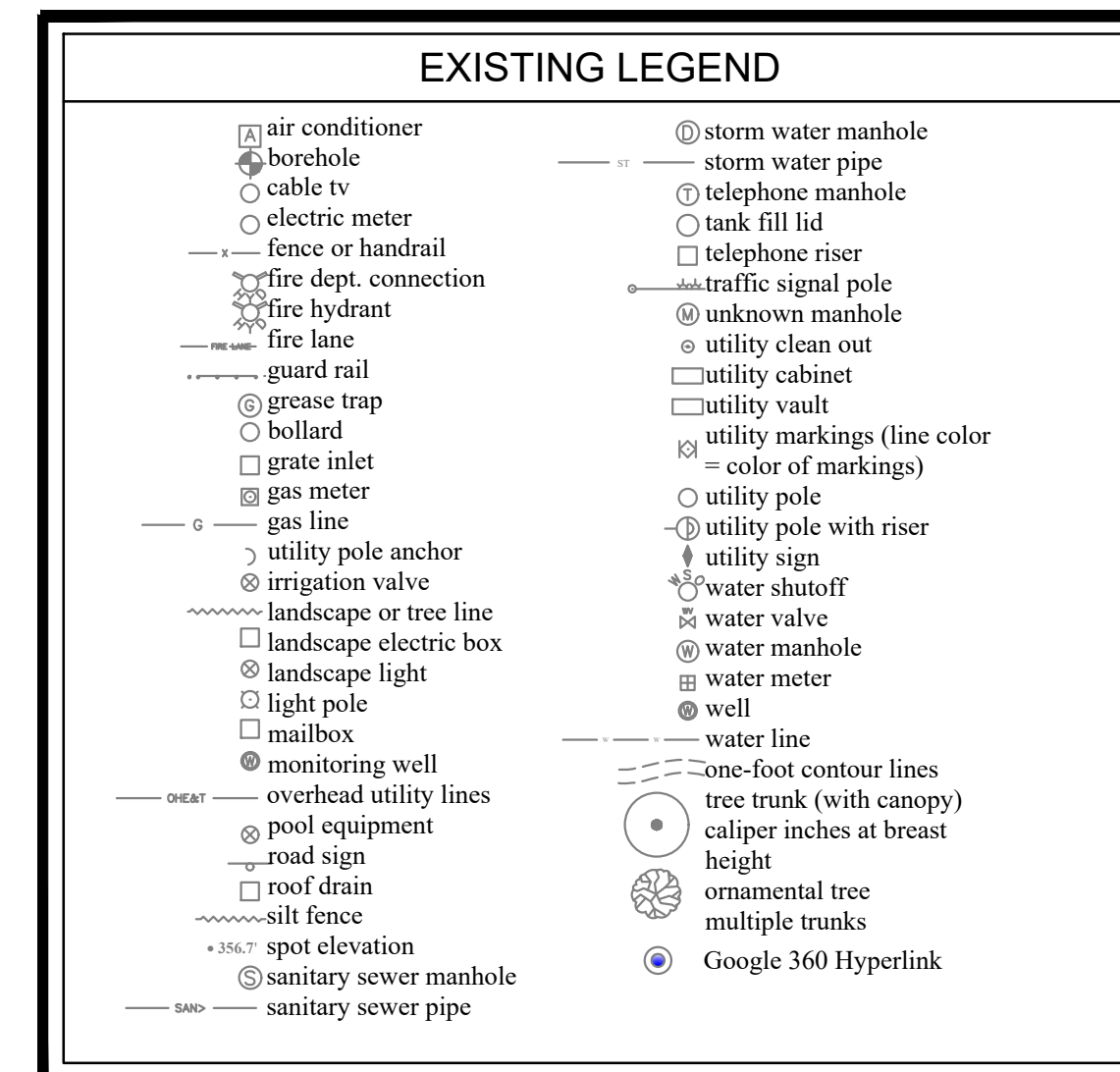
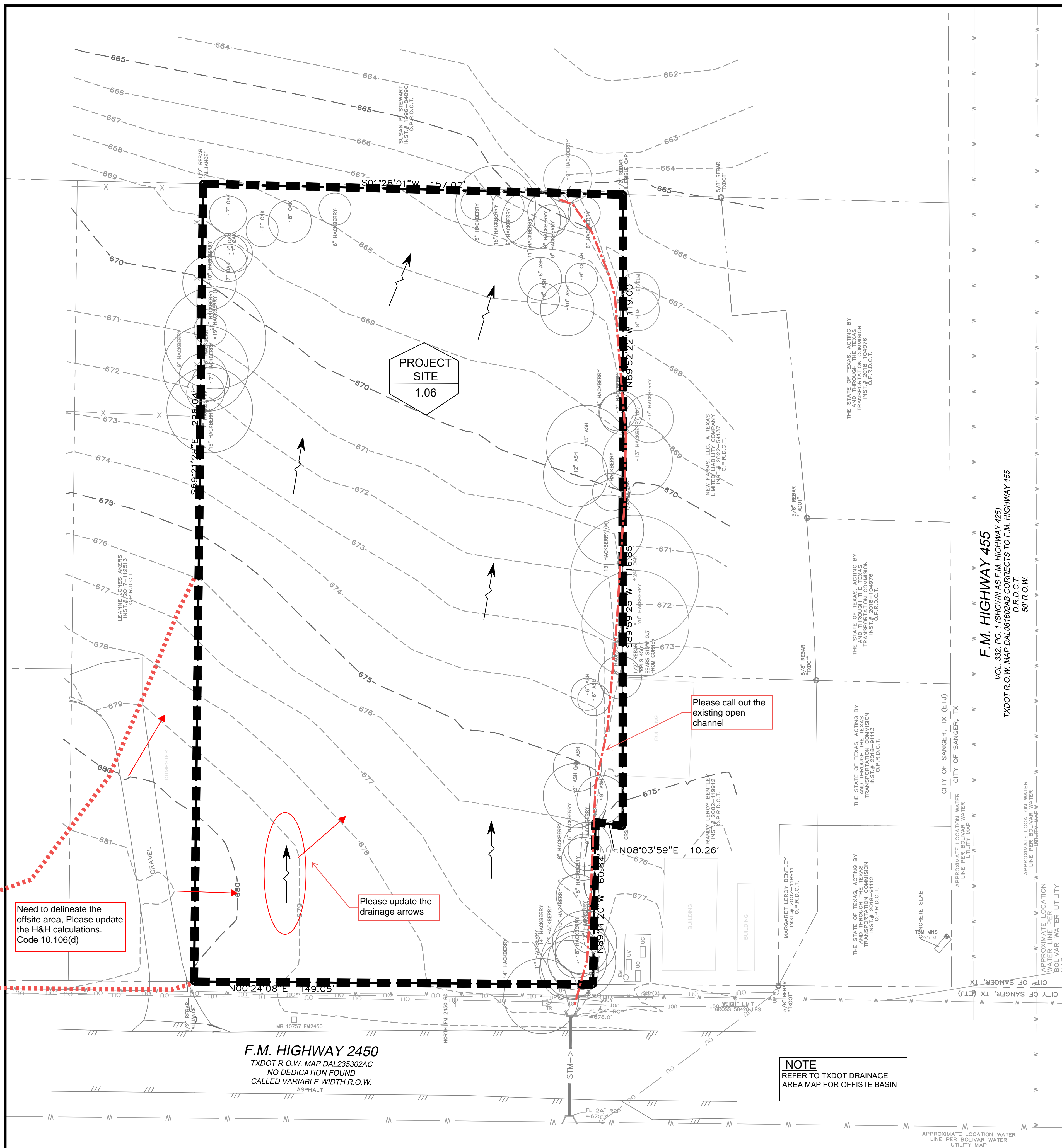


STA. 170+27.5
END PROJECT
C-2353-2-1

Equation:
 $Sta. 170+37.5 = 226+46.0$
on FM 455 C-816-2

Sta. 168+71 Proposed
1-24" x 38" RC Pipe
with CH-II-B Hdwls
Invert U.S. Toewall





FLOOD PLAIN NOTE

THIS PROPERTY LIES WITHIN ZONE(S) X (UNSHADED) OF THE FLOOD INSURANCE RATE MAP FOR DENTON COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO.48121C0205G, DATED 2011/04/18, VIA SCALED MAP LOCATION AND GRAPHIC PLOTTING AND/OR THE NATIONAL FLOOD HAZARD LAYER (NFHL) WEB MAP SERVICE (WMS) AT <http://hazards.fema.gov>.

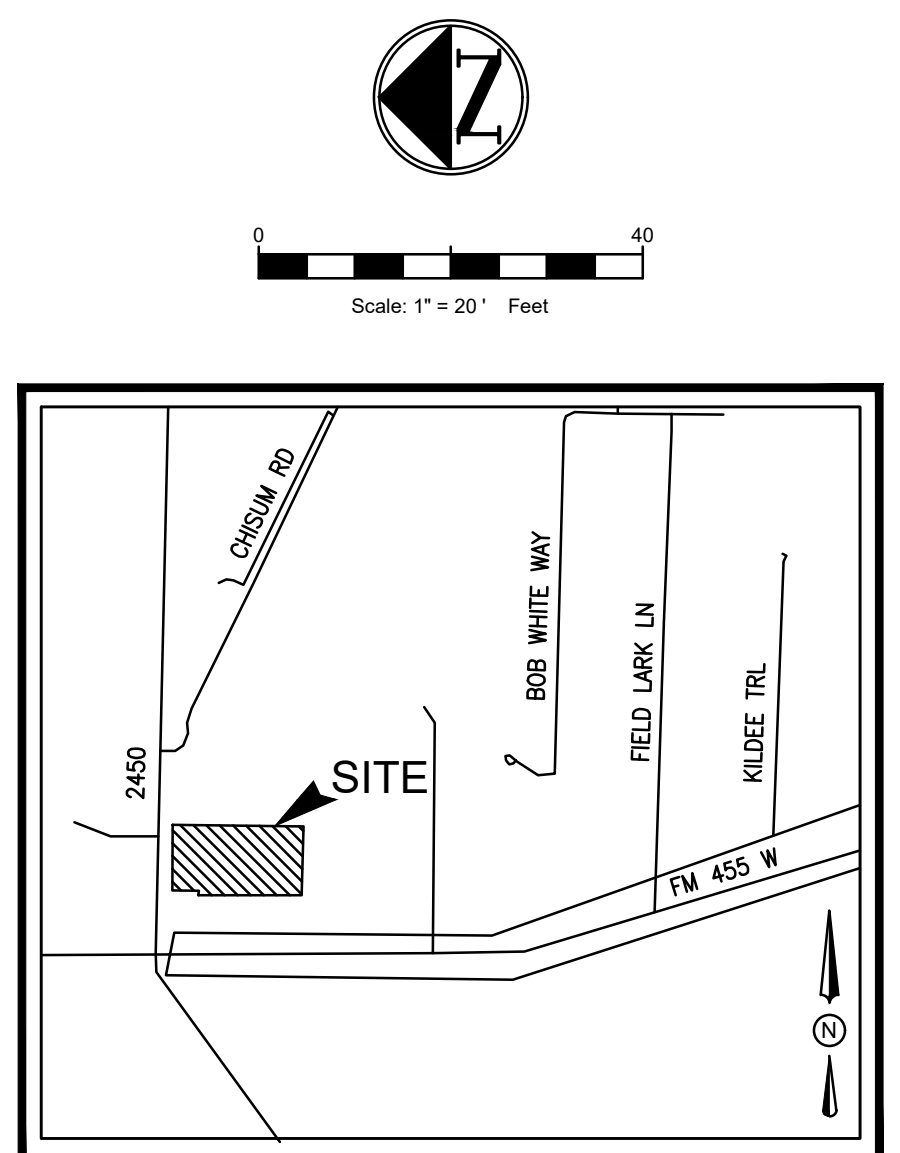
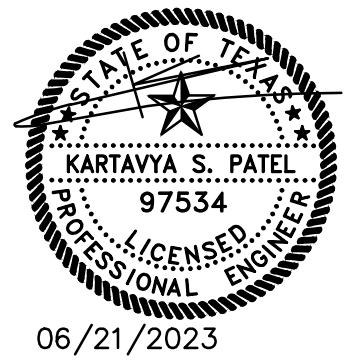
Table 1 -Existing Hydrologic Parameters

Sub Basin	Area (ac)	Area(mi ²)	C	Time of concentration (min)
Offsite 1	3	0.0046	0.5	30
Project Site	1.06	0.0016	0.35	30

Table 4- Existing Peak Discharge (cfs)

Hydrologic Element	Peak Discharge (cfs)		
	1-year	25-year	100-year
Offsite 1	3.510	6.675	8.175
Project Site	0.868	1.651	2.022

NO.	DATE	DESCRIPTION	BY
1	06-08-23	1st CITY SUBMITTAL	AP
2	06-21-23	REVISED PER CLIENT COMMENT	AP
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Please match Denton County Subdivision Rules and Regulations IV.1.2 Rational Method

VICINITY MAP
N.T.S.

Table 3- Rainfall Intensity Data

Duration	Rainfall Intensity (inch/hr)		
	1-year	25-year	100-year
5-min	5.06	9.73	12.0
15-min	3.37	6.45	7.90
30-min	2.34	4.45	5.45
60-min	1.52	2.92	3.59
2-hr	0.928	1.86	2.32
3-hr	0.683	1.41	1.78
6-hr	0.403	0.859	1.10
12-hr	0.235	0.507	0.651
24-hr	0.137	0.298	0.383

NOTE
REFER TO DOWNSTREAM ASSESSMENT REPORT FOR DOLLAR GENERAL PREPARED BY TRIANGLE ENGINEERING DATED JUN 06/08/2023 FOR MORE DETAILS

Please submit this

Please match Denton County Subdivision Rules and Regulations IV.1.2 Rational Method

PRE-DRAINAGE PLAN

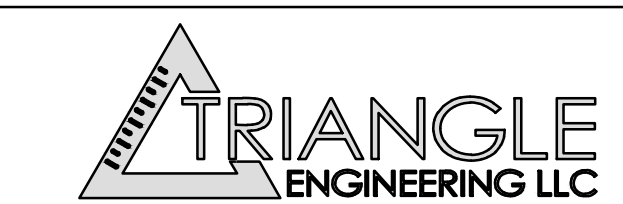
DOLLAR GENERAL

NE QUADRANT OF FM 2450 & CHAPMAN ROAD

CITY OF SANGER ETJ

DENTON COUNTY, TEXAS 76266

JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658



T: 469.331.8566 | F: 469.213.7145 | E: info@triangle-engr.com

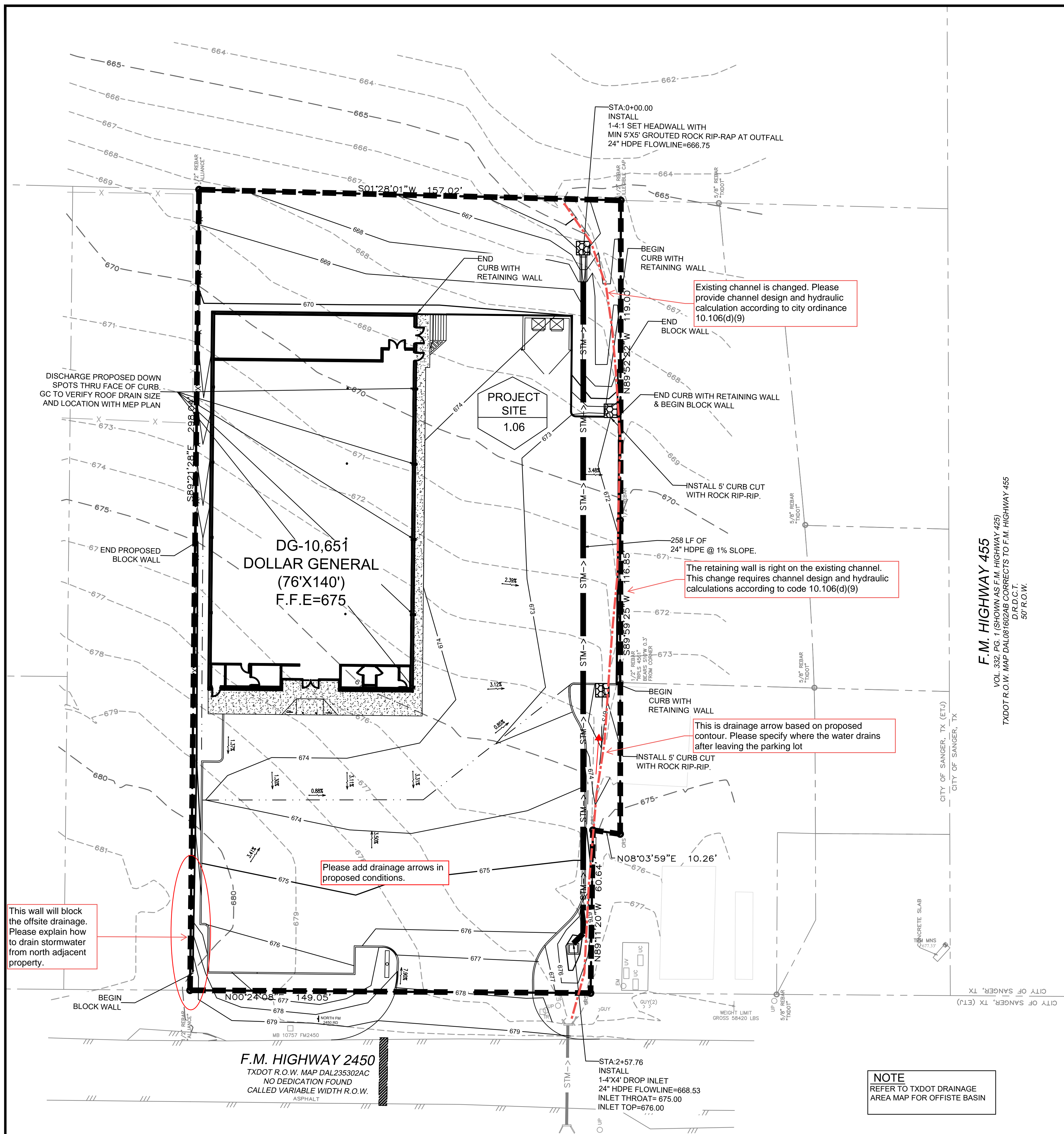
W: triangle-engr.com | O: 1784 McDermott Drive, Suite 110, Allen, TX 75013

Planning | Civil Engineering | Construction Management

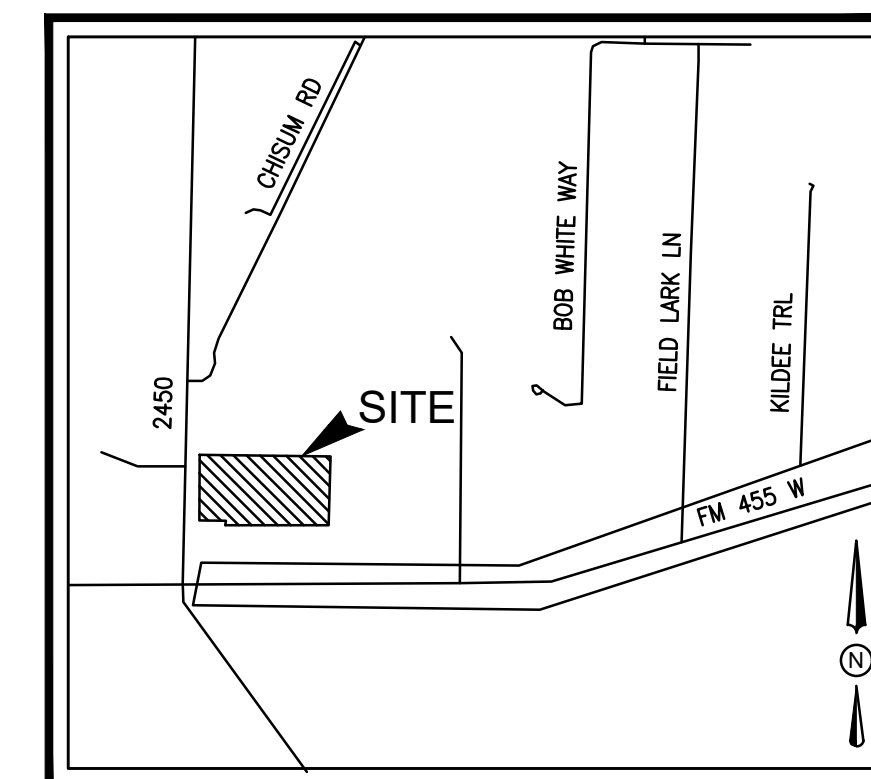
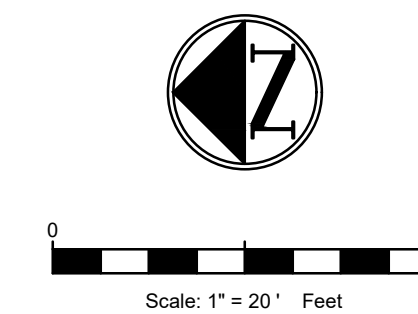
P.E.	DES.	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	AP	06-02-23	SCALE BAR	050-23	C-5.0

TX. P.E. FIRM #11525

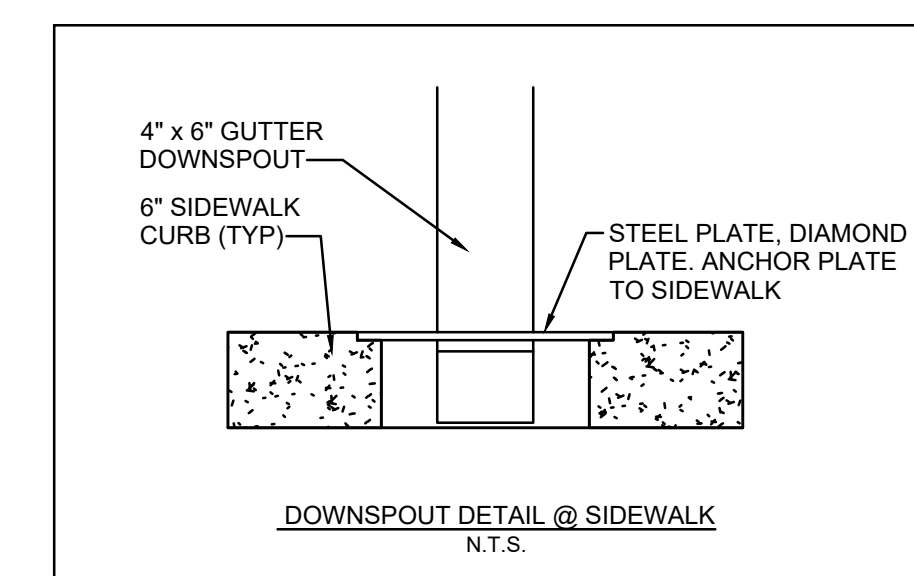




EXISTING LEGEND	
air conditioner	storm water manhole
borehole	storm water pipe
cable tv	telephone manhole
electric meter	tank fill lid
fence or handrail	telephone riser
fire dept. connection	traffic signal pole
fire hydrant	unknown manhole
fire lane	utility clean out
guard rail	utility cabinet
grease trap	utility vault
bollard	utility markings (line color)
grate inlet	color of markings
gas meter	utility pole
gas line	utility pole with riser
utility pole anchor	utility sign
irrigation valve	water shutoff
landscape or tree line	water valve
landscape electric box	water manhole
landscape light	water meter
light pole	well
mailbox	water line
monitoring well	one-foot contour lines
overhead utility lines	tree trunk (with canopy)
pool equipment	caliper inches at breast
road sign	height
roof drain	ornamental tree
silt fence	multiple trunks
spot elevation	Google 360 Hyperlink
sanitary sewer manhole	
sanitary sewer pipe	



VICINITY MAP
N.T.S.



POST-DRAINAGE LEGEND	
EXISTING MINOR CONTOURS	464
EXISTING MAJOR CONTOURS	465
MINOR CONTOURS	464
MAJOR CONTOURS	465
DRAINAGE DIVIDE	
HIGH POINT	HP
Please show the drainage area value	
DRAINAGE AREA NO.	
DRAINAGE AREA ACREAGE	
This is grading slope, not site drainage arrows	1%
DRAINAGE FLOW DIRECTION	

Table 2 - Proposed Hydrologic Parameters

Sub Basin	Area (ac)	Area (mi ²)	C	Time of concentration (min)
Offsite 1	3	0.0046	0.5	30
Project Site	1.06	0.0016	0.75	10

Please match Denton County
Subdivision Rules and Regulations IV.1.
2 Rational Method

Table 5- Proposed Peak Discharge (cfs)

Hydrologic Element	Peak Discharge (cfs)		
	1-year	25-year	100-year
Offsite 1	3.510	6.675	8.175
Project Site	3.198	6.09	7.469

Rates of runoff in proposed conditions are much higher than existing conditions. Please explain the plan to reduce them. Otherwise, it's against the city code of ordinance 10.106(d).

FLOOD PLAIN NOTE

THIS PROPERTY LIES WITHIN ZONE(S) X (UNSHADED) OF THE FLOOD INSURANCE RATE MAP FOR DENTON COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO.48121C0205G, DATED 2011/04/18, VIA SCALED MAP LOCATION AND GRAPHIC PLOTTING AND/OR THE NATIONAL FLOOD HAZARD LAYER (NFHL) WEB MAP SERVICE (WMS) AT <http://hazards.fema.gov>.

NOTE

REFER TO DOWNSTREAM ASSESSMENT REPORT FOR DOLLAR GENERAL PREPARED BY TRIANGLE ENGINEERING DATED JUN 06/08/2023 FOR MORE DETAILS

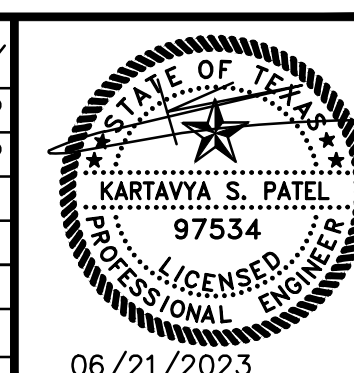
NOTE
REFER TO TXDOT DRAINAGE AREA MAP FOR OFFSITE BASIN

F.M. HIGHWAY 455
VOL. 332 PG. 1 (SHOWN AS F.M. HIGHWAY 425)
TXDOT R.O.W. MAP DAL081602AB CORRECTS TO F.M. HIGHWAY 455
DATE: 01/11/2023
BY: J.C.V.
50' R.O.W.



Know what's below.
Call before you dig.

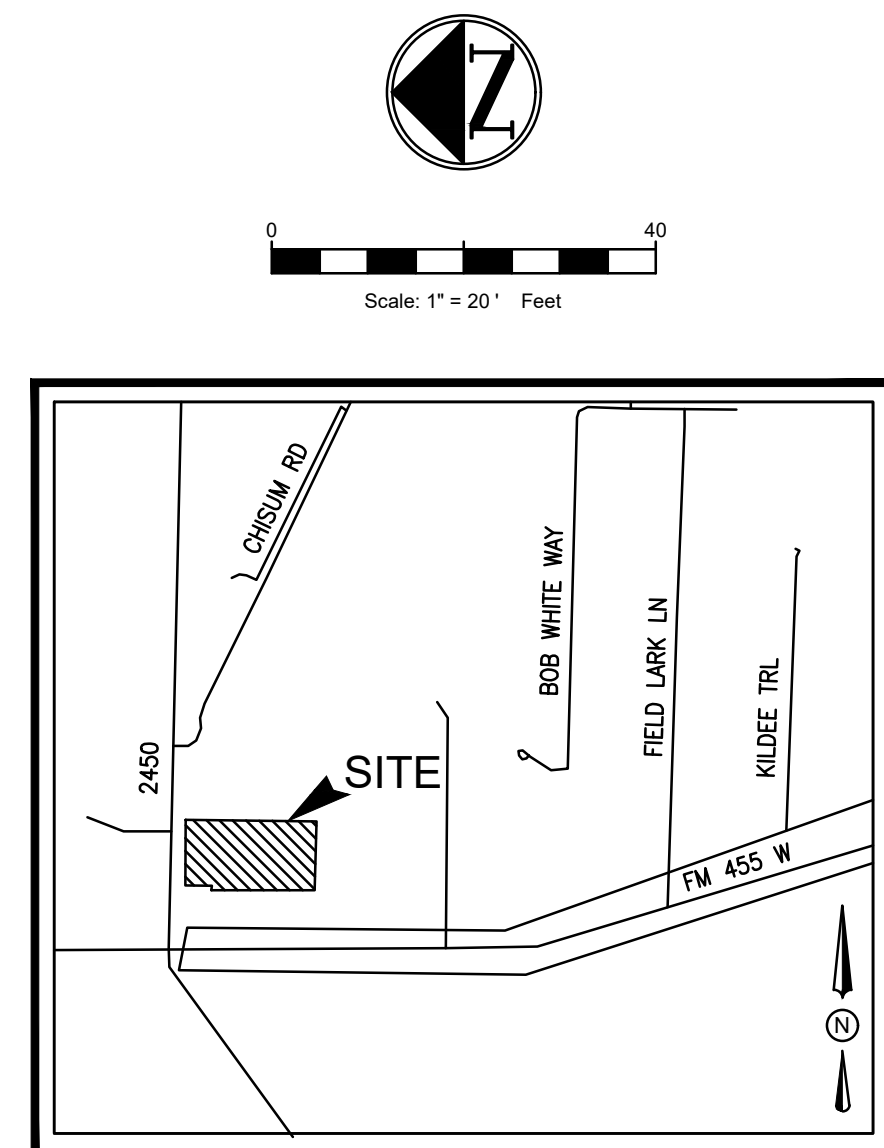
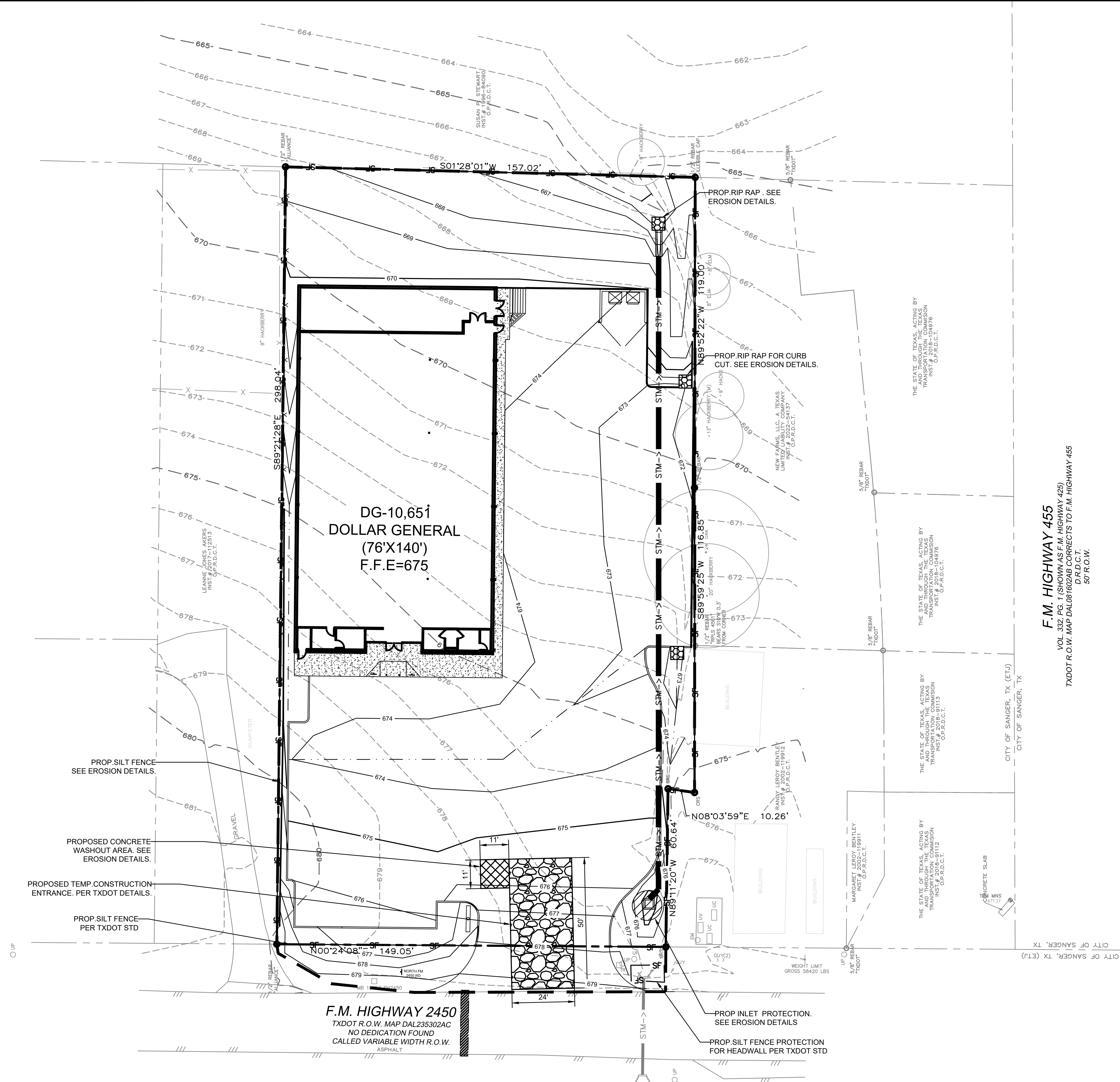
NO.	DATE	DESCRIPTION	BY
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POST-DRAINAGE PLAN

DOLLAR GENERAL
NE QUADRANT OF FM 2450 & CHAPMAN ROAD
CITY OF SANGER ETJ
DENTON COUNTY, TEXAS 76266
JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658

TRIANGLE ENGINEERING LLC	
T: 469.331.8566 F: 469.213.7145 E: info@triangle-engr.com	
W: triangle-engr.com O: 1784 McDermott Drive, Suite 110, Allen, TX 75013	
Planning	Civil Engineering
Construction Management	
P.E. DES.	DATE
KP AP	06-02-23
SCALE	PROJECT NO.
SCALE #115225	050-23
TX. P.E. FIRM #115225	
C-6.0	



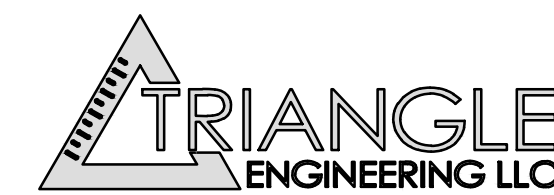
VICINITY MAP
N.T.S.

EROSION CONTROL GENERAL NOTES

1. EVERY SOIL DISTURBING ACTIVITY SHALL HAVE AN ACCOMPANYING EROSION CONTROL PLAN.
2. THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) SHALL BE READILY AVAILABLE FOR REVIEW BY FEDERAL, STATE, OR LOCAL OFFICIALS.
3. NO SOIL DISTURBING ACTIVITIES WILL OCCUR PRIOR TO THE SWP3 AND ASSOCIATED BEST MANAGEMENT PRACTICES (BMP) BEING FULLY IMPLEMENTED AND THEN INSPECTED.
4. THE CONTRACTOR SHALL COMPLY WITH THE CITY'S STORM WATER ORDINANCE, THE TPDES GENERAL CONSTRUCTION PERMIT TXR150000 AND ANY OTHER STATE AND/OR LOCAL REGULATIONS.
5. THE SITE SHALL BE INSPECTED BY THE CONTRACTOR OR HIS REPRESENTATIVE WEEKLY, AND AFTER ANY MAJOR STORM. ADJUSTMENTS/REPAIRS TO THE EROSION CONTROL MEASURES SHOULD BE MADE AS NEEDED.
6. CONTRACTOR SHALL VEGETATE ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF GRADING ACTIVITIES. FINAL ACCEPTANCE OF A SITE SHALL BE CONTINGENT UPON VEGETATION BEING ESTABLISHED IN ALL DISTURBED AREAS.
7. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE ERODED AREA TO ORIGINAL CONDITION OR BETTER.
8. TEMPORARY STONE STABILIZED CONSTRUCTION ENTRANCE SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 24' WIDE X 50' LONG X 6" DEEP. (3'-5" COURSE AGGREGATE). PLACE FILTER FABRIC UNDER STONE.
9. THE CONCRETE WASHOUT AREA IS TO BE USED AS A VEHICLE WASH DOWN AREA FOR DEBRIS AND SOIL REMOVAL PRIOR TO EXITING THE SITE.

EROSION CONTROL PLAN

DOLLAR GENERAL
NE QUADRANT OF FM 2450 & CHAPMAN ROAD
CITY OF SANGER ETJ
DENTON COUNTY, TEXAS 76266
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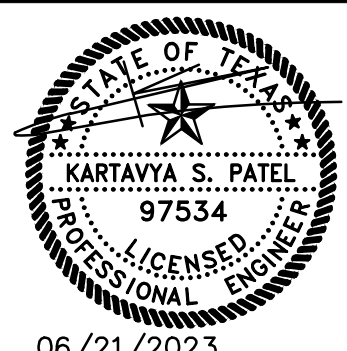
Planning | Civil Engineering | Construction Management

P.E. DES. DATE SCALE PROJECT NO. SHEET NO.

KP AP 06-02-23 SCALE BAR 050-23

TX. P.E. FIRM #11525

C-7.0

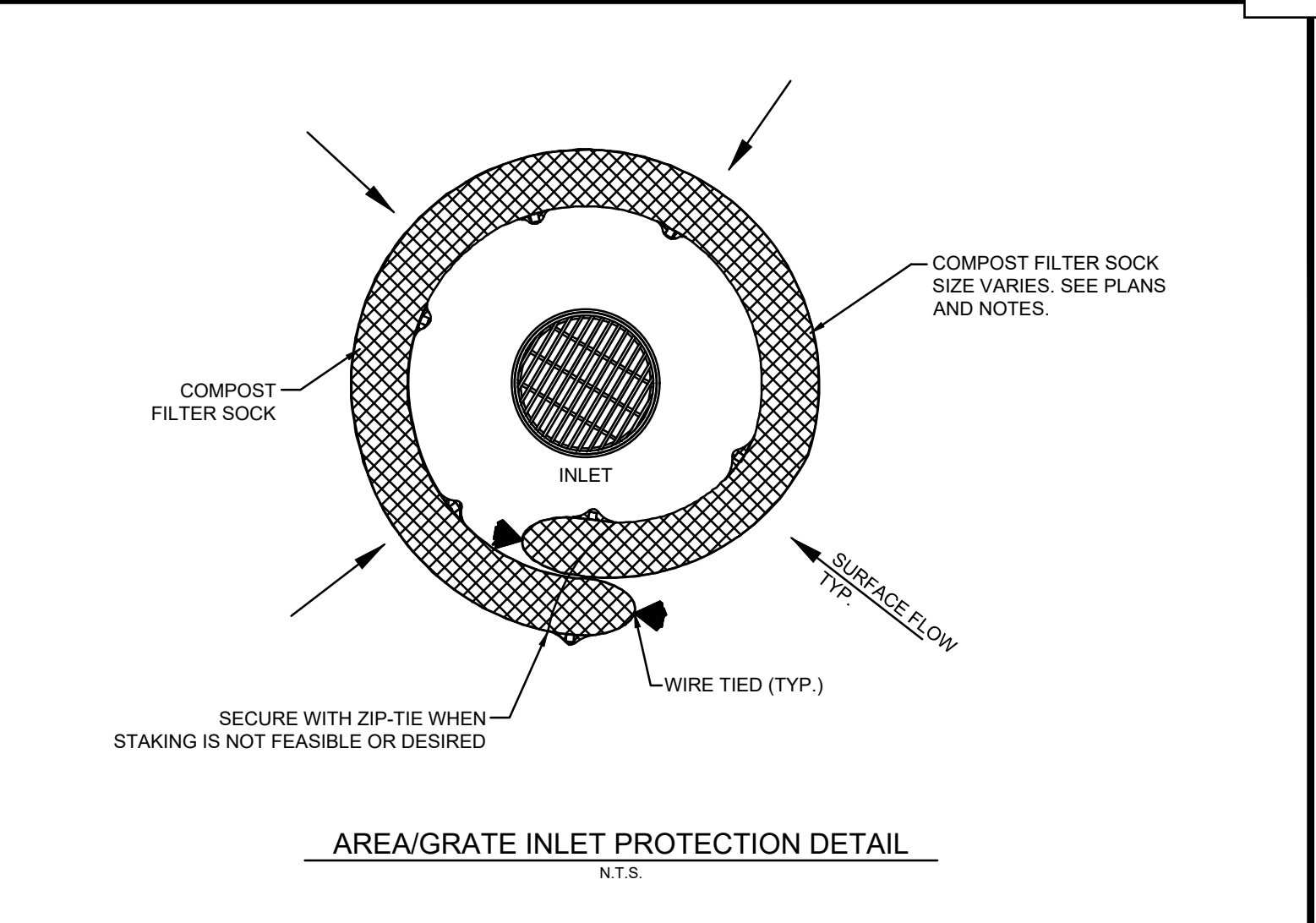
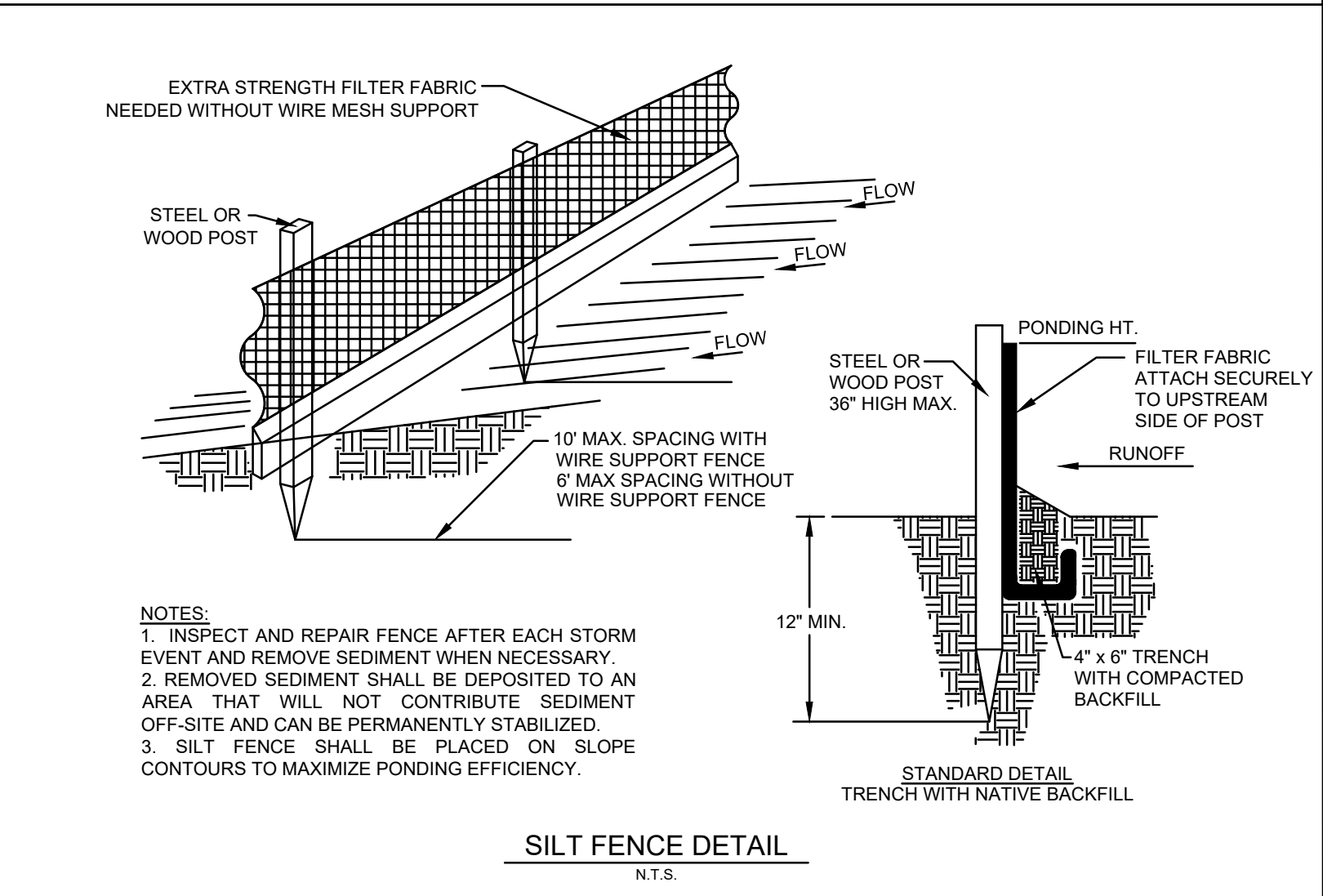
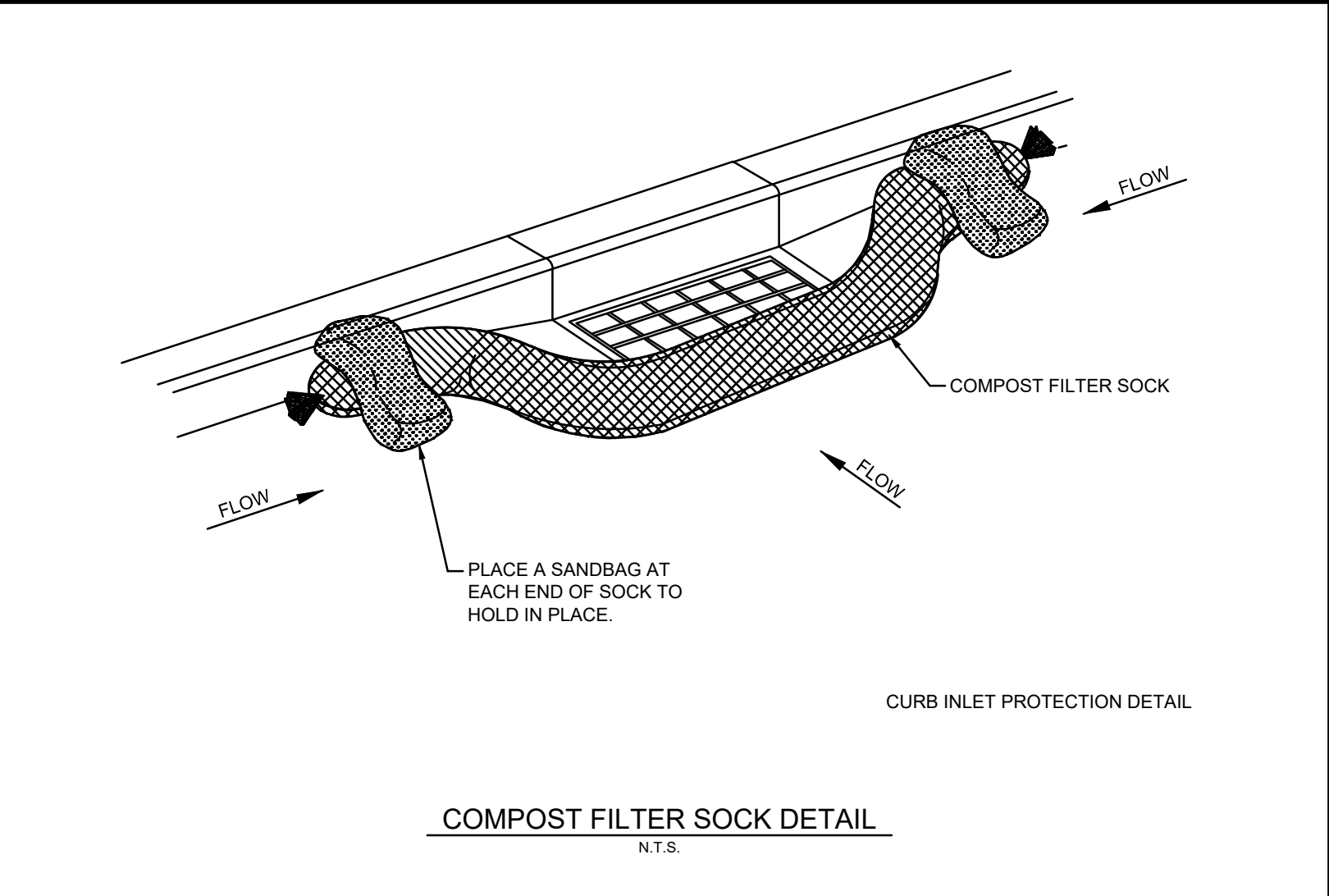
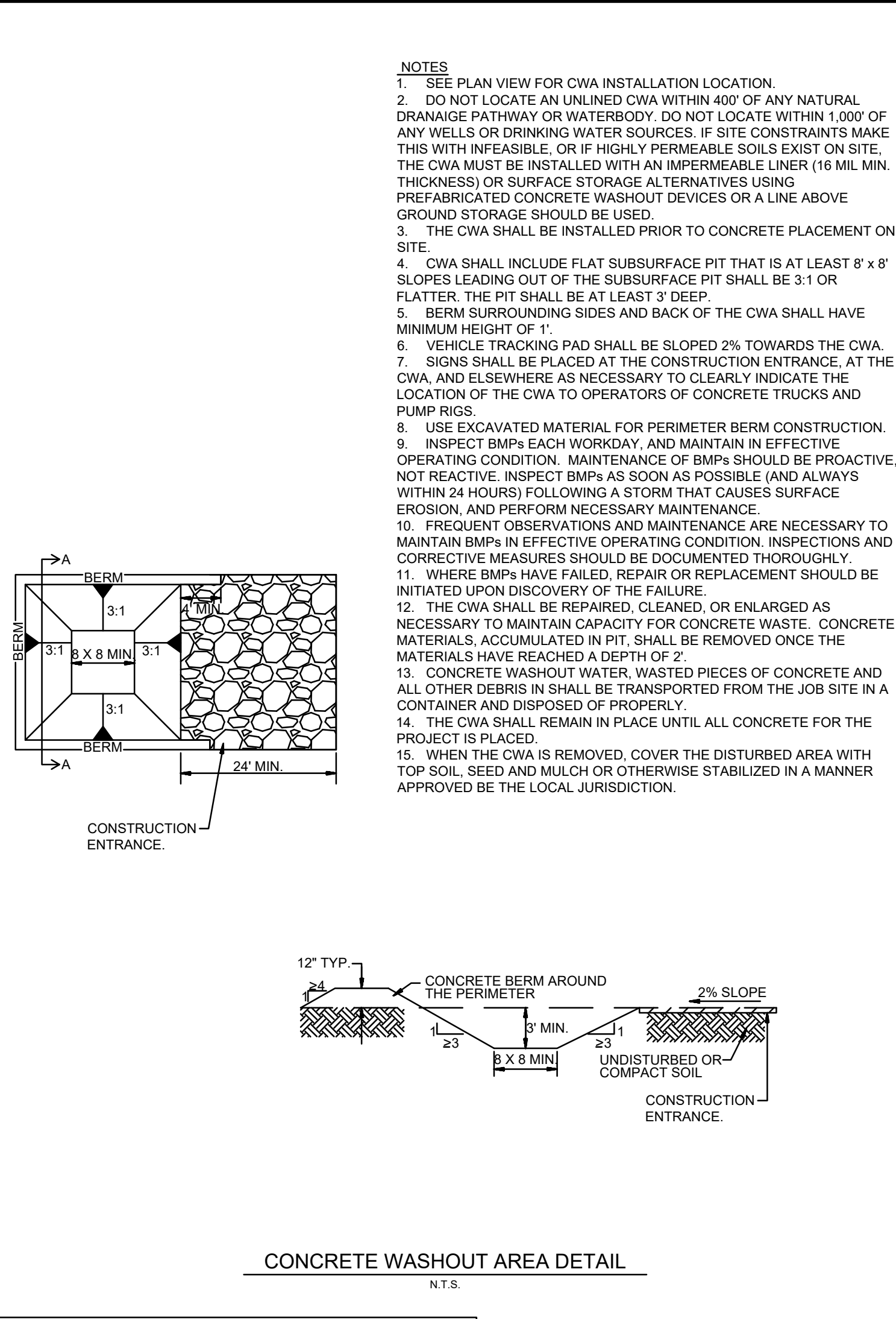
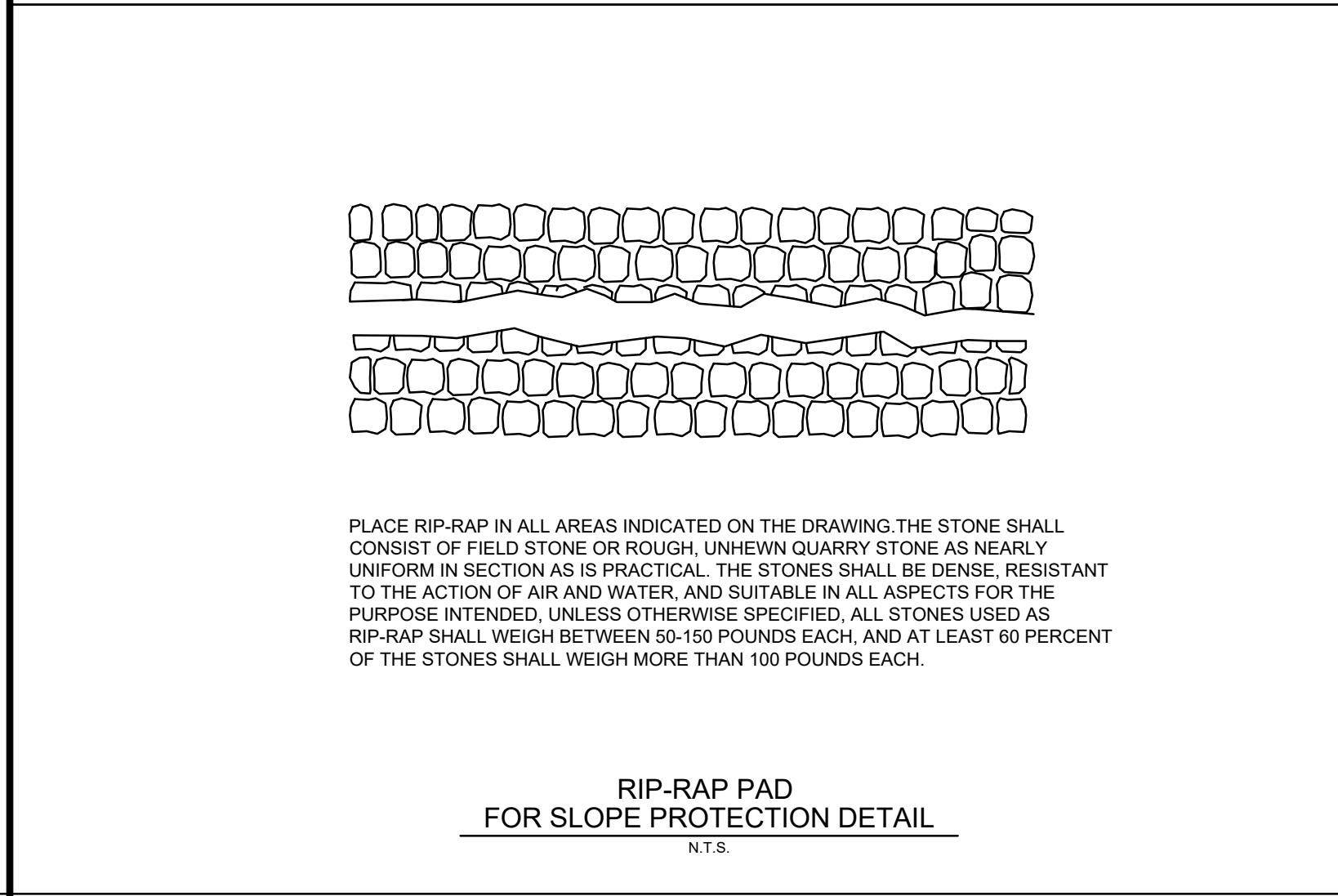
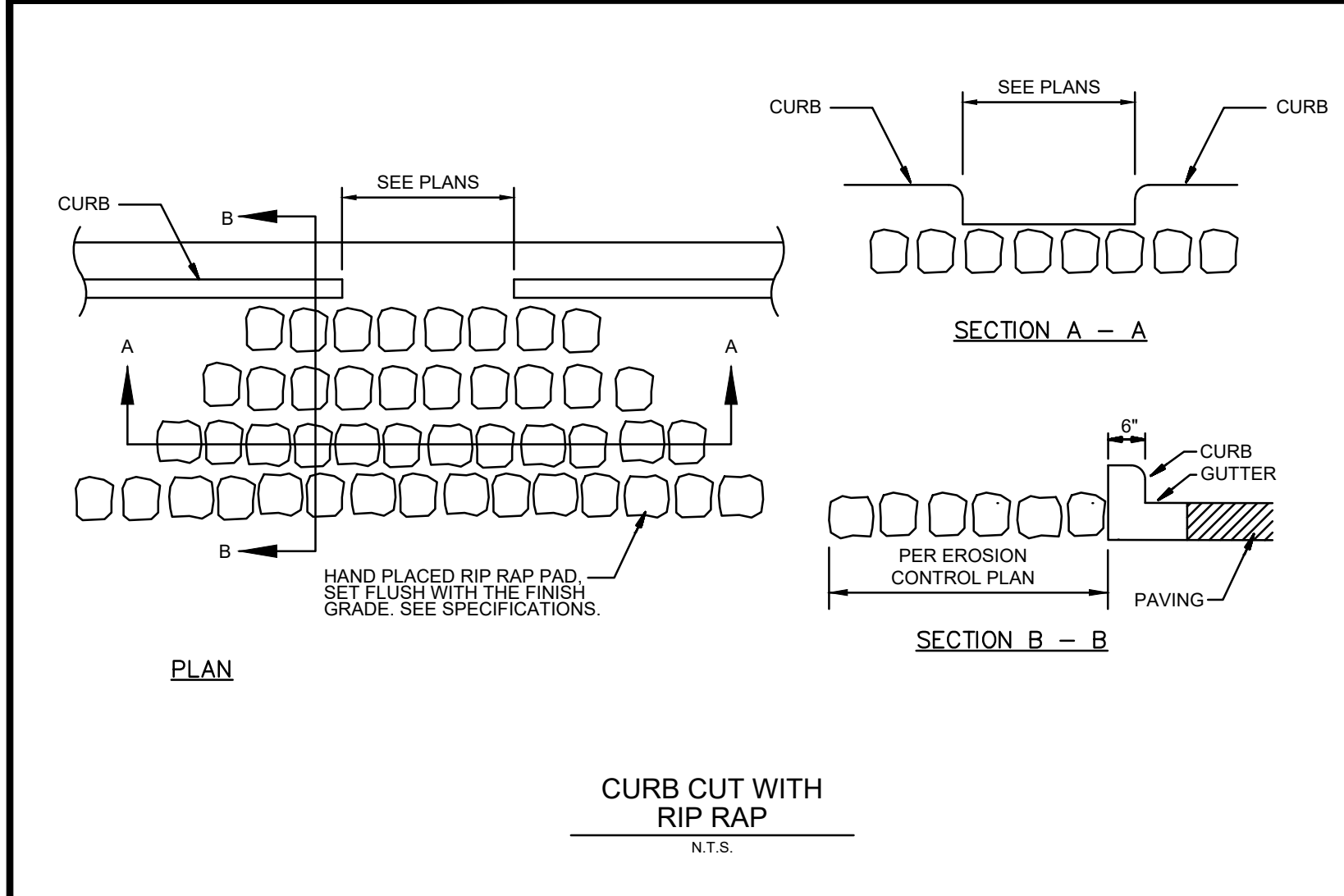


06/21/2023



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NO.	DATE	DESCRIPTION	BY
1	06-08-23	1st CITY SUBMITTAL	AP
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USAGE NOTES:

1. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFETIVELY SECURES THE FILTER SOCK. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET.
2. OVERLAP ENDS OF SOCK PER MANUFACTURERS RECOMMENDATIONS. (1 MIN. 3 MAX.)
3. USE 8" TO 12" DIA. SOCK ON CUBSIDE IN TRAFFIC AREAS.
4. USE 12" - 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

DESIGN CRITERIA:

COMPOST FILTER SOCKS ARE DESIGNED TO RETAIN SEDIMENT TRANSPORTED IN SHEET FLOW FROM DISTURBED AREAS. COMPOST FILTER SOCKS PERFORM THE SAME FUNCTION AS SILT FENCE, ALLOW A HIGHER FLOW RATE, AND ARE USUALLY FASTER AND CHEAPER TO INSTALL. WHERE ALL RUNOFF IS TO BE TREATED BY THE COMPOST FILTER SOCK THE MAXIMUM SLOPE LENGTH BEHIND THE COMPOST FILTER SOCK SHALL NOT EXCEED THOSE SHOWN IN TABLE 1. THE DRAINAGE AREA SHALL NOT EXCEED ¼ ACRE FOR EVERY 100 FT OF COMPOST FILTER SOCK.

THE SEDIMENT AND POLLUTANT REMOVAL PROCESS CHARACTERISTIC TO COMPOST FILTER SOCKS COMBINES BOTH FILTERING AND DEPOSITION FROM SETTLING SOLIDS. THIS IS DIFFERENT THAN METHODS THAT RELY ON PONDING FOR DEPOSITION OF SOLIDS FOR SEDIMENT CONTROL. SUCH AS SILT FENCE. PONDING OCCURS WHEN WATER FLOWING TO THE COMPOST FILTER SOCK ACCUMULATES FASTER THAN THE HYDRAULIC FLOW THROUGH RATE OF THE COMPOST FILTER SOCK. HYDRAULIC FLOW-THROUGH RATS FOR COMPOST FILTER SOCKS ARE 50% GREATER THAN SILT FENCE FILTER FABRIC. GREATER HYDRAULIC FLOW-THROUGH RATES REDUCE PONDING. COMPOST FILTER SOCKS SHALL MEET THE NETTING SPECIFICATIONS IN TABLE 22. COMPOST FILTER SOCKS SHALL MEET THE SPECIFICATIONS IN TABLE 3. COMPOST USED IN COMPOST FILTER SOCKS SHALL MEET THE SPECIFICATION DESCRIBED UNDER COMPOST FILTER MEDIA SPECIFICATIONS.

A 12 INCH DIAMETER COMPOST FILTER SOCK SHALL BE USED ON DEVELOPMENTS WHERE THE LIFE OF THE PROJECT IS GREATER THAN OR EQUAL TO SIX MONTHS. A 12 INCH DIAMETER COMPOST FILTER SOCK MAY ALSO BE USED ON MINOR PROJECTS, SUCH AS RESIDENTIAL HOME SITES OR SMALL COMMERCIAL DEVELOPMENTS.

COMPOST FILTER MEDIA SPECIFICATIONS:

COMPOST USED FOR COMPOST FILTER SOCK FILLER MATERIAL (FILTER MEDIA) SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER. THE COMPOST SHALL BE PRODUCED USING AN AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS INCLUDING TIME AND TEMPERATURE DATA. THE COMPOST SHALL BE FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. NON-COMPOSTED PRODUCTS WILL NOT BE ACCEPTED. TEST METHODS FOR THE ITEMS BELOW SHOULD FOLLOW US COMPOSTING COUNCIL TEST METHODS FOR THE EXAMINATION OF COMPOSTING AND COMPOST GUIDELINES FOR LABORATORY PROCEDURES:

A. PH .5.0-8.0 IN ACCORDANCE WITH TMECC 04.11-A, "ELECTROMETRIC PH DETERMINATIONS FOR COMPOST"

B. PARTICLE SIZE -99% PASSING A 2 IN (50MM) SIEVE AND A MAXIMUM OF 40% PASSING A ¾ IN (9.5MM) SIEVE, IN ACCORDANCE WITH TMECC 02.02-B, "SAMPLE SIEVING FOR AGGREGATE SIZE CLASSIFICATION". (NOTE- IN THE FIELD, PRODUCT COMMONLY IS BETWEEN ½ IN [12.5MM] AND 2 IN [50MM] PARTICLE SIZE.)

C. MOISTURE CONTENT OF LESS THAN 60% IN ACCORDANCE WITH STANDARDIZED TEST METHODS FOR MOISTURE DETERMINATION.

D. MATERIAL SHALL BE RELATIVELY FREE (<1% BY DRY WEIGHT) OF INERT OR FOREIGN MAN MADE MATERIALS.

E. A SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO BEING USED AND MUST COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

CONSTRUCTION SPECIFICATIONS:

THE COMPOST FILTER SOCK SHALL BE INSTALLED ACCORDING TO THIS SPECIFICATION, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

1. COMPOST FILTER SOCKS SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA. IN EXTREME CONDITIONS (I.E., 2:1 SLOPES), A SECOND COMPOST FILTER SOCK SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE.
2. STAKES SHALL BE INSTALLED THROUGH THE MIDDLE OF THE COMPOST FILTER SOCK ON 10 FT (3M) CENTERS, USING 2 IN (50MM) BY 2 IN (50MM) BY 3 FT (1M) WOODEN STAKES. IN THE EVENT STAKING IS NOT POSSIBLE, I.E., WHEN COMPOST FILTER SOCKS ARE USED ON PAVEMENT, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE COMPOST FILTER SOCKS TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.
3. STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 12 IN (300MM), AND 8 IN (200MM) FOR CLAY SOILS.
4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.
5. IF THE COMPOST FILTER SOCK IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION. THE ENGINEER WILL SPECIFY SEED REQUIREMENTS.
6. COMPOST FILTER SOCKS ARE NOT TO BE USED IN PERENNIAL, EPHEMERAL, OR INTERMITTENT STREAMS.

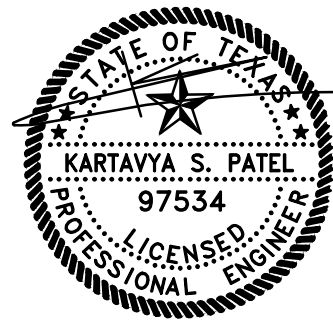
MAINTENANCE:

SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. COMPOST FILTER SOCKS SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF COMPOST FILTER SOCK IS REDUCED. COMPOST FILTER SOCKS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATION AT THE COMPOST FILTER SOCK SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE COMPOST FILTER SOCK IS REMOVED.

COMPOST FILTER SOCK NOTES

N.T.S.

NO.	DATE	DESCRIPTION	BY
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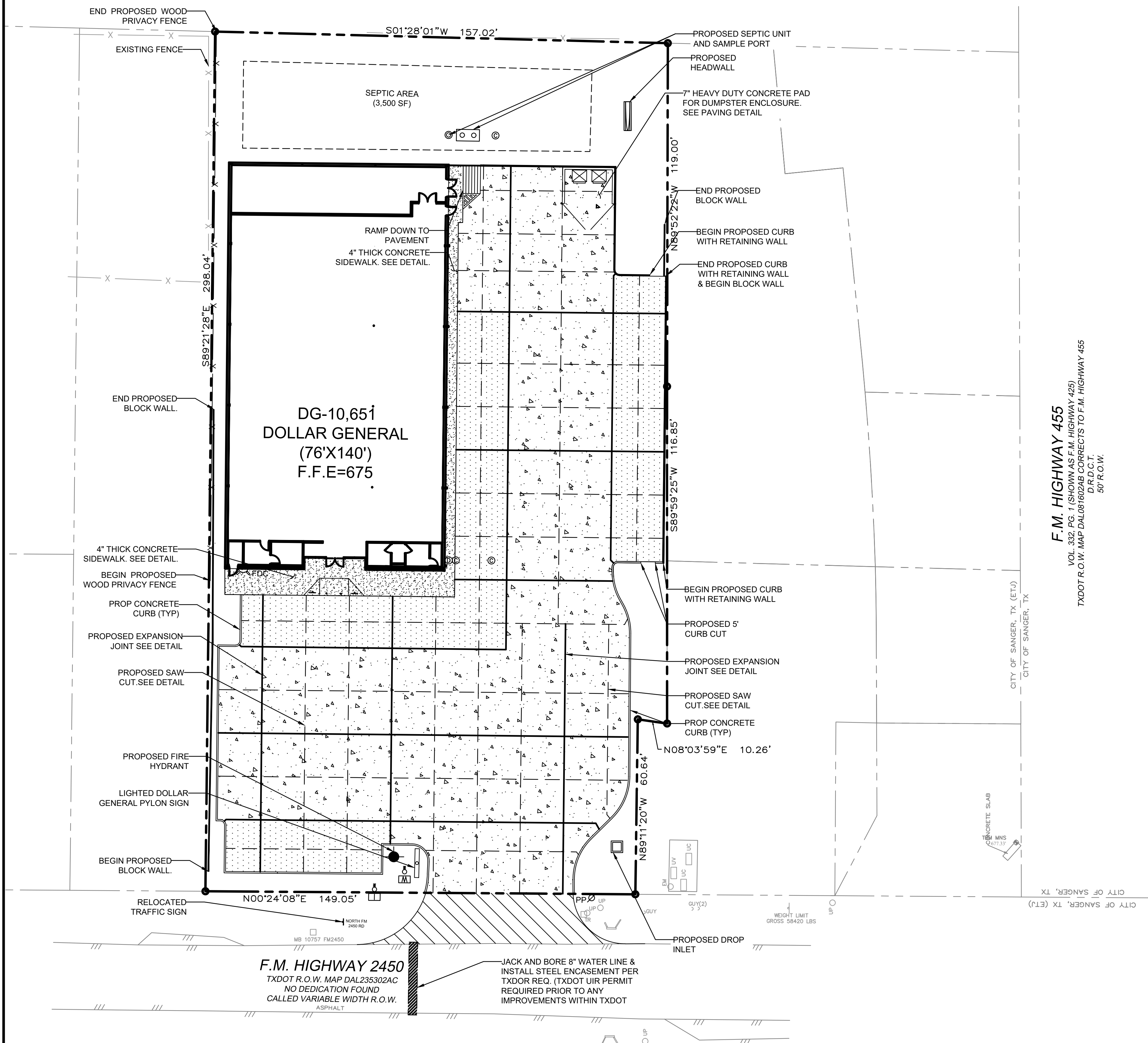


06/21/2023

EROSION CONTROL DETAILS
DOLLAR GENERAL
NE QUADRANT OF FM 2450 & CHAPMAN ROAD
CITY OF SANGER ETJ
DENTON COUNTY, TEXAS 76266
JAMES B.P. JANUARY SURVEY ABSTRACT NO #658

TRIANGLE
ENGINEERING LLC
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KP	AP	06-02-23	SCALE BAR	050-23	C-7.1
TX. P.E. FIRM #11525					



EXISTING LEGEND

air conditioner	storm water manhole
borehole	storm water pipe
cable tv	telephone manhole
electric meter	tank fill lid
fence or handrail	telephone riser
fire dept. connection	traffic signal pole
fire hydrant	unknown manhole
fire lane	utility clean out
guard rail	utility cabinet
grease trap	utility vault
bollard	utility markings (line color)
grate inlet	color of markings
gas meter	utility pole
gas line	utility pole with riser
utility pole anchor	utility sign
irrigation valve	water shutoff
landscape or tree line	water valve
landscape electric box	water manhole
landscape light	water meter
light pole	well
mailbox	water line
monitoring well	one-foot contour lines
overhead utility lines	tree trunk (with canopy)
pool equipment	caliper inches at breast
road sign	height
roof drain	ornamental tree
silt fence	multiple trunks
spot elevation	Google 360 Hyperlink
sanitary sewer manhole	
sanitary sewer pipe	

PAVING LEGEND

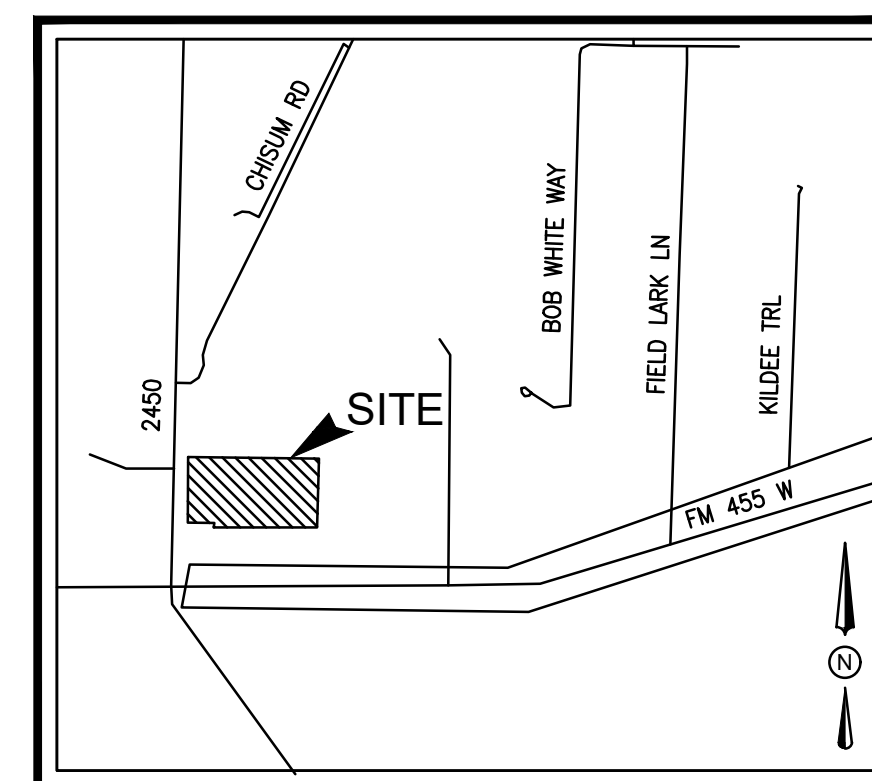
EXPANSION JOINT (@ 60' MAX.)	
SAWCUT JOINT (@ 15' MAX.)	
4" SIDEWALK	
5" LIGHT DUTY CONCRETE	
7" HEAVY DUTY DUMPSTER CONCRETE	
TXDOT DRIVEWAY	
SANITARY SEWER MANHOLE	
SANITARY SEWER CLEANOUT	
SANITARY SEWER DOUBLE CLEANOUT	
SANITARY SEWER SAMPLE PORT	
SEPTIC UNIT	
DOMESTIC WATER METER	
IRRIGATION METER	
FIRE HYDRANT	
FIRE DEPARTMENT CONNECTION-FDC	

PAVING GENERAL NOTES

- STRIP & REMOVE FROM THE CONSTRUCTION AREA ALL TOPSOIL, ORGANICS & VEGETATION TO A MINIMUM DEPTH OF 6 INCHES.
- CONTROL JOINTS FORMED BY SAWING ARE RECOMMENDED BOTH LONGITUDINAL AND TRANSVERSE DIRECTIONS. CONTROL JOINT SHALL BE SAWED WITHIN 3 HOURS AFTER PLACING CONCRETE. JOINTS SHALL BE PROPERLY CLEANED AND SEALED AS SOON AS POSSIBLE AFTER JOINTS ARE CUT.
- DRAINAGE SHOULD BE MAINTAINED AWAY FROM THE FOUNDATION, BOTH DURING AND AFTER CONSTRUCTION. WATER SHOULD NOT BE ALLOWED TO POND NEAR THE FOUNDATION. THE FOLLOWING ITEMS SHOULD PROVIDE FOR POSITIVE DRAINAGE OF WATER AWAY FROM THE FOUNDATION: SIDEWALKS AND OTHER CONCRETE FLAT WORK, PARKING AREAS, DRIVEWAYS AND OTHER SURFACE DRAINAGE FEATURES, AND LANDSCAPING.
- FRENCH DRAINS ARE RECOMMENDED AROUND ANY SLABS WHERE SEEPING GROUND WATER IS ENCOUNTERED DURING CONSTRUCTION.
- SIDEWALK AROUND THE BUILDING SHALL NOT BE STRUCTURALLY CONNECTED TO THE BUILDING FOUNDATION UNLESS IT'S NOTED ON THE STRUCTURAL PLANS.
- ALL EXPANSION JOINTS AND CRACK CONTROL JOINTS SHOULD BE SEALED TO PREVENT THE INFILTRATION OF WATER INTO THE SUBSURFACE. THIS IS PARTICULARLY IMPORTANT AROUND IRRIGATED LANDSCAPING AND ALONG THE DRAINAGE PATH OF ROOF DOWNSPOUTS.
- LANDSCAPE ISLANDS SHOULD BE BACKFILLED WITH LOW PLASTICITY CLAYS TO REDUCE WATER INTRUSION INTO THE SUBSURFACE PAVEMENT STRUCTURES. CURBS SHOULD BE PROVIDED WITH WEEP HOLES IN LANDSCAPE AREAS TO REDUCE THE BUILD UP OF HYDROSTATIC PRESSURE AND TO REDUCE THE INTRUSION OF WATER INTO THE SUBSURFACE MATERIAL.
- CURB AND GUTTER SHALL CONSIST OF STEEL REINFORCED CONCRETE AND SHALL BE SIX (6") INCHES HIGH, UNLESS OTHERWISE NOTED ON THE SITE/GRADING PLANS.
- THE CONTRACTOR SHALL PROCEED WITH PAVING NO MORE THAN SEVENTY-TWO (72) HOURS AFTER DENSITY/MOISTURE TESTS HAVE BEEN TAKEN AND PASSED BY A REGULAR TESTING FIRM.
- MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, ETC. SHALL BE ADJUSTED TO FINISHED GRADE BY THE PAVING CONTRACTOR AT THE TIME OF PAVING.
- SEE IRRIGATION PLAN FOR IRRIGATION SLEEVE PLACEMENT PRIOR TO PAVING CONSTRUCTION.
- GC TO FOLLOW PAVEMENT & SUB GRADE THICKNESS PER GEO TECH RECOMMENDATION ON SOIL REPORT



Scale: 1" = 20' Feet



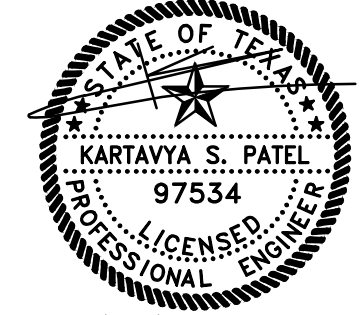
VICINITY MAP
N.T.S.

F.M. HIGHWAY 455
VOL. 332, PG. 1 (SHOWN AS F.M. HIGHWAY 425)
TXDOT R.O.W. MAP DAL081602AB CORRECTS TO F.M. HIGHWAY 455
D.R.D.C.T.
50' R.O.W.




Know what's below.
Call before you dig.

NO.	DATE	DESCRIPTION	BY
1	06-08-23	1st CITY SUBMITTAL	AP
2	06-21-23	REVISED PER CLIENT COMMENT	AP
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06/21/2023

PAVING PLAN					
DOLLAR GENERAL					
NE QUADRANT OF FM 2450 & CHAPMAN ROAD					
CITY OF SANGER ETJ					
DENTON COUNTY, TEXAS 76266					
JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658					
<div></div>					
T: 469.331.8566 F: 469.213.7145 E: info@triangle-engr.com					
W: triangle-engr.com O: 1784 McDermott Drive, Suite 110, Allen, TX 75013					
Planning Civil Engineering Construction Management					
P.E.	DES.	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	AP	06-02-23	SEE SCALE BAR	050-23	C-8.0
TX. P.E. FIRM #11525					

TYPICAL CURB DETAIL
N.T.S.

TYPICAL EXPANSION JOINT DETAIL
N.T.S.

VARIABLE HEIGHT CURB W/RETAINING WALL DETAIL
N.T.S.

CURB W/RETAINING WALL DETAILS

5" CONCRETE PAVEMENT
N.T.S.

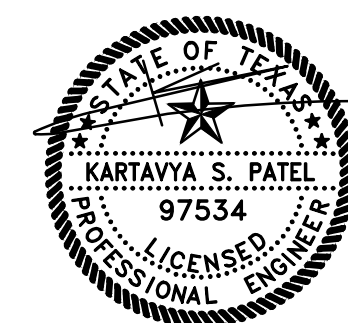
NOTE:
1. CONTRACTOR TO VERIFY WITH CITY REQUIREMENTS. SHOULD THE CITY REQUIREMENTS DIFFER FROM DETAIL, THE CITY REQUIREMENTS WILL SUPERCEDE.
2. CONTRACTOR TO VERIFY REQUIREMENTS FOR INSTALLATION OF PAVEMENT IN FIRE LANE. CONTRACTOR TO INSTALL ACCORDING TO LOCAL, STATE OR GOVERNMENT JURISDICTION.

7" CONCRETE PAVEMENT
N.T.S.


NOTE:
1. CONTRACTOR TO VERIFY WITH CITY REQUIREMENTS. SHOULD THE CITY REQUIREMENTS DIFFER FROM DETAIL, THE CITY REQUIREMENTS WILL SUPERCEDE.
2. CONTRACTOR TO VERIFY REQUIREMENTS FOR INSTALLATION OF PAVEMENT IN FIRE LANE. CONTRACTOR TO INSTALL ACCORDING TO LOCAL, STATE OR GOVERNMENT JURISDICTION

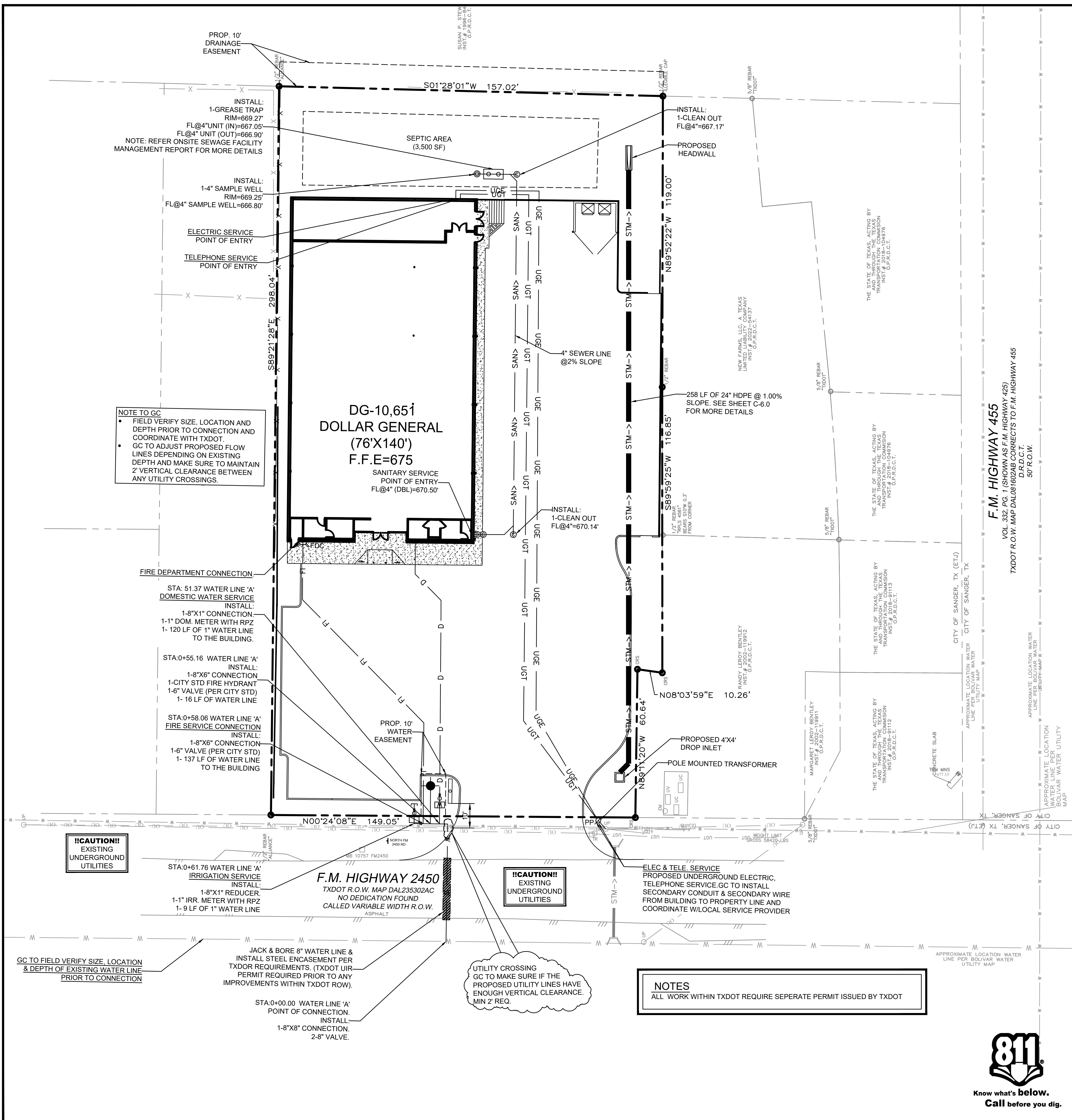
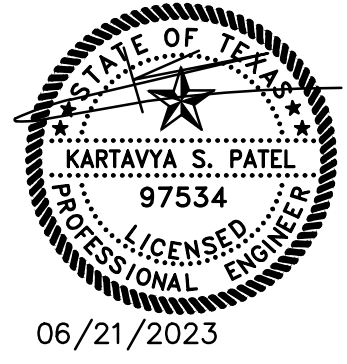
VARIABLE HEIGHT BLOCK RETAINING WALL
N.T.S.

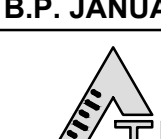
NO.	DATE	DESCRIPTION	BY
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06/21/2023

PAVING DETAILS			
DOLLAR GENERAL			
NE QUADRANT OF FM 2450 & CHAPMAN ROAD			
CITY OF SANGER ETJ			
DENTON COUNTY, TEXAS 76266			
JAMES B.P. JANUARY SURVEY ABSTRACT NO #658			
			
T- 469 331 8506 F- 469 213 1141 E- info@triangle-engr.com W- triangle-engr.com O- 1784 McDermott Drive, Suite 110, Allen, TX 75013			
Planning Civil Engineering Construction Management			
P.E.	DES.	DATE	PROJECT NO.
KP	AP	06-02-23 <small>SEE SCALE BAR</small>	050-23
TX. P.E. FIRM #11252			C-8.1

[illegible]

<h1 style="text-align: center;">UTILITY PLAN</h1> <h2 style="text-align: center;">DOLLAR GENERAL</h2> <p style="text-align: center;">NE QUADRANT OF FM 2450 & CHAPMAN ROAD</p> <p style="text-align: center;">CITY OF SANGER ETJ</p> <p style="text-align: center;">DENTON COUNTY, TEXAS 76266</p> <p style="text-align: center;">JAMES B.P. JANUARY SURVEY ABSTRACT NO # 658</p>					
					
<p>T: 489.331.8566 F: 489.213.7145 E: info@triangle-engr.com W: triangle-engr.com O: 1784 McDermott Drive, Suite 110, Allen, TX 75013</p>					
Planning		Civil Engineering		Construction Management	
P.E.	DES.	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	AP	06-06-2023	SEE SCALE BAR	050-23	C-9.0
TX. P.E. FIRM #115225					

MATERIAL LIST:

- A. SERVICE CLAMP REQUIRED.
B. 1" CORPORATION STOP - SERVICE PIPE OUTLET. (SEE NOTE #2)
C. 1" SERVICE PIPE.
D. LOOKING ANGLE METER STOP; SERVICE PIPE INLET X SWIVEL COUPLING NUT OUTLET:
• FOR 5/8" AND 3/4" METERS: 1" X 3/4"
• FOR 1" METERS: 1" X 1"
• SEE NOTE #2
E. PLASTIC RECTANGULAR METER BOX. (SEE TABLE BELOW)
F. PIPE CASING WHERE APPLICABLE. (AS PER DETAIL WT-01)
G. WATER METER, CENTERED IN BOX. (SEE TABLE BELOW)
H. WATER METER COUPLING, MALE I.P.T. X SWIVEL COUPLING NUT:
• FOR 5/8" AND 3/4" METERS: 3/4" X 8 1/2" LONG.
• FOR 1" METERS: LENGTH OF PIPE TO BE DETERMINED BY CONTRACTOR. EXTEND PIPE TO 4'-6" OUTSIDE OF METER BOX.
I. BRONZE GATE VALVE, NON-RISING STEM (3/4" OR 1") FEMALE I.P.T. (PROPERTY OWNERS CUT-OFF OUTSIDE METER BOX IN SEPARATE VALVE CAN WITH LID.
J. 3/4" OR 1" PIPE MEETING CITY CODE REQUIREMENTS.

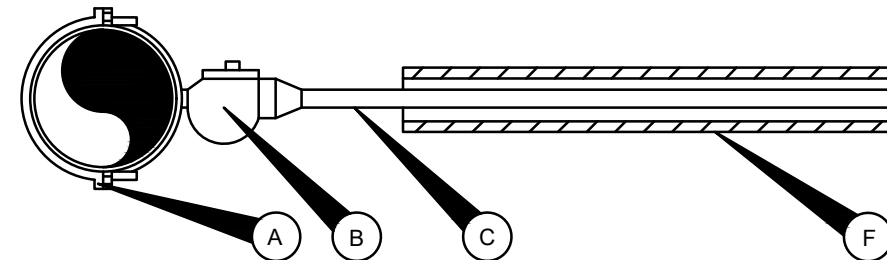
METER SIZE	LENGTH
5/8"	7 1/2"
3/4"	7 1/2"
1"	11"

NOTES:

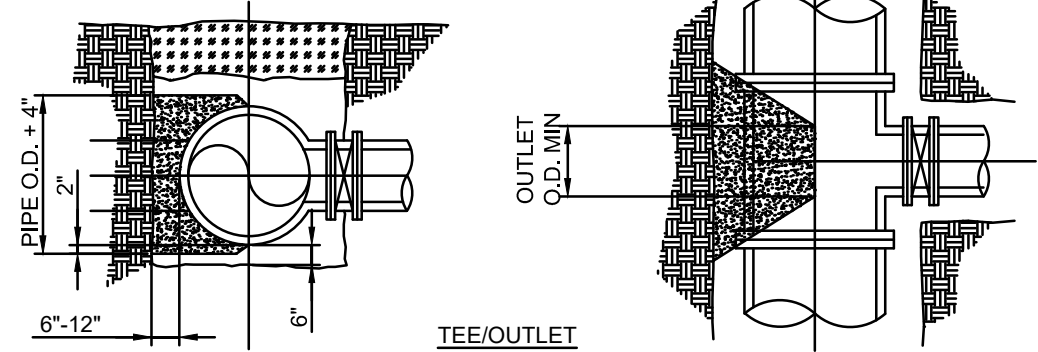
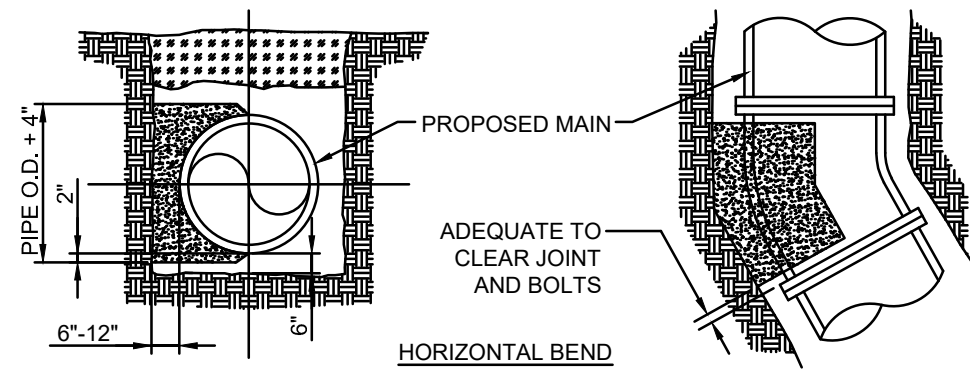
1. SERVICE PIPE SHALL BE COPPER TUBE SIZE. IT MAY BE 150 PSI ANNEALED SEAMLESS TYPE "K" COPPER TUBING OR 200 PSI BLACK COLORED POLYETHYLENE HAVING A DIMENSION RATIO OF 9 (DR9).
2. ALL STAINLESS STEEL INSERTS THAT COME WITH COMPRESSION FITTINGS SHALL NOT BE USED ON ANY CONNECTIONS.
3. SERVICE SADDLES SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM.
4. TOP OF BOXES SHALL BE 1" ABOVE FINISHED GRADE.
5. PIPING AND TUBING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 510.3 OF THE STANDARD SPECIFICATIONS. SPECIAL ATTENTION IS CALLED TO "PIPE BEDDING ENVELOPE" AND "BACKFILLING", SECTIONS 510.3 (14) AND 510.3 (25), RESPECTIVELY.
6. AXIS OF METER ASSEMBLY (LINE THROUGH METER STOP, METER, PIPING AND OWNERS CUTOFF) SHALL BE 10" BELOW TOP OF BOX.
7. SLOTS PROVIDED IN METER BOX TO ACCOMMODATE PIPING INTO AND OUT OF BOX. SHALL NOT BE MODIFIED.
8. LOCATION OF METER BOXES SHALL BE SUBJECT TO THE APPROVAL OF THE C.O.R.R.

