



City and Borough of Wrangell  
Special Borough Assembly Meeting  
AGENDA

Thursday, November 19, 2020  
6:00 PM

Location: Zoom Teleconference

Resolution No. 10-20-1547 allows for the temporary suspension of in-person Assembly Meetings and allows for teleconference meetings, due to COVID-19, until October 17, 2020 unless terminated before that date.

If you wish to call into the meeting to speak under Persons to be Heard, please contact the Borough Clerk at 907-874-2381 or email: [clerk@wrangell.com](mailto:clerk@wrangell.com) no later than Thursday, November 19<sup>th</sup> at 5:00 p.m.

**To Join by Computer:**

<https://zoom.us/j/9078742381?pwd=MTNqSEdncjRyakh2UCtMVUNxMndYUT09>

**And Enter the Meeting ID: 907 874 2381**

**Then Enter Password: 99929**

**1. CALL TO ORDER**

**2. ROLL CALL**

**3. PERSONS TO BE HEARD**

**4. CONFLICT OF INTEREST**

**5. NEW BUSINESS**

- a.     **Discussion Item:** Executive Summary of the Wrangell Public Safety Building Assessment Report
- b.     **RESOLUTION No. 11-20-1553** OF THE ASSEMBLY OF THE CITY AND BOROUGH OF WRANGELL, ALASKA AMENDING THE FY 2021 BUDGET IN THE GENERAL FUND TRANSFERRING \$58,500 FROM THE GENERAL FUND RESERVES TO THE PUBLIC SAFETY BUILDING FACILITIES MAINTENANCE AND REPAIR ACCOUNT FOR THE PUBLIC SAFETY BUILDING SHORING WALL PROJECT AND AUTHORIZING ITS EXPENDITURE
- c.     Approval of a Contract Award to Johnson Construction & Supply, Inc. in the Amount of \$35,750 for the Public Safety Building Shoring Wall Project

**6. ADJOURNMENT**

## CITY & BOROUGH OF WRANGELL, ALASKA BOROUGH ASSEMBLY AGENDA STATEMENT

<u>AGENDA ITEM TITLE:</u>	<u>DATE:</u>	November 19, 2020
	<u>Agenda Section</u>	<b>13</b>

Discussion Item: Executive Summary of the Wrangell Public Safety Building Assessment Report

**SUBMITTED BY:**

Amber Al-Haddad, Capital Facilities Director

**FISCAL NOTE:**

**Expenditure Required: \$**

FY 20:	FY 21: \$	FY22:
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**Amount Budgeted:**

**Account Number(s):**

**Account Name(s):**

**Unencumbered Balance(s) (prior to expenditure):**

	\$
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**Reviews/Approvals/Recommendations**

<input type="checkbox"/>	Commission, Board or Committee
Name(s)	
Name(s)	
<input type="checkbox"/>	Attorney
<input type="checkbox"/>	Insurance

**ATTACHMENTS:** 1. Executive Summary excerpt from the AMC Engineers' Wrangell Public Service Building Assessment 95% Report Revision 1 dated November 11, 2020

**RECOMMENDATION MOTION:**

None. Discussion item only.

## SUMMARY STATEMENT:

The Borough hired AMC Engineers (AMC) to perform a full building conditions assessment of the Public Safety Building (PSB), to identify all building systems deficiencies and develop a probable cost opinion of necessary repairs. Included in this assessment was structural, electrical, mechanical, architectural, civil, environmental services, and cost estimation services.

AMC's report includes the following major outcomes:

- A probable cost to correct deficiencies identified at the existing PSB.
- A probable cost to demolish the existing PSB and construct a new PSB in its same location on Zimovia Highway.
- A probable cost to demolish the existing Wrangell Medical Center and construct new PSB in the hospital's location on Bennett Street.

AMC submitted their 95% report on November 11, 2020. CBW staff are currently reviewing the 211-page document, a full copy of which will be provided for review. In the meantime, we offer hereunder the Executive Summary of the 95% level report.

The Executive Summary summarizes the full report and offers the most salient information of the building assessment, deficiencies and options. The summary attached is 34 pages. Administration does not expect the Assembly to have digested all of the information by the time we meet. However, it is important the Assembly understand the context in which the decision is being made to approve expenditures toward the construction of a temporary shoring wall to address life safety concerns at the Public Safety Building (the next two items on the agenda).

### Budget Implication Comments by the Manager:

- The estimated cost to renovate the existing PSB is \$9.252 Million.
- The estimated cost to demo the existing PSB and build a new PSB in place is \$24.292 Million.
- The estimated cost to demo the old hospital and build a new PSB is \$24.624 Million.