PART NUMBER	SERIES	SIZE	HEIGHT	WIDTH	LENGTH
DFW36C-BODY	36C	STD.	12-1/4"	TOP = 13-3/4"	TOP = 19"
DFW36C-SBSM	36C	STD.	12-1/4"	BASE = 10"	BASE = 18-1/4"
DFW36C-SBSM-LID	36C	STD.	1-3/4"	LID = 10"	LID = 15"

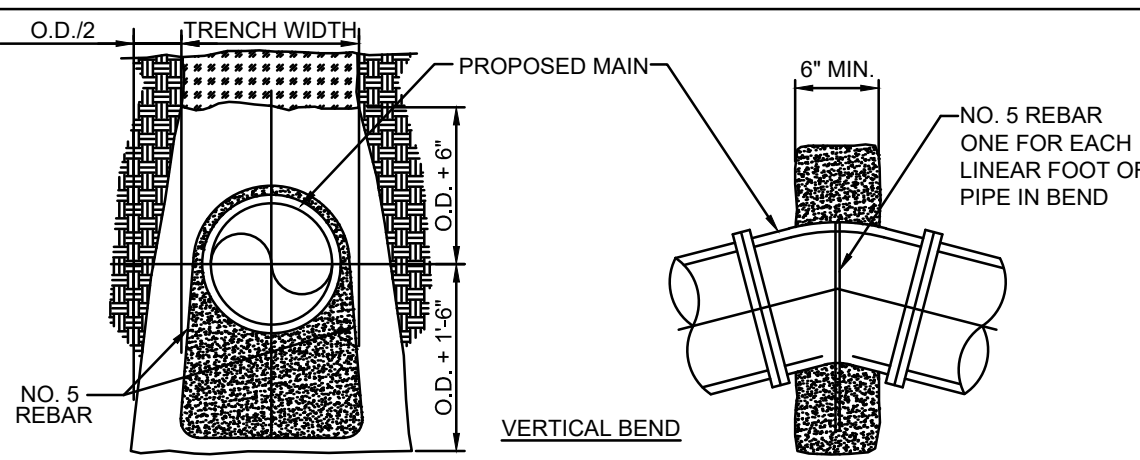
* ROTEC BY DFW PLASTICS INCORPORATED OR APPROVED EQUAL.



1" & 3/4" WATER METER DETAIL
N.T.S.



TEE/OUTLET



VERTICAL BEND

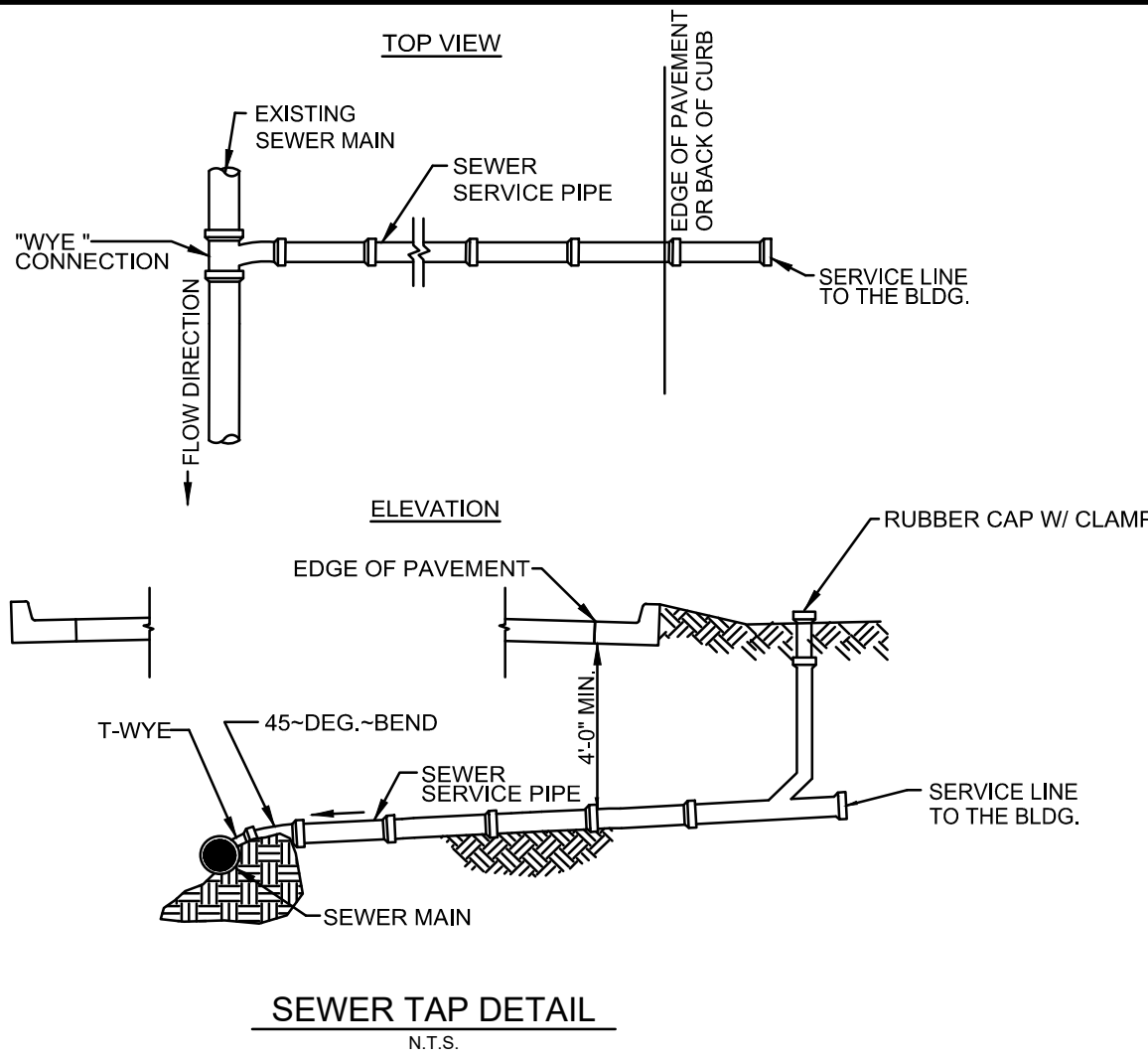
THRUST BLOCK DESIGN AS FOLLOWS:

- A. PRESSURE OF 150 P.S.I. (ACTUAL IF HIGHER)
+ 50% SURGE ALLOWANCE
B. MAXIMUM SOIL BEARING:
C. ALL PIPE & FITTING TO BE WRAPPED WITH 40 PLASTIC MIL.

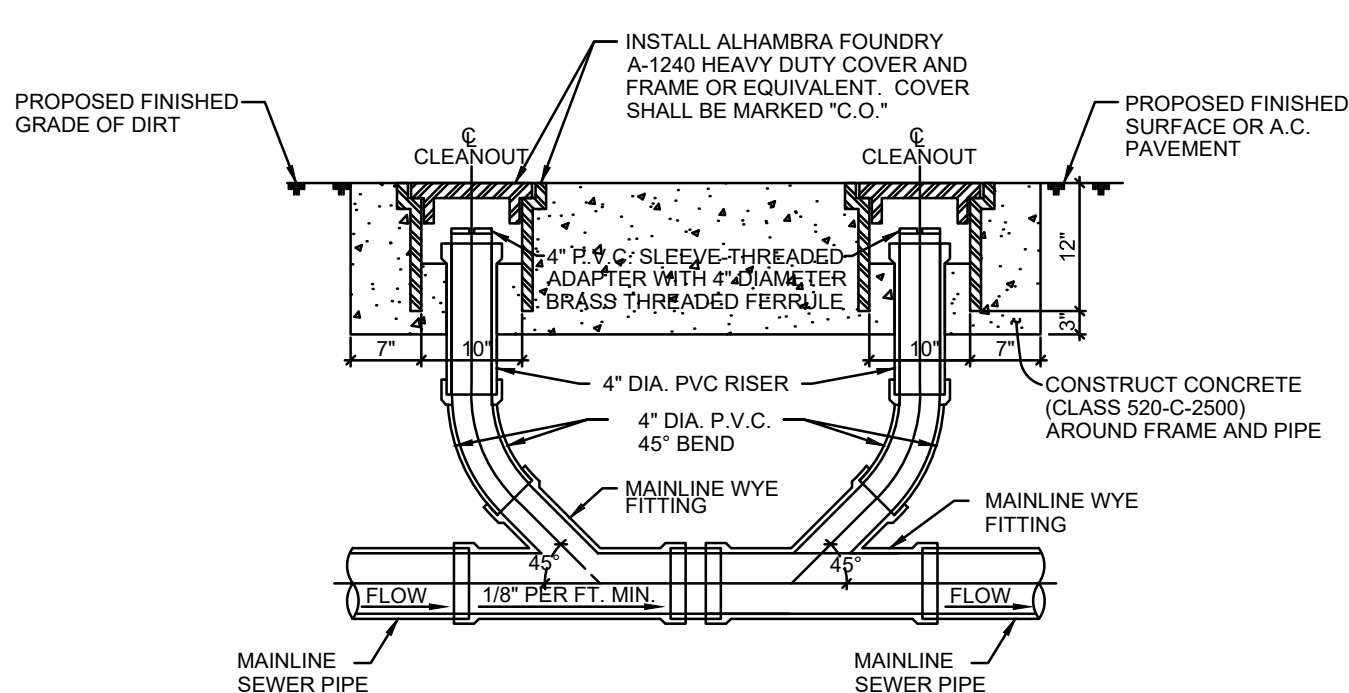
SOIL TYPE

SOIL TYPE	PRESSURE
LIMESTONE	4,000 LBS./SQ. FT.
UNDISTURBED SOIL, CALICHE	2,000 LBS./SQ. FT.
LOOSE OR SPONGY SOIL	1,500 LBS./SQ. FT.

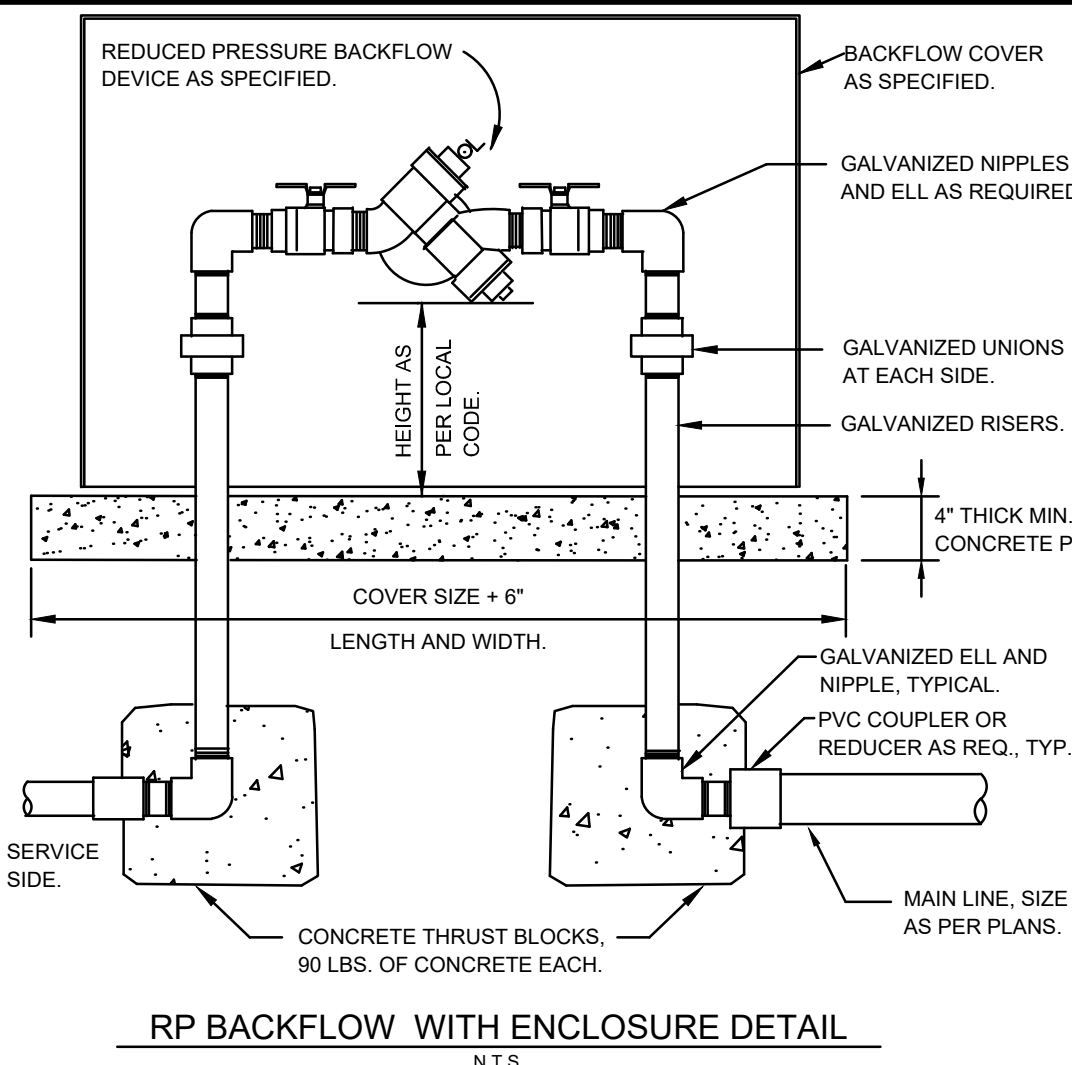
THRUST BLOCK DETAIL
N.T.S.



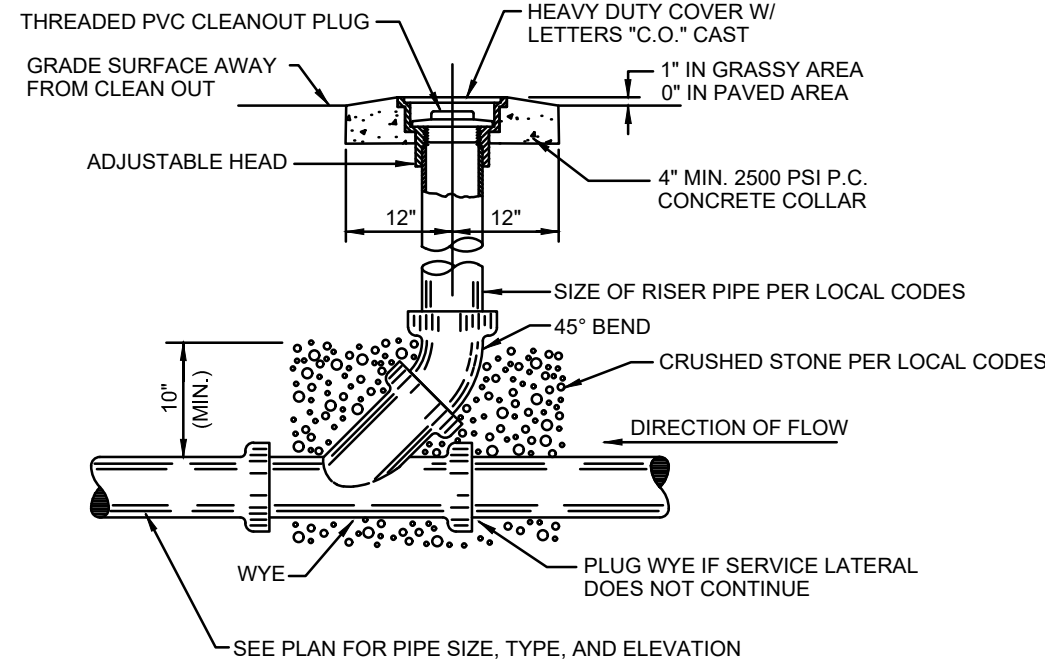
SEWER TAP DETAIL
N.T.S.



SANITARY SEWER DOUBLE CLEAN-OUT
N.T.S.



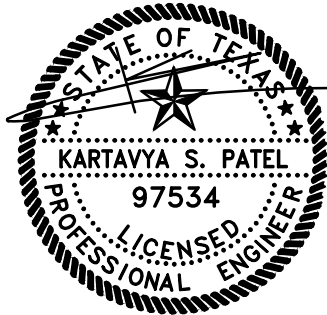
RP BACKFLOW WITH ENCLOSURE DETAIL
N.T.S.



SANITARY SEWER CLEAN-OUT
N.T.S.

NOTE:
SEE APPLICABLE DETAIL FOR BACKFILL AND BEDDING INSTRUCTIONS.

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06/21/2023

UTILITY DETAILS

DOLLAR GENERAL

NE QUADRANT OF FM 2450 & CHAPMAN ROAD

CITY OF SANGER ETJ

DENTON COUNTY, TEXAS 76266

JAMES B.P. JANUARY SURVEY ABSTRACT NO #658

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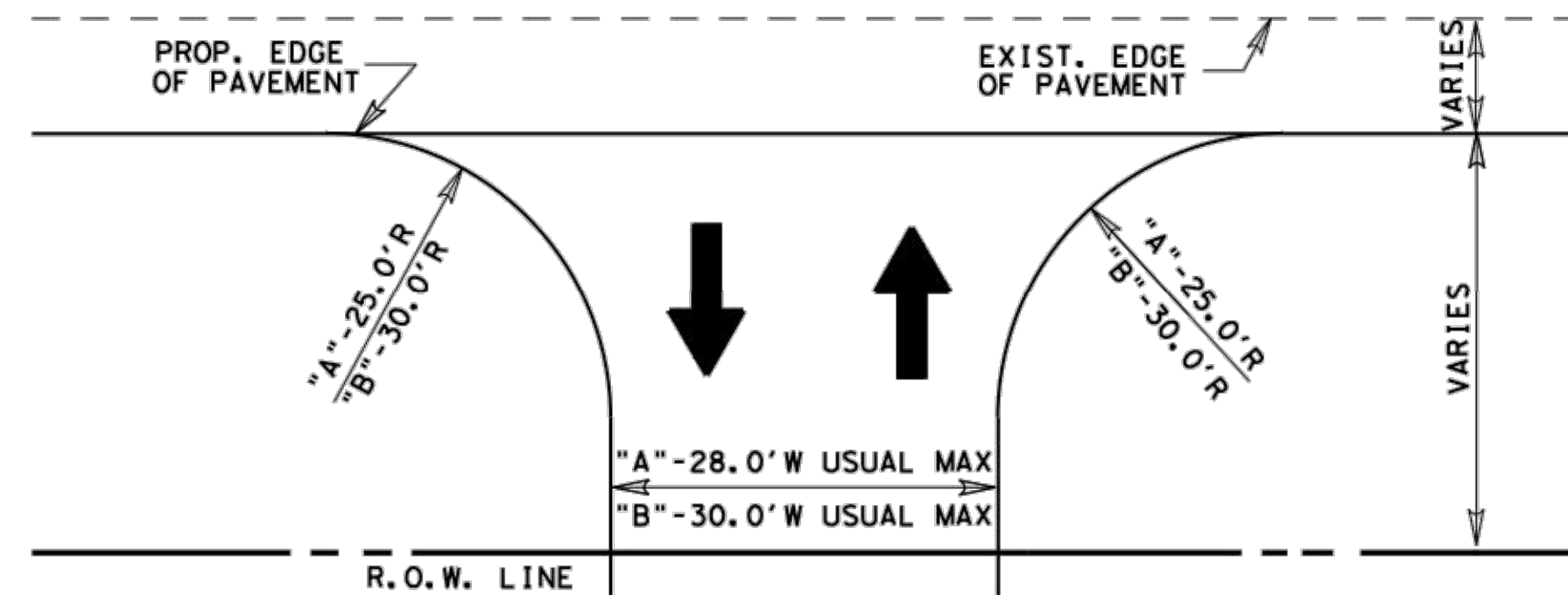
Planning | Civil Engineering | Construction Management

P.E.	DES.	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	AP	06-02-23	SCALE BAR	050-23	C-9.1

TX. P.E. FIRM #11525

42

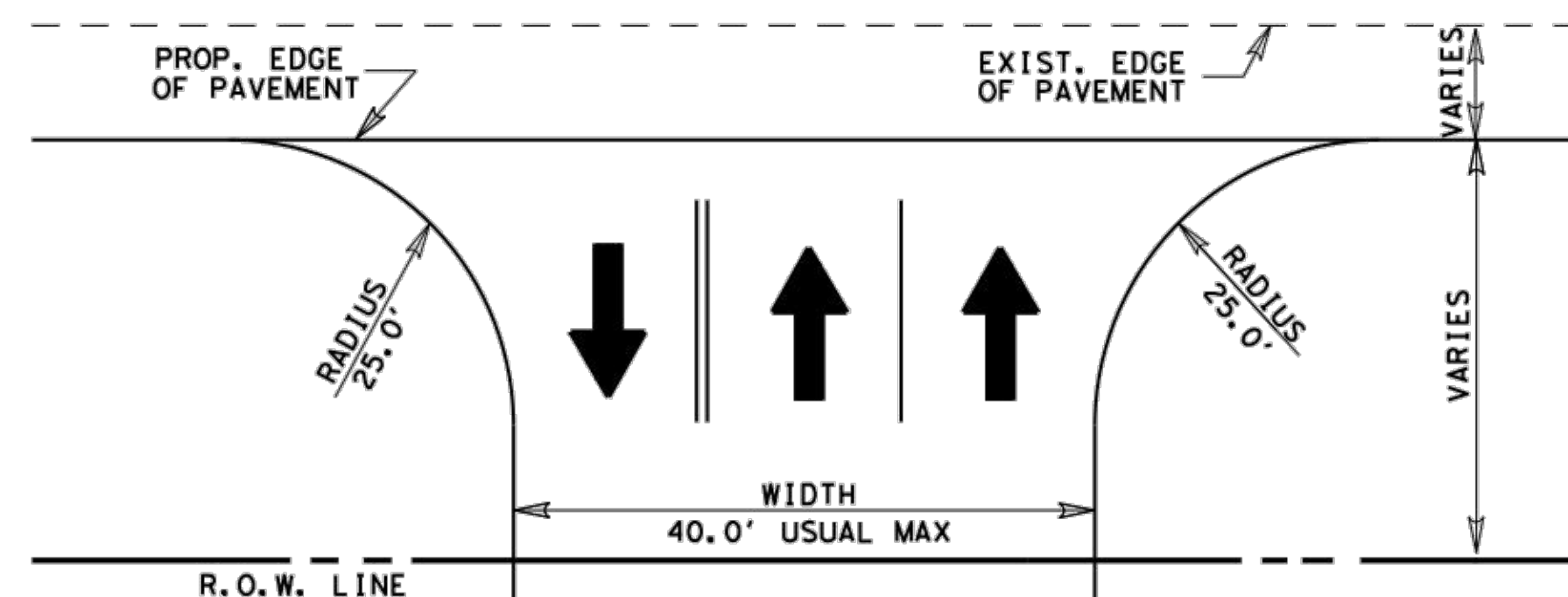
DESIGNS FOR TWO-WAY COMMERCIAL DRIVEWAYS



"A"- ONE ENTRY LANE AND ONE EXIT LANE, FEWER THAN 4 LARGE VEHICLES PER HOUR

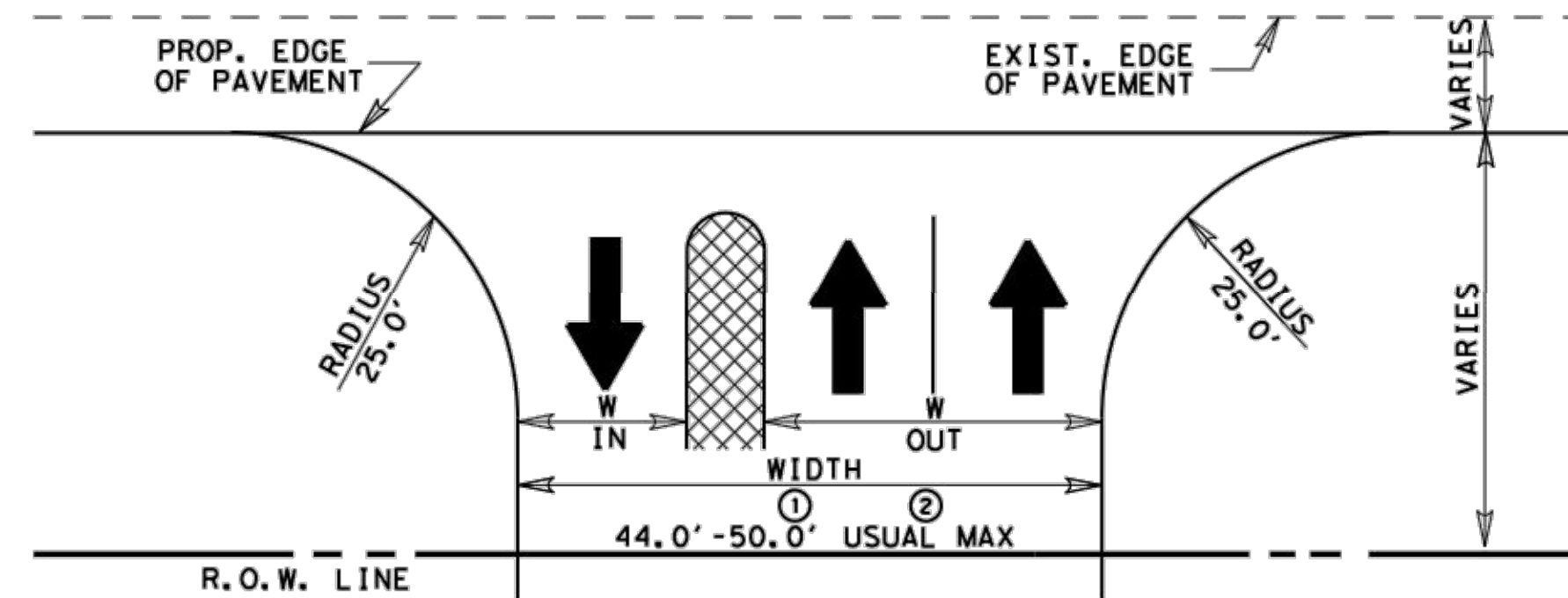
"B"- ONE ENTRY LANE AND ONE EXIT LANE, 4 OR MORE SINGLE UNIT VEHICLES^① PER HOUR

① - DRIVEWAY DESIGNS FOR LARGER VEHICLES WILL BE CONSIDERED ON A CASE BY CASE BASIS



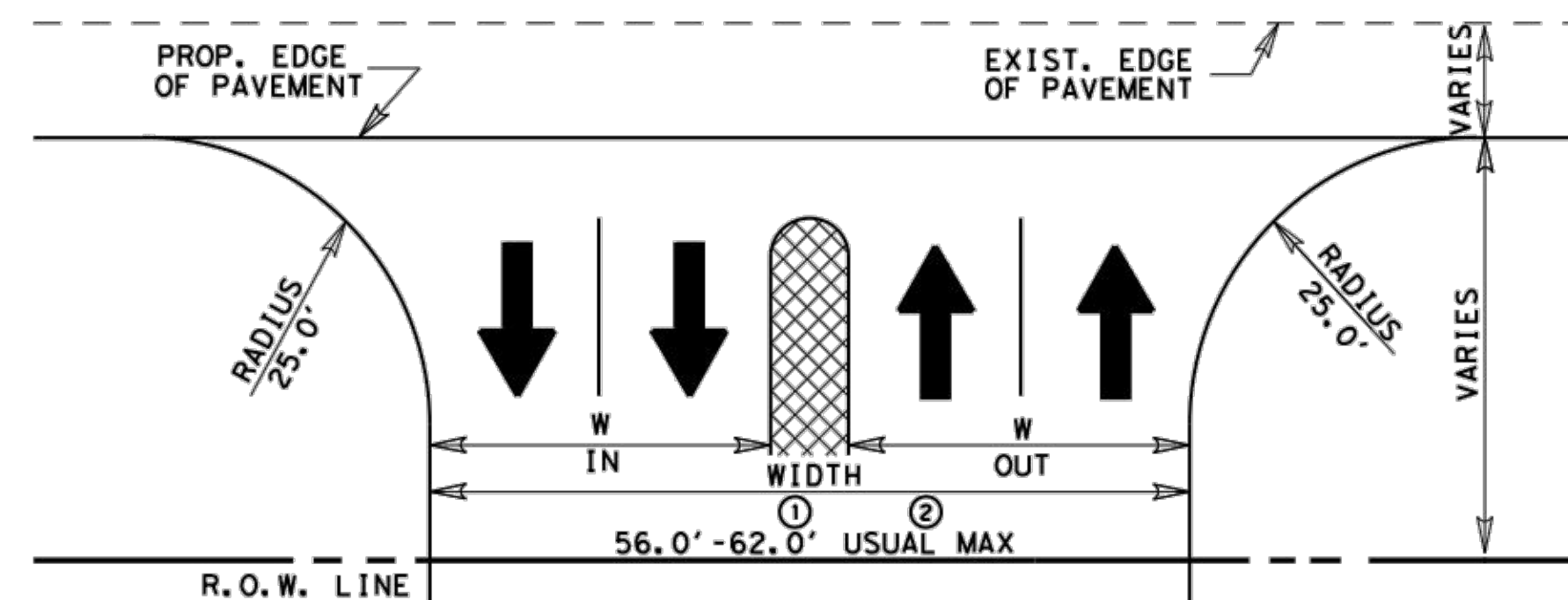
ONE ENTRY LANE AND TWO EXIT LANES (WITHOUT DIVIDERS)

DESIGNS FOR TWO-WAY COMMERCIAL DRIVEWAYS



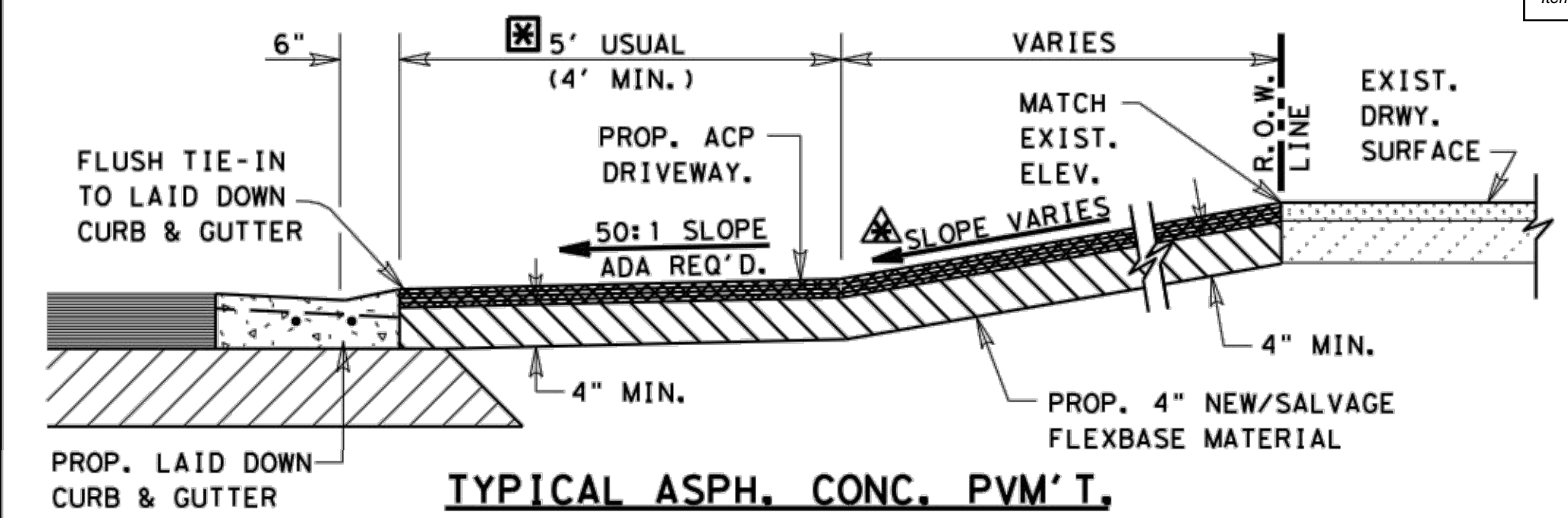
- ① - 4.0' WIDE DIVIDER, FACE-TO-FACE CURBS
② - 10.0' WIDE DIVIDER, FACE-TO-FACE CURBS

ONE ENTRY LANE AND TWO EXIT LANES (WITH A DIVIDER)

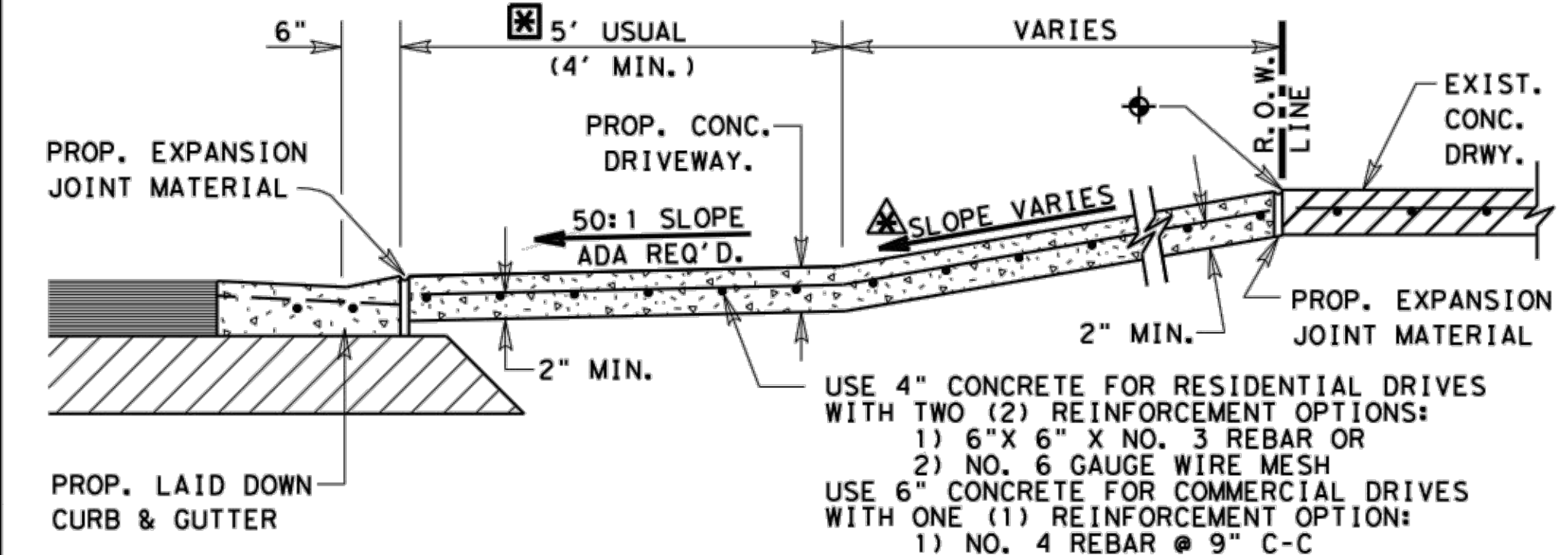


- ① - 4.0' WIDE DIVIDER, FACE-TO-FACE CURBS
② - 10.0' WIDE DIVIDER, FACE-TO-FACE CURBS

TWO ENTRY LANES AND TWO EXIT LANES (WITH A DIVIDER)



TYPICAL ASPH. CONC. PVM'T.
DRIVEWAY SECTION
N.T.S.



TYPICAL CONCRETE
DRIVEWAY SECTION
N.T.S.

CONCRETE SHALL BE SAW CUT TO THE LIMITS OF REMOVAL WHERE APPLICABLE.

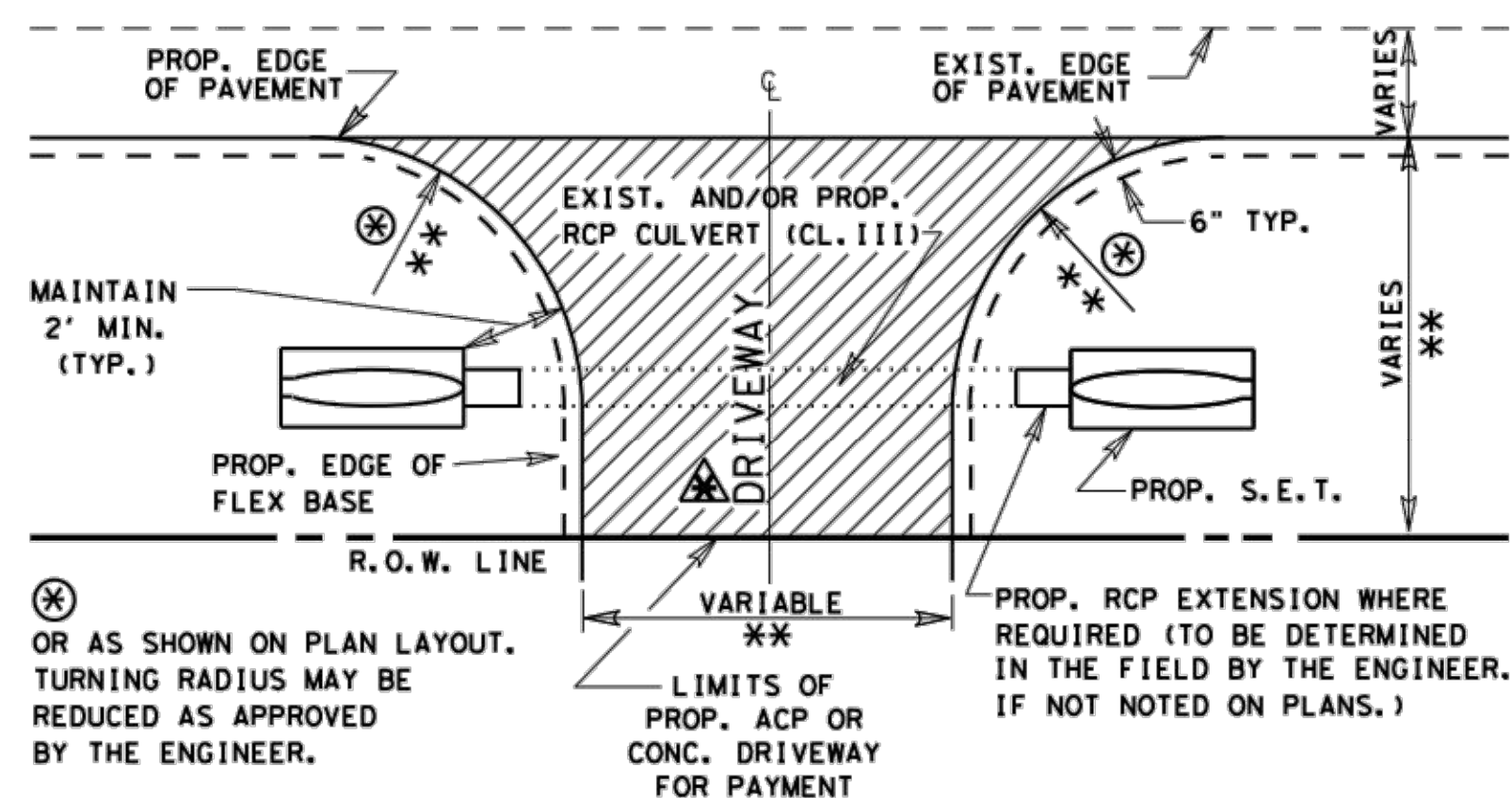
PROF./FUTURE SIDEWALK CROSSING LOCATION UNLESS SHOWN ELSEWHERE ON P&P SHEETS. SEE P&P SHEETS FOR PROF. SIDEWALK LOCATION IF SIDEWALKS ARE INCLUDED AS PART OF PROJECT. REFER TO STATE STANDARDS - PEDESTRIAN FACILITIES - FOR ADDITIONAL REQUIREMENTS.

ENTRANCE'S BASE AND SURFACING MAY BE EXTENDED BEYOND R.O.W. LINE AS REQUIRED TO MEET EXISTING GRADE IN A SATISFACTORY MANNER OF WHICH NO STEEPER THAN 12:1 FOR COMMERCIAL DRIVEWAY AND 8:1 FOR RESIDENTIAL DRIVEWAY SLOPE WILL BE CONSTRUCTED.

PROP. DWY ALGEBRAIC DIFFERENCE TABLE	
COMMERCIAL DRIVEWAYS @ A = 6% MAX.	
RESIDENTIAL DRIVEWAYS @ A = 8% MAX.	

PROPOSED DRIVEWAY SLOPE TABLE	
COMMERCIAL DRIVEWAYS @ 12:1 MAX.	
RESIDENTIAL DRIVEWAYS @ 8:1 MAX.	

PRIVATE AND COMMERCIAL DRIVES WITHOUT CURB & GUTTER

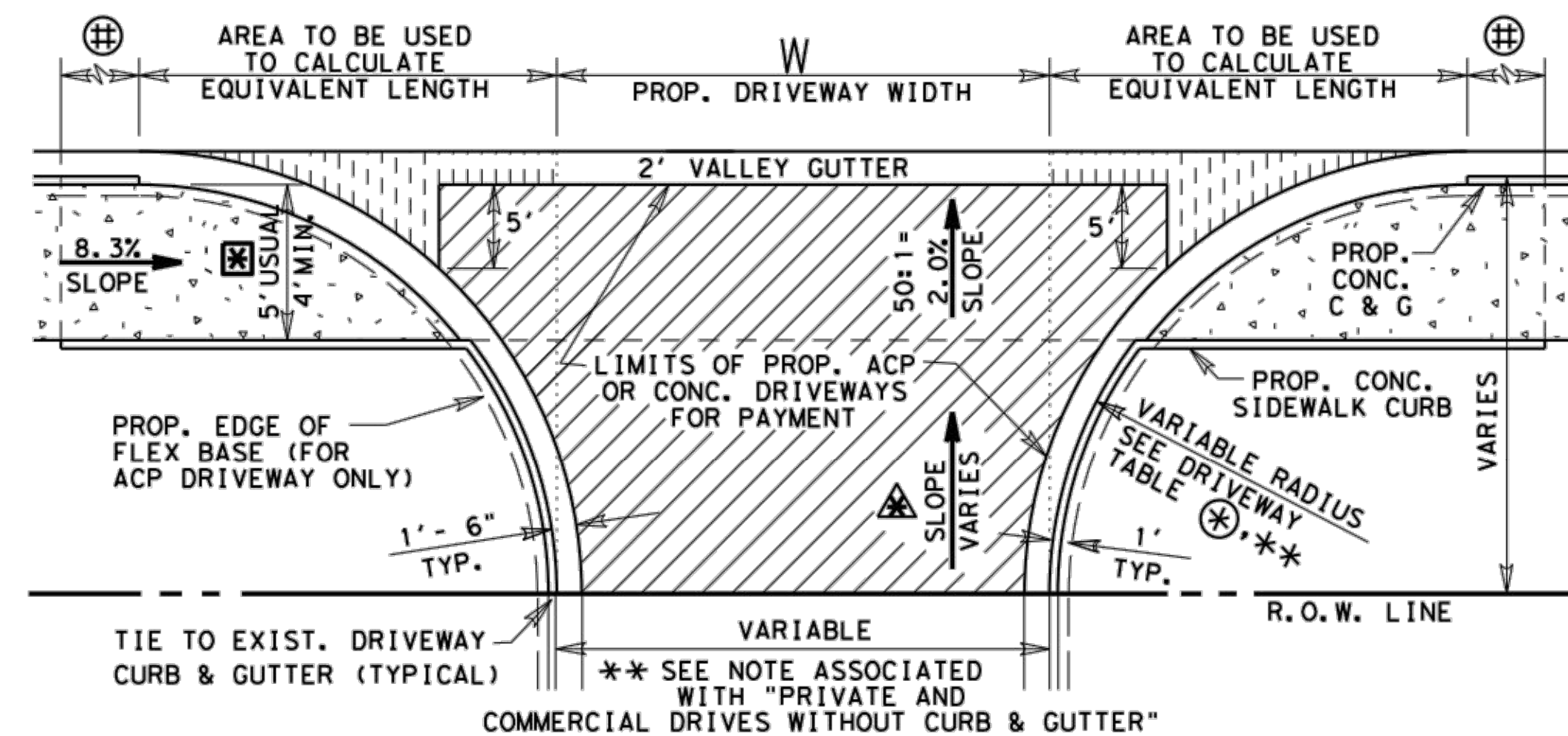


PLAN OF PRIVATE AND COMMERCIAL DRIVES

** FOR PRIVATE RESIDENTIAL DRIVES, TRY TO MATCH EXISTING WITH A MINIMUM WIDTH OF 12 FT. AND A MAXIMUM WIDTH OF 24 FT. WITH 15 FT. USUAL RADIUS. FOR COMMERCIAL DRIVES, USE ABOVE COMMERCIAL DRIVEWAY DETAILS.

SEE TYPICAL DRIVEWAY SECTIONS NOTES FOR DRIVEWAY SLOPE CRITERIA.

PRIVATE AND COMMERCIAL DRIVES WITH CURB & GUTTER



PLAN OF PRIVATE AND COMMERCIAL DRIVES

SEE P&P SHEETS FOR LOCATIONS OF DRIVES
N.T.S.

PROF./FUTURE CONC. SIDEWALK LOCATION UNLESS SHOWN ELSEWHERE ON P&P SHEETS. REFER TO STATE STANDARDS - PEDESTRIAN FACILITIES - FOR ADDITIONAL REQUIREMENTS.

LIMITS OF SLOPE FOR PROP. CONC. CURB BASED ON 8.3% SLOPE FOR SIDEWALK.

SEE TYPICAL DRIVEWAY SECTIONS NOTES FOR DRIVEWAY SLOPE CRITERIA.

LF EQUIVALENT TABLE FOR PAYMENT LIMITS OF 2' VALLEY GUTTER

LF OF VALLEY GUTTER = W + X1 + X2		
WHERE X1 AND X2 MAY VARY DEPENDING ON RADIUS		
Prop. Driveway Radius	X1 or X2 (Sq Ft Area / 2')	Equivalent LF Length
5'	1	
8'	2	
10'	4	
12'	6	
15'	9	
18'	12	
20'	15	
22'	18	
25'	24	
28'	30	
30'	34	

SEE DRIVEWAY TABLE FOR LIMITS OF LAID DOWN CURB TO BE PAID FOR AS CURB AND GUTTER

DRIVEWAY TYPES

TY PB-1
EXIST. PRIVATE OR COMMERCIAL DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 4" NEW AND/OR SALVAGE FLEX. BASE, PRIMED AND SURFACED WITH 114#/SY ACP.

CONCRETE (RESIDENTIAL)
EXIST. PRIVATE DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 4" CONCRETE. TO BE PAID FOR BY THE SQ. YD.

CONCRETE (COMMERCIAL)
EXIST. BUSINESS DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 6" CONCRETE. TO BE PAID FOR BY THE SQ. YD.

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PHARR DISTRICT STANDARD

TEXAS DEPARTMENT OF TRANSPORTATION
DRIVEWAY DETAILS
PRIVATE
(RESIDENTIAL-COMMERCIAL)

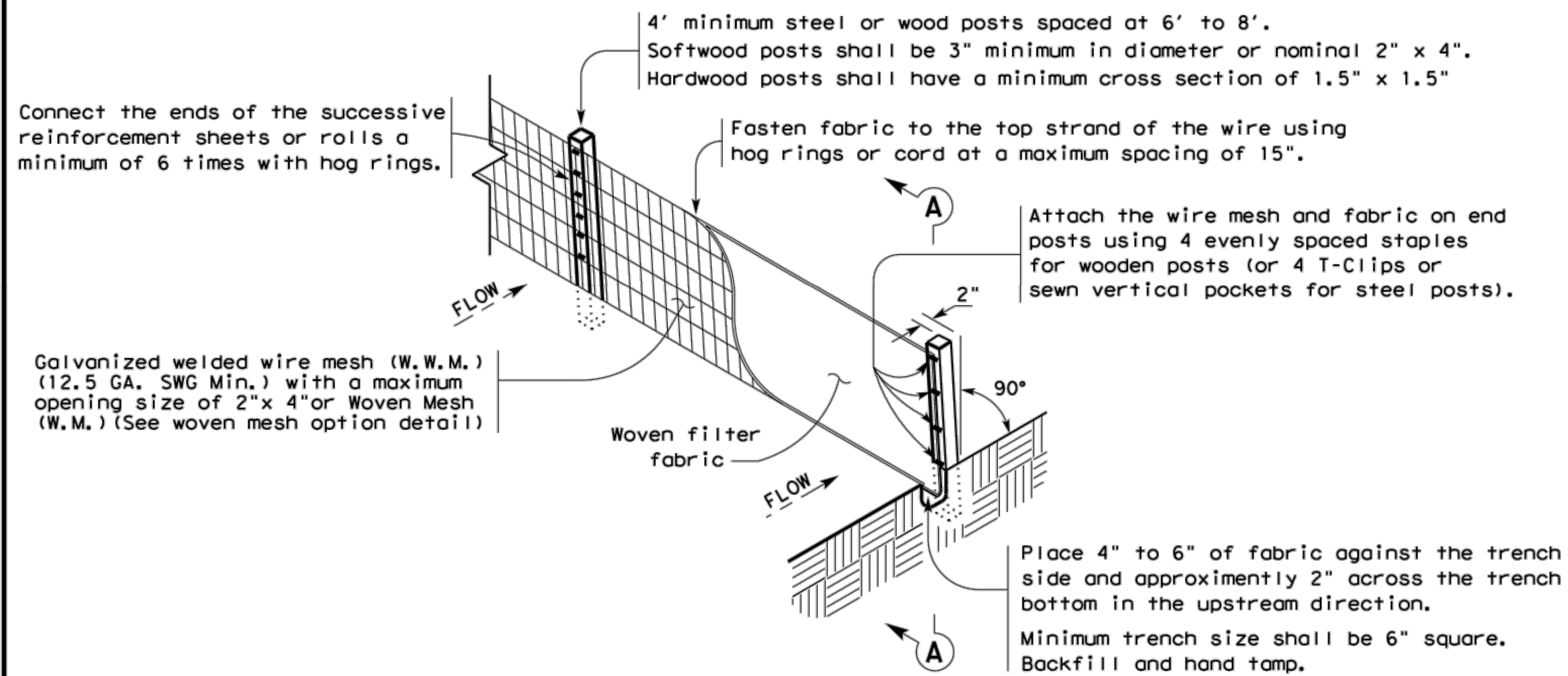
REV. 01/17

DRIVEWAY2.DGN

FED. RD. DIV. NO.	PROJECT NO.	FILE NO.	SHEET NO.
6			17 OF 32
STATE	STATE DIST. NO.	COUNTY	CONT.
TEXAS	21		
SECT.	JOB	HIGHWAY NO.	

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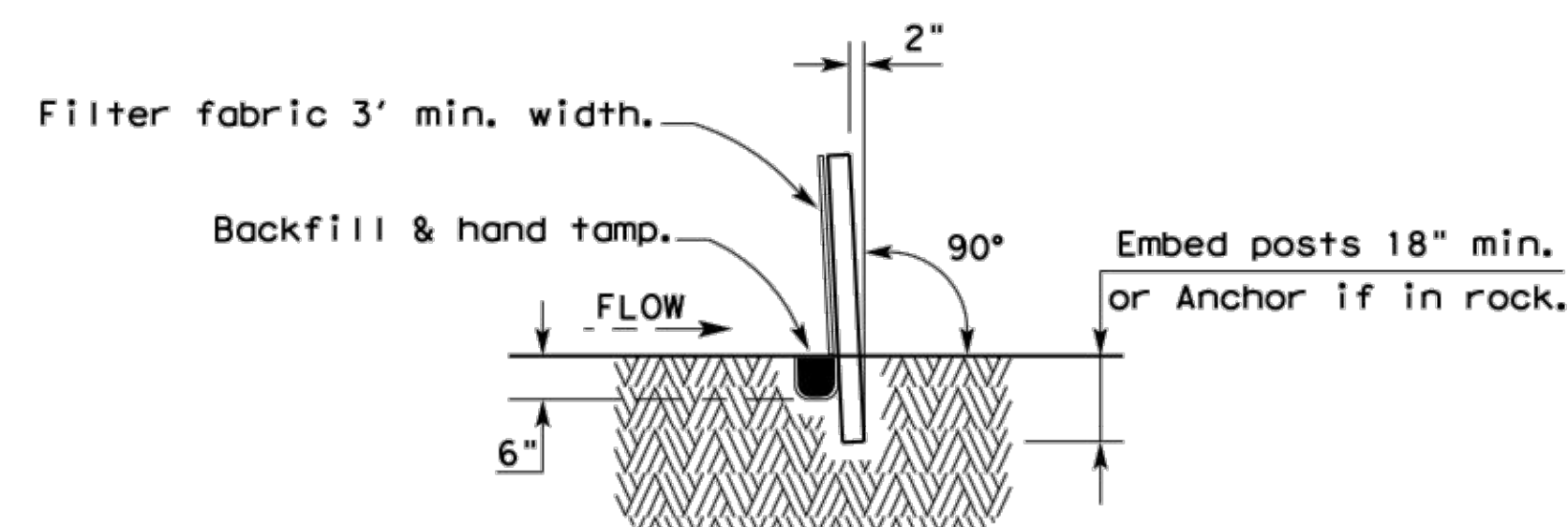
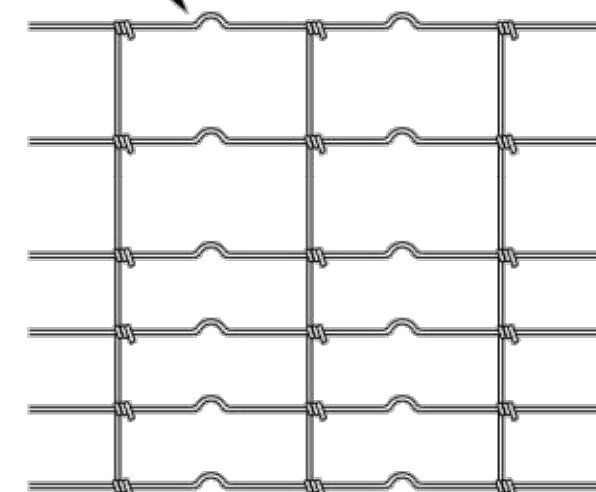
DATE
FILE



TEMPORARY SEDIMENT CONTROL FENCE

SCF

Top of Fence



SECTION A-A

HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL

Galvanized hinge joint knot woven mesh (12.5 GA. SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT². Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

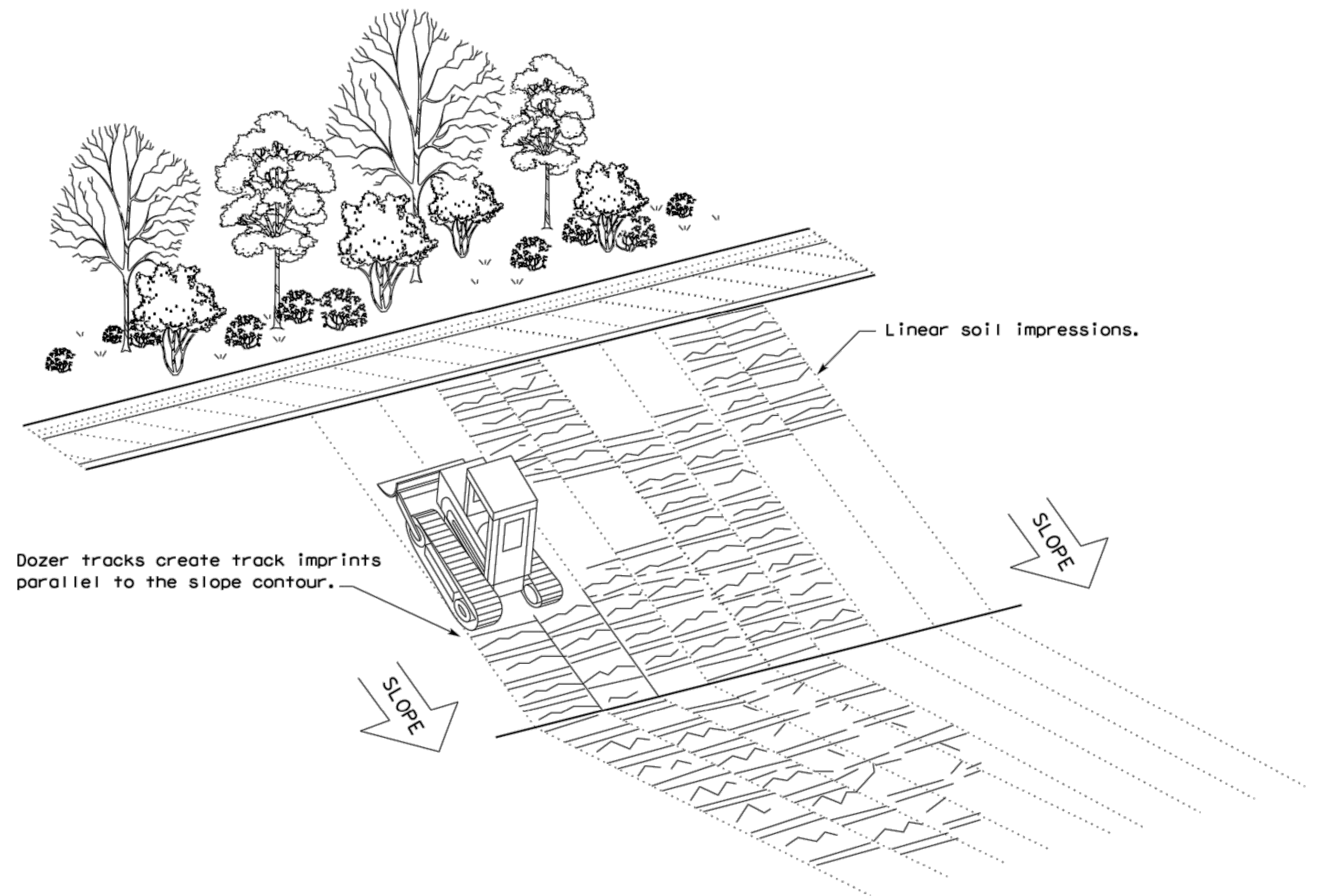
LEGEND

Sediment Control Fence

SCF

GENERAL NOTES

1. Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
2. Perform vertical tracking on slopes to temporarily stabilize soil.
3. Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
4. Do not exceed 12" between track impressions.
5. Install continuous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.

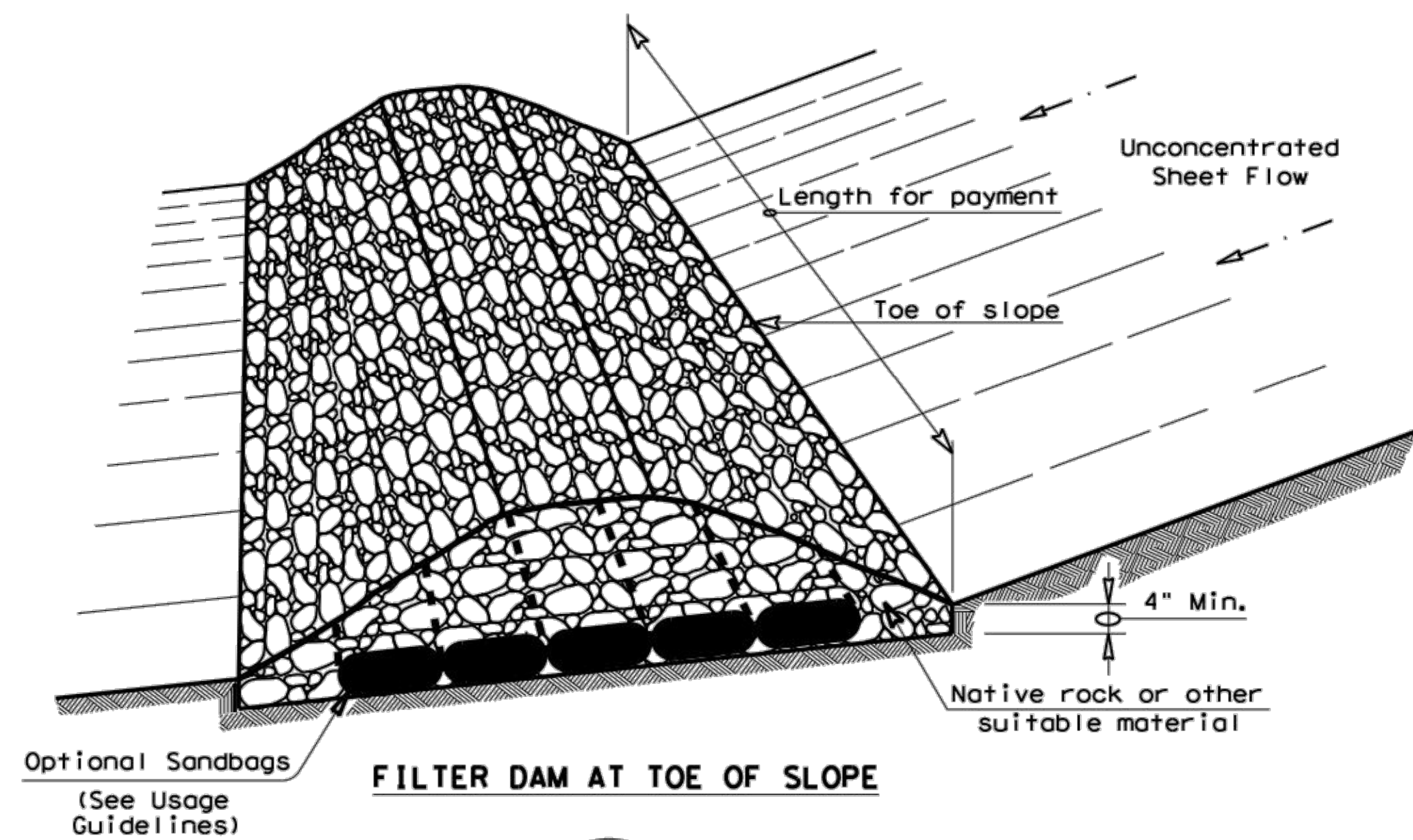


VERTICAL TRACKING

				Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES FENCE & VERTICAL TRACKING					
EC(1)-16					
FILE: ec116	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS	
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY	
REVISIONS		DIST	COUNTY	SHEET NO.	

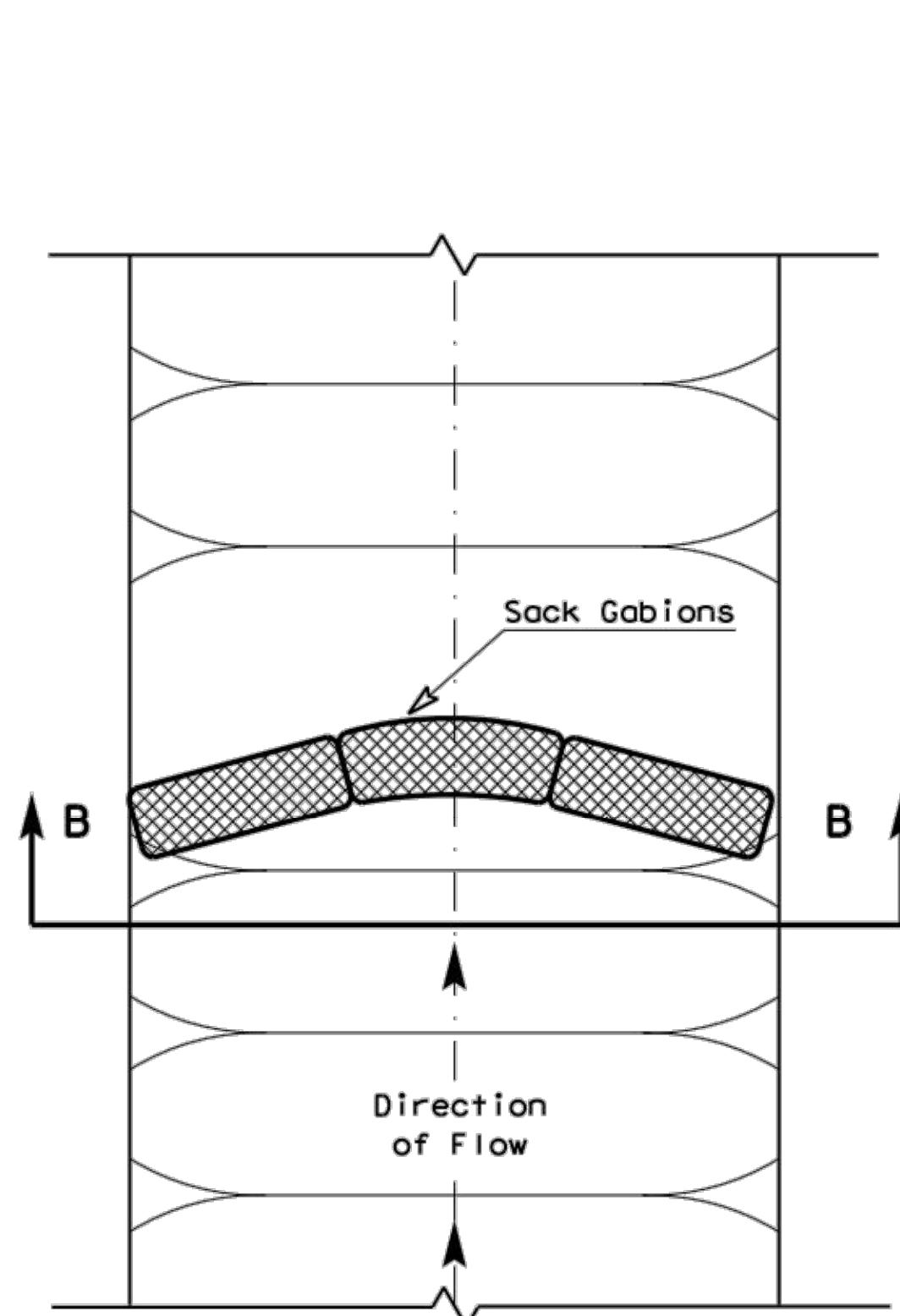
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DATE: FILE:

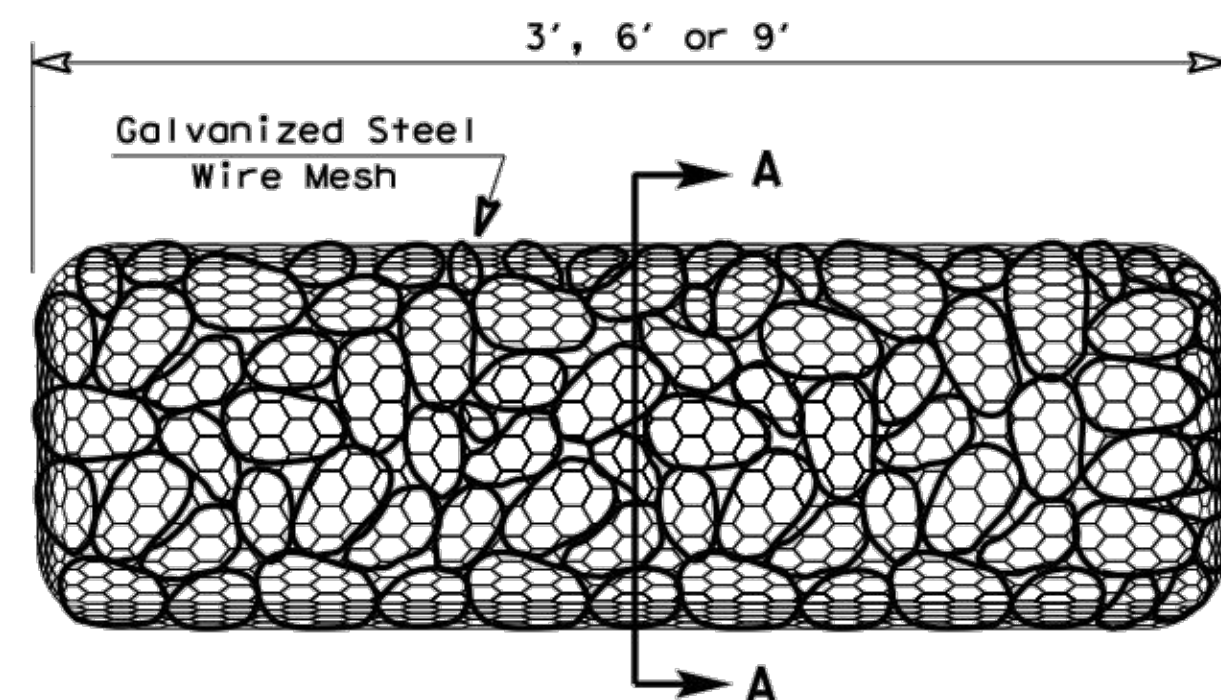


FILTER DAM AT TOE OF SLOPE

(RFD1)

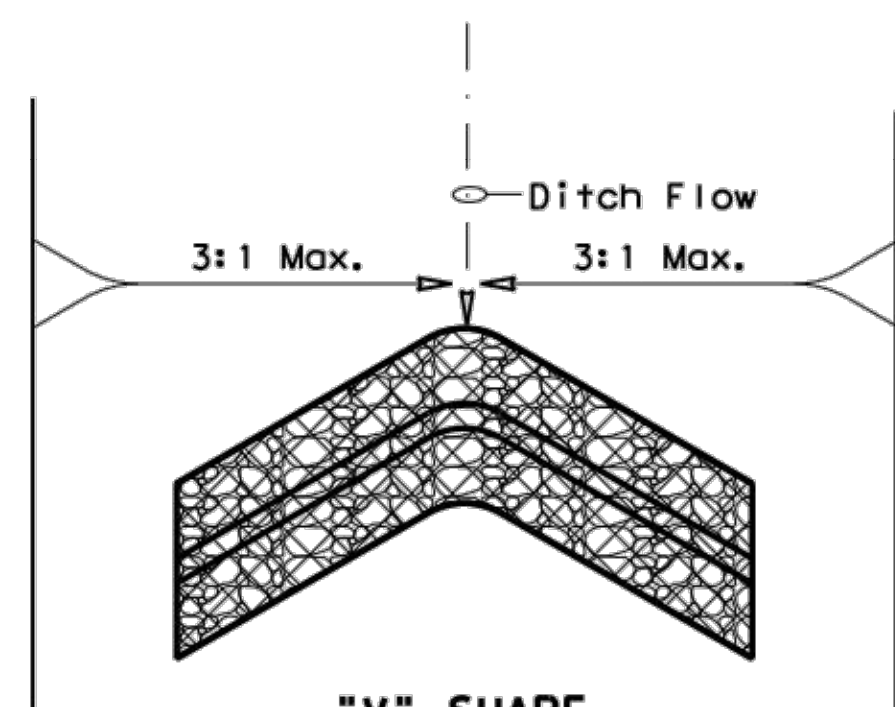


PLAN VIEW

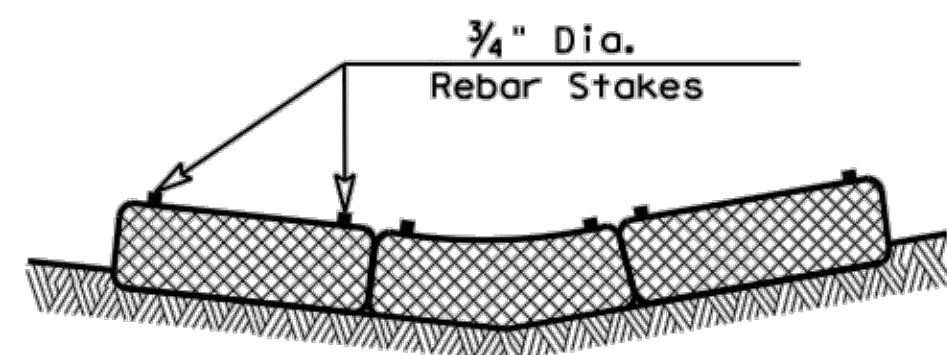


TYPE 4 (SACK GABIONS)

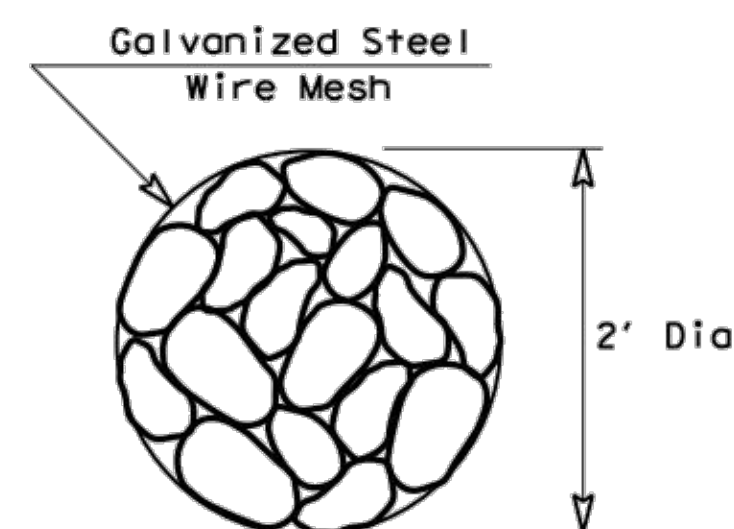
(RFD4)



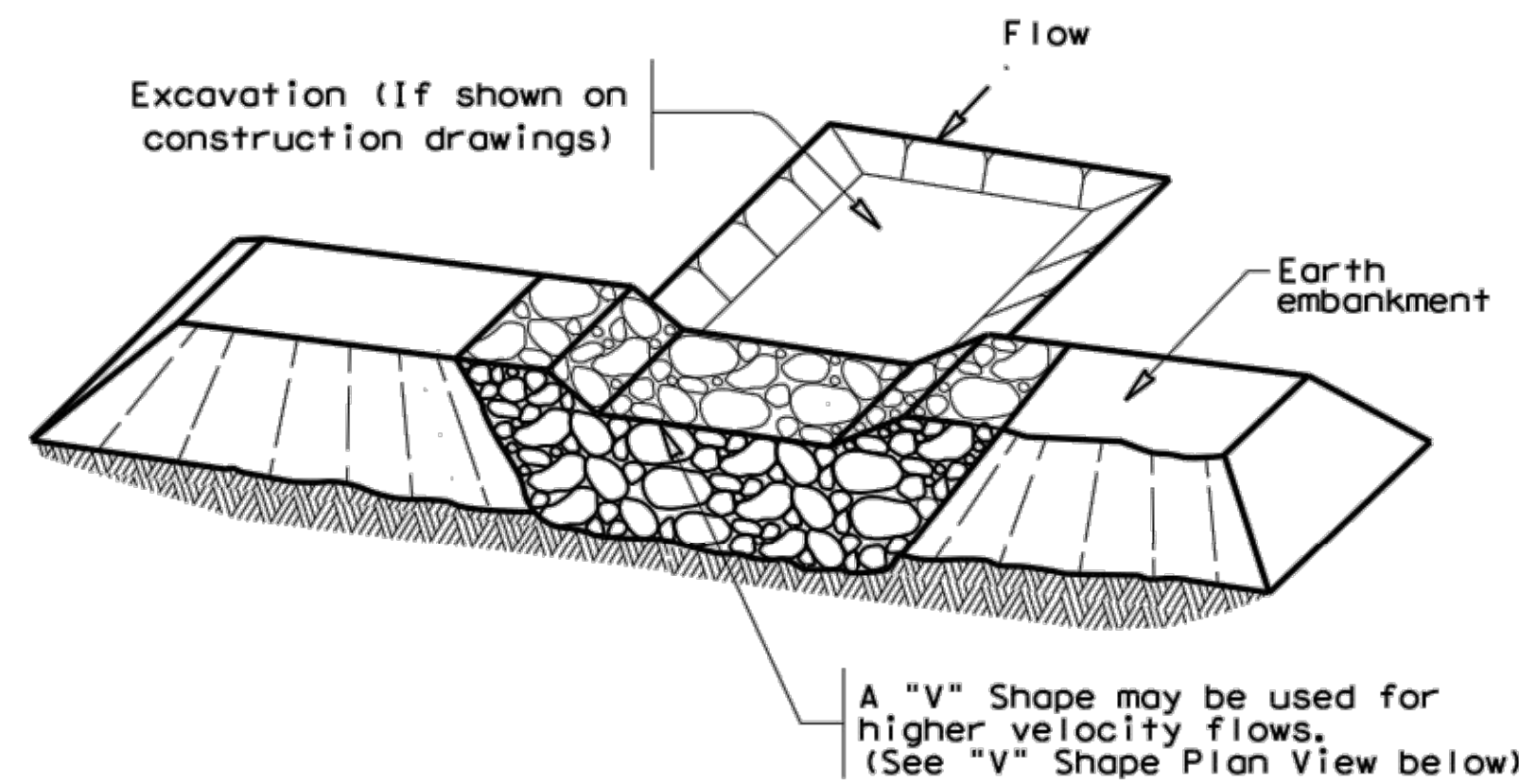
"V" SHAPE
PLAN VIEW



SECTION B-B

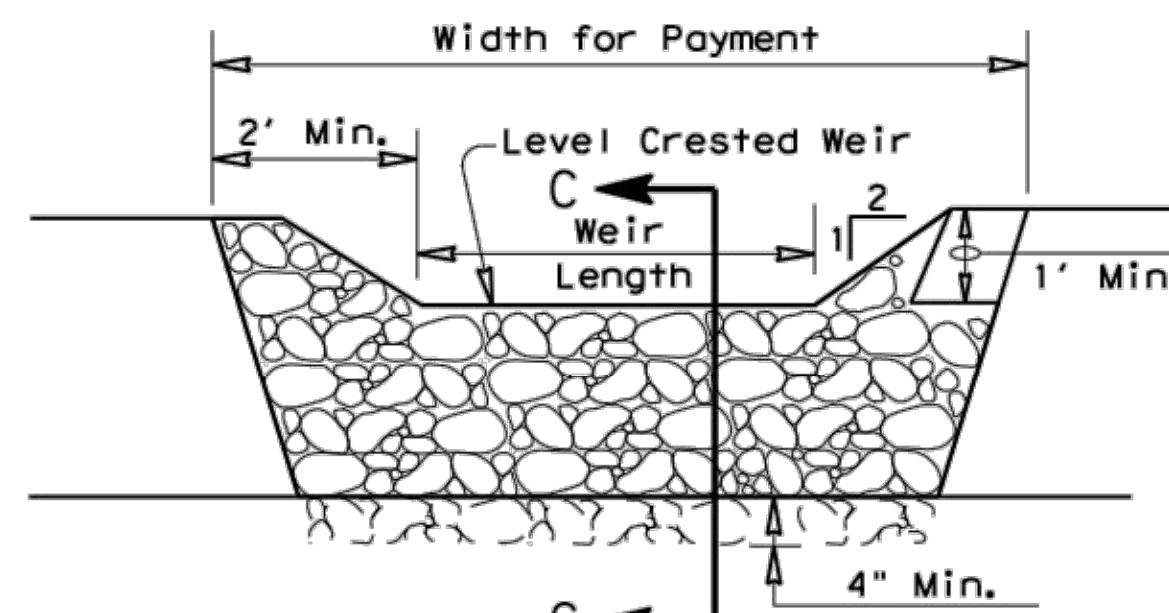


SECTION A-A

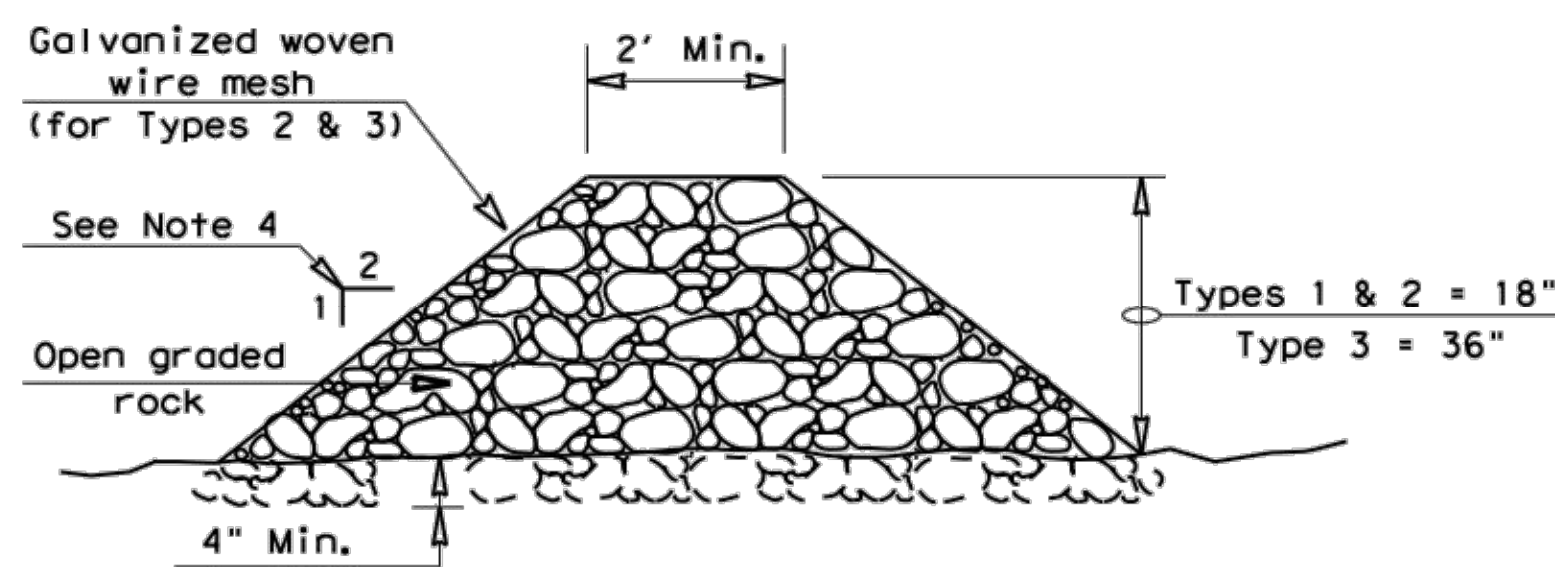


FILTER DAM AT SEDIMENT TRAP

(RFD1) OR (RFD2)



PROFILE



SECTION C-C

ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT² of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

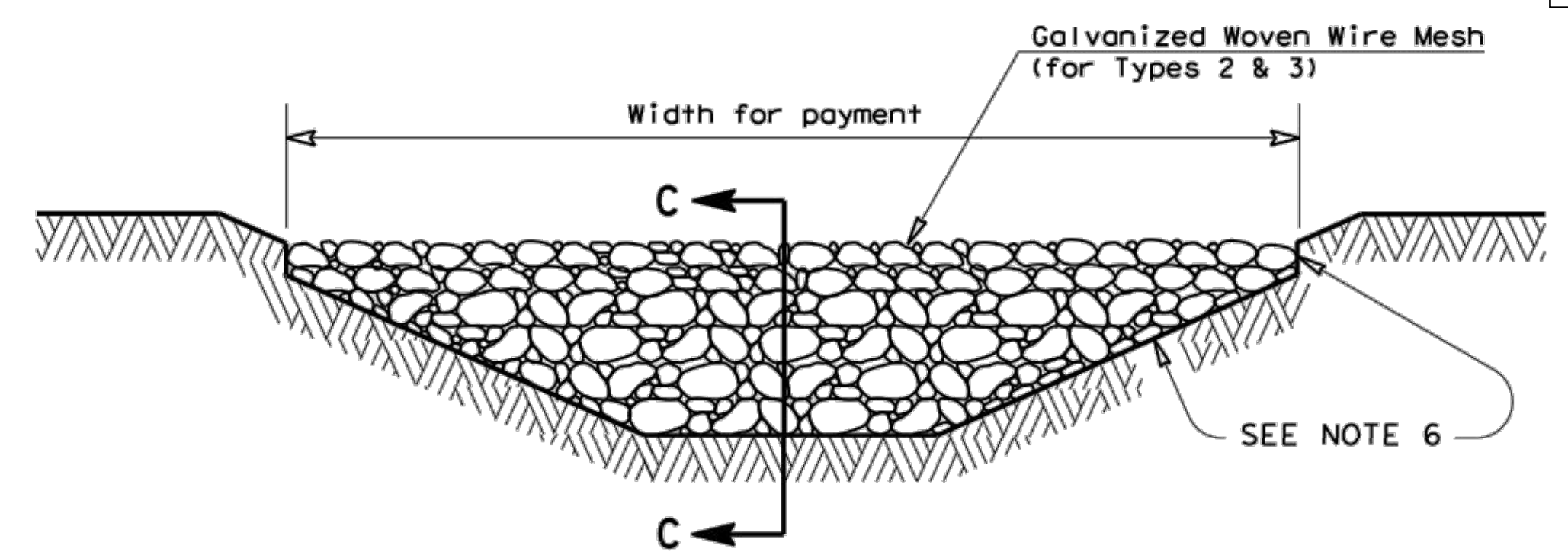
Type 1 (18" high with no wire mesh) (3" to 6" aggregate): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approximately 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh) (3" to 6" aggregate): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh) (4" to 8" aggregate): Type 3 may be used in stream flow and should be secured to the stream bed.

Type 4 (Sack gabions) (3" to 6" aggregate): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

Type 5: Provide rock filter dams as shown on plans.