This leaves only one real option for consideration – renovation of the existing PSB. Even that is an unsustainable burden on the General Fund at the full estimate. The debt service on \$9.5 Million at 3% interest for 20 years is \$487,586 annually. One mill of property tax equals about \$135,000. An increase of 3.6 mills would be required for 20 years to cover the debt service on the project.

In December of 2021 the CBW will be eligible to apply for the Community Development Block Grant that can be used toward the construction of the fire portion of the building. The maximum grant award is \$850,000. If successful this could help offset the cost of construction. That grant funding would drop the debt service on the project to about \$436,000 annually – a difference of about \$50,000 annually.

The implications of this impact on the general fund will need to be discussed in significant detail in the near future. The discussion will need to be broadened to consider the major projects necessary in the enterprise funds and the debt service obligations, and rate increases, those will also bring to the Borough. There is much to consider moving forward.

# **Wrangell Public Service Building Assessment**

**95 % Report  
Rev. 1**

**11 November 2020**



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AMC Project 20813

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- Estimate of Probable Construction Costs

### **Wrangell Medical Center Demolition and New Public Service Building**

- Hazardous Materials Report
- Estimate of Probable Construction Costs

## Executive Summary

### Assessment Survey Scope and Team

Assessment services and estimate of probable construction costs is based upon AMC's Engineer's 25 August 2020 proposal. Services for the Public Safety Building included building architectural, structural, mechanical, electrical, hazardous materials survey assessment, and estimate of probable construction cost for building repairs. Services for the existing Wrangell Medical Center critical access hospital included an estimate of probable construction cost to demolish the Wrangell Medical Center hospital and construct a new Public Safety Building in the old hospital's location on Bennett Street. The new Public Safety Building would be based upon a replacement of the existing building's size, configuration, and use.

Site assessment of the Wrangell Public Safety Building and hazardous materials survey of the Wrangell Medical Center occurred during the week of 14 September 2020. Survey team consisted of:

1. Northwind for architectural services.
2. PND for structural services.
3. AMC Engineers for mechanical and electrical services.
4. EHS – Alaska Inc. for hazardous materials and mold services.
5. Estimations Inc. for estimation of probable construction costs.

### Public Safety Building

The Wrangell Public Safety Building is a two-story wood framed building constructed over a concrete and steel framed basement level, totaling 34,500 gross square feet in area constructed in the mid-1980's. A flat roofed mechanical mezzanine over the second floor is at the apex of two broad sloping roof areas and contains all facility ventilation equipment. Heating plant, generator, and electrical equipment are in the basement. The three levels are served by an elevator and multiple stairways. The building is constructed on a hillside, and the basement area is open grade level covered parking, situated directly below the fire station equipment bay.

There are 7 primary program elements:

1. Fire/Emergency Services Station (Floors 1 and 2).
2. Police Station and Jail (Floor 1).
3. Dispatch Center (Floor 1).
4. Courthouse and Public records (Floor 2).
5. Department of Motor Vehicles (Floor 2).
6. Customs Office (Floor 2).
7. Indoor firing range (basement)

This report provides individual discipline assessment reports and a cost estimate of repairs and also for demolition and construction of anew building at the site excluding cost for temporary relocation of the tenants.

- The estimate of probable construction cost for repairs to the public safety building in 2022 is \$9,252,000.
- The estimate of probable construction cost for demolition of the public safety building and to provide a replacement public safety building at the site in 2022 is \$24,292,000.

During the site assessment survey, it was determined that immediate structural repairs were needed. The structural engineer and architect work directly with the Wrangell City and Borough to develop plans and documents for these repairs independent of this assessment report.

### **Wrangell Medical Center**

The Wrangell Medical Center hospital was originally constructed in many different phases with many different renovations through the years totaling approximately 29,630 gross square feet. The original portion was built in 1967 and includes much of the medical service functions of the building. The original portion had a dirt floored crawl space with concrete foundation walls that were supported on what appeared to be driven steel piles. The original building was mainly of wood framed construction, with a pitched, built-up roofing that contained asbestos.

The 1974 era consists of the current long-term care wing, with a lower level that mainly had storage, laundry, mortuary, and other service functions. The lower level had a slab-on grade foundation with truss joist framing supporting a slightly sloped built-up roofing that contained asbestos.

A large addition and renovation was constructed in 1988 that was mostly of a modular construction that wrapped around the original core of the building and included renovations to areas of the original construction and 1974 wing. The 1988 addition had a dirt floored crawl space with concrete perimeter foundation walls and glue- laminated beams, supported by creosote piles, in a similar fashion to the original construction.

A maintenance and storage addition that was constructed sometime between 1992 and 1995. The addition was a pre-engineered metal building supported on concrete pads supported by piers, with a metal skirting around the perimeter of the building.

There were a couple of “infill” or “addition” rooms that were installed at an unknown date.

The Building is built on a site that slopes down to the south, and is reported to be built on “muskeg” which has resulted in soil settling in several locations, most notable at the perimeter of the original construction and at the 1992 addition, and underneath the concrete piling caps in the building crawl spaces.

This report provides hazardous materials survey report and a cost estimate of repairs. The estimate of probable construction cost for demolition of the medical center and to provide a replacement public safety building at the site in 2022 is \$24,624,000.

## Architectural Condition Summary

The Wrangell Public Safety Facility is a two-story wood framed building constructed over a concrete and steel framed basement level, totaling 34,500 gross square feet in area. A flat roofed mechanical mezzanine over the second floor is at the apex of two broad sloping roof areas and contains all facility ventilation equipment. Heating plant, generator, and electrical equipment are in the basement. The three levels are served by an elevator and multiple stairways. The building is constructed on a hillside, and the basement area is open grade level covered parking, situated directly below the fire station equipment bay.

The primary program elements are:

- Fire/Emergency Services Station (Floors 1 and 2).
- Police Station and Jail (Floor 1).
- Dispatch Center (Floor 1).
- Courthouse and Public records (Floor 2).
- Department of Motor Vehicles (Floor 2).
- Customs Office (Floor 2).
- Indoor firing range (basement)

The facility was constructed in the mid-1980's (date on the As-builts drawing set is 11/3/1987), and designed under provisions of the prevailing codes of the day:

- 1982 Uniform Building code,
- 1980 ANSI 117.1 Specifications for Accessibility,
- 1976 NFPA101 Life Safety Code
- 1984 National Electrical Code
- 1982 Uniform Mechanical code.

The building is construction Type V-1 hour, requiring all interior and exterior walls, partitions, shafts, floor, and roof assemblies to be 1-hour fire protected assemblies.

Building occupancy types include A1 (court room), B1 (police vehicle sallyport) B2 (offices, fire station, police station, firing range), B3 (vehicular parking), I3 (detention/jail). Required fire separations between these occupancies appear to have been provided for and maintained to date.

- A3 to B2 = Fire separation not required.
- B2 to B3 = 1 hour fire rated assembly with 45 minute doors
- B2 to I3 = 2 hour fire rated assembly with 90 minute rated doors
- B1 to I3 = 4 hour fire rated assembly with 120 minute rated doors

The building envelope is comprised of sloped metal roofing areas with 12" fiberglass batt (R-38) insulation in rafter cavities, Flat Protected Membrane Roof (PMR) with approximately 6" of rigid insulation (R-40) above the roof deck, and cedar siding installed directly over tarpaper, gypsum board and structural sheathing with 6" fiberglass batt insulation in stud cavities (R-19). The original



foundation was designed to receive 2" rigid insulation (R-13). Sheetmetal wall panels were installed at the south wall as a part of 2008 repairs. Painted water-resistant gypsum board soffits occur at the basement garage, over the main entry on the east side, and over the outdoor recreation area on the east side of the building. These are provided with 10" batt insulation (R-30). Typically wall and sloped roof assemblies are provided with a 6 mil plastic vapor retarder.

Interior finishes are commercial quality and like those seen in similar 35-year-old public buildings in Alaska. These include painted and vinyl-covered gypsum wall board, 2'x2' Acoustic Ceiling Tile (ACT) and grid, low-pile glue-down commercial carpet flooring at offices, hallways and assembly spaces, Vinyl Composition Tile (VCT) flooring at institutional spaces, and sheet vinyl flooring at bathrooms. Unique in this facility:

- 6x6 quarry tile floors and stairs in the first-floor lobby area and main stair to second floor.
- Wood slat ceiling system at both first and second floor lobby.
- Wall carpeting in the courthouse spaces.
- Painted acoustical metal pan deck ceilings, filled and painted Concrete Masonry Unit walls, and sealed concrete floors at the Jail.
- 8' tall painted plywood wainscot and painted concrete floors at the Fire Station equipment bay.

More recent renovations have updated partition configurations, painted wall finishes, and bathrooms as these spaces aged and specific uses changed in approximately 7% of the floor plan.

Exterior windows are typically vinyl clad wood thermal units, both fixed and operable. A small number of exterior windows have been replaced with all-vinyl units. Exterior doors are typically insulated hollow metal, except for the front door which is a commercial aluminum glazed pair. Interior doors are typically labeled (fire rated) solid core wood in hollow metal frames. Interior relights are likewise typically labeled hollow metal with wire glass. Door hardware is typically good quality, UL labeled for use in rated openings, and configured to meet accessibility requirements. Almost all doors have mortice locksets, 5-knuckle ball bearing hinges, protection plating, and door closers.