FILTER DAM AT CHANNEL SECTIONS

(RFD1) OR (RFD2) OR (RFD3)

GENERAL NOTES

1. If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
2. Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
3. The rock filter dam dimensions shall be as indicated on the SW3P plans.
4. Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
5. Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
6. Filter dams should be embedded a minimum of 4" into existing ground.
7. The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
8. Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. For in stream use, the mesh should be secured or staked to the stream bed prior to aggregate placement.
9. Sack Gabions should be staked down with 3/4" dia. rebar stakes, and have a double-twisted hexagonal weave with a nominal mesh opening of 2 1/2" x 3 1/4".
10. Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
11. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

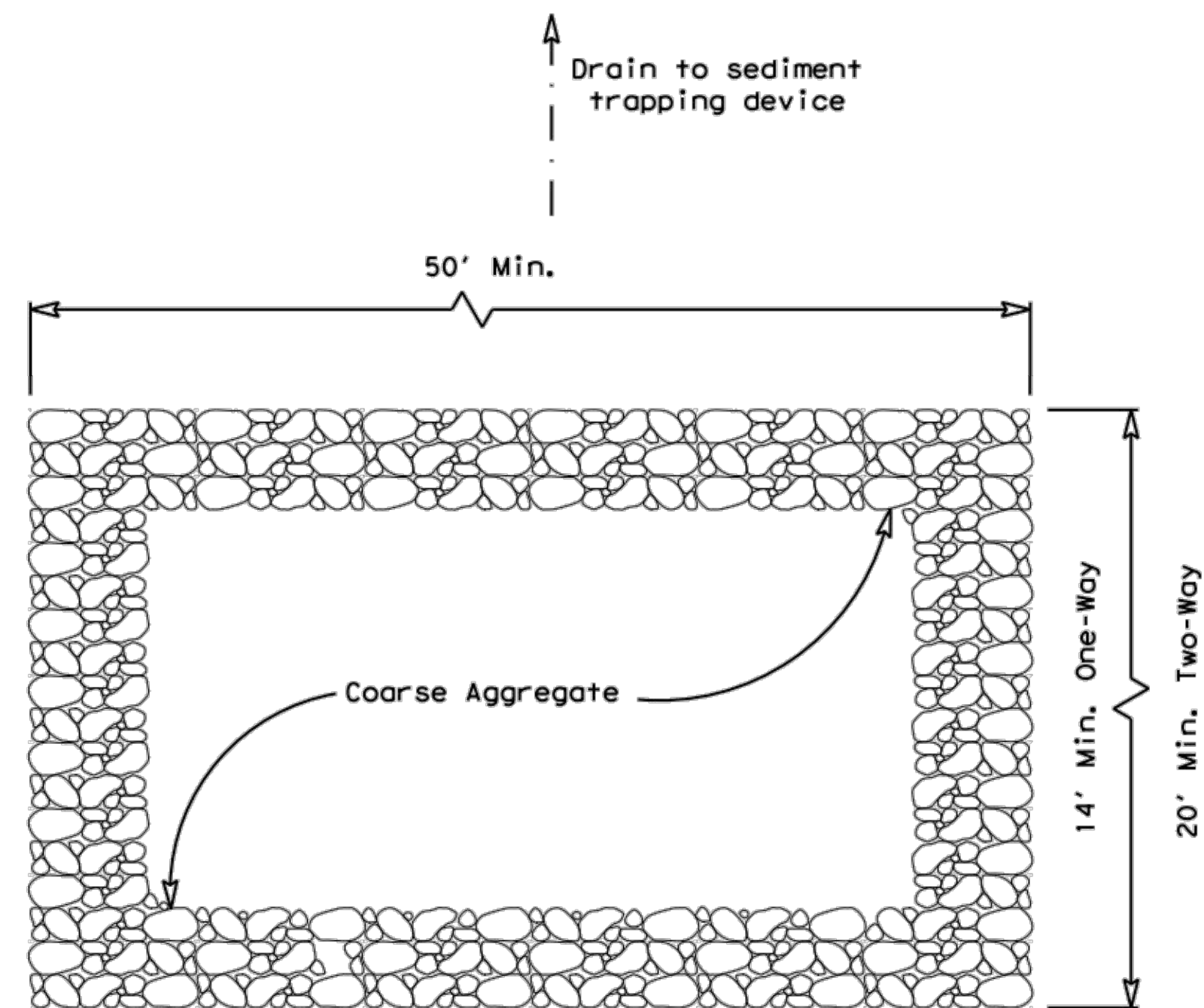
PLAN SHEET LEGEND

- Type 1 Rock Filter Dam (RFD1)
Type 2 Rock Filter Dam (RFD2)
Type 3 Rock Filter Dam (RFD3)
Type 4 Rock Filter Dam (RFD4)

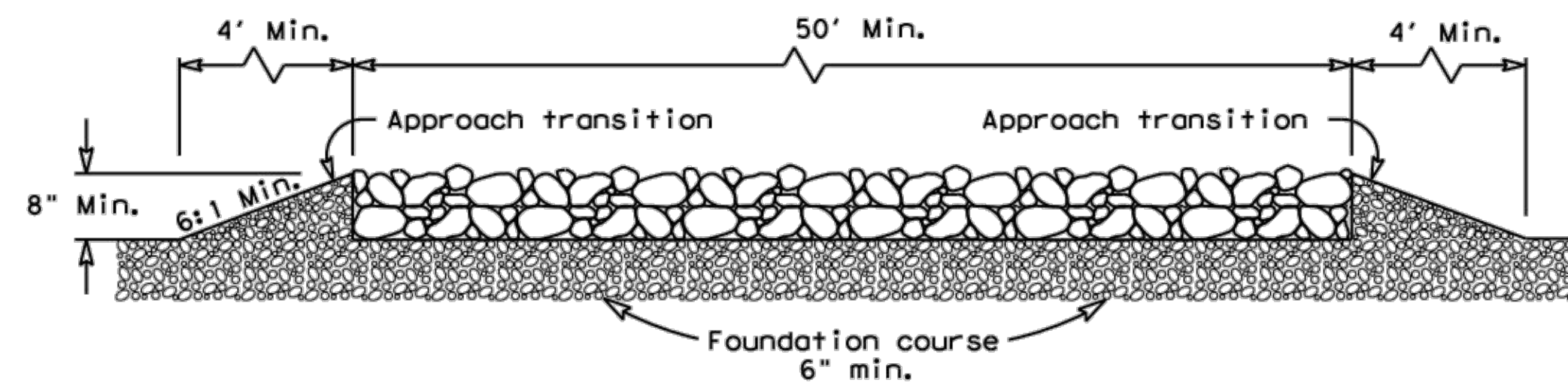
Texas Department of Transportation		Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES			
ROCK FILTER DAMS			
EC(2) - 16			
FILE: ec216	DN: TxDOT	CK: KM	DW: VP
© TxDOT: JULY 2016	CONT	SECT	JOB
REVISIONS	DIST	COUNTY	SHEET NO.

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DATE: \$DATES\$
FILE: \$FILES\$



PLAN VIEW

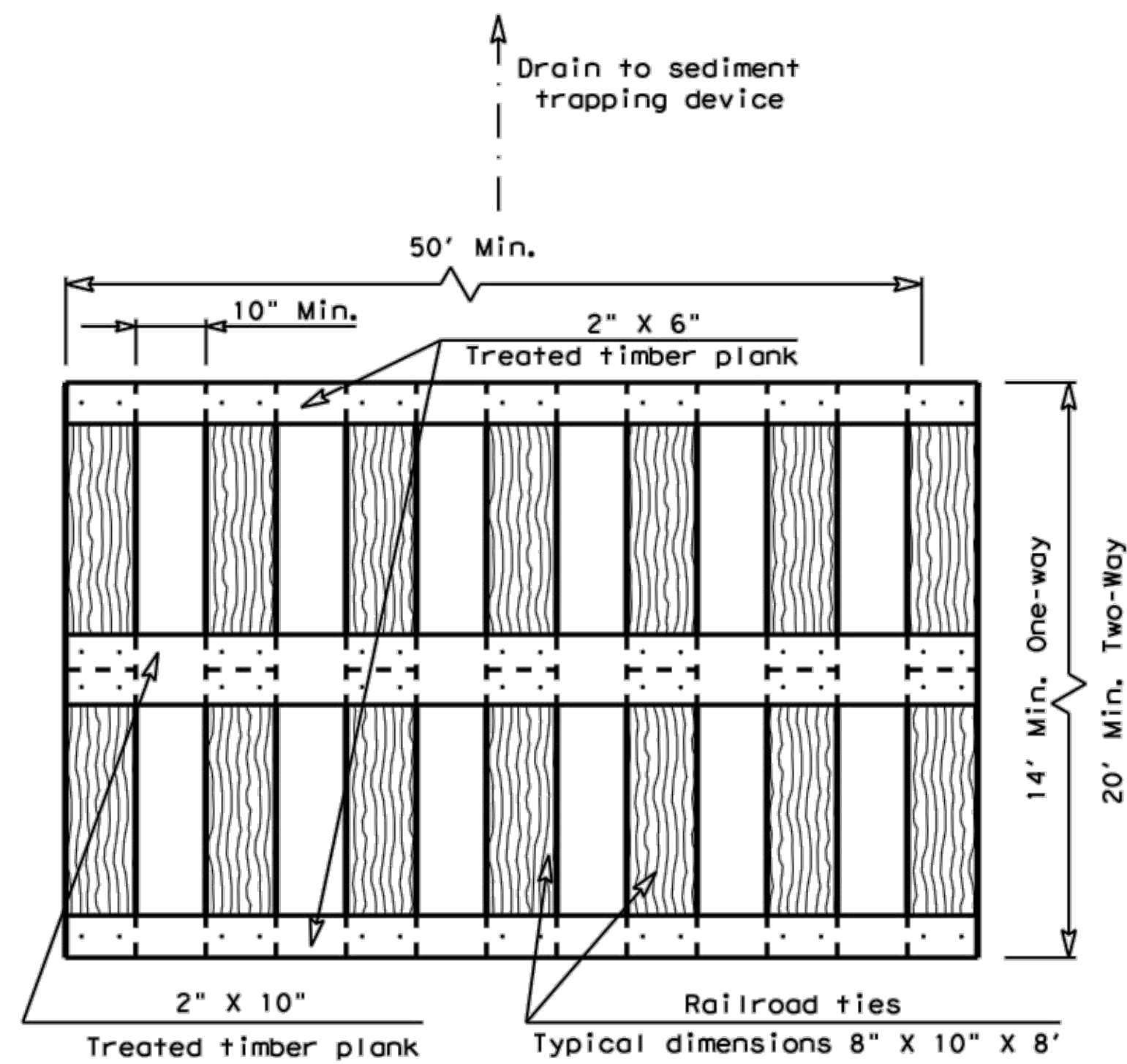


ELEVATION VIEW

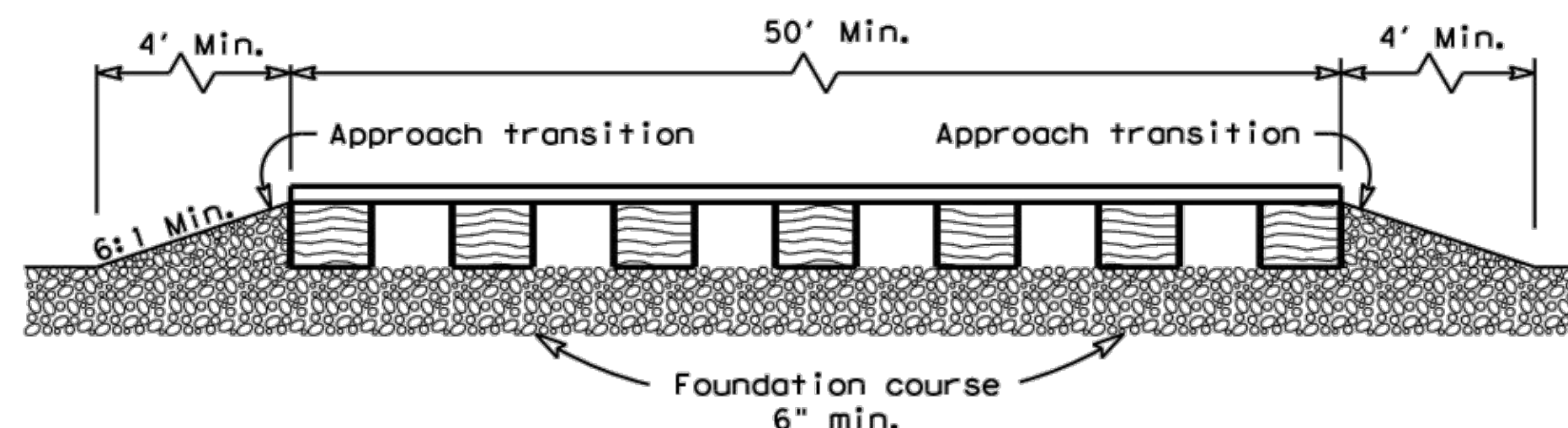
CONSTRUCTION EXIT (TYPE 1)
ROCK CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 1)

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other materials approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
7. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



PLAN VIEW

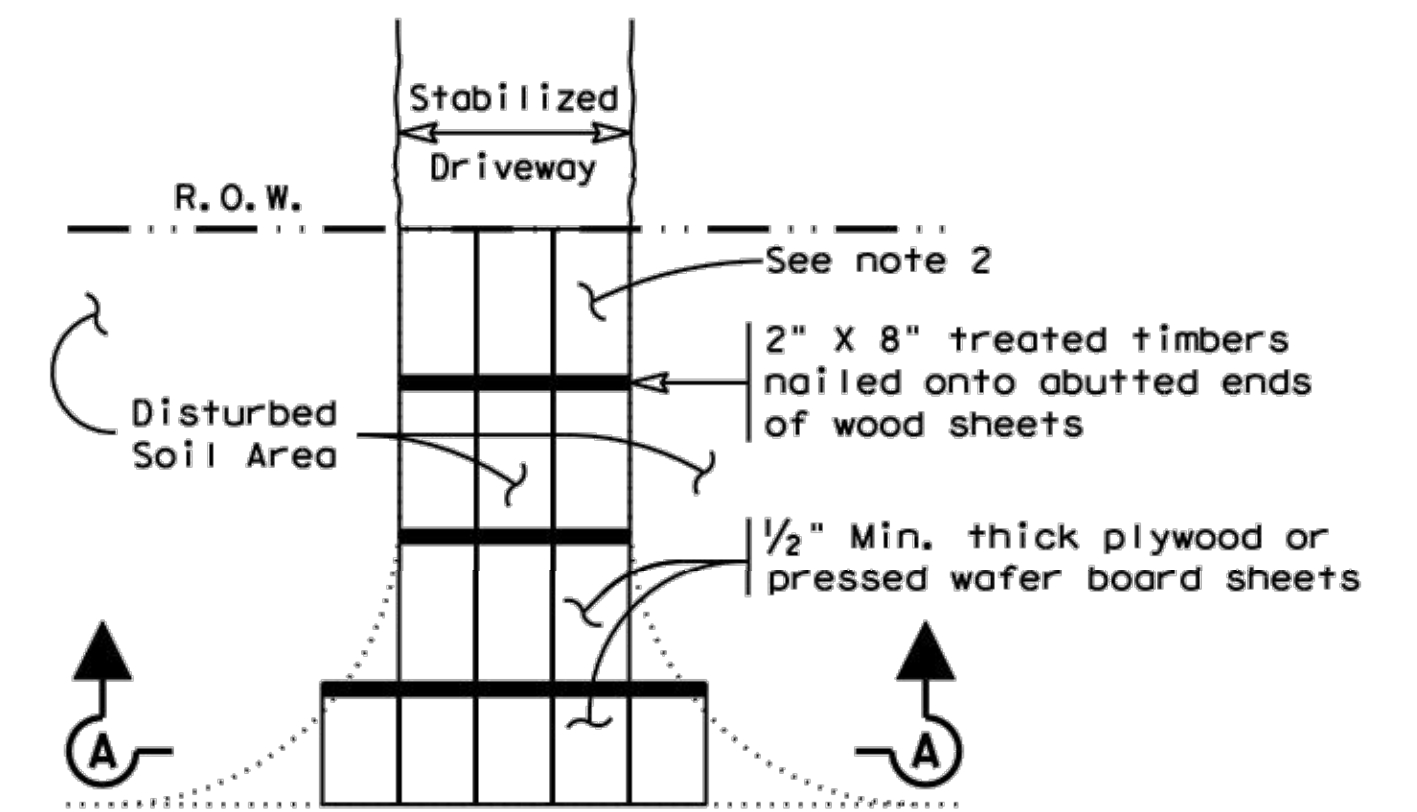


ELEVATION VIEW

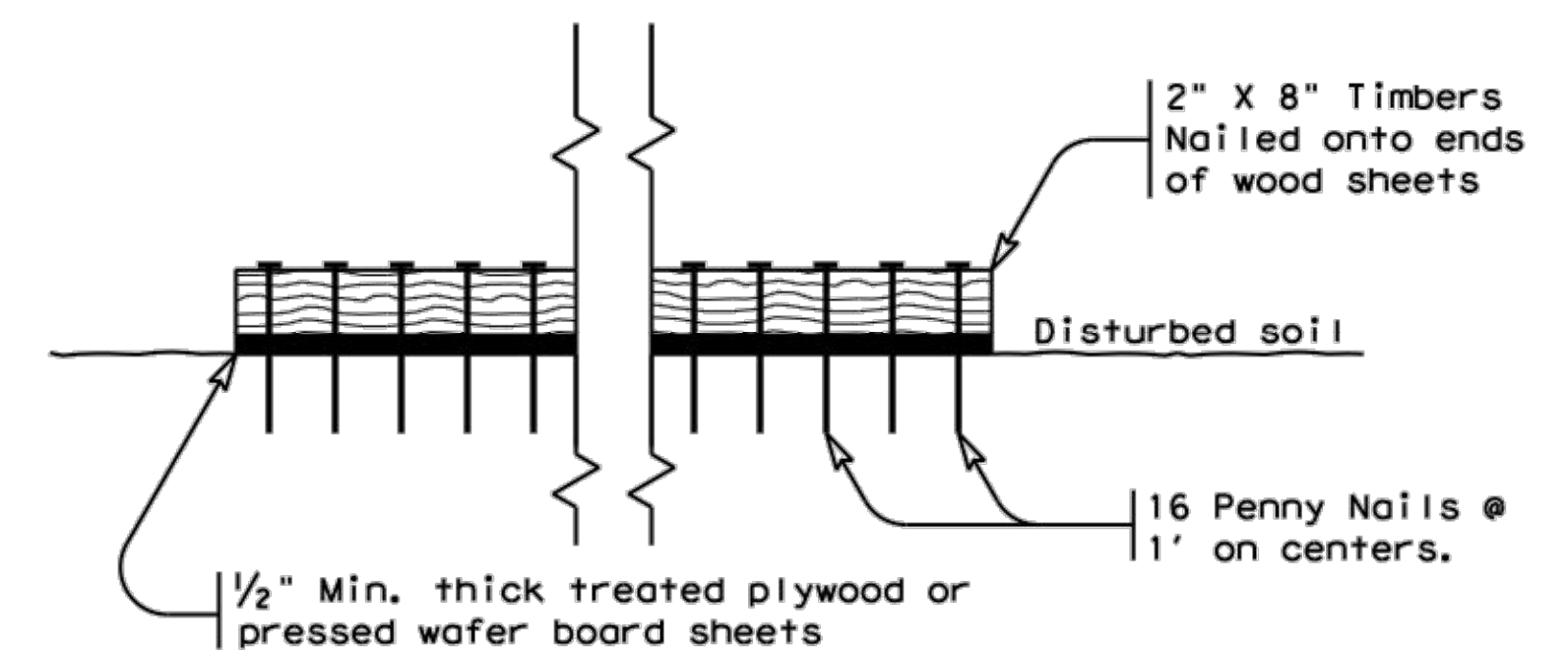
CONSTRUCTION EXIT (TYPE 2)
TIMBER CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 2)

1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with 1/2" X 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
8. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



PLAN VIEW



SECTION A-A
CONSTRUCTION EXIT (TYPE 3)
SHORT TERM

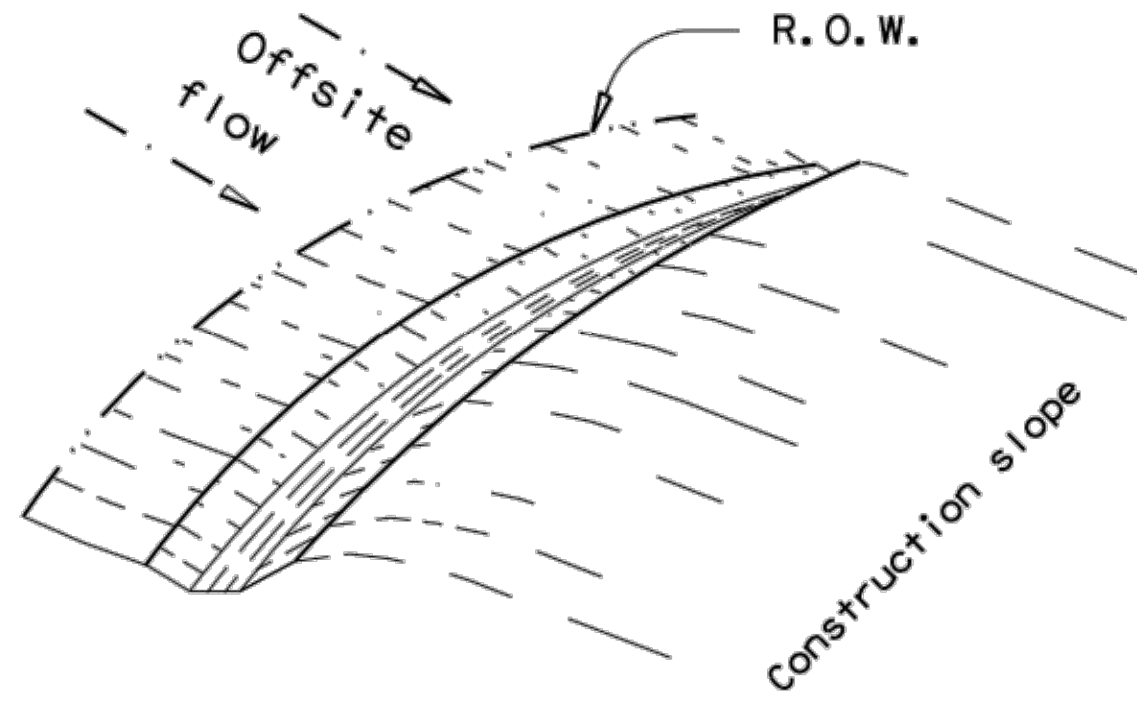
GENERAL NOTES (TYPE 3)

1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

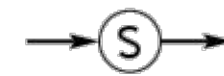
				Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES CONSTRUCTION EXITS EC(3)-16					
FILE: ec316	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS	
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY	
REVISIONS	\$CS\$	\$SS\$	\$JS\$	\$HWYS\$	
DIST	COUNTY	SHEET NO.			
\$DST\$	\$CTYS\$	\$SEC\$	\$CD\$	\$	

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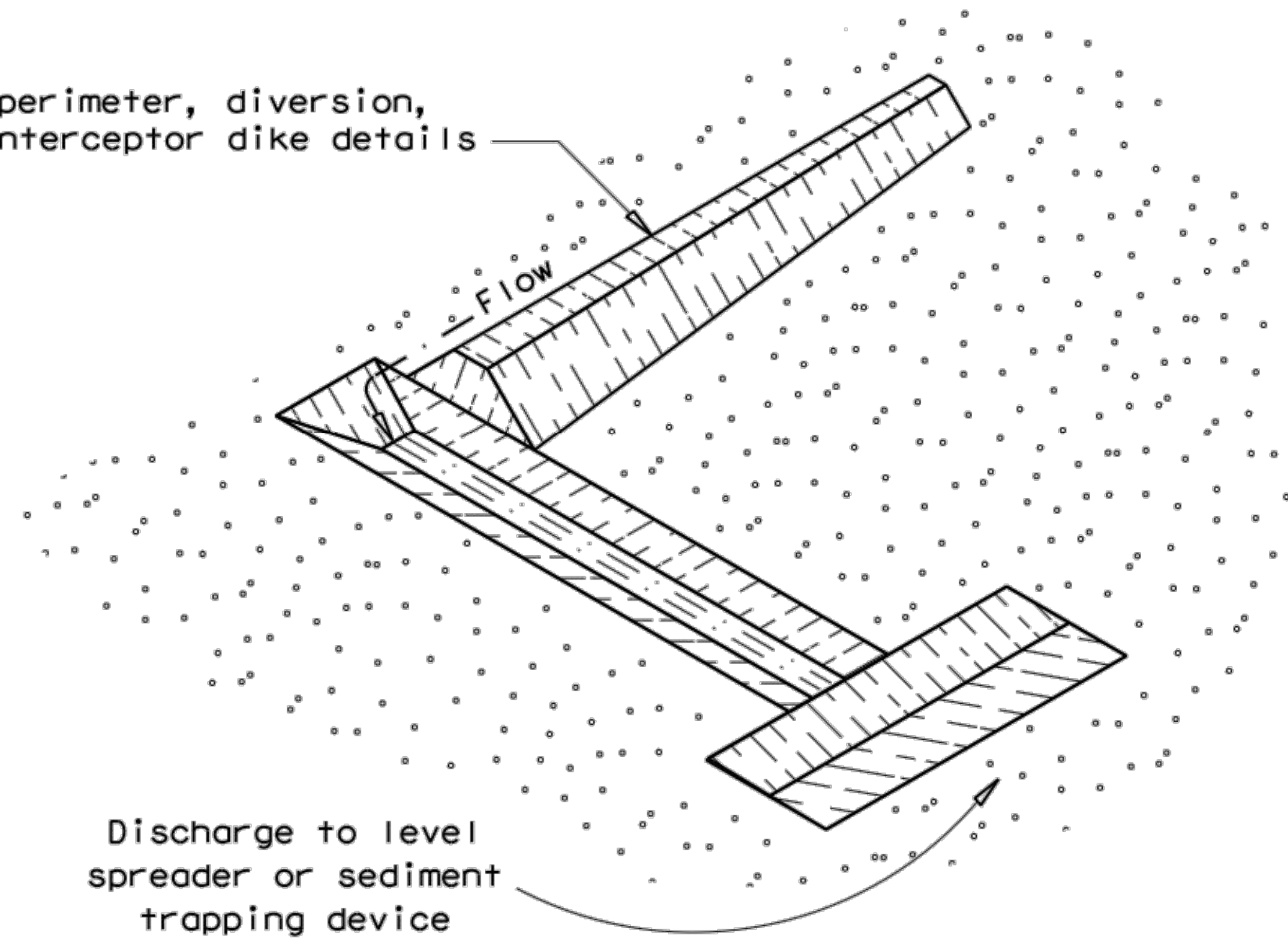
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FILE:



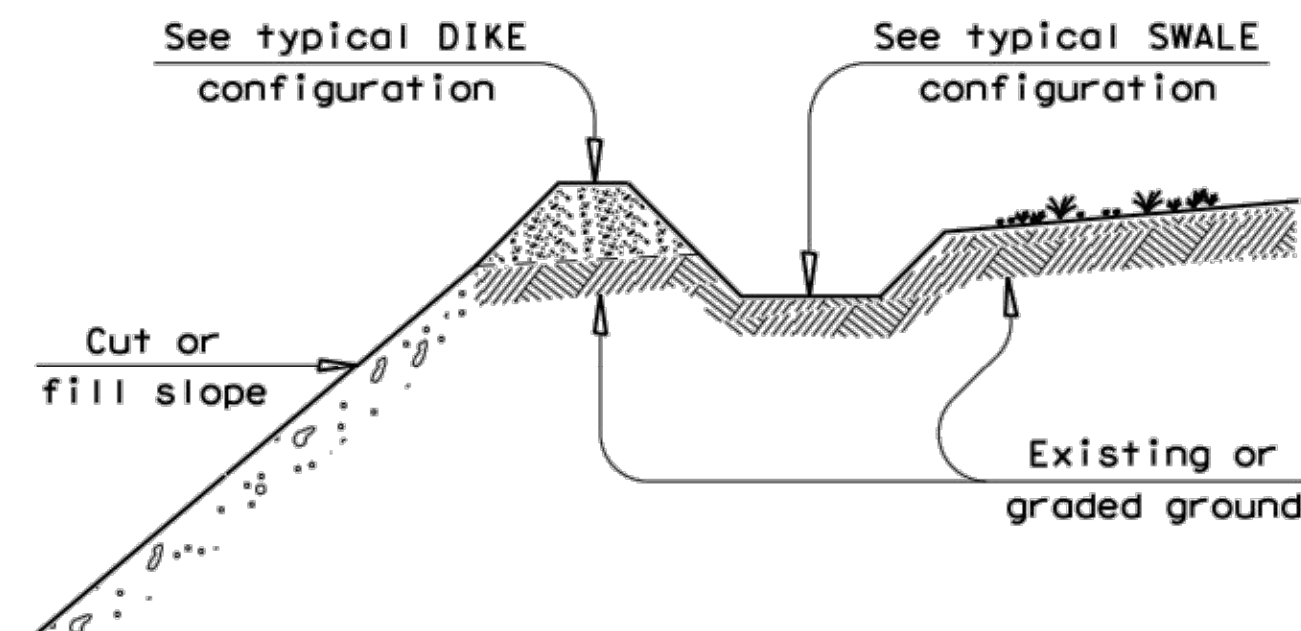
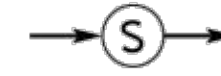
PERIMETER SWALE



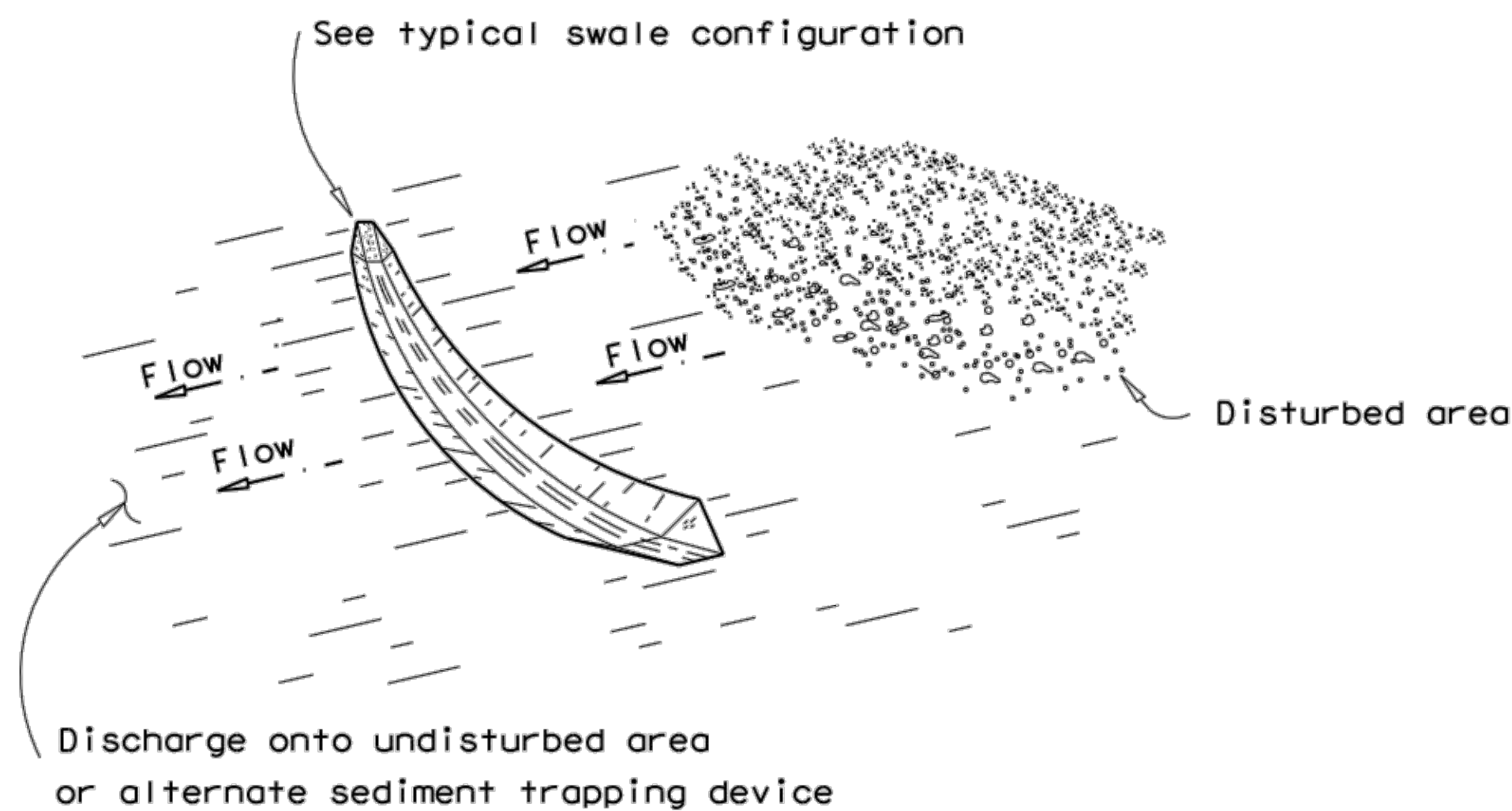
See perimeter, diversion,
or interceptor dike details



DIVERSION SWALE



DIVERSION DIKE WITH SWALE



INTERCEPTOR SWALE



GENERAL NOTE

1. Dimensions of swale may be modified with prior approval of the Engineer.
2. Side slopes within the safety clear zone of a roadway shall be 6:1 or flatter.
3. Grading shall be shown elsewhere on the plans or as directed by the Engineer.
4. The Engineer reserves the right to modify the dimensions shown for the swale dependent on runoff volume characteristics.
5. Swales that are in place for more than 14 calendar days should be stabilized through seeding or other measures to control sediment runoff.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
7. Remove sediment and debris when accumulation affects the performance of the devices, after a rain and when directed by the Engineer.

SWALE AND DIKE/SWALE USAGE GUIDELINES

A swale or dike/swale may be used to intercept runoff and divert it around unstabilized areas or to divert sediment laden runoff to an erosion control device (sediment basin or trap, rock filter dam, etc.).

The drainage area contributing runoff to a swale or dike/swale should not exceed 5 acres. The spacing of swales and dike/swales should be as follows:

Slope of disturbed areas above dike	greater than 10%	5 - 10%	less than 5%
Maximum distance between dikes	100'	200'	300'

Intercepted runoff flowing in a swale or dike/swale should outlet to a stabilized area (vegetation, rock, etc.).

PLAN SHEET LEGEND

SWALE → (S) →

DIKE → (D) →



Design
Division
Standard

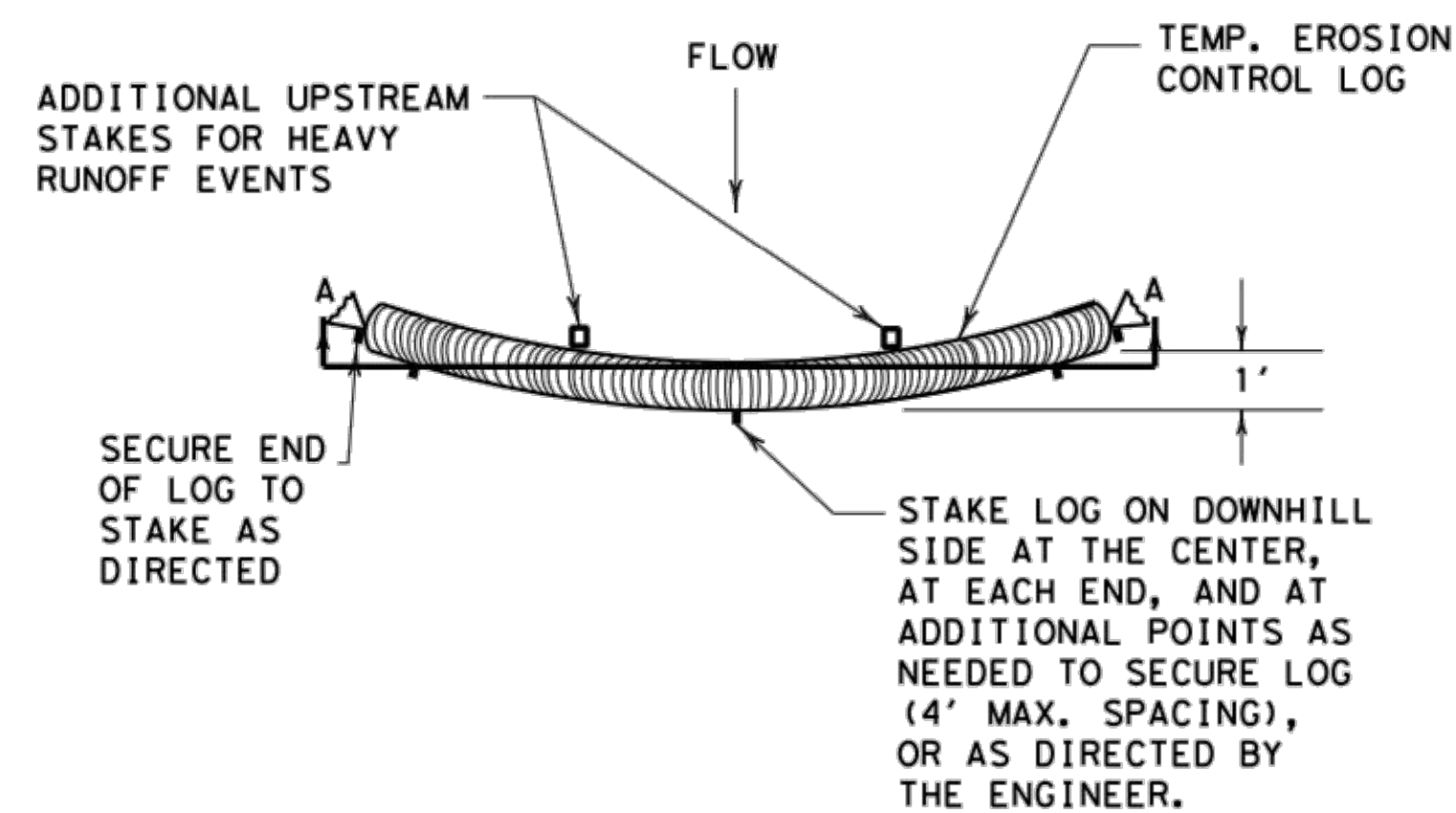
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES SWALES (EARTHWORK FOR EROSION CONTROL)

EC (5) - 16

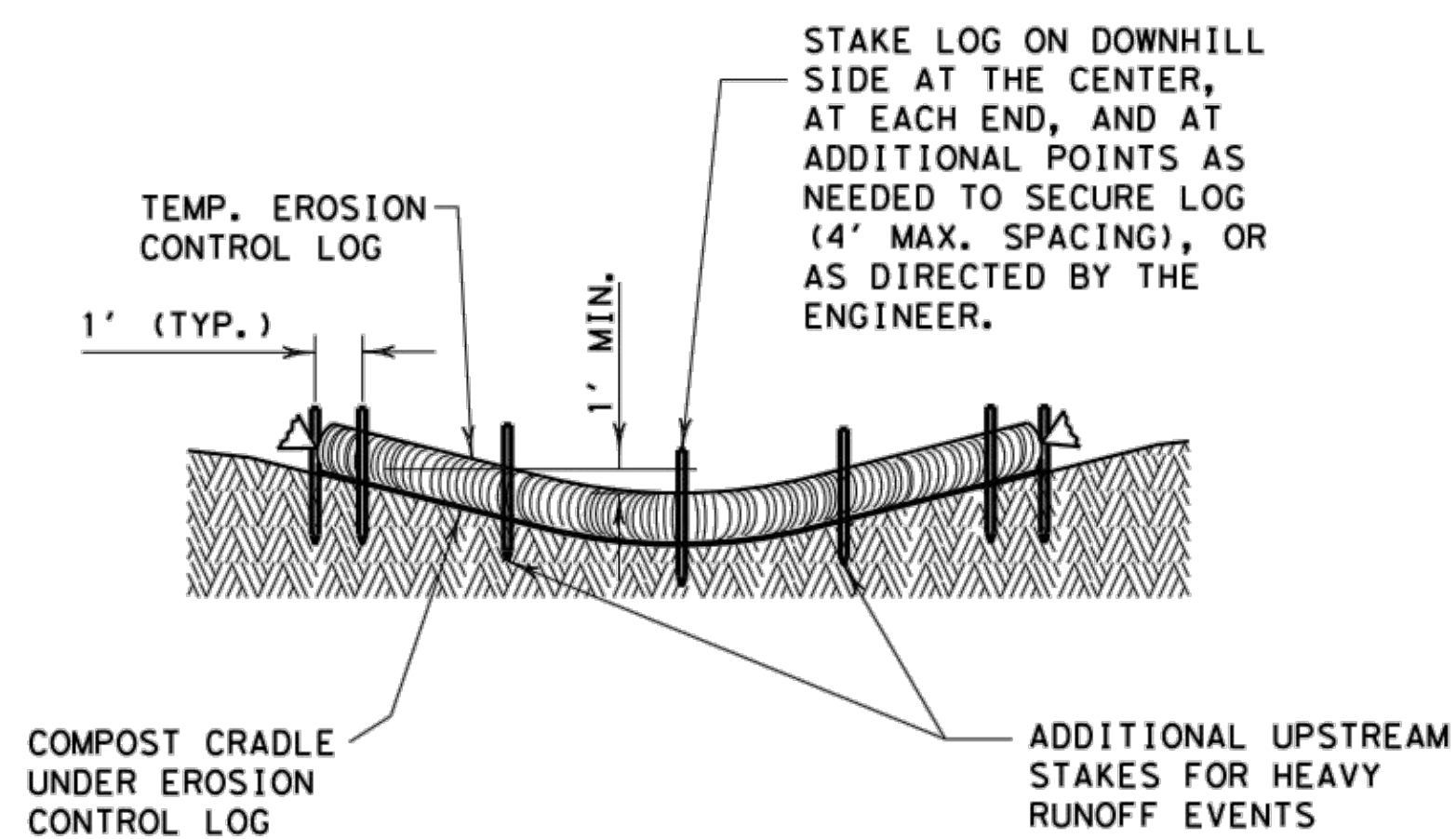
FILE: ec516	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY	SHEET NO.	

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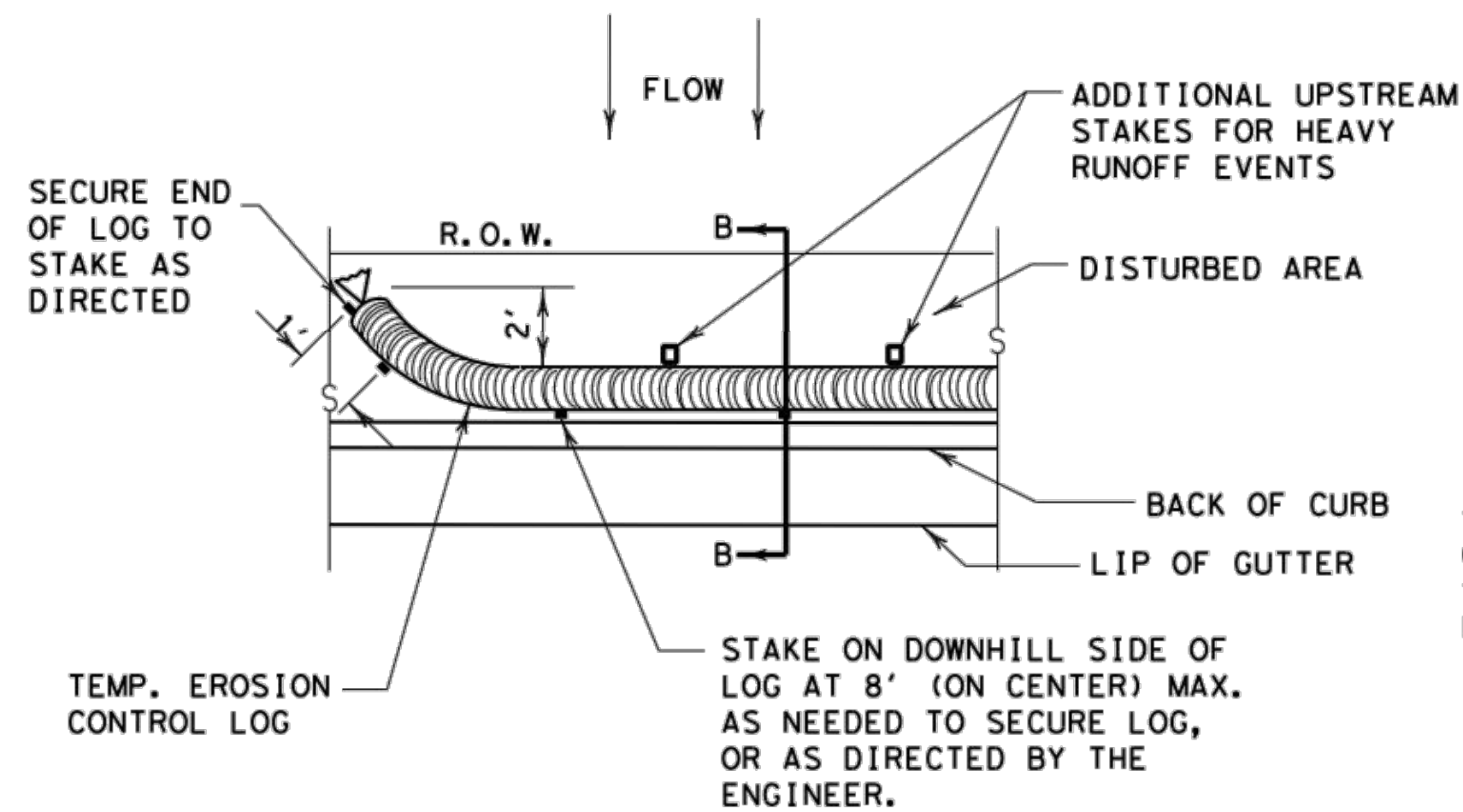
PLAN VIEW



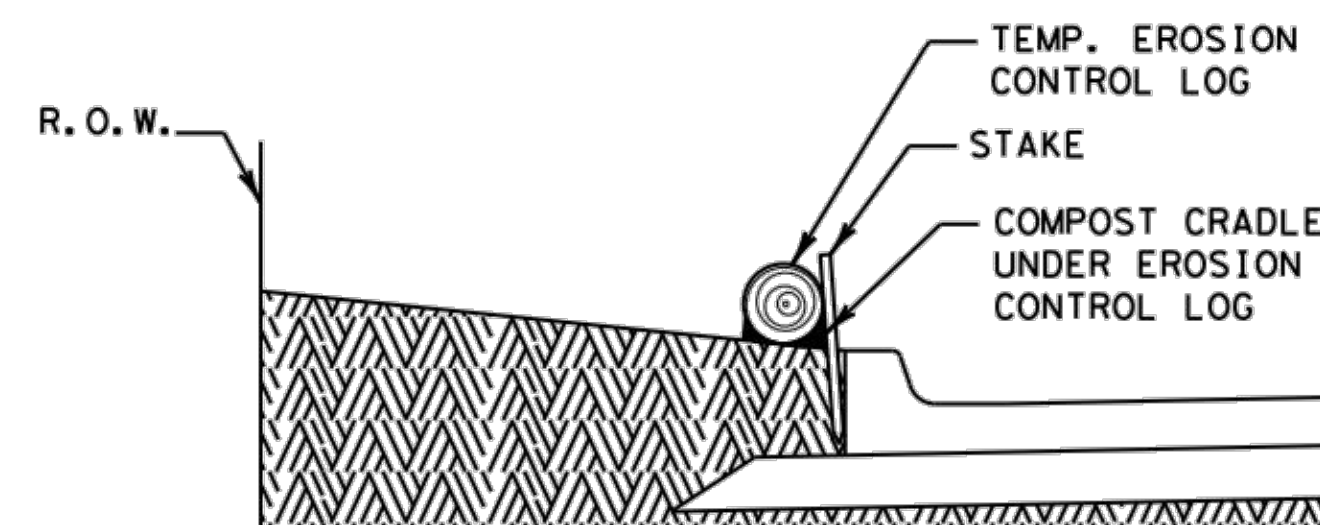
SECTION A-A

EROSION CONTROL LOG DAM

CL-D



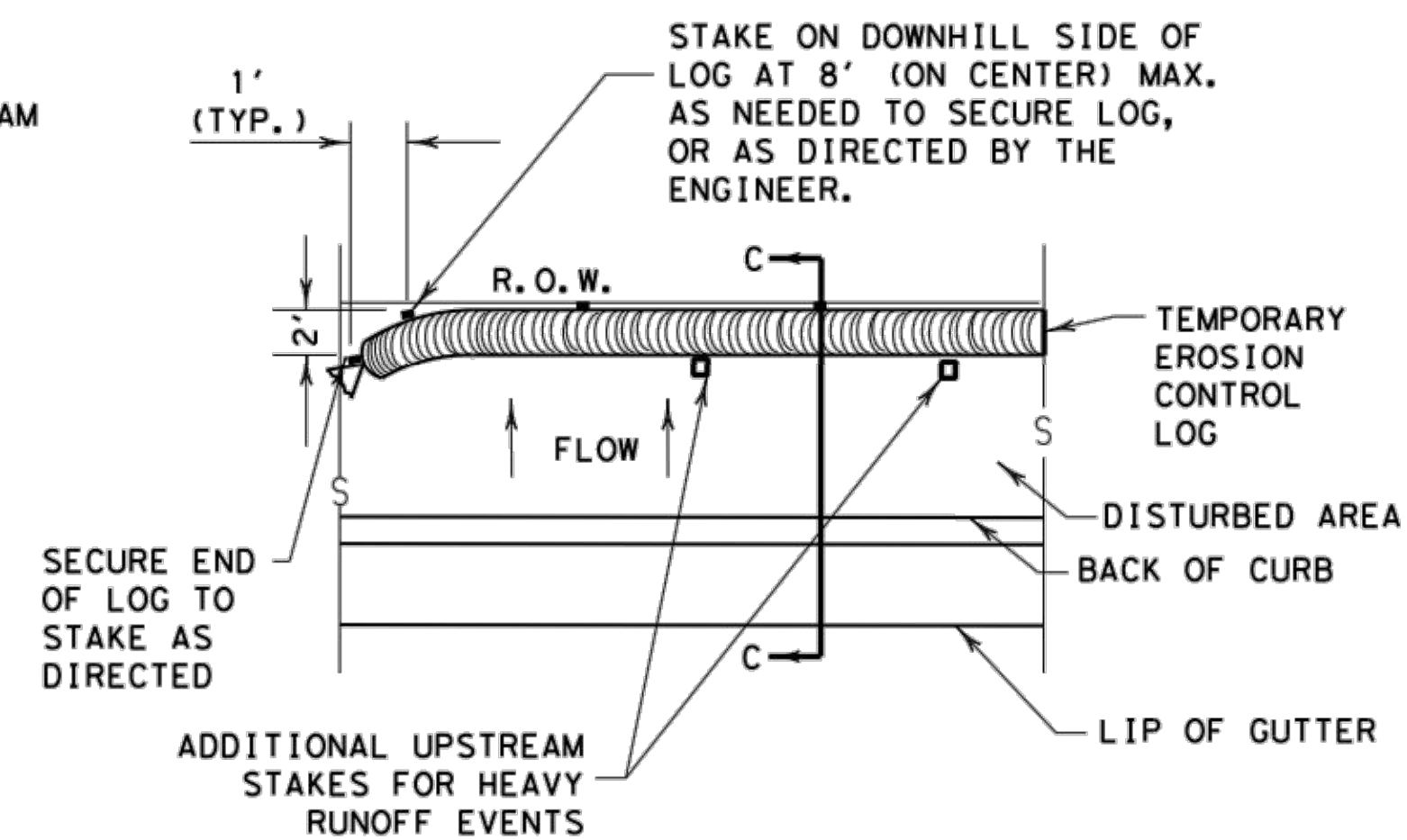
PLAN VIEW



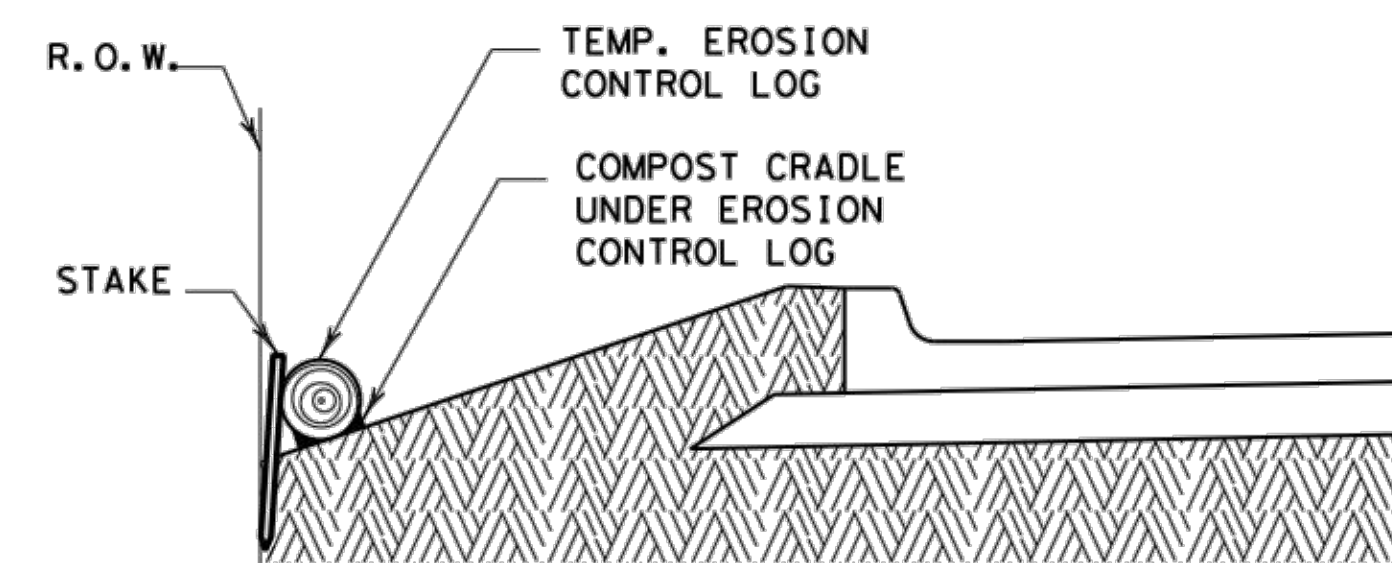
SECTION B-B

EROSION CONTROL LOG AT BACK OF CURB

CL-BOC



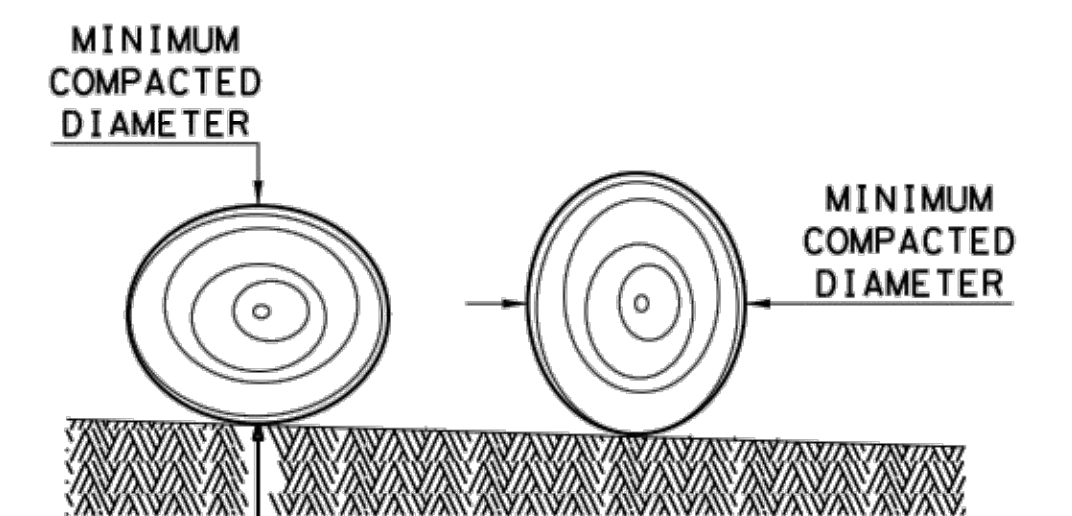
PLAN VIEW



SECTION C-C

EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY

CL-ROW



DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

SHEET 1 OF 3

		Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES			
EROSION CONTROL LOG			
EC(9) - 16			
FILE: ec916	DN: TxDOT	CK: KM	DW: LS/PT
© TxDOT: JULY 2016	CONT	SECT	JOB
REVISIONS		DIST	COUNTY
		SHEET NO.	

SEDIMENT BASIN & TRAP USAGE GUIDELINES

An erosion control log sediment trap may be used to filter sediment out of runoff draining from an unstabilized area.

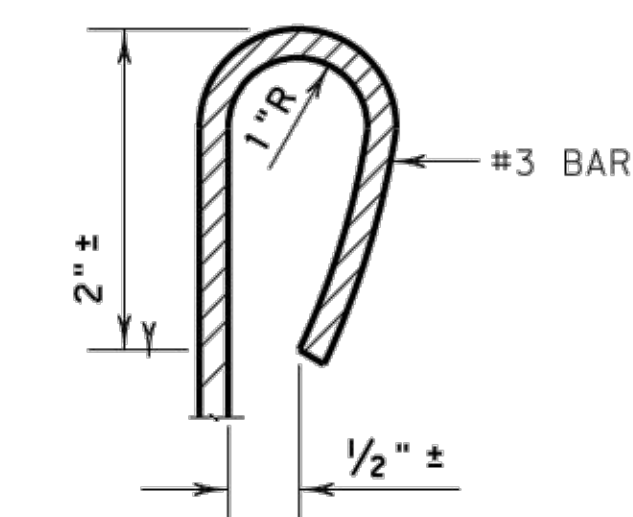
Log Traps: The drainage area for a sediment trap should not exceed 5 acres. The trap capacity should be 1800 CF/Acre (0.5" over the drainage area).

Control logs should be placed in the following locations:

1. Within drainage ditches spaced as needed or min. 500' on center
2. Immediately preceding ditch inlets or drain inlets
3. Just before the drainage enters a water course
4. Just before the drainage leaves the right of way
5. Just before the drainage leaves the construction limits where drainage flows away from the project.

The logs should be cleaned when the sediment has accumulated to a depth of 1/2 the log diameter.

Cleaning and removal of accumulated sediment deposits is incidental and will not be paid for separately.

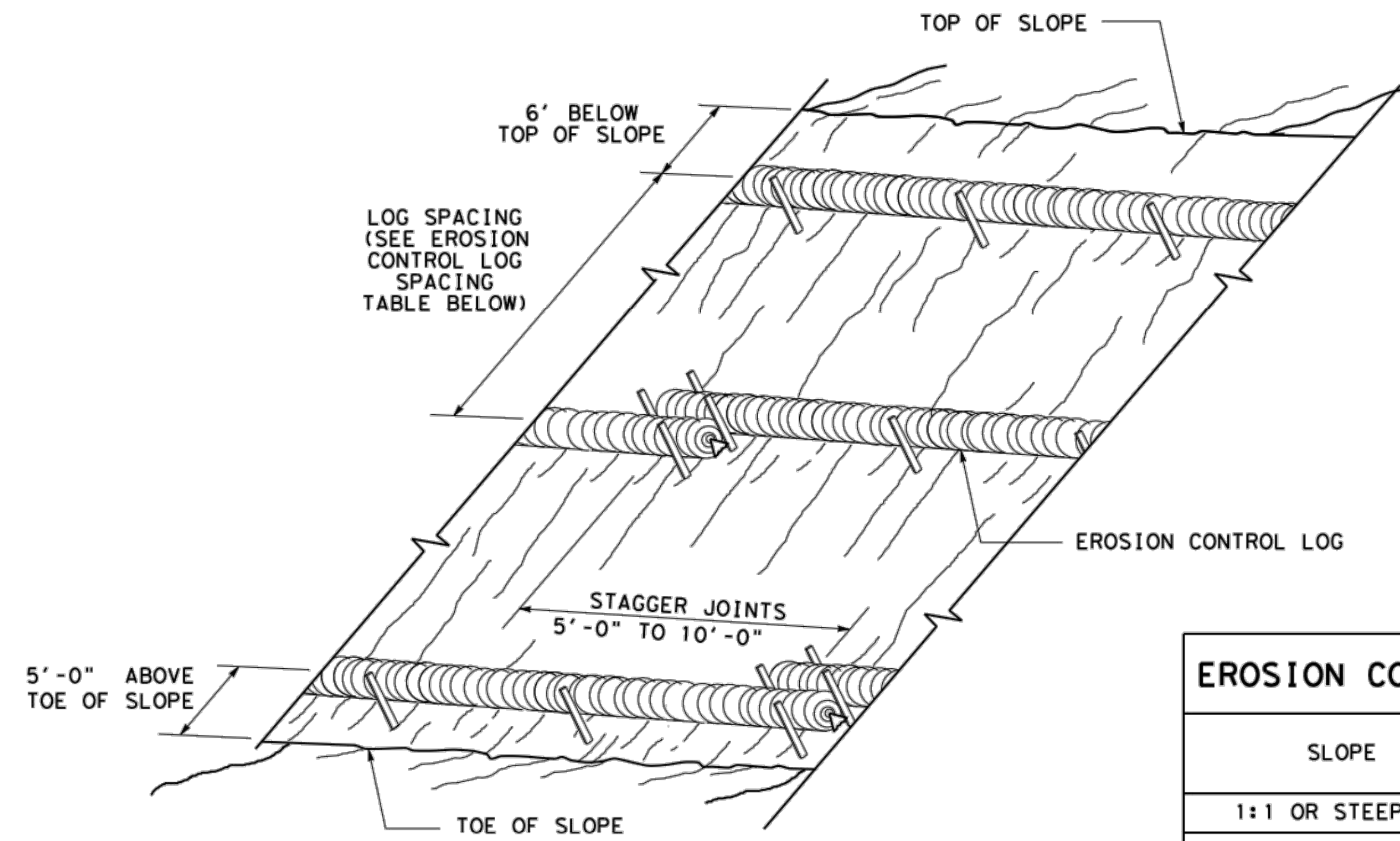


REBAR STAKE DETAIL

- CL-D EROSION CONTROL LOG DAM
- CL-BOC EROSION CONTROL LOG AT BACK OF CURB
- CL-ROW EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY
- CL-SST EROSION CONTROL LOGS ON SLOPES STAKE AND TRENCHING ANCHORING
- CL-SSL EROSION CONTROL LOGS ON SLOPES STAKE AND LASHING ANCHORING
- CL-DI EROSION CONTROL LOG AT DROP INLET
- CL-CI EROSION CONTROL LOG AT CURB INLET
- CL-GI EROSION CONTROL LOG AT CURB & GRATE INLET

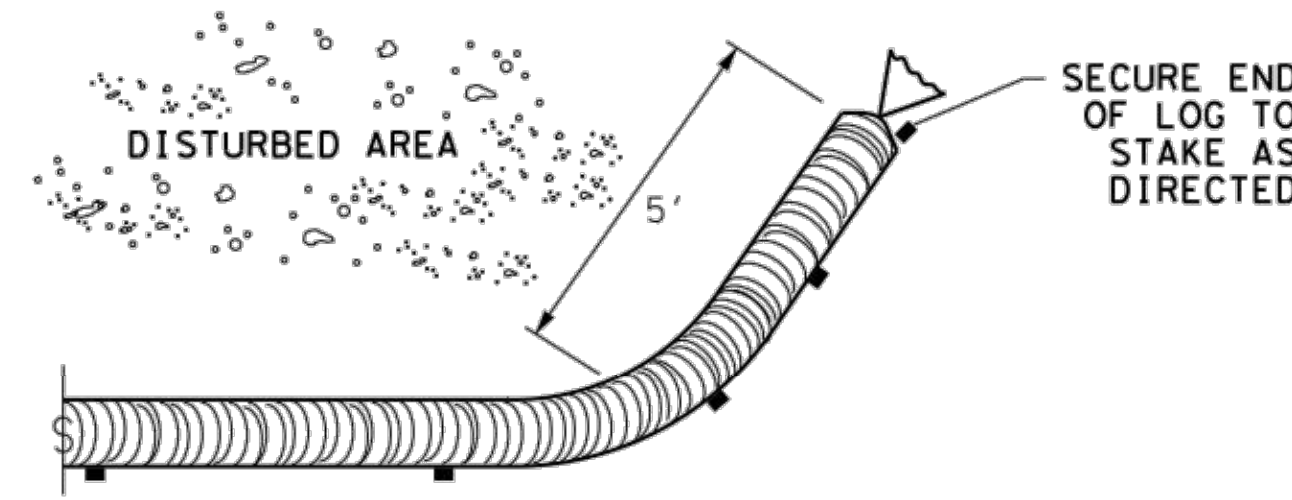
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EROSION CONTROL LOGS ON SLOPES
STAKE AND TRENCHING ANCHORING

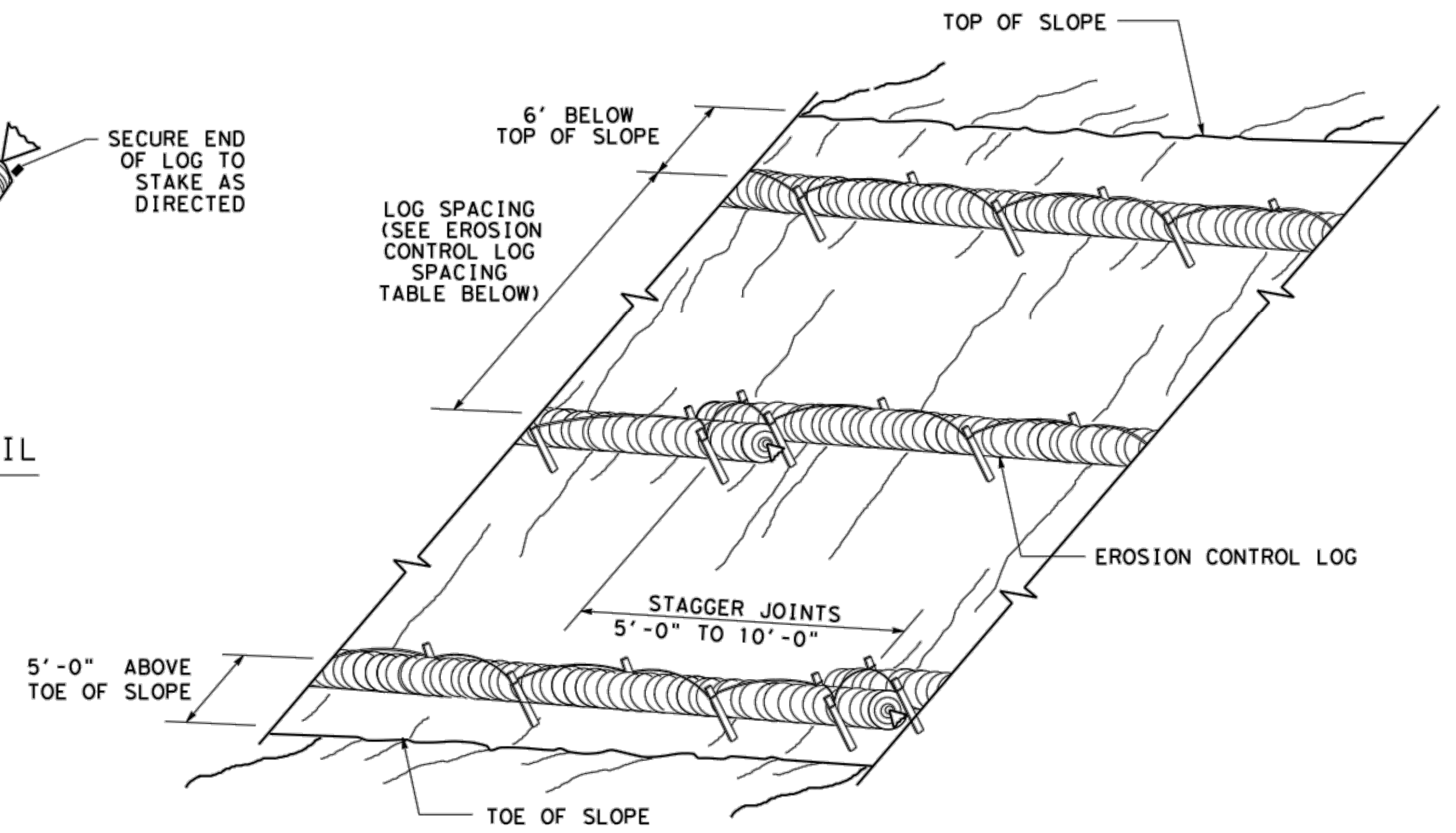
CL-SST



END SECTION RAP DETAIL

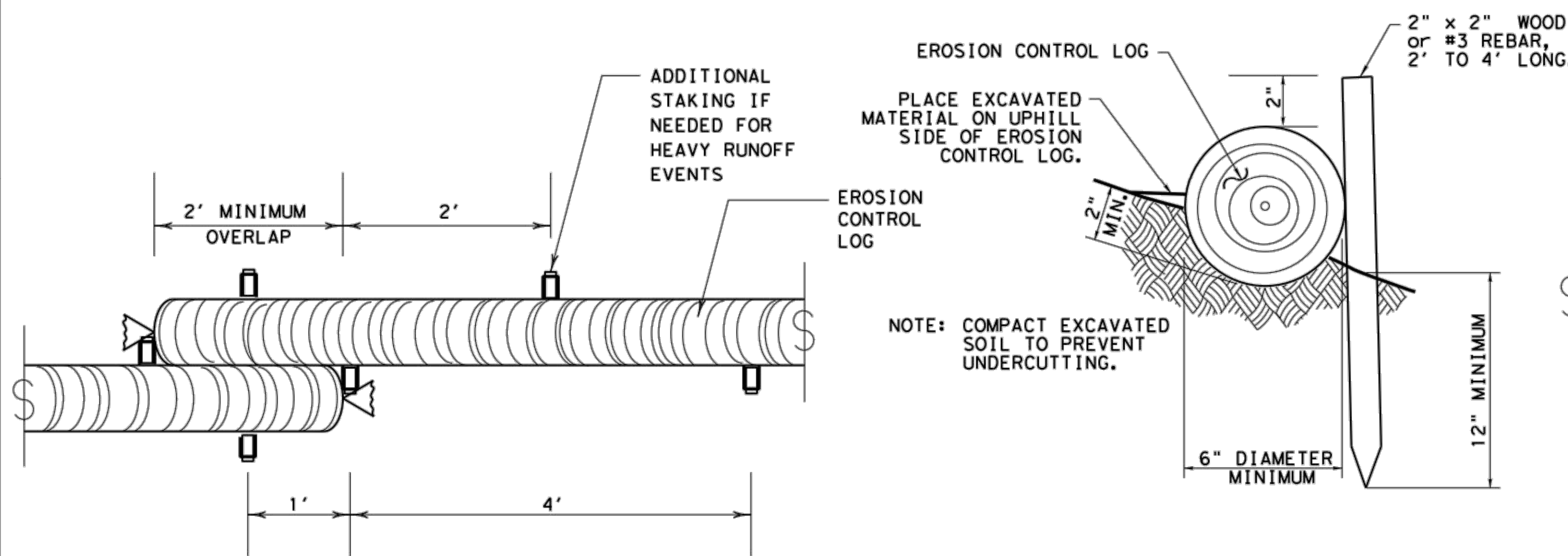
EROSION CONTROL LOG SPACING TABLE				
SLOPE	LOG DIAMETER			
	6"	8"	12"	18"
1:1 OR STEEPER	5'	10'	15'	20'
2:1	10'	20'	30'	40'
3:1	15'	30'	45'	60'
4:1 OR FLATTER	20'	40'	60'	80'

* ADJUSTMENTS CAN BE MADE FOR SOIL TYPE:
SOFT, LOAMY SOILS-ADJUST ROWS CLOSER TOGETHER;
HARD, ROCKY SOILS- ADJUST ROWS FARTHER APART



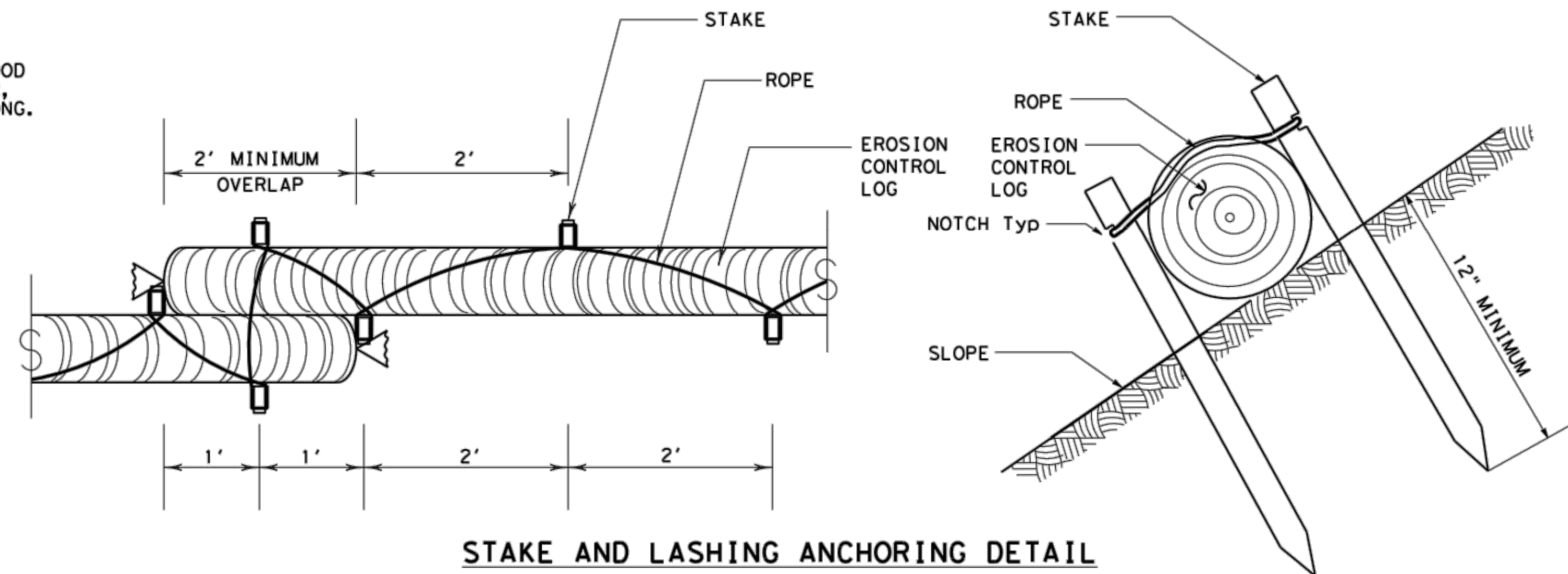
EROSION CONTROL LOGS ON SLOPES
STAKE AND LASHING ANCHORING

CL-SSL



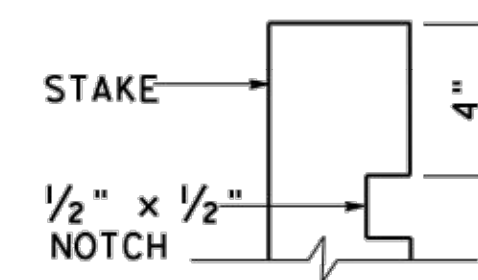
STAKE AND TRENCHING ANCHORING DETAIL

CL-SST



STAKE AND LASHING ANCHORING DETAIL

CL-SSL



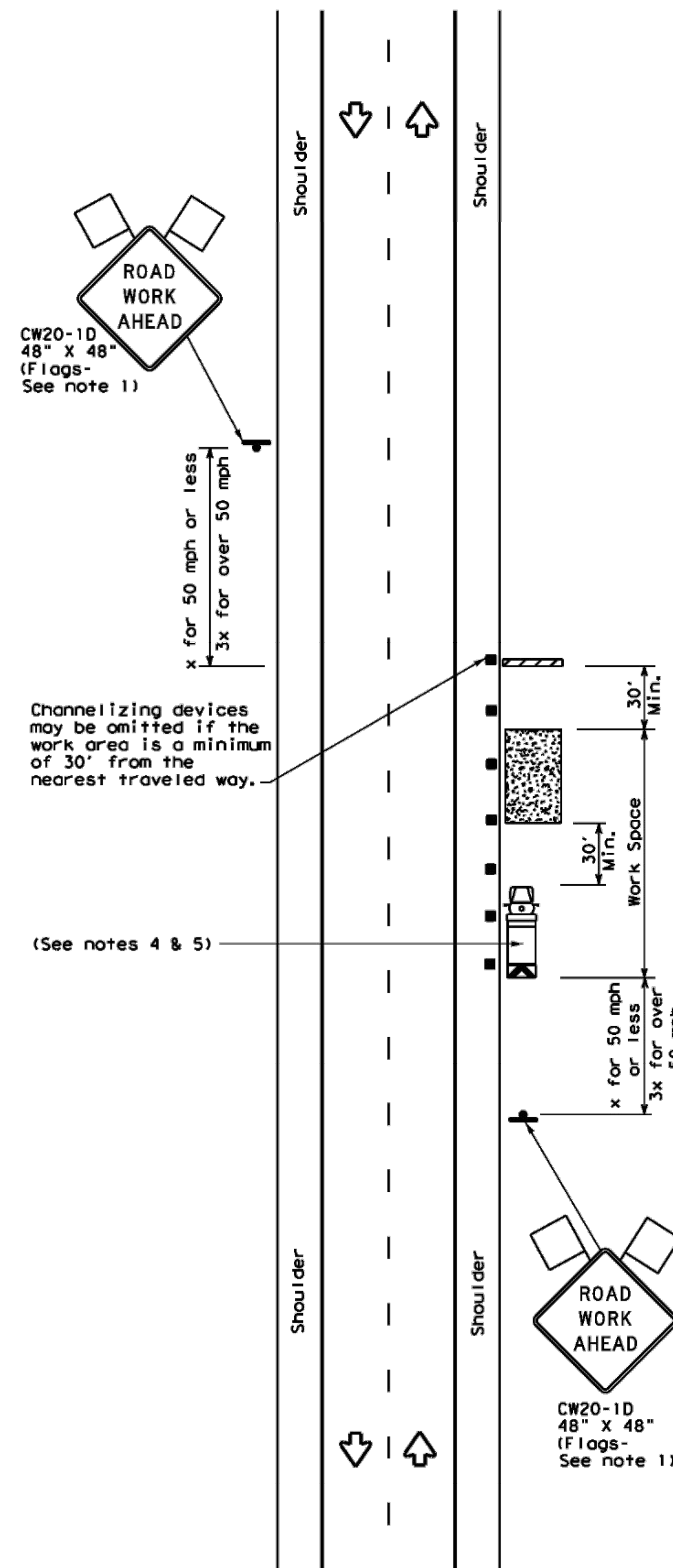
STAKE NOTCH DETAIL

SHEET 2 OF 3

		Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES			
EROSION CONTROL LOG			
EC(9) - 16			
FILE: ec116	DN: TxDOT	CK: KM	DW: LS/PT
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REVISIONS		DIST	COUNTY
		SHEET NO.	

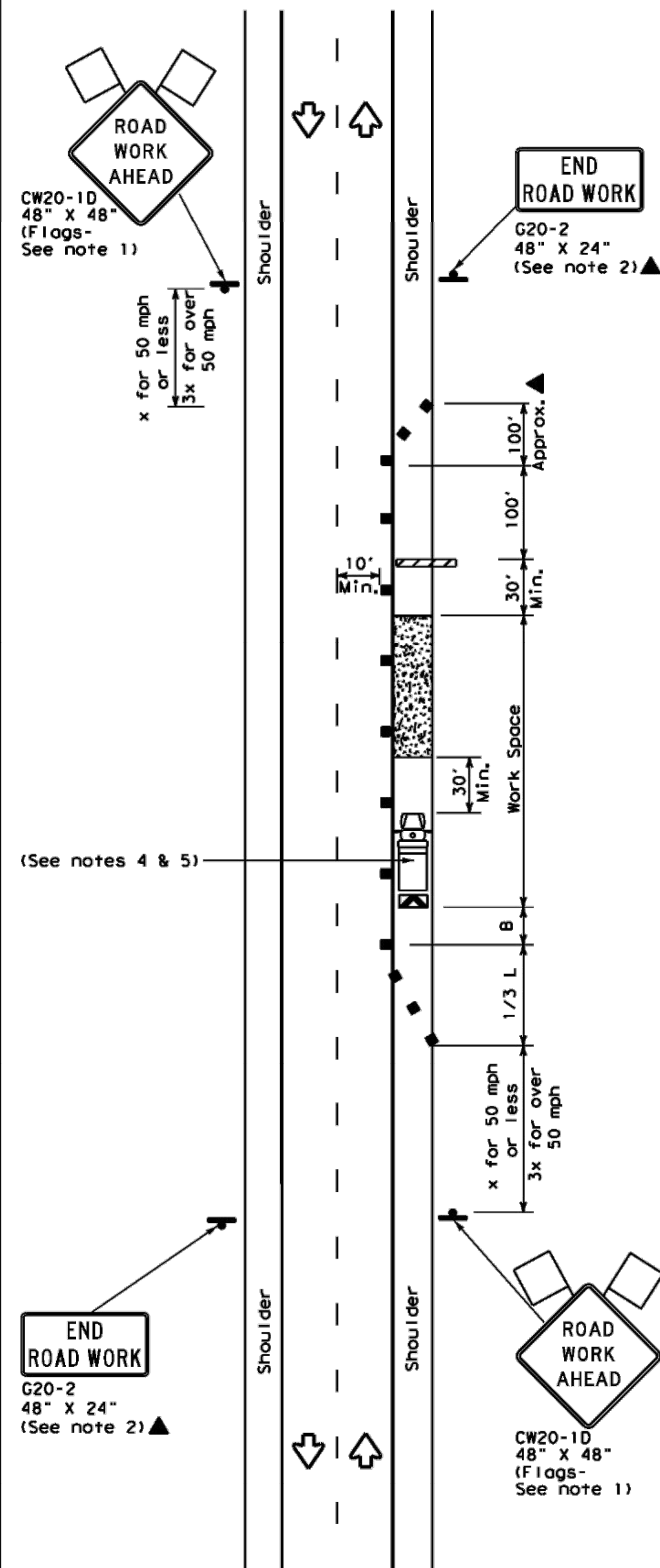
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FILE:



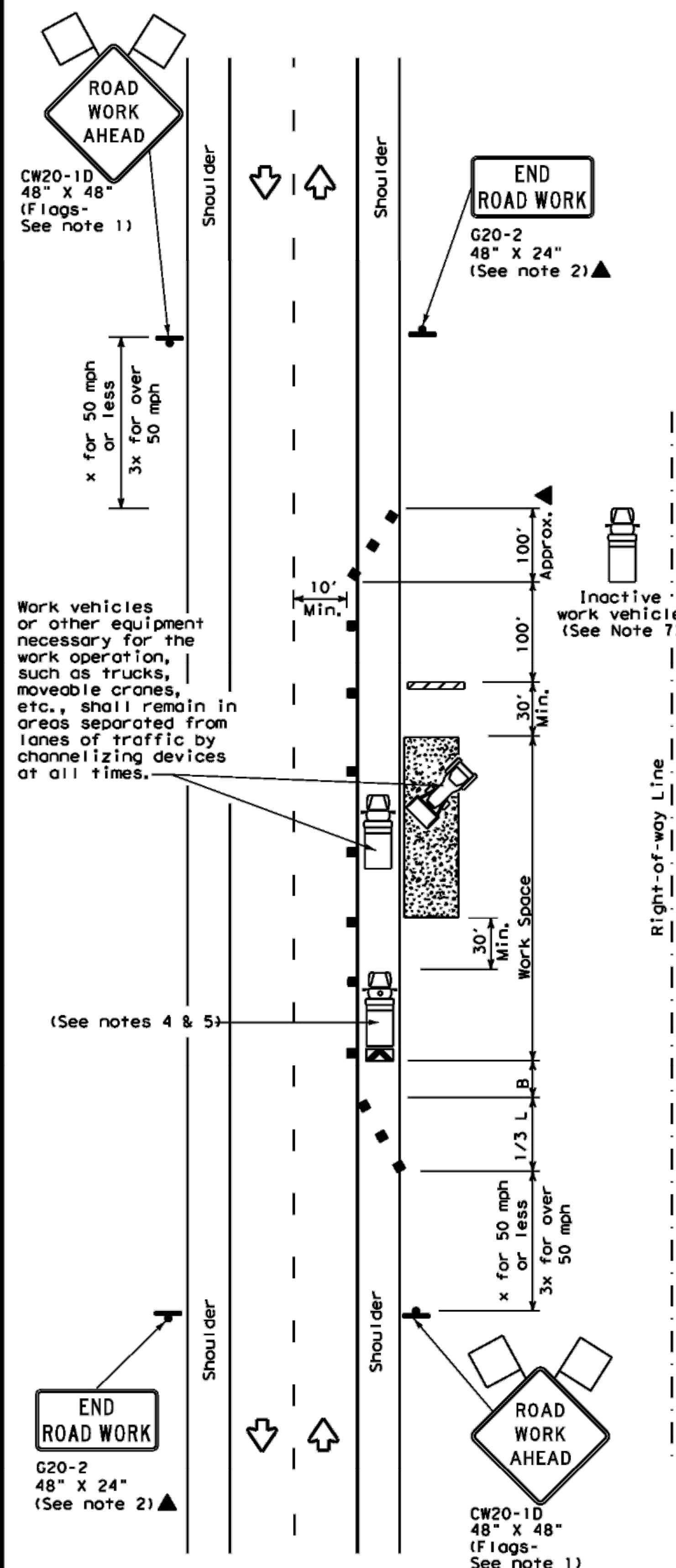
TCP (2-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (2-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (2-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	✓

GENERAL NOTES

- Flags attached to signs where shown, are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
- Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
- Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
- See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

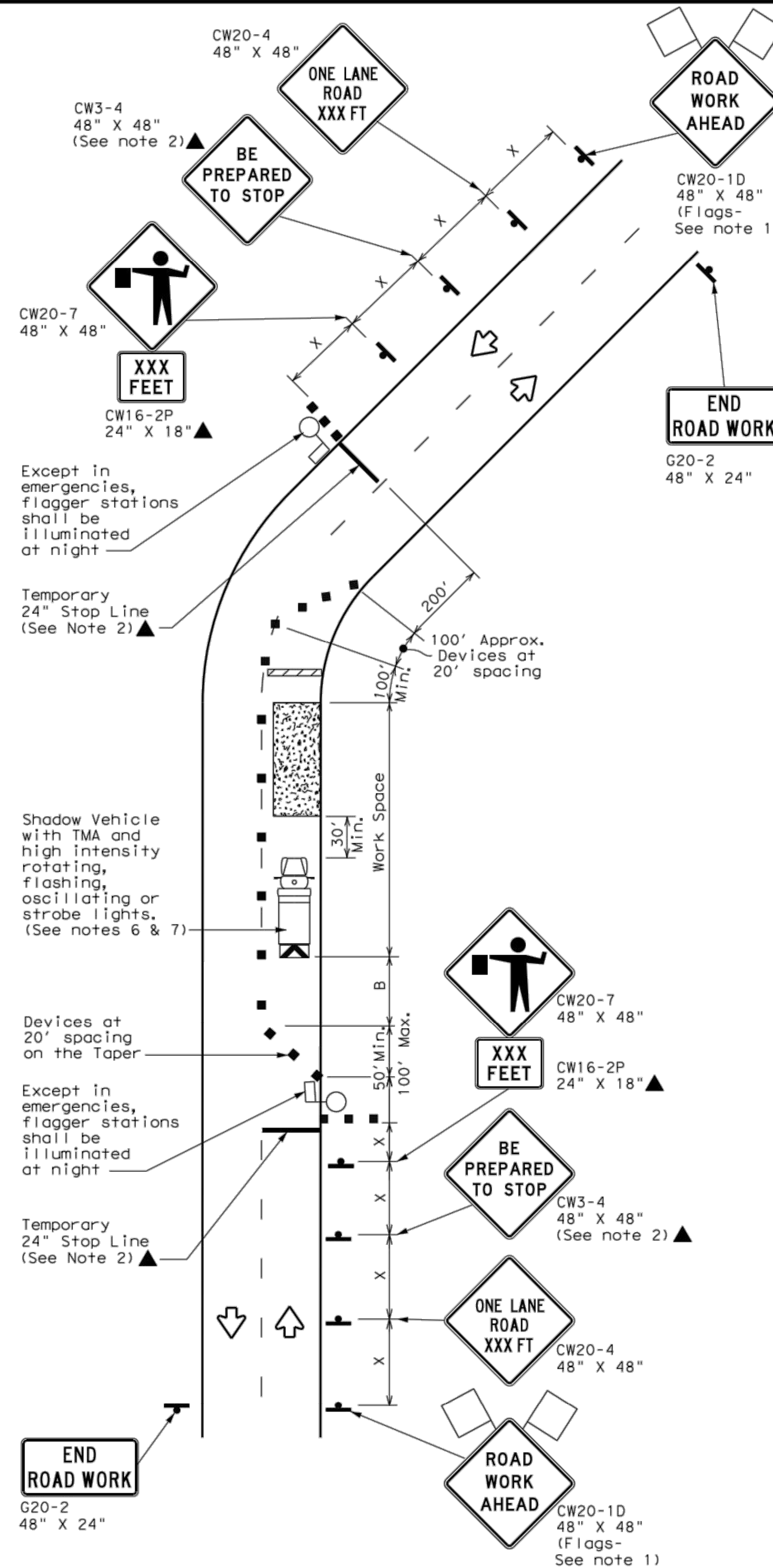
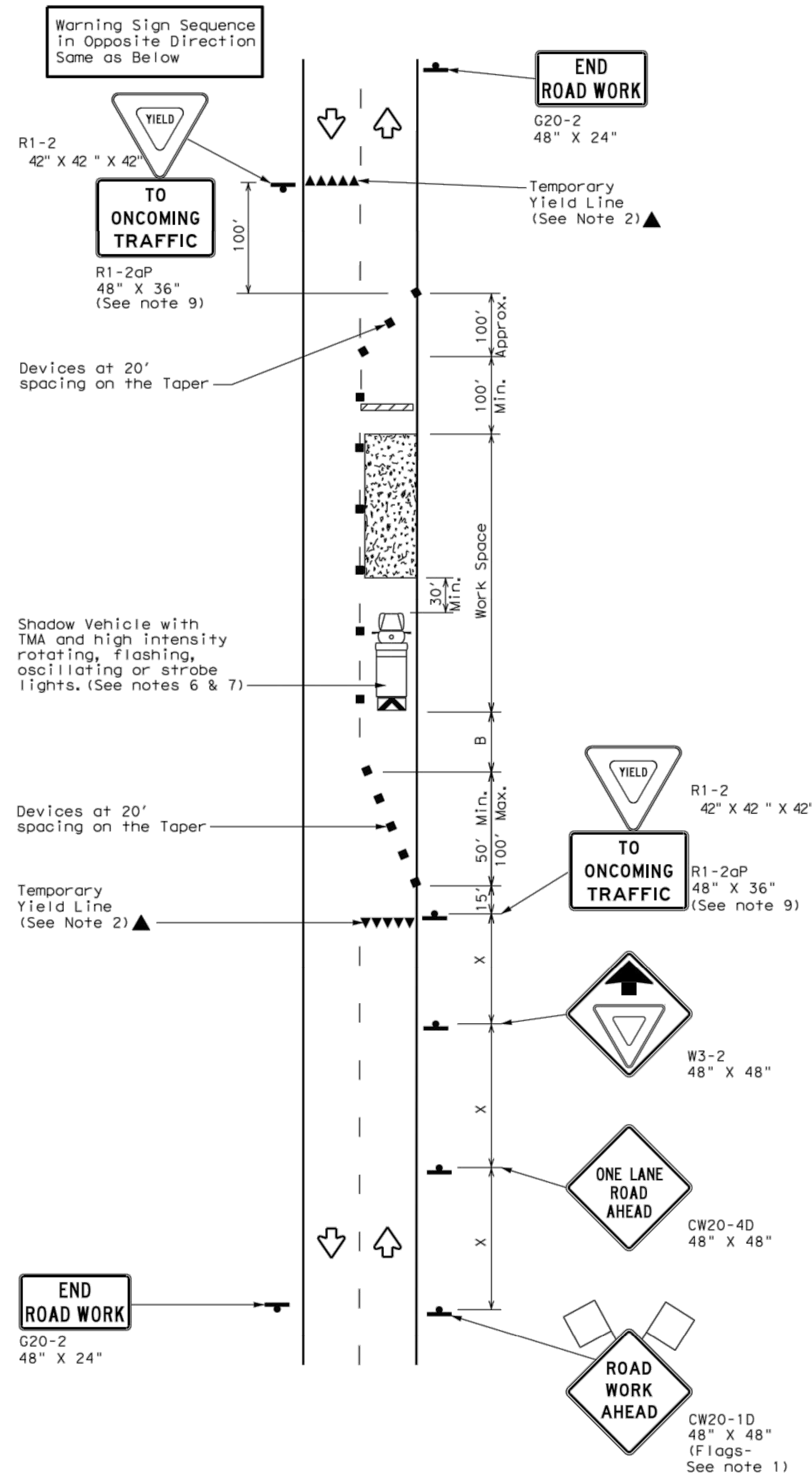
**TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK**

TCP (2-1) - 18

FILE: tcp2-1-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS				
2-94 4-98				
8-95 2-12				
1-97 2-18				
DIST				COUNTY
				SHEET NO.

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DATE: FILE:



LEGEND

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L = WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

- Flags attached to signs where shown, are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
- Flaggers should use two-way radios or other methods of communication to control traffic.
- Length of work space should be based on the ability of flaggers to communicate.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-2a)

- The R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work space should be no longer than one half city block. In rural areas, roadways with less than 2000 ADT, work space should be no longer than 400 feet.
- The R1-2aP "YIELD TO ONCOMING TRAFFIC" sign shall be placed on a support at a 7 foot minimum mounting height.

TCP (2-2b)

- Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
- If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See table above).
- Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

		Traffic Operations Division Standard	
TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL			
TCP (2-2) - 18			
FILE:	tcp2-2-18.dgn	DN:	CK:
© TxDOT	December 1985	CONT	SECT
REVISIONS		JOB	HIGHWAY
8-95	3-03	DIST	COUNTY
1-97	2-12	SHEET NO.	
4-98	2-18	D-18	

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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

- 1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- 2. The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
- 3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
- 4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
- 5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.
- 6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
- 7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
- 8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
- 9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
- 10. Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.
- 11. Traffic control devices should be in place only while work is actually in progress or a definite need exists.
- 12. The Engineer has the final decision on the location of all traffic control devices.
- 13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY NOTES:

- 1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.
- 2. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES

- 1. Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.
- 2. Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION
GENERAL NOTES
AND REQUIREMENTS

BC (1) -21

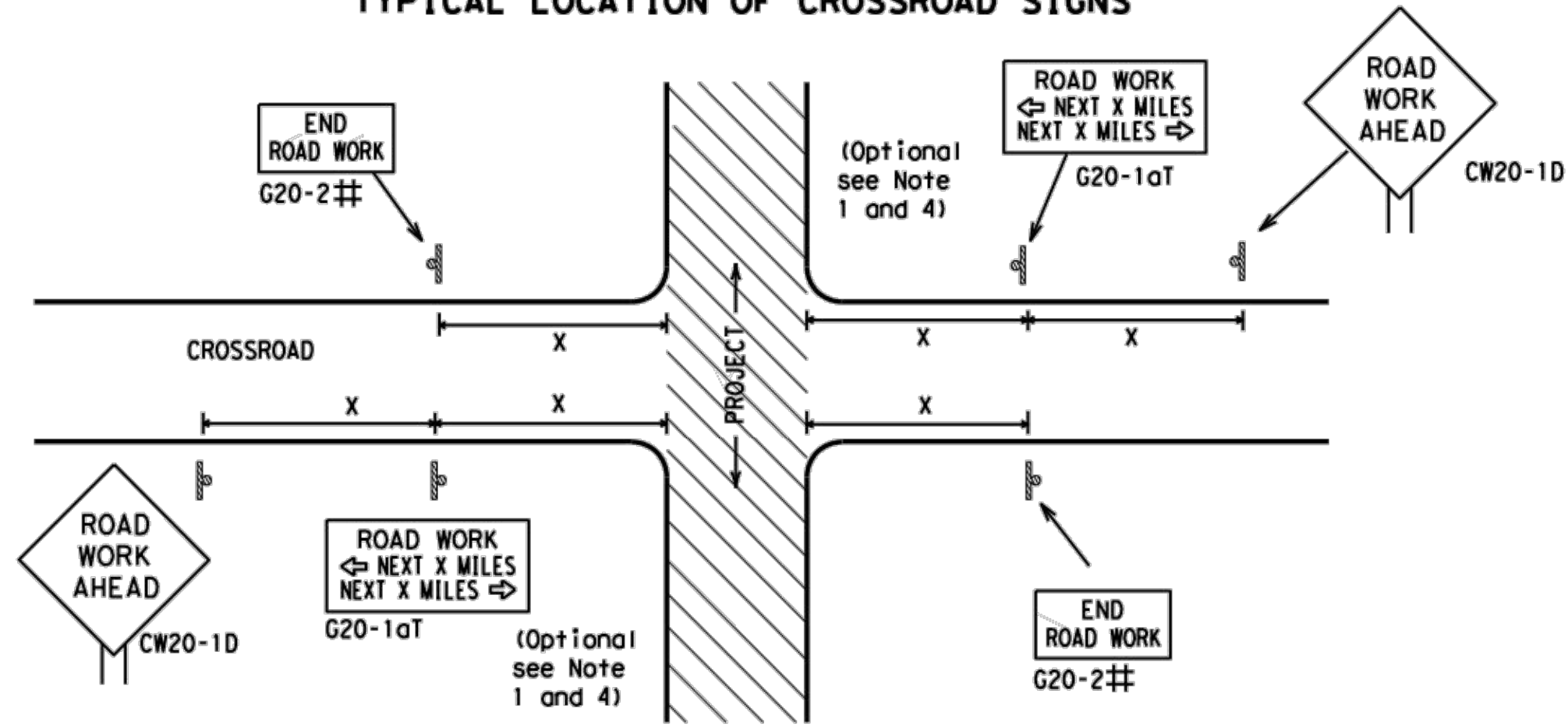
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© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY				
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52

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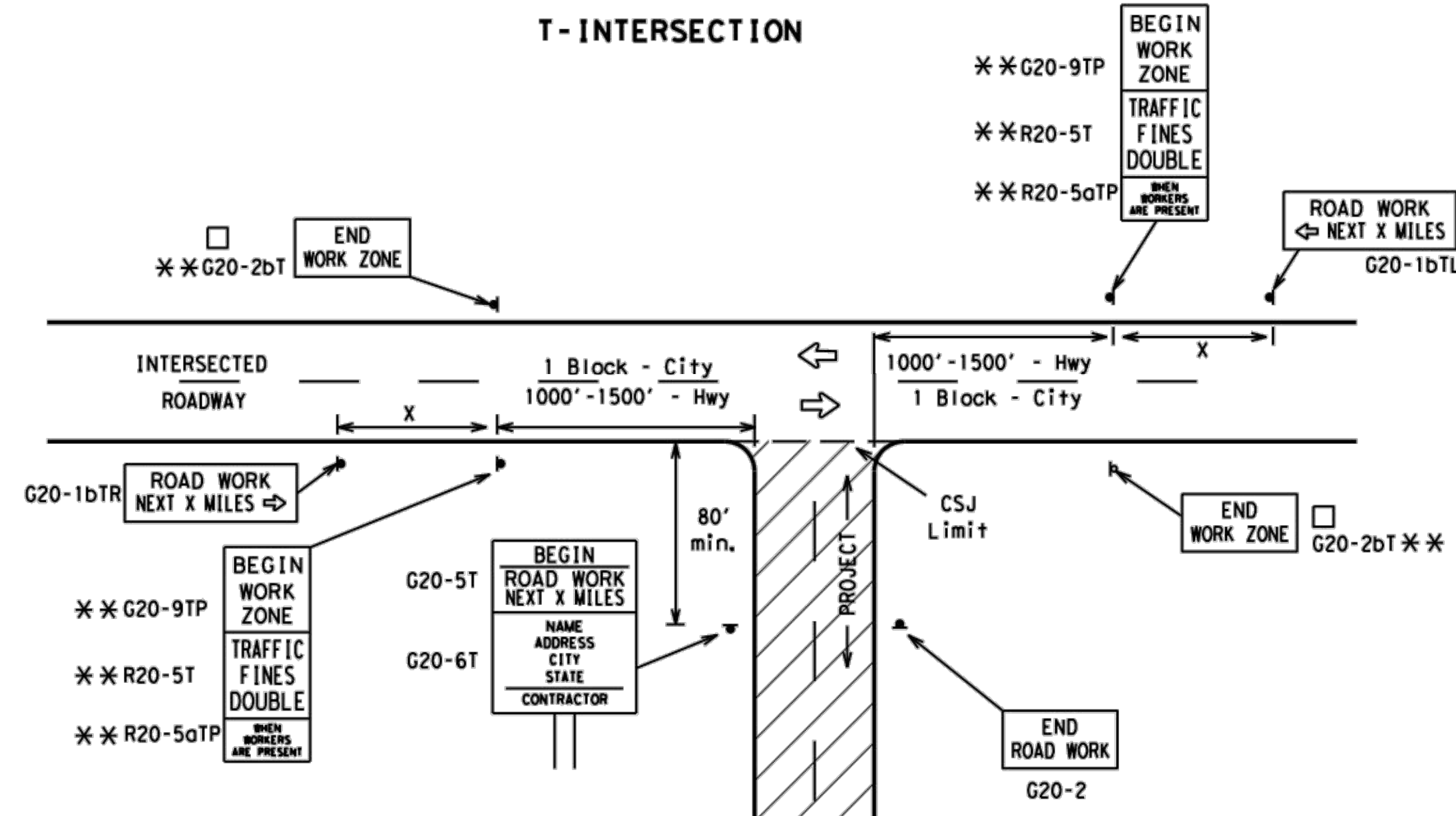
TYPICAL LOCATION OF CROSSROAD SIGNS



May be mounted on back of "ROAD WORK AHEAD" (CW20-1D) sign with approval of Engineer. (See note 2 below)

1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK" (G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume as per TMUTCD Part 5. This information shall be shown in the plans.
3. Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
4. The "ROAD WORK NEXT X MILES" (G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

1. The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
2. If construction closes the road at a T-intersection, the Contractor shall place the "CONTRACTOR NAME" (G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow (G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR) signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

Sign Number or Series	SIZE		SPACING	
	Conventional Road	Expressway/Freeway	Posted Speed MPH	Sign Δ Spacing "X" Feet (Apprx.)
CW20 ⁴	48" x 48"	48" x 48"	30	120
CW21			35	160
CW22			40	240
CW23			45	320
CW25			50	400
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"	55	500 ²
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"	60	600 ²
			65	700 ²
			70	800 ²
			75	900 ²
*			80	1000 ²
			*	*

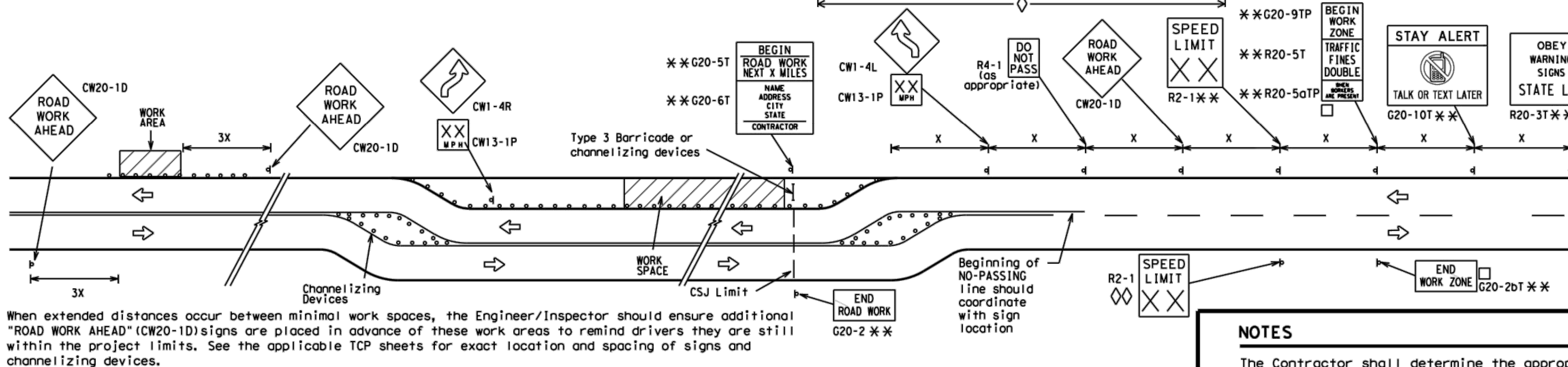
* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

Δ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

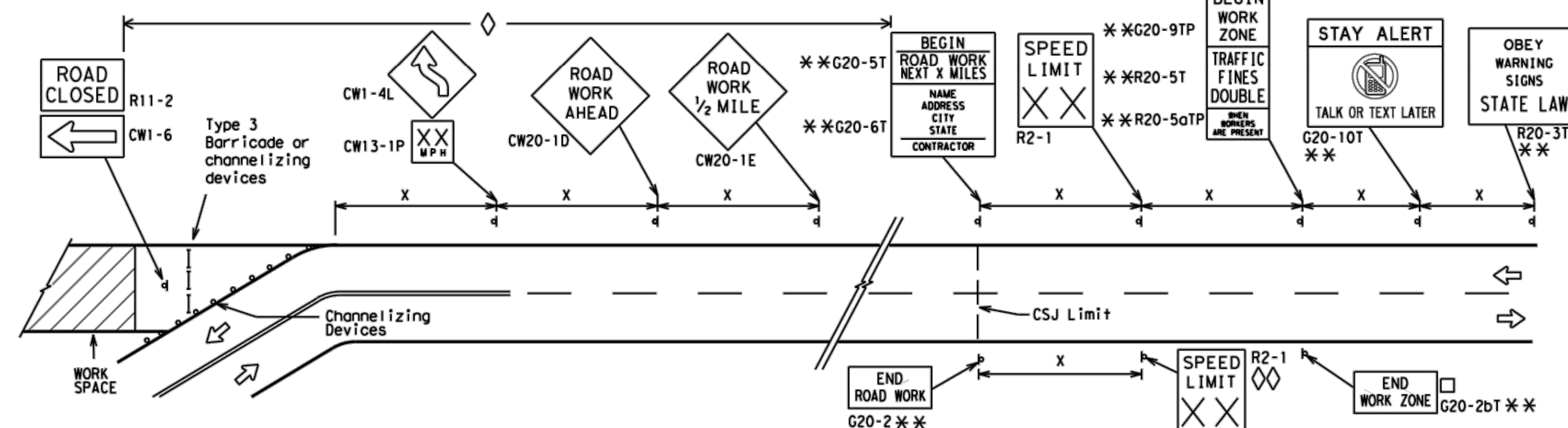
1. Special or larger size signs may be used as necessary.
2. Distance between signs should be increased as required to have 1500 feet advance warning.
3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer as per TMUTCD Part 5. See Note 2 under "Typical Location of Crossroad Signs".
5. Only diamond shaped warning sign sizes are indicated.
6. See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



NOTES

The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-5T) sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.

- The "BEGIN WORK ZONE" (G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.

** CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.

- ◇ Area for placement of "ROAD WORK AHEAD" (CW20-1D) sign and other signs or devices as called for on the Traffic Control Plan.

- ◇◇ Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND

—	Type 3 Barricade
○ ○ ○	Channelizing Devices
—	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12



BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2) - 21

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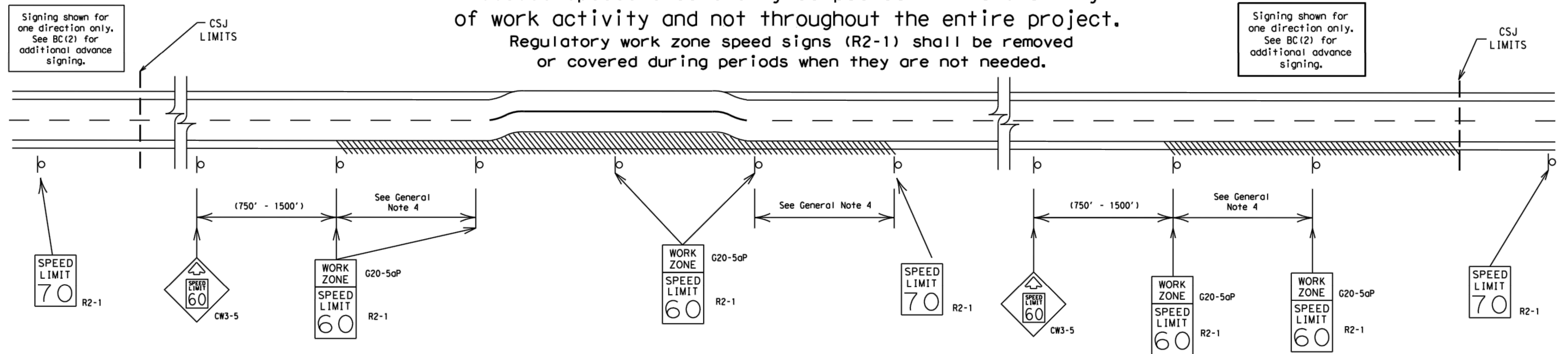
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TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

- rough road or damaged pavement surface
- substantial alteration of roadway geometrics (diversions)
- construction detours
- grade
- width
- other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the traveled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered. (See Removing or Covering on BC(4)).

GENERAL NOTES

- Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
- Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
- Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
- Frequency of work zone speed limit signs should be:
 - 40 mph and greater 0.2 to 2 miles
 - 35 mph and less 0.2 to 1 mile
- Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
- Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
- Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
- Techniques that may help reduce traffic speeds include but are not limited to:
 - A. Law enforcement.
 - B. Flagger stationed next to sign.
 - C. Portable changeable message sign (PCMS).
 - D. Low-power (drone) radar transmitter.
 - E. Speed monitor trailers or signs.
- Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
- For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

SHEET 3 OF 12

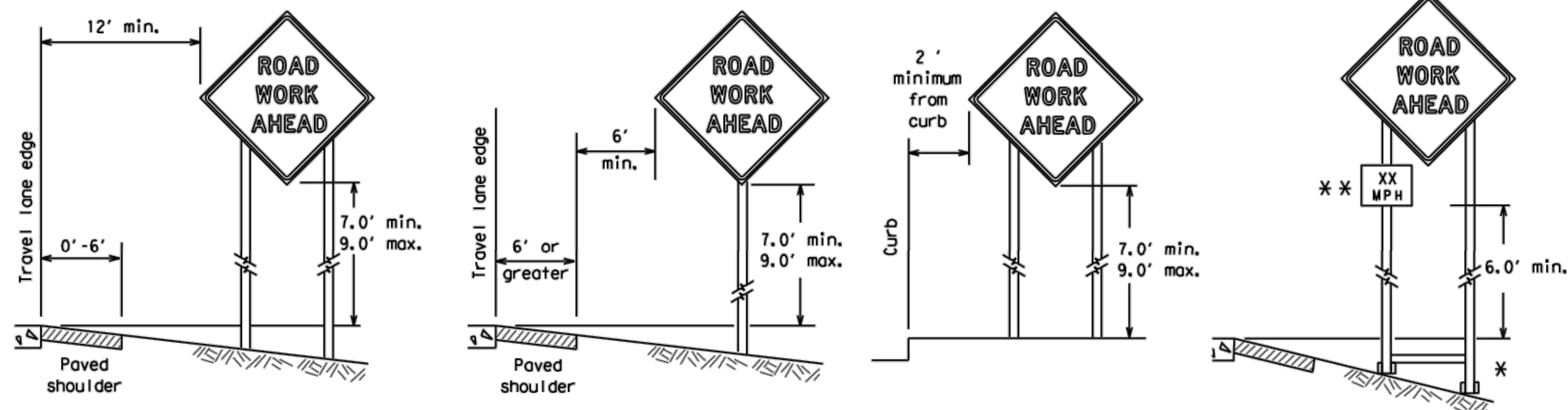


BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

BC (3) - 21

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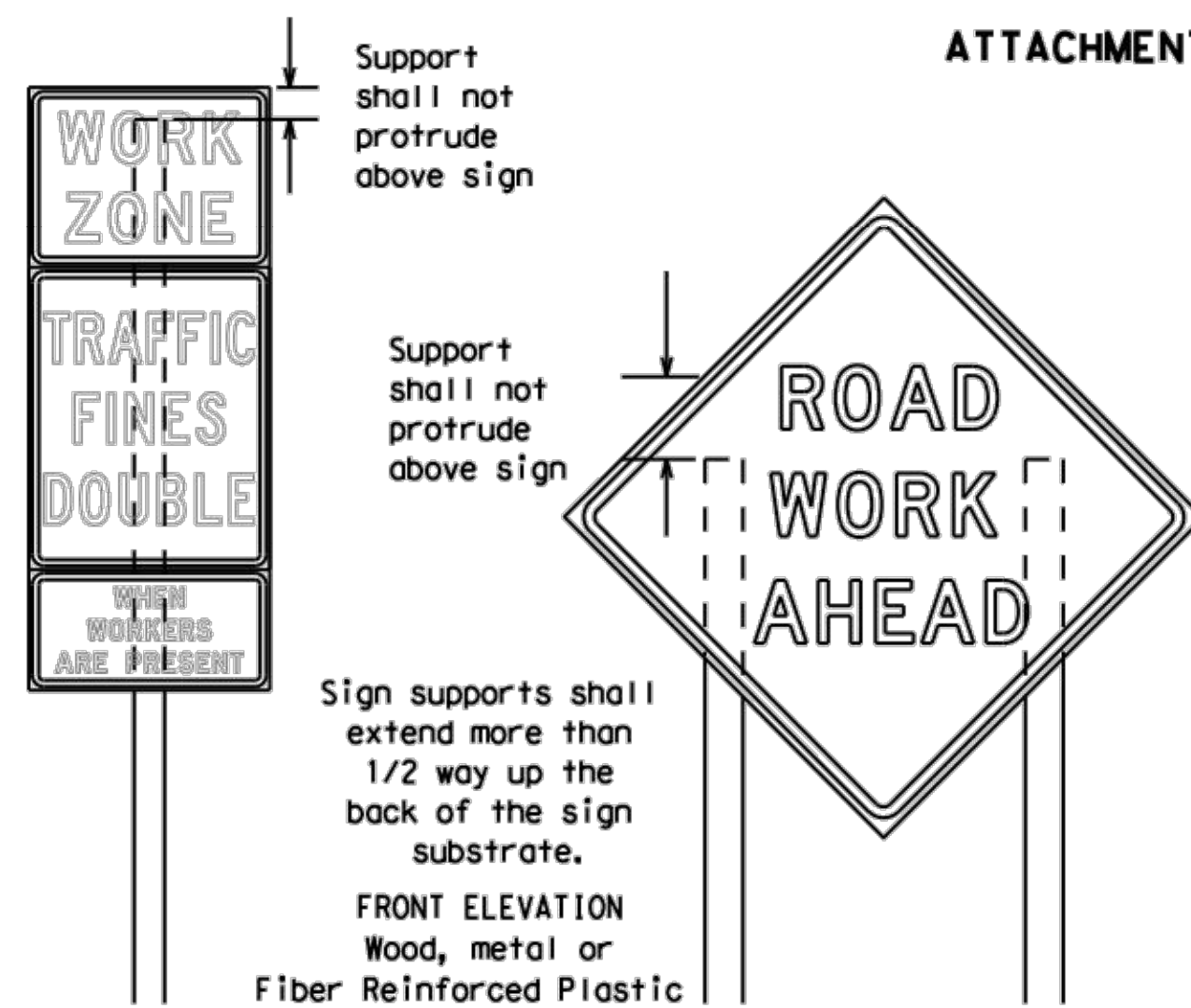
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



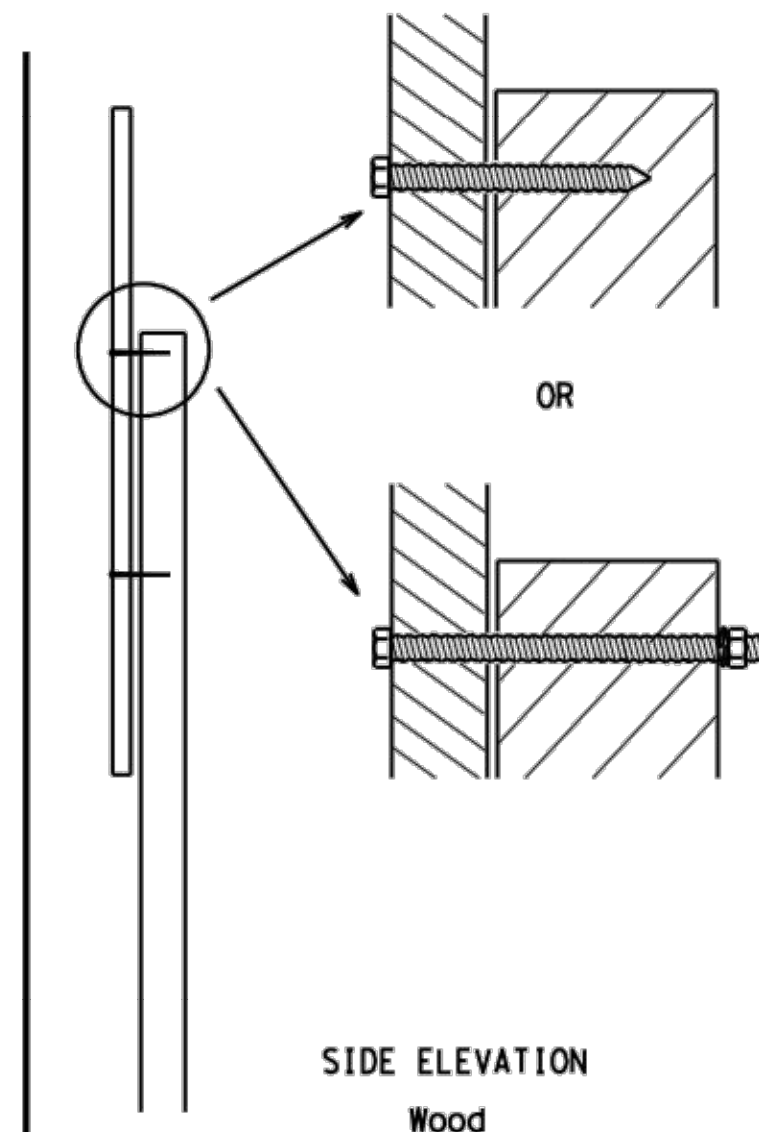
* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

** When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

ATTACHMENT FOR SIGN SUPPORTS



Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the splice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.



Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

GENERAL NOTES FOR WORK ZONE SIGNS

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Barricades shall NOT be used as sign supports.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
- The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD) for small roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
- The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
- Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
- The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

- The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
 - Long-term stationary - work that occupies a location more than 3 days.
 - Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
 - Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
 - Short, duration - work that occupies a location up to 1 hour.
 - Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

- The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
- The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
- Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
- Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
- Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

- The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

- The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
- "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
- All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

- All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
- White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
- Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

- All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

- When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
- Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
- Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
- When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
- Burlap shall NOT be used to cover signs.
- Duct tape or other adhesive material shall NOT be affixed to a sign face.
- Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

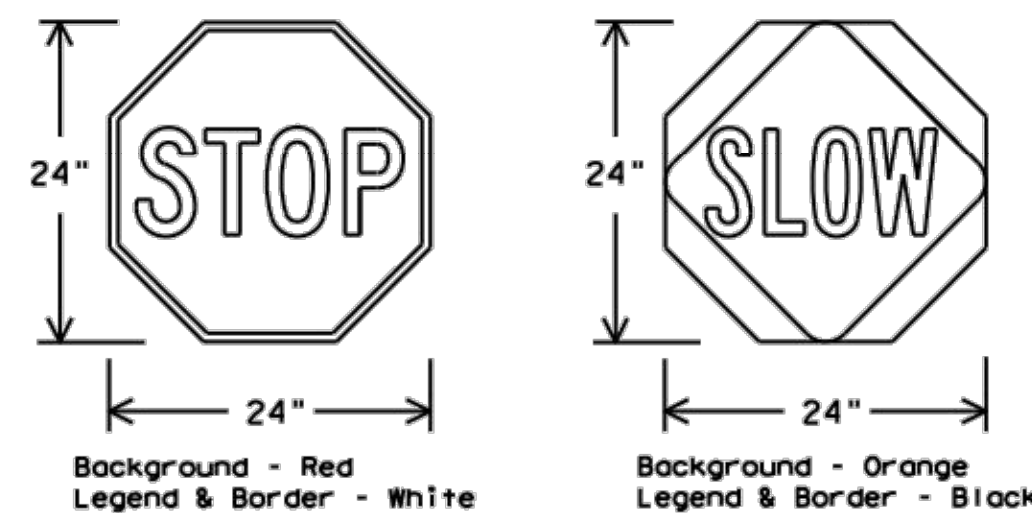
- Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
- The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
- Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
- Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
- Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
- Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

- Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

STOP/SLOW PADDLES

- STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24".
- STOP/SLOW paddles shall be retroreflectized when used at night.
- STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
- Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



Background - Red
Legend & Border - White

Background - Orange
Legend & Border - Black

SHEETING REQUIREMENTS (WHEN USED AT NIGHT)

USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B _{FL} OR C _{FL} SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

- Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (LOGO), or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
- When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the TS-CD standard.
- When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
- If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
- If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC standard sheets, TLRS standard sheets or the CWZTCD list. The signs shall meet the required mounting heights shown on the BC, or the SMD standard sheets during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
- Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

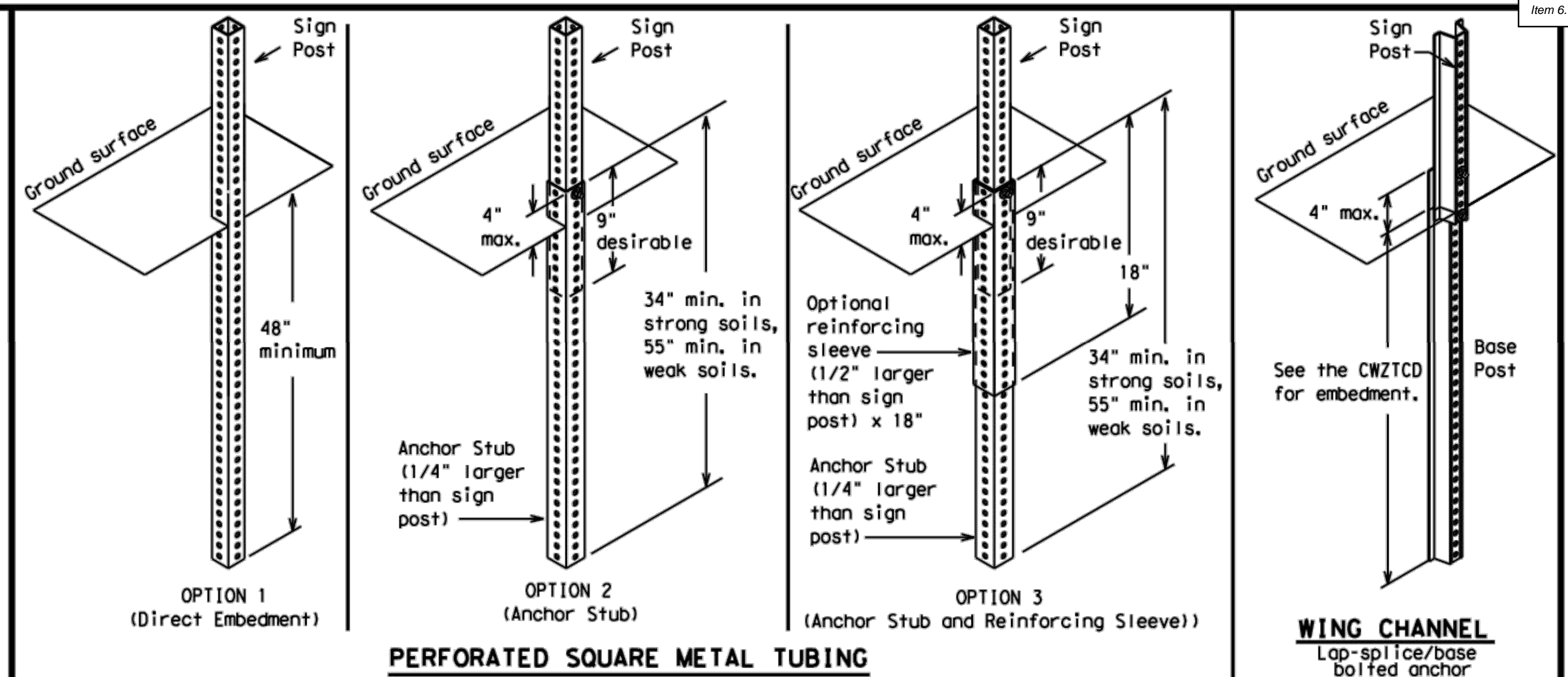
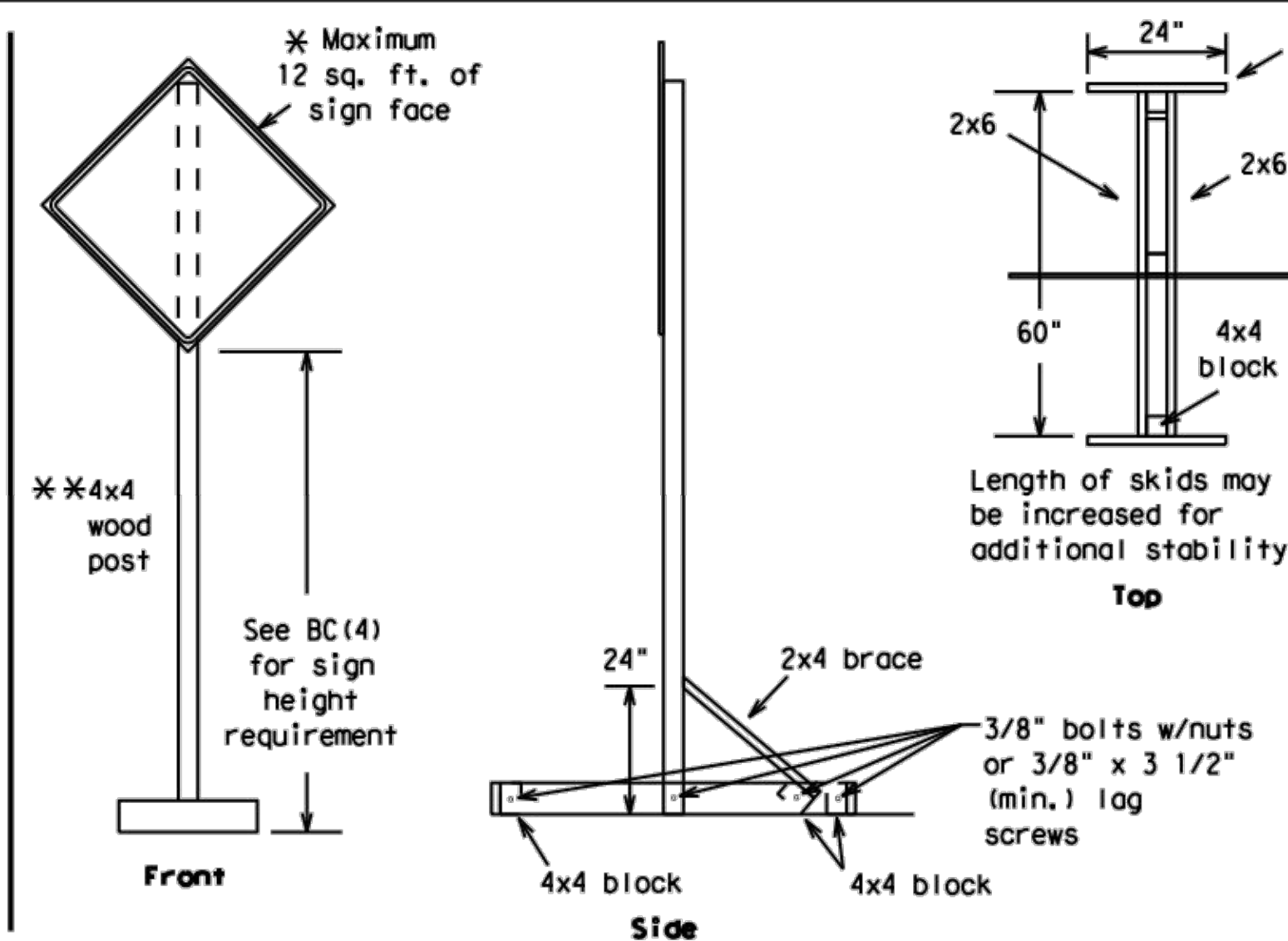
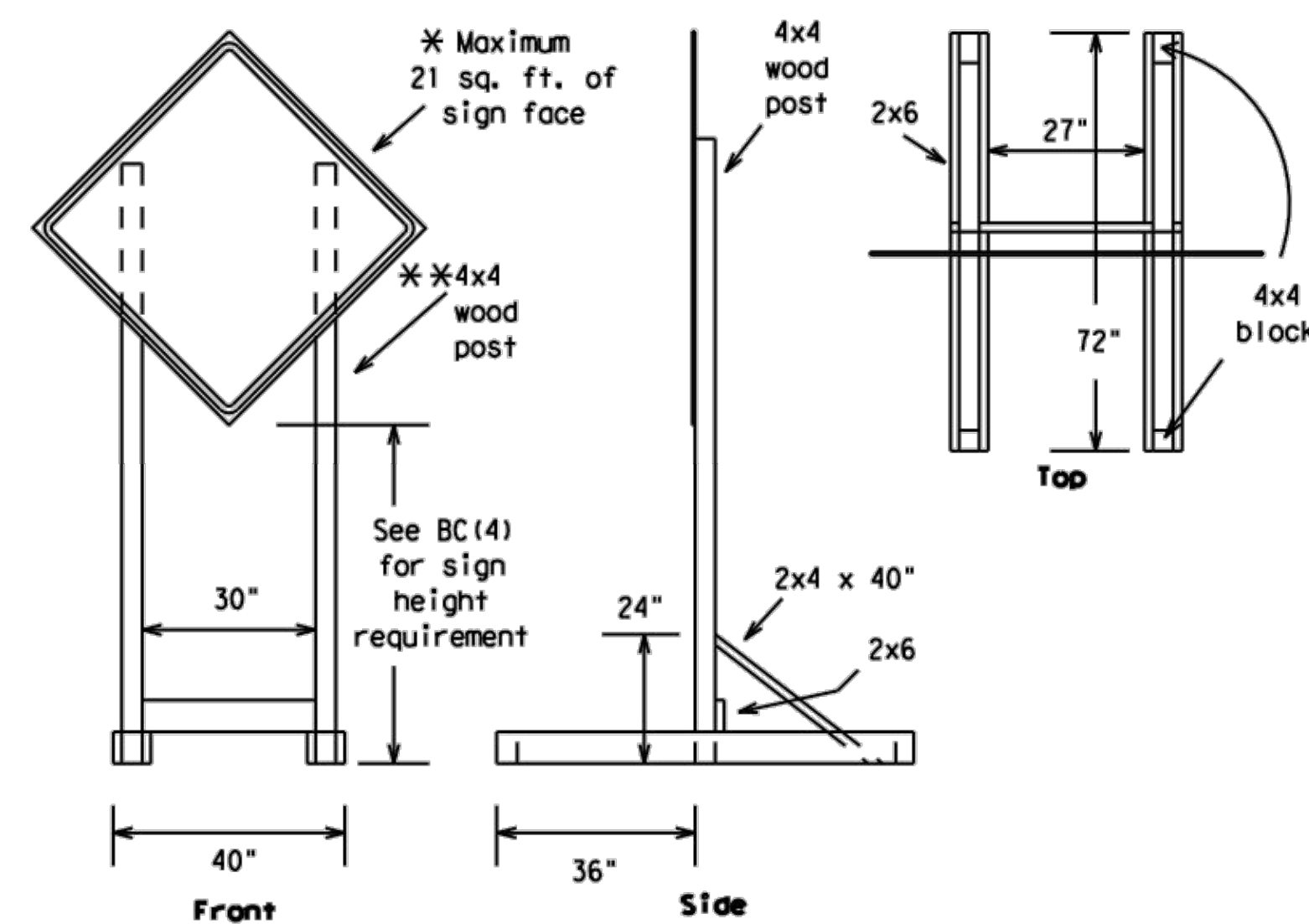
SHEET 4 OF 12

BARRICADE AND CONSTRUCTION
TEMPORARY SIGN NOTES

BC (4) - 21

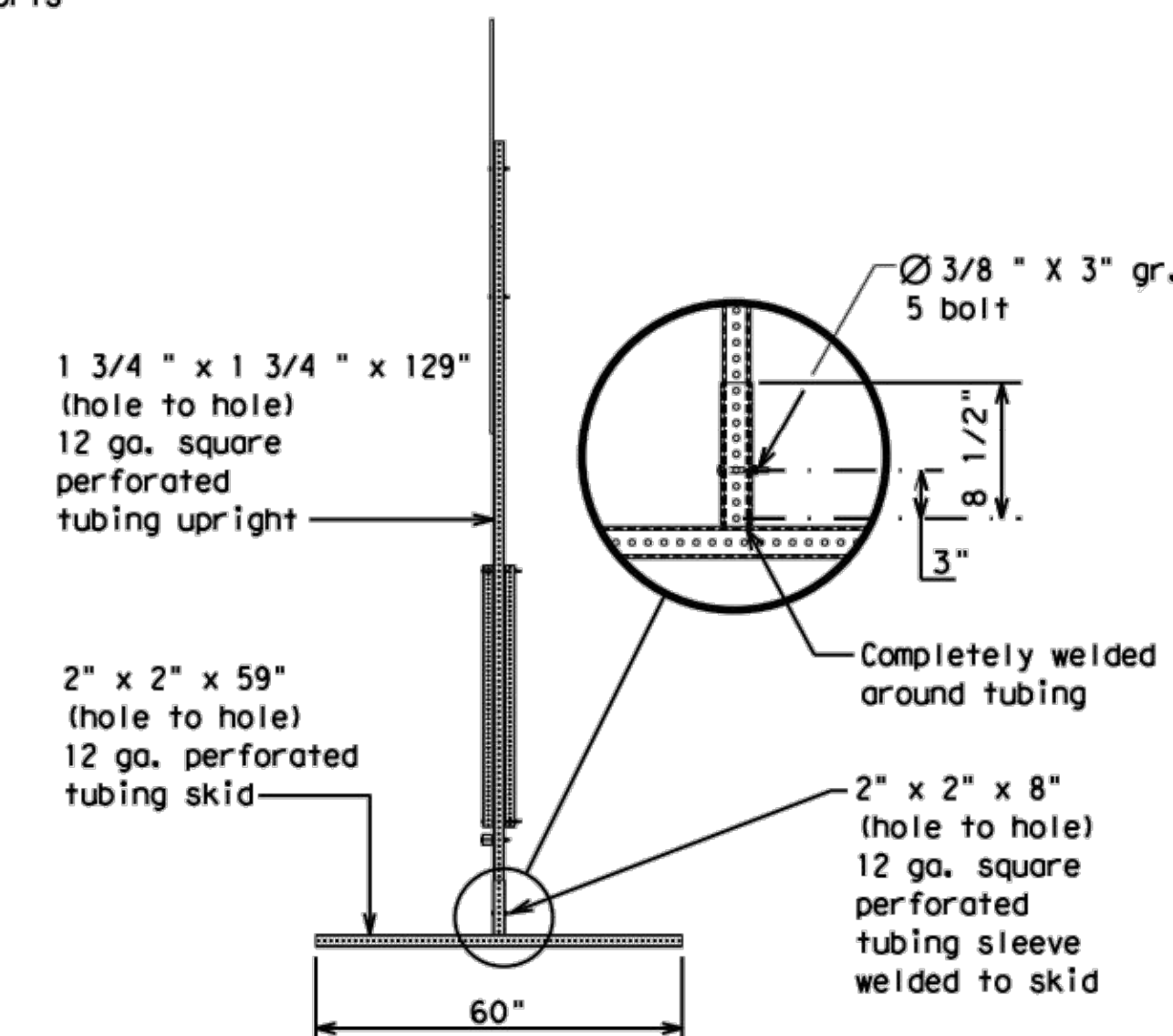
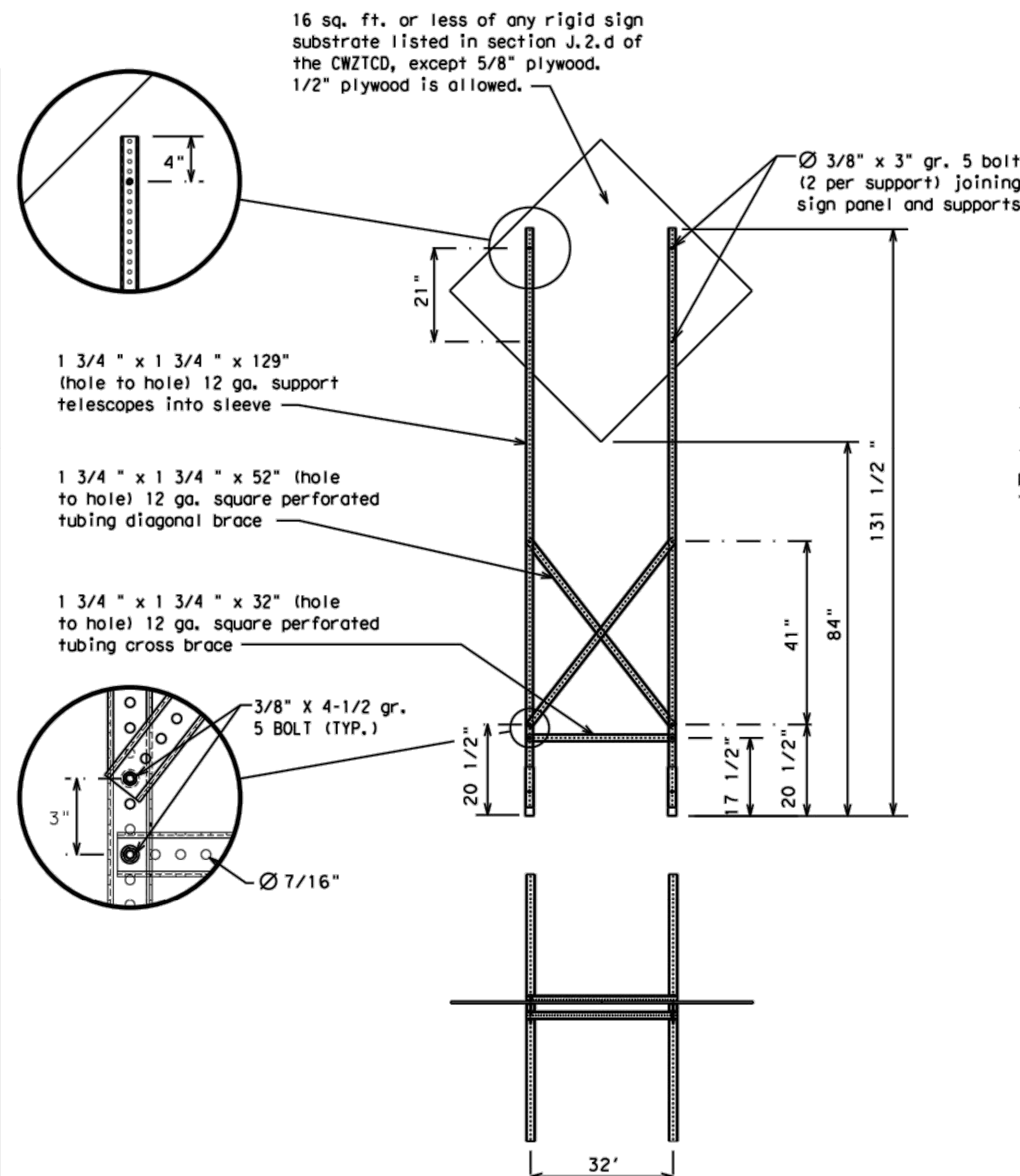
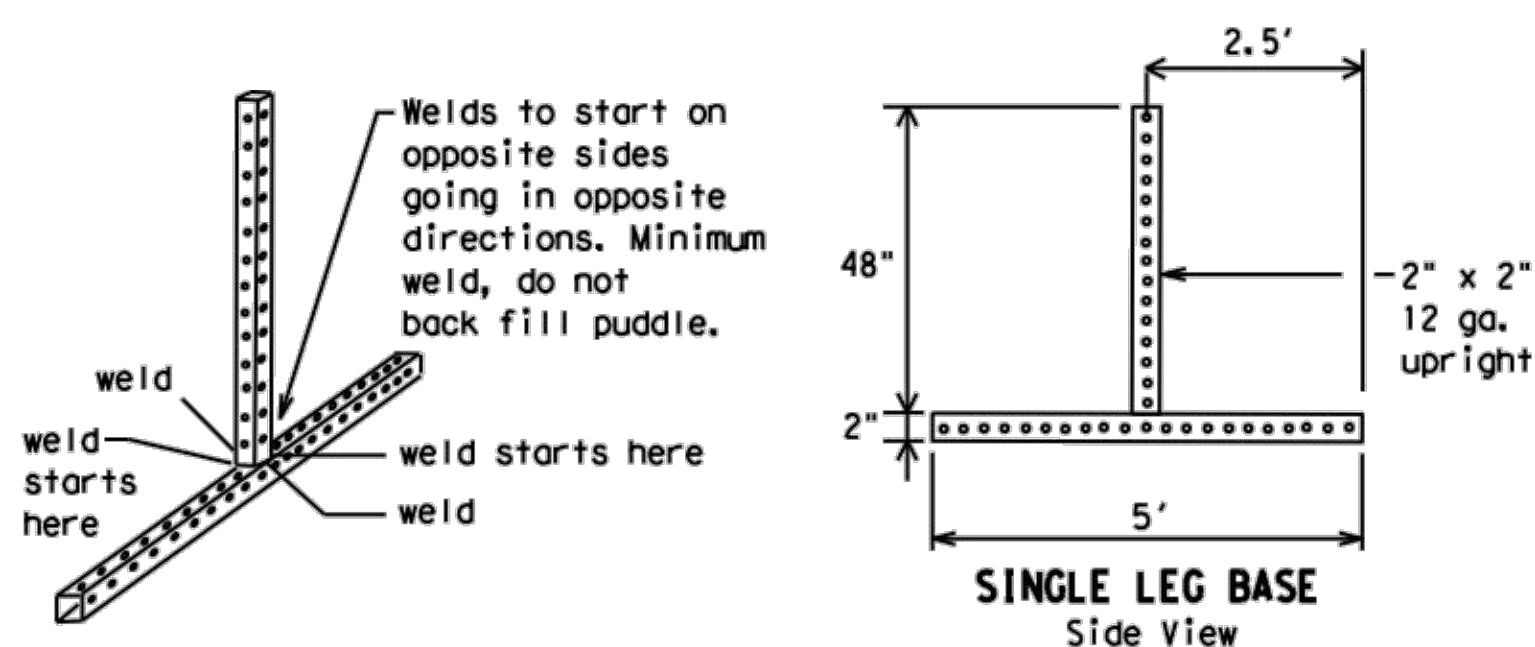
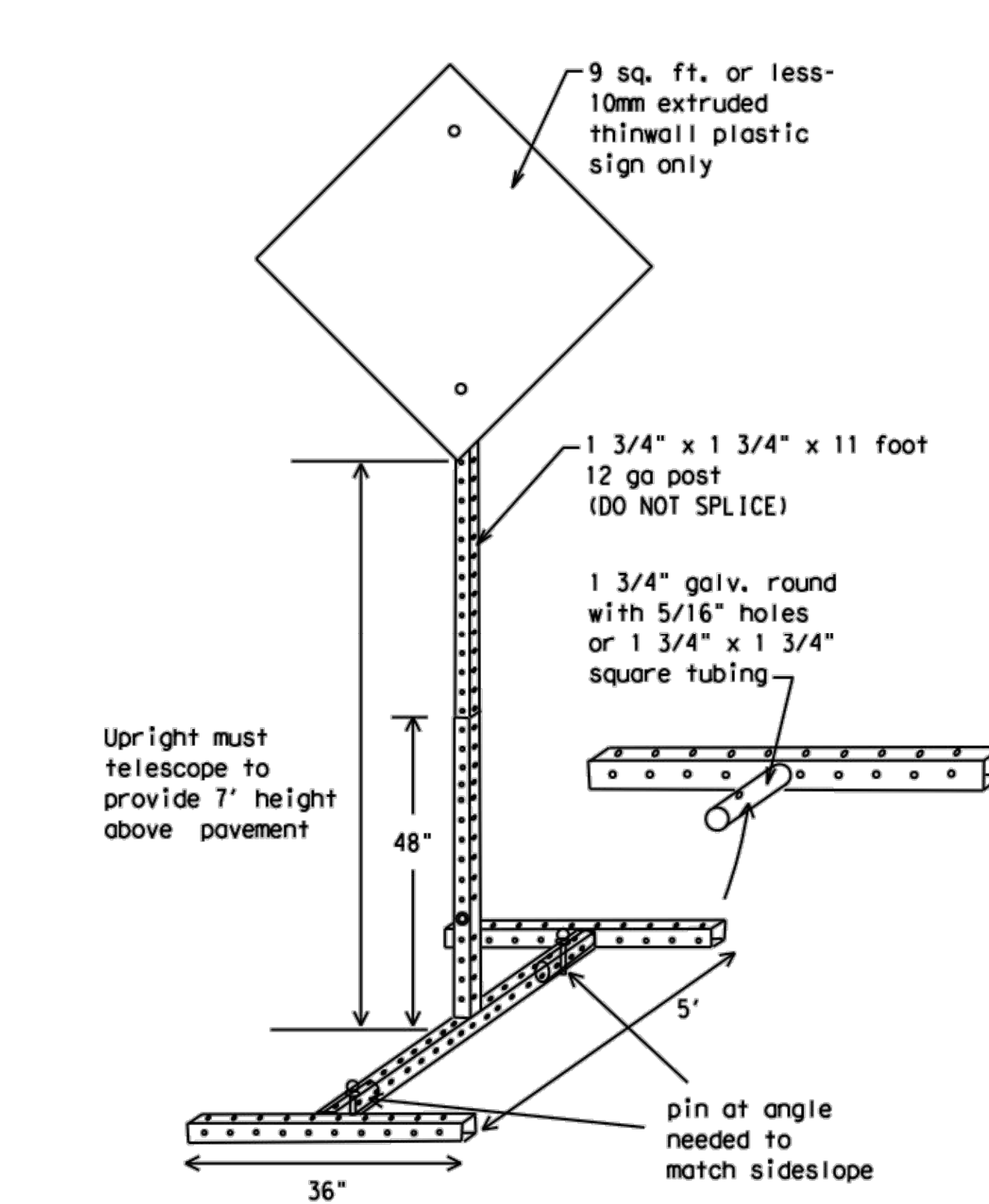
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© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY				
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7-13	5-21								
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SKID MOUNTED WOOD SIGN SUPPORTS

* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS



WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

GENERAL NOTES

1. Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
2. No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
3. When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

* See BC(4) for definition of "Work Duration."

✱✱ Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.

☐ See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

SHEET 5 OF 12



Texas Department of Transportation

**Traffic
Safety
Division
Standard**

BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC (5) - 21

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

PORTABLE CHANGEABLE MESSAGE SIGNS

- The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
- Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
- Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
- Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
- Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
- When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
- The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
- The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
- Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
- Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
- Do not use the word "Danger" in message.
- Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
- Do not display messages that scroll horizontally or vertically across the face of the sign.
- The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
- PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
- Each line of text should be centered on the message board rather than left or right justified.
- If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

WORD OR PHRASE	ABBREVIATION	WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD	Major	MAJ
Alternate	ALT	Miles	MI
Avenue	AVE	Miles Per Hour	MPH
Best Route	BEST RTE	Minor	MNR
Boulevard	BLVD	Monday	MON
Bridge	BRDG	Normal	NORM
Cannot	CANT	North	N
Center	CTR	Northbound	(route) N
Construction Ahead	CONST AHD	Parking	PKING
CROSSING	XING	Road	RD
Detour Route	DETOUR RTE	Right Lane	RT LN
Do Not	DONT	Saturday	SAT
East	E	Service Road	SERV RD
Eastbound	(route) E	Shoulder	SHLDR
Emergency	EMER	Slippery	SLIP
Emergency Vehicle	EMER VEH	South	S
Entrance, Enter	ENT	Southbound	(route) S
Express Lane	EXP LN	Speed	SPD
Expressway	EXPWY	Street	ST
XXXX Feet	XXXX FT	Sunday	SUN
Fog Ahead	FOG AHD	Telephone	PHONE
Freeway	FRWY, FWY	Temporary	TEMP
Freeway Blocked	FWY BLKD	Thursday	THURS
Friday	FRI	To Downtown	TO DWNTN
Hazardous Driving	HAZ DRIVING	Traffic	TRAF
Hazardous Material	HAZMAT	Travelers	TRVLRS
High-Occupancy	HOV	Tuesday	TUES
Vehicle	VEH	Time Minutes	TIME MIN
Highway	HWY	Upper Level	UPR LEVEL
Hour(s)	HR, HRS	Vehicles (s)	VEH, VEHS
Information	INFO	Warning	WARN
It Is	ITS	Wednesday	WED
Junction	JCT	Weight Limit	WT LIMIT
Left	LFT	West	W
Left Lane	LFT LN	Westbound	(route) W
Lane Closed	LN CLOSED	Wet Pavement	WET PVMT
Lower Level	LWR LEVEL	Will Not	WONT
Maintenance	MAINT		

Roadway designation # IH-number, US-number, SH-number, FM-number

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

FREEWAY CLOSED X MILE
ROAD CLOSED AT SH XXX
ROAD CLSD AT FM XXXX
RIGHT X LANES CLOSED
CENTER LANE CLOSED
NIGHT LANE CLOSURES
VARIOUS LANES CLOSED
EXIT CLOSED
MALL DRIVEWAY CLOSED
XXXXXXXX BLVD CLOSED

Other Condition List

ROADWORK XXX FT	ROAD REPAIRS XXXX FT
FLAGGER XXXX FT	LANE NARROWS XXXX FT
RIGHT LN NARROWS XXXX FT	TWO-WAY TRAFFIC XX MILE
MERGING TRAFFIC XXXX FT	CONST TRAFFIC XXX FT
LOOSE GRAVEL XXXX FT	UNEVEN LANES XXXX FT
DETOUR X MILE	ROUGH ROAD XXXX FT
ROADWORK PAST SH XXXX	ROADWORK NEXT FRI-SUN
BUMP XXXX FT	US XXX EXIT X MILES
TRAFFIC SIGNAL XXXX FT	LANES SHIFT

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

MERGE RIGHT	FORM X LINES RIGHT
DETOUR NEXT X EXITS	USE XXXXX RD EXIT
USE EXIT XXX	USE EXIT I-XX NORTH
STAY ON US XXX SOUTH	USE I-XX E TO I-XX N
TRUCKS USE US XXX N	WATCH FOR TRUCKS
WATCH FOR TRUCKS	EXPECT DELAYS
EXPECT DELAYS	PREPARE TO STOP
REDUCE SPEED XXX FT	END SHOULDER USE
USE OTHER ROUTES	WATCH FOR WORKERS
STAY IN LANE	

Location List

AT FM XXXX
BEFORE RAILROAD CROSSING
NEXT X MILES
PAST US XXX EXIT
XXXXXXX TO XXXXXXX
US XXX TO FM XXXX

Warning List

SPEED LIMIT XX MPH
MAXIMUM SPEED XX MPH
MINIMUM SPEED XX MPH
ADVISORY SPEED XX MPH
RIGHT LANE EXIT
USE CAUTION
DRIVE SAFELY
DRIVE WITH CARE

** Advance Notice List

TUE-FRI XX AM- X PM
APR XX- XX X PM-X AM
BEGINS MONDAY
BEGINS MAY XX
MAY X-X XX PM - XX AM
NEXT FRI-SUN
XX AM TO XX PM
NEXT TUE AUG XX
TONIGHT XX PM- XX AM

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

- Only 1 or 2 phases are to be used on a PCMS.
- The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
- A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
- A Location Phase is necessary only if a distance or location is not included in the first phase selected.
- If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
- For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

- When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
- When symbol signs, such as the "Flagger Symbol" (CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
- When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
- A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

WORDING ALTERNATIVES

- The words RIGHT, LEFT and ALL can be interchanged as appropriate.
- Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
- EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
- Highway names and numbers replaced as appropriate.
- ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
- AHEAD may be used instead of distances if necessary.
- FT and MI, MILE and MILES interchanged as appropriate.
- AT, BEFORE and PAST interchanged as needed.
- Distances or AHEAD can be eliminated from the message if a location phase is used.

SHEET 6 OF 12



BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC (6) - 21

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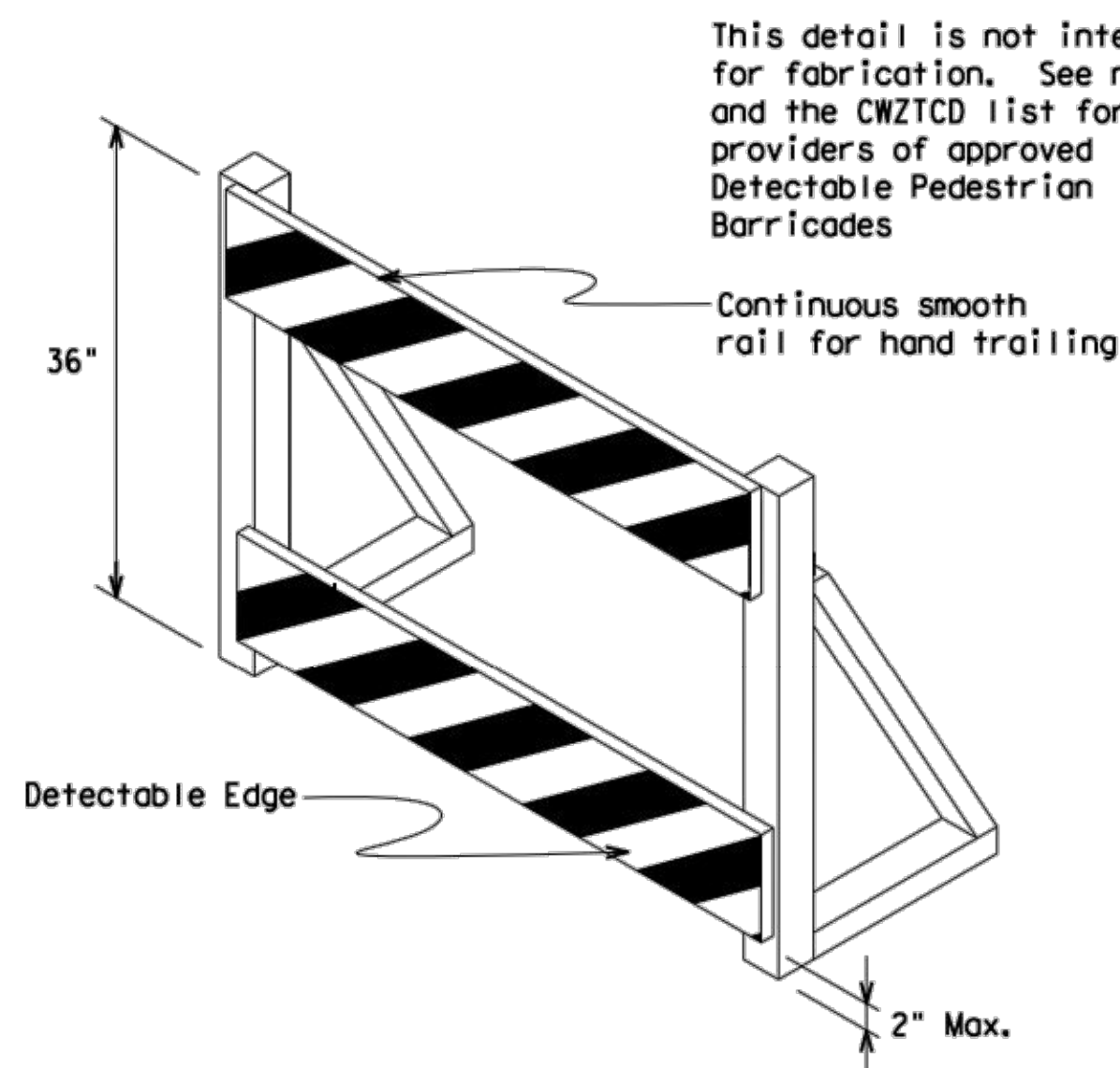
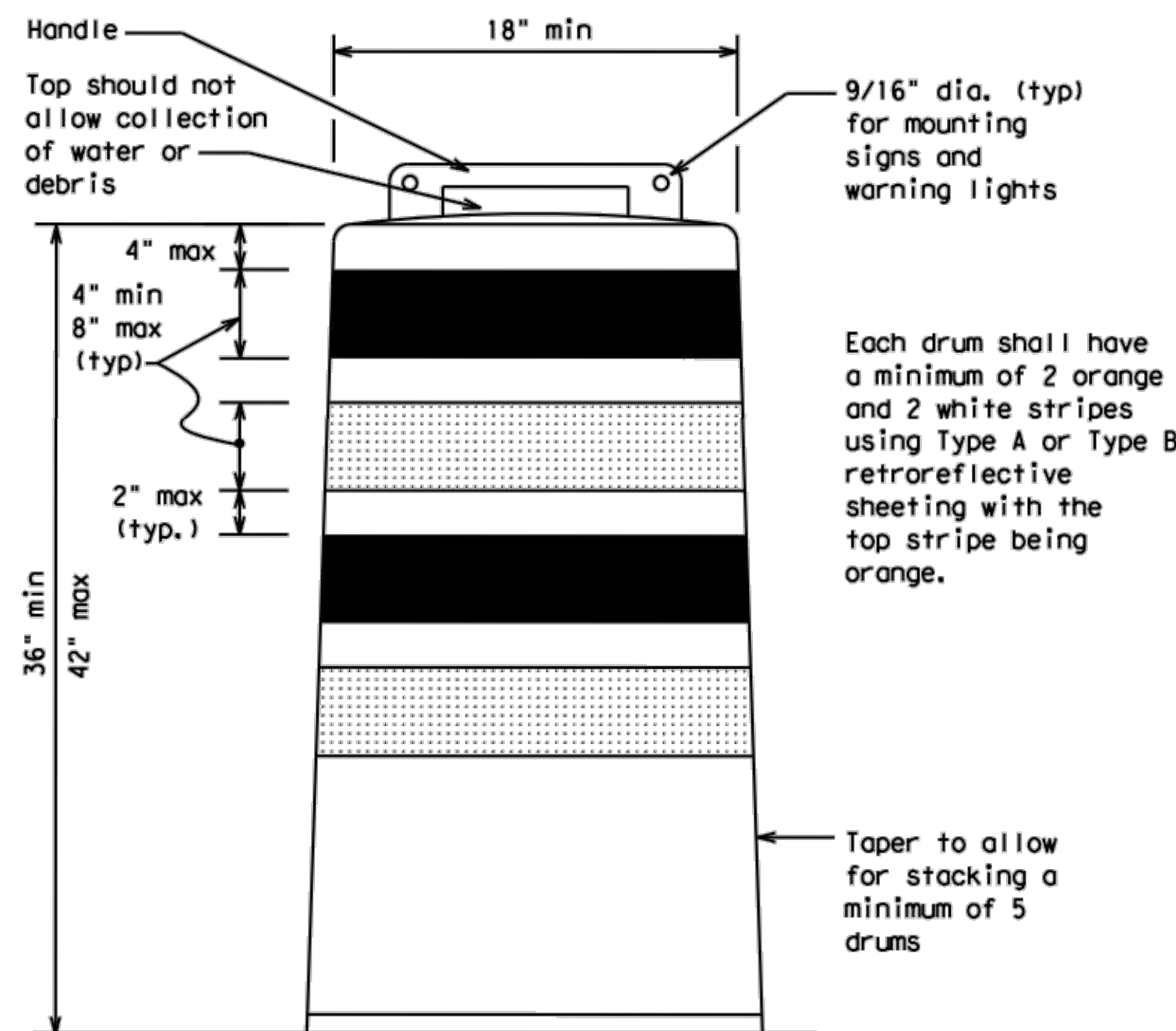
1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections, one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

Pre-qualified plastic drums shall meet the following requirements:

1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A or Type B reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.

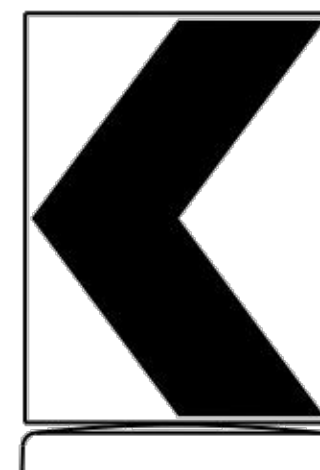


1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. Refer to WZ(BTS-2) for Pedestrian Control requirements for Sidewalk Diversions, Sidewalk Detours and Crosswalk Closures.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a Detectable Pedestrian Barricade shall be placed across the full width of the closed sidewalk instead of a Type 3 Barricade.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades should use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.

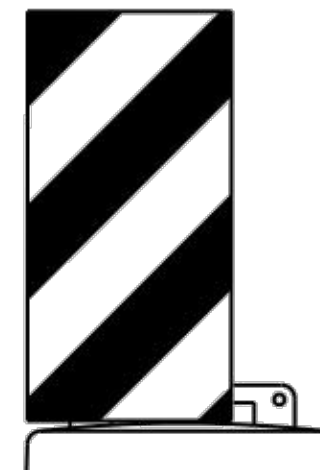
Each drum shall have a minimum of 2 orange and 2 white stripes using Type A or Type I retroreflective sheeting with the top stripe being orange.

- Taper to allow for stacking a minimum of 5 drums

- See Ballast
Note 3



18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane
Divider, Driveway sign D70a, Keep Right
R4 series or other signs as approved
by Engineer



12" x 24"
Vertical Panel
mount with diagonals
sloping down towards
travel way

Plywood, Aluminum or Metal sign
substrates shall NOT be used on
plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A or Type B. Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations, they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

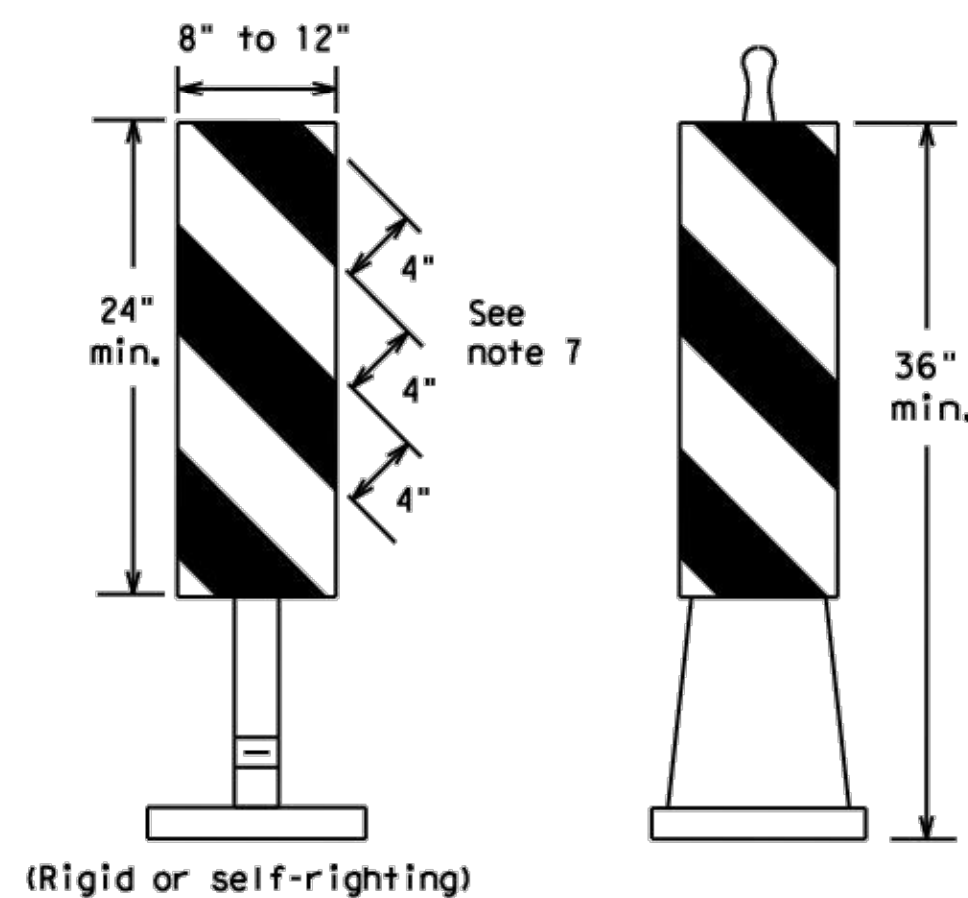
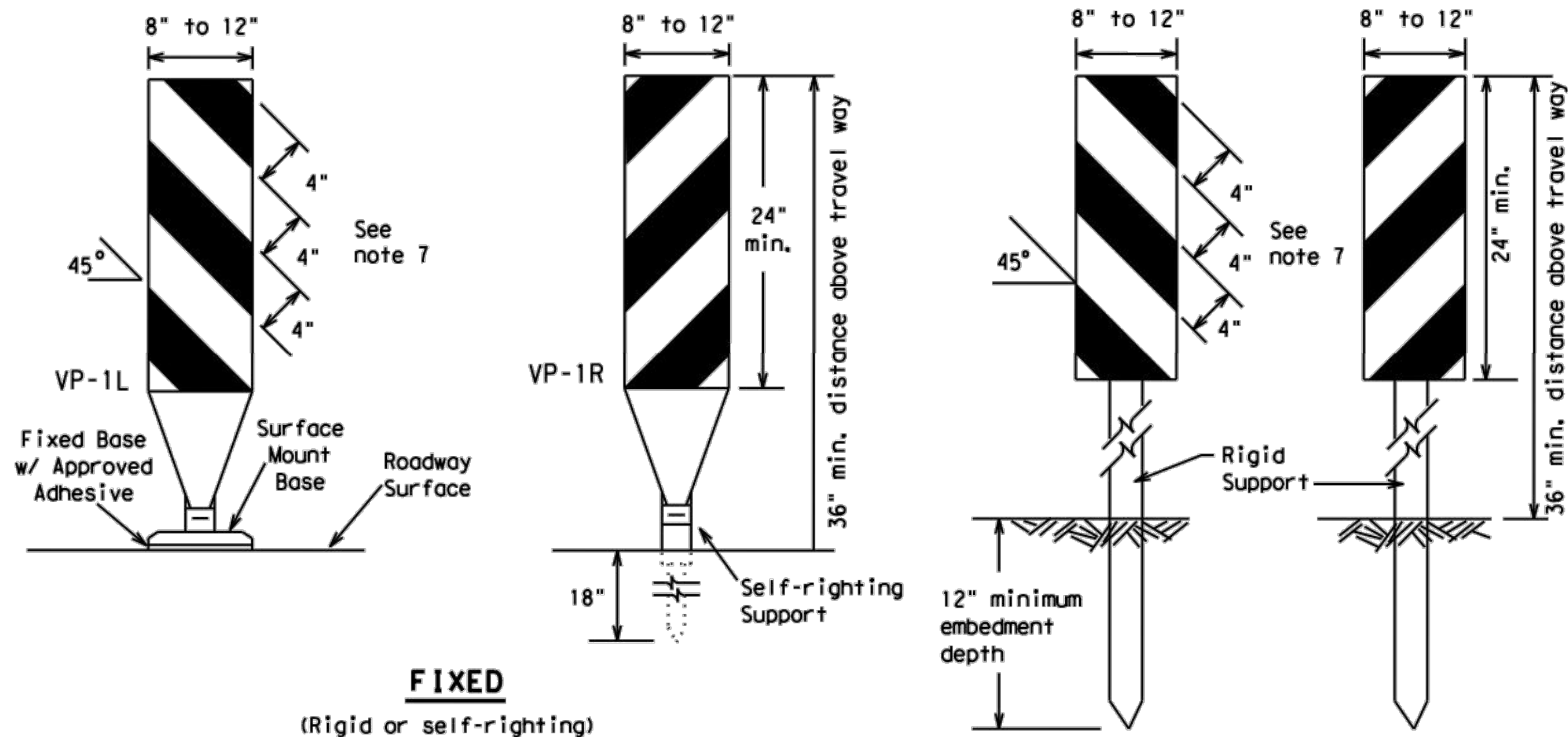
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BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (8) - 21

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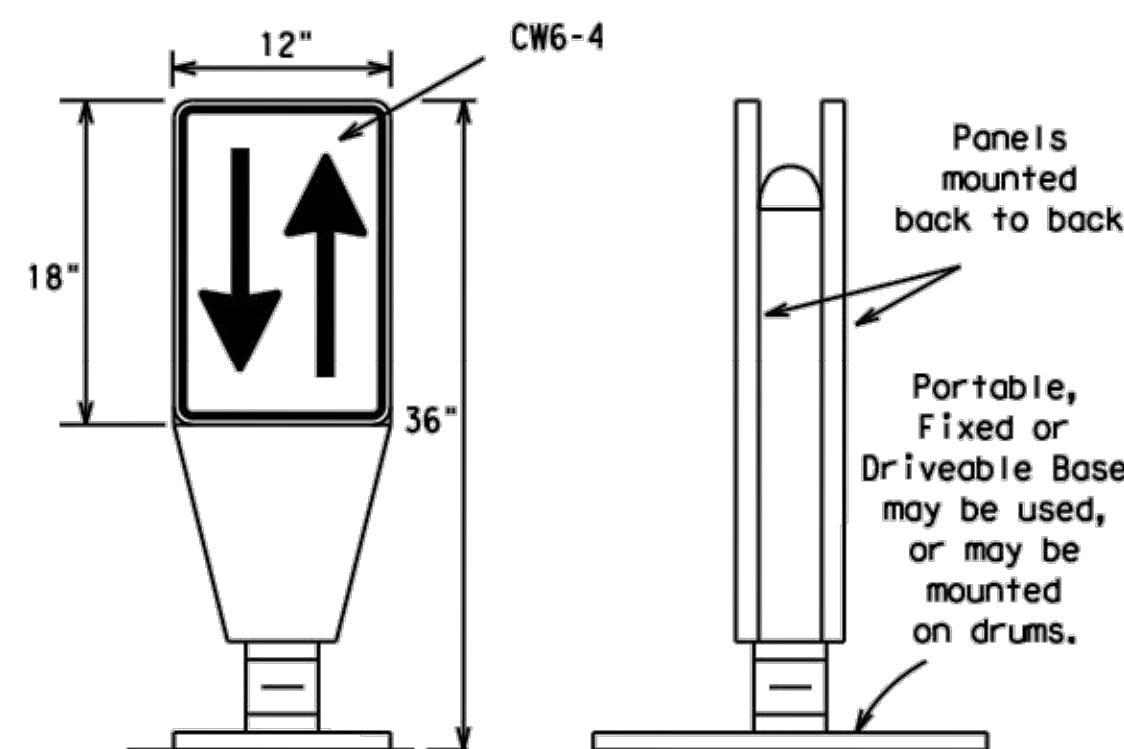
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PORTABLE

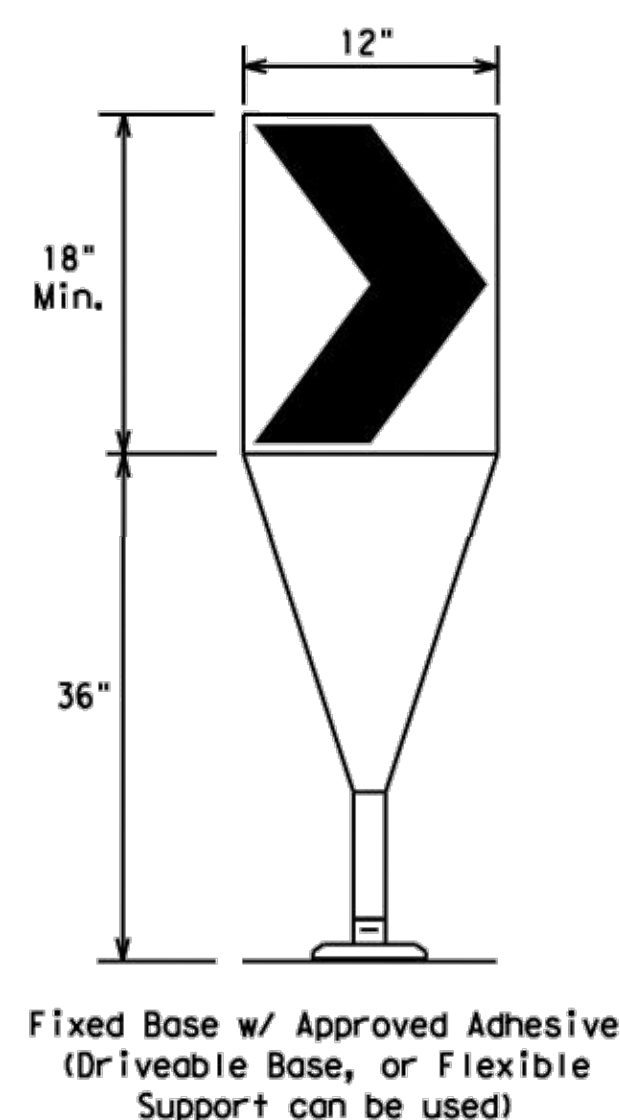
VERTICAL PANELS (VPs)

- Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
- VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use VP's for drop-offs.
- VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
- VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
- Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Sheeting for the VP's shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
- Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.



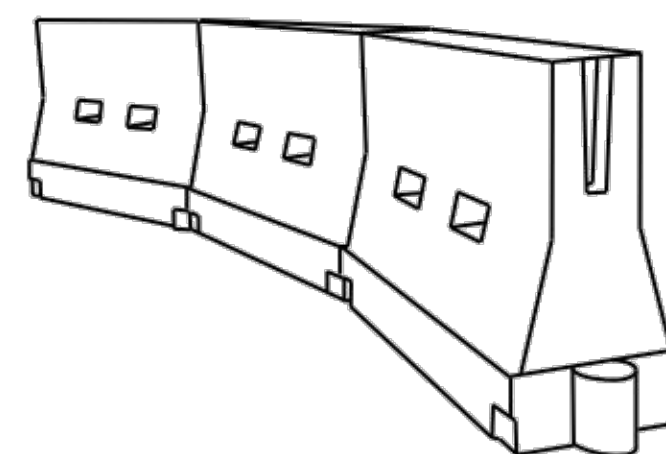
OPPOSING TRAFFIC LANE DIVIDERS (OTLD)

- Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
- The OTLD may be used in combination with 42" cones or VPs.
- Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
- The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.



- The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
- Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
- Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
- To be effective, the chevron should be visible for at least 500 feet.
- Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
- For Long Term Stationary use on tapers or transitions on freeways and divided highways, self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS



LONGITUDINAL CHANNELIZING DEVICES (LCD)

- LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
- LCDs may be used instead of a line of cones or drums.
- LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
- LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
- LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10). Place reflective sheeting near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (MASH) crashworthiness requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

GENERAL NOTES

- Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
- Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
- Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
- Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
- The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

Posted Speed	Formula	Minimum Desirable Taper Lengths * *			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

* * * Taper lengths have been rounded off.
L = Length of Taper (FT.) W = Width of Offset (FT.)
S = Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

SHEET 9 OF 12



Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (9) - 21

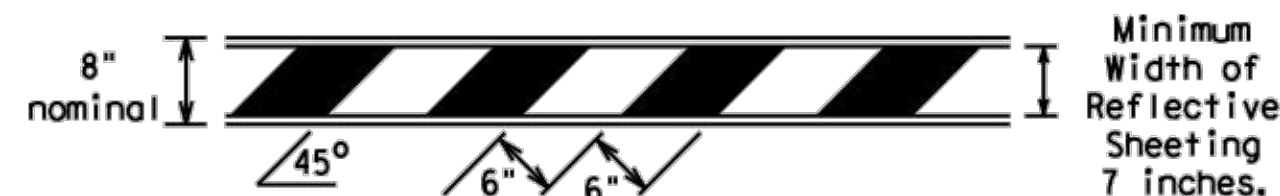
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© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY				
REVISIONS									
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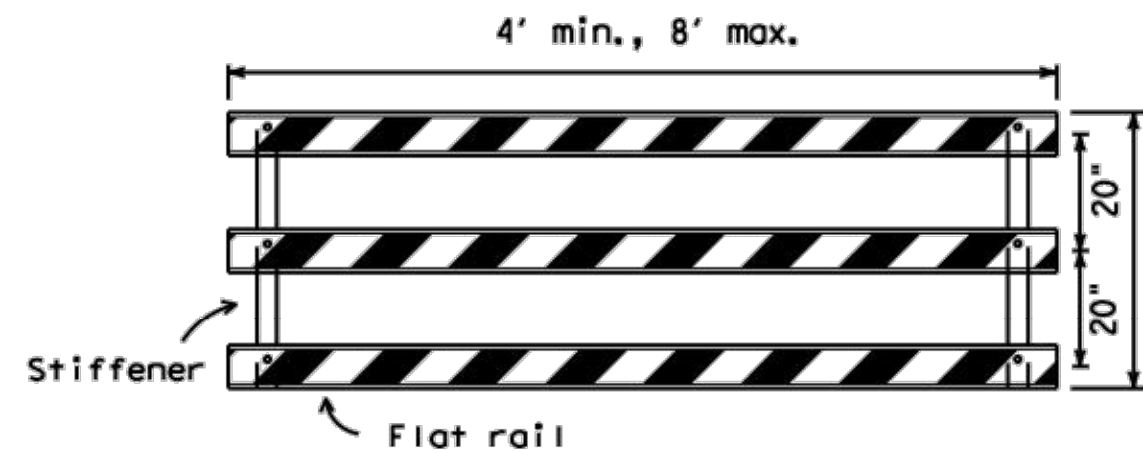
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road, striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.

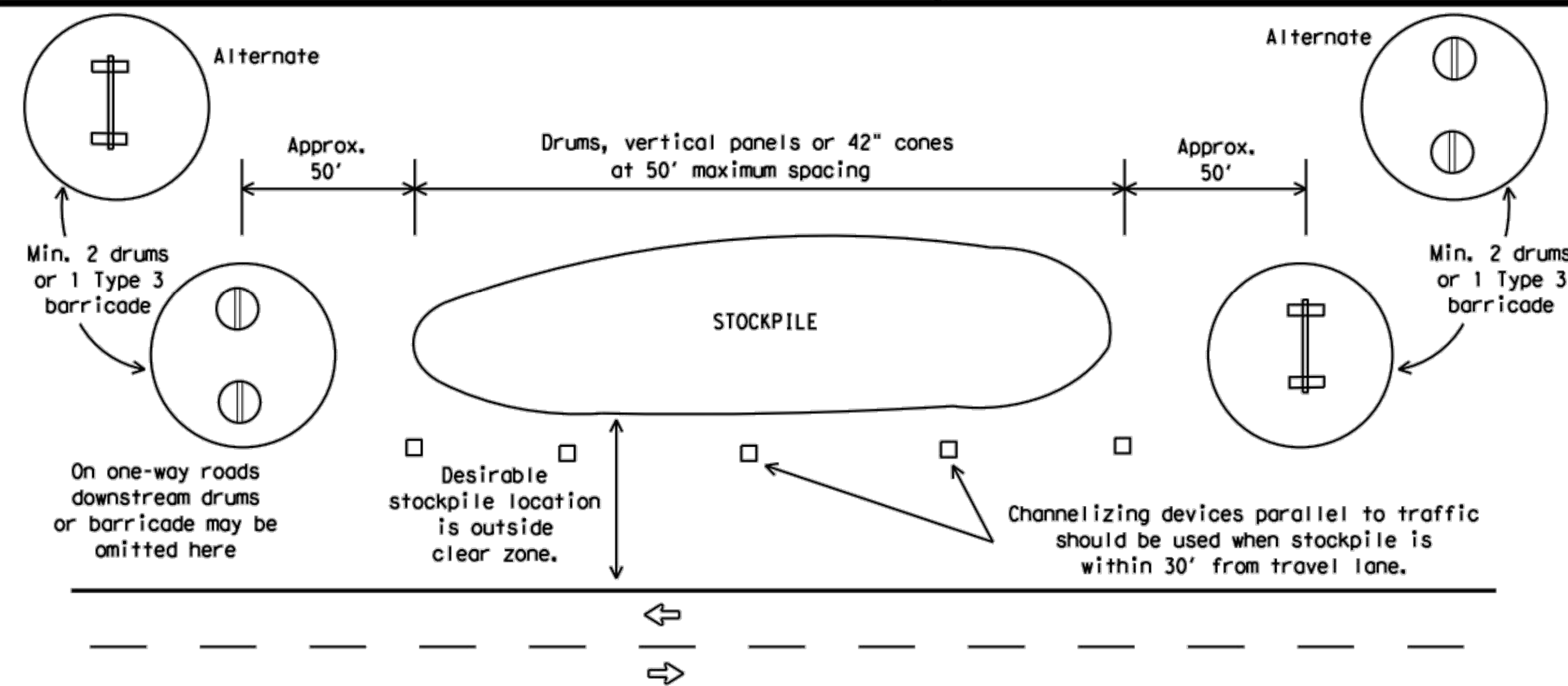


TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



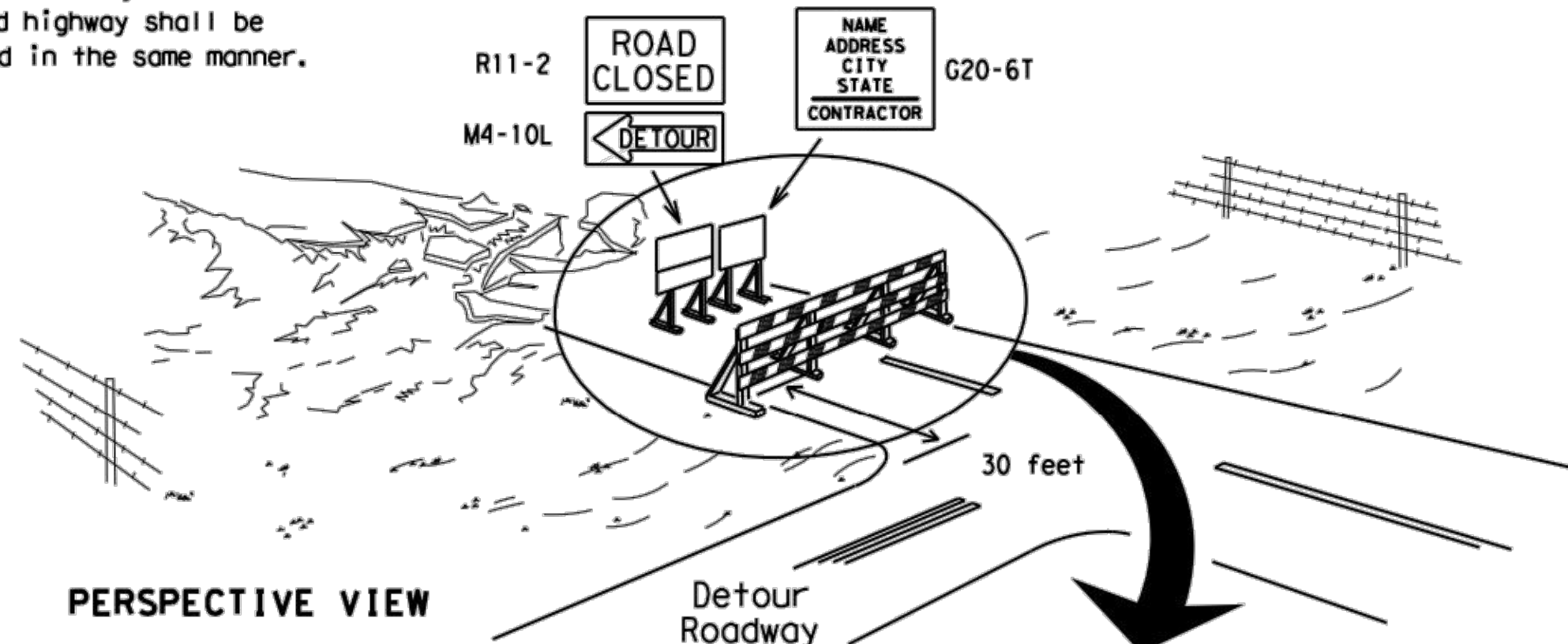
Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

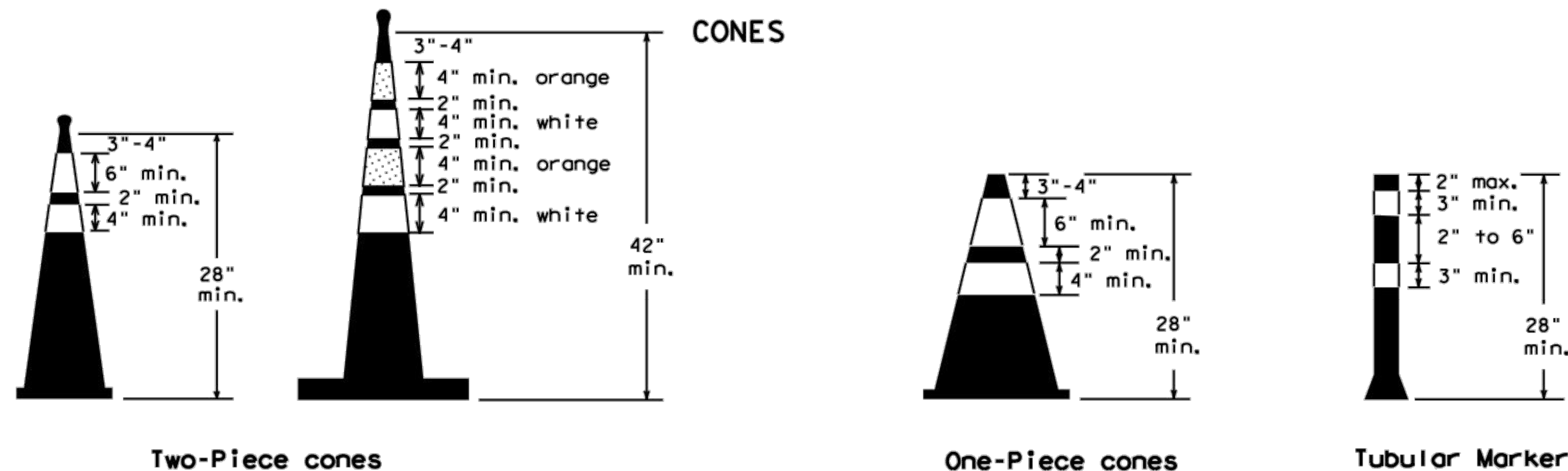
Each roadway of a divided highway shall be barricaded in the same manner.