The Jail is appropriately equipped with secure wall and ceiling enclosure, and with detention hollow metal doors, frames, access panels with detention grade hardware. Detention glazing is typically glass-clad polycarbonate. Plumbing fixtures are penal combination stainless steel sink/toilet units, and there is a common stainless-steel detention shower unit with anti-ligature features. Detention furnishings are penal grade wall and floor mounted welded steel. Cells are equipped with call buttons and key areas of the jail are under video surveillance. Electrified door hardware was not apparent, which may present issues with compliance with current ACA Core Jail standards.

## Architectural Observations

Observations of architectural conditions and deficiencies are carefully detailed, with areas, quantities, and recommendations in the following Exhibits:

Exhibit A	Condition Assessment Building Summary and Exterior – 12 pages
Exhibit B	Condition Assessment Interior Rooms – 52 Pages
Exhibit C	Condition Assessment Openings, Hardware, Specialties – 12 pages
Exhibit D	Wrangle Public Safety Building Reference Plans with Notes - 5 11x17 pages

## Architectural Recommendations

Key Architectural recommendations include but are not limited to:

- A) Flat roof, parapet and coping and flashing assemblies have surpassed serviceable life and should be replaced. Failure of the coping installation assembly has caused significant water infiltration and resulted in extensive rot and insect infestation of building structure, and severe deterioration of parapets and siding. Insulating values are below current standards for energy conservation. The roof has no provisions for fall prevention. Remove existing PMR assembly and drain assemblies. Complete all necessary structural repairs in accordance with the structural engineers' recommendations. Install new parapet to a height meeting OSHA compliance for maintenance worker safety so regular maintenance at the roof level can occur. Install new vapor retarder, tapered rigid insulation assembly meeting current thermal standards for energy conservation, cover board, single-ply membrane roofing assembly that will extend full height and over top parapets. Install new roof drains, overflow drains, upper roof access ladder that meets OSHA requirements, and sheet metal coping and flashing.
- B) Sloped roof, flashing and gutters present several problems that are detrimental to building longevity. Ordinal (north elevating) and replacement (south elevation) gutters have failed, resulting in leakage into the wall assembly at the south wall, and precarious attachment of the eave assembly at the north wall. The metal roofing panels are nearing the end of their serviceable life, with corrosion starting to form at bends in the metal. Remove all metal roofing and associated flashings and gutters. Repair eave projections. Install new underlayment. Install new marine-coated sheet metal roofing flashing, metal headwall siding panels, gutters, and downspouts. Provide anchor points for fall protection equipment.
- C) The stained cedar tongue and groove siding has suffered severe deterioration through prolonged water infiltration on all building elevations. This has resulted in compromised substrate material including thermal protection panels and structural sheathing and framing at approximately 20% of the building exterior. This includes the south building elevation that was re clad with sheet metal panels in 2008. Remove all siding and underlayment for the full extent of exterior walls at the first and second floors, and at the mechanical penthouse level. Coordinate with structural engineer's report and complete all structural repairs. Install new thermal barrier where removed. Install robust weather barrier, properly sealed, and flashed at openings and transitions. Install 1.5 inches of new extruded polystyrene insulation to improve envelope thermal values to current standards. Install new marine-coated commercial sheet metal siding panels in vented rainscreen configuration,

properly flashed and sealed into openings and transitions. Provide bug and bird screening at all rainscreen vent openings. As a part of the work, repair all soffit areas and install sheet metal soffit panels at soffit above Jail recreation yard and front entry. Repair, seal, and paint gypsum board ceiling in basement parking area.

- D) Exterior windows and personnel doors at this facility are aging beyond their functional use and do not meet thermal performance criteria for new construction. Remove all exterior windows and doors and replace with commercial quality high performance fiberglass units. Provide new daylight control roller blinds at 50% of openings. Install an egress window at each of the two bedroom units provided for the fire station.
- E) Exterior recreation yard for the jail is required to meet current ACA Core Jail standards. Provide new security closure for recreation yard, with protections at exterior windows and a secure gate.
- F) Interior finishes are near or beyond serviceable life. All carpet, sheet vinyl VCT and LVT finishes to be replaced. All vinyl wall coverings to be replaced. 80% of the painted gypsum board interior walls and soffits display extensive "Alligatoring" (see photo on reference line 74 in *"Attachment B Condition Assessment Interior Rooms"*), and must be carefully stripped, repaired, and repainted. Strip and paint floor in Fire Station equipment bay.
- G) Life-Safety Renovations:
  - a. Repair all compromised fire rated wall and floor-ceiling assemblies.
  - b. Repair automatic fire shutters at elevator doors, all three levels.
  - c. Install egress windows at the two fire station apartment bedrooms.
  - d. Provide magnetic holders coordinated with fire alarm system at doors in fire rated separation walls, six locations.
  - e. Provide seismic bracing at all acoustic ceiling tile grid assemblies.
  - f. Replace broken anti-ligature robe hook at detention shower.
  - g. Replace device covers in the five secure cells with covers meeting anti-ligature standards (5 total).
- H) Accessibility Renovations:
  - a. Renovate a total of four public access bathrooms, (two on each level 1 and 2, stacked) to meet accessibility clearance requirements for entry.
  - b. Renovate one of the two bathrooms provided in the Jury room to meet accessibility requirements.
  - c. Renovate the Courtroom entry (two sets paired doors) to meet accessibility requirements.
  - d. Provide motor operator at exterior door of main entry vestibule and interior door to main lobby.
  - e. Renovate elevator cab and call controls to meet accessibility standards.
  - f. Renovate detention shower to meet accessibility standards.
  - g. Relace drinking fountain at basement and first floor with accessibility compliant unit.