The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.

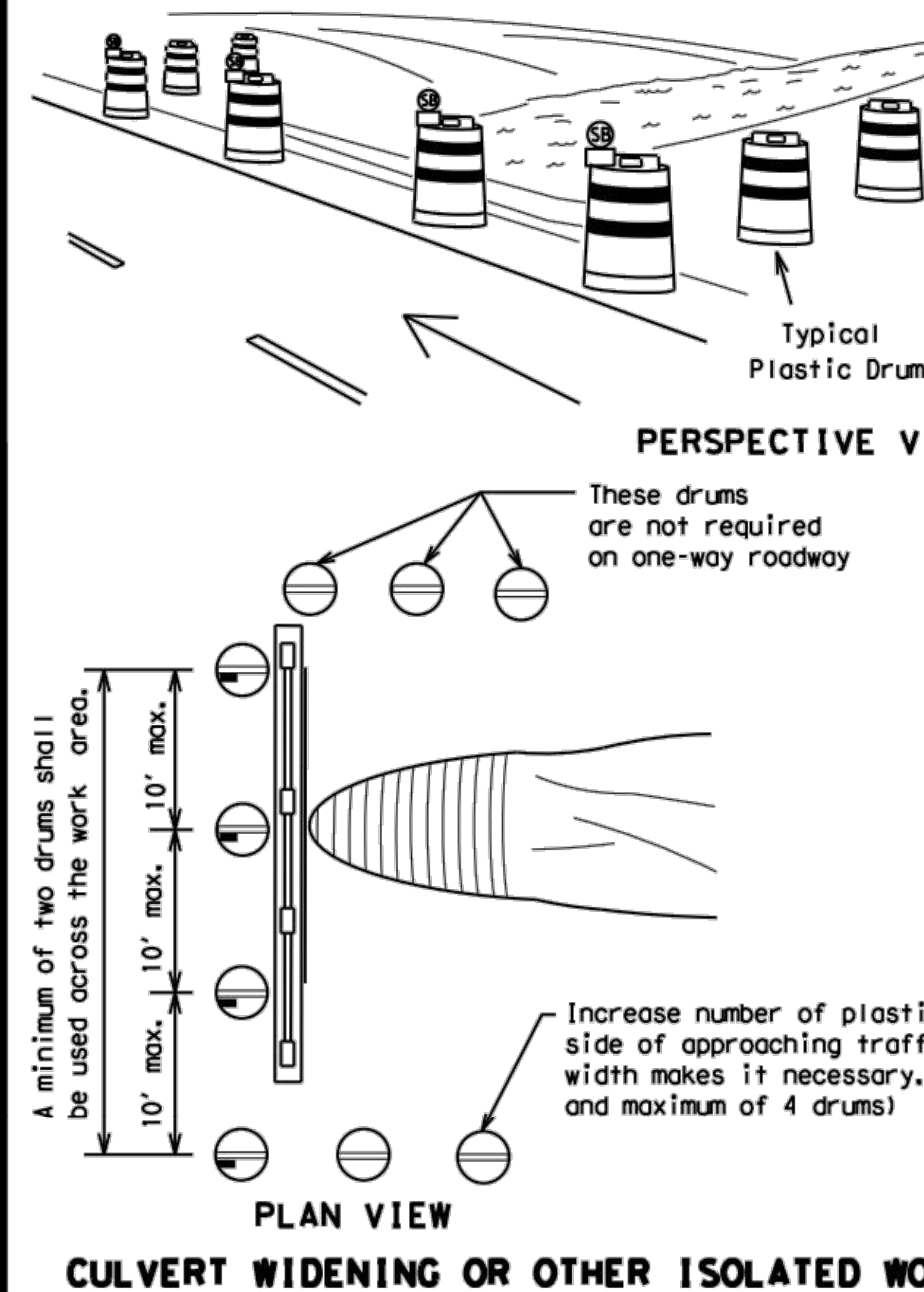
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



28" Cones shall have a minimum weight of 9 1/2 lbs.
42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A or Type B.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.



1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

LEGEND

	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector

Increase number of plastic drums on the side of approaching traffic if the crown width makes it necessary. (minimum of 2 and maximum of 4 drums)

SHEET 10 OF 12



BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-21

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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(12).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

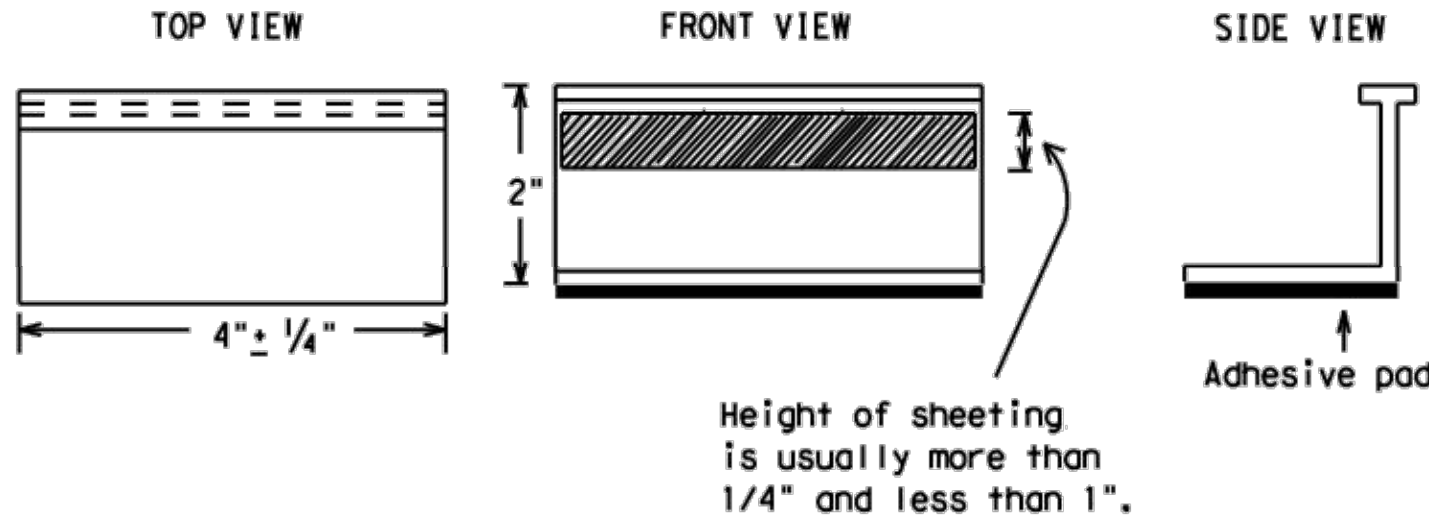
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective
Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE
TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER
TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
 - A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
 - B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS


1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
YELLOW - (two amber reflective surfaces with yellow body).
WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

SHEET 11 OF 12



Texas Department of Transportation

Traffic
Safety
Division
Standard

BARRICADE AND CONSTRUCTION
PAVEMENT MARKINGS

BC(11)-21

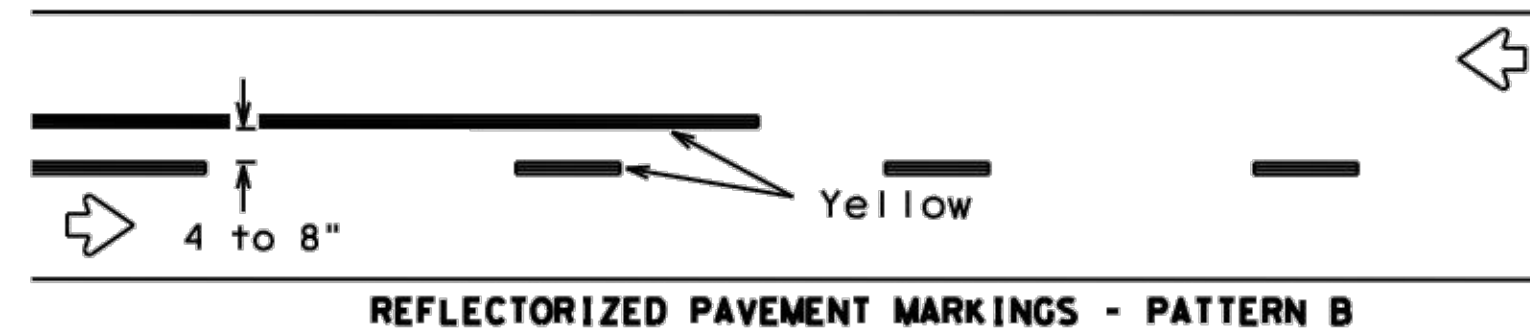
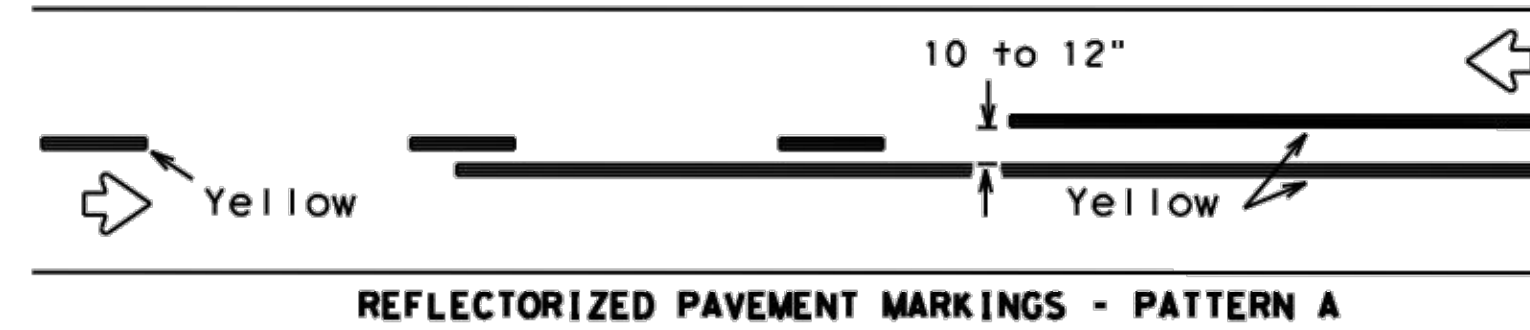
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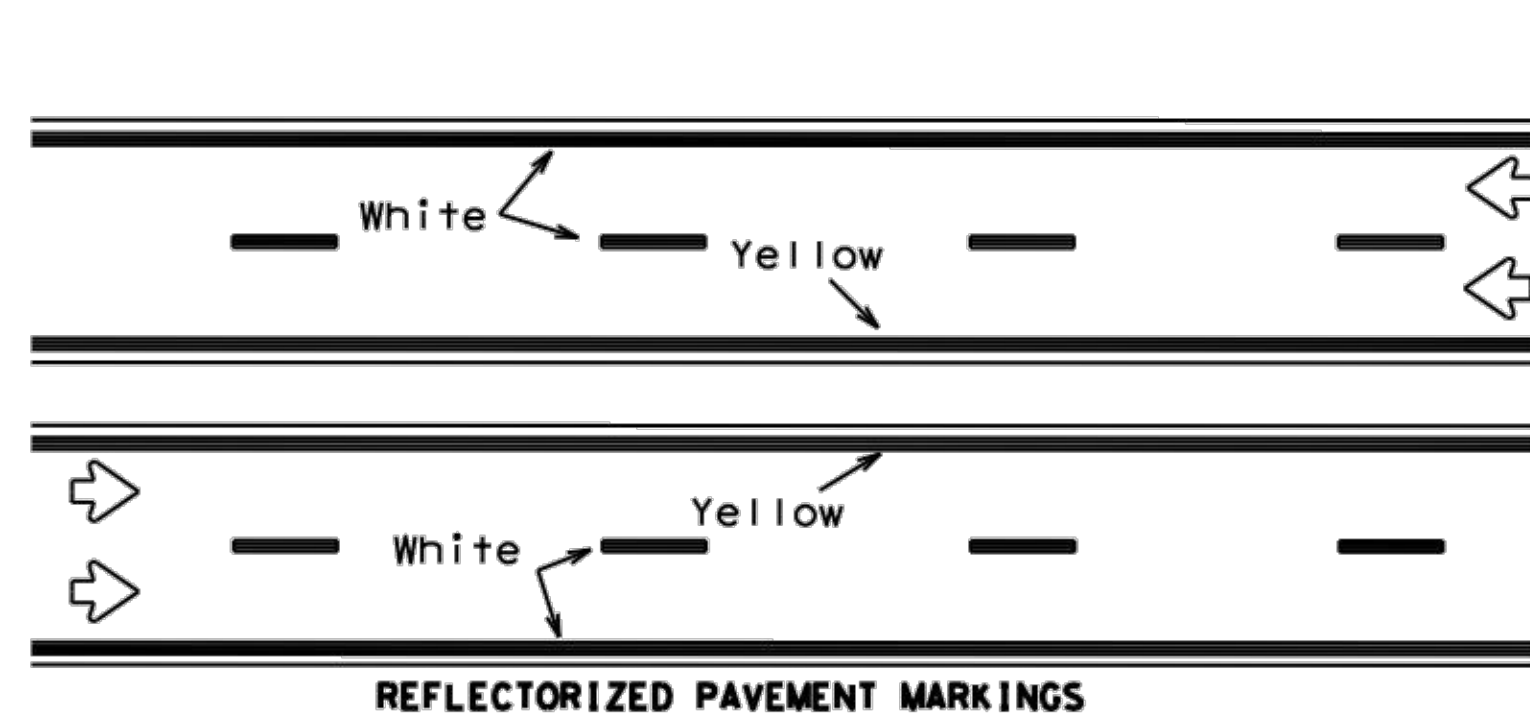
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PAVEMENT MARKING PATTERNS

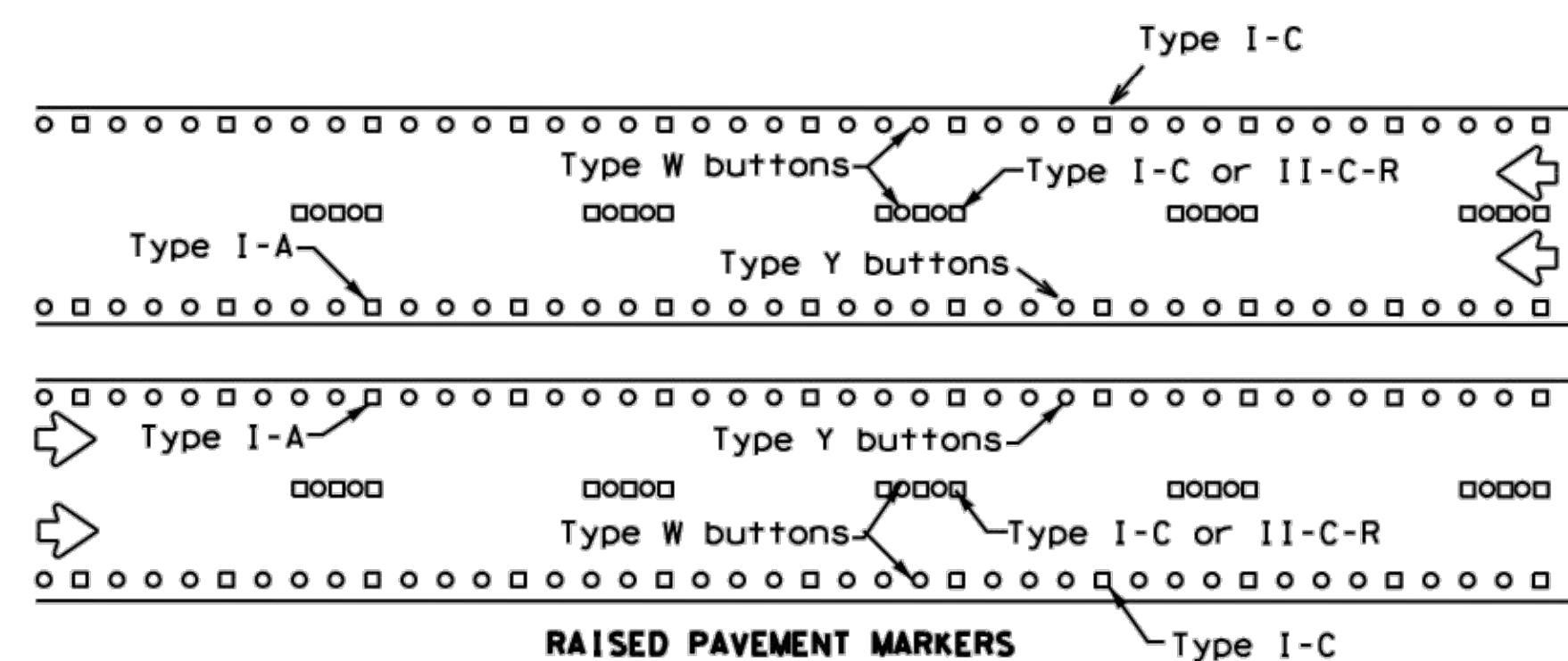
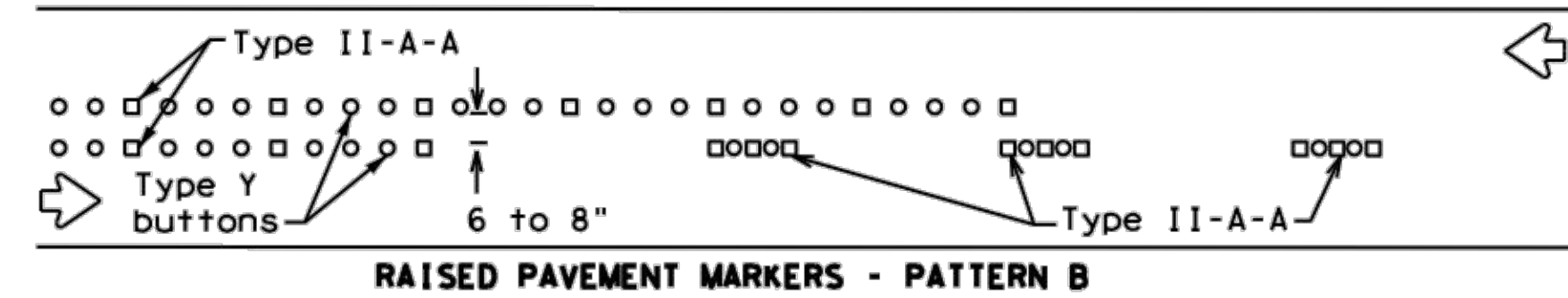
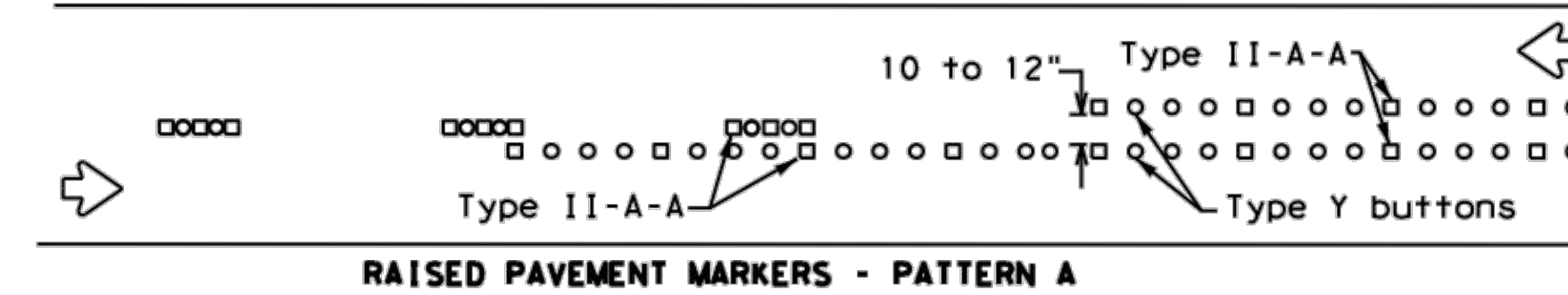


Pattern A is the TxDOT Standard, however Pattern B may be used if approved by the Engineer. Prefabricated markings may be substituted for reflectORIZED pavement markings.

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS

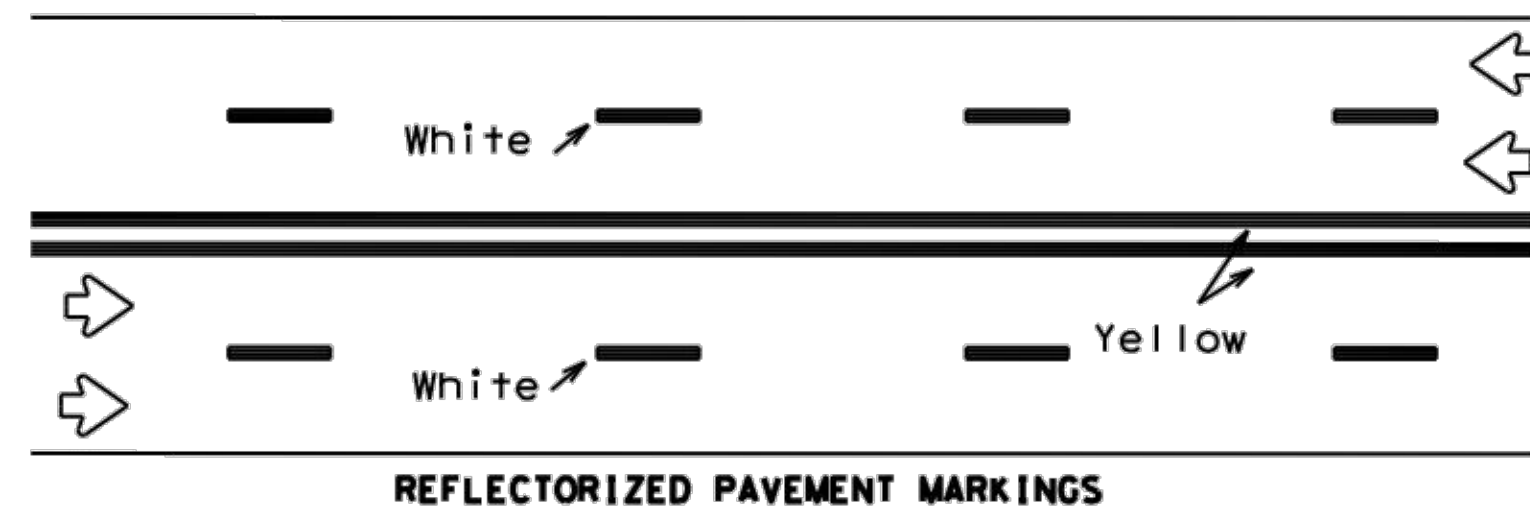


Prefabricated markings may be substituted for reflectORIZED pavement markings.

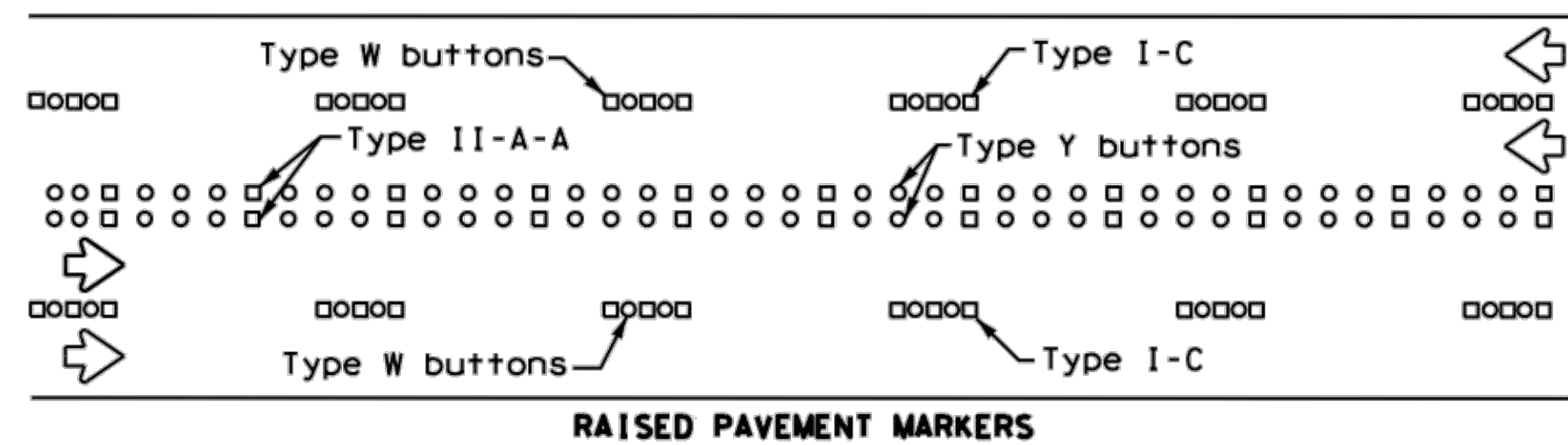


RAISED PAVEMENT MARKERS

EDGE & LANE LINES FOR DIVIDED HIGHWAY

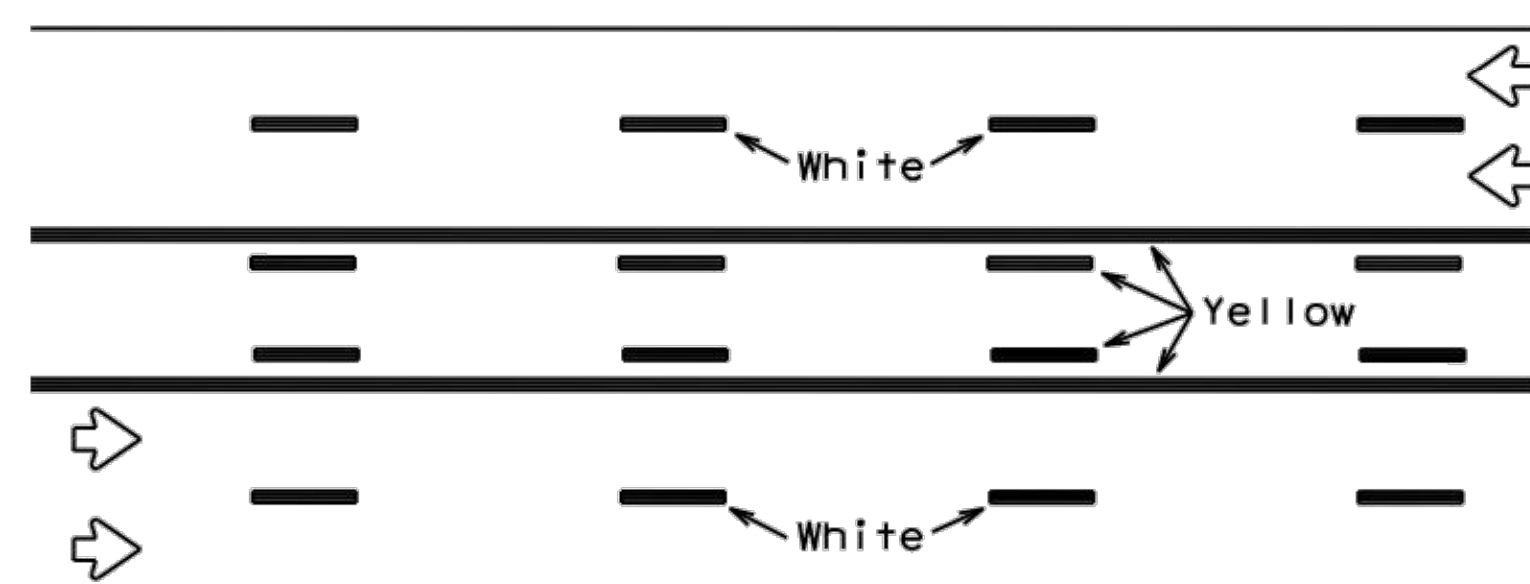


Prefabricated markings may be substituted for reflectORIZED pavement markings.

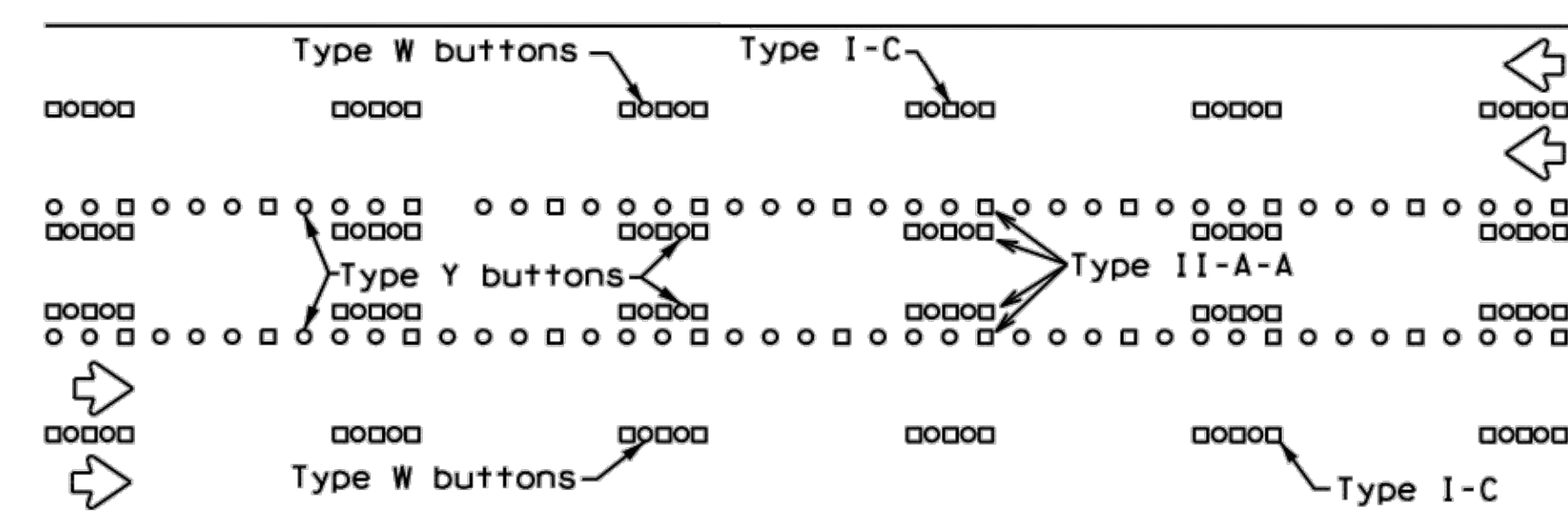


RAISED PAVEMENT MARKERS

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



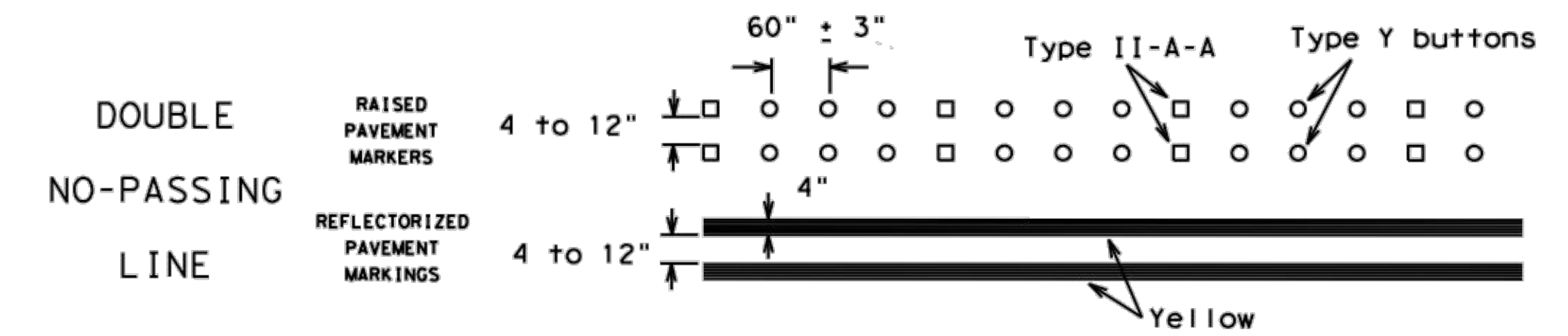
Prefabricated markings may be substituted for reflectORIZED pavement markings.



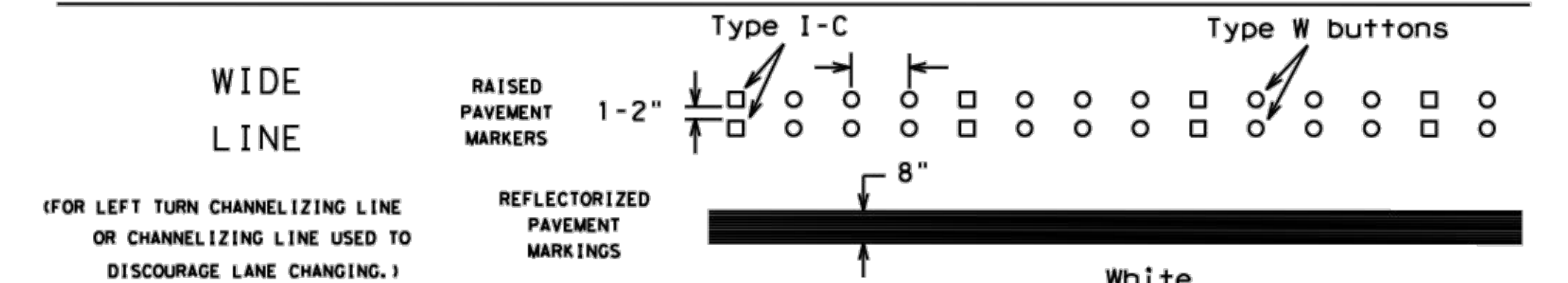
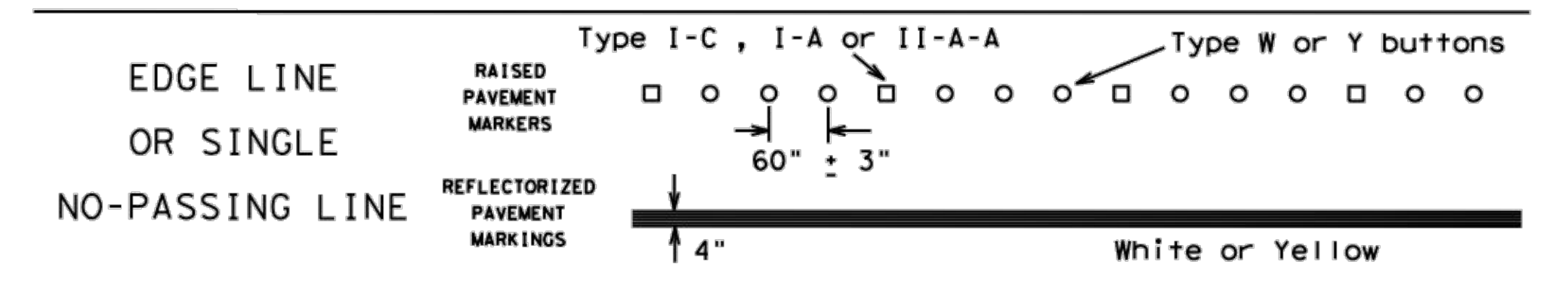
RAISED PAVEMENT MARKERS

TWO-WAY LEFT TURN LANE

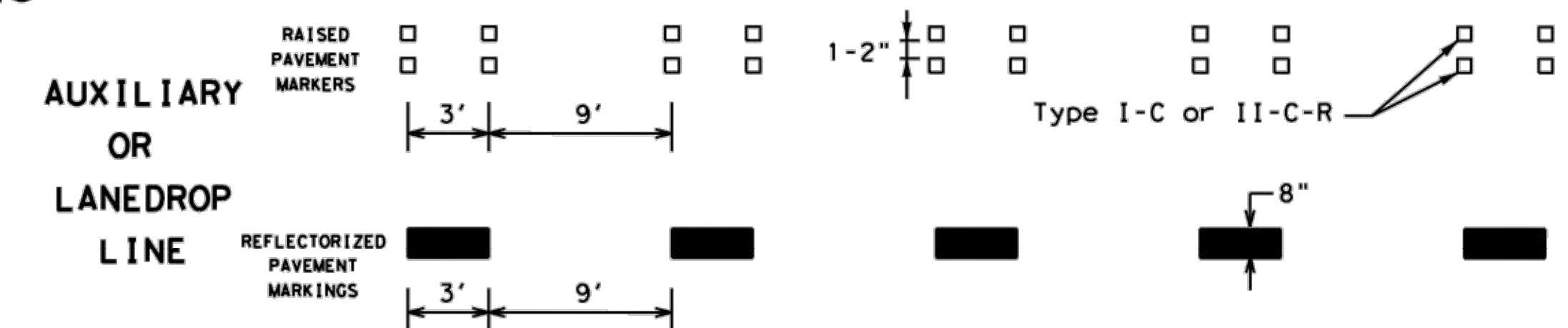
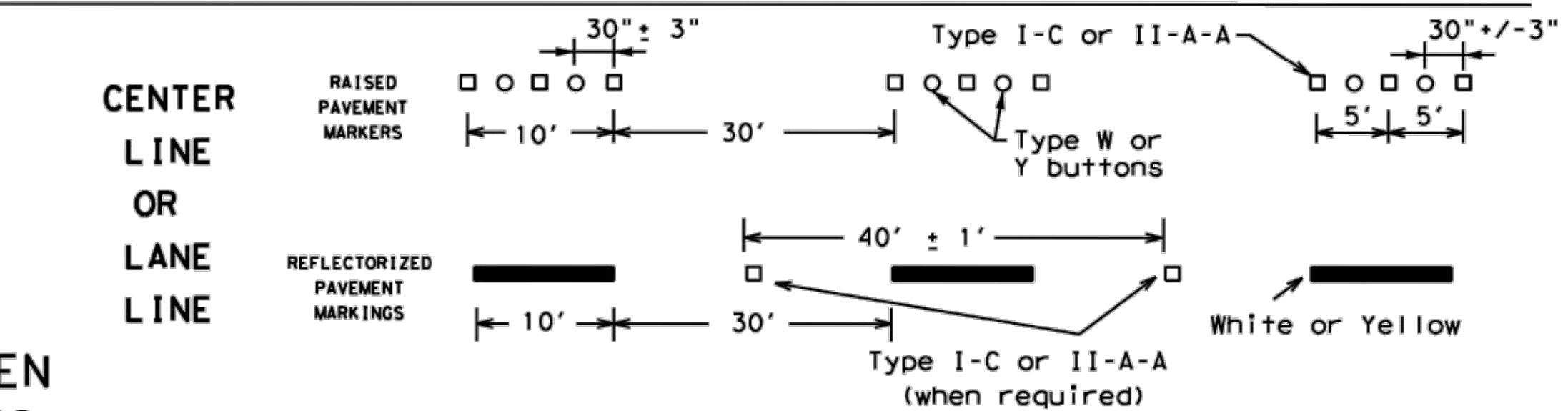
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS



SOLID LINES

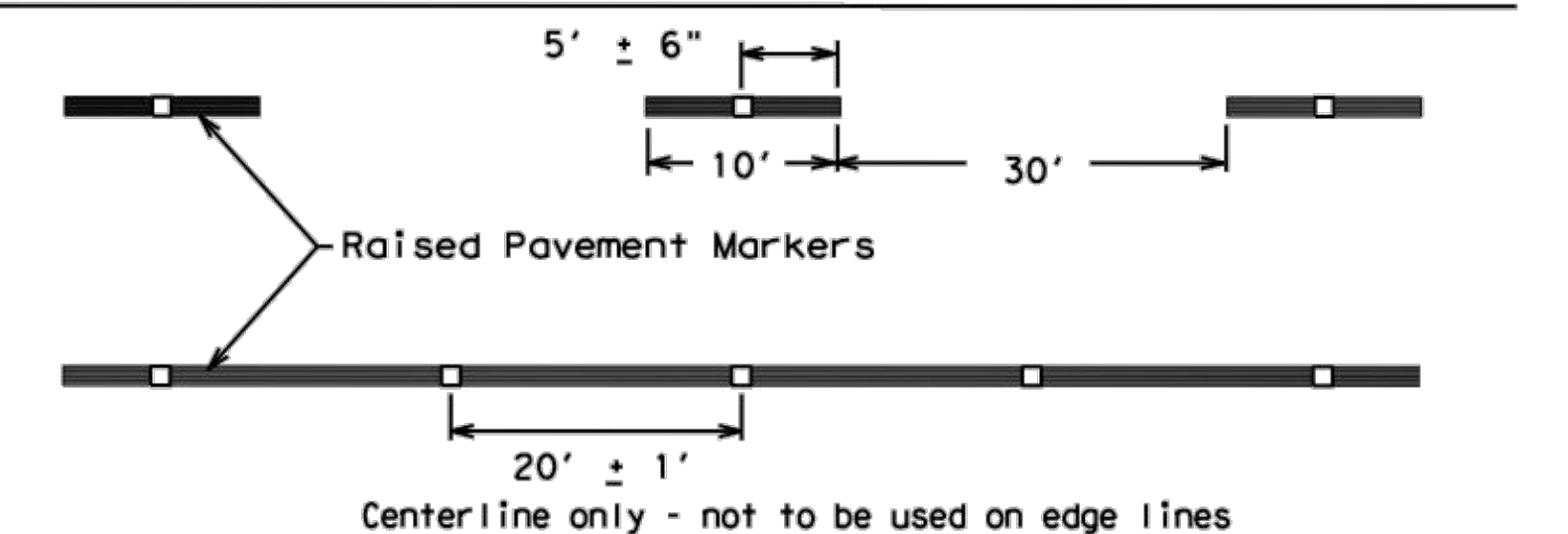


BROKEN LINES



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



SHEET 12 OF 12



BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

BC (12) - 21

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	DIST	COUNTY		SHEET NO.

USER ID

SURFACE PREPARATION ITEM 160* TOPSOIL SY / ITEM 161* COMPOST MANUF. TOPSOIL (BOS) (4") SY

SURFACE PREPARATION

Prepare planting area surface BEFORE placing Topsoil, Compost, Fertilizer, Seed and/or Sod. Once project area has been completed to final lines, grade and compaction, remove objectionable materials from planting area surface and cultivate existing surface to a depth of 4 inches, unless otherwise specified or directed.

Refer to Items 160 and 161 of TxDOT 2014 Standard Specifications* for specifications, dimensions, volumes, and measurements that have been modified or not shown in plans. Materials and construction shall meet all specifications.

TOPSOIL NOTES:

- When Topsoil is specified under Item 160, use suitable material salvaged from the project ROW in accordance with Item 160 specifications, and/or secure additional good material from approved sources.
- Topsoil shall include only the top 6 inches of its native surface, and be easily cultivated, fertile, erosion-resistant and free of objectionable materials.
- Topsoil obtained from sites outside of the ROW must come from approved sources and have a pH between 5.5 and 8.5 su.
- Place Topsoil on pre-cultivated surface, spread to a uniform loose cover at thickness specified, and shape per plans. Water and roll the finished surface with a light roller or other suitable equipment per Item 160.3; do not over-compact.

COMPOST NOTES:

- When Compost Manufactured Topsoil (4") is specified under Item 161, use compost meeting all requirements of Item 161.2 and Table 1. Provide quality control (QC) documentation and obtain Engineer approval prior to compost delivery.
- Contractor shall provide tickets/invoices that document material type, quantity and placement for all compost delivered.
- Additional topsoil may be required to be imported to achieve the compost/topsoil mix ratio. Topsoil must meet Item 160 specifications.

APPLICATION OF COMPOST MANUFACTURED TOPSOIL (4")

AFTER Surface Preparation, uniformly spread a 1-inch layer of compost on-grade with 3 inches topsoil over pre-cultivated planting area. (25% compost and 75% topsoil = 1" compost and 3" topsoil.) Then mix compost and topsoil together by cultivating the compost into the topsoil (by till or disk) to a 4-inch (4") depth. Roll the finished surface with a light corrugated drum; do not over-compact.

FERTILIZER ITEM 166* FERTILIZER AC

SOIL ANALYSIS FOR FERTILIZER APPLICATION RATE

Unless otherwise stated in the plans, Contractor shall perform at least one soil analysis on each project before fertilization, and submit results to Engineer with recommended fertilizer rates based on soil analysis. Engineer may direct sample location(s). Soil analysis may be waived if both compost and sod are used on entire project.

FERTILIZER NOTES:

- Refer to Item 166 of TxDOT 2014 Standard Specifications* for specifications, dimensions, volumes, and measurements that have been modified or not shown in plans. Materials and construction shall meet all specifications.
- Apply fertilizer BEFORE seeding, or AFTER placing sod.
- Use fertilizer containing nitrogen (N), phosphoric acid (P) and potash (K) nutrients, unless otherwise specified. At least 50% of the Nitrogen component shall be a slow-release sulfur-coated urea as described in Item 166.3. Do not apply more than 60 lbs Nitrogen per acre without Engineer concurrence.
- Deliver fertilizer in bags, clearly labeled to show contents, unless otherwise specified or approved prior to delivery. When non-bagged, loose fertilizer is approved, provide documentation for each load of material delivered, to validate authenticity of the material.
- Apply fertilizer uniformly, as a dry, granular material, essentially dust-free, and do not mix with water for application as a slurry.
- When both temporary and permanent seeding are specified for the same area, apply half of the required fertilizer before the temporary seeding operation and the other half before the permanent seeding operation.

SEEDING FOR EROSION CONTROL ITEM 164* DRILL SEEDING AC

RECOMMENDED PLANTING SEASON		PERMANENT RURAL SEED MIX ITEM 164 - DRILL SEEDING (PERM) (RURAL) (CLAY)	PERMANENT URBAN SEED MIX ITEM 164 - DRILL SEEDING (PERM) (URBAN) (CLAY)	TEMPORARY DRILL SEED MIX ITEM 164 - DRILL SEEDING (TEMP) (WARM OR COOL)
WARM SEASON Mar.15th, April, May, June, July, August, Sept. 15th	<div>Pure Live Seed Rate** Green Sprangletop (Van Horn) - 1.0 lbs/AC Sideoats Grama (Haskell) - 1.0 lbs/AC Texas Grama (Atascosa) - 1.0 lbs/AC Hairy Grama (Chaparral) - 0.4 lbs/AC Shortspike Windmillgrass (Welder) - 0.2 lbs/AC Little Bluestem (OK Select) - 0.8 lbs/AC Purple Prairie Clover (Cuero) - 0.6 lbs/AC Engelmann Daisy (Eldorado) - 0.75lbs/AC Illinois Bundleflower - 1.3 lbs/AC Awnless Bushsunflower (Plateau) - 0.2 lbs/AC</div>		<div>Pure Live Seed Rate** Green Sprangletop (Leptochloa dubia) - 0.3 lbs/AC Sideoats Grama (El Reno) (Bouteloua curtipendula) - 3.6 lbs/AC Buffalograss (Texoka) (Buchloe dactyloides) - 1.6 lbs/AC Bermudagrass (Cynodon dactylon) - 2.4 lbs/AC</div>	<div>Pure Live Seed Rate** Foxtail Millet (Setaria italica) - 34 lbs/AC</div>
COOL SEASON Sept 16th, Oct, Nov, Dec, Jan, Feb, Mar 14th				<div>Pure Live Seed Rate** Tall Fescue (Festuca arundinaceae) - 4.5 lbs/AC Western Wheatgrass (Agropyron smithii) - 5.6 lbs/AC Red Winter Wheat (Triticum aestivum) - 34 lbs/AC Cereal Rye - 34 lbs/AC</div>

SEEDING NOTES:

- When seeding is specified under Item 164, refer to TxDOT 2014 Standard Specifications* for specifications, dimensions, volumes, and measurements that have been modified or not shown. Materials and construction shall meet specifications.
- Conduct seeding upon completion of each applicable construction stage (dependent upon planting season requirements), without compensation for additional move-ins.
- Place seed AFTER preparing planting area surface. Refer to Surface Preparation detail this sheet, as well as Topsoil Item 160 and Compost Manufactured Topsoil Item 161 when specified. Apply fertilizer per Item 166 BEFORE seeding, per specifications and this sheet, to help drill the fertilizer into the soil.
- When temporary grasses are well-established and more than 2 inches tall, mow planting area before seeding permanent grasses; mowing for this purpose will be subsidiary. When vegetation is not already well-established, cultivate planting area to a depth as described in Item 164.3, before temporary seeding and before permanent seeding.
- Seed material must be appropriate to the location, soil type and season. Use the seed mix species and pure live seed rates designated in Tables 1-4 of the TxDOT 2014 Standard Specifications* for Item 164, unless otherwise specified.
- All seed shall meet labeling, delivery, analysis, and testing requirements described in Item 164.2.1. Deliver seed in labeled, unopened bags or containers to Engineer prior to planting.
- Uniformly plant seed over the designated planting area, along the contour of slopes, and drill seed to a depth as described in Item 164.3.4.
- Hydroseeding may be allowed, when specified or Engineer concurs.
- Implement and continue Vegetative Watering per the schedule, rate and volume specified under Item 168.

TXDOT REFERENCE MATERIALS:

- "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES" 2014
- "A GUIDANCE TO ROADSIDE VEGETATION ESTABLISHMENT" 2004
- ONLINE TRAINING COURSE: MNT415 REVEGETATION DURING CONSTRUCTION
- DALLAS DISTRICT "VEGETATION ESTABLISHMENT GUIDELINES"

SODDING FOR EROSION CONTROL ITEM 162* BLOCK SOD (BERMUDA) SY

BLOCK OR ROLL SOD

COMMON NAME	BOTANICAL NAME
Common Bermuda Grass	Cynodon dactylon

SODDING NOTES:

- Refer to Item 162 of TxDOT 2014 Standard Specifications* for specifications, dimensions, volumes, and measurements that have been modified or not shown in plans. Materials and construction shall meet all specifications.
- Place sod between the average date of the last freeze in the Spring and 6 weeks before the average date of the first freeze in the Fall, per the Texas Almanac for the project area.
- Place sod only AFTER soil surface preparation is complete as detailed in this sheet. Dry soil may require pre-watering.
- Place all sod (blocks or rolls) within 24 hours of delivery to the site, and keep moist from the time it is dug up until it is planted. Sod with dried roots will not be accepted.
- Place sod with joints alternating on each row to prevent all joints from lining up, and place blocks firmly against adjacent blocks. Roll, tamp and trim sod per Item 162.3.
- Place fertilizer promptly AFTER sodding operation is complete in each area.
- Water sod immediately following placement, and continue Vegetative Watering per Item 168.

VEGETATIVE WATERING FOR ESTABLISHING SEED AND SOD ITEM 168* VEGETATIVE WATERING MG

WATERING SCHEDULE

SEASON (Usual Months)	RATE	TIME SCHEDULE	TOTAL WATER ESTIMATE
SPRING & FALL (March, April, May, October)	7,000 gallons/acre per working day	Vegetative watering for seed shall begin on the day after rainfall described below and continue for 60 consecutive working days; vegetative watering for sod shall begin on the day the sod is placed and continue for a minimum of 15 consecutive working days.	420,000 gallons/acre (60 working days)
SUMMER (June, July, August, September)	12,000 gallons/acre per working day		720,000 gallons/acre (60 working days)
WINTER (November through February)	1,000 gallons/acre per working day	Vegetative watering for seed and/or sod shall begin on the day after placement for 15 consecutive working days	15,000 gallons/acre (15 working days)

Notes: Rate and frequency may be adjusted, with the approval of the Engineer, to meet site conditions (especially with sod). For informational purposes only: 1,000 gallons equals 1 MG.

VEGETATIVE WATERING NOTES:

- Refer to Item 168 of TxDOT 2014 Standard Specifications* for specifications, dimensions, volumes, and measurements that have been modified or not shown in plans. Materials and construction shall meet all specifications.
- Use clean water free of industrial waste and other substances harmful to vegetation growth, per Item 168.2.
- Use Vegetative Watering to keep the seed bed moist during germination; not to provide initial watering. After drill seeding, postpone watering operations until site receives at least 1/2-inch of natural rainfall in a single day. Delay watering operations for warm season grasses until soil temperature exceeds 70 degrees F.
- For sod, water immediately.
- All water distribution equipment shall be furnished and operated to provide water at a uniform and controllable rate. Use a metering device on all watering equipment.
- Evenly distribute water over entire area designated for seeding and/or sodding, using even spray patterns that do not disturb seed bed and/or dislodge seed from seed bed.
- Do not water between the hours of 12:00 p.m. and 6:00 p.m. when daytime temperatures exceed 95 degrees F.
- After initial establishment period, continue intermittent watering of newly established seed or sod at a rate of approximately 1-inch water/week, during summer months until end of contract.
- If 1/4-inch or more of rainfall occurs on site on any given working day, no vegetative watering will be needed on that working day. (Note: 1/4-inch rain equals 7,000 gallons of water per acre.)
- Should the Contractor fail to apply the specified amount of water within the time allowed, any seed or sod in poor condition shall be replaced, fertilized, and watered at Contractor's expense.

**Note: The amount of Pure Live Seed (PLS) in one pound of bulk seed is based on three factors: % Purity, % Germination, and % Dormant. Use the following formula to calculate PLS in bulk seed: PLS = % Purity X (% Germination + % Dormant) Ensure that the specified amount of pure live seed is placed.

ROADSIDE MOWING ITEM 730* PROJECT MAINTENANCE AC

MOWING NOTES:

- During project construction, once seed is established, use mowing to promote permanent grasses by mowing any remaining temporary grasses.
- Also mow established turf and ROW grasses in designated areas of project limits as specified or directed by Engineer.
- Remove litter and debris prior to mowing.
- Do not mow on wet ground when soil rutting can occur.
- Hand-trim around obstructions and stormwater control devices as needed.
- Maintain paved surfaces free of tracked soils and clipped vegetation.

SEQUENCE OF WORK:

- CULTIVATE SURFACE SOIL.
- PREPARE / PLACE TOPSOIL, OR
- PREPARE / PLACE COMPOST MANUFACTURED TOPSOIL.
- APPLY FERTILIZER AND THEN PLACE SEEDING, OR
- PLACE SOD AND THEN APPLY FERTILIZER.
- CONDUCT VEGETATIVE WATERING.
- CONDUCT ROADSIDE MOWING, AS DIRECTED.



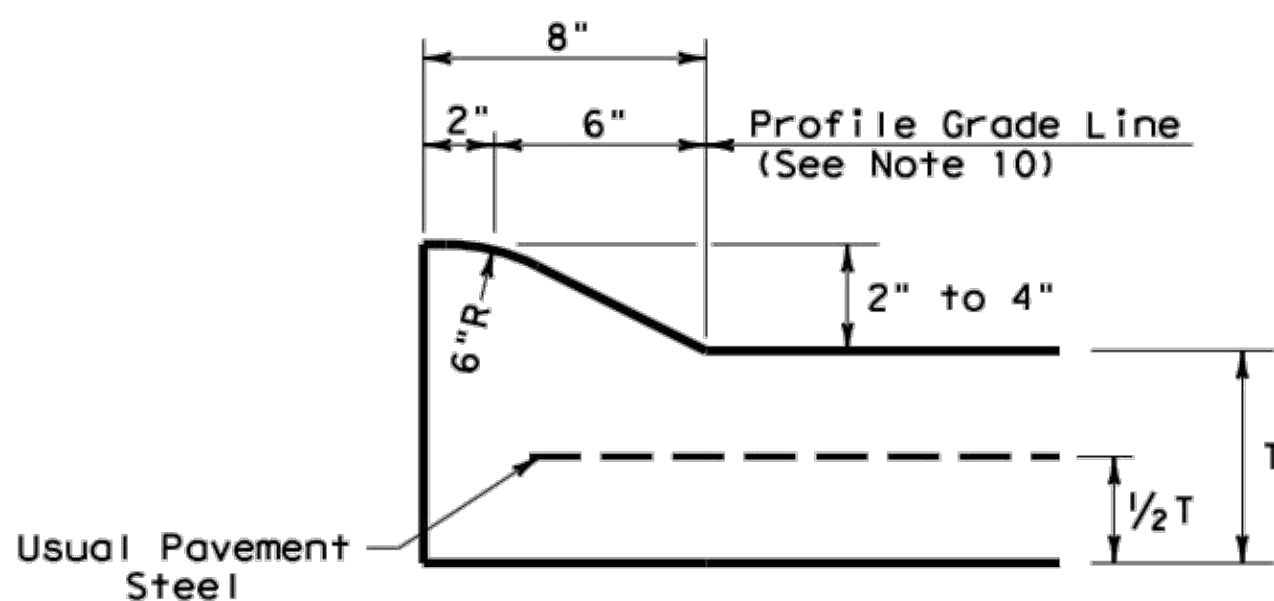
VEGETATION ESTABLISHMENT SHEET (DALLAS DISTRICT)

TEMPLATE REVISION DATE: 02/21/19

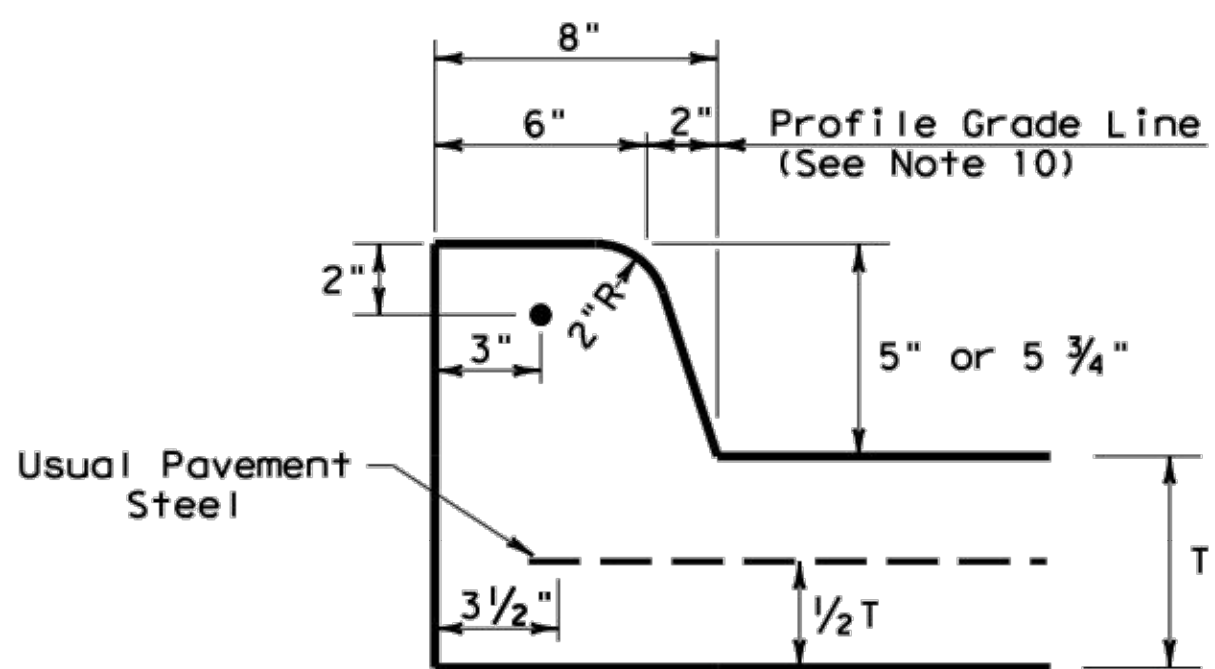
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPB	6	(See Title Sheet)		
GRAPHICS	XXX	STATE	DISTRICT	COUNTY
CHECK	XXX	TEXAS	DALLAS	
CHECK	XXX	CONTROL	SECTION	JOB
CHECK	XXX			

DISCLAIMER:
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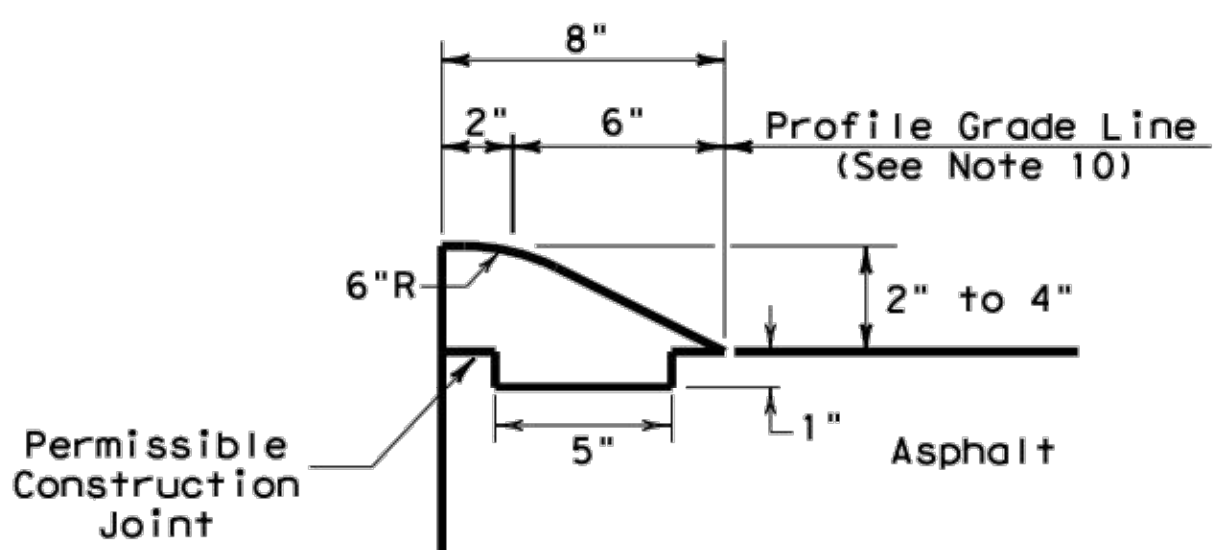
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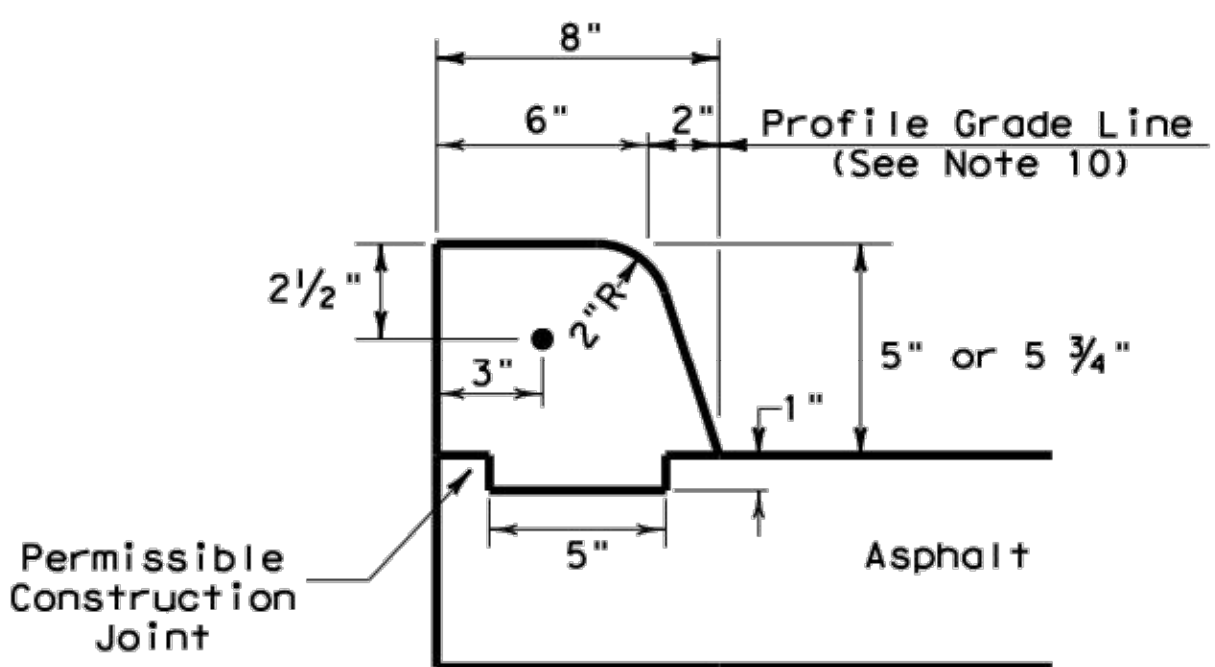
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2" - 4" HEIGHT



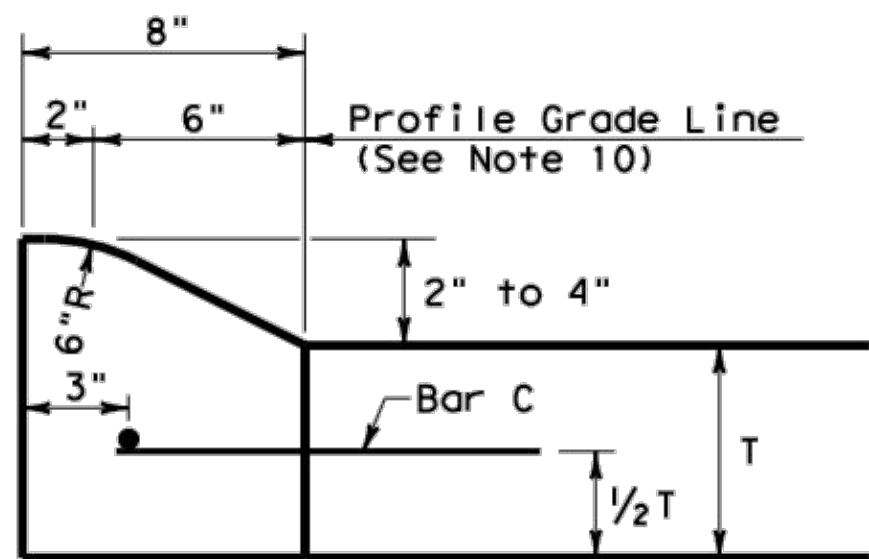
TYPE II CURB (MONOLITHIC)
5" - 5 3/4" HEIGHT



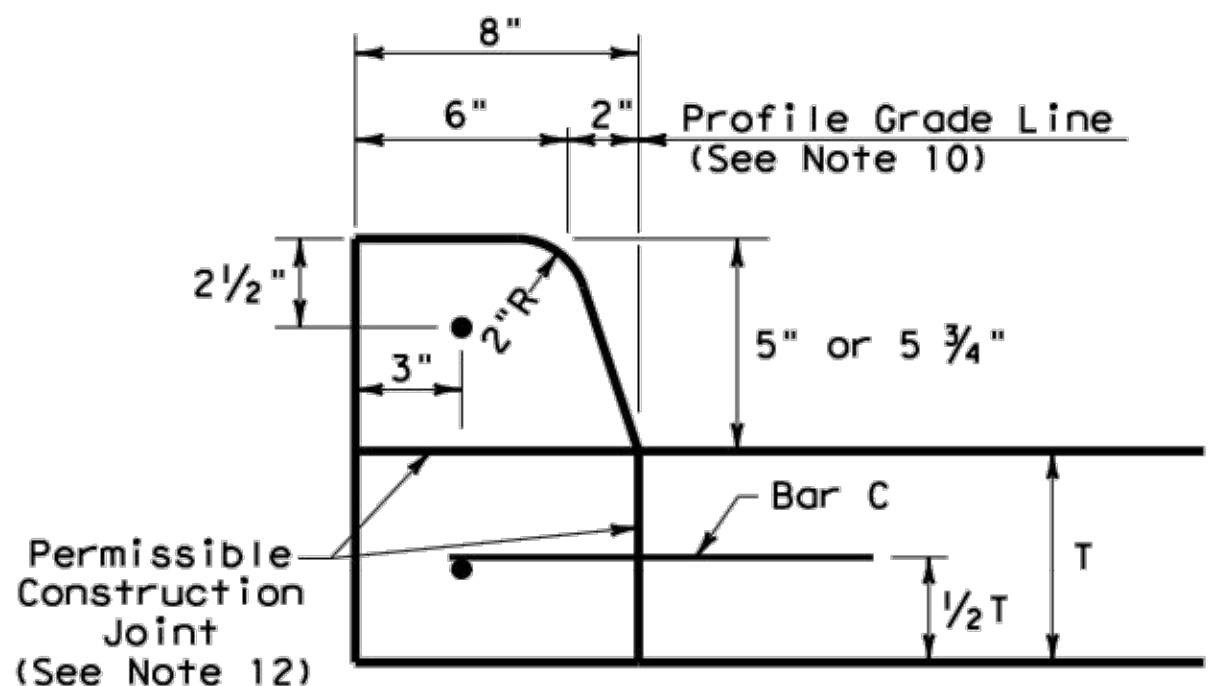
TYPE III CURB (KEYED)
2" - 4" HEIGHT



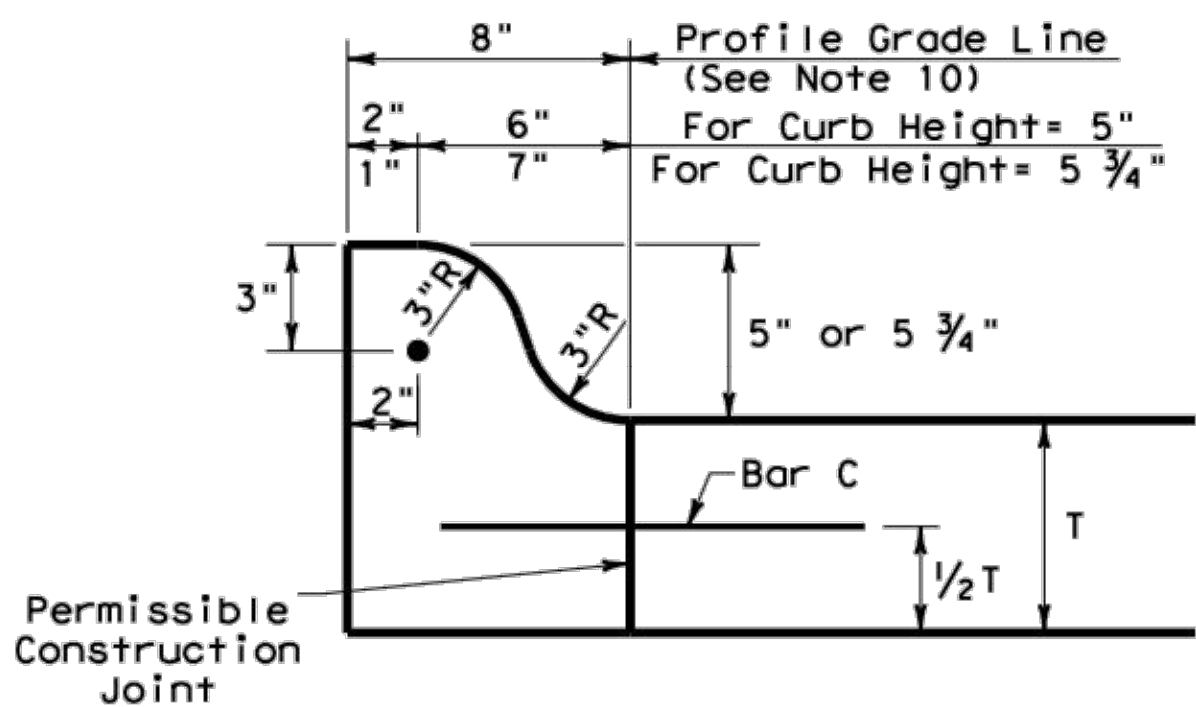
TYPE IV CURB (KEYED)
5" - 5 3/4" HEIGHT



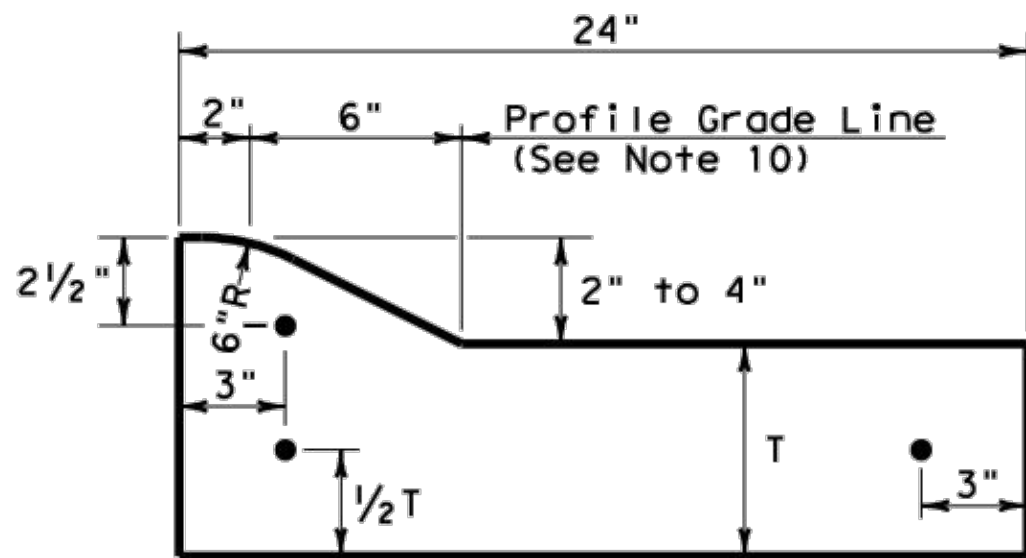
TYPE I CURB
2" - 4" HEIGHT



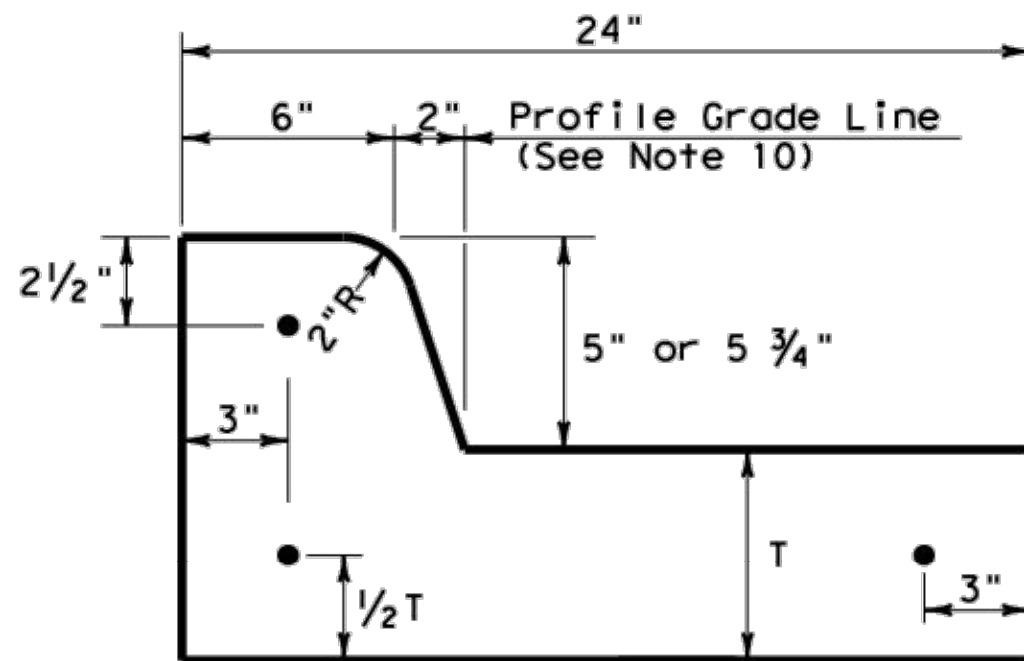
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5" - 5 3/4" HEIGHT



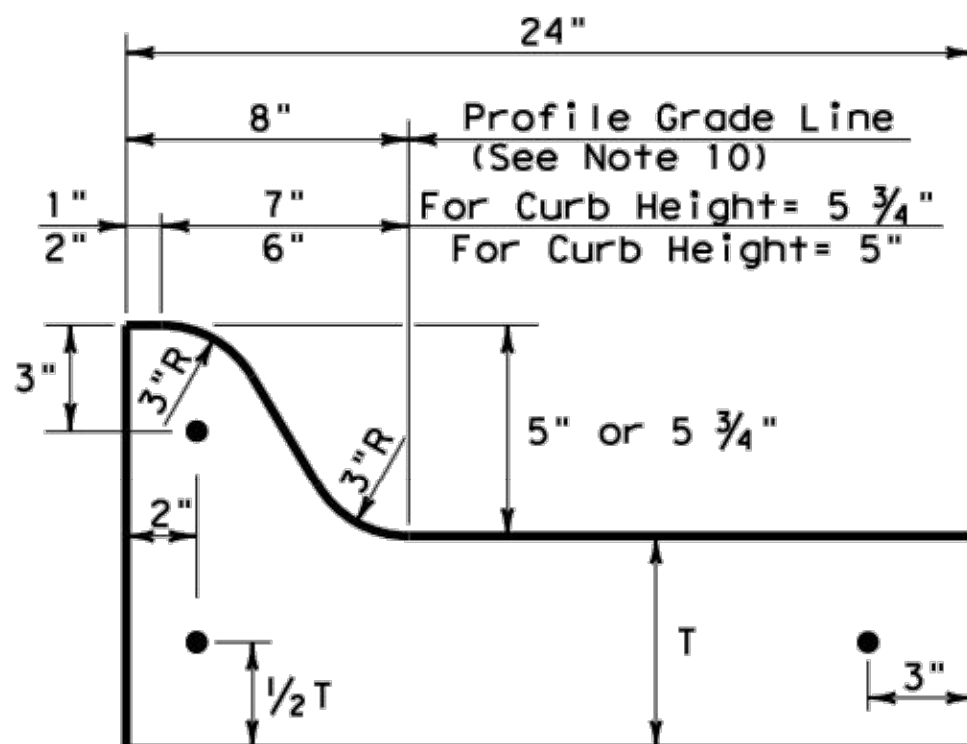
TYPE IIa CURB
5" - 5 3/4" HEIGHT



TYPE I CURB AND GUTTER
2" - 4" HEIGHT

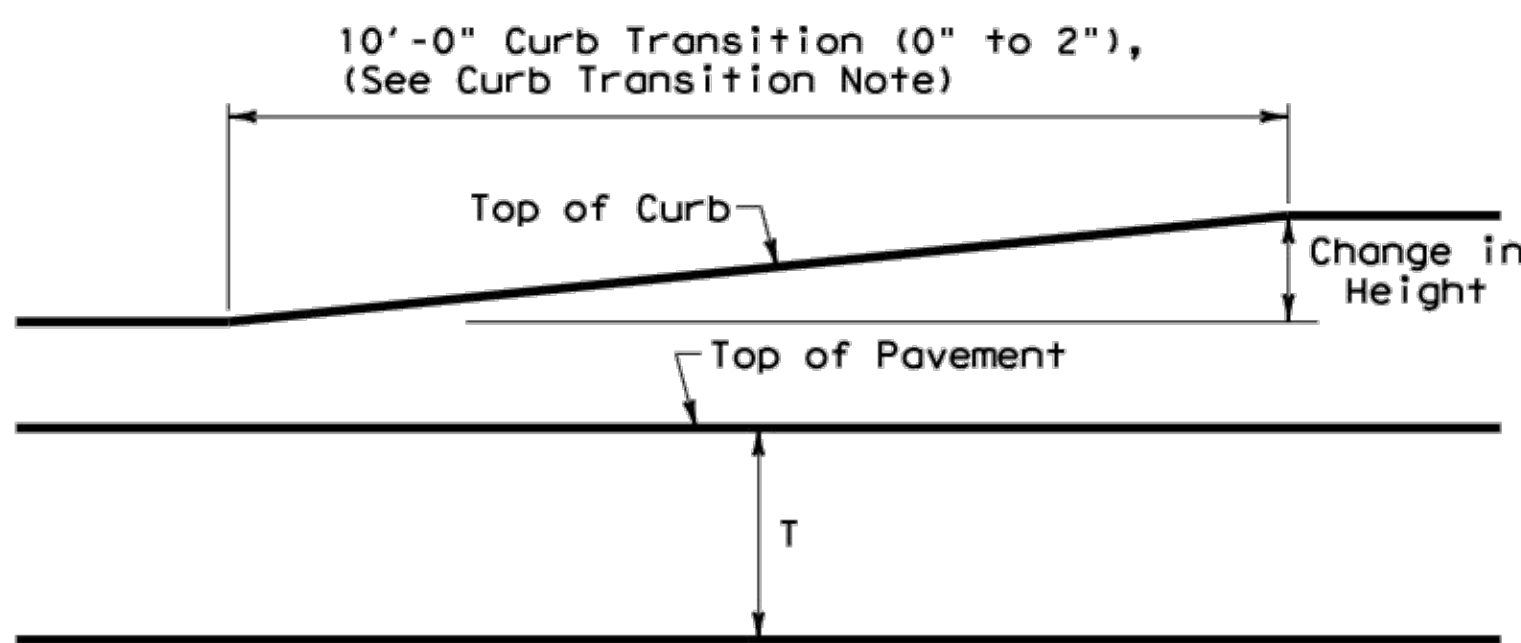


TYPE II CURB AND GUTTER
5" - 5 3/4" HEIGHT



TYPE IIa CURB AND GUTTER
5" - 5 3/4" HEIGHT

CURB TRANSITION NOTE:
Field conditions may require a longer or shorter transition, and shall be shown elsewhere in the plans, or as directed by the Engineer.

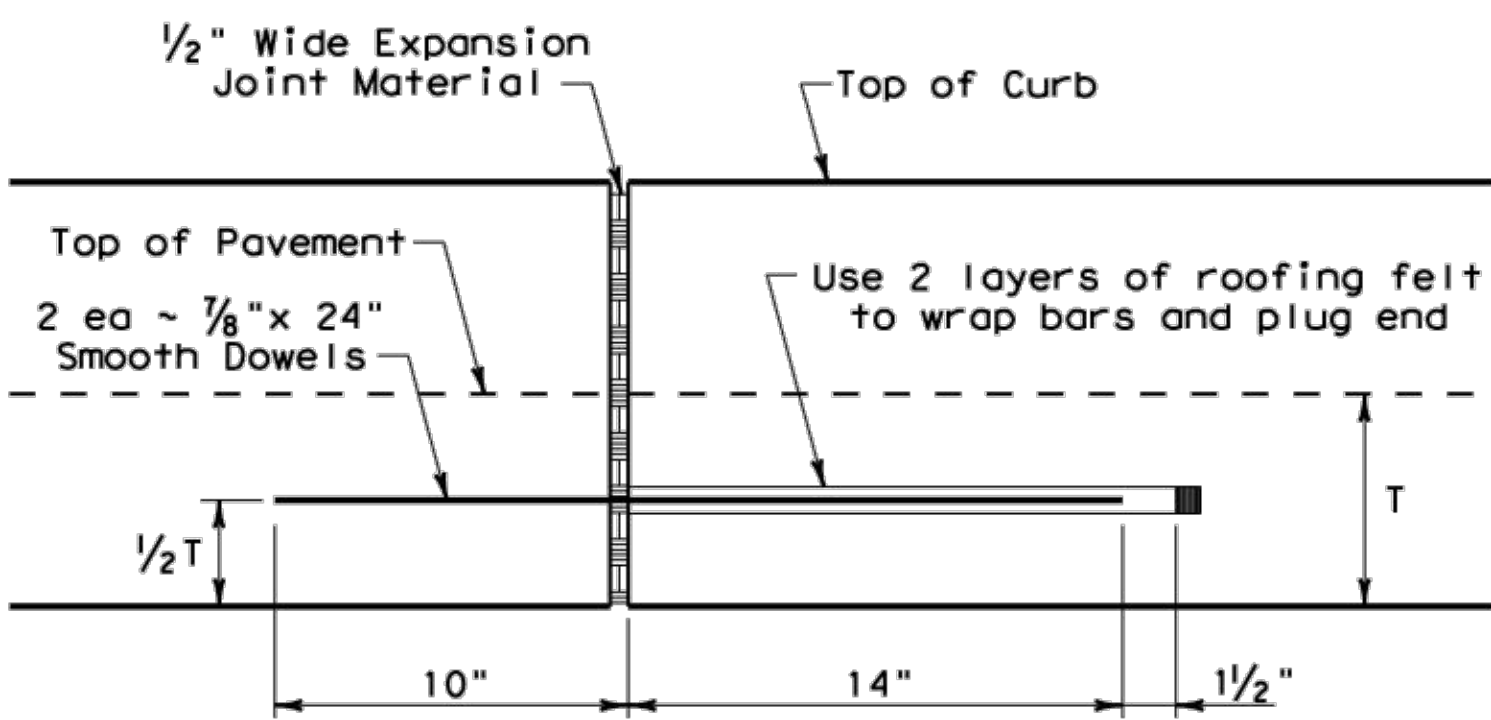
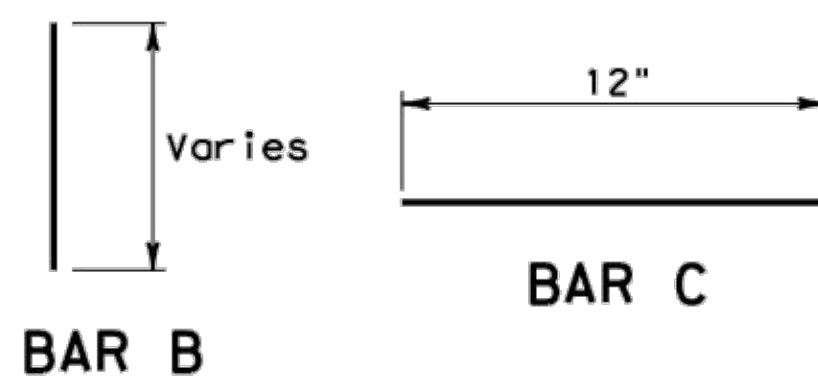


CURB TRANSITION


Note: To be paid for as Highest Curb

GENERAL NOTES

1. All materials and construction shall be in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."
2. Concrete shall be Class A.
3. When reinforcing bars are used, they shall be No.4 unless otherwise shown. The use of fiber reinforced concrete in lieu of reinforcing steel is acceptable. Use fibers meeting the requirements of DMS 4550, "Fibers for Concrete," and dose fibers in accordance with Material Producers List (MPL) "Fibers for Class A and B Concrete Applications."
4. Round exposed sharp edges with a rounding tool, to a minimum radius of 1/4 inch.
5. All existing curbs and driveways to be removed shall be sawed or removed at existing joints.
6. Where concrete curb is to be placed on existing concrete pavement, Bar B may be drilled and the grouted in place, or may be inserted into fresh concrete.
7. Expansion and contraction joints shall be constructed to match pavement joints in all curbs and curb and gutter adjacent to jointed concrete pavement. Where placement of curb or curb and gutter is not adjacent to concrete pavement, expansion joints shall be provided at structures, curb returns at streets, and at locations directed by The Engineer.
8. Vertical and horizontal dowel bars and transverse reinforcing bars shall be placed at four feet C-C.
9. Dimension 'T' shown is the thickness of concrete pavement. When curb is installed adjacent to flexible pavement dimension 'T' is 8" maximum.
10. Usual profile grade line. Refer to typical sections and plan-profile sheets for exact locations.
11. One-half inch expansion joint material shall be provided where curb or curb and gutter is adjacent to sidewalk or riprap.
12. When horizontal permissible construction joints are used, the longitudinal pavement steel shall be placed in accordance with pavement details shown elsewhere in the plans. Reinforcing steel for curb section shall then conform to that required for concrete curb.
13. Bar B used as needed to support curb reinforcing steel during concrete placement.



EXPANSION JOINT DETAIL



Texas Department of Transportation

Design Division Standard

CONCRETE CURB
AND
CURB AND GUTTER

CCCG-21

FILE: cccg21.dgn	DN: TxDOT	CK: AN	DW: SS	CK: KM
© TxDOT: FEBRUARY 2021	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.
				D-31

LANDSCAPE ARCHITECT
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CHRIS@STUDIOGREENSPOT.COM



06.26.2023

DOLLAR GENERAL

F.M. HWY 2450
SANGER, TEXAS

ISSUE:

FOR APPROVAL 06.08.2023

OWNER COMMENTS 06.26.2023

DATE:

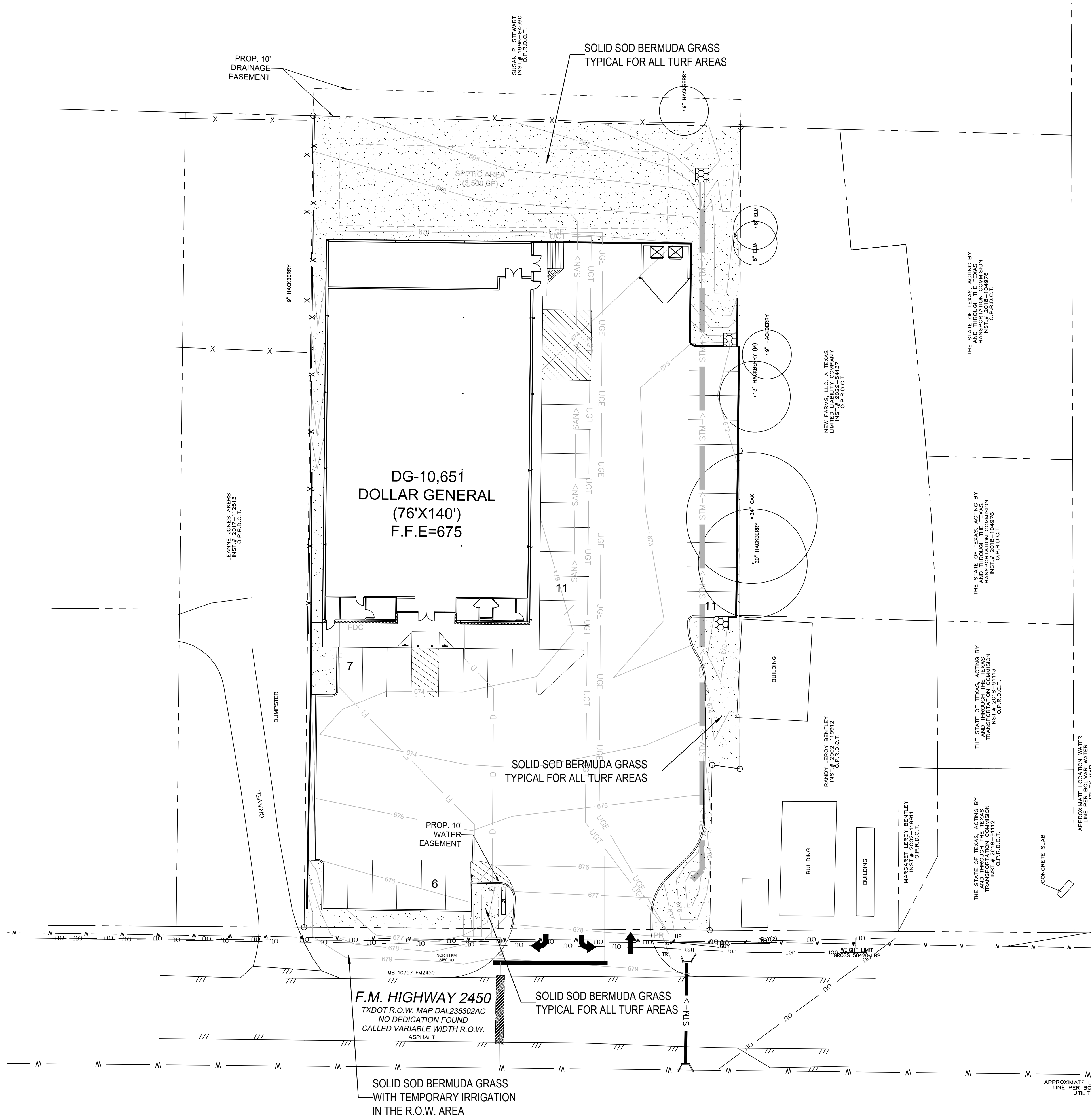
06.26.2023

SHEET NAME:

LANDSCAPE PLAN

SHEET NUMBER:

L.1



LANDSCAPE NOTES

- Contractor shall verify all existing and proposed site elements and notify Architect of any discrepancies. Survey data of existing conditions was supplied by others.
- Contractor shall locate all existing underground utilities and notify Architect of any conflicts. Contractor shall exercise caution when working in the vicinity of underground utilities.
- Contractor is responsible for obtaining all required landscape and irrigation permits.
- Contractor to provide a minimum 2% slope away from all structures.
- All planting beds and lawn areas to be separated by steel edging. No steel to be installed adjacent to sidewalks or curbs.
- All landscape areas to be 100% irrigated with an underground automatic irrigation system and shall include rain and freeze sensors.
- All lawn areas to be Solid Sod Bermudagrass, unless otherwise noted on the drawings.

SOLID SOD NOTES

- Fine grade areas to achieve final contours indicated. Leave areas to receive topsoil 3" below final desired grade in planting areas and 1" below final grade in turf areas.
- Adjust contours to achieve positive drainage away from buildings. Provide uniform rounding at top and bottom of slopes and other breaks in grade. Correct irregularities and areas where water may stand.
- All lawn areas to receive solid sod shall be left in a maximum of 1" below final finish grade. Contractor to coordinate operations with on-site Construction Manager.
- Contractor to coordinate with on-site Construction Manager for availability of existing topsoil.
- Plant sod by hand to cover indicated area completely. Insure edges of sod are touching. Top dress joints by hand with topsoil to fill voids.
- Roll grass areas to achieve a smooth, even surface, free from unnatural undulations.
- Water sod thoroughly as sod operation progresses.
- Contractor shall maintain all lawn areas until final acceptance. This shall include, but not limited to: mowing, watering, weeding, cultivating, cleaning and replacing dead or bare areas to keep plants in a vigorous, healthy condition.
- Contractor shall guarantee establishment of an acceptable turf area and shall provide replacement from local supply if necessary.
- If installation occurs between September 1 and March 1, all sod areas to be over-seeded with Winter Ryegrass, at a rate of (4) pounds per one thousand (1000) square feet.

PLANT MATERIAL SCHEDULE -

GROUNDCOVERS		COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
TYPE	QTY				
		'419' Bermudagrass	Cynodon dactylon '419'		Solid Sod refer to notes

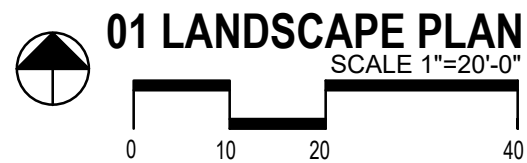
NOTE: Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated. All trees to have straight trunks and be matching within varieties.

GENERAL LAWN NOTES

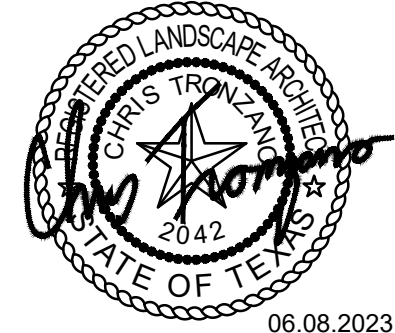
- Fine grade areas to achieve final contours indicated on civil plans.
- Adjust contours to achieve positive drainage away from buildings. Provide uniform rounding at top and bottom of slopes and other breaks in grade. Correct irregularities and areas where water may stand.
- All lawn areas to receive solid sod shall be left in a maximum of 1" below final finish grade. Contractor to coordinate operations with on-site Construction Manager.
- Imported topsoil shall be natural, friable soil from the region, known as bottom and soil, free from lumps, clay, toxic substances, roots, debris, vegetation, stones, containing no salt and black to brown in color.
- All lawn areas to be fine graded, irrigation trenches completely settled, and finish grade approved by the Owner's Construction Manager or Architect prior to installation.
- All rocks 3/4" diameter and larger, dirt clods, sticks, concrete spoils, etc. shall be removed prior to placing topsoil and any lawn installation.
- Contractor shall provide (1") one inch of imported topsoil on all areas to receive lawn.

HYDROMULCH NOTES

- All lawn areas to be Hydromulch Bermudagrass, unless noted otherwise on drawings.
- Contractor shall scarify, rip, loosen all areas to be hydromulched to a minimum depth of 4" prior to topsoil and hydromulch installation.
- Bermudagrass seed shall be extra hulled and treated lawn type and shall be delivered to the site in its original unopened container, and shall meet Texas State Law requirements.
- Fiber: Shall be one hundred (100%) percent Wood Cellulose Fiber, delivered to the site in its original unopened container. 'Conweb' or equal.
- Fiber Tack: Shall be delivered to the site in its original unopened container, and shall be 'Terno-Tack one', as manufactured by Growers, Inc., or equal.
- Hydromulch with Bermudagrass seed at a rate of two (2) pounds per one thousand (1000) square foot.
- Use a 4x6" batter board against all beds areas.
- If installation occurs between September 1 and April 1, all hydromulch areas to be Winter Ryegrass, at a rate of four (4) pounds per one thousand (1000) square feet. Contractor shall be required to re-hydromulch with Bermudagrass the following growing season.
- In the event rye grass is necessary due to time of year installation, it shall be the responsibility of the contractor to scalp existing grass, bag clippings, and scarify soil to a depth of 1" prior to permanent lawn grass installation.
- All lawn areas to be hydromulched, shall have one hundred (100%) percent coverage prior to final acceptance.
- Contractor shall maintain all lawn areas until final acceptance. This shall include but not be limited to: mowing, watering, weeding, cultivating, cleaning, and replacing dead or bare areas to keep plants in a vigorous, healthy condition.
- Contractor shall guarantee establishment of an acceptable turf area and shall provide replacement from local supply as necessary.



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06.08.2023

SECTION 02900 - LANDSCAPE

PART 1 - GENERAL

1.1 REFERENCES

Refer to bidding requirements, special provisions, and schedules for additional requirements.

1.2 DESCRIPTION OF WORK

Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these specifications and landscaping plans, including:

- Planting (trees, shrubs, and grass)
- Bed preparation and fertilization
- Notification of sources
- Water and Maintenance until final acceptance
- Guarantee

1.3 REFERENCE STANDARDS

- American Standard for Nursery Stock published by American Association of Nurserymen: 27 October 1980, Edition; by American National Standards Institute, Inc. (Z60.1) – plant material.
- American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.
- Texas Association of Nurserymen, Grades and Standards.
- Hortis Third, 1976 - Cornell University

1.4 NOTIFICATION OF SOURCES AND SUBMITTALS

- The Contractor shall, within ten (10) days following acceptance of bid, notify the Architect/Owner of the sources of plant materials and bed preparation required for the project.
- Samples: Provide representative quantities of sandy loam soil, mulch, bed mix material, gravel, and crushed stone. Samples shall be approved by Architect before use on project.
- Product Data: Submit complete product data and specifications on all other specified materials.
- Submit three representative samples of each variety of ornamental trees, shrubs, and groundcover plants for Architect's approval. When approved, tag, install, and maintain as representative samples for final installed plant materials.
- File Certificates of Inspection of plant material by state, county, and federal authorities with Architect, if required.
- Soil Analysis: Provide sandy loam soil analysis if requested by the Architect.

PART 3 - EXECUTION

3.1 BED PREPARATION & FERTILIZATION

- Landscaping Contractor to inspect all existing conditions and report any deficiencies to the Owner.
- All planting areas shall be conditioned as follows:
 - Prepare new planting beds by scraping away existing grass and weeds as necessary. Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer. Apply fertilizer as per manufacturers recommendations. Add six (6") inches of compost and till into a depth of six (6") inches of the topsoil. Apply organic fertilizer such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand (1,000) square feet.
 - All planting areas shall receive a two (2") inch layer of specified mulch.
 - Backfill for tree pits shall be as follows: Use existing top soil on site (use imported topsoil as needed) free from large clumps, rocks, debris, caliche, subsoils, etc., placed in nine (9") inch layers and watered in thoroughly.
- Grass Areas:
 - Areas to be Solid Sod Bermudagrass: Blocks of sod should be laid joint to joint, (staggered joints) after fertilizing the ground first. Roll grass areas to achieve a smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gaped open, then watered thoroughly.
 - Areas to be Hydromulch Common Bermudagrass: Hydromulch with bermudagrass seed at a rate of two (2) pounds per one thousand (1,000) square feet. Use a 4" x 8" batter board against the bed areas.

3.2 INSTALLATION

- Maintenance of plant materials shall begin immediately after each plant is delivered to the site and shall continue until all construction has been satisfactorily accomplished.
- Plant materials shall be delivered to the site only after the beds are prepared and area ready for planting. All shipments of nursery materials shall be thoroughly protected from the drying winds during transit. All plants which cannot be planted at once, after delivery to the site, shall be well protected against the possibility of drying by wind and sun. Balls of earth of B & B plants shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final acceptance.
- Position the trees and shrubs in their intended location as per plan.
- Notify the Landscape Architect for inspection and approval of all positioning of plant materials.
- Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to permit handling and planting without injury to balls of earth or roots and shall be of such depth that, when planted and settled, the crown of the plant shall bear the same relationship to the finish grade as it did to soil surface in original place of growth.

JOB CONDITIONS

- General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape installation, General Contractor shall leave planting bed areas three (3") inches below finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the finish grade of sidewalks, drives, and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.
- General Contractor shall provide topsoil as described in Section 02200 - Earthwork.
- Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

1.6 MAINTENANCE AND GUARANTEE

- Maintenance:
 - The Landscape Contractor will be held responsible for the maintenance of all work from the time of planting until final acceptance by the Owner. No trees, shrubs, groundcover or grass will be accepted unless they show a healthy growth and satisfactory foliage conditions.
 - Maintenance shall include watering of trees and plants, cultivation, weeding, spraying, edging, pruning of trees, mowing of grass, cleaning up and all other work necessary of maintenance.
 - A written notice requesting final inspection and acceptance should be submitted to the Owner at least seven (7) days prior to completion. An on-site inspection by Owner and Landscape Contractor will be completed prior to written acceptance.
 - After final acceptance of installation, the Landscape Contractor will not be required to do any of the above listed work.
- Guarantee:
 - Trees shall be guaranteed for a twelve (12) month period after acceptance. Shrubs and groundcover shall be guaranteed for twelve (12) months. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry has been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
 - Plants used for replacement shall be of the same size and kind as those originally planted and shall be planted as originally specified. All work, including materials, labor and equipment used in replacements, shall carry a twelve (12) month guarantee. Any damage, including ruts in lawn or bed areas, incurred as a result of making replacements shall be immediately repaired.
 - At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises immediately.
 - When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and reinspected for full compliance with Contract requirements. All replacements are to be included under "Work" of this section.

1.7 QUALITY ASSURANCE

- General: Comply with applicable Federal, State, County and Local regulations governing landscape materials and work.
- Personnel: Employ only experienced personnel who are familiar with the required work. Provide full time supervision by a qualified foreman acceptable to Landscape Architect.
- Selection of Plant Material:
 - Make contact with suppliers immediately upon obtaining notice of contract acceptance to select and book materials. Develop a program of maintenance (pruning and fertilization) which will insure the purchased materials will meet and/or exceed project specifications.
 - Landscape Architect will provide a key identifying each tree location on site. Written verification will be required to document material selection, source and delivery schedules to site.
 - Owner and/or Architect shall inspect all plant materials when reasonable at place of growth for compliance with requirements for genus, species, cultivar/variety, size and quality.
 - Owner and/or Architect retains the right to further inspect all plant material upon arrival at the site and during installation for size and condition of root balls, limbs, branching habit, insects, injuries, and latent defects.
 - Owner and/or Architect may reject unsatisfactory or defective material at any time during the process of work. Remove rejected materials from the site immediately. Plants damaged in transit or at job site shall be rejected.

1.8 PRODUCT DELIVERY, STORAGE AND HANDLING

- Preparation:
 - Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape, and future development.
 - Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.

A. Delivery:

- Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.
- Deliver only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
- Protect root balls by heeling in with sawdust or other approved moisture retaining material if not planted within 24 hours of delivery.
- Protect plants during delivery to prevent damage to root balls or desiccation of leaves. Keep plants moist at all times. Cover all materials during transport.
- Notify Architect of delivery schedule 72 hours in advance so plant material may be observed upon arrival at job site.
- Remove rejected plant material immediately from site.
- To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

PART 2 - PRODUCTS

2.1 PLANTS

- General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Architect and his decision as to their acceptability shall be final.
- Quantities: The drawings and specifications are complementary. Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.
- Quality and size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched, and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae and are to be of specimen quality.
- Approval: All plant materials shall be subject to the approval of the Owner. All plants which are found unsuitable in growth, or in any unhealthy, badly shaped, or undersized condition, will be rejected by the Landscape Architect, either before or after planting, and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plants as specified.
- Trees shall be healthy, full-branched, well-shaped and shall meet the trunk diameter and height requirements of the plant schedule. Balls shall be firm, neat, slightly tapered, and well wrapped in burlap. Any tree loose in the ball or with broken ball at time of planting will be rejected. Balls shall be ten (10") inches in diameter for each one (1") inch of trunk diameter. Measured six (6") inches above ball. Nomenclature conforms to the customary nursery usage: for clarification, the term "multi-trunk" defines a plant having three (3) or more trunks of nearly equal diameter.
- Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect, shall be executed by the Landscape Contractor at no additional cost to the Owner.

2.2 SOIL PREPARATION MATERIALS

A. Sandy Loam:

- Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam containing Dallasgrass or Nutgrass shall be rejected.
- Physical properties as follows:
 - Clay – between 7-27 percent
 - Silt – between 15-25 percent
 - Sand – less than 52 percent
- Organic matter shall be 3%-10% of total dry weight.
- If requested, provide a certified soil analysis conducted by an approved soil testing laboratory verifying that sandy loam meets the above requirements.

B. Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of course and fine textured material.

C. Premixed Bedding Soil as supplied by Vital Earth Resources, Gladewater, Texas; Professional Bedding Soil as supplied by Living Earth Technology, Dallas, Texas or Acid Gro Municipal Mix as supplied by Soil Building Systems, Dallas, Texas or approved equal.

D. Sharp Sand: Sharp sand must be free of seeds, soil particles and weeds.

E. Mulch: Double Shredded Hardwood Mulch, partially decomposed, dark brown. Living Earth Technologies or approved equal.

F. Organic Fertilizer: Fertiland, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.

A. Commercial Fertilizer: 10-20-10 or similar analysis. Nitrogen source to be a minimum 50% slow release organic Nitrogen (SCU or UF) with a minimum 8% sulphur and 4% iron, plus micronutrients.

B. Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or other approved organic material.

2.3 MISCELLANEOUS MATERIALS

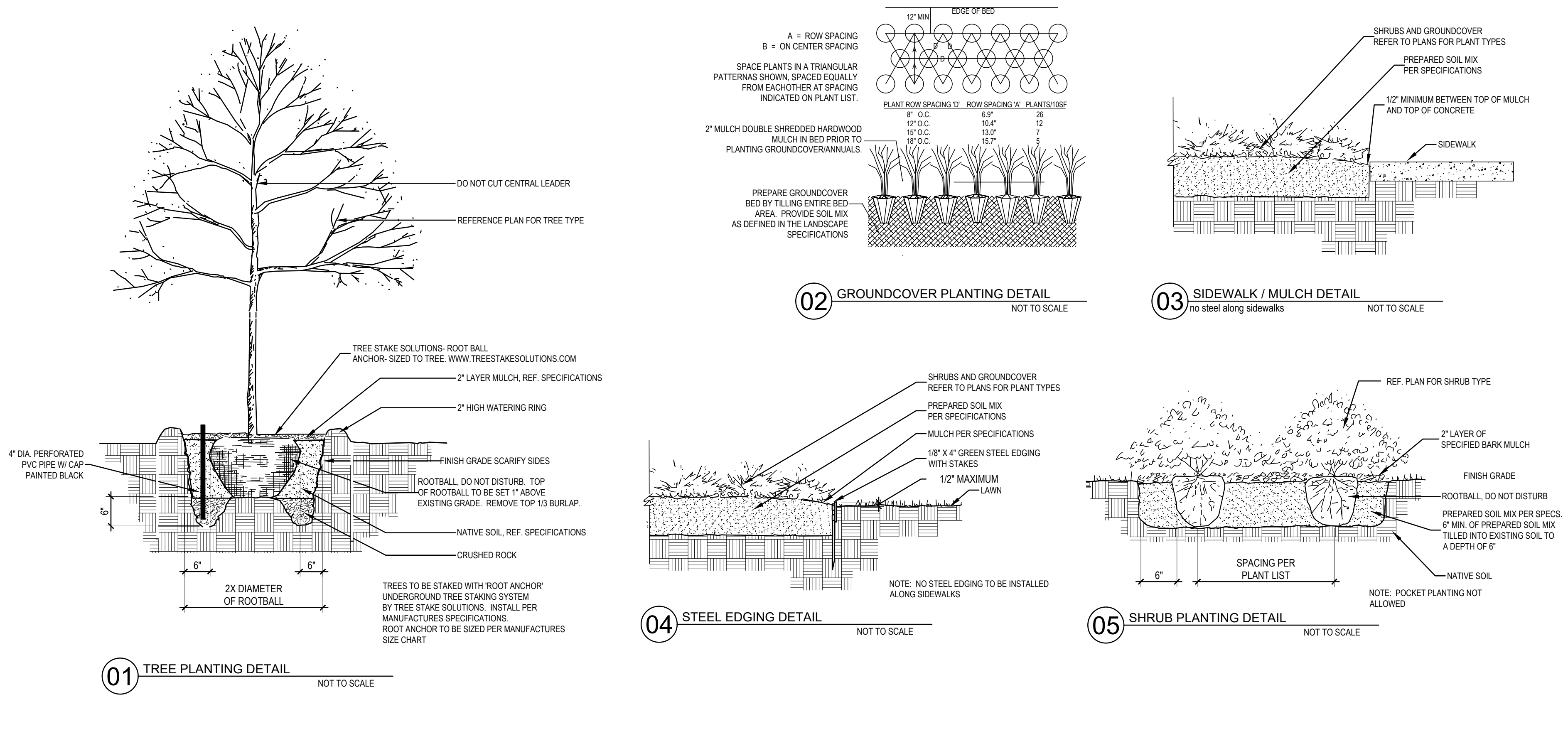
A. Steel Edging: Shall be Ryerson "Estate Curbing", 1/8" x 4" with stakes 4' on center.

B. Staking Material for Shade Trees:

- Post: Studded T-Post, #1 Armco with anchor plate; 6'-0" length; paint green.
- Wire: 12 gauge, single strand, galvanized wire.
- Rubber hose: 2 ply, fiber reinforced hose, minimum 1/2 inch inside diameter. Color: Black.

C. Gravel: Washed native pea gravel, graded 1 in. to 1-1/2 in.

D. Filter Fabric: Mirafi 140N by Celanese Fibers Marketing Company, available at Loftland Co., (214) 631-5250 or approved equal.



3.3 CLEANUP AND ACCEPTANCE

- Cleanup: During the work, the premises shall be kept neat and orderly at all times. Storage areas for all materials shall be so organized that they, too, are neat and orderly. All trash and debris shall be removed from the site as work progresses. Keep paved areas clean by sweeping or hosing at end of each days work.

END OF SECTION

DOLLAR GENERAL

F.M. HWY 2450
SANGER, TEXAS

ISSUE:
FOR APPROVAL 06.08.2023

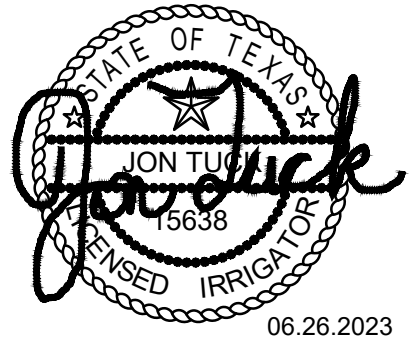
DATE:
06.08.2023

SHEET NAME:
LANDSCAPE DETAILS

SHEET NUMBER:

L.2

LANDSCAPE ARCHITECT
STUDIO GREEN SPOT, INC.
1782 W. McDERMOTT DR.
ALLEN, TEXAS 75013
(469) 369-4448
CHRIS@STUDIOGREENSPOT.COM



06.26.2023

DOLLAR GENERAL**F.M. HWY 2450
SANGER, TEXAS****ISSUE:**

FOR APPROVAL 06.08.2023

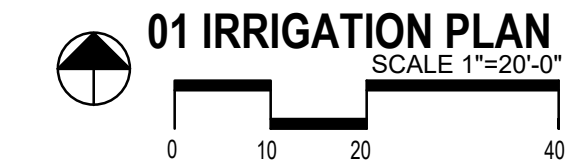
OWNER COMMENTS 06.26.2023

DATE:

06.26.2023

SHEET NAME:

IRRIGATION PLAN

SHEET NUMBER:**L.3****01 IRRIGATION PLAN**

SCALE 1"=20'-0"



0 10 20 40

IRRIGATION NOTES

- All sprinkler equipment numbers reference the HUNTER equipment catalog unless otherwise indicated.
- LAWN SPRAY HEADS are SRS-04 installed as per detail shown.
- SHRUB SPRAY HEADS are SRS-12 installed as per detail shown.
- ELECTRIC CONTROL VALVES shall be HUNTER PGV-S SERIES installed per detail shown. Size valves as shown on plan. Valves shall be installed in valve boxes large enough to permit manual operation, removal of solenoid and/or valve cover without any earth excavation.
- QUICK COUPLING VALVES shall be HQ-44-LRC-AW installed per detail shown. Swing joints shall be constructed using 1" Schedule 80 elbows. Contractor shall supply owner with three (3) HK couplers and three (3) #10 swivel hose ends as part of this contract.
- AUTOMATIC CONTROLLER shall be installed at location shown. Power (120V) shall be located in a junction box within five (5) feet of controller location by other trades.
- All 24 volt valve wiring is to be UF 14 single conductor. All wire splices are to be permanent and waterproof.
- SLEEVES shall be installed by General Contractor. Sleeve material shall be Schedule 40. Size as indicated on plan.
- Ten days prior to start of construction, Landscape or Irrigation Contractor shall verify static water pressure. If static pressure is less than 65 P.S.I., do not work until notified to do so by Owner.
- All main line and lateral piping to a minimum of 12 inches of cover. All piping under paving shall have a minimum of 18" of cover.
- The Irrigation Contractor shall coordinate installation of the system with the Landscape Contractor so that all plant material will be watered in accordance with the intent of the plans and specifications.
- The Irrigation Contractor shall select the proper arc and radius for each nozzle to insure 100% and proper coverage of all lawn areas and plant material. All nozzles in parking lot islands and planting beds shall be low angle to minimize over spray on pavement surfaces. No water will be allowed to spray on building.

DRIP IRRIGATION NOTES

- Drip Irrigation Equipment numbers reference Rainbird Equipment Catalog unless otherwise noted.
- Landscape Contractor shall be required to supply Owner's Construction Manager with all equipment specifications and maintenance guidelines.
- Landscape Contractor shall be required to follow Manufacturer's Specifications and installation guidelines for drip system.
- PRESSURE COMPENSATING EMITTERS shall be: Multiset Rain Bug EM6-M101, Multi outlet Shrub Bug EMTG-M101 or approved equal. (1 PER EVERY 6 - 4" POTS)
- SINGLE OUTLET PRESSURE COMPENSATING EMITTERS shall be: Rain Bug Emitters EM-M05, -M10, -M20 and Shrub Bug Emitters EMT-M10, -M20 or approved equal. (1 PER EACH 1 OR 5 GAL PLANT)
- DRIP PRESSURE REGULATORS shall be: PSI-HLA-15, PSI-HLA-20, PSI-HMB-20, PSI-HMB-25 or approved equal.
- Y-FILTERS shall be: RBY-075-200, RBY-100-200 or approved equal.
- MAIN IRRIGATION TUBING shall be: RBT-150P, RBT-160V or approved equal.
- EMITTER DISTRIBUTION TUBING shall be: RBT-150P, RBT-160V or approved equal.
- SUBTERRANEAN EMITTER BOX shall be: SEB-6 or approved equal.
- Drip system piping only occurs within shrub / groundcover beds and rock mulch areas. Piping shall be a maximum 4" depth and a minimum 2" depth.
- Contractor shall verify that all drip system valves and spray system valves are sectioned separately on controller.

TECQ NOTES

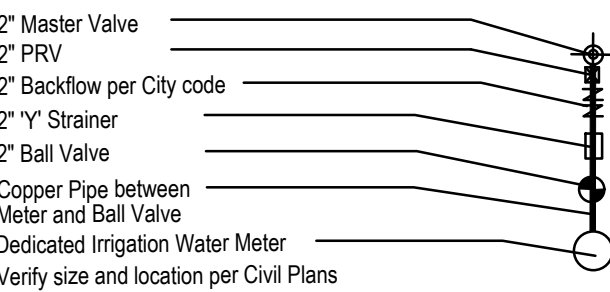
- All irrigation equipment to be located no closer than 4" to any pavement and / or structure
- Electrical splices at each valve and controller only.
- Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TECQ) MC-178 / P.O. BOX 13087 Austin, Texas 78711-3087 www.tecq.state.tx.us

BUBBLER PIPING CHART

1-5 BUBBLERS - 1/2" PIPE
6-10 BUBBLERS - 3/4" PIPE
11-20 BUBBLERS - 1" PIPE
21-30 BUBBLERS - 1 1/4" PIPE
31-40 BUBBLERS - 1 1/2" PIPE

IRRIGATION LEGEND

- Hunter PRS30-04 4" Pop-up Spray Head with Plastic Hunter Pro Adjustable Nozzle
- Hunter PRS30-12 12" Pop-up Spray Head with Plastic Hunter Pro Adjustable Nozzle
- Hunter PGP Ultra-04 Rotors
- Hunter Multi-Stream Bubblers on Hunter PRS30-06 Pop-up Spray Head
- Spray, Rotor & Bubblers Zones-Hunter PGV Control Valves (See Plan for Size)
- Drip Zones-Hunter ICZ Drip Zone Control Kits (See Plan for Size)
- Hunter I-Core series Controller with Hunter Solar Sync Sensor
- WATER METER, SIZE AS INDICATED
D.C.A., SIZE AS INDICATED
to include Wye Strainer, Isolation Valve, Master Valve, and Pressure Regulator
- PVC CLASS 200 LATERAL LINE
- PVC CLASS 200 MAINLINE
- PVC SCHEDULE 40 SLEEVING
- VALVE SIZE
GPM
- HUNTER HDL-09-12-100-PC Drip Line and Fittings
(12" LATERAL SPACING, 12" EMITTER SPACING)
PVC LATERAL PIPING SIZED AS REQUIRED
INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURERS SPECIFICATIONS

**SLEEVING NOTES**

- Contractor shall lay sleeves and conduits at twenty-four (24") inches below finish grade of the top of pavement.
- Contractor shall extend sleeves one (1') foot beyond edge of all pavement.
- Contractor shall cap pipe ends using PVC caps.
- All sleeves shall be Schedule 40 PVC pipe.
- Contractor shall furnish Owner and Irrigation Contractor with an 'as-built' drawing showing all sleeve locations.

Water Pressure Calculations

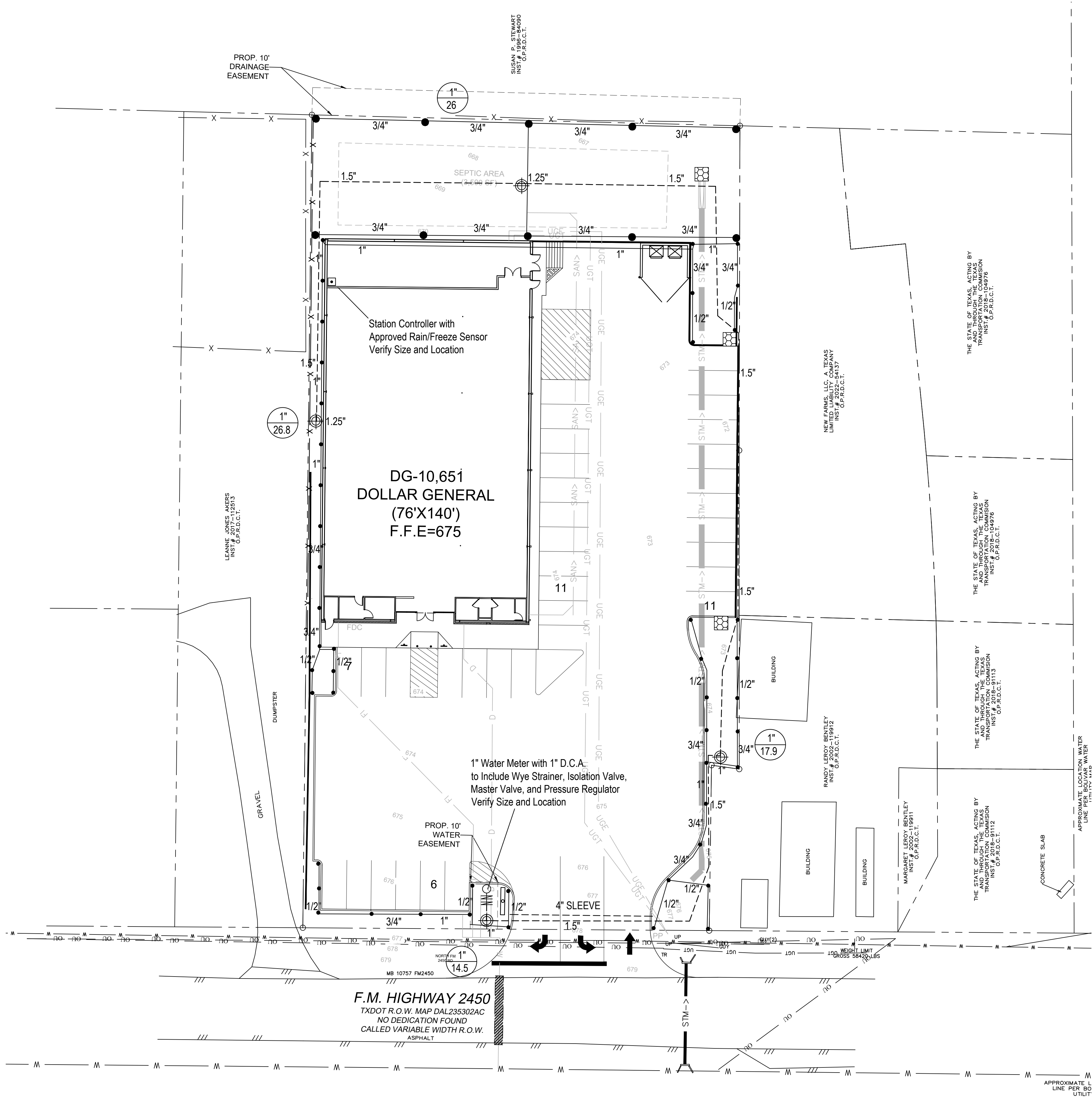
Static Pressure (at the water meter)- 65 psi
Design Pressure for Remote Zone- 55.4 psi
Pressure Losses for Remote Zone and Meter Components- 20.4 psi

Water Meter Components- Pressure Losses

Master Valve Pressure- 2 psi
Pressure Regulator- 1.2 psi
Back Flow- 5 psi
Wye Strainer- .75 psi
Ball Valve- .8 psi

Irrigation Zones Pressure Losses- (most remote zone)

Main Line- 6.8 psi
Valve- 2 psi
Later Line- 1.8 psi
Sprinkler requirements-35 psi

APPROXIMATE
LINE PER BO
UTILIT

SECTION 02810 - IRRIGATION

PART 1 - GENERAL

1.1 SCOPE

- A. Provide complete sprinkler installation as detailed and specified herein, includes furnishing all labor, materials, and equipment for the proper installation. Work includes but is not limited to:
1. Trenching and backfill
 2. Automatic controlled system.
 3. Upon completion of installation, supply drawings showing details of construction including location of mainline piping, manual and automatic valves, electrical supply valves, and specifically exact location of automatic valves.

- B. All sleeves as shown on plans will be furnished by General Contractor. Meter and power source to be provided by General Contractor.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. See Irrigation Plans. See plans for controller, heads, and valves.
- B. Section 02900-Landscape
- C. Section 02811-Underground Irrigation Sleeve and Utility Conduits

1.3 APPLICABLE STANDARDS

- A. America Standard for Testing and Materials (ASTM) – Latest edition.

1. D2241 Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR-PR)
2. D2484 Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Thread, Schedule 80
3. D2455 Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40
4. D2467 Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Socket Type, Schedule 80
5. D2564 Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings
6. D2287 Flexible Poly Vinyl Chloride (PVC) Plastic Pipe
7. F856 Poly Vinyl Chloride (PVC) Solvent Weld Primer
8. D2655 Making Solvent – Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings

1.4 MAINTENANCE AND GUARANTEE

- A. Materials and workmanship shall be fully guaranteed for one (1) year after final acceptance.
- B. Provide maintenance of system, including raising and lowering of heads to compensate for lawn growth, cleaning and adjustment of heads, raising and lowering of shrub heads to compensate for shrub growth, for one (1) year after completion of installation.
- C. Guarantee is limited to repair and replacement of defective materials or workmanship, including repair of backfill settlement.

1.5 SUBMITTALS

- A. Procedure: Comply with Division I requirements.
- B. Product Data: Submit (5) copies of equipment manufacturer's specifications and literature for approval by Landscape Architect prior to installation.
- C. Project Record Documents
1. Comply with Division I requirements.
 2. Locate by written dimension, routing of mainline piping, remote control valves and quick coupling valves. Locate mainlines by single dimensions from permanent site features provided they run parallel to these elements. Locate valves, intermediate electrical connections, and quick couplers by two dimensions from a permanent site feature at approximately 70 degrees to each other.
 3. When dimensioning is complete, transcribe work to mylar reproducible tracings.
 4. Submit completed tracings prior to final acceptance. Mark tracings "Record Prints Showing Significant Changes". Date and sign drawings.
 5. Provide three complete operation manuals and equipment brochures neatly bound in a hard back three-ring binder. Include product data on all installed materials. Include warranties and guarantees extended to the Owner by the manufacturer of all equipment.
- D. Quick Coupler Keys: Provide 3 coupler keys with boiler drains attached using brass reducer.
- E. Controller Keys: Provide three sets of keys to controller enclosure(s).
- F. Use of materials differing in quality, size, or performance from those specified will only be allowed upon written approval of the Landscape Architect. The decision will be based on comparative ability of material or article to perform fully all purposes of mechanics and general design considered to be possessed by item specified.
- G. Bidders desiring to make a substitution for specified sprinklers shall submit manufacturer's catalog sheet showing full specification of each type sprinkler proposed as a substitute, including discharge in GPM maximum allowable operating pressure at sprinkler.
- H. Approval of substitute sprinkler shall not relieve Irrigation Contractor of his responsibility to demonstrate that final installed sprinkler system will operate according to intent of originally designed and specified system.
- I. It is the responsibility of the Irrigation Contractor to demonstrate that final installed sprinkler system will operate according to intent of originally designed and specified system. If Irrigation Contractor notes any problems in head spacing or potential coverage, it is his responsibility to notify the Landscape Architect in writing, before proceeding with work. Irrigation Contractor guarantees 100% coverage of all areas to be irrigated.

1.6 TESTING

- A. Perform testing required with other trades, including earthwork, paving, plumbing, electrical, etc. to avoid unnecessary cutting, patching and boring.
- B. Wire Connectors: Waterproof splice kit connectors. Type DBY by 3M.

2.6 SCHEDULE 80 PVC NIPPLES

- A. Composed of Standard Schedule 40 PVC Fittings and PVC meeting noted standards. No clamps or wires may be used. Nipples for heads and shrub risers to be nominal one-half inch diameter by eight inches long, where applicable.
- B. Polyethylene nipples six (6") inches long to be used on all pop-up spray heads.

2.7 MATERIALS - See Irrigation Plan

- A. Sprinkler heads in lawn area as specified on plan.
- B. PVC Pipe: Class 200, SPR 21 Copper Tubing (City Connection): Type "M" 24V Wire. Size 14, Type U.F.
- C. Electric valves to be all plastic construction as indicated on plans.
- D. Refer to drawing for backflow prevention requirements and flow valve.

PART 3 - EXECUTION

3.1 INSTALLATION - GENERAL

- A. Staking: Before installation is started, place a stake where each sprinkler is to be located, in accordance with drawing. Staking shall be approved by Landscape Architect before proceeding.
- B. Excavations: Excavations are unclassified and include earth, loose rock, rock or any combination thereof, in wet or dry state. Backfill trenches with material that is suitable for compaction and contains no lumps, clods rock, debris, etc. Special backfill specifications, if furnished take preference over this general specification.
- C. Backfill: Flood or hand-tamp to prevent after settling. Hand rake trenches and adjoining area to leave grade in as good or better condition than before installation.
- D. Piping Layout: Piping layout is diagrammatic. Route piping around trees and shrubs in such a manner as to avoid damage to plantings. Do not dig within ball of newly planted trees or shrubs.

3.2 PIPE INSTALLATION

- A. Sprinkler Mains: Install a four (4") inch minimum trench with a minimum of eighteen (18") inches of cover.
- B. Lateral Piping: Install a four (4") inch wide minimum trench deep enough to allow for installation of sprinkler heads and valves, but in no case, with less than twelve (12") of cover.
- C. Trenching: Remove lumber, rubbish, and large rocks from trenches. Provide firm, uniform bearing for entire length of each pipe line to prevent uneven settlement. Wedging or blocking of pipe will not be permitted. Remove foreign matter or dirt from inside of pipe before welding, and keep piping clean by approved means during and after laying of pipe.

3.3 PVC PIPE AND FITTING ASSEMBLY

- A. Solvent: Use only solvent recommended by manufacturer to make solvent-welded joints. Thoroughly clean pipe and fittings of dirt, dust and moisture before applying solvent.
- B. PVC to metal connection: Work metal connections first. Use a non-hardening pipe dope such as Permatex No. 2 on threaded PVC adapters into which pipe may be welded.

3.4 COPPER TUBING AND FITTING ASSEMBLY

- Clean pipe and fitting thoroughly and lightly sand pipe connections to remove residue from pipe. Attach fittings to tubing in an approved manner using 50-50 soft solid core solder.

3.5 POP-UP SPRAY HEADS

- Supply pop-up spray heads in accordance with materials list and plan. Attach sprinkler to lateral piping with a semi-flexible polyethylene nipple not less than three (3") inches or more than six (6") inches long.

3.6 VALVES

- Supply valves in accordance with materials list and sized according to drawings. Install valves in a level position in accordance with Manufacturer's Specifications. See plan for typical installation of electric valve, valve box.

3.7 WIRING

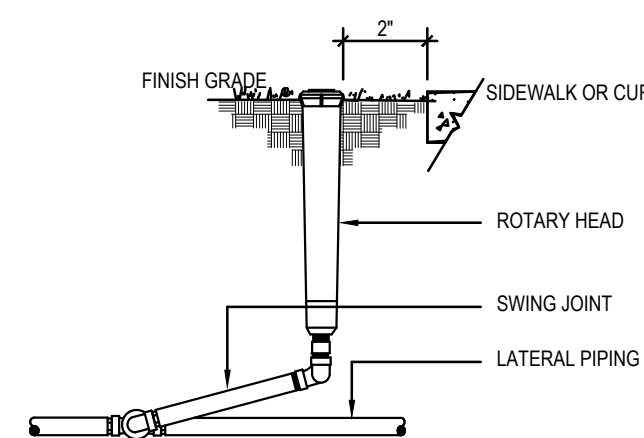
- A. Supply wire from the automatic sprinkler controls to the valves. No conduit will be required for U.F. wire unless otherwise noted on the plan. Wire shall be tucked under the piping.
- B. A separate wire is required from the control to each electric valve. A common neutral wire is also required from each control to each of the valves served by each particular control.
- C. Bundle multiple wires and tape them together at ten (10') foot intervals. Install ten (10") inch expansion coil at not more than one hundred (100') foot intervals. Make splices waterproof.

3.8 AUTOMATIC SPRINKLER CONTROLS

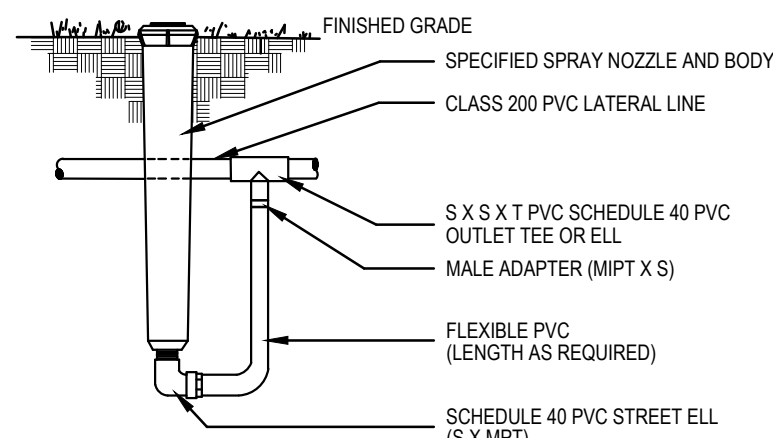
- Supply in accordance with Irrigation Plan. Install according to manufacturer's recommendations.

3.9 TESTING

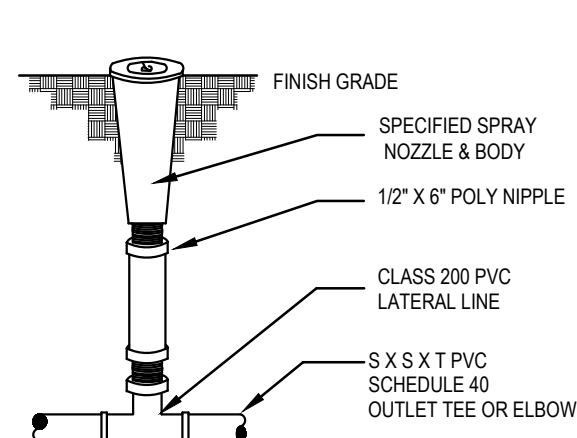
- A. Sprinkler Mains: Test sprinkler main only for a period of twelve (12) to fourteen (14) hours under normal pressure. If leaks occur, replace joint or joints and repeat test.
- B. Complete tests prior to backfilling. Sufficient backfill material may be placed in trenches between fittings to insure stability of line under pressure. In each case, leave fittings and couplings open to visual inspection for full period of test.



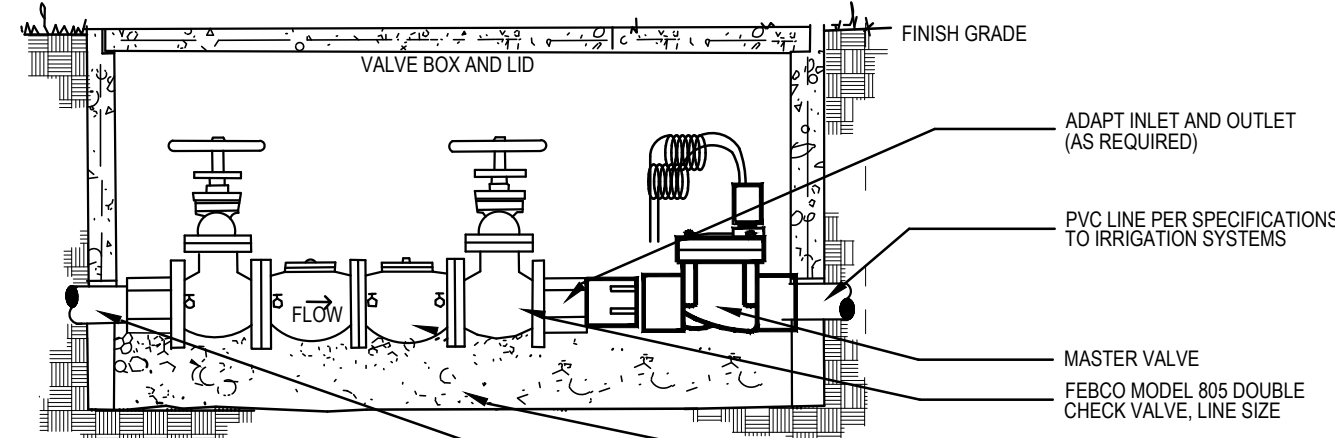
01 ROTARY HEAD
NOT TO SCALE



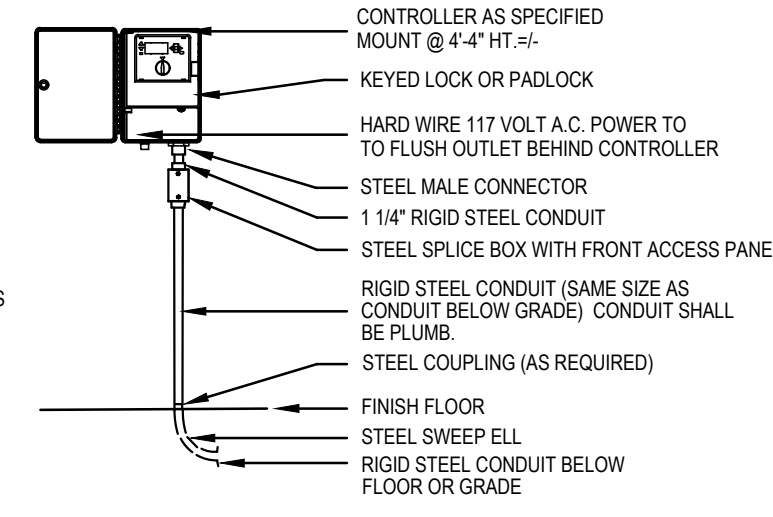
02 HIGH POP-UP SPRAY ASSEMBLY
NOT TO SCALE



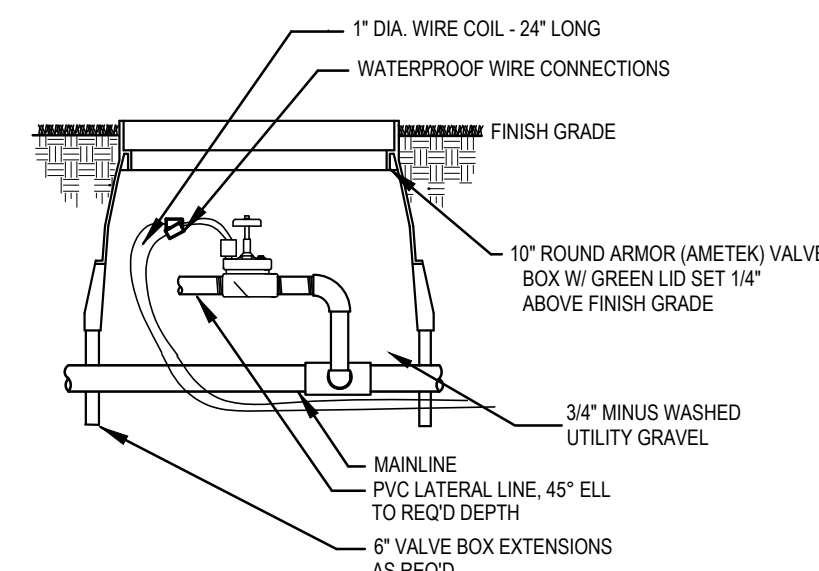
03 POP-UP LAWN SPRAY ASSEMBLY
NOT TO SCALE



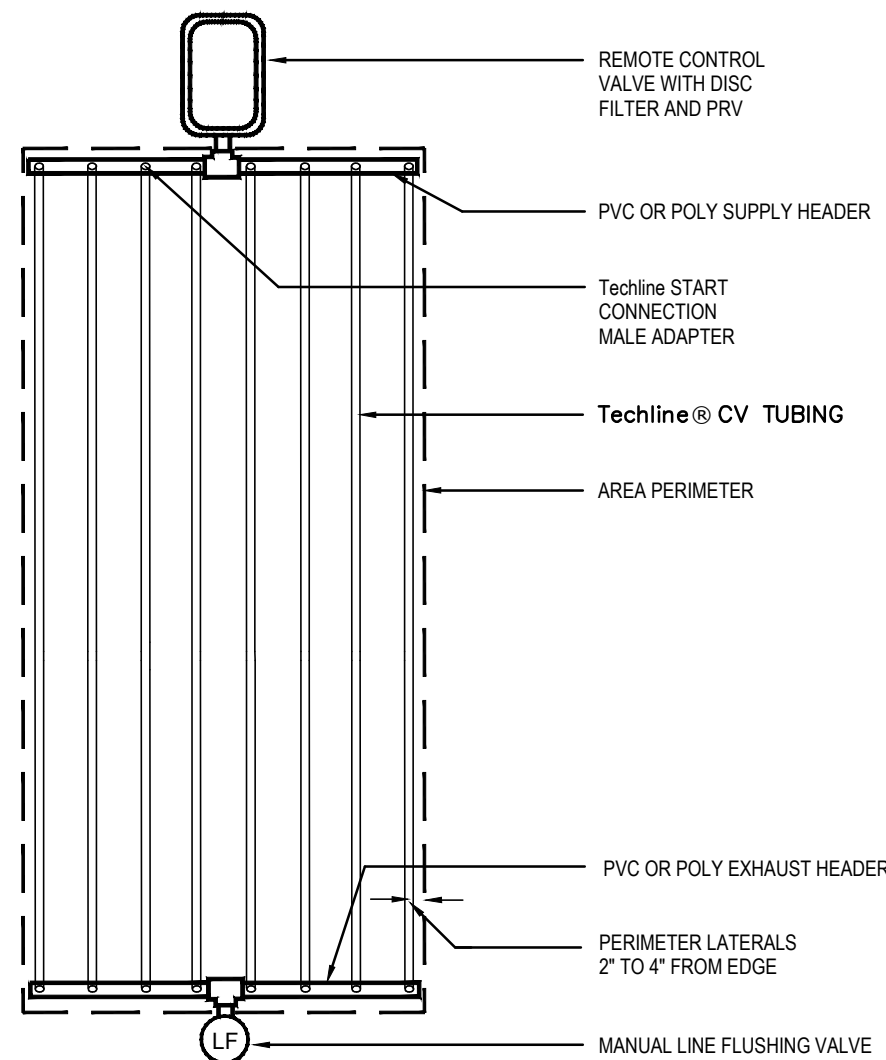
04 BACKFLOW PREVENTER
NOT TO SCALE



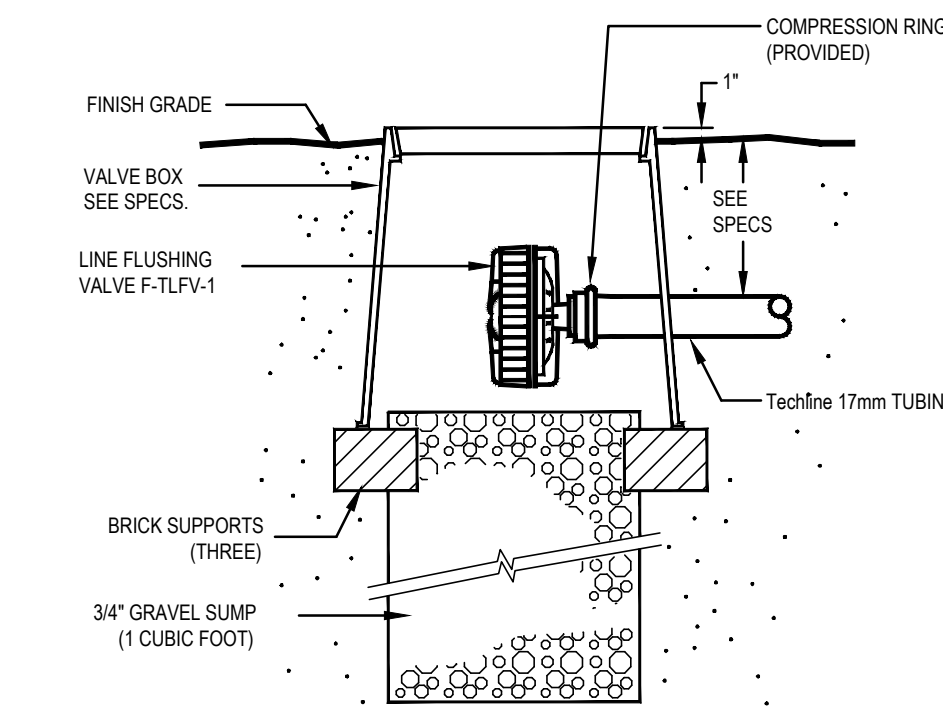
05 WALL MOUNTED CONTROLLER
NOT TO SCALE



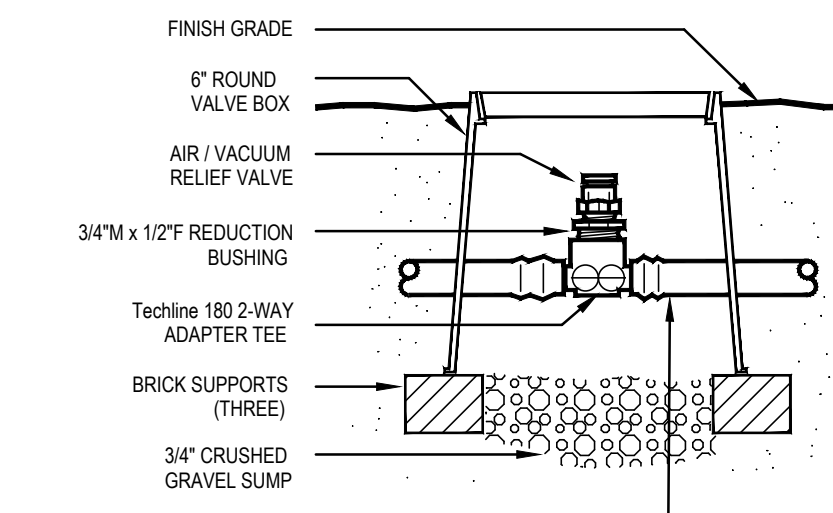
06 REMOTE CONTROL VALVE
NOT TO SCALE



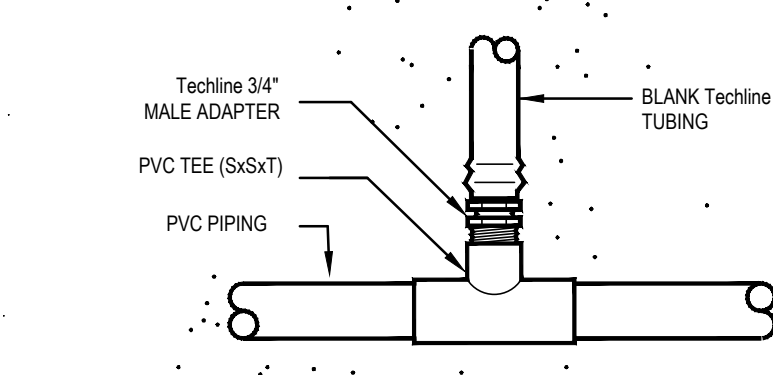
07 TechLine CV END FEED LAYOUT
NOT TO SCALE



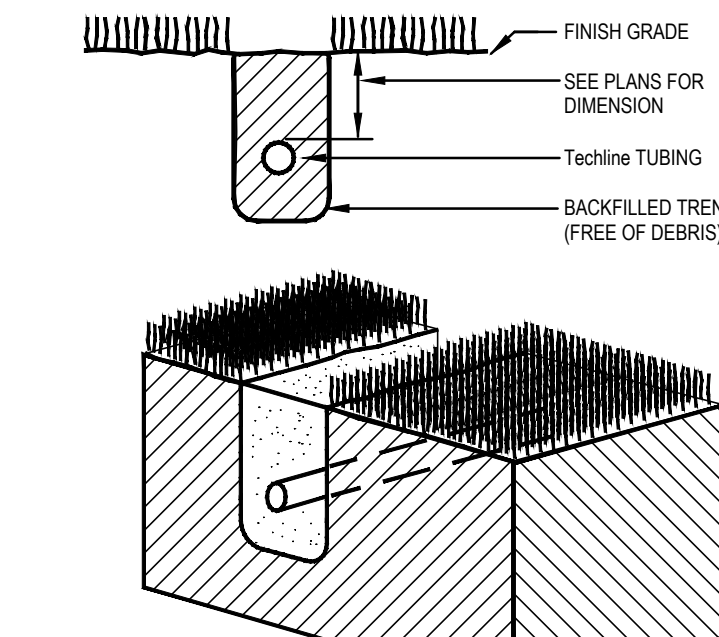
08 TechLine LINE FLUSHING VALVE
NOT TO SCALE



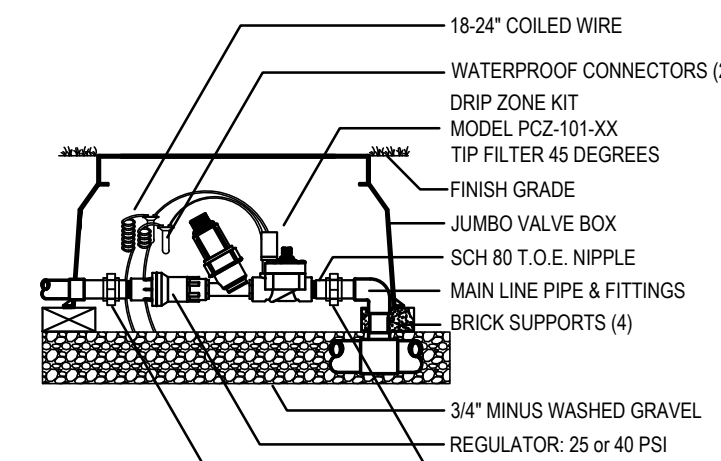
09 TechLine AIR/VACUUM RELIEF
NOT TO SCALE



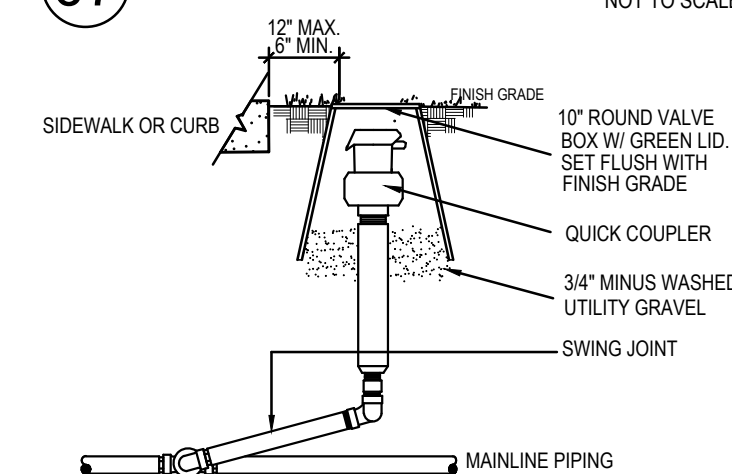
11 TechLine START CONNECTION
NOT TO SCALE



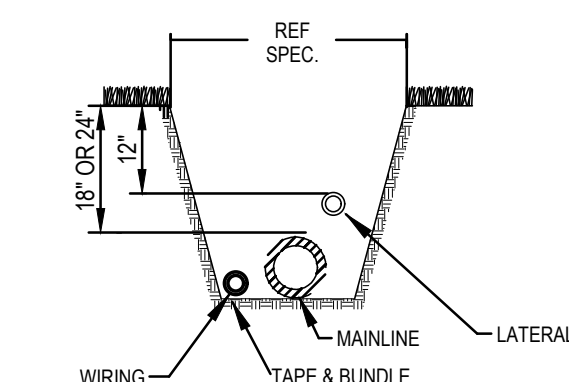
12 TechLine TRENCHING
NOT TO SCALE



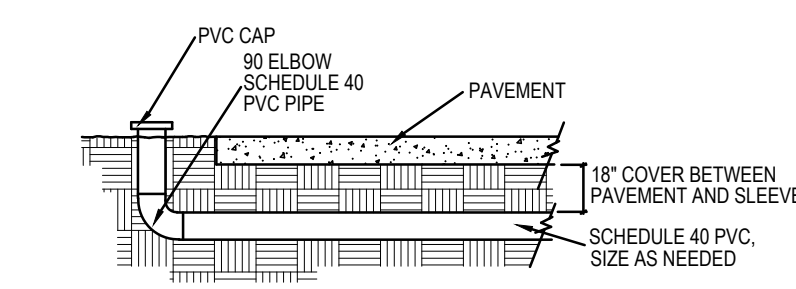
13 DRIP CONTROL VALVE
NOT TO SCALE



14 QUICK COUPLER
NOT TO SCALE

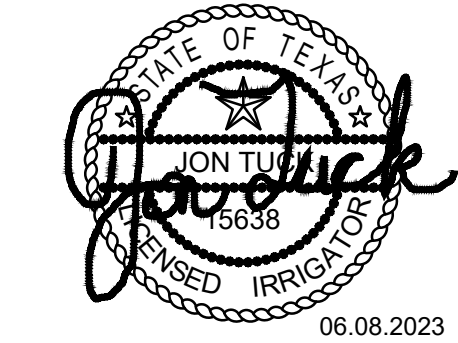


15 TRENCH DETAIL
NOT TO SCALE



16 SLEEVE DETAIL
NOT TO SCALE

LANDSCAPE ARCHITECT
STUDIO GREEN SPOT, INC.
1782 W. McDERMOTT DR.
ALLEN, TEXAS 75013
(469) 369-4448
CHRIS@STUDIOGREENSPOT.COM



DOLLAR GENERAL

F.M. HWY 2450
SANGER, TEXAS

ISSUE:

FOR APPROVAL 06.08.2023

DATE:

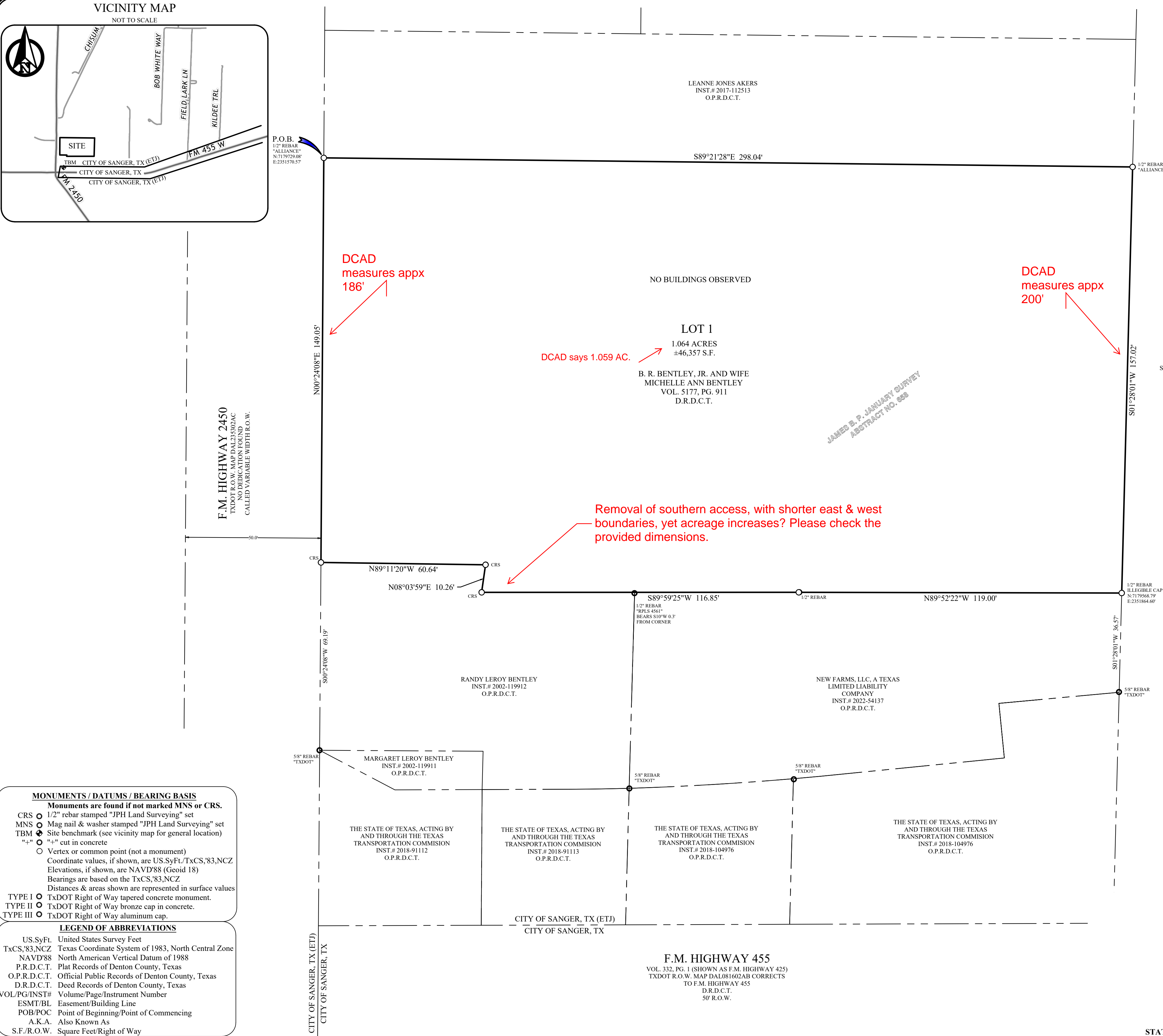
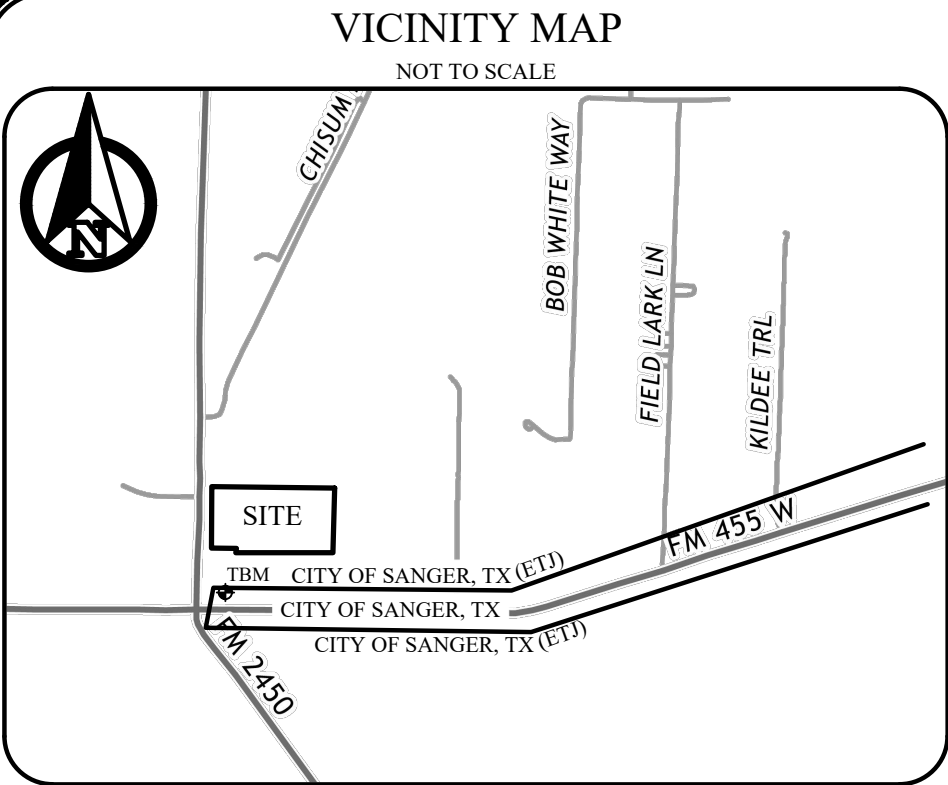
06.08.2023

SHEET NAME:

IRRIGATION DETAILS

SHEET NUMBER:

L.4



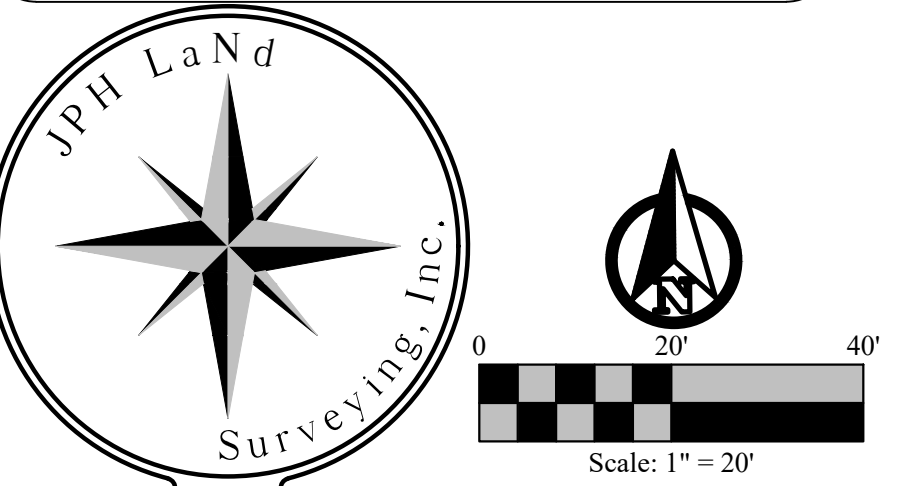
MONUMENTS / DATUMS / BEARING BASIS
Monuments are found if not marked MNS or CRS.

CRS ○ 1/2" rebar stamped "JPH Land Surveying" set
MNS ○ Mag nail & washer stamped "JPH Land Surveying" set
TBM ♦ Site benchmark (see vicinity map for general location)
"4" ○ "4" cut in concrete
○ Vertex or common point (not a monument)
Coordinate values, if shown, are U.S. S.F. / TxC.S., 83, NCZ
Elevations, if shown, are NAVD'88 (Geoid 18)
Bearings are based on the TxC.S., 83, NCZ
Distances & areas shown are represented in surface values

TYPE I ○ TxDOT Right of Way tapered concrete monument.
TYPE II ○ TxDOT Right of Way bronze cap in concrete.
TYPE III ○ TxDOT Right of Way aluminum cap.

LEGEND OF ABBREVIATIONS

US S.F. United States Survey Feet
TxC.S., 83, NCZ Texas Coordinate System of 1983, North Central Zone
NAVD'88 North American Vertical Datum of 1988
P.R.D.C.T. Plat Records of Denton County, Texas
O.P.R.D.C.T. Official Public Records of Denton County, Texas
D.R.D.C.T. Deed Records of Denton County, Texas
VOL/Pg/INST# Volume/Page/Instrument Number
ESMT/BL Easement/Building Line
POB/POC Point of Beginning/Point of Commencing
A.K.A. Also Known As
S.F./R.O.W. Square Feet/Right of Way



JPH Job/Drawing No. (see below)
2023.022.001 FM 2450 Sanger, Denton Co., Tx - Plat.dwg
© 2023 JPH Land Surveying, Inc. - All Rights Reserved
785 Lonesome Dove Trail, Hurst, Texas 76054
Telephone (817) 431-4971 www.jphlandsurveying.com
TBPELS Firm #10019500
DFW | Central Texas | West Texas | Houston

STATE OF TEXAS §
COUNTY OF DENTON §

I (we), the undersigned, owner(s) of the land shown on this plat within the area described by metes and bounds as follows:

WHEREAS, B. R. Bentley, Jr. and wife, Michelle Ann Bentley are the owners of that certain tract situated in the James B. P. January Survey, Abstract No. 658, City of Sanger ETJ, Denton County, Texas, said tract being the same tract described in the deed to B. R. Bentley, JR., and wife Michelle Ann Bentley, recorded in Volume 5177, Page 911, Deed Records, Denton County, Texas (D.R.D.C.T.); the subject tract is more particularly described as follows (bearings are based on the Texas Coordinate System of 1983, North Central Zone):

BEGINNING at a 1/2 inch capped rebar stamped "Alliance" found on the monumented east line of FM Highway 2450 (no dedicating document found) at the northwest corner of said Bentley tract;

THENCE with the perimeter and to the corners of the Bentley tract, the following calls:

1. SOUTH 89°21'28" EAST, a distance of 298.04 feet to a found 1/2 inch capped rebar stamped "Alliance";
2. SOUTH 01°28'01" WEST, a distance of 157.02 feet to a found 1/2 inch capped rebar stamped with an illegible cap, from which a found 5/8 inch capped rebar stamped "Texas Department of Transportation" bears SOUTH 01°28'01" WEST a distance of 36.57 feet;
3. NORTH 89°52'22" WEST, a distance of 119.00 feet to a found 1/2 inch capped rebar;
4. SOUTH 89°59'25" WEST, a distance of 116.85 feet to a set 1/2 inch capped rebar stamped "JPH Land Surveying";
5. NORTH 08°03'59" EAST, a distance of 10.26 feet to a set 1/2 inch capped rebar stamped "JPH Land Surveying";
6. NORTH 89°11'20" WEST, a distance of 60.64 feet (deed call 60.00 feet) to a set 1/2 inch capped rebar stamped "JPH Land Surveying", from which a found 5/8 inch capped rebar stamped "Texas Department of Transportation" monumenting the said east line of FM 2450 bears SOUTH 00°24'08" WEST a distance of 69.19 feet;
7. NORTH 00°24'08" EAST, a distance of 149.05 feet (deed call 149.95 feet) returning to the **POINT OF BEGINNING** and enclosing 1.064 acres (± 46,357 square feet).

GENERAL PLAT NOTES:

1. All lots comply with the minimum size requirements of the zoning district.
2. This property may be subject to charges related to impact fees and the applicant should contact the City regarding any applicable fees due.
3. All common areas, drainage easements, and detention facilities will be owned and maintained by the HOA/POA or property owner. Any common area within the City's right-of-way will require a facilities agreement, to be reviewed and approved by the City.
4. Notice – selling a portion of this addition by metes and bounds is a violation of City ordinance and State Law and is subject to fines and withholding of utilities and building permits.
5. This plat does not alter or remove existing deed restrictions, if any, on this property.
6. Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
7. The subject property does not lie within a 100 – year floodplain according to Community Panel No. 48121C0205G, dated 2011/04/18, of the National Flood Insurance Rate Maps for Denton County, Texas.
8. The purpose of this plat is to plat a previously un-platted tract of land.
9. Bearings are based on the Grid North, State Plane Coordinate System, Texas North Central Zone (4202), North American Datum of 1983 (NAD '83).
10. This survey was performed with the benefit of a title commitment provided by Fidelity National Title Insurance Company, GF# FT-44122-9001222202680-TW, Commitment # 9001222202680, effective August 29, 2022, and issued September 8, 2022. Therefore, easements, agreements, or other documents, either recorded, or unrecorded may exist that affect the subject property that are not shown on this survey.
11. Subject property's record description's error of closure, 1.68".

UTILITY PROVIDERS	
Water Bolivar Water Supply Corp 4151 FM 455 West Sanger, TX 76266 940-458-3931	Gas Atmos Energy Corp P.O. Box 740353 Cincinnati, OH 45274-0353 1800-460-3030
Electric CoServ Electric P.O. Box 734803 Dallas, TX 75373-4803 833-890-6264	Communication Brightspeed 833-692-7773
Sanger Electric P.O. Box 1729 Sanger, TX 76266 940-458-7930	

STATE OF TEXAS §
COUNTY OF TARRANT §

I hereby certify that this plat is true and correct and was prepared from an actual survey of the property made on the ground under my supervision.

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

Jewel Chadd
Registered Professional
Land Surveyor No. 5754
jewel@jphls.com
Date: TBD

**FINAL PLAT
BENTLEY ADDITION
LOT 1**
BEING A 1.064-ACRE FINAL PLAT
SITUATED IN THE JAMES B. P. JANUARY SURVEY,
ABSTRACT NO. 658,
CITY OF SANGER ETJ, DENTON COUNTY, TEXAS

TOTAL LOTS - 1
HOA/OPEN SPACE LOTS - 0
RIGHT-OF-WAY ACREAGE - 0.0 ACRES

PREPARED IN MAY 2023

NOW, THEREFORE, KNOW ALL PERSONS BY THESE PRESENTS:

THAT B. R. Bentley, Jr. and wife, Michelle Ann Bentley do hereby adopt this plat designating the hereinabove described property as Lot 1, **Bentley Addition**, an addition in the City of Sanger ETJ, Texas, and does hereby dedicate to the public use forever by fee simple title, free and clear of all liens and encumbrances, all streets, thoroughfares, alleys, fire lanes, drive aisles, parks, and watercourses, and to the public use forever easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over, or across the easements as shown, except that landscape improvements may be installed, if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

WITNESS MY HAND this _____, day of _____, 20____.

B. R. Bentley, Jr.
Owner

STATE OF _____ §
COUNTY OF _____ §

Before me, **B. R. Bentley, Jr.**, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

Given under my hand and seal of office this _____, day of _____, 20____.

Notary Public in and for the State of _____ Notary's Name

My Commission Expires _____.

WITNESS MY HAND this _____, day of _____, 20____.

Michelle Ann Bentley
Owner

STATE OF _____ §
COUNTY OF _____ §

Before me, **Michelle Ann Bentley**, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

Given under my hand and seal of office this _____, day of _____, 20____.

Notary Public in and for the State of _____ Notary's Name

My Commission Expires _____.

Approved and Accepted

Chairman, Planning and Zoning Commission
City of Sanger, Texas

Mayor
City of Sanger, Texas

City Secretary
City of Sanger, Texas

Date

Date

Date



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Consideration and possible action on a rezoning from Agricultural (A) to Planned Development (PD) of approximately 20.504 acres of land, described as A0029A R BEEBE, 65B, within the City of Sanger, and generally located south of FM 455 and East of Indian Lane.

SUMMARY:

- The applicant has acquired additional acreage adjacent to PD 04-11-22
- The applicant is proposing to rezone the additional acreage of approximately 20.504 acres from Agricultural (A) to Planned Development (PD).
- The new acreage will follow the same PD regulations as PD 04-11-22.
- The added acreage will add 54 Manor Lots (50' x 120') and 88 Garden Lots (40' x 120'). No new estates will be added.
- Total Open Space increased from 83.783 acres to 86.25 acres.
- The trail system increased from 2.56 miles to 3.07 miles.
- Staff mailed out 3 public hearing notices to owners of properties within 200 feet of the subject property and at the time of this report had received no response.

FISCAL INFORMATION:

Budgeted: N/A Amount: N/A GL Account: N/A

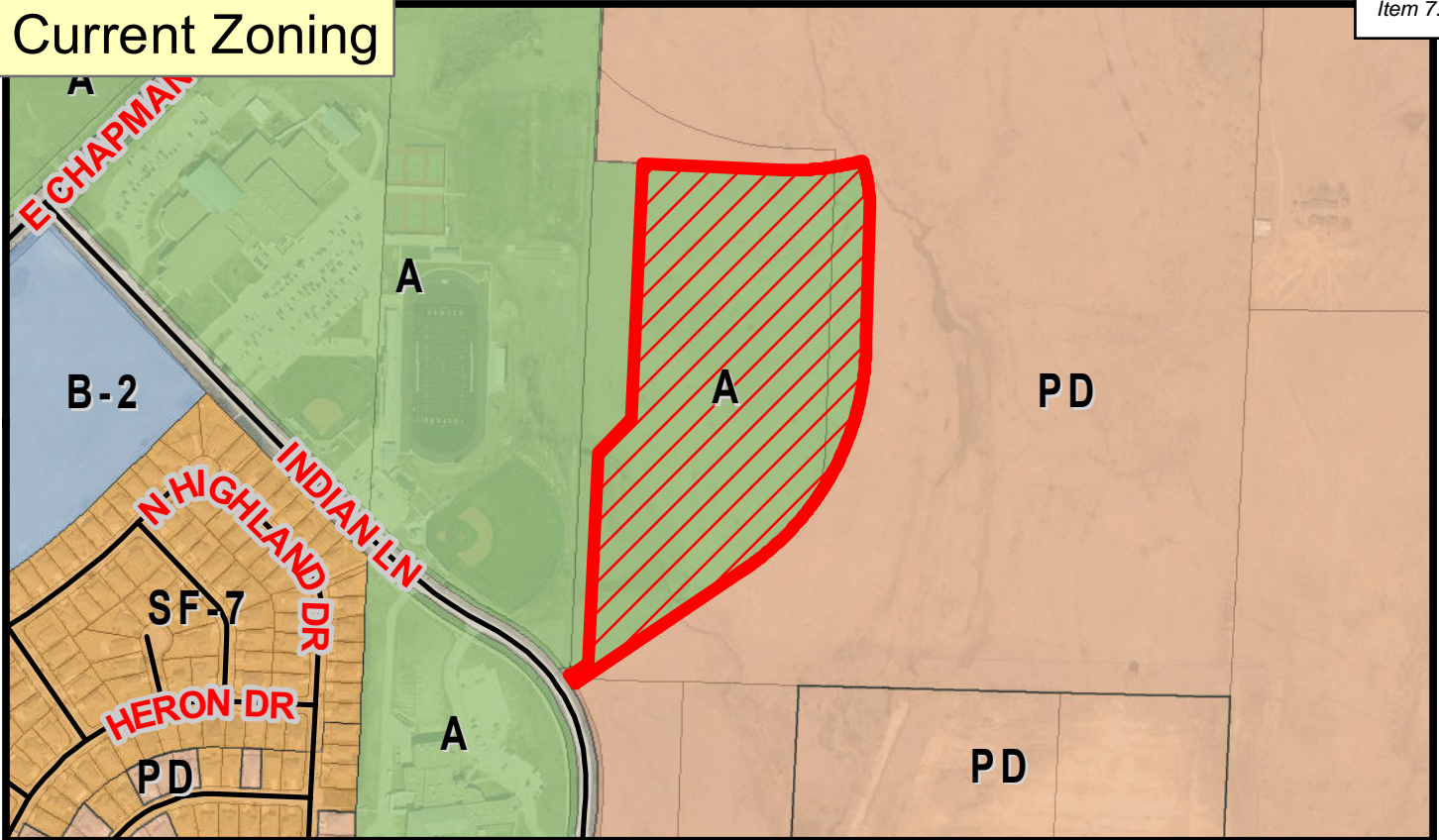
RECOMMENDED MOTION OR ACTION:

Staff recommends APPROVAL.

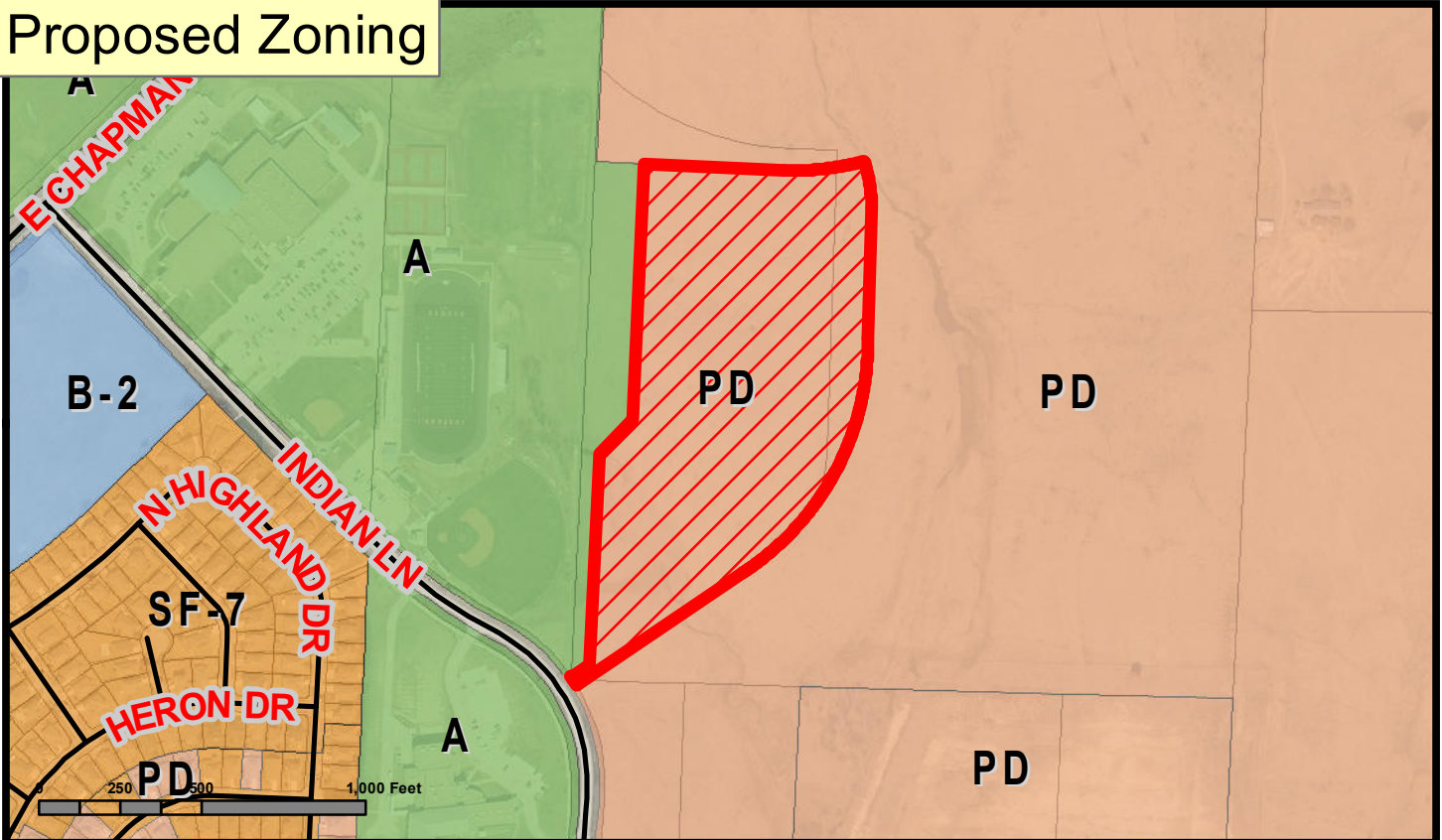
ATTACHMENTS:

Location Map
Revised PD
Lane Ranch Concept Map
Lane Ranch Park Plan
Application
Letter of Intent

Current Zoning



Proposed Zoning



Location: Lane Ranch
PD Zoning Change
Project: 23SANZON-0027

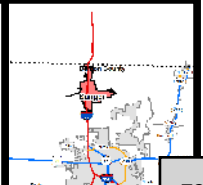


City Limits



Exhibits

DISCLAIMER:
This map was generated by GIS data provided by the Sanger GIS Department. The City of Sanger does not guarantee the correctness or accuracy of any features on this map. These map products are for illustration purposes only and are not suitable for site-specific decision making. GIS data is subject to constant changes, and may not be complete, accurate or current.