- h. Renovate Courtroom configuration to provide wheelchair accessible seating at the jury box, the judge's bench and in the gallery.
- i. Provide accessibility compliant motor operators and controls at doors that do not meet clearance requirements for access/egress on the second floor. Three conditions.
- j. Modify casework to comply with accessibility requirements in 5 locations. This will affect approximately 25 lineal feet of plastic laminate counter and casework.

## **Structural Condition Summary**

The structural framing ranged from poor to good condition. The structure under the two gable roofs was generally in good condition, while the structure under the flat roofs was in poor condition due to water damage resulting in rot. The structure under the west low flat roof is compromised and is a life safety issue. This area shall be vacated until the floor and roof can be shored. It appears that poor roofing installation at the parapets at the edges of the low flat roofs was the primary cause of water damage. The south exterior wall also in poor condition. It is not clear the cause of the water damage at this wall, but it may be due to poor installation of siding in 2004.

## **Structural Observations**

The following is a list of observations made while onsite. The locations of each observation are referenced in the Structural Exhibit.

### **Basement**

1. Observed Level 1 structural steel floor framing from an existing opening in the ceiling. The fireproofing on the steel beams and steel floor decking all appeared to be intact and there were no signs of water damage or corrosion of the steel.

### **Level 1**

1. A hole was cut in the siding and gypsum sheathing at the base of the wall. The gypsum sheathing was dry. The wall sheathing was in great condition and did not show any signs of water damage.
2. Observed siding and gypsum sheathing (about 3'-0" above base of wall) were fairly dry and solid.
3. A hole was cut in the siding and gypsum sheathing at the base of the wall. The gypsum sheathing was dry. The wall sheathing was in good condition and did not show any signs of water damage.
4. Observed wall framing at base of wall. Wall GWB had previously been removed due to a broken sprinkler line. The wall sheathing and wall studs within 12-18" of the base of the wall were dry rotted and there was carpenter ant damage.
5. Existing wall core infill was removed. The plywood was slightly damp, but not deteriorated.

## Level 2

1. Two holes were cut in the siding, gypsum sheathing, and wall sheathing at the Level 2 floor. The wall sheathing was dry rotted. The wall studs, bottom plate, and floor sheathing were slightly soft. The glu-lam beams were slightly moist, but did not appear to be deteriorated. The end of the truss top chords (on top of the glu-lam beams) were solid and in good condition.
2. Observed elevated Level 2 floor framing through hole in soffit. Floor sheathing was soft and had water stains and mold on the underside of it. The glu-lam beams (interior face) and floor joists did not exhibit any signs of deterioration.
3. Attempted to view roof glu-lam beam, but ductwork was in the way. Wall sheathing appeared fairly dry.
4. Observed partition wall framing where there is an ongoing roof leak. There were water stains on the wall GWB. There was no signs of deterioration of the partition wall top plate.
5. Wall and roof framing was observed through existing holes in the ceiling and wall GWB. Ceiling and wall demo was performed due to a broken sprinkler line. Roof joists were dry. There was some surface mold on one wall stud.
6. Observed wall framing where GWB had previously been removed. Wall sheathing, wall studs, and wall bottom plate had significant dry rot and carpenter ants were present.
7. A hole was cut in the soffit below Level 2. Observed Level 2 floor and soffit framing. The soffit framing and sheathing were dry rotted. The glu-lam beam (interior face) and floor joists did not exhibit any signs of deterioration. There were water stains on the floor sheathing, but it did not appear to be compromised.
8. A hole was cut in the siding, gypsum sheathing, and wall sheathing at the Level 2 floor. The wall sheathing, floor sheathing, and wall bottom plate were very wet and punky. The end of a truss top chord (on top of the glu-lam beam) was soft. A screwdriver could be inserted into the truss top chord, glu-lam beam, floor sheathing, and wall bottom plate at least 1" without much effort.
9. Siding was removed at Level 2 floor. Siding was dry and the tar paper was still intact. The gypsum sheathing was solid and dry.