347.329 ACRE LANE RANCH PD SUMMARY

Purpose Statement - To amend PD 04-11-22 and establish a quality master planned multi-phase and multiple product residential and commercial community for the property described by metes and bounds on Exhibit "A" (the "Property") of this PD Ordinance. Development and use of the Property shall comply with the Sanger Zoning Ordinance as it existed on the date of its adoption on August 3, 1987 and subsequent amended (the "The Zoning Ordinance") and this PD ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD ordinance shall control.

PROPOSED USES

Single Family (268.101 Acres)

Approximately 177.35 acres are proposed as single-family detached uses, 16.2 acres as single family attached (townhome) and 74.551 acres of open space. The net density is 3.79 units/acre.

Business District (79.228 Acres)

Approximately 43.368 acres are proposed as local business and retail, 5.012 acres of assisted living along with 19.149 acres of multi-family and 11.699 acres of open space.

COMMUNITY FEATURES

The hardscape within the community shall include entry monuments, screening walls and community signage constructed of brick or stone. Signs shall not be within the sight visibility triangles.

A mandatory homeowners association shall be established to own and maintain the private open spaces, common areas and greenbelts; all private landscape improvements; dog parks and dog waste stations, perimeter masonry and tubular steel fencing; entry monuments and signage. The homeowner's association shall maintain on street parking spaces within a street right-of-way and any parking spaces located within a common area lot. Private trails and sidewalks shall be constructed within a pedestrian access easement and owned and maintained by the HOA.

The 100-year floodplain shall be designated as a public drainage easement within the Public Parkland dedication. Maintenance responsibility shall be identified on the plat using the City of Sanger Standard drainage easement inscription.

RESIDENTIAL LAND USES

- I. Lot Sizes, Setbacks, etc. for Single Family Detached.** Except as otherwise provided below, detached single family residences shall comply with Section 53, “R-1” RESIDENTIAL DISTRICT -1 of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The Estate Lots (60’ X 120’):

The minimum lot width shall be 60 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 7,200 square feet.

The Manor Lots (50’ X 120’):

The minimum lot width shall be 50 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 6,000 square feet.

The Garden Lots (40’ X 120’):

The minimum lot width shall be 40 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 4,800 square feet.

B. Minimum House Size.

The Estate Lots:

The minimum air-conditioned area within each residence shall be 2,250 square feet.

The Manor Lots:

The minimum air-conditioned area within each residence shall be 1,800 square feet. Over the entire development, the Manor Lots shall average over 2,000 square feet in house size. The Manor Lots shall place a limit of 15% of the total lot count to be below 2,000 square feet.

The Garden Lots:

The minimum air-conditioned area within each residence shall be 1,500 square feet. Over the entire development, the Garden Lots shall average over 1,650 square feet in house size. The Garden Lots shall place a limit of 15% of the total lot count to be below 1,650 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (25'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback shall be five feet (5') on each side. A side yard adjacent to a street on a corner lot shall always have a minimum ten-foot (10') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard building setback shall be twenty feet (20') from the rear facade of the residence (excluding porches and projecting architectural features) to the rear lot line. Porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the rear yard a maximum of five feet (5').

G. Maximum Lot Coverage.

The maximum lot coverage will be 65% for any residential lot.

H. Garages.

An enclosed parking area of at least four hundred square feet shall be provided for a garage (this does not count towards the minimum house size). The face of a garage door must be located at least 20 feet from the street right-of-way line that the garage door faces. The garage door does not have to be behind the street facing façade of the house. Split garage doors with a separate door for each vehicle bay are not required.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

II. Lot Sizes, Setbacks, etc. for Single Family Attached. Except as otherwise provided below, attached single family residences shall comply with Section 57, "TH" TOWNHOME RESIDENTIAL DISTRICT of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The minimum lot width shall be 22 feet. The minimum lot depth shall be 90 feet. The minimum lot size shall be 1,980 square feet.

B. Minimum House Size.

The minimum air-conditioned area within each residence shall be 1,300 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (20'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback at the end of each building shall be seven- and one-half feet (7.5') on each side creating a 15-foot separation between buildings. A side yard adjacent to a street on a corner lot shall always have a minimum twenty-feet (20') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard setback shall be five feet from the rear facade of the residence to the alley right-of-way.

G. Maximum Lot Coverage.

The maximum lot coverage shall not apply to any townhomes.

H. Parking

Two off-street parking spaces shall be provided per unit and shall not be within the required front yard.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

III. Lot Sizes, Setbacks, etc. for Multi-Family. Multi-Family residences shall comply with Section 19, "MF-2" MULTI-FAMILY RESIDENTIAL DISTRICT – 2 of the Zoning Ordinance.

IV. General Conditions.

- A. For the purposes of determining compliance with the lot width requirements, lot widths shall be measured at the rear of the required front yard setback as shown on the Final Plats.
- B. Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks and trails that may be located within adjacent common area lots or to preserve existing trees along perimeter roads.

V. Residential Single Family Detached Landscape Requirements. Except as otherwise provided below, landscape requirements shall comply with Section 48, Landscape Regulations of the Zoning Ordinance, subject to the following changes:

The following requirements apply to single family residential development:

- A. Each single-family residence shall have an irrigation system in the front yard and street corner side yard with a freeze sensor regulator shut off.
- B. Each Home lot shall have a minimum of two shade trees that are at least three inches in caliper planted. The trees shall be planted in the front and rear yard. If the lot fronts or sides onto a common area lot, the front yard requirement may be satisfied with the trees located in the adjacent greenspace. No other front yard or side yard tree planting requirement shall apply.
- C. All required trees shall be selected from a tree list approved during the Detail Plan stage.
- D. Each Home lot shall have a minimum of twelve (12) shrubs placed in the front yard. Individual shrubs shall be a minimum of three (3) gallons in size when planted.

VI. Multifamily, Townhome and Non-residential Uses Landscape Requirements.

All landscape requirements shall comply with Sections 48.4 and 48.5, Landscape Regulations of the Zoning Ordinance.

VII. Parkland/Open Space (86.250 Acres)

- A. Developer, and its assigns, agree to dedicate approximately 55.878 acres of the total 86.250 acres of floodplain/open space as Public Park property (the “Parkland”) to the City of Sanger. Common areas shall include floodplain, ponds, detention areas, and small open spaces as shown on the Preliminary Park Concept Plan. Small Open Spaces shall be connected with sidewalks to be a comprehensive pedestrian system. Common areas will abut a public street right-of-way in at least one location with a sidewalk connection. The Parkland shall be credited toward the Park Land Dedication requirement.
- B. A pedestrian circulation system shall be provided that affords connectivity to the entire community and the perimeter of the Property. The pedestrian circulation system shall include concrete trails that are a minimum of six feet in width. Trails in greenbelts will be constructed of concrete and shall connect with the project sidewalks. The pedestrian circulation system may be located on private property with a pedestrian access easement or within the right-of-way. The pedestrian circulation system shall include such items as benches, landscaping, signage, lighting, bike racks, water fountains, trash cans, and doggie waste stations. These items are represented on the Park Plan.

- C. All interior residential street rights-of-way shall be improved with sidewalks that are a minimum of four feet in width and (1) constructed by the homebuilders at the time of adjacent house construction; or (2) constructed by the developer for all non-buildable lots. All sidewalks along Collector and Arterial Road frontages are to be five feet in width. The pedestrian circulation system will replace the required public sidewalk along Lane Ranch Drive as shown on the Preliminary Park Concept Plan.
- D. Developer, and its assigns, agree to also install additional amenities such as an off-street parking lot, dog park, covered picnic area, playground equipment and fishing docks as shown on the Preliminary Park Concept Plan. The exact number and location of these amenities may change during the final design process. They are generally represented on the Park Plan.
- E. The phasing of the park improvements will coincide with the residential phasing plan and is noted on the overall Preliminary Park Concept Plan.

VIII. Fencing Requirements

- A. The developer shall install a perimeter brick or stone screening wall along Major Collector Streets as shown on the Detail Plan. Floodplain, parks, open spaces, right-of- way shall be exempt from the screening requirements in this Section; however, tubular steel fencing may be installed in these areas at the developer's option.
- B. Homebuilder side yard and back yard fencing on residential lots shall be a maximum of six feet in height and shall be setback a minimum of five feet from the front building line shown on the Detail Plan.
- C. Fencing on all residential lots abutting an open space lot or greenbelt shall be restricted to tubular steel painted black. No solid fencing other than a brick and/or stone masonry courtyard wall under 42 inches shall be permitted abutting an open space lot or greenbelt; however, landscape borders, included trimmed hedges, are permitted.

IX. Street Typology

- A. Standard curbs will be required adjacent to streets abutting all residential lot types unless otherwise approved by the City's engineering department.
- B. Streets fronting open space lots must have standard curbs adjacent to the common area lot. Streets adjacent to common area lots may provide for on-street parking. In addition, the street faces adjacent to open spaces near the flood plain will have a maintenance access location.
- C. Developer shall work with City to determine the location and number of stop signs within the subdivision and speed limits to facilitate traffic calming and maximum the benefit from the pedestrian system.

X. Utilities and Equipment

- A. Electrical and gas utility meters and AC condensers should be unobtrusively located beyond the front or side street facade zone and screened from view from adjacent streets or common open spaces with landscaping or appropriate fencing.
- B. Transformers on individual lots should be screened to minimize visual impact.
- C. Satellite dishes, and solar panels should be located in less conspicuous locations and out of view from adjacent streets or common open spaces when possible.
- D. Antennas should be located inside the building when possible.
- E. Solar panels when visible from the front should be flush with the roof.

XI. Refuse Locations

- A. Refuse containers should be stored within an enclosed storage area, fenced, or walled to be screened from view from adjacent streets or common open spaces with landscaping can be added.

XII. Home Variety

- A. Detached home designs with the same or similar facade, materials, or colors should be separated by a minimum of three lots on the same side of the street and should not be located directly across or diagonally across the street from each other.
- B. If a detached home plan is repeated on an adjacent lot, it should be elevated with a different architectural style or two of the following three elevation changes - brick color, roof color, or flipped plan.

BUSINESS DISTRICT USES

Except as otherwise provided below, commercial uses shall comply with Section 23, “B-2” Business District - 2 of the Zoning Ordinance, subject to the following changes:

1. An 19.149-acre multi-family site will be allowed. The base zoning for this tract will be “MF-2” Multi-Family Residential District - 2 at 20 units per gross acre.
2. Self-Storage facilities may be allowed by SUP approval.
3. Boat storage facilities may be allowed by SUP approval.

4. The building height for a pitched roof building shall be a maximum of 45 feet.
5. The front, rear and side building setbacks adjacent to any internal street shall be a minimum of 15 feet.
6. Any mechanical equipment including roof top equipment shall be screened from residential districts either by fencing, landscaping or rooftop screening as applicable.

LEGAL DESCRIPTION

All that certain lot, tract, or parcel of land, being part of the Rueben Bebee Survey, Abstract No. 29, Denton County, Texas, and being all of that tract of land described in a deed to Hien & Duyet Nguyen recorded in Document No. 2016-27020 Real Property Records of Denton, County, Texas (RPRDCT) and all of that tract of land described in a deed to Dualbond Holdings, LLC recorded in Document No. 2016-27021 (RPRDCT) and all of that tract of land described in a deed to Sanger Town Center LLC recorded in Document No. 2017-48301 (RPRDCT) and a part of that tract of land described in a deed to Marion Hills Apartments, LLC recorded in Document No. 2017-48293 (RPRDCT), being more completely described as follows, to-wit:

BEGINNING at 1/2" iron rod set for the southeast corner of the Hien & Duyet Nguyen tract and the north right-of-way line of McReynolds Road;

THENCE with the north right-of-way line of McReynolds Road North 87°54'58" West a distance of 1,789.63 feet to a 1/2" iron rod set for the southwest corner of the Hien & Duyet Nguyen tract and the southeast corner of a tract of land described in a deed to Winston Grove Apartments, LLC recorded in Document No. 2018-13037 (RPRDCT);

THENCE North 2°23'22" East a distance of 2,526.23 feet to 1/2" iron rod set for the northeast corner of a tract of land described in a deed to Marion Hills Apartments, LLC recorded in Document No. 2017-92008 (RPRDCT);

THENCE North 88°13'32" West a distance of 1,325.35 feet to a 2" iron rod found for the northwest corner of the Marion Hills Apartments, LLC;

THENCE South 2°25'03" West a distance of 2,504.45 feet to a 1/2" iron rod set for the southwest corner of Lake Ridge Estates, Phase 1 an addition to the City of Sanger recorded in Cabinet V, Page 752 of the Plat Records of Denton County, Texas (PRDCT) and the north right-of-way line of McReynolds Road;

THENCE with the north right-of-way line of McReynolds Road North 87°25'44" West a distance of 612.45 feet to a 1/2" iron rod set for the southwest corner of the Sanger Town Center LLC tract and the east right-of-way line of Indian Lane right-of-way recorded in Document No. 2004-145888 (RPRDCT);

THENCE with the east right-of-way line of Indian Lane as follows:

North 2°15'10" East a distance of 1,935.36 feet to a 1/2" iron rod set for corner;

North 5°39'58" East a distance of 200.32 feet to a 1/2" iron rod set for corner;

North 2°02'56" East a distance of 24.96 feet to the beginning of a curve to the left, having a radius of 550.39 feet, a chord of North 16° 40' 37" West – 354.48 feet, a distance of 360.91 feet to a 1/2" iron rod set for corner in the east line of a tract of land described in a deed to Sanger ISD (herein called Tract 1) recorded in Volume 1841, Page 662 (RPRDCT);

THENCE South 88°03'30" East a distance of 21.92 feet to a 1/2" iron rod set for the southwest corner of a tract of land described in a deed to Sanger ISD recorded in Document No. 2022-160016 (RPRDCT);

THENCE with the south and east line of the Sanger ISD tract

North 56°02'48" East a distance of 62.25 feet to a 1/2" iron rod set for corner;

North 02°36'29" East a distance of 643.72 feet to a 1/2" iron rod set for corner;

North 45°05'54" East a distance of 148.05 feet to a 1/2" iron rod set for corner;

North 02°36'29" East a distance of 1013.28 feet to a 1/2" iron rod set for the northeast corner of a tract of land described in a deed to Sanger ISD recorded in Document No. 2022-160017 (RPRDCT);

THENCE with the north line of the Sanger ISD tract North $87^{\circ}23'31''$ West a distance of 150.00 feet to a 1/2" iron rod set for corner in the east line of a tract of land described in a deed to Sanger ISD Tract 1;

THENCE with the east line of the Sanger ISD Tract 1 North $2^{\circ}36'29''$ East a distance of 616.01 feet to a 1/2" iron rod set for the northeast corner of the Sanger ISD Tract 1 and the northwest corner of the Sanger Town Center LLC and the south right-of-way line of West Chapman Road;

THENCE with the south right-of-way line of West Chapman Road and the north line of the Sanger Town Center LLC as follows:

South $87^{\circ}53'26''$ East a distance of 1,269.90 feet to a 1/2" iron rod set for corner;

South $88^{\circ}02'57''$ East a distance of 500.69 feet to a 1/2" iron rod set for corner;

South $87^{\circ}47'23''$ East a distance of 2,068.95 feet to a 1/2" iron rod set for the northeast corner of the Dualbond Holdings, LLC Tract and the northwest corner of a tract of land described in a deed to Miller Family Trust recorded in Document No. 94-0089391 (RPRDCT);

THENCE with the west line of the Miller Family Trust tract South $2^{\circ}58'32''$ West a distance of 1,272.08 feet to a 1/2" iron rod set for corner;

THENCE South $2^{\circ}42'07''$ West a distance of 3,659.25 feet to the place of beginning, containing 347.329 acres, or 15,129,632 square feet of land.



LEGEND

[Pink Box]	COMMERCIAL AREAS
[Purple Box]	60'X120' RESIDENTIAL LOTS
[Yellow Box]	50'X120' RESIDENTIAL LOTS
[Blue Box]	40'X120' RESIDENTIAL LOTS
[Light Blue Box]	TOWN HOME ZONING
[Green Box]	GRASS/OPEN SPACE
[Dark Blue Box]	LAKES
[Light Green Box]	LAKERIDGE PD

RESIDENTIAL LOT COUNT BY SIZE

60'X120' LOTS (R-1)	46 LOTS (ESTATE LOTS)
50'X120' LOTS (R-1)	595 LOTS (MANOR LOTS)
40'X120' LOTS (R-1)	246 LOTS (GARDEN LOTS)
24'X100' LOTS (TH)	130 LOTS (8 PER AC.)
TOTAL	1017 LOTS

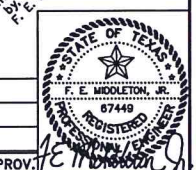
TOTAL RESIDENTIAL AREA 268.101 AC.

• SINGLE FAMILY	177.35 AC.
• TOWN HOMES	16.2 AC.
• OPEN SPACE	74.551 AC.

TOTAL BUSINESS AREA 79.228 AC.

• GENERAL BUSINESS	43.368 AC.
• ASSISTED LIVING	5.012 AC.
• MULTI-FAMILY	19.149 AC.
• OPEN SPACE	11.699 AC.

PRELIMINARY - FOR REVIEW ONLY
These documents are for design review
and are not intended for construction or
permit purposes. The user is warned of
this and agrees to the use of these documents.
F. E. MIDDLETON, JR.
P.E. 87449



No.	DATE	REVISION	APPROV.

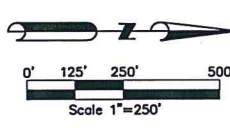
M
&
A

**Middleton PROJECT ENGINEER:
& Associates, LLC.**
CONSULTING CIVIL ENGINEERS & LAND PLANNERS
TBPE #F-10900 © Copyright 2023
2785 ROCKBROOK DRIVE, SUITE 105
LEWISVILLE, TEXAS 75067 (972) 393-9800

CONCEPT PLAN

LANE RANCH
347.329 ACRES - CITY OF SANGER
DENTON COUNTY TEXAS

Drawing File: 0001032CONCEPTS.DWG	DATE: 8-9-23	SCALE: 1"=250'	SHEET NO: 1
Project No. 0001032			





- LEGEND**
- PARK BENCH/DOG WASTE STATION/TRASH CANS
 - 6' HIKE & BIKE TRAIL
 - PARK AREA/OPEN SPACE
 - LAKES
 - PROPOSED TREES
 - ☐ COVERED PICNIC AREA
 - ⊙ PLAYGROUND
 - ⊥ FISHING PIER
 - ① PARK PHASE NUMBER
 - PARK PHASE LINE
 - PARKING AREA FOR PARKS

TOTAL OPEN SPACE - 86.250 AC.

PARKLAND DEDICATION REQUIREMENT

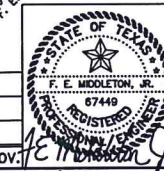
• SINGLE FAMILY (1 AC./50 D.U.)	20.34 AC.
• MULTI-FAMILY (1 AC./21 BEDROOMS)	29.16 AC.
• TOTAL	49.50 AC.

PARKLAND DEDICATION PROVIDED

• SINGLE FAMILY	19.179 AC.
• MULTI-FAMILY/BUSINESS	11.699 AC.
• USABLE FLOOD PLAIN	25.0 AC.
• TOTAL	55.878 AC.

TOTAL LENGTH OF TRAIL SYSTEM=16,222 L.F. (3.07 MILES)

PRELIMINARY - FOR REVIEW ONLY
These documents are for review only
and do not constitute a contract. No
permit shall be issued for construction or
other work until the final plans are approved
by the City of Middleton, TX. 67449



No.	DATE	REVISION	APPROV.

**Middleton PROJECT ENGINEER:
& Associates, LLC.**

CONSULTING CIVIL ENGINEERS & LAND PLANNERS
TBPE #F-10900
2785 ROCKBROOK DRIVE, SUITE 105
LEWISVILLE, TEXAS 75067 (972) 393-9800

PRELIMINARY PARK CONCEPT PLAN

LANE RANCH
347.329 ACRES - CITY OF SANGER
DENTON COUNTY TEXAS

Drawing File: 0001032CONCEPT5-PARK	DATE: 8-9-23	SCALE: 1"=250'	SHEET NO: 1
Project No. 0001032			



201 Bolivar Street/PO Box 1729 * Sanger, TX 76266
940-458-2059 (office) www.sangertexas.org

ZONING CHANGE/SUP APPLICATION

☒

Zoning Change

☐

Specific Use Permit

Applicant		Owner (if different from applicant)	
Name:	Mr. Casey McGinnis	Name:	See attached sheet
Company:	JTWSCM Development LLC	Company:	
Address:	4029 Veneto Drive	Address:	
City, State, Zip	Frisco, Texas 75033	City, State, Zip	
Phone:	214-232-6180	Phone:	
Fax:	N/A	Fax:	
Email:	mcginnisdevelopment@gmail.com	Email:	

Submittal Checklist

<input checked="" type="checkbox"/>	Site Plan (for Specific Use Permits Only)
<input checked="" type="checkbox"/>	Letter of Intent
<input checked="" type="checkbox"/>	Application Fee (Check Payable to City of Sanger)

I certify that I am the legal owner of the above referenced property and that to the best of my knowledge this is a true description of the property upon which I have requested the above checked action. I designate the applicant listed as my representative.

Describe the subject property (address, location, size, etc.):

347.329 acres located at the northeast corner of Indian Land and McReynolds Road (known as Lane Ranch)

Describe the proposed zoning change or Specific Use Permit (SUP):

Amending the original PD zoning Ordinance No. 4-11-22 to add the Marion Property Holding tract (21.17 acres)

See attached sheet for owner signatures

Owner Signature

Applicant Signature

Date

May 31, 2023

Date

Office Use

Fee	
Date	

City of Sanger
201 Bolivar / P.O. Box 1729
Sanger, TX 76266
940-458-2059 (office) www.sangertexas.org

LANE RANCH PD OWNERSHIPS (THIS INFORMATION WAS TAKEN FROM THE DENTON COUNTY APPRASIAL WEB SITE)

1)

NGUYEN, HIEN T & DUYET 151.67 ACRES
3608 WAYNOKA DR,
CARROLLTON, TX, 75007-2792
PHONE: 469-900-7113
EMAIL: nguyenhelen15@gmail.com

A0029A R. BEEBE, TR 56B, 149.658 ACRES, OLD DCAD SHT 2, TR 3

A0029A R. BEEBE, TR 56A, 2.012 ACRES

SIGNATURE: _____

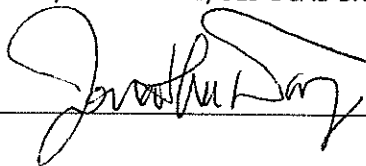


2)

DUALBOND HOLDINGS LLC 51.17 ACRES
MR. JONATHAN WANG
101 FOREST BEND DR,
COPPELL, TX, 75019-2040
PHONE: 214-316-2256
EMAIL: wangjtc@verizon.net

A0029A R. BEEBE, TR 56, 51.17 ACRES, OLD DCAD SHT 2, TR 3

SIGNATURE: _____



3)

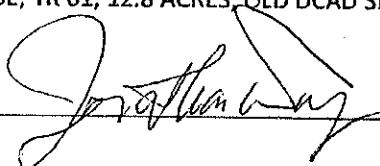
SANGER TOWN CENTER LLC 122.52 ACRES
MR. JONATHAN WANG
101 FOREST BEND DR,
COPPELL, TX, 75019-2040
PHONE: 214-316-2256
EMAIL: wangjtc@verizon.net

A0029A R. BEEBE, TR 65(PT), 84.5014 ACRES, OLD DCAD SHT 2, TR 4

A0029A R. BEEBE, TR 60, 25.22 ACRES, OLD DCAD SHT 2, TR 7

A0029A R. BEEBE, TR 61, 12.8 ACRES, OLD DCAD SHT 2, TR 8

SIGNATURE: _____

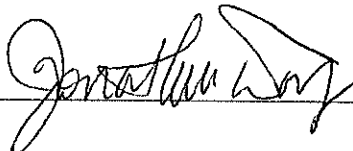


4)

MARION PROPERTY HOLDING LLC 21.1720 ACRES
MR. JONATHAN WANG
101 FOREST BEND DR,
COPPELL, TX, 75019-2040
PHONE: 214-316-2256
EMAIL: wangjtc@verizon.net

A0029A R. BEEBE, TR 65B

SIGNATURE: _____

A handwritten signature in black ink, appearing to read "Jonathan Wang", is written over a horizontal line.

347.329 ACRE LANE RANCH PD SUMMARY

Purpose Statement - To amend PD 04-11-22 and establish a quality master planned multi-phase and multiple product residential and commercial community for the property described by metes and bounds on Exhibit "A" (the "Property") of this PD Ordinance. Development and use of the Property shall comply with the Sanger Zoning Ordinance as it existed on the date of its adoption on August 3, 1987 and subsequent amended (the "The Zoning Ordinance") and this PD ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD ordinance shall control.

PROPOSED USES

Single Family (268.101 Acres)

Approximately 180.98 acres are proposed as single family detached uses, 16.2 acres as single family attached (townhome) and 70.92 acres of open space. The net density is 3.79 units/acre.

Business District (83.935 Acres)

Approximately 42.93 acres are proposed as local business and retail, 5.0 acres of assisted living along with 19.15 acres of multi-family and 12.13 acres of open space.

COMMUNITY FEATURES

The hardscape within the community shall include entry monuments, screening walls and community signage constructed of brick or stone. Signs shall not be within the sight visibility triangles.

A mandatory homeowners association shall be established to own and maintain the private open spaces, common areas and greenbelts; all private landscape improvements; dog parks and dog waste stations, perimeter masonry and tubular steel fencing; entry monuments and signage. The homeowner's association shall maintain on street parking spaces within a street right-of-way and any parking spaces located within a common area lot. Private trails and sidewalks shall be constructed within a pedestrian access easement and owned and maintained by the HOA.

The 100-year floodplain shall be designated as a public drainage easement within the Public Parkland dedication. Maintenance responsibility shall be identified on the plat using the City of Sanger Standard drainage easement inscription.

RESIDENTIAL LAND USES

- I. Lot Sizes, Setbacks, etc. for Single Family Detached.** Except as otherwise provided below, detached single family residences shall comply with Section 53, "R-1" RESIDENTIAL DISTRICT -1 of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The Estate Lots (60' X 120'):

The minimum lot width shall be 60 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 7,200 square feet.

The Manor Lots (50' X 120'):

The minimum lot width shall be 50 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 6,000 square feet.

The Garden Lots (40' X 120'):

The minimum lot width shall be 40 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 4,800 square feet.

B. Minimum House Size.

The Estate Lots:

The minimum air-conditioned area within each residence shall be 2,250 square feet.

The Manor Lots:

The minimum air-conditioned area within each residence shall be 1,800 square feet. Over the entire development, the Manor Lots shall average over 2,000 square feet in house size. The Manor Lots shall place a limit of 15% of the total lot count to be below 2,000 square feet.

The Garden Lots:

The minimum air-conditioned area within each residence shall be 1,500 square feet. Over the entire development, the Garden Lots shall average over 1,650 square feet in house size. The Garden Lots shall place a limit of 15% of the total lot count to be below 1,650 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (25'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback shall be five feet (5') on each side. A side yard adjacent to a street on a corner lot shall always have a minimum ten-foot (10') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard building setback shall be twenty feet (20') from the rear facade of the residence (excluding porches and projecting architectural features) to the rear lot line. Porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the rear yard a maximum of five feet (5').

G. Maximum Lot Coverage.

The maximum lot coverage will be 65% for any residential lot.

H. Garages.

An enclosed parking area of at least four hundred square feet shall be provided for a garage (this does not count towards the minimum house size). The face of a garage door must be located at least 20 feet from the street right-of-way line that the garage door faces. The garage door does not have to be behind the street facing façade of the house. Split garage doors with a separate door for each vehicle bay are not required.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

II. Lot Sizes, Setbacks, etc. for Single Family Attached. Except as otherwise provided below, attached single family residences shall comply with Section 57, "TH" TOWNHOME RESIDENTIAL DISTRICT of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The minimum lot width shall be 22 feet. The minimum lot depth shall be 90 feet. The minimum lot size shall be 1,980 square feet.

B. Minimum House Size.

The minimum air-conditioned area within each residence shall be 1,300 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (20'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback at the end of each building shall be seven- and one-half feet (7.5') on each side creating a 15-foot separation between buildings. A side yard adjacent to a street on a corner lot shall always have a minimum twenty-feet (20') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard setback shall be five feet from the rear facade of the residence to the alley right-of-way.

G. Maximum Lot Coverage.

The maximum lot coverage shall not apply to any townhomes.

H. Parking

Two off-street parking spaces shall be provided per unit and shall not be within the required front yard.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

III. Lot Sizes, Setbacks, etc. for Multi-Family. Multi-Family residences shall comply with Section 19, "MF-2" MULTI-FAMILY RESIDENTIAL DISTRICT – 2 of the Zoning Ordinance.

IV. General Conditions.

- A. For the purposes of determining compliance with the lot width requirements, lot widths shall be measured at the rear of the required front yard setback as shown on the Final Plats.
- B. Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks and trails that may be located within adjacent common area lots or to preserve existing trees along perimeter roads.

V. Residential Single Family Detached Landscape Requirements. Except as otherwise provided below, landscape requirements shall comply with Section 48, Landscape Regulations of the Zoning Ordinance, subject to the following changes:

The following requirements apply to single family residential development:

- A. Each single-family residence shall have an irrigation system in the front yard and street corner side yard with a freeze sensor regulator shut off.
- B. Each Home lot shall have a minimum of two shade trees that are at least three inches in caliper planted. The trees shall be planted in the front and rear yard. If the lot fronts or sides onto a common area lot, the front yard requirement may be satisfied with the trees located in the adjacent greenspace. No other front yard or side yard tree planting requirement shall apply.
- C. All required trees shall be selected from a tree list approved during the Detail Plan stage.
- D. Each Home lot shall have a minimum of twelve (12) shrubs placed in the front yard. Individual shrubs shall be a minimum of three (3) gallons in size when planted.

VI. Multifamily, Townhome and Non-residential Uses Landscape Requirements.

All landscape requirements shall comply with Sections 48.4 and 48.5, Landscape Regulations of the Zoning Ordinance.

VII. Parkland/Open Space (83.054 Acres)

- A. Developer, and its assigns, agree to dedicate approximately 59.7 acres of the total 83.054 acres of floodplain/open space as Public Park property (the "Parkland") to the City of Sanger. Common areas shall include floodplain, ponds, detention areas, and small open spaces as shown on the Preliminary Park Concept Plan. Small Open Spaces shall be connected with sidewalks to be a comprehensive pedestrian system. Common areas will abut a public street right-of-way in at least one location with a sidewalk connection. The Parkland shall be credited toward the Park Land Dedication requirement.
- B. A pedestrian circulation system shall be provided that affords connectivity to the entire community and the perimeter of the Property. The pedestrian circulation system shall include concrete trails that are a minimum of six feet in width. Trails in greenbelts will be constructed of concrete and shall connect with the project sidewalks. The pedestrian circulation system may be located on private property with a pedestrian access easement or within the right-of-way. The pedestrian circulation system shall include such items as benches, landscaping, signage, lighting, bike racks, water fountains, trash cans, and doggie waste stations. These items are represented on the Park Plan.

- C. All interior residential street rights-of-way shall be improved with sidewalks that are a minimum of four feet in width and (1) constructed by the homebuilders at the time of adjacent house construction; or (2) constructed by the developer for all non-buildable lots. All sidewalks along Collector and Arterial Road frontages are to be five feet in width. The pedestrian circulation system will replace the required public sidewalk along Lane Ranch Drive as shown on the Preliminary Park Concept Plan.
- D. Developer, and its assigns, agree to also install additional amenities such as an off-street parking lot, dog park, covered picnic area, playground equipment and fishing docks as shown on the Preliminary Park Concept Plan. The exact number and location of these amenities may change during the final design process. They are generally represented on the Park Plan.
- E. The phasing of the park improvements will coincide with the residential phasing plan and is noted on the overall Preliminary Park Concept Plan.

VIII. Fencing Requirements

- A. The developer shall install a perimeter brick or stone screening wall along Major Collector Streets as shown on the Detail Plan. Floodplain, parks, open spaces, right-of-way shall be exempt from the screening requirements in this Section; however, tubular steel fencing may be installed in these areas at the developer's option.
- B. Homebuilder side yard and back yard fencing on residential lots shall be a maximum of six feet in height and shall be setback a minimum of five feet from the front building line shown on the Detail Plan.
- C. Fencing on all residential lots abutting an open space lot or greenbelt shall be restricted to tubular steel painted black. No solid fencing other than a brick and/or stone masonry courtyard wall under 42 inches shall be permitted abutting an open space lot or greenbelt; however, landscape borders, included trimmed hedges, are permitted.

IX. Street Typology

- A. Standard curbs will be required adjacent to streets abutting all residential lot types unless otherwise approved by the City's engineering department.
- B. Streets fronting open space lots must have standard curbs adjacent to the common area lot. Streets adjacent to common area lots may provide for on-street parking. In addition, the street faces adjacent to open spaces near the flood plain will have a maintenance access location.
- C. Developer shall work with City to determine the location and number of stop signs within the subdivision and speed limits to facilitate traffic calming and maximum the benefit from the pedestrian system.

X. Utilities and Equipment

- A. Electrical and gas utility meters and AC condensers should be unobtrusively located beyond the front or side street facade zone and screened from view from adjacent streets or common open spaces with landscaping or appropriate fencing.
- B. Transformers on individual lots should be screened to minimize visual impact.
- C. Satellite dishes, and solar panels should be located in less conspicuous locations and out of view from adjacent streets or common open spaces when possible.
- D. Antennas should be located inside the building when possible.
- E. Solar panels when visible from the front should be flush with the roof.

XI. Refuse Locations

- A. Refuse containers should be stored within an enclosed storage area, fenced, or walled to be screened from view from adjacent streets or common open spaces with landscaping can be added.

XII. Home Variety

- A. Detached home designs with the same or similar facade, materials, or colors should be separated by a minimum of three lots on the same side of the street and should not be located directly across or diagonally across the street from each other.
- B. If a detached home plan is repeated on an adjacent lot, it should be elevated with a different architectural style or two of the following three elevation changes - brick color, roof color, or flipped plan.

BUSINESS DISTRICT USES

Except as otherwise provided below, commercial uses shall comply with Section 23, "B-2" Business District - 2 of the Zoning Ordinance, subject to the following changes:

1. An 19.15-acre multi-family site will be allowed. The base zoning for this tract will be "MF-2" Multi-Family Residential District - 2 at 20 units per gross acre.
2. Self-Storage facilities may be allowed by SUP approval.
3. Boat storage facilities may be allowed by SUP approval.

4. The building height for a pitched roof building shall be a maximum of 45 feet.
5. The front, rear and side building setbacks adjacent to any internal street shall be a minimum of 15 feet.
6. Any mechanical equipment including roof top equipment shall be screened from residential districts either by fencing, landscaping or rooftop screening as applicable.



MIDDLETON & ASSOCIATES, LLC

CONSULTING CIVIL ENGINEERS AND LAND PLANNERS

May 31, 2023

Ms. Ramie Hammonds
 Director of Development Services
 City of Sanger
 201 Bolivar Street
 Sanger, Texas 76266

RE: Letter of Intent
 Rezoning for Lane Ranch
 Sanger, Texas

Dear Ramie:

Please accept this Letter of Intent for the rezoning of the Lane Ranch property located at the northeastern intersection of McReynolds Road and Indian Lane in Sanger. This zoning application is to amend the current zoning Ordinance 04-11-22 for Lane Ranch. The property is approximately 347 acres consisting of seven (7) different properties owned by Hien T. & Duyet Nguyen, Dualbond Holdings, LLC, Sanger Town Center, LLC and Marion Property Holding, LLC. This tract is currently open pastureland with no tree cover.

The purpose of this request is to amend the current PD zoning to now include an additional 21 acres known as the Marion Property. This tract was acquired by the owners of Lane Ranch, and they are requesting it be part of the overall Lane Ranch PD. The amended PD would add an additional 142 single family residential lots to the current PD. This PD amendment would also revise the roadway configuration for Lane Ranch Drive as it intersects FM 455. Unfortunately, the negotiations with the Sanger ISD did not allow for the anticipated continuation of the roadway across school property.

The applicant for this submittal is Mr. Casey McGinnis with JTWSCM Development. If you have any other questions or would like additional information regarding our submittal, please contact me at 972-393-9800 or Mr. McGinnis at 214-232-6180.

Sincerely,
MIDDLETON & ASSOCIATES, LLC.

Eugene Middleton, P.E.
 President



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Service Director

AGENDA ITEM: Consideration and possible action on a request for a Specific Use Permit (SUP) for a Food Truck use, at 904 S 5th Street, parking lot, located on approximately 0.291 acres of land described as A1241A TIERWESTER, TR, and generally located on the north side of 5th Street approximately 183 feet east of the intersection of 5th Street and Freese Drive.

SUMMARY:

- The applicant is proposing a Food Truck at 904 S 5th Street.
- The applicant has a business Oscar's Street Tacos that he would like to operate at this site.
- The property is zoned "PD-B1" Planned Development B-1 which allows Quick Service Food and Beverage with a SUP.
- The truck would have to remain at the site full-time and not be mobile.
- All necessary health permits would be required prior to opening.
- The space would be leased from July 2023 to July 2024.
- Staff mailed 22 public hearing notices to owners of properties within 200 feet of the subject property and at the time of this report had received no responses.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends APPROVAL with a one-year renewal/expiration.

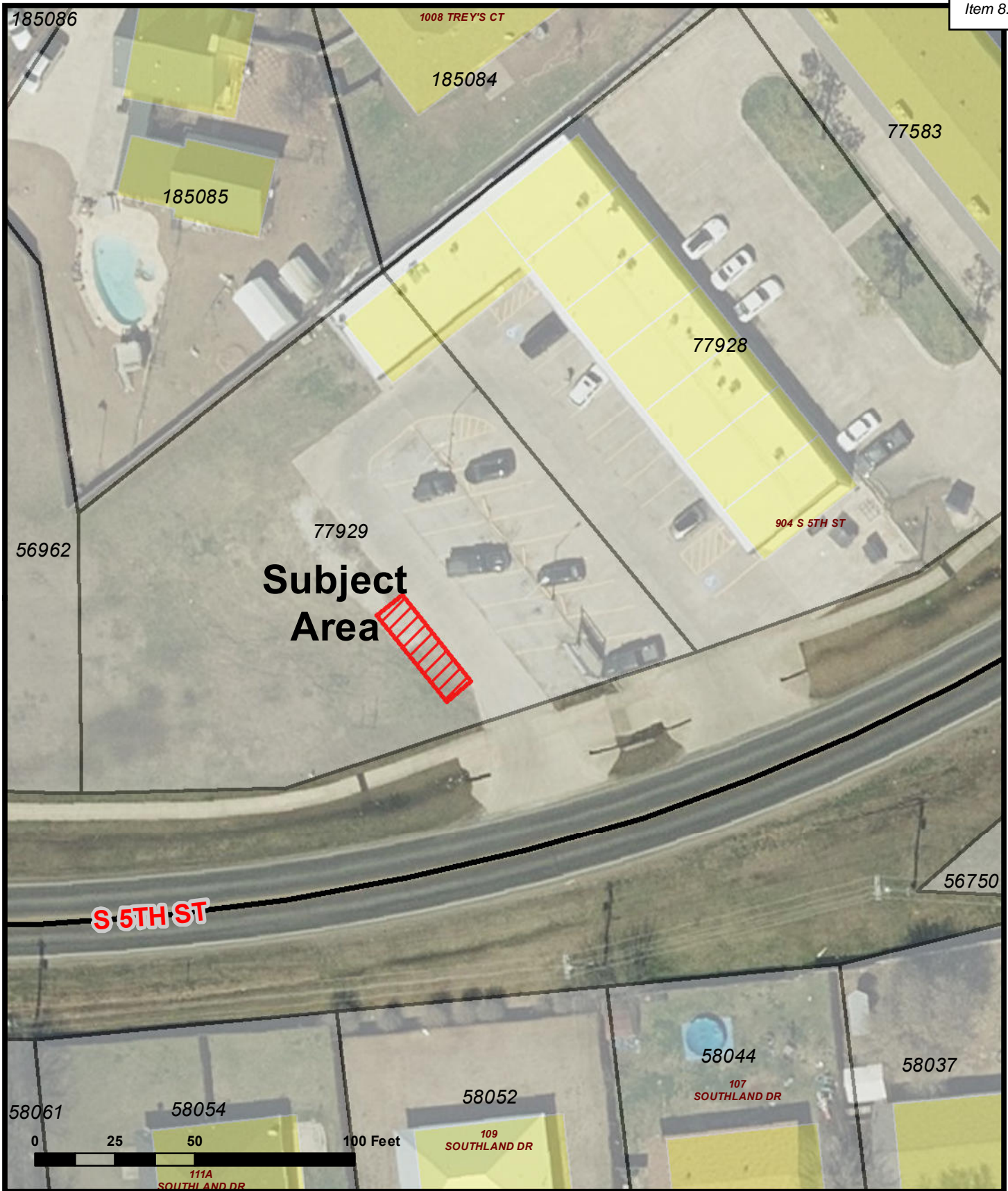
ATTACHMENTS:

Location Map

Application

Site Plan

B-1 Regulations



Project Name: 904 S. 5th St.
Oscars Tacos - SUP
Project: 23SANZON-0034

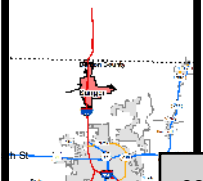


City Limits



Exhibits

DISCLAIMER:
This map was generated by GIS data provided by the Sanger GIS Department. The City of Sanger does not guarantee the correctness or accuracy of any features on this map. These map products are for illustration purposes only and are not suitable for site-specific decision making. GIS data is subject to constant changes, and may not be complete, accurate or current.
Date: 7/23/2023 2:48:43 PM
Doc Name: 23SANZON-0034_SUP Oscars Tacos 904 S





201 Bolivar Street/PO Box 1729 * Sanger, TX 76266
940-458-2059 (office) www.sangertexas.org

ZONING CHANGE/SUP APPLICATION☐

Zoning Change

☒

Specific Use Permit

Applicant	Owner (if different from applicant)
Name: Jose O. Valdez	Name: Pendra Dhakal
Company: Oscar's Street Tacos	Company: Cotton Patch Centre
Address: 1137 Serendipity Circle	Address: 4315 Cypress Haven Dr. #1
City, State, Zip: Sanger, TX 76266	City, State, Zip: Arlington TX 76005
Phone: 940-230-8871	Phone: 469-494-3056
Fax:	Fax:
Email: Oscarstreetacos8@gmail.com	Email: incKairau@gmail.com

Submittal Checklist

<input type="checkbox"/>	Site Plan (for Specific Use Permits Only)
<input type="checkbox"/>	Letter of Intent
<input type="checkbox"/>	Application Fee (Check Payable to City of Sanger)

I certify that I am the legal owner of the above referenced property and that to the best of my knowledge this is a true description of the property upon which I have requested the above checked action. I designate the applicant listed as my representative.

Describe the subject property (address, location, size, etc.):

904 S 5th St, Sanger, TX

Describe the proposed zoning change or Specific Use Permit (SUP):

Food Truck

Owner Signature

Date

Applicant Signature

Date

Office Use

Fee
Date

Park here

DOG
SHOPPE





SECTION 22

"B-1" BUSINESS DISTRICT

General Purpose and Description: The "B-1" Business District is intended for office facilities, neighborhood shopping facilities and retail and commercial facilities of a service character. The B-1 District is established to accommodate the daily and frequent needs of the community.

22.1 Use Regulations: A building or premise shall be used only for the following purposes:

1. Banks or savings and loans containing no more than 10,000 square feet of floor space.
2. Clinic, medical or dental containing no more than 10,000 square feet of floor space.
3. Food store with floor space not greater than twenty thousand (20,000) square feet.
4. Furniture and appliance, retail sales containing no more than 20,000 square feet of floor space.
5. Laboratory, medical or dental containing no more than 10,000 square feet of floor space.
6. Lithographic or print shop, retail only.
7. Tool rental (inside only).
8. Other general retail sales of similar nature and character provided that the business establishment is subject to the following conditions, which shall be applicable to all uses in the district:
 - a. The business shall be conducted wholly within an enclosed building;
 - b. Required yards shall not be used for display, sale or storage of merchandise or for the storage of vehicles, equipment, containers or waste material;
 - c. All merchandise shall be sold at retail on the premises; and
 - d. Such use shall not be objectionable because of odor, excessive light, smoke, dust, noise, vibration or similar nuisance.
9. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in the B-1 District, when granted in accordance with [Section 31](#):

1. Gasoline service station with associated automobile repair facility with floor space not greater than two thousand five hundred (2500) square feet.
2. Other uses as listed in [Section 30](#) of this ordinance.

22.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, roof gables, chimneys, vent stacks or mechanical equipment rooms, which may project not more than twelve (12) feet beyond maximum building height.

22.3 Area Regulations:

1. Size of Yards:
 - a. Front Yard: Twenty-five (25) feet measured from the front property line. (60) foot front yard.
 - b. Side Yard: Adjacent to a street-twenty-five (25) feet; adjacent to a residential district property line twenty (20) feet; other conditions ten (10) feet.
 - c. Rear Yard: Twenty (20) feet for any building or structure. If an alley is not required, a masonry or wood wall of a minimum height of six (6) feet shall be constructed adjacent to the rear property line to provide a barrier between the adjoining uses.
 - d. Special Side or Rear Yard Requirement; When a nonresidential zoned lot or tract abuts upon a zoning district boundary line dividing the lot or tract from a residentially zoned lot or tract, a minimum side yard of twenty (20) feet shall be provided on the nonresidential property. A masonry or wood wall having a minimum height of six (6) feet above the average grade of the residential property shall be

constructed on the non-residential property adjacent to the common side (or rear) property line.

Item 8.

2. Size of Lot:

- a. Minimum Lot Area: None
 - b. Minimum Lot Width: None
 - c. Minimum Lot Depth: None
3. Lot Coverage: No more than forty percent (40%) of the lot area shall be covered by buildings.

22.4 Parking Regulations: Off-street parking and loading shall be provided as set forth in [Section 32](#).



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Consideration and possible action on a request for the Replat of Lot 1R, Block A of the Powell Addition, being 1.05 acres located within the City of Sanger, generally located along the north side of Duck Creek Road approximately 511 feet west of the intersection of Duck Creek Road and South Stemmons Frwy.

SUMMARY:

- The applicant is proposing to create 1 commercial lot of 1.05 acres, from 1 previously platted tract.
- The site is zoned Business District 2.
- The existing building is currently over the build line.
- The owner states the building will be utilized as a church.
- There was right-of-way dedication of 0.01 acres.
- The replat will establish all easements required to make the site developable.
- Staff mailed out 12 notices and at the time of this report has not received any responses.
- The property is located in the City of Sanger.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends APPROVAL with the condition all comments are satisfied prior to City Council Approval.

ATTACHMENTS:

Location Map
Replat
Application
Letter of Intent
Planning Comments
Engineering Comments



Project Name: 1609 Duck Creek Rd.
Tuff Powder Coating Replat
Project: 23SANZON-0031

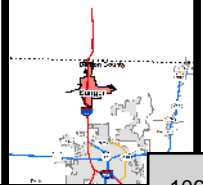


City Limits



Exhibits

DISCLAIMER:
This map was generated by GIS data provided by the Sanger GIS Department. The City of Sanger does not guarantee the correctness or accuracy of any features on this map. These map products are for illustration purposes only and are not suitable for site-specific decision making. GIS data is subject to constant changes, and may not be complete, accurate or current.
Date: 7/23/2023 2:31:40 PM
Doc Name: 23SANZON-0031_1609 Duck Creek Replat



OWNERS DEDICATION:

WHEREAS HALLIBURTON FAMILY ENTERPRISES LLC, IS THE OWNER OF ALL THAT CERTAIN TRACT OR PARCEL OF LAND SITUATED IN THE H. TIERWESTER SURVEY, ABSTRACT NUMBER 1241, IN THE CITY OF SANGER, DENTON COUNTY, TEXAS, AND BEING ALL OF LOT 1, BLOCK 1, OF THE POWELL ADDITION, AN ADDITION TO THE CITY OF SANGER, AS RECORDED IN CABINET D, PAGE 376, OF THE PLAT RECORDS OF DENTON COUNTY, TEXAS, AND A PART OF A CALLED 6.4995 ACRE TRACT OF LAND DESCRIBED IN THE DEED TO HALIBURTON FAMILY ENTERPRISES, LLC, AS RECORDED IN DOCUMENT NUMBER 2019-142329 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A CAPPED IRON ROD FOUND FOR CORNER AT THE NORTHWEST CORNER OF THE TRACT BEING DESCRIBED HEREIN, AT THE NORTHWEST CORNER OF SAID LOT 1, IN THE SOUTH LINE OF A CALLED 2.161 ACRES TRACT OF LAND DESCRIBED IN THE DEED TO RYAN A. HOLDER AND ALI T. WOMACK, AS RECORDED IN DOCUMENT NUMBER 2019-71575 OF SAID OFFICIAL PUBLIC RECORDS AND AT THE NORTHEAST CORNER OF A TRACT OF LAND DESCRIBED IN THE DEED TO MORGAN TOLLE AND JACQUELYN L. TOLLE AS RECORDED IN DOCUMENT NUMBER 2012-39989 OF SAID OFFICIAL PUBLIC RECORDS;

THENCE SOUTH 88 DEGREES 00 MINUTES 03 SECONDS EAST, WITH THE NORTH LINE OF SAID LOT 1 AND SAID SOUTH LINE, PASSING EN ROUTE A ¼ INCH IRON ROD FOUND AT A DISTANCE OF 71.35 FEET, A CAPPED IRON ROD FOUND (LABELED 4857) AT A DISTANCE OF 144.36 FEET AND CONTINUING ON SAID COURSE A TOTAL DISTANCE OF 154.86 FEET TO A CAPPED IRON ROD SET (LABELED 4857, TYPICAL) FOR CORNER IN THE SOUTH LINE LOT 1, BLOCK A OF HEATHS HOLLOW ADDITION, AN ADDITION IN THE CITY OF SANGER ACCORDING TO THE PLAT THEREOF RECORDED IN DOCUMENT NUMBER 2020-140 OF SAID PLAT RECORDS, FROM WHICH A CAPPED IRON ROD FOUND FOR THE SOUTHEAST CORNER OF SAID LOT 1 BEARS SOUTH 88 DEGREES 00 MINUTES 03 SECONDS EAST, A DISTANCE OF 455.33 FEET;

THENCE SOUTH 01 DEGREES 57 MINUTES 11 SECONDS WEST SEVERING SAID 6.4995 ACRE TRACT A DISTANCE OF 290.70 FEET TO A CAPPED IRON ROD SET FOR CORNER, FROM WHICH A CAPPED IRON ROD FOUND FOR REFERENCE BEARS SOUTH 02 DEGREES 15 MINUTES 24 SECONDS WEST, A DISTANCE OF 25.00 FEET;

THENCE NORTH 87 DEGREES 44 MINUTES 51 SECONDS WEST, SEVERING SAID 6.4995 ACRE TRACT PART OF THE WAY, PASSING EN ROUTE A CAPPED IRON ROD FOUND AT A DISTANCE OF 18.40 FEET AND CONTINUING ON SAID COURSE A TOTAL DISTANCE OF 156.30 FEET TO A CAPPED IRON ROD FOUND FOR CORNER AT THE SOUTHWEST CORNER OF SAID LOT 1 (POWELL ADDITION);

THENCE NORTH 02 DEGREES 14 MINUTES 11 SECONDS EAST, WITH THE WEST LINE OF SAID LOT 1 (POWELL ADDITION), A DISTANCE OF 290.01 FEET TO THE POINT OF BEGINNING AND CONTAINING 1.04 ACRES OF LAND, MORE OR LESS.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT HALLIBURTON FAMILY ENTERPRISES LLC, THROUGH ITS DULY SWORN REPRESENTATIVE, RAY HALLIBURTON, DOES HEREBY ADOPT THIS PLAT DESIGNATING THE HEREINABOVE DESCRIBED PROPERTY AS THE REPLAT OF POWELL ADDITION, AN ADDITION TO THE CITY OF SANGER, TEXAS, AND DOES HEREBY DEDICATE TO THE PUBLIC USE FOREVER BY FREE, SIMPLE TITLE, FREE AND CLEAR OF ALL LIENS AND ENCUMBRANCES, ALL STREETS, THOROUGHFARES, ALLEYS, FIRE LANES, DRIVE AISLES, PARKS, AND WATERCOURSES, AND TO THE PUBLIC USE FOREVER EASEMENTS FOR SIDEWALKS, STORM DRAINAGE FACILITIES, UTILITIES AND ANY OTHER PROPERTY NECESSARY TO SERVE THE PLAT AND TO IMPLEMENT THE REQUIREMENTS OF THE SUBDIVISION REGULATIONS AND OTHER CITY CODES AND DO HEREBY BIND OURSELVES, OUR HEIRS, SUCCESSORS AND ASSIGNS TO WARRANT AND TO FOREVER DEFEND THE TITLE ON THE LAND SO DEDICATED. FURTHER, THE UNDERSIGNED COVENANTS AND AGREES THAT HE/SHE SHALL MAINTAIN ALL EASEMENTS AND FACILITIES IN A STATE OF GOOD REPAIR AND FUNCTIONAL CONDITION AT ALL TIMES IN ACCORDANCE WITH CITY CODES AND REGULATIONS. NO BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS SHALL BE CONSTRUCTED OR PLACED UPON, OVER, OR ACROSS THE EASEMENTS AS SHOWN, EXCEPT THAT LANDSCAPE IMPROVEMENTS MAY BE INSTALLED, IF APPROVED BY THE CITY OF SANGER. THE CITY OF SANGER AND PUBLIC UTILITY ENTITIES SHALL HAVE THE RIGHT TO ACCESS AND MAINTAIN ALL RESPECTIVE EASEMENTS WITHOUT THE NECESSITY AT ANY TIME OF PROCURING PERMISSION FROM ANYONE.

RAY HALLIBURTON
REPRESENTATIVE OF R. HALLIBURTON RANCH LLC.

STATE OF TEXAS
COUNTY OF _____

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED RAY HALLIBURTON, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ____ DAY OF _____, 2022.

NOTARY PUBLIC, TEXAS

I, J.E. THOMPSON II, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY ON THE GROUND AND THAT ALL CORNERS ARE SET WITH 1/2" CAPPED IRON RODS OR FOUND AS INDICATED.

J.E. THOMPSON II R.P.L.S.
TEXAS REGISTRATION NO. 4857

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED J.E. THOMPSON II, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ____ DAY OF _____, 2023.

NOTARY PUBLIC, TEXAS



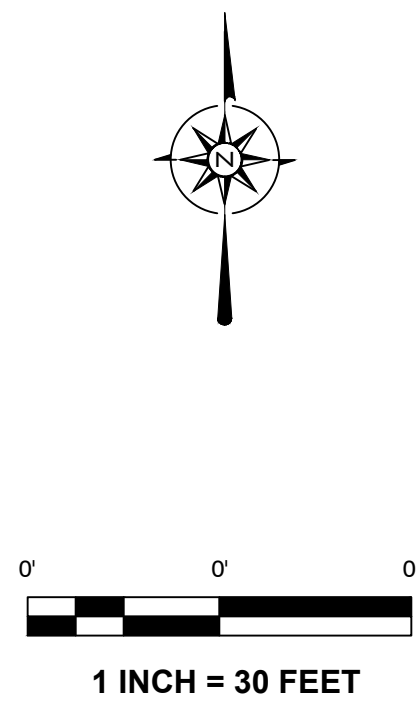
OWNER:
R. HALIBURTON RANCH LLC.
780 CR. 276
GAINESVILLE, TX 76240
(940) 442-3451

SURVEYOR:
JOHN THOMPSON
111 N. DIXON ST
GAINESVILLE, TX 76240
(940) 665-9105
JT@ALLAMERICANSURVEYING.COM

LEGEND			
● = PROPERTY CORNER	CIRF = CAPPED IRON ROD FOUND		
⬮ = BENCHMARK	IRF = IRON ROD FOUND		
⬮ = TELEPHONE/UTILITY RISER (TR/UR)	CIRS = CAPPED IRON ROD SET		
⬮ = BURIED CABLE MARKER (BCM)	MFCP = METAL FENCE CORNER POST		
⬮ = TELEPHONE MANHOLE (TMH)	WFPC = METAL FENCE CORNER POST		
⬮ = POWER/UTILITY POLE (PP/UP)	[] = PLAT/DEED CALLS		
⬮ = LIGHT POLE (LP)	PCB = POINT OF BEGINNING		
⬮ = GUY WIRE (GW)	R.O.W. = RIGHT-OF-WAY		
⬮ = ELECTRIC VAULT (VLT)	CON = CONCRETE SURFACE		
⬮ = ELECTRIC TRANSFORMER (TRAN)	ASPH = ASPHALT SURFACE		
⬮ = WATER METER (WM)	GRAV = GRAVEL SURFACE		
⬮ = WATER VALVE (WV)			

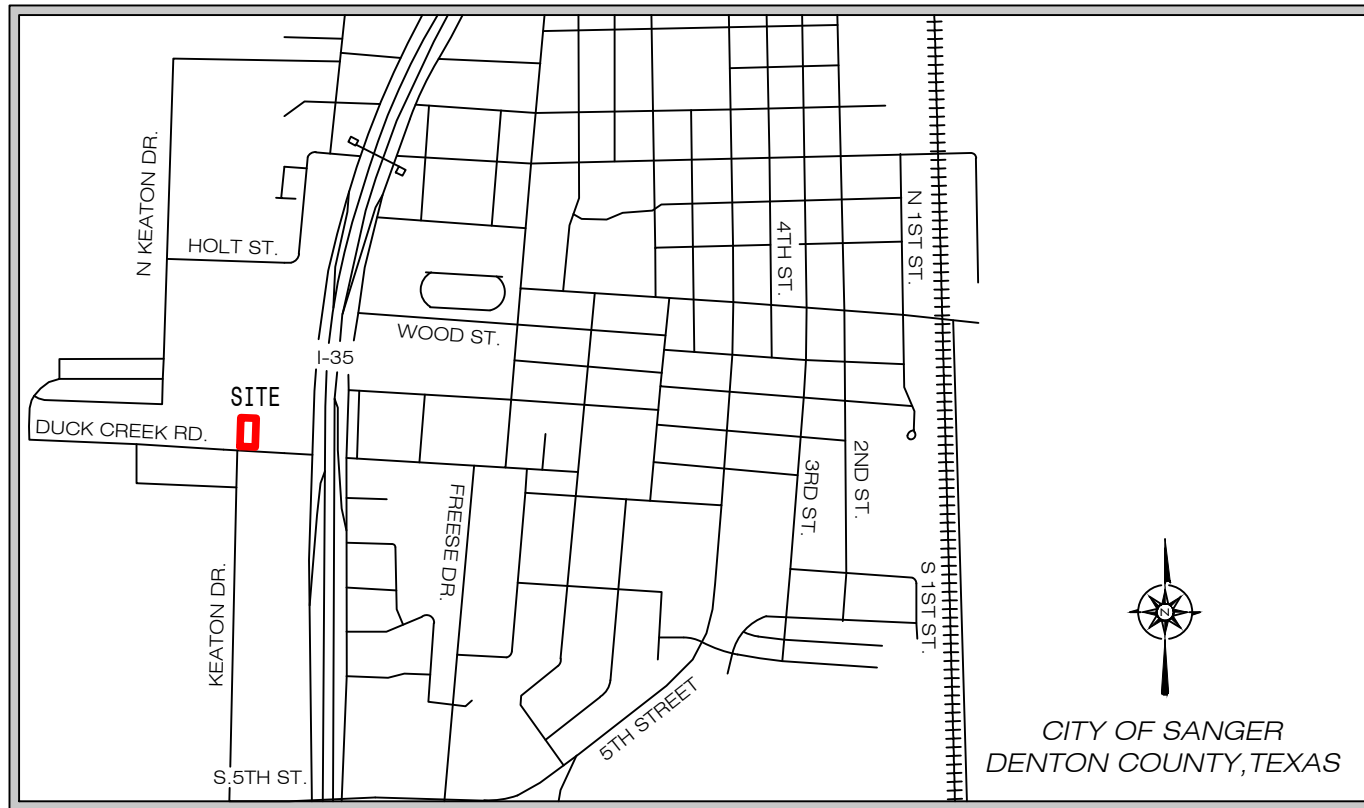
LINE	BEARING	DISTANCE
L1	N 87°44'36" W	18.96'
L2	N 02°14'11" E	25.00'
L3	S 87°44'51" E	18.84'
L4	S 01°57'11" W	25.00'

LINETYPE LEGEND	
PROPERTY LINE =	—————
EASEMENT LINES =	—————
DEED/LOT LINES =	—————
ADJOINER LINES =	—————
OVERHEAD UTILITY =	—————
ASPHALT ROAD =	—————
GRAVEL ROAD =	—————
FENCE LINES =	—————



REPLAT
LOT 1, BLOCK A,
POWELL ADDITION
1.05 ACRES
(LOT 1R 1.04 ACRES)
(0.01 OF AN ACRE RIGHT OF WAY DEDICATION)
IN THE H. TIERWESTER SURVEY,
ABSTRACT NO. 1241
CITY OF SANGER,
DENTON COUNTY, TEXAS

	111 N. DIXON ST. GAINESVILLE, TX 76240 PH: 940-665-9105 FAX: 940-665-9106 TBPLS FIRM NO. 10048000			
	DRAWN BY: T.E.P.	DATE: 06/20/2023	JOB NO.: 22006-3	SCALE: 1" = 30' PAGE: 1 OF 1





201 Bolivar Street/PO Box 1729 * Sanger, TX 76266
940-458-2059 (office) 940-458-4072 (fax) www.sangertexas.org

SUBDIVISION APPLICATION

☐

Preliminary
Plat Minor
Plat

☒

Final
Plat/Replat
Amended Plat

☐

Vacating Plat
Conveyance
Plat

Applicant

Owner (if different from applicant)

Name: <u>RAY HALLIBURTON</u>	Name:
Company: <u>R HALLIBURTON RANCH L.L.C.</u>	Company:
Address: <u>780 COUNTY RD. 276</u>	Address
City, State, Zip: <u>GAINESVILLE, TX 76240</u>	City, State, Zip:
Phone: <u>940 4423451</u>	Phone:
Fax:	Fax:
Email: <u>RHALLIBURTON1960@YAHOO.COM</u>	Email:

Submittal Checklist

<input type="checkbox"/>	Pre-Application Conference (Date: ___/___/___)
<input checked="" type="checkbox"/>	One (1) Paper Copy of Plat (24"x36", folded to 1/4 size)
<input checked="" type="checkbox"/>	Letter of Intent
<input checked="" type="checkbox"/>	Non-Refundable Application Fee (Check Payable to City of Sanger)
<input checked="" type="checkbox"/>	Application Form (Signed by Owner)
<input type="checkbox"/>	Applicable Plat Checklist (Completed)
<input type="checkbox"/>	Additional Required Documents/Traffic & Drainage Studies etc.
<input checked="" type="checkbox"/>	One (1) PDF Copy of all Documents Provided on a CD/DVD or Emailed to

Supporting Materials (List if provided): _____

R Number(s): 117005 DEN

X Ry Halliburton
Owner's Signature

6-22-23
Date

X Ry Halliburton
Applicant's Signature

6-22-23
Date

Office Use: Reviewed by Director of Development Services ___/___/___

Complete (Check #___)
Incomplete (Returned to Applicant ___/___/___)

City of Sanger
201 Bolivar / P.O. Box 1729
Sanger, TX 76266

940-458-2059 (office) 940-458-4072 (fax) www.sangertexas.org

Effective Date: 02/11/2020

LETTER OF INTENT

Subdivision name and address: Lot 1 Block A, Powell Addition as recorded in Cabinet D, Page 376, PRDCT

Contact information for person preparing and submitting the documents:

Ray Halliburton (940) 442-3451 Owner

780 County Road 276 Gainesville, Texas 76240

All American Surveying J.E. Thompson II 940 665-9105

111 N Dixon St Gainesville, TX 76240

Designated point of contact for future correspondence:

Ray Halliburton (940) 442-3451

780 County Road 276 Gainesville, Texas 76240

Intent of the plat application:

The proposed replat is to extend the east property line of lot 1 block 1, Powell Addition, as the existing building is presently over the property line.

Brief description of the location, area, intended use and future develop:

1609 Duck Creek Road - Sanger, Texas. The property is approximately 550 feet east of the I 35 service road. The building will be used for a church. The owner is not aware of any future development.

Request that the plat be reviewed and considered by the appropriate approval body:

Please consider this letter of intent as a request that the new plat be reviewed and considered by the appropriate approval body.

R Halliburton Ranch L.L.C.

* 
Ray Halliburton



DATE: 08/02/2023

1st REVIEW COMMENTS – Final Plat (Powell Addition)

The request is for a Replat of the Powell Addition containing 1 lot, being approximately 1.05 acres in the H. TIERWESTER SURVEY, ABSTRACT NO 1241, prepared by All American Surveying, submitted on 07/19/2023. Below are the comments that should be addressed before City Council approval. Resubmit the revised plat along with a response letter addressing all comments.

Planning

Provide the following

1. Show the centerline of existing streets and dimensions from the centerline to the edges of existing and proposed right-of-way on **both** sides of the centerline.
2. Provide a signed notarized copy of private restrictions (if any), that are filed for record in the office of the County Clerk.
3. Show the name address and phone number of all utilities providing service to the development. A signature or **will-serve** letter, signifying their ability to provide service to the subdivision.
4. Ensure property owner information matches information on Denton Central Appraisal District record.
5. Correct approval block to match checklist.

Informational Comments

1. The property is within the City of Sanger.
2. The Final Plat will be scheduled for the Planning and Zoning (P&Z) Commission meeting on Monday, August 14, 2023, and the City Council meeting on Tuesday, September 5, 2023.



August 8, 2023
AVO 37449.004

Ms. Ramie Hammonds
Development Services Director/Building Official
City of Sanger
201 Bolivar Street
P.O. Box 1729
Sanger, Texas 76266

Re: Powell Addition – Replat
First Review

Dear Ms. Hammonds,

Halff Associates, Inc. was requested by the City of Sanger to provide a first review of the Replat for Lot 1, Block A of the Powell Addition located on Duck Creek Road east of Keaton Drive. The property is located inside the City of Sanger limits. The plat intends to adjust the eastern property line to account for the existing building placement. No improvements are expected at this time. The Replat was prepared by All American Surveying and is dated June 20, 2023. Ordinance citations are provided on the attached markup. Our comments are as follows

1. Please address comments on attached markups and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses.
2. Provide a closure report for the tract.
3. Update surveyor's certification to match City ordinance.
4. There is a gap between legal boundaries for the subject tract and the adjacent property to the west. There is a note that states that ownership of the gap is unknown per previous survey. Please cite the survey referenced. Additionally, were any corners on the adjacent lot located to establish the accuracy of the boundary resolution?
5. Show and label Keaton Drive ROW going south.
6. Establish whether a 15-foot access easement will encompass the existing access drive. Aerial imagery appears to show a 25-foot-wide street. Update if necessary.
7. Establish if any easements on the property are existing and clarify if "per plat" means per this plat or per cited plat.
8. Show location of previous eastern boundary line that is being relocated on the plat.
9. Eliminate Note 29 from the General Notes. This is only needed when the property is located in or adjacent to the floodplain.
10. Update signature blocks to City standards. See markup.



If you have any questions or need additional information, please do not hesitate to call me at (817) 764 7467.

Sincerely,
HALFF

A handwritten signature in black ink that reads "Leigh A. Hollis". The signature is fluid and cursive, with the first name "Leigh" being more prominent.

Leigh A. Hollis, P.E.

Attachments: markups

OWNERS DEDICATION:

WHEREAS HALLIBURTON FAMILY ENTERPIRSES LLC. IS THE OWNER OF ALL THAT CERTAIN TRACT OR PARCEL OF LAND SITUATED IN THE H. TIERWESTER SURVEY, ABSTRACT NUMBER 1241, IN THE CITY OF SANGER, DENTON COUNTY, TEXAS, AND BEING ALL OF LOT 1, BLOCK 1, OF THE POWELL ADDITION, AN ADDITION TO THE CITY OF SANGER, AS RECORDED IN CABINET D, PAGE 376, OF THE PLAT RECORDS OF DENTON COUNTY, TEXAS, AND A PART OF A CALLED 6.4995 ACRE TRACT OF LAND DESCRIBED IN THE DEED TO HALIBURTON FAMILY ENTERPRISES, LLC. AS RECORDED IN DOCUMENT NUMBER 2019-142329 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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THENCE NORTH 02 DEGREES 14 MINUTES 11 SECONDS EAST, WITH THE WEST LINE OF SAID LOT 1 (POWELL ADDITION), A DISTANCE OF 290.01 FEET TO THE POINT OF BEGINNING AND CONTAINING 1.04 ACRES OF LAND, MORE OR LESS.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

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RAY HALLIBURTON
REPRESENTATIVE OF R. HALLIBURTON RANCH LLC.

STATE OF TEXAS
COUNTY OF _____

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED RAY HALLIBURTON, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ____ DAY OF _____, 2022.

NOTARY PUBLIC, TEXAS

I, J.E. THOMPSON II, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY ON THE GROUND AND THAT ALL CORNERS ARE SET WITH 1/2" CAPPED IRON RODS OR FOUND AS INDICATED.

J.E. THOMPSON II R.P.L.S.
TEXAS REGISTRATION NO. 4857

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED J.E. THOMPSON II, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ____ DAY OF _____, 2023.

NOTARY PUBLIC, TEXAS



OWNER:
R. HALIBURTON RANCH LLC.
780 CR. 276
GAINESVILLE, TX 76240
(940) 442-3451

SURVEYOR:
JOHN THOMPSON
111 N. DIXON ST
GAINESVILLE, TX 76240
(940) 665-9105
JT@ALLAMERICANSURVEYING.COM

LEGEND			
● = PROPERTY CORNER	CIRF = CAPPED IRON ROD FOUND	IRF = IRON ROD FOUND	
⬮ = BENCHMARK	TRUR = TELEPHONE/UTILITY RISER (TRUR)	CIRS = CAPPED IRON ROD SET	
⬮ = BURIED CABLE MARKER (BCM)	MFCP = METAL FENCE CORNER POST	WMCP = METAL FENCE CORNER POST	
⬮ = TELEPHONE MANHOLE (TMH)	PP(UP) = PLAT/DEED CALLS	PCB = POINT OF BEGINNING	
⬮ = POWER/UTILITY POLE (PP/UP)	R.O.W. = RIGHT-OF-WAY		
⬮ = LIGHT POLE			
⬮ = GUY WIRE (GW)			
⬮ = ELECTRIC VAULT (VLT)			
⬮ = ELECTRIC TRANSFORMER (TRAN)			
⬮ = WATER METER (WM)			
⬮ = WATER VALVE (WV)			

LINE	BEARING	DISTANCE
L1	N 87°44'36" W	18.96'
L2	N 02°14'11" E	25.00'
L3	S 87°44'51" E	18.84'
L4	S 01°57'11" W	25.00'

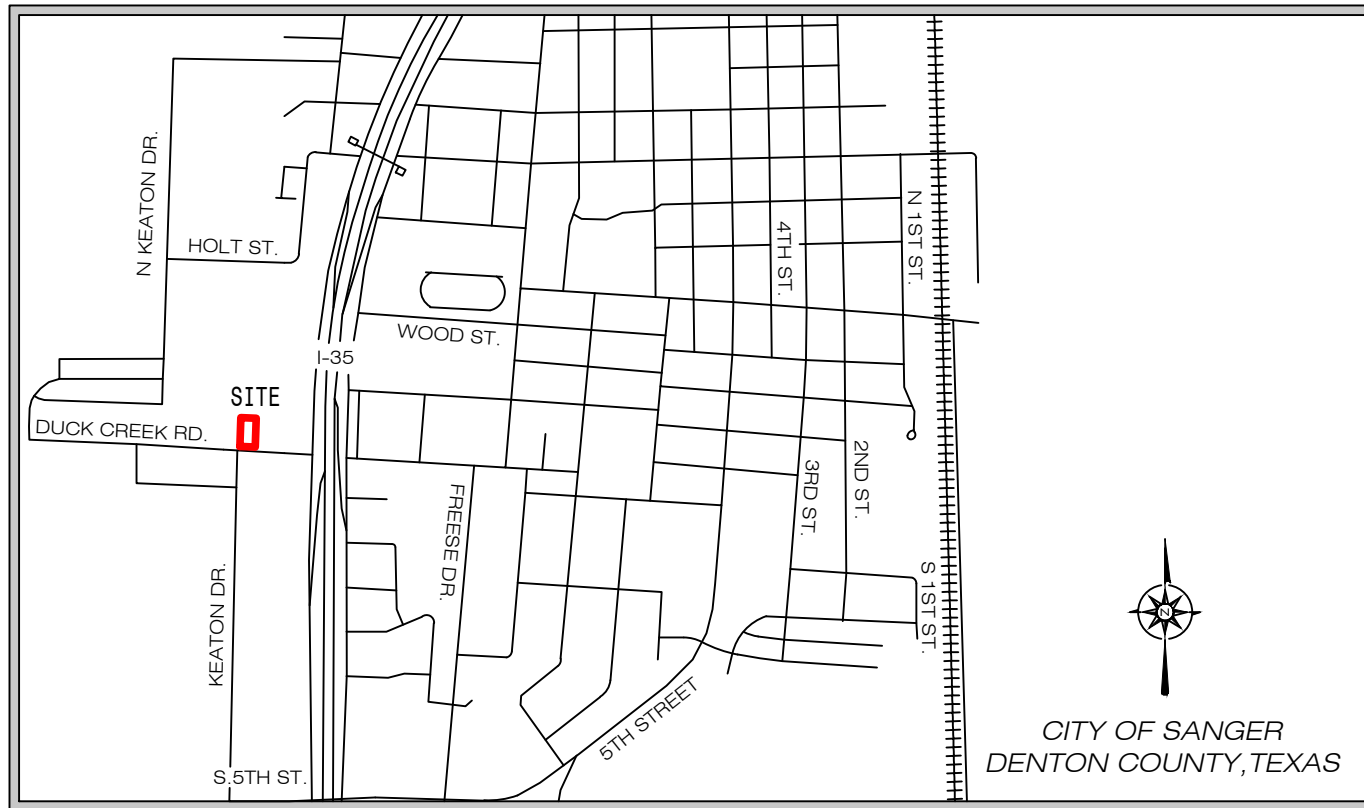
LINETYPE LEGEND	
PROPERTY LINE =	_____
EASEMENT LINES =	_____
DEED LOT LINES =	_____
ADJOINER LINES =	_____
OVERHEAD UTILITY =	_____
ASPHALT ROAD =	_____
GRAVEL ROAD =	_____
FENCE LINES =	_____

0' 0' 0'
1 INCH = 30 FEET



DRAWN BY: T.E.P. DATE: 06/20/2023 JOB NO.: 22066-3 SCALE: 1" = 30' PAGE: 1 OF 1

111 N. DIXON ST.
GAINESVILLE, TX 76240
PH. 940-665-9105
FAX. 940-665-9106
TBPLS FIRM NO. 10048000



VICINITY MAP

(NOT TO SCALE)

GENERAL NOTES

- FLOOD STATEMENT:** I HAVE EXAMINED THE F.E.M.A. FLOOD INSURANCE RATE MAP FOR THE CITY OF SANGER, DENTON COUNTY, TEXAS, COMMUNITY NUMBER 48121, EFFECTIVE DATE 4-18-11 AND THAT MAP INDICATES THAT THIS PROPERTY IS WITHIN "NON-SHADED ZONE X" DEFINED AS "AREAS DETERMINED TO BE OUTSIDE 0.2% ANNUAL CHANCE FLOODPLAIN" AS SHOWN IN PANEL 0210 G OF SAID MAP. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE, ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.
- BEARING BASIS DERIVED FROM GPS OBSERVATIONS MADE ON THE GROUND. TEXAS NORTH CENTRAL ZONE 4202 NAD 83 (GRID).
- THIS PROPERTY IS WITHIN THE CITY LIMITS OF SANGER.
- WATER SERVICE TO BE SUPPLIED BY CITY OF SANGER - 940.458.7930 - 502 ELM ST. P.O. BOX 1729, SANGER, TX 76266.
- ELECTRIC SERVICE TO BE PROVIDED BY CITY OF SANGER - 940.458.2064 - 202 RAILROAD AVE. P.O. BOX 1729, SANGER, TX 76266.
- SANITARY SEWER SERVICE TO BE PROVIDED BY THE CITY OF SANGER - 940.458.2571 - P.O. BOX 1729, SANGER, TX 76266.
- THIS PROPERTY IS NOT LOCATED IN THE LAKE RAY ROBERTS PLANNING AND ZONING JURISDICTION.
- ALL SURFACE DRAINAGE EASEMENTS SHALL BE KEPT FREE OF FENCES, BUILDINGS, FOUNDATION, PLANTINGS AND OTHER OBSTRUCTIONS TO THE OPERATIONS AND MAINTENANCE OF THE DRAINAGE FACILITY.
- BLOCKING THE FLOW OF WATER OR CONSTRUCTING IMPROVEMENTS IN SURFACE DRAINAGE EASEMENTS, AND FILLING OR OBSTRUCTING THE FLOODWAY IS PROHIBITED.
- THE EXISTING CREEKS OR DRAINAGE CHANNELS TRAVERSING ALONG OR ACROSS THE ADDITION WILL REMAIN AS OPEN CHANNELS AND WILL BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNERS OF THE LOT OR LOTS THAT ARE TRAVERSED BY OR ADJACENT TO THE DRAINAGE COURSES ALONG OR ACROSS THE LOTS.
- ALL LOTS COMPLY WITH THE MINIMUM SIZE REQUIREMENTS OF ZONING DISTRICT.
- THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES AND THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
- ALL COMMON AREAS, DRAINAGE EASEMENTS, AND DETENTION FACILITIES WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNERS. ANY COMMON AREA WITHIN THE CITY'S RIGHT-OF-WAY WILL REQUIRE A FACILITIES AGREEMENT, TO BE REVIEWED AND APPROVED BY THE CITY.
- NOTICE - SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
- THIS PLAT DOES NOT ALTER OR REMOVE EXISTING DEED RESTRICTIONS, IF ANY, ON THIS PROPERTY.
- THE PURPOSE OF THIS PLAT IS TO REPLAT LOT 1, BLOCK A, POWELL ADDITION.
- ALL PUBLIC IMPROVEMENTS AND DEDICATIONS SHALL BE FREE AND CLEAR OF ALL DEBT, LIENS, AND /OR ENCUMBRANCES.
- ALL LOT CORNER SET WITH 1/2 INCH REBAR WITH PLASTIC CAP LABELED RPLS #4857.
- THE STREET IS DEDICATED FOR STREET PURPOSES.
- THE EASEMENTS AND PUBLIC USE AREAS, AS SHOWN ARE DEDICATED FOR THE PUBLIC USE FOREVER FOR THE PURPOSES INDICATED ON THE PLAT.
- NO BUILDING, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTH SHALL BE CONSTRUCTED OR PLACED UPON, OVER OR ACROSS THE EASEMENTS AS SHOWN, EXCEPT THAT LANDSCAPE IMPROVEMENTS MAY BE PLACED IN LANDSCAPE EASEMENTS EASEMENTS APPROVED BY THE CITY OF SANGER.
- THE CITY OF SANGER IS NOT RESPONSIBLE FOR REPLACING ANY IMPROVEMENTS IN, UNDER, OR OVER ANY EASEMENTS CAUSED BY MAINTENANCE OR REPAIR.
- UTILITY EASEMENTS MAY ALSO BE USED FOR THE MUTUAL USE AND ACCOMMODATION OF ALL PUBLIC UTILITIES DESIRING TO USE OR USING THE SAME UNLESS THE EASEMENTS LIMITS THE USE TO PARTICULAR UTILITIES, SAID USE BY THE PUBLIC UTILITIES BEING SUBORDINATE TO THE PUBLICS AND THE CITY OF SANGER'S USE THEREOF.
- THE CITY OF SANGER AND THE PUBLIC UTILITIES SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PART OF ANY BUILDING, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH MAY IN ANY WAY ENDANGER OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE, OR EFFICIENCY OF THEIR RESPECTIVE SYSTEMS IN THE EASEMENTS.
- THE CITY OF SANGER AND PUBLIC UTILITIES SHALL AT ALL TIMES HAVE THE FULL RIGHT OF INGRESS AND EGRESS TO OR FROM THEIR RESPECTIVE EASEMENTS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING READING METERS AND ADDING TO OR REMOVING ALL OR PARTS OF THEIR RESPECTIVE SYSTEMS WITHOUT THE NECESSITY AT ANY TIME PROCURING PERMISSION FROM ANYONE.
- ALL MODIFICATIONS TO THIS DOCUMENT SHALL BE BY MEANS OF THE PLAT AND APPROVED BY THE CITY OF SANGER.
- THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES AND APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
- MINIMUM FINISHED FLOOR ELEVATIONS ARE AT LEAST 2 FEET ABOVE 100 YEAR FLOOD PLANE.

APPROVED BY THE PLANNING & ZONING COMMISSION OF THE CITY OF SANGER, TEXAS

ON THIS THE ____ DAY OF _____, 20__

CHAIRPERSON, PLANNING & ZONING COMMISSION

CITY SECRETARY

APPROVED AND ACCEPTED

MAYOR, CITY OF SANGER

ATTESTED BY:

CITY SECRETARY, CITY OF SANGER

"Approved:

Chairman, Planning & Zoning Commission
City of Sanger, Texas

Mayor
City of Sanger, Texas
Attested by

City Secretary, City of Sanger, Texas

Date

Date

Date"



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Consideration and possible action on a rezoning from Planned Development-Townhome (PD-TH) to Planned Development-SF-1 (PD-SF-1) of approximately 14.908 acres of land, described as A0029A R BEEBE, 72B(2A), within the City of Sanger, and generally located on west side of Marion Road approximately 820 feet south of the intersection of Marion Road and Huling Road.

SUMMARY:

- The applicant is proposing to rezone the subject property of approximately 14.908 acres from PD-TH to PD_SF-1.
- They will create 64 single-family lots on the site.
- This zoning would conform to the future land use map.
- The property adjoins a single-family property and a townhome property.
- The development would meet the R-1 zoning requirements with the following changes
 - Minimum lot square footage would 6000 square feet.
 - Minimum lot depth would be 120 feet.
 - Minimum dwelling size would be 1850 with a 15% max of lots below 2000.
 - Minimum front yard setback 25 feet with features such as overhangs, stoops, bay windows, front porches allowed to extend a maximum of 5 feet into the front yard setback.
 - Minimum side yard setback 5 feet and 10 feet adjacent a street.
 - Minimum rear yard setback 20 feet with feature such as porches, courtyards, masonry chimneys, and bay windows allowed to extend a maximum 5 feet into setback
 - Maximum lot coverage 65%
 - Enclosed parking area of at least 400 square feet (this does not count toward minimum house size) and face of garage door must be located at least 20 feet from street right-of-way. The garage door does not have to be behind the street-facing façade of the house.
 - Lot widths shall be measured at the rear of the required front yard setback.
 - Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks.
 - Single-family lots shall have an irrigation system in the front yard and street corner side yard.
 - Each home will have a minimum of 2 shade trees.
 - Each home will have a minimum of 12 three gallon shrubs.
- Staff mailed out 34 public hearing notices to owners of properties within 200 feet of the subject property and at the time of this report had received one response in favor and one response opposed. Responses are attached.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends APPROVAL.

ATTACHMENTS:

Location Map

PD – Sanger Circle Ph. 7

Application

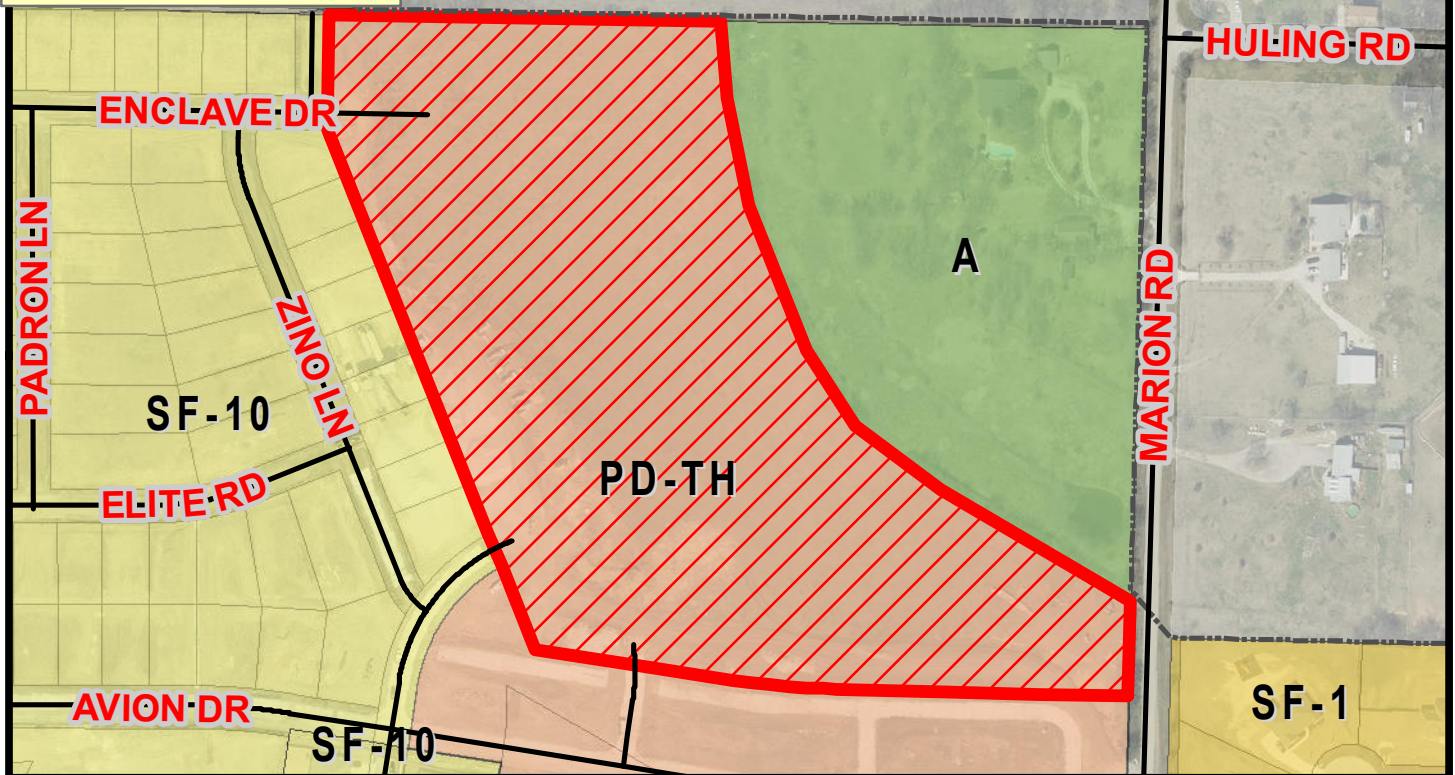
Letter of Intent

SF-1 Regulations

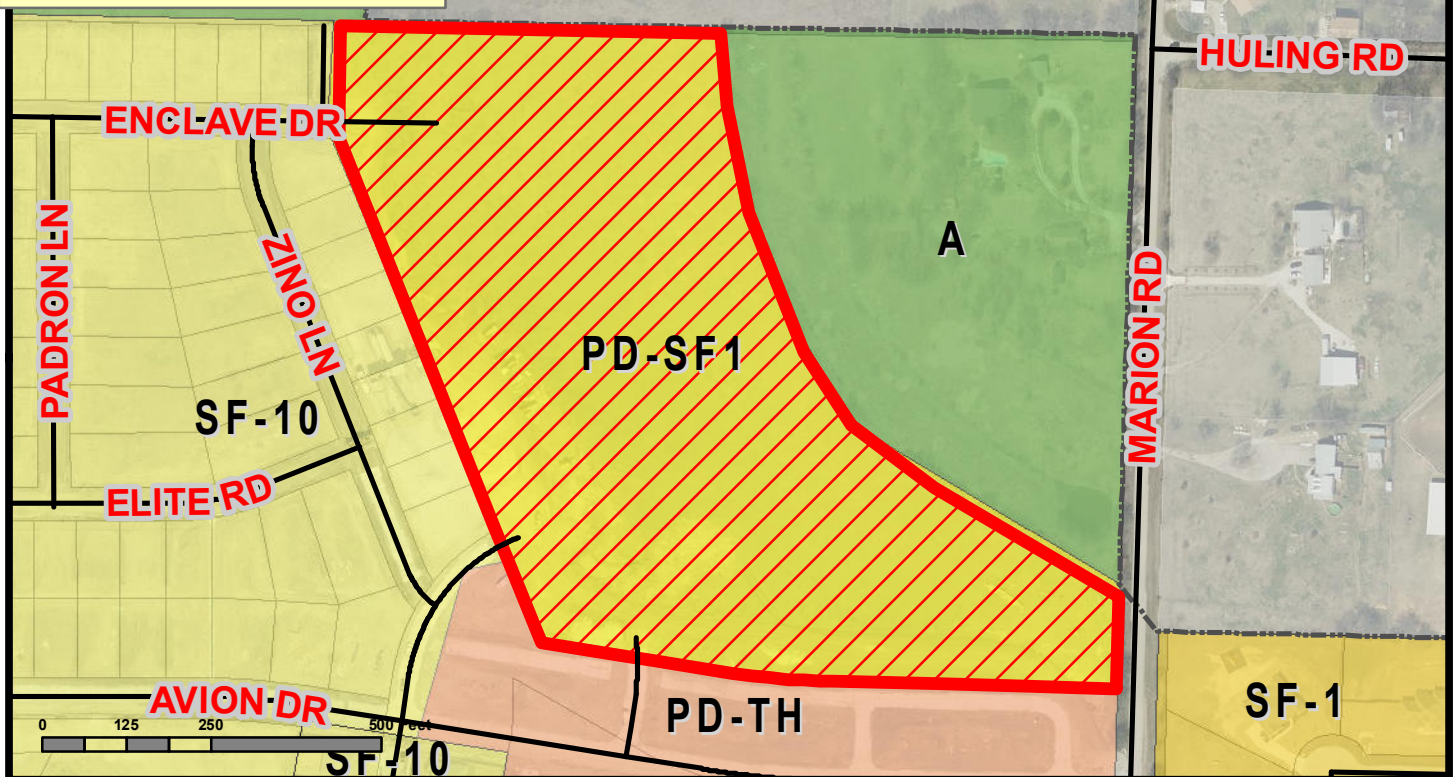
Response form - In Favor

Response form - Opposed

Current Zoning



Proposed Zoning



Location: Sanger Circle Phase 7
 PD Zoning Change
 Project: 23SANZON-0028

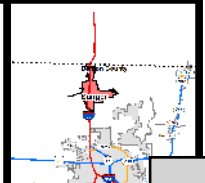


City Limits



Exhibits

DISCLAIMER:
 This map was generated by GIS data provided by the Sanger GIS Department. The City of Sanger does not guarantee the correctness or accuracy of any features on this map. These map products are for illustration purposes only and are not suitable for site-specific decision making. GIS data is subject to constant changes, and may not be complete, accurate or current.



SANGER CIRCLE PH 7 PD SUMMARY

Purpose Statement - To rezone approximately 14.908 acres from PD-TH to PD-SF1 for the property described by metes and bounds on Exhibit "A" (the "Property") of this PD Ordinance. Development and use of the Property shall comply with the Sanger Zoning Ordinance as it existed on the date of its adoption on August 3, 1987 and subsequent amended (the "The Zoning Ordinance") and this PD ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD ordinance shall control.

PROPOSED USES

Single Family (14.908 Acres)

14.908 acres are proposed as single family detached uses. The net density is 4.3 units/acre.

COMMUNITY FEATURES

A mandatory homeowners association shall be established to own and maintain the private open spaces, common areas, greenbelts and all private landscape improvements. Private trails and sidewalks shall be constructed within a pedestrian access easement and owned and maintained by the HOA.

RESIDENTIAL LAND USES

I. Lot Sizes, Setbacks, etc. for Single Family Detached. Except as otherwise provided below, detached single family residences shall comply with Section 53, "R-1" RESIDENTIAL DISTRICT -1 of the Zoning Ordinance, subject to the following changes:

A. Minimum Lot Width, Depth, and Size.

The Manor Lots (50' X 120'):

The minimum lot width shall be 50 feet. The minimum lot depth shall be 120 feet. The minimum lot size shall be 6,000 square feet.

B. Minimum House Size.

The minimum air-conditioned area within each residence shall be 1,850 square feet. Over the entire development, the lots shall average over 2,000 square feet in house size. The developer shall place a limit of 15% of the total lot count to be below 2,000 square feet.

C. Maximum Height.

The maximum building height shall be 2 stories or 35 feet.

D. Front Yard Setback.

The minimum front yard building setback shall be twenty-five feet (25'). Front porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the front yard a maximum of five feet (5').

E. Side Yard Setback.

The minimum side yard building setback shall be five feet (5') on each side. A side yard adjacent to a street on a corner lot shall always have a minimum ten-foot (10') side yard building setback.

F. Rear Yard Setback.

The minimum rear yard building setback shall be twenty feet (20') from the rear facade of the residence (excluding porches and projecting architectural features) to the rear lot line. Porches and architectural features such as stoops, overhangs, courtyard walls, masonry chimneys and bay windows may extend into the rear yard a maximum of five feet (5').

G. Maximum Lot Coverage.

The maximum lot coverage will be 65% for any residential lot.

H. Garages.

An enclosed parking area of at least four hundred square feet shall be provided for a garage (this does not count towards the minimum house size). The face of a garage door must be located at least 20 feet from the street right-of-way line that the garage door faces. The garage door does not have to be behind the street facing façade of the house. Split garage doors with a separate door for each vehicle bay are not required.

I. Design Elements

All residential dwellings will meet the City of Sanger Exterior Façade Design Criteria Manual as adopted on October 7, 2019.

II. General Conditions.

- A. For the purposes of determining compliance with the lot width requirements, lot widths shall be measured at the rear of the required front yard setback as shown on the Final Plats.

- B. Sidewalks may be located outside of the public right-of-way if located within an adjacent open space lot with a pedestrian access easement to provide for meandering sidewalks and trails that may be located within adjacent common area lots or to preserve existing trees along perimeter roads.

III. Residential Single Family Detached Landscape Requirements. Except as otherwise provided below, landscape requirements shall comply with Section 48, Landscape Regulations of the Zoning Ordinance, subject to the following changes:

The following requirements apply to single family residential development:

- A. Each single-family residence shall have an irrigation system in the front yard and street corner side yard with a freeze sensor regulator shut off.
- B. Each Home lot shall have a minimum of two shade trees that are at least three inches in caliper planted. The trees shall be planted in the front and rear yard. If the lot fronts or sides onto a common area lot, the front yard requirement may be satisfied with the trees located in the adjacent greenspace. No other front yard or side yard tree planting requirement shall apply.
- C. All required trees shall be selected from a tree list approved during the Preliminary Plat stage.
- D. Each Home lot shall have a minimum of twelve (12) shrubs placed in the front yard. Individual shrubs shall be a minimum of three (3) gallons in size when planted.

IV. Open Space (1.437 Acres)

- A. Common areas shall include small open spaces as shown on the Concept Plan. Small Open Spaces shall be connected with sidewalks to be a comprehensive pedestrian system. Common areas will abut a public street right-of-way in at least one location with a sidewalk connection.
- B. All interior residential street rights-of-way shall be improved with sidewalks that are a minimum of four feet in width and (1) constructed by the homebuilders at the time of adjacent house construction; or (2) constructed by the developer for all non-buildable lots. All sidewalks along Collector and Arterial Road frontages are to be five feet in width.

V. Fencing Requirements

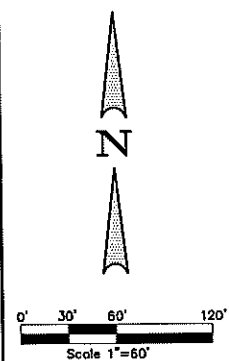
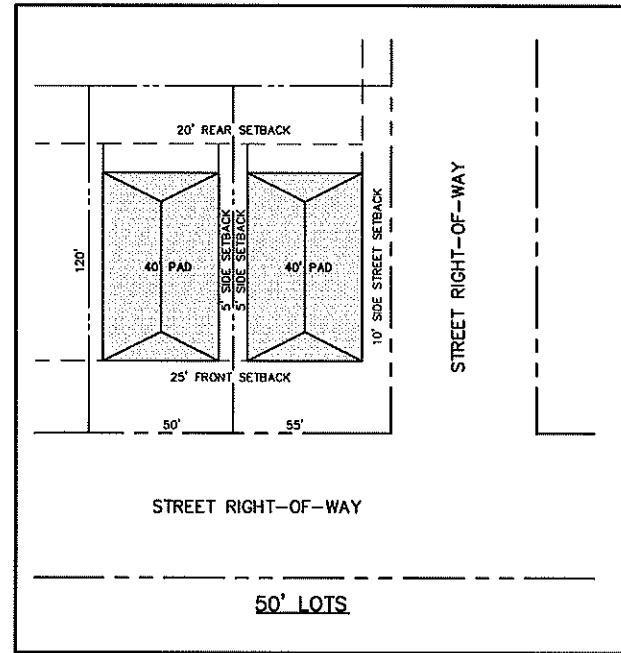
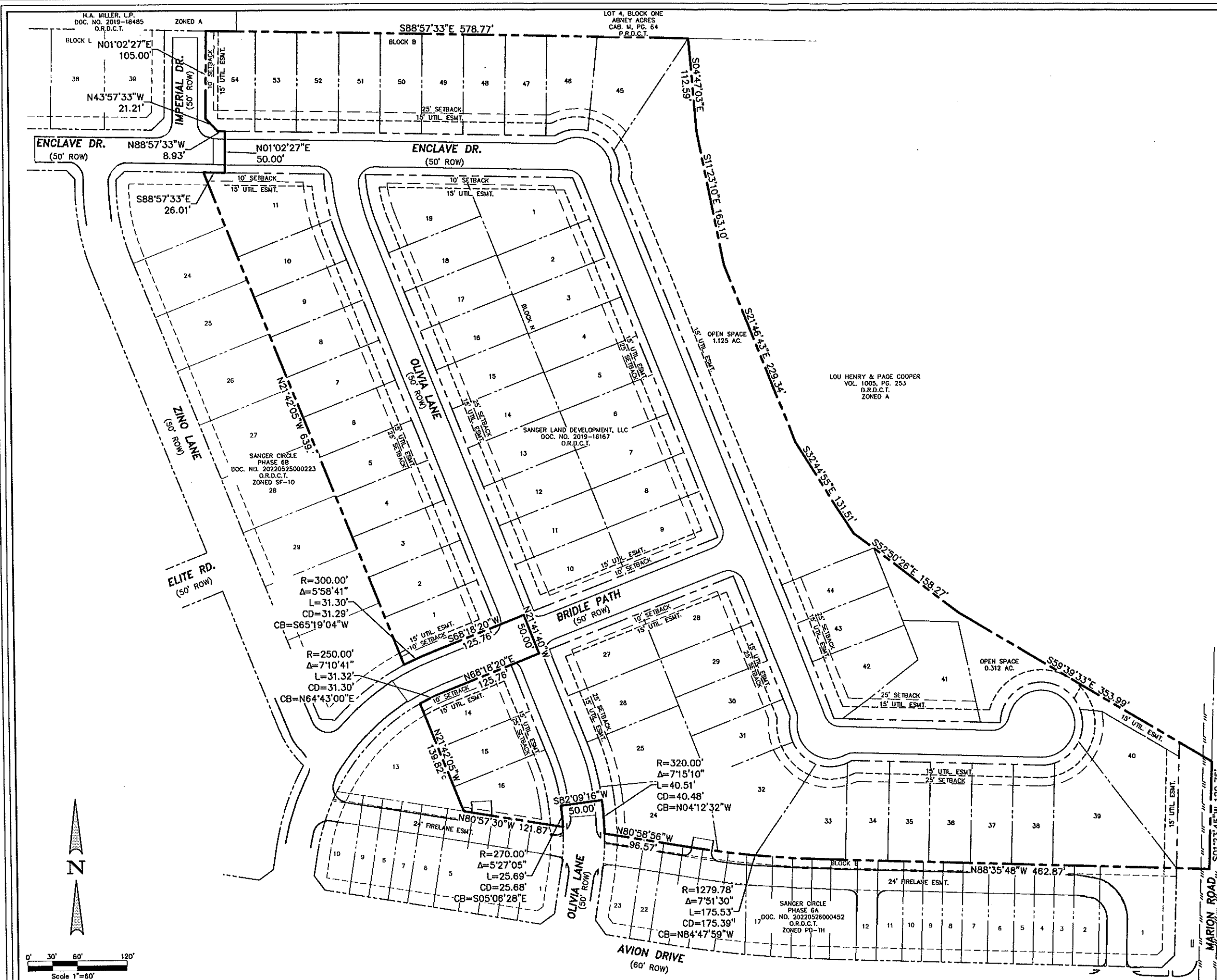
- A. Floodplain, parks, open spaces, right-of-way shall be exempt from the screening requirements in this Section; however, tubular steel fencing may be installed in these areas at the developer's option.
- B. Homebuilder side yard and back yard fencing on residential lots shall be a maximum of six feet in height and shall be setback a minimum of five feet from the front building line shown on the Concept Plan.
- C. Fencing on all residential lots abutting an open space lot or greenbelt shall be restricted to tubular steel painted black. No solid fencing other than a brick and/or stone masonry courtyard wall under 42 inches shall be permitted abutting an open space lot or greenbelt; however, landscape borders, included trimmed hedges, are permitted.

VI. Street Typology

- A. Standard curbs will be required adjacent to streets abutting all residential lot types unless otherwise approved by the City's engineering department.
- B. Streets fronting open space lots must have standard curbs adjacent to the common area lot. Streets adjacent to common area lots may provide for on-street parking. In addition, the street faces adjacent to open spaces near the flood plain will have a maintenance access location.
- C. Developer shall work with City to determine the location and number of stop signs within the subdivision and speed limits to facilitate traffic calming and maximum the benefit from the pedestrian system.

VII. Home Variety

- A. Detached home designs with the same or similar facade, materials, or colors should be separated by a minimum of three lots on the same side of the street and should not be located directly across or diagonally across the street from each other.
- B. If a detached home plan is repeated on an adjacent lot, it should be elevated with a different architectural style or two of the following three elevation changes - brick color, roof color, or flipped plan.



No.	DATE	REVISION	APPROV.
1	4-10-23		

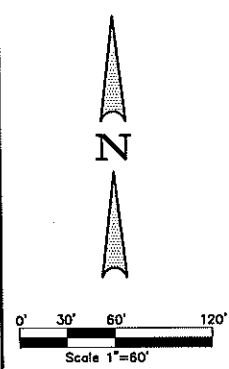
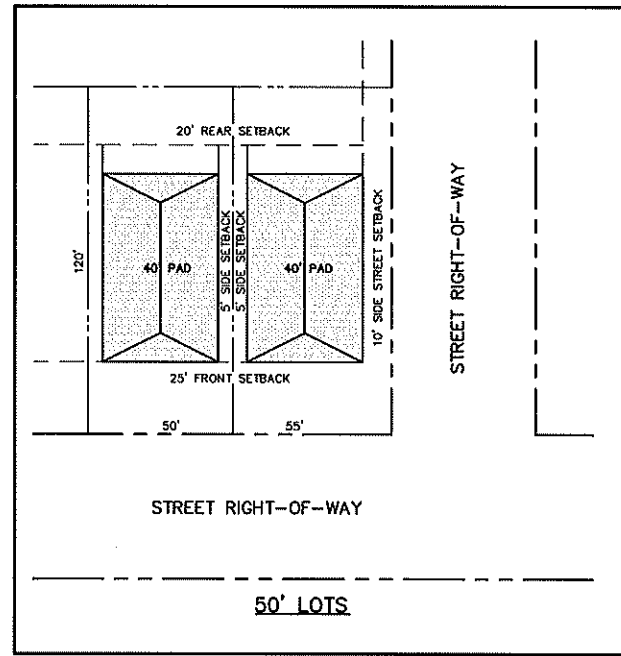
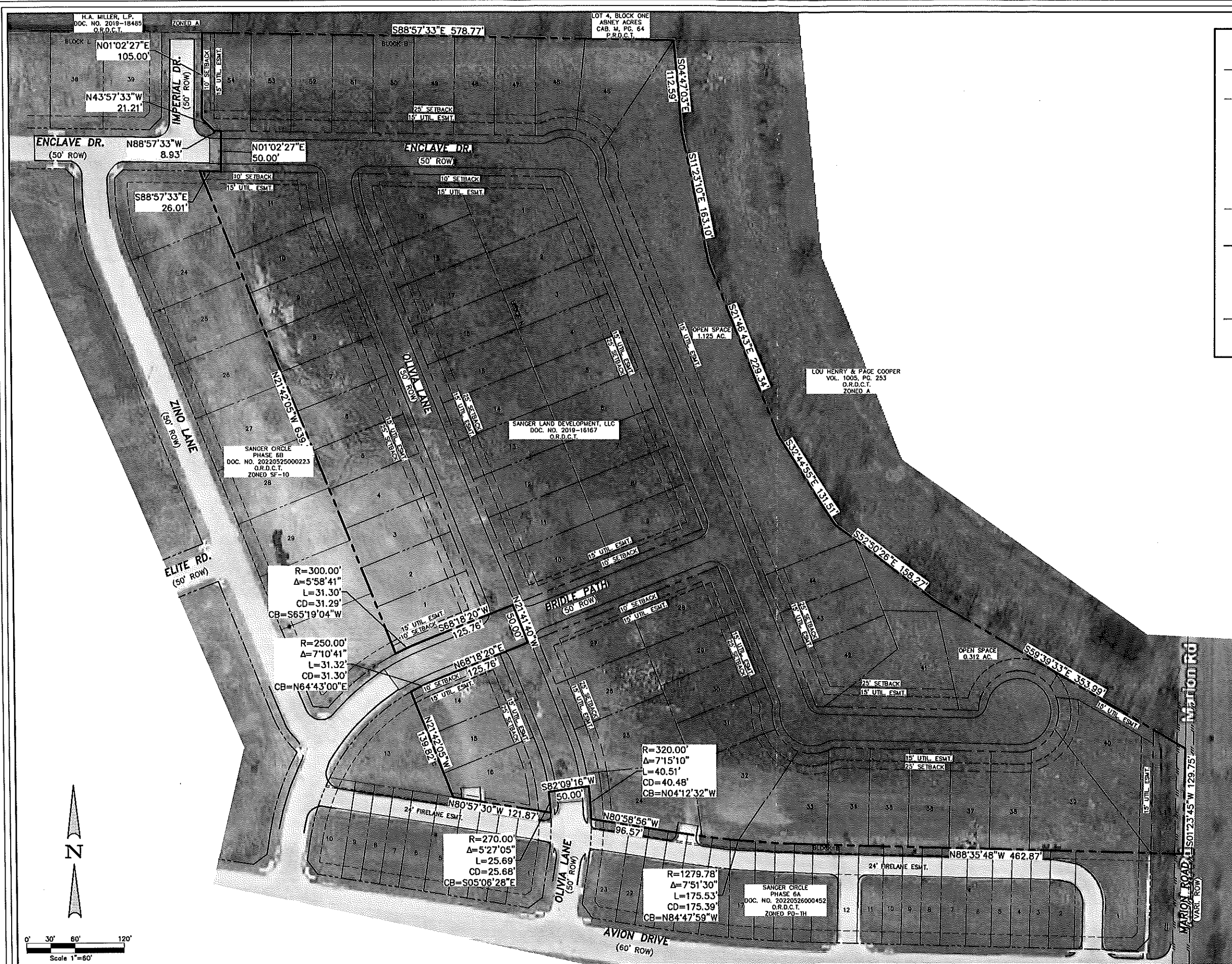
Middleton PROJECT ENGINEER:
& Associates, LLC.
CONSULTING CIVIL ENGINEERS & LAND PLANNERS
TBPE #F-10900 © Copyright 2023
2785 ROCKBROOK DRIVE, SUITE 105
LEWISVILLE, TEXAS 75087 (972) 393-9800

CONCEPT PLAN
SANGER CIRCLE PHASE 7
64 LOTS - 14.908 ACRES
CITY OF SANGER DENTON CO. TEXAS

Drawing File: 0118001ZONE.DWG
Project No. 0118001

DATE: 4-10-23
SCALE: 1"=60'

SHEET NO. 121



No.	DATE	REVISION	APPROV.
			4-10-23

Middleton & Associates, LLC.
 PROJECT ENGINEER:
 CONSULTING CIVIL ENGINEERS & LAND PLANNERS
 TBPE #F-10900 © Copyright 2023
 2785 ROCKBROOK DRIVE, SUITE 105
 LEWISVILLE, TEXAS 75067 (972) 393-9800

CONCEPT PLAN
 SANGER CIRCLE PHASE 7
 64 LOTS - 14.908 ACRES
 CITY OF SANGER DENTON CO. TEXAS

Drawing File: 0118001ZONE.DWG DATE: 4-10-23 SCALE: 1"=60' SHEET NO: 122



201 Bolivar Street/PO Box 1729 * Sanger, TX 76266
940-458-2059(office) www.sangertexas.org

ZONING CHANGE/SUP APPLICATION

☒ Zoning Change

☐ Specific Use Permit

Applicant	Owner (if different from applicant)
Name: Eugene Middleton, P.E.	Name: Mr. Jonathan Wang
Company: Middleton & Associates, LLC	Company: Sanger Land Development Company LLC
Address: 2785 Rockbrook Drive, Suite 105	Address: 101 Forest Bend Drive
City, State, Zip: Lewisville, Texas, 75067	City, State, Zip: Coppell, Texas, 75019
Phone: 972-393-9800	Phone: 214-316-2256
Fax: N/A	Fax: N/A
Email: eugene@middleton-associates.com	Email: wangjtc@verizon.net

Submittal Checklist	
	Site Plan (for Specific Use Permits Only)
X	Letter of Intent
X	Application Fee (Check Payable to City of Sanger)

I certify that I am the legal owner of the above referenced property and that to the best of my knowledge this is a true description of the property upon which I have requested the above checked action. I designate the applicant listed as my representative.

Describe the subject property (address, location, size, etc.):
14.908 Acres located at the northeast corner of Bridle Path and Olivia Lane (just east of Sanger Circle Phase 6)

Describe the proposed zoning change or Specific Use Permit (SUP):
Rezoning from PD-TH to PD-SF1

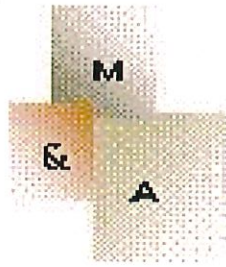
Owner Signature
Jonathan Wang

Applicant Signature
Eugene Middleton

May 30, 2023
Date

5-31-23
Date

Office Use	
Fee	
Date	



MIDDLETON & ASSOCIATES, LLC

CONSULTING CIVIL ENGINEERS AND LAND PLANNERS

May 31, 2023

Ms. Ramie Hammonds
Director of Development Services
City of Sanger
201 Bolivar Street
Sanger, Texas 76266

RE: Letter of Intent
Rezoning for Sanger Circle Ph 7
Sanger, Texas

Dear Ramie:

Please accept this Letter of Intent for the rezoning of the Sanger Circle Ph 7 property located at the northeastern intersection of Bridle Path and Avion Drive in Sanger. The property is approximately 14.908 acres consisting of one (1) property owner – Sanger Land Development, LLC. This tract is currently open pastureland with no tree cover.

The purpose of this request is to change the zoning from existing PD-TH to PD-SF1. The Cities Future Land Use Plan identifies this area as Medium Density Residential. The proposed PD would modify the zoning from townhome to single family detached residential. We believe this use is a much better option for this site and more follows the city's land use plan. The owner for this submittal is Mr. Jonathan Wang with Sanger Land Development, LLC.

If you have any other questions or would like additional information regarding our submittal, please contact myself at 972-393-9800 or Mr. Wang at 214-316-2256.

Sincerely,
MIDDLETON & ASSOCIATES, LLC.

Eugene Middleton, P.E.
President

SECTION 53
“R-1” RESIDENTIAL DISTRICT - 1

General Purpose and Description: This district is designed to permit larger single-family detached dwelling units on small lots. The R districts are the preferred zoning districts for new single-family residential land uses.

53.1 Permitted Uses:

- A. Uses permitted in the SF-2 through SF-10 districts are outlined in the chart in [Section 30](#).

53.2 Area Regulations:

A. Size of Yards:

1. Minimum Front Yard: Twenty feet (20')[.]
2. Minimum Side Yard: Eight feet (8'); Ten feet (10') on corner adjacent to side street.
3. Minimum Rear Yard: Twenty feet (20')[.]

B. Size of Lots:

1. Minimum Lot Area: Six thousand (6,500) [sic] square feet[.]
2. Minimum Lot Width: Fifty feet (50')[.]
3. Minimum Lot Depth: One hundred feet (100')[.]

C. Minimum Dwelling Size: Two thousand (2,000) square feet[.]

- D. Minimum Parking Required: An enclosed parking area of at least four hundred (400) square feet. This area does not count towards the minimum dwelling size.

Response Form

23SANZON-0028

PD-Sanger Circle Phase 7 - Zoning

In order for your opinion to be counted, please complete and mail this form to:

Development Services Department

Attn: Ramie Hammonds

P.O. Box 1729

Sanger, TX 76266

You may also email a copy to:

Email: rhammonds@sangertexas.org

Project No: 23SANZON-0028/ PD-Sanger Circle Phase 7 - Zoning

Please circle one: ☒ In favor of request ☐ Opposed to request

Comments:

Signature

Shirley Yin-Piazza

Printed Name

Shirley Yin-Piazza

Mailing Address

5212 Steinbeck St.

City, State, Zip

Carrollton, TX 75010

Phone Number

713-304-4280

Email Address

PIAZZA66@GMAIL.COM

Physical Address of Property within 200 feet

SANGER CIRCLE Phase 6A - Lots # 13, 14, 15, 16, 17 (560's)

Response Form

23SANZON-0028

PD-Sanger Circle Phase 7 - Zoning

In order for your opinion to be counted, please complete and mail this form to:

Development Services Department

Attn: Ramie Hammonds

P.O. Box 1729

Sanger, TX 76266

You may also email a copy to:

Email: rhammonds@sangertexas.org

Project No: 23SANZON-0028/ PD-Sanger Circle Phase 7 - Zoning

Please circle one: In favor of request

Opposed to request

Comments:

TO many ~~Dev~~ DEVELOPMENTS TAKING AWAY
LAND behind Houses on Zinda Ln. I bought here because
OF the open space. DON'T WANT Homes directly behind mine

Signature

Printed Name

Mailing Address

City, State, Zip

Phone Number

Email Address

Physical Address of Property within 200 feet



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Services Director

AGENDA ITEM: Consideration and possible action on the Minor Plat of Sims Street Addition, Block A, Lot 1 being 0.129 acres, located in the City of Sanger, and generally located on the east side of Sims Street approximately 97 feet north of the intersection of Sims St and Kirkland St.

SUMMARY:

- The applicant is proposing to create 1 single-family lot of 0.129 acres.
- This is an existing infill lot.
- The lot received a variance to the minimum lot size of 6500 sq ft and to allow for a lot of 5625 sq ft.
- The lot received a variance from the minimum lot depth of 100 ft and to allow for a depth of 75 ft.
- The lot received a variance from the front yard setback of 25 ft to allow for a setback of 21 ft and from a rear yard setback of 25 ft to allow for a setback of 18 ft.
- The lot has a width of 75 ft.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends APPROVAL with the condition all comments are satisfied prior to City Council approval.

ATTACHMENTS:

Location Map

Minor Plat

Application

Letter of Intent

Planning Comments

Engineering Comments



Project Name: Sims Street Minor Plat
KAZ Surveying
Project: 23SANZON-0033

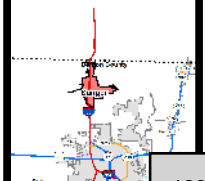


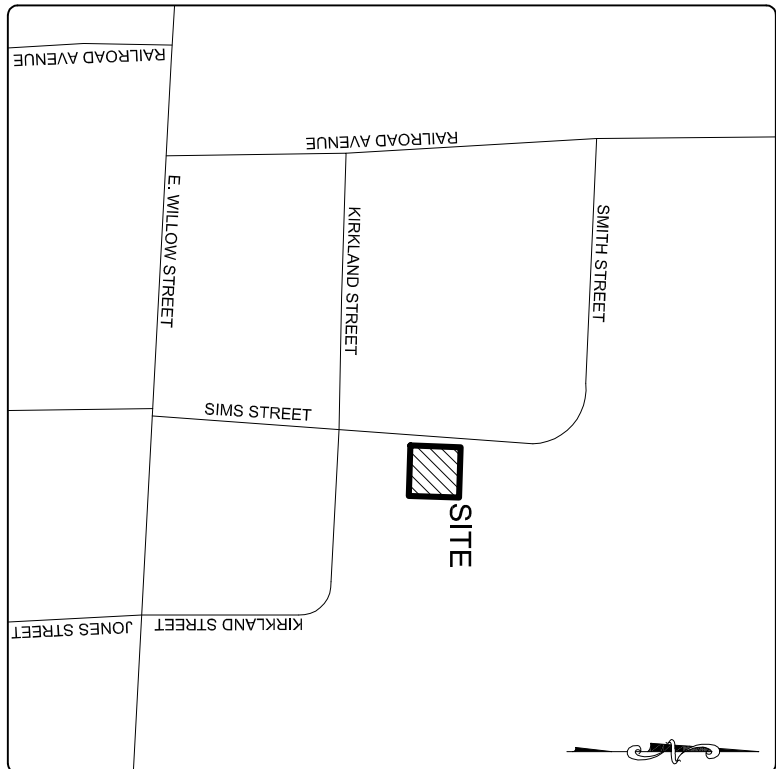
City Limits



Exhibits

DISCLAIMER:
This map was generated by GIS data provided by the Sanger GIS Department. The City of Sanger does not guarantee the correctness or accuracy of any features on this map. These map products are for illustration purposes only and are not suitable for site-specific decision making. GIS data is subject to constant changes, and may not be complete, accurate or current.
Date: 7/23/2023 2:41:48 PM
Doc Name: 23SANZON-0033_Sims Street Minor Plat





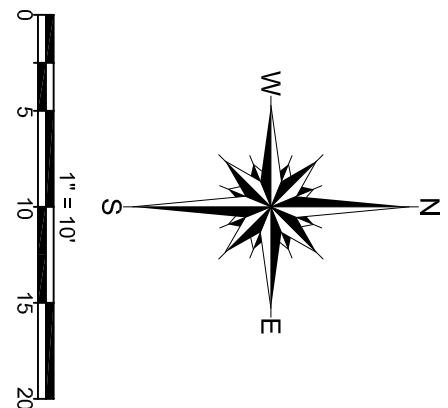
VICINITY MAP
NOT TO SCALE

GENERAL NOTES:

1. ALL CORNERS ARE MARKED WITH CAPPED 1/2" IRON RODS STAMPED "KAZ". UNLESS OTHERWISE NOTED.
2. FLOOD STATEMENT: I HAVE REVIEWED THE FEMA FLOOD INSURANCE RATE MAP FOR THE CITY OF SANGER, COMMUNITY NUMBER 48076, EFFECTIVE DATE 4-18-2011, AND THAT MAP INDICATES AS SCALED, THAT THIS PROPERTY IS WITHIN NON-SHADED ZONE "X" DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOOD (500-YEAR), AS SHOWN ON PANEL 90 G OF SMD MAP.
3. THE PURPOSE OF THIS PLAT IS TO CREATE 1 (ONE) LOT OF RECORD.
4. BEARINGS SHOWN HEREON ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM (NAD 83) DATUM OF 1983, 2011 ADJUSTMENT.
5. THE SUBJECT TRACT SHOWN HEREON IS ZONED SF-10'.
6. THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES IF THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
7. NOTICE - SELLING A PORTION OF THIS ADDITION BY METES & BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
8. THIS PLAT DOES NOT ALTER OR REMOVE ANY EXISTING DEED RESTRICTIONS, IF ANY, ON THIS PROPERTY.
9. WATER, WASTEWATER AND ELECTRICITY SERVICES WILL BE PROVIDED BY THE CITY OF SANGER.

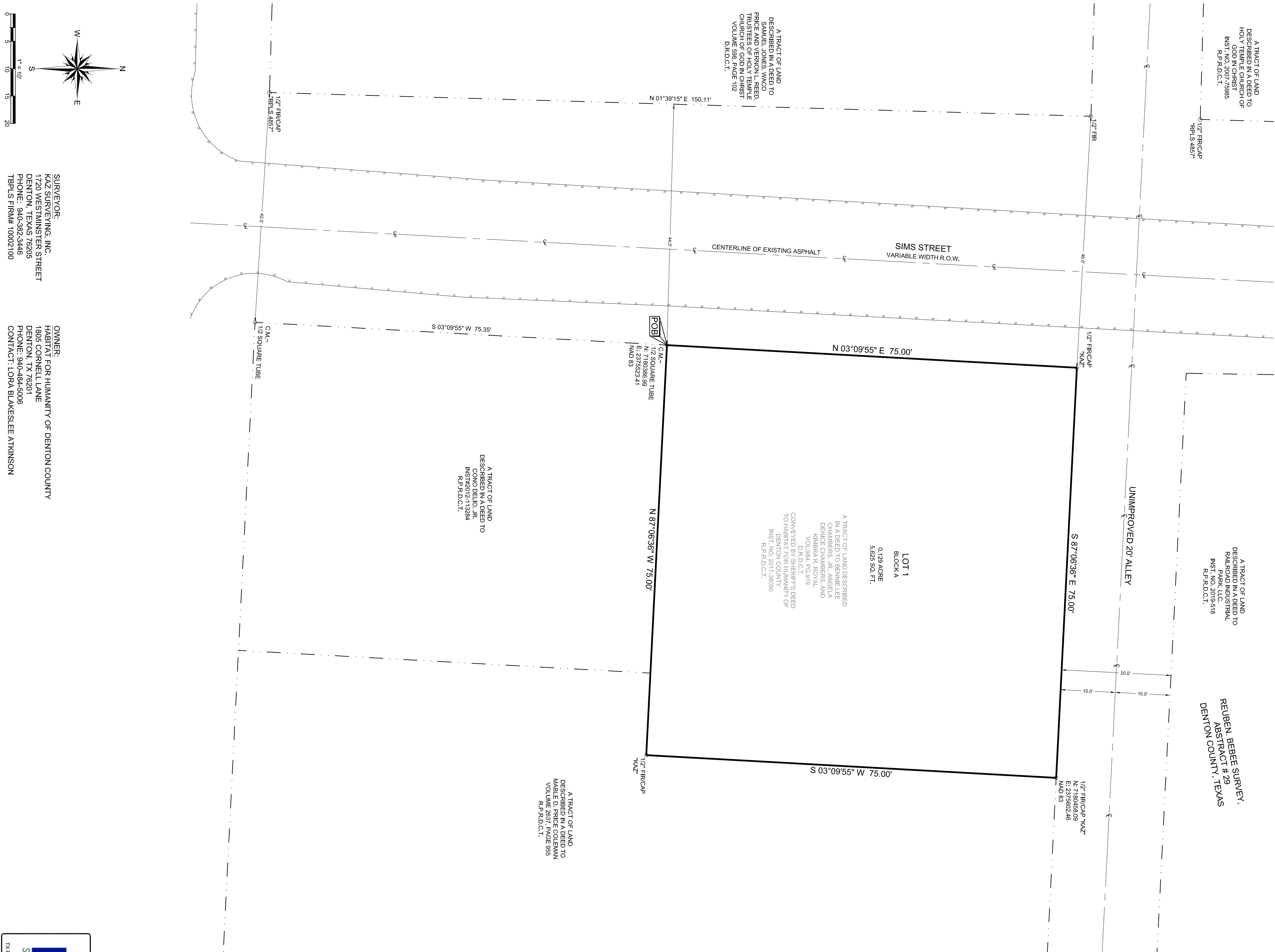
FOUR = RIGHT-OF-WAY
FSD = FLOOD SHADING
FR = IRON ROD FOUND
FRCAP = CAPPED IRON ROD FOUND
GN = CONTROLLING MONUMENT
R.P.D.C.T. = REAL PROPERTY RECORDS DENTON COUNTY TEXAS
D.D.C.T. = DEED RECORDS DENTON COUNTY TEXAS
E = EASTING
NAD 83 = NORTH AMERICAN DATUM OF 1983
C = CENTERLINE OF ROAD
E = EXISTING ASPHALT

LEGEND



SURVEYOR:
KAZ SURVEYING, INC.
1720 WESTMINSTER STREET
DENTON, TEXAS 76205
PHONE: 940-382-3446
TBPUS FRM# 10002100

OWNER:
HABITAT FOR HUMANITY OF DENTON COUNTY
1805 CORNELL LANE
DENTON, TX 76201
PHONE: 940-484-4006
CONTACT: LORA BLACKSLEE ATKINSON



STATE OF TEXAS
COUNTY OF DENTON

WITNESSES: Habitat for Humanity of Denton County, acting herein by and through its duly authorized officer, does hereby adopt the heretofore described property as Lot 1 in Block A of Sims Street Addition, an addition to the City of Sanger, Denton County, Texas, and does hereby dedicate to the public use forever by fee simple title, free and clear of all liens and encumbrances, all streets, thoroughfares, alleys, fire lanes, drive aisles, parks, and watercourses, and to the public use forever easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over, or across the easements as shown, except that landscape improvements may be installed if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

THENCE North 03 degrees 09 minutes 55 seconds East, along said West Right-of-Way line, a distance of 75.00 feet to a capped 1/2-inch iron rod stamped "KAZ" found for corner at the Southeast intersection of Sims Street and an unimproved 20-foot-wide alley, being the Northwest corner of this tract described subject tract.
THENCE South 87 degrees 06 minutes 36 seconds East, along the South line of said unimproved alley, a distance of 75.00 feet to a capped 1/2-inch iron rod stamped "KAZ" found for corner in same, being the Northeast corner of this tract described subject tract.
THENCE South 03 degrees 09 minutes 55 seconds West, a distance of 75.00 feet to a capped 1/2-inch iron rod stamped "KAZ" found for corner, being the Southeast corner of this tract described subject tract.
THENCE North 87 degrees 06 minutes 36 seconds West, a distance of 75.00 feet to the POINT OF BEGINNING, containing 0.129 of an acre, or 5,625 square feet of land, more or less.

OWNERS DEDICATION

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, Habitat for Humanity of Denton County, acting herein by and through its duly authorized officer, does hereby adopt the plat designating the heretofore described property as Lot 1 in Block A of Sims Street Addition, an addition to the City of Sanger, Denton County, Texas, and does hereby dedicate to the public use forever by fee simple title, free and clear of all liens and encumbrances, all streets, thoroughfares, alleys, fire lanes, drive aisles, parks, and watercourses, and to the public use forever easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over, or across the easements as shown, except that landscape improvements may be installed if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

WITNESS MY HAND this _____ day of _____, 2023.

OWNER

TITLE AND COMPANY

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN AND IN THE CAPACITY THEREIN STATED.

GIVEN MY MY HAND AND SEAL OF OFFICE THIS THE _____ DAY OF _____, 2023.

NOTARY PUBLIC IN AND FOR THE STATE OF _____
COUNTY _____

MY COMMISSION EXPIRES ON _____

CERTIFICATE OF SURVEYOR

STATE OF TEXAS
COUNTY OF DENTON

I, KENNETH A. ZOLLINGER, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AND ACTUAL SURVEY MADE ON THE GROUND AND THAT THE MONUMENTS SHOWN HEREON WERE FOUND OR PLACED WITH 1/2" IRON RODS CAPPED "KAZ" UNDER MY DIRECTION AND SUPERVISION IN ACCORDANCE WITH THE ORDINANCES OF THE CITY OF SANGER, DENTON COUNTY, TEXAS.

KENNETH A. ZOLLINGER, S.S. # 5312
DATE _____
FOR REVIEW ONLY

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED KENNETH A. ZOLLINGER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE THIS _____ DAY OF _____, 2023.

NOTARY PUBLIC, DENTON COUNTY, TEXAS.

MY COMMISSION EXPIRES _____

APPROVED AND ACCEPTED	
CHAIRMAN PLANNING AND ZONING COMMISSION CITY OF SANGER, TX	DATE _____
MAYOR CITY OF SANGER, TX	DATE _____
ATTESTED BY:	
CITY SECRETARY CITY OF SANGER, TX	DATE _____

KAZ SURVEYING
1720 WESTMINSTER STREET
DENTON, TEXAS 76205
PHONE: (940) 382-3446
TBPUS FRM# 10002100
KENNETH A. ZOLLINGER

MINOR PLAT
LOT 1, BLOCK A
SIMS STREET ADDITION
BEING 0.129 OF AN ACRE IN THE REUBEN BEBEE
SURVEY, ABSTRACT NUMBER 29, CITY OF SANGER,
DENTON COUNTY, TEXAS



201 Bolivar Street/PO Box 1729 * Sanger, TX 76266
940-458-2059 (office) www.sangertexas.org

SUBDIVISION APPLICATION

☒

Preliminary
Plat Minor
Plat

☐

Final
Plat/Replat
Amended Plat

☐

Vacating Plat
Conveyance
Plat

Applicant

Owner (if different from applicant)

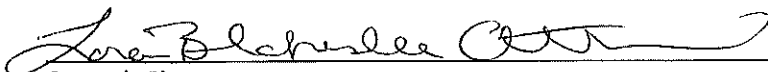
Name: David Jett	Name:
Company: KAZ Surveying, Inc.	Company: Habitat For Humanity of Denton County
Address: 1720 Westminster Street	Address: 1805 Cornett Ln., Denton, TX 76201
City, State, Zip: Denton, TX 76205	City, State, Zip: Denton, TX 76201
Phone: 940-382-3446	Phone: 940-484-5006
Fax:	Fax:
Email: davidj@kazsurveying.com	Email: loraatkinson@hfhdentoncounty.org

Submittal Checklist

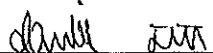
Pre-Application Conference (Date: __/__/__)
One (1) Paper Copy of Plat (24"x36", folded to 1/4 size)
Letter of Intent
Non-Refundable Application Fee (Check Payable to City of Sanger)
Application Form (Signed by Owner)
Applicable Plat Checklist (Completed)
Additional Required Documents/Traffic & Drainage Studies etc.
One (1) PDF Copy of all Documents Provided on a CD/DVD or Emailed to development@sangertexas.org

Supporting Materials (List if provided): _____

R Number(s): _____


Owner's Signature

07-06-2023
Date


Applicant's Signature

07-06-2023
Date

Office Use: Reviewed by Director of Development Services __/__/__

City of Sanger
201 Bolivar / P.O. Box 1729
Sanger, TX 76266

940-458-2059 (office)

www.sangertexas.org

Effective Date: 02/11/2020



Sims Street Addition

Sanger, TX 76266

07-10-2023

The purpose of this Minor Plat is to create 1 (one) lot of record.

DCAD# 60106

David Jett

KAZ Surveying, Inc

940-382-3446

davidj@kazsurveying.com

KAZ Surveying, Incorporated

1720 Westminster Street

Denton, TX 76205

Phone: 940-382-3446 Fax: 940-382-3447



DATE: 08/02/2023

1st REVIEW COMMENTS – Final Plat (Sims Addition)

The request is for a Final Plat of the Sims Addition containing 1 lot, being approximately 0.129 acres in the REUBEN BEBEE SURVEY, ABSTRACT NO 29, prepared by KAZ Surveying, submitted on 07/19/2023. Below are the comments that should be addressed before City Council approval. Resubmit the revised plat along with a response letter addressing all comments.

Planning

Provide the following

1. Show the centerline of existing streets and dimensions from the centerline to the edges of existing and proposed right-of-way on **both** sides of the centerline.
2. Provide a signed notarized copy of private restrictions (if any), that are filed for record in the office of the County Clerk.
3. Include all standard notes from checklist.
4. Show the name address and phone number of all utilities providing service to the development and a signature or **will-serve** letter, signifying their ability to provide service to the subdivision.

Informational Comments

1. The property is within the City of Sanger.
2. The Final Plat will be scheduled for the Planning and Zoning (P&Z) Commission meeting on Monday, August 14, 2023, and the City Council meeting on Tuesday, September 5, 2023.



August 9, 2023
AVO 37449.004

Ms. Ramie Hammonds
Development Services Director/Building Official
City of Sanger
201 Bolivar Street
P.O. Box 1729
Sanger, Texas 76266

Re: Sims Street Addition – Minor Plat
First Review

Dear Ms. Hammonds,

Halff Associates, Inc. was requested by the City of Sanger to provide a first review of the minor plat for Lot 1, Block A of the Sims Street Addition located on Sims Street north of Kirkland Street. The property is located inside the City of Sanger limits. The Minor Plat was prepared by KAZ Surveying and is dated July 7, 2023. Ordinance citations are provided on the attached markup. Our comments are as follows

1. Show required building setbacks per zoning.
2. Provide an updated letter of intent with additional information as required by Ordinance 10.104(d)(3). See markup for more information.

If you have any questions or need additional information, please do not hesitate to call me at (817) 764 7467.

Sincerely,
HALFF

A handwritten signature in black ink, reading "Leigh A. Hollis".

Leigh A. Hollis, P.E.

Attachments: markups

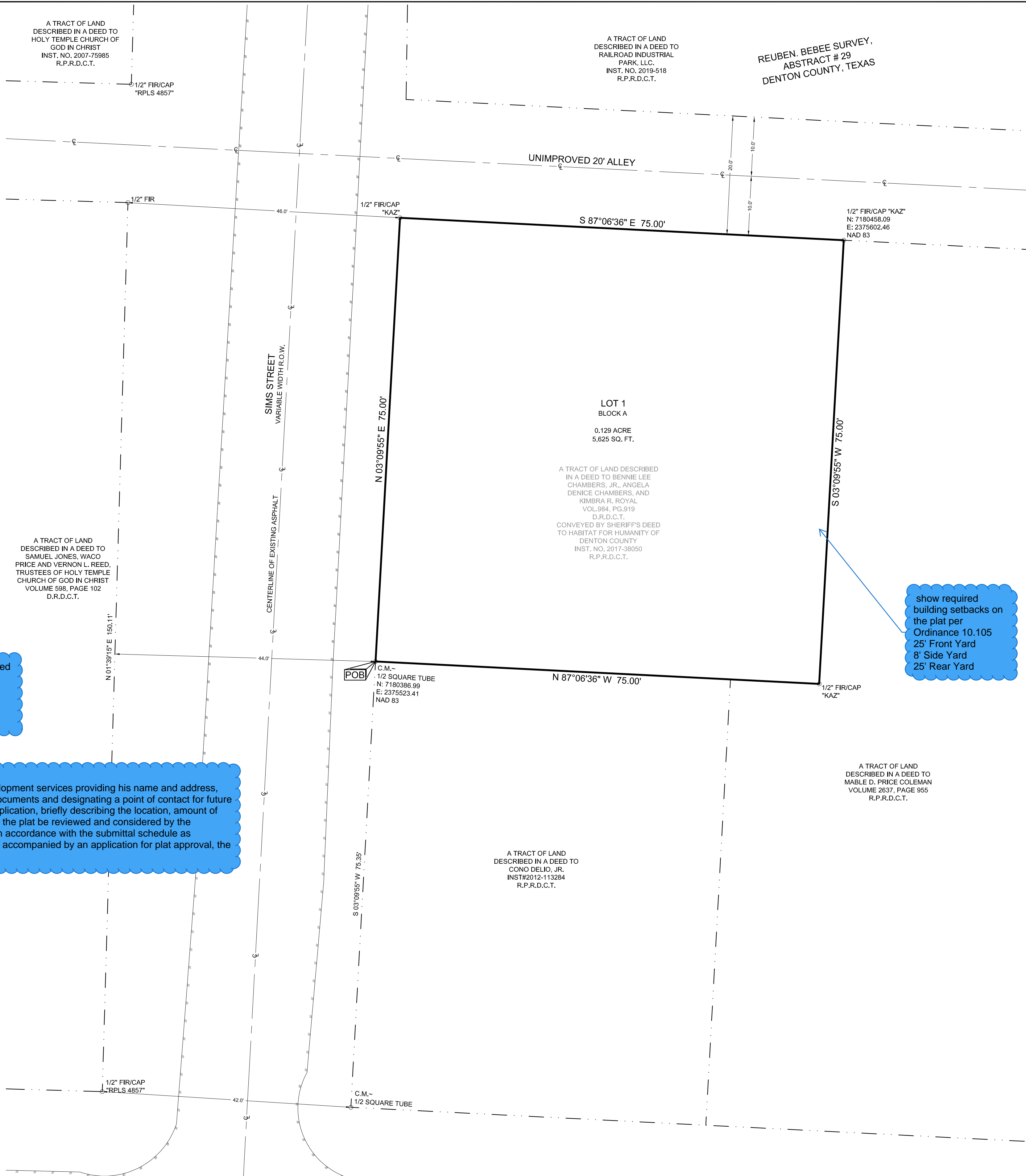
VICINITY MAP
NOT TO SCALE

GENERAL NOTES:

1. ALL CORNERS ARE MARKED WITH CAPPED 1/2" IRON RODS STAMPED "KAZ" UNLESS OTHERWISE NOTED.
2. FLOOD STATEMENT: I HAVE REVIEWED THE F.E.M.A. FLOOD INSURANCE RATE MAP FOR THE CITY OF SANGER, COMMUNITY NUMBER 480786, EFFECTIVE DATE 4-18-2011, AND THAT MAP INDICATES AS SCALED, THAT THIS PROPERTY IS WITHIN "NON-SHADED ZONE X" DEFINED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD (500-YEAR)", AS SHOWN ON PANEL 90 G OF SAID MAP.
3. THE PURPOSE OF THIS PLAT IS TO CREATE 1 (ONE) LOT OF RECORD.
4. BEARINGS SHOWN HEREON ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, NORTH CENTRAL ZONE (4202), AND ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT.
5. THE SUBJECT TRACT SHOWN HEREON IS ZONED "SF-10".
6. THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES IF THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
7. NOTICE - SELLING A PORTION OF THIS ADDITION BY METES & BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
8. THIS PLAT DOES NOT ALTER OR REMOVE ANY EXISTING DEED RESTRICTIONS, IF ANY, ON THIS PROPERTY.
9. WATER, WASTEWATER AND ELECTRICITY SERVICES WILL BE PROVIDED BY THE CITY OF SANGER.

Provide updated letter of intent to include all information required by Ordinance 10.104(d)(3) - see below

The subdivider shall submit a letter of intent to the director of development services providing his name and address, the contact information of the person(s) preparing the submitted documents and designating a point of contact for future correspondence. The letter shall also state the intent of the plat application, briefly describing the location, amount of land, and o the intended use(s) of the property and requesting that the plat be reviewed and considered by the appropriate approval body. Such letter of intent shall be received in accordance with the submittal schedule as published by the department of development services and shall be accompanied by an application for plat approval, the appropriate fee and drawings of the plat, as indicated herein

STATE OF TEXAS
COUNTY OF DENTON

WHEREAS: Habitat for Humanity of Denton County, is the owner of all that certain tract of land lying and being situated in the Reuben Beebe Survey, Abstract Number 29, Denton County, Texas, being all that certain tract of land described in a deed to Bennie Lee Chambers, Jr., Angela Denise Chambers, and Kimbra R. Royal, as recorded in Volume 984, Page 919, Deed Records, Denton County, Texas (D.R.D.C.T.), and conveyed by sheriff's deed to Habitat for Humanity of Denton County, under Instrument Number 2017-38050, Real Property Records, Denton County, Texas (R.P.R.D.C.T.), and being more particularly described by metes & bounds as follows:

BEGINNING at a 1/2-inch square tube found for corner in the West Right-of-Way line of Sims Street, being the Southwest corner of this herein described subject tract:

THENCE North 03 degrees 09 minutes 55 seconds East, along said West Right-of-Way line, a distance of 75.00 feet to a capped 1/2-inch iron rod stamped "KAZ" found for corner at the Southeast intersection of Sims Street and an unimproved 20-foot-wide alley, being the Northwest corner of this herein described subject tract:

THENCE South 87 degrees 06 minutes 36 seconds East, along the South line of said unimproved alley, a distance of 75.00 feet to a capped 1/2-inch iron rod stamped "KAZ" found for corner in same, being the Northeast corner of this herein described subject tract:

THENCE South 03 degrees 09 minutes 55 seconds West, a distance of 75.00 feet to a capped 1/2-inch iron rod stamped "KAZ" found for corner, being the Southeast corner of this herein described subject tract:

THENCE North 87 degrees 06 minutes 36 seconds West, a distance of 75.00 feet to the POINT OF BEGINNING, containing 0.129 of an acre, or 5,625 square feet of land, more or less.

OWNER'S DEDICATION

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, Habitat for Humanity of Denton County, acting herein by and through its duly authorized officer, does hereby adopt this plat designating the hereinabove described property as Lot 1 in Block A of **Sims Street Addition**, an addition to the City of Sanger, Denton County, Texas, and does hereby dedicate to the public use forever by fee simple title, free and clear of all liens and encumbrances, all streets, thoroughfares, alleys, fire lanes, drive aisles, parks, and watercourses, and to the public use forever easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over, or across the easements as shown, except that landscape improvements may be installed, if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

WITNESS MY HAND this _____ day of _____, 2023

_____, OWNER

_____, TITLE AND COMPANY

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED _____, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN AND IN THE CAPACITY THEREIN STATED.

GIVEN MY MY HAND AND SEAL OF OFFICE THIS THE ____ DAY OF _____, 2023.

NOTARY PUBLIC IN AND FOR THE STATE OF _____
_____ COUNTY

MY COMMISSION EXPIRES ON _____

CERTIFICATE OF SURVEYOR

STATE OF TEXAS
COUNTY OF DENTON

I, KENNETH A. ZOLLINGER, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AND ACTUAL SURVEY MADE ON THE GROUND AND THAT THE MONUMENTS SHOWN HEREON WERE FOUND OR PLACED WITH 1/2" IRON RODS CAPPED "KAZ" UNDER MY DIRECTION AND SUPERVISION IN ACCORDANCE WITH THE ORDINANCES OF THE CITY OF SANGER, DENTON COUNTY, TEXAS.

KENNETH A. ZOLLINGER, S.T.S. # 5312 DATE _____

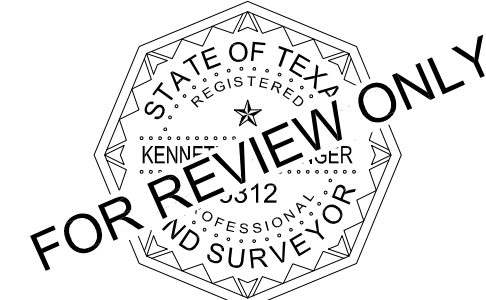
STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED KENNETH A. ZOLLINGER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE THIS _____ DAY OF _____, 2023.

NOTARY PUBLIC, DENTON COUNTY, TEXAS.

MY COMMISSION EXPIRES _____



APPROVED AND ACCEPTED

CHAIRMAN,
PLANNING AND ZONING COMMISSION
CITY OF SANGER, TX

DATE _____

MAYOR
CITY OF SANGER, TX

DATE _____

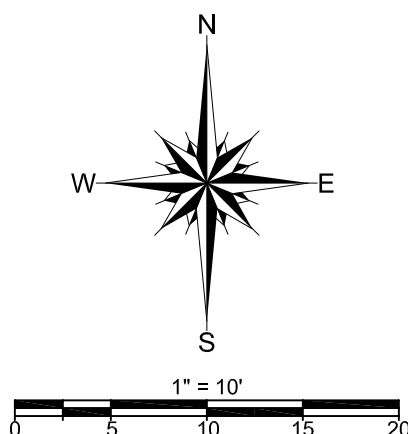
ATTESTED BY:

CITY SECRETARY
CITY OF SANGER, TX

DATE _____

LEGEND

R.O.W. = RIGHT-OF-WAY
POB = POINT OF BEGINNING
FIR = IRON ROD FOUND
FIR/CAP = CAPPED IRON ROD FOUND
SIR = CAPPED IRON ROD SET
C.M. = CONTROLLING MONUMENT
R.P.R.D.C.T. = REAL PROPERTY RECORDS DENTON COUNTY TEXAS
D.R.D.C.T. = DEED RECORDS DENTON COUNTY TEXAS
N = NORTHING
E = EASTING
NAD 83 = NORTH AMERICAN DATUM OF 1983
_____ = CENTERLINE OF ROAD
_____ = EXISTING ASPHALT



SURVEYOR:
KAZ SURVEYING, INC.
1720 WESTMINSTER STREET
DENTON, TEXAS 76205
PHONE: 940-382-3446
TBPLS FIRM# 10002100

OWNER:
HABITAT FOR HUMANITY OF DENTON COUNTY
1805 CORNELL LANE
DENTON, TX 76201
PHONE: 940-484-5006
CONTACT: LORA BLAKESLEE ATKINSON



1720 WESTMINSTER
DENTON, TX 76205
(940)382-3446
JOB NUMBER: 181620
DRAWN BY: DJJ
DATE: 07-07-2023
R.P.L.S.
KENNETH A. ZOLLINGER

MINOR PLAT
LOT 1, BLOCK A
SIMS STREET ADDITION
BEING 0.129 OF AN ACRE IN THE REUBEN BEBEE
SURVEY, ABSTRACT NUMBER 29, CITY OF SANGER,
DENTON COUNTY, TEXAS



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Service Director

AGENDA ITEM: Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Vape Shop.

SUMMARY:

- Per Chapter 14 Zoning, Section 37 Classification of New and Unlisted Uses
- Vape Shop is not listed in the Zoning Classification of Chapter 14 Zoning.
- "B-1" Business District-1 is intended for office facilities, neighborhood shopping facilities, and retail and commercial facilities of service character.
- "B-2" Business District-2 is the most inclusive Business District and includes "B-1" uses, but has an expanded range of services.
- "B-3" Business District-3 is intended to meet the special needs and interests of the historically central commercial area. "B-3" is located downtown.
- Vape Shop is considered an age-restricted business and may not sell to anyone under 21 years of age.
- The Planning & Zoning recommendation will be forwarded to City Council to consider and City Council will pass a resolution for the use.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends the Zoning Classification of "B-2" Business District-2.

ATTACHMENTS:

Chapter 14, Section 37 – Classification of New and Unlisted Uses

"B-1" Zoning regulations

"B-2" Zoning regulations

"B-3" Zoning regulations

Select Language ▼

City of Sanger, TX
Wednesday, June 28, 2023

Exhibit 14A. Zoning Ordinance

SECTION 37. CLASSIFICATION OF NEW AND UNLISTED USES

§ 37.1.

It is recognized that new types of land use will develop and forms of land use not anticipated may seek to locate in the City. In order to provide for such changes and contingencies, a determination as to the appropriate classification of any new or unlisted form of land use shall be made as follows:

1. The building inspector shall refer the question concerning any new or unlisted use to the Planning and Zoning Commission requesting an interpretation as to the zoning classification into which such use should be placed. The referral of the use interpretation question shall be accompanied by a statement of facts listing the nature of the use and whether it involves dwelling activity, sales, processing, type of product, storage and amount, and nature thereof, enclosed or open storage, anticipated employment, transportation requirements, the amount of noise, odor, fumes, dust, toxic material and vibration likely to be generated and the general requirements for public utilities such as water and sanitary sewer.
2. The Planning and Zoning Commission shall consider the nature and described performance of the proposed use and its compatibility with the uses permitted in the various districts, and determine the zoning district or districts within which such use should be permitted.
3. The Planning and Zoning Commission shall transmit its findings and recommendations to the City Council as to the classification proposed for any new or unlisted use. The City Council shall by resolution approve the recommendation of the Planning and Zoning Commission or make such determination concerning the classification of such use as is determined appropriate based upon its findings.
4. Standards for new and unlisted uses may be interpreted as those of a similar use. When determination of the minimum requirements cannot be readily ascertained, the same process outlined in paragraphs 1, 2, and 3 above shall be followed.

(Ordinance 015-87 of August 3, 1987)

Item 12.

SECTION 22

"B-1" BUSINESS DISTRICT

General Purpose and Description: The "B-1" Business District is intended for office facilities, neighborhood shopping facilities and retail and commercial facilities of a service character. The B-1 District is established to accommodate the daily and frequent needs of the community.

22.1 Use Regulations: A building or premise shall be used only for the following purposes:

1. Banks or savings and loans containing no more than 10,000 square feet of floor space.
2. Clinic, medical or dental containing no more than 10,000 square feet of floor space.
3. Food store with floor space not greater than twenty thousand (20,000) square feet.
4. Furniture and appliance, retail sales containing no more than 20,000 square feet of floor space.
5. Laboratory, medical or dental containing no more than 10,000 square feet of floor space.
6. Lithographic or print shop, retail only.
7. Tool rental (inside only).
8. Other general retail sales of similar nature and character provided that the business establishment is subject to the following conditions, which shall be applicable to all uses in the district:
 - a. The business shall be conducted wholly within an enclosed building;
 - b. Required yards shall not be used for display, sale or storage of merchandise or for the storage of vehicles, equipment, containers or waste material;
 - c. All merchandise shall be sold at retail on the premises; and
 - d. Such use shall not be objectionable because of odor, excessive light, smoke, dust, noise, vibration or similar nuisance.
9. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in the B-1 District, when granted in accordance with [Section 31](#):

1. Gasoline service station with associated automobile repair facility with floor space not greater than two thousand five hundred (2500) square feet.
2. Other uses as listed in [Section 30](#) of this ordinance.

22.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, roof gables, chimneys, vent stacks or mechanical equipment rooms, which may project not more than twelve (12) feet beyond maximum building height.

22.3 Area Regulations:

1. Size of Yards:
 - a. Front Yard: Twenty-five (25) feet measured from the front property line. (60) foot front yard.
 - b. Side Yard: Adjacent to a street-twenty-five (25) feet; adjacent to a residential district property line twenty (20) feet; other conditions ten (10) feet.
 - c. Rear Yard: Twenty (20) feet for any building or structure. If an alley is not required, a masonry or wood wall of a minimum height of six (6) feet shall be constructed adjacent to the rear property line to provide a barrier between the adjoining uses.
 - d. Special Side or Rear Yard Requirement; When a nonresidential zoned lot or tract abuts upon a zoning district boundary line dividing the lot or tract from a residentially zoned lot or tract, a minimum side yard of twenty (20) feet shall be provided on the nonresidential property. A masonry or wood wall having a minimum height of six (6) feet above the average grade of the residential property shall be

constructed on the non-residential property adjacent to the common side (or rear) property line.

Item 12.

2. Size of Lot:

- a. Minimum Lot Area: None
 - b. Minimum Lot Width: None
 - c. Minimum Lot Depth: None
3. Lot Coverage: No more than forty percent (40%) of the lot area shall be covered by buildings.

22.4 Parking Regulations: Off-street parking and loading shall be provided as set forth in [Section 32](#).

SECTION 23

"B-2" BUSINESS DISTRICT - 2

General Purpose and Description: The "B-2" Business district is intended to provide a zoning category similar to the "B-1" District, except that additional uses are permitted which are not generally carried on completely within a building or structure, and an expanded range of service and repair uses is permitted.

23.1 Use Regulations: A building or premise shall be used only for the following purposes:

1. Any use permitted in the "B-1" Business District.
2. Building materials sales (no outside storage of lumber, materials or equipment).
3. Lithographic or print shop, retail only.
4. Newspaper or commercial printing.
5. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in a B-2 District, when granted in accordance with [Section 31](#):

1. Uses as listed in [Section 30](#) of this ordinance.

23.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, vent stacks or mechanical equipment rooms may project not more than twelve (12) feet beyond maximum building height.

23.3 Area Regulations:

1. Size of Yard

- a. Front Yard: Minimum required setback shall be twenty (20) feet. Accessory uses must be set back a minimum of sixty (60) feet.
- b. Side Yard: Adjacent to a street, twenty-five (25) feet; minimum required--ten (10) feet.
- c. Rear Yard: The minimum rear yard setback shall be twenty (20) feet for any building, or structure. When an alley is not required, a solid masonry or wood wall of a minimum height of six (6) feet shall be constructed adjacent to the rear property line to provide a barrier between the adjoining use.
- d. Special Side or Rear Yard Requirement: When a nonresidentially zoned lot or tract abuts upon a zoning district boundary line dividing the lot or tract from a residentially zoned lot or tract, a minimum side yard of twenty (20) feet shall be provided for on the nonresidential property. A solid masonry or wood wall having a minimum height of six (6) feet above the average grade of the residential property shall be constructed adjacent to the common side (or rear) property line.

2. Size of Lot:

- a. Minimum Lot Area: None
- b. Minimum Lot Width: None
- c. Minimum Lot Depth: None

3. Lot Coverage: In no case shall more than fifty percent (50%) of the lot area be covered by buildings.

23.4 Parking Requirements: Off street parking requirements shall be provided in accordance with [Section 32](#).

SECTION 24

"B-3" CENTRAL BUSINESS DISTRICT

General Purpose and Description: The “B-3” district is intended to provide a zoning category to meet the special needs and interests of the historically central commercial area of the community. A variety of commercial uses are permitted although all permitted activities are conducted within a building or structure.

24.1 Use Regulations: A building or premise[s] shall be used only for the following purposes:

1. Uses permitted in the B-1 district.
2. Single-family residential attached and multifamily dwellings.
3. Other uses as listed in [Section 30](#) of this ordinance [exhibit].

24.2 Height Regulations: No building shall exceed thirty-five (35) feet in height, except cooling towers, vent stacks or mechanical equipment rooms may project not more than twelve (12) feet beyond maximum building height.

24.3 Area Regulations:

1. Size of Yard:
 - a. Front Yard: None required.
 - b. Side Yard: None required, except where a B-3 district abuts a residential district in which case a minimum side yard of ten (10) feet shall be provided. The side yard setback from a side street shall be fifteen (15) feet.
 - c. Rear Yard: None required, except where a B-3 district abuts a residential district (whether separated by an alley or not) in which case a minimum back yard of ten (10) feet shall be provided.
2. Size of Lot:
 - a. Minimum Lot Size: None.
 - b. Minimum Lot Width: None.
 - c. Minimum Lot Depth: None.
3. Lot Coverage: The maximum lot coverage by buildings shall be one hundred (100) percent of the lot area.

24.4 Parking Requirements: Off-street parking and loading shall be provided as set forth in [Section 32](#), with the first twenty (20) required off-street parking spaces being subtracted from the total number required.

24.5 Architectural Standards: The exterior design of buildings within the district shall feature the architectural elements identified within Chapter 8 Heritage Preservation of the 2007 Comprehensive Land Use Plan. Existing exterior details shall be preserved whenever possible. New structures shall replicate the style, scale, placement, awnings, and canopies of existing buildings within the same block whenever possible.

(Ordinance 02-04-10 adopted 2/1/10)

24.6 Architectural Review: Applications for a building permit or other required permit for construction work within the district must be reviewed and approved for compliance with the Architectural Standards prior to issuance. A minor project is an alteration that does not remove or conceal the heritage elements. A major project is one that removes or conceals heritage elements, one that adds contrasting elements, and/or a new structure greater than 200 square feet.

The design of minor projects can be approved by the Director of Development Services. Designs which cannot be approved by the Director must be forwarded to the Historic Preservation Commission for consideration. The Director can forward a proposed design to the Historic Preservation Commission for any reason.

Major projects must be reviewed by the Planning and Zoning Commission, and approved prior to issuance of a building permit. The Commission shall also review minor projects forwarded by the Director of Development Services. The Commission can make a finding of conformance with Architectural Standards and approve the design for issuance of a permit. Denial of a proposed design for lack of conformance with the Architectural Standards may be appealed by the applicant to the City Council.



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Service Director

AGENDA ITEM: Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Tattoo Shop.

SUMMARY:

- Per Chapter 14 Zoning, Section 37 Classification of New and Unlisted Uses
- Tattoo Shop is not listed in the Zoning Classification of Chapter 14 Zoning.
- "B-1" Business District-1 is intended for office facilities, neighborhood shopping facilities, and retail and commercial facilities of service character.
- "B-2" Business District-2 is the most inclusive Business District and includes "B-1" uses, but has an expanded range of services.
- "B-3" Business District-3 is intended to meet the special needs and interests of the historically central commercial area. "B-3" is located downtown.
- Tattoo Shop is considered an age-restricted business and may not serve anyone under 18 years of age.
- The Planning & Zoning recommendation will be forwarded to City Council to consider and City Council will pass a resolution for the use.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends the Zoning Classification of "B-2" Business District-2.

ATTACHMENTS:

Chapter 14, Section 37 – Classification of New and Unlisted Uses

"B-1" Zoning regulations

"B-2" Zoning regulations

"B-3" Zoning regulations

Select Language ▼

City of Sanger, TX
Wednesday, June 28, 2023

Exhibit 14A. Zoning Ordinance

SECTION 37. CLASSIFICATION OF NEW AND UNLISTED USES

§ 37.1.

It is recognized that new types of land use will develop and forms of land use not anticipated may seek to locate in the City. In order to provide for such changes and contingencies, a determination as to the appropriate classification of any new or unlisted form of land use shall be made as follows:

1. The building inspector shall refer the question concerning any new or unlisted use to the Planning and Zoning Commission requesting an interpretation as to the zoning classification into which such use should be placed. The referral of the use interpretation question shall be accompanied by a statement of facts listing the nature of the use and whether it involves dwelling activity, sales, processing, type of product, storage and amount, and nature thereof, enclosed or open storage, anticipated employment, transportation requirements, the amount of noise, odor, fumes, dust, toxic material and vibration likely to be generated and the general requirements for public utilities such as water and sanitary sewer.
2. The Planning and Zoning Commission shall consider the nature and described performance of the proposed use and its compatibility with the uses permitted in the various districts, and determine the zoning district or districts within which such use should be permitted.
3. The Planning and Zoning Commission shall transmit its findings and recommendations to the City Council as to the classification proposed for any new or unlisted use. The City Council shall by resolution approve the recommendation of the Planning and Zoning Commission or make such determination concerning the classification of such use as is determined appropriate based upon its findings.
4. Standards for new and unlisted uses may be interpreted as those of a similar use. When determination of the minimum requirements cannot be readily ascertained, the same process outlined in paragraphs 1, 2, and 3 above shall be followed.

(Ordinance 015-87 of August 3, 1987)

Item 13.

SECTION 22

"B-1" BUSINESS DISTRICT

General Purpose and Description: The "B-1" Business District is intended for office facilities, neighborhood shopping facilities and retail and commercial facilities of a service character. The B-1 District is established to accommodate the daily and frequent needs of the community.

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2. Clinic, medical or dental containing no more than 10,000 square feet of floor space.
3. Food store with floor space not greater than twenty thousand (20,000) square feet.
4. Furniture and appliance, retail sales containing no more than 20,000 square feet of floor space.
5. Laboratory, medical or dental containing no more than 10,000 square feet of floor space.
6. Lithographic or print shop, retail only.
7. Tool rental (inside only).
8. Other general retail sales of similar nature and character provided that the business establishment is subject to the following conditions, which shall be applicable to all uses in the district:
 - a. The business shall be conducted wholly within an enclosed building;
 - b. Required yards shall not be used for display, sale or storage of merchandise or for the storage of vehicles, equipment, containers or waste material;
 - c. All merchandise shall be sold at retail on the premises; and
 - d. Such use shall not be objectionable because of odor, excessive light, smoke, dust, noise, vibration or similar nuisance.
9. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in the B-1 District, when granted in accordance with [Section 31](#):

1. Gasoline service station with associated automobile repair facility with floor space not greater than two thousand five hundred (2500) square feet.
2. Other uses as listed in [Section 30](#) of this ordinance.

22.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, roof gables, chimneys, vent stacks or mechanical equipment rooms, which may project not more than twelve (12) feet beyond maximum building height.

22.3 Area Regulations:

1. Size of Yards:
 - a. Front Yard: Twenty-five (25) feet measured from the front property line. (60) foot front yard.
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constructed on the non-residential property adjacent to the common side (or rear) property line.

Item 13.

2. Size of Lot:

- a. Minimum Lot Area: None
 - b. Minimum Lot Width: None
 - c. Minimum Lot Depth: None
3. Lot Coverage: No more than forty percent (40%) of the lot area shall be covered by buildings.

22.4 Parking Regulations: Off-street parking and loading shall be provided as set forth in [Section 32](#).

SECTION 23

"B-2" BUSINESS DISTRICT - 2

General Purpose and Description: The "B-2" Business district is intended to provide a zoning category similar to the "B-1" District, except that additional uses are permitted which are not generally carried on completely within a building or structure, and an expanded range of service and repair uses is permitted.

23.1 Use Regulations: A building or premise shall be used only for the following purposes:

1. Any use permitted in the "B-1" Business District.
2. Building materials sales (no outside storage of lumber, materials or equipment).
3. Lithographic or print shop, retail only.
4. Newspaper or commercial printing.
5. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in a B-2 District, when granted in accordance with [Section 31](#):

1. Uses as listed in [Section 30](#) of this ordinance.

23.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, vent stacks or mechanical equipment rooms may project not more than twelve (12) feet beyond maximum building height.

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1. Size of Yard

- a. Front Yard: Minimum required setback shall be twenty (20) feet. Accessory uses must be set back a minimum of sixty (60) feet.
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2. Size of Lot:

- a. Minimum Lot Area: None
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SECTION 24

"B-3" CENTRAL BUSINESS DISTRICT

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PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Service Director

AGENDA ITEM: Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Tattoo Shop.

SUMMARY:

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- Tattoo Shop is not listed in the Zoning Classification of Chapter 14 Zoning.
- "B-1" Business District-1 is intended for office facilities, neighborhood shopping facilities, and retail and commercial facilities of service character.
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- Tattoo Shop is considered an age-restricted business and may not serve anyone under 18 years of age.
- The Planning & Zoning recommendation will be forwarded to City Council to consider and City Council will pass a resolution for the use.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends the Zoning Classification of "B-2" Business District-2.

ATTACHMENTS:

Chapter 14, Section 37 – Classification of New and Unlisted Uses

"B-1" Zoning regulations

"B-2" Zoning regulations

"B-3" Zoning regulations

City of Sanger, TX
Wednesday, June 28, 2023

Exhibit 14A. Zoning Ordinance

SECTION 37. CLASSIFICATION OF NEW AND UNLISTED USES

§ 37.1.

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2. The Planning and Zoning Commission shall consider the nature and described performance of the proposed use and its compatibility with the uses permitted in the various districts, and determine the zoning district or districts within which such use should be permitted.
3. The Planning and Zoning Commission shall transmit its findings and recommendations to the City Council as to the classification proposed for any new or unlisted use. The City Council shall by resolution approve the recommendation of the Planning and Zoning Commission or make such determination concerning the classification of such use as is determined appropriate based upon its findings.
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(Ordinance 015-87 of August 3, 1987)

Item 14.

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4. Furniture and appliance, retail sales containing no more than 20,000 square feet of floor space.
5. Laboratory, medical or dental containing no more than 10,000 square feet of floor space.
6. Lithographic or print shop, retail only.
7. Tool rental (inside only).
8. Other general retail sales of similar nature and character provided that the business establishment is subject to the following conditions, which shall be applicable to all uses in the district:
 - a. The business shall be conducted wholly within an enclosed building;
 - b. Required yards shall not be used for display, sale or storage of merchandise or for the storage of vehicles, equipment, containers or waste material;
 - c. All merchandise shall be sold at retail on the premises; and
 - d. Such use shall not be objectionable because of odor, excessive light, smoke, dust, noise, vibration or similar nuisance.
9. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in the B-1 District, when granted in accordance with [Section 31](#):

1. Gasoline service station with associated automobile repair facility with floor space not greater than two thousand five hundred (2500) square feet.
2. Other uses as listed in [Section 30](#) of this ordinance.

22.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, roof gables, chimneys, vent stacks or mechanical equipment rooms, which may project not more than twelve (12) feet beyond maximum building height.

22.3 Area Regulations:

1. Size of Yards:
 - a. Front Yard: Twenty-five (25) feet measured from the front property line. (60) foot front yard.
 - b. Side Yard: Adjacent to a street-twenty-five (25) feet; adjacent to a residential district property line twenty (20) feet; other conditions ten (10) feet.
 - c. Rear Yard: Twenty (20) feet for any building or structure. If an alley is not required, a masonry or wood wall of a minimum height of six (6) feet shall be constructed adjacent to the rear property line to provide a barrier between the adjoining uses.
 - d. Special Side or Rear Yard Requirement; When a nonresidential zoned lot or tract abuts upon a zoning district boundary line dividing the lot or tract from a residentially zoned lot or tract, a minimum side yard of twenty (20) feet shall be provided on the nonresidential property. A masonry or wood wall having a minimum height of six (6) feet above the average grade of the residential property shall be

constructed on the non-residential property adjacent to the common side (or rear) property line.

Item 14.

2. Size of Lot:

- a. Minimum Lot Area: None
 - b. Minimum Lot Width: None
 - c. Minimum Lot Depth: None
3. Lot Coverage: No more than forty percent (40%) of the lot area shall be covered by buildings.

22.4 Parking Regulations: Off-street parking and loading shall be provided as set forth in [Section 32](#).

SECTION 23

"B-2" BUSINESS DISTRICT - 2

General Purpose and Description: The "B-2" Business district is intended to provide a zoning category similar to the "B-1" District, except that additional uses are permitted which are not generally carried on completely within a building or structure, and an expanded range of service and repair uses is permitted.

23.1 Use Regulations: A building or premise shall be used only for the following purposes:

1. Any use permitted in the "B-1" Business District.
2. Building materials sales (no outside storage of lumber, materials or equipment).
3. Lithographic or print shop, retail only.
4. Newspaper or commercial printing.
5. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in a B-2 District, when granted in accordance with [Section 31](#):

1. Uses as listed in [Section 30](#) of this ordinance.

23.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, vent stacks or mechanical equipment rooms may project not more than twelve (12) feet beyond maximum building height.

23.3 Area Regulations:

1. Size of Yard

- a. Front Yard: Minimum required setback shall be twenty (20) feet. Accessory uses must be set back a minimum of sixty (60) feet.
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2. Size of Lot:

- a. Minimum Lot Area: None
- b. Minimum Lot Width: None
- c. Minimum Lot Depth: None

3. Lot Coverage: In no case shall more than fifty percent (50%) of the lot area be covered by buildings.

23.4 Parking Requirements: Off street parking requirements shall be provided in accordance with [Section 32](#).

SECTION 24

"B-3" CENTRAL BUSINESS DISTRICT

General Purpose and Description: The “B-3” district is intended to provide a zoning category to meet the special needs and interests of the historically central commercial area of the community. A variety of commercial uses are permitted although all permitted activities are conducted within a building or structure.

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2. Single-family residential attached and multifamily dwellings.
3. Other uses as listed in [Section 30](#) of this ordinance [exhibit].

24.2 Height Regulations: No building shall exceed thirty-five (35) feet in height, except cooling towers, vent stacks or mechanical equipment rooms may project not more than twelve (12) feet beyond maximum building height.

24.3 Area Regulations:

1. Size of Yard:
 - a. Front Yard: None required.
 - b. Side Yard: None required, except where a B-3 district abuts a residential district in which case a minimum side yard of ten (10) feet shall be provided. The side yard setback from a side street shall be fifteen (15) feet.
 - c. Rear Yard: None required, except where a B-3 district abuts a residential district (whether separated by an alley or not) in which case a minimum back yard of ten (10) feet shall be provided.
2. Size of Lot:
 - a. Minimum Lot Size: None.
 - b. Minimum Lot Width: None.
 - c. Minimum Lot Depth: None.
3. Lot Coverage: The maximum lot coverage by buildings shall be one hundred (100) percent of the lot area.

24.4 Parking Requirements: Off-street parking and loading shall be provided as set forth in [Section 32](#), with the first twenty (20) required off-street parking spaces being subtracted from the total number required.

24.5 Architectural Standards: The exterior design of buildings within the district shall feature the architectural elements identified within Chapter 8 Heritage Preservation of the 2007 Comprehensive Land Use Plan. Existing exterior details shall be preserved whenever possible. New structures shall replicate the style, scale, placement, awnings, and canopies of existing buildings within the same block whenever possible.

(Ordinance 02-04-10 adopted 2/1/10)

24.6 Architectural Review: Applications for a building permit or other required permit for construction work within the district must be reviewed and approved for compliance with the Architectural Standards prior to issuance. A minor project is an alteration that does not remove or conceal the heritage elements. A major project is one that removes or conceals heritage elements, one that adds contrasting elements, and/or a new structure greater than 200 square feet.

The design of minor projects can be approved by the Director of Development Services. Designs which cannot be approved by the Director must be forwarded to the Historic Preservation Commission for consideration. The Director can forward a proposed design to the Historic Preservation Commission for any reason.

Major projects must be reviewed by the Planning and Zoning Commission, and approved prior to issuance of a building permit. The Commission shall also review minor projects forwarded by the Director of Development Services. The Commission can make a finding of conformance with Architectural Standards and approve the design for issuance of a permit. Denial of a proposed design for lack of conformance with the Architectural Standards may be appealed by the applicant to the City Council.



PLANNING & ZONING COMMISSION COMMUNICATION

DATE: August 14, 2023

FROM: Ramie Hammonds, Development Service Director

AGENDA ITEM: Consideration and possible action on a recommendation to the City Council for the zoning classification of a new unlisted use for a Vape Shop.

SUMMARY:

- Per Chapter 14 Zoning, Section 37 Classification of New and Unlisted Uses
- Vape Shop is not listed in the Zoning Classification of Chapter 14 Zoning.
- "B-1" Business District-1 is intended for office facilities, neighborhood shopping facilities, and retail and commercial facilities of service character.
- "B-2" Business District-2 is the most inclusive Business District and includes "B-1" uses, but has an expanded range of services.
- "B-3" Business District-3 is intended to meet the special needs and interests of the historically central commercial area. "B-3" is located downtown.
- Vape Shop is considered an age-restricted business and may not sell to anyone under 21 years of age.
- The Planning & Zoning recommendation will be forwarded to City Council to consider and City Council will pass a resolution for the use.

FISCAL INFORMATION:

Budgeted: N/A

Amount: N/A

GL Account: N/A

RECOMMENDED MOTION OR ACTION:

Staff recommends the Zoning Classification of "B-2" Business District-2.

ATTACHMENTS:

Chapter 14, Section 37 – Classification of New and Unlisted Uses

"B-1" Zoning regulations

"B-2" Zoning regulations

"B-3" Zoning regulations

Select Language ▼

City of Sanger, TX
Wednesday, June 28, 2023

Exhibit 14A. Zoning Ordinance

SECTION 37. CLASSIFICATION OF NEW AND UNLISTED USES

§ 37.1.

It is recognized that new types of land use will develop and forms of land use not anticipated may seek to locate in the City. In order to provide for such changes and contingencies, a determination as to the appropriate classification of any new or unlisted form of land use shall be made as follows:

1. The building inspector shall refer the question concerning any new or unlisted use to the Planning and Zoning Commission requesting an interpretation as to the zoning classification into which such use should be placed. The referral of the use interpretation question shall be accompanied by a statement of facts listing the nature of the use and whether it involves dwelling activity, sales, processing, type of product, storage and amount, and nature thereof, enclosed or open storage, anticipated employment, transportation requirements, the amount of noise, odor, fumes, dust, toxic material and vibration likely to be generated and the general requirements for public utilities such as water and sanitary sewer.
2. The Planning and Zoning Commission shall consider the nature and described performance of the proposed use and its compatibility with the uses permitted in the various districts, and determine the zoning district or districts within which such use should be permitted.
3. The Planning and Zoning Commission shall transmit its findings and recommendations to the City Council as to the classification proposed for any new or unlisted use. The City Council shall by resolution approve the recommendation of the Planning and Zoning Commission or make such determination concerning the classification of such use as is determined appropriate based upon its findings.
4. Standards for new and unlisted uses may be interpreted as those of a similar use. When determination of the minimum requirements cannot be readily ascertained, the same process outlined in paragraphs 1, 2, and 3 above shall be followed.

(Ordinance 015-87 of August 3, 1987)

Item 15.

SECTION 22

"B-1" BUSINESS DISTRICT

General Purpose and Description: The "B-1" Business District is intended for office facilities, neighborhood shopping facilities and retail and commercial facilities of a service character. The B-1 District is established to accommodate the daily and frequent needs of the community.

22.1 Use Regulations: A building or premise shall be used only for the following purposes:

1. Banks or savings and loans containing no more than 10,000 square feet of floor space.
2. Clinic, medical or dental containing no more than 10,000 square feet of floor space.
3. Food store with floor space not greater than twenty thousand (20,000) square feet.
4. Furniture and appliance, retail sales containing no more than 20,000 square feet of floor space.
5. Laboratory, medical or dental containing no more than 10,000 square feet of floor space.
6. Lithographic or print shop, retail only.
7. Tool rental (inside only).
8. Other general retail sales of similar nature and character provided that the business establishment is subject to the following conditions, which shall be applicable to all uses in the district:
 - a. The business shall be conducted wholly within an enclosed building;
 - b. Required yards shall not be used for display, sale or storage of merchandise or for the storage of vehicles, equipment, containers or waste material;
 - c. All merchandise shall be sold at retail on the premises; and
 - d. Such use shall not be objectionable because of odor, excessive light, smoke, dust, noise, vibration or similar nuisance.
9. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in the B-1 District, when granted in accordance with [Section 31](#):

1. Gasoline service station with associated automobile repair facility with floor space not greater than two thousand five hundred (2500) square feet.
2. Other uses as listed in [Section 30](#) of this ordinance.

22.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, roof gables, chimneys, vent stacks or mechanical equipment rooms, which may project not more than twelve (12) feet beyond maximum building height.

22.3 Area Regulations:

1. Size of Yards:
 - a. Front Yard: Twenty-five (25) feet measured from the front property line. (60) foot front yard.
 - b. Side Yard: Adjacent to a street-twenty-five (25) feet; adjacent to a residential district property line twenty (20) feet; other conditions ten (10) feet.
 - c. Rear Yard: Twenty (20) feet for any building or structure. If an alley is not required, a masonry or wood wall of a minimum height of six (6) feet shall be constructed adjacent to the rear property line to provide a barrier between the adjoining uses.
 - d. Special Side or Rear Yard Requirement; When a nonresidential zoned lot or tract abuts upon a zoning district boundary line dividing the lot or tract from a residentially zoned lot or tract, a minimum side yard of twenty (20) feet shall be provided on the nonresidential property. A masonry or wood wall having a minimum height of six (6) feet above the average grade of the residential property shall be

constructed on the non-residential property adjacent to the common side (or rear) property line.

Item 15.

2. Size of Lot:

- a. Minimum Lot Area: None
 - b. Minimum Lot Width: None
 - c. Minimum Lot Depth: None
3. Lot Coverage: No more than forty percent (40%) of the lot area shall be covered by buildings.

22.4 Parking Regulations: Off-street parking and loading shall be provided as set forth in [Section 32](#).

SECTION 23

"B-2" BUSINESS DISTRICT - 2

General Purpose and Description: The "B-2" Business district is intended to provide a zoning category similar to the "B-1" District, except that additional uses are permitted which are not generally carried on completely within a building or structure, and an expanded range of service and repair uses is permitted.

23.1 Use Regulations: A building or premise shall be used only for the following purposes:

1. Any use permitted in the "B-1" Business District.
2. Building materials sales (no outside storage of lumber, materials or equipment).
3. Lithographic or print shop, retail only.
4. Newspaper or commercial printing.
5. Other uses as listed in [Section 30](#) of this ordinance.

The following specific uses shall be permitted in a B-2 District, when granted in accordance with [Section 31](#):

1. Uses as listed in [Section 30](#) of this ordinance.

23.2 Height Regulations: No building shall exceed one hundred (100) feet in height, except cooling towers, vent stacks or mechanical equipment rooms may project not more than twelve (12) feet beyond maximum building height.

23.3 Area Regulations:

1. Size of Yard

- a. Front Yard: Minimum required setback shall be twenty (20) feet. Accessory uses must be set back a minimum of sixty (60) feet.
- b. Side Yard: Adjacent to a street, twenty-five (25) feet; minimum required--ten (10) feet.
- c. Rear Yard: The minimum rear yard setback shall be twenty (20) feet for any building, or structure. When an alley is not required, a solid masonry or wood wall of a minimum height of six (6) feet shall be constructed adjacent to the rear property line to provide a barrier between the adjoining use.
- d. Special Side or Rear Yard Requirement: When a nonresidentially zoned lot or tract abuts upon a zoning district boundary line dividing the lot or tract from a residentially zoned lot or tract, a minimum side yard of twenty (20) feet shall be provided for on the nonresidential property. A solid masonry or wood wall having a minimum height of six (6) feet above the average grade of the residential property shall be constructed adjacent to the common side (or rear) property line.

2. Size of Lot:

- a. Minimum Lot Area: None
- b. Minimum Lot Width: None
- c. Minimum Lot Depth: None

3. Lot Coverage: In no case shall more than fifty percent (50%) of the lot area be covered by buildings.

23.4 Parking Requirements: Off street parking requirements shall be provided in accordance with [Section 32](#).

SECTION 24

"B-3" CENTRAL BUSINESS DISTRICT

General Purpose and Description: The “B-3” district is intended to provide a zoning category to meet the special needs and interests of the historically central commercial area of the community. A variety of commercial uses are permitted although all permitted activities are conducted within a building or structure.

24.1 Use Regulations: A building or premise[s] shall be used only for the following purposes:

1. Uses permitted in the B-1 district.
2. Single-family residential attached and multifamily dwellings.
3. Other uses as listed in [Section 30](#) of this ordinance [exhibit].

24.2 Height Regulations: No building shall exceed thirty-five (35) feet in height, except cooling towers, vent stacks or mechanical equipment rooms may project not more than twelve (12) feet beyond maximum building height.

24.3 Area Regulations:

1. Size of Yard:
 - a. Front Yard: None required.
 - b. Side Yard: None required, except where a B-3 district abuts a residential district in which case a minimum side yard of ten (10) feet shall be provided. The side yard setback from a side street shall be fifteen (15) feet.
 - c. Rear Yard: None required, except where a B-3 district abuts a residential district (whether separated by an alley or not) in which case a minimum back yard of ten (10) feet shall be provided.
2. Size of Lot:
 - a. Minimum Lot Size: None.
 - b. Minimum Lot Width: None.
 - c. Minimum Lot Depth: None.
3. Lot Coverage: The maximum lot coverage by buildings shall be one hundred (100) percent of the lot area.

24.4 Parking Requirements: Off-street parking and loading shall be provided as set forth in [Section 32](#), with the first twenty (20) required off-street parking spaces being subtracted from the total number required.

24.5 Architectural Standards: The exterior design of buildings within the district shall feature the architectural elements identified within Chapter 8 Heritage Preservation of the 2007 Comprehensive Land Use Plan. Existing exterior details shall be preserved whenever possible. New structures shall replicate the style, scale, placement, awnings, and canopies of existing buildings within the same block whenever possible.

(Ordinance 02-04-10 adopted 2/1/10)

24.6 Architectural Review: Applications for a building permit or other required permit for construction work within the district must be reviewed and approved for compliance with the Architectural Standards prior to issuance. A minor project is an alteration that does not remove or conceal the heritage elements. A major project is one that removes or conceals heritage elements, one that adds contrasting elements, and/or a new structure greater than 200 square feet.

The design of minor projects can be approved by the Director of Development Services. Designs which cannot be approved by the Director must be forwarded to the Historic Preservation Commission for consideration. The Director can forward a proposed design to the Historic Preservation Commission for any reason.

Major projects must be reviewed by the Planning and Zoning Commission, and approved prior to issuance of a building permit. The Commission shall also review minor projects forwarded by the Director of Development Services. The Commission can make a finding of conformance with Architectural Standards and approve the design for issuance of a permit. Denial of a proposed design for lack of conformance with the Architectural Standards may be appealed by the applicant to the City Council.