### **Mechanical Penthouse/Attic/Low Roofs**

1. A hole was cut in the siding, gypsum sheathing, and wall sheathing at the roof level. The wall sheathing, roof sheathing, and parapet bottom plate were rotten. The glu-lam beam was soft and punky. A screwdriver could be inserted into the glu-lam beam over an 1" without much effort.
2. Roof parapet cap was removed. Parapet top plate, studs, and bottom plate were completely rotted through.
3. Ballast and insulation were removed, and roofing was peeled back. Insulation was wet, but not waterlogged. Wall and roof sheathing were damp and soft.
4. Observed wall framing at base of wall through an existing hole in the GWB. Bottom plate and studs did not show any signs of deterioration. Wall sheathing was soft.
5. A tarp had previously been installed on the wall below the parapet in item 31. Maintenance was not sure when the tarp was installed or for what reason the tarp was installed.
6. Woodpeckers had made two holes in the wall, including one that went all the way through the wall cavity.
7. The parapet top plate was very flexible when pushed on. The parapet plywood on the roof side was extremely soft and gave way when pushed on.
8. Siding and wall sheathing were removed at a previous opening in the wall at the roof level. The wall sheathing was rotten. The floor sheathing and glu-lam beam were very wet and completely rotten. A screwdriver could be inserted into the sheathing all the way to the handle.
9. Siding was removed at the base of the wall. Gypsum sheathing and plywood were damp.
10. Siding was removed at midheight of the wall. Gypsum sheathing and plywood were damp.

11. A hole was cut in the GWB ceiling to view the built-up structural steel top chord of the roof truss in observation 29. The WF beam top chord did not display any signs of deterioration or overstress. The beveled timber plates on top of top chord did not have a consistent top elevation, which could result in differential deflection of the roof sheathing.
12. A hole was cut in the GWB ceiling to view the built-up structural steel top chord of the roof truss in observation 29. The WF beam top chord did not display any signs of deterioration or overstress.

## High Roofs

1. A metal panel was removed from the concealed gutter enclosure. All the gutter framing visible was dry and there were no signs of water damage. The main wall sheathing was also dry. The main wall studs were not visible.

The gutter assembly was visibly deflecting to the north. Straps that had been installed to restrain the gutter were damaged in numerous locations. Lag screws anchoring the straps at the roof had pulled out of the roof and the straps were bent from sliding snow and ice.

Two existing wall core infills below the gutter assembly were removed. In both locations, the gypsum sheathing and plywood were slightly damp, but not deteriorated.

2. The metal roof appears to be deflecting considerably near Grid B (at built-up structural steel roof truss). The deflection has resulted in the metal roofing vertical ribs to buckle.
3. Maintenance has reported a recent leak in the roof just south of the existing drain. The roof was observed to be very bouncy. The roof framing (glu-lam beam, joists, and roof sheathing) in this area was observed in three places by removing the ceiling below. There were water stains and some mold on the joists and sheathing, but there was no deterioration.
4. Roof parapet cap was removed. A moisture meter was used to measure 40% moisture in the top plate of the parapet.



### **Structural Recommendations**

1. Demolish and replace existing exterior walls, parapets, Level 2 floor framing, and roof framing at west low flat roof (between Grids 1 and 3 and between Grids C and F). Existing glu-lam beams along Grids 3 and F can remain. Existing tube steel columns along Grids 1, 3, and F can also remain.
2. Demolish and replace existing glu-lam floor beams, glu-lam roof beams, exterior wall, and parapets at the east edge of the east low flat roof (along Grids 7 and Z and between Grids C and F). Existing Level 2 floor and roof joists west of these beams will need to be shored during this work. Existing tube steel columns at Grids 6-F and 7-Z can remain.
3. Inspect existing Level 2 floor joists and floor sheathing under the east low flat roof (between Grids 4.5 and 7 and between Grids C and F) for moisture damage and replace or treat as required. We recommend budgeting the replacement of the floor sheathing within 24" of the exterior wall.
4. Demolish and replace existing roof sheathing at the high flat roof and the east low flat roof (between Grids 3 and 7 and between Grids C and F). Existing roof joists shall be inspected for moisture damage and replaced or treated as required.
5. Demolish and replace existing exterior walls and parapets between the lower and upper flat roofs (walls between Grids C and F and along Grids 3.2, Grid 4.6, and diagonal wall from Grids E.2-4.6 to Grids C-6). Existing roof joists north of the diagonal wall will need to be shored during this work.
6. Demolish and replace existing exterior wall sheathing at exterior walls between gable roofs and flat roofs (along Grids C and F). Existing wall studs shall be inspected for moisture damage and replaced or treated as required.
7. Inspect existing exterior wall along Grid H for moisture damage. Wall sheathing and studs shall be replaced where rotten. We recommend budgeting the replacement of all of the exterior wall sheathing within 24" of the base of the wall. We also recommend budgeting for all the wall studs to be sintered with a 12' stud and then have the bottom 24" removed.
8. Inspect existing exterior wall sheathing and exterior wall studs at the remaining exterior walls for moisture damage and replace or treat as required. We

recommend budgeting the replacement of 50% of the exterior wall sheathing and 10% of the exterior wall studs at these walls.

9. Demolish and replace framing at the concealed gutter system at the north side of the building. The new framing shall enclose the existing gutter depression. New gutters shall be attached to the face of soffit framing.
10. Inspect existing roof sheathing at the gable roofs for moisture damage and replace or treat as required. We recommend budgeting the replacement of 20% of the roof sheathing at these roofs.
11. Paint the exterior one-story structural steel framed stairs at the west side of the building with exterior paint. Steel surface shall be prepped per the paint manufacturers recommendations.

## Mechanical Condition Summary

Several of the mechanical systems within the facility are original and are operating as designed, with the exception of the building controls, but are nearing the end of their useful life expectancy. Mechanical systems observed include plumbing, fuel oil, fire protection, heating, cooling, ventilation, and HVAC system controls.

The mechanical systems throughout the building are interconnected. Temporary heating and ventilation may be necessary to incorporate phased construction in order to keep portions of the building operational while work is being performed.

Equipment throughout the building does not appear to be seismically restrained. Mechanical equipment and systems will need to be analyzed to determine appropriate seismic restraints to be provided for this essential facility.

**Life Expectancy:** The Life Expectancy numbers in this report are based on ASHRAE guidelines, industry standards (RS Means) and AMC Engineer's experience with these types of systems and equipment. The life expectancies noted are nominal numbers and equipment, if properly maintained, can be expected to continue to function beyond its nominal life expectancy, although it may no longer function as originally intended and may require excessive or constant maintenance to maintain functionality.

Mechanical equipment typically has an expected lifetime of approximately 20 plus years.

**Existing Condition:** The following definitions are used in the narrative for describing the conditions of the individual elements and systems assessed. Additional notes may be offered to explain various characteristics observed during the inspection.

EXCELLENT Condition	Near New Condition. Not requiring capital expenditures at this time.
GOOD Condition	Reasonable Condition. Not requiring capital expenditures or replacement at this time.
FAIR Condition:	Deteriorating Condition. Nearing the end of its useful life or requires immediate maintenance. Likely to deteriorate to Poor Condition if not addressed.
POOR Condition:	Observable deterioration and/or operational problems. Has reached the end of its useful life and requires immediate replacement or maintenance.

**Suitability for Existing Use:** This report includes statements on whether equipment is suitable for its current existing use. This assessment is based on limited observation and is intended to convey whether the equipment, as installed, is in at least Fair Condition and is fulfilling its original intended function. For example, a light fixture is suitable for its intended use if it is operable and provides light. There may be other issues such as are lighting levels appropriate in the area the fixture is lighting that are not addressed by this assessment.

**Compliant with Existing Standards:** The report indicates whether equipment is compliant with existing standards. This means that it appears to be operating as designed and appears to be in compliance with current codes and standards. Equipment that is suitable for its existing use but does not meet the expected standard for performance is considered noncompliant. Note that these assessments are based on limited investigations and there may non-compliant items that were not observed or reported.

### **Mechanical Observations:**

**Plumbing:** The facility receives its domestic cold water supply from the city's potable water distribution system. The 3-inch domestic water main contains a pressure reducing valve and the pressure read by a gauge downstream of the valve at the time of the site visit was approximately 80 PSI. No issues were reported with the building's domestic cold water service and the available pressure and water main size appears adequate to provide domestic, potable, water for this building.

Domestic hot water is generated and stored in a single 116-gallon Rheem electric water heater installed in 2010. The water heater appears in good condition, but may need to be replaced in the next 5-10 years based on expected useful life on an electric water heater. The domestic hot water system has no central tempering valve, point-of-use tempering valves, or thermometer to determine distributed water temperature to the building. A single domestic water recirculation pump returns hot water back to the water heater.

Domestic wastewater from fixtures flows by gravity to below the basement slab on grade to the city's central wastewater drainage system. An interceptor pit is installed in the basement parking garage. No issues with the building's sanitary waste drainage was reported during the site visit.

Rain water is collected by roof drains on the central, flat roof area and collected below the basement level slab and routed to the city's storm water collection system. Gutters collect storm water on the sloped roofs and discharge to the city's storm water collection system below grade. The flat roof is a built-up roof system with pavers with significant moss and vegetation growth. Roof drain bowls uncovered while on site were dirty and filled with moss and vegetation. Roof drainage overflow is accomplished through wall scuppers.

Plumbing fixtures throughout the facility are generally commercial grade with penal fixtures in the corrections area holding cells. The bubblers on two of the penal fixtures were inoperable during the site visit. The building plumbing fixtures show a significant amount of wear including chrome pitting on flush valves. However, the fixtures were still operational except for the penal fixtures noted.

**Fuel Oil:** The facility is supplied fuel oil by an exterior below ground fuel oil storage tank located on the west side of the building near the basement level Boiler Room. The underground storage tank has a sight gauge fuel level indicator located in the basement Boiler Room, but was reported as being faulty and unreliable.

Fuel oil is routed underground to an interior day tank serving the generator and the fuel-oil fired boiler. Fuel oil overflow from the day tank and return from the boiler is routed back to the underground fuel oil storage tank via gravity. I

ADEC records show the original 1984 4,000 gallon underground heating fuel oil tank is a non-regulated cathodically protected steel tank with galvanized steel pipes. The tank and piping do

not have secondary containment. No reports of a fuel oil spill were found on the ADEC site. The tank is past its expected life and does not meet current standards.

**Fire Protection:** The facility is served by a single wet pipe riser and a single dry pipe riser located in the basement Boiler Room. The wet pipe system is broken into five zones with dedicated flow switches and serves a majority of the building. The dry pipe system serves the canopies, second floor roof, and parking garage. The dry pipe system is served by the same air compressor serving the building controls. The system had undergone service January 2020 and had received a new dry valve in January 2019 per service tags located on the risers. The only issues noted on the 2020 fire sprinkler report were some sprinkler heads with visible signs corrosion and some pipes/fittings with leaks.

The sprinkler system appears to be original to the building and will need to be analyzed by an engineer or licensed fire protection contractor to verify it meets current life safety codes based on current building occupancy. Original sprinkler shop drawings or hydraulic calculations are not available.

**Hydronic Heating:** No Hydronic testing, adjusting, and balancing, TAB, reports were available to document hydronic system performance.

Heat generation is provided by a fuel-oil fired Weil McLain 688 hydronic boiler with Power Flame burner installed in 2015 and an electric Precision PCW2 boiler installed in 2010. The boilers appear to be in good condition and should last another 20 years based on expected useful life. Each boiler has a dedicated primary loop circulation pump to maintain flow through the boiler.

Heat distribution is accomplished in a primary-secondary loop configuration. The secondary loop has two sets of constant volume, primary/standby circulation pumps to distribute the hydronic heating fluid through the building. One set of pumps (P-2 & P-3) distributes heating fluid to the ventilation unit heating and pre-heating coils. The other set of pumps (P-4 & P-5) distributes heating fluid to the building's terminal heating units. The building circulation pumps appear to be original to the 1985 expansion project, but are operating as originally designed. The pumps will likely need to be replaced in the next 5-10 years based on expected useful life and are being run at constant volume, which can lead to increased energy usage.

The loop to the terminal heating units goes through a three-way valve that allows the fluid delivered to the building to be tempered. The building utilizes perimeter finned tube for exterior spaces and unit heaters for mechanical spaces, garage, and apparatus bay.

Several areas throughout the building, mostly at terminal heating units, were noisy due to air within the hydronic heating piping. This indicates that, despite having a coalescing air separator in the boiler room, the system is experiencing issues with air entrainment.

**Cooling:** Space comfort cooling is provided by the air distribution systems. The ventilation unit serving the court area (SF-2) has a direct expansion cooling coil installed to provide mechanical cooling. The other two ventilation units (SF-1 and SF-3) rely on the ambient outdoor air temperature to provide cooling to the building.

**Telecom and Electrical Room Cooling:** There are currently no dedicated telecom rooms located within the building. Telecom racks located in the building are located in spaces utilized for other purposes like storage and do not have enough heat producing equipment to require a dedicated split system air-conditioning unit.

**Ventilation:** No Ventilation testing, adjusting, and balancing, TAB, reports were available to document the current supply and return air volumes.

Ventilation to facility levels 1 and 2 are provided by three central, constant volume supply fan units located in the level 3 mechanical room. The units include outside air preheat coils, filters, and hydronic heating coils. The supply fans are Pace units that were installed during the 1985 expansion. The air handlers utilize a hot deck/cold deck system to supply temper air to individual building zones. The fans appear to be operating as designed and no issues were reported by maintenance personnel, however, these fans are nearing the end of their expected useful life and may need to be replaced in the next 5-10 years.

Three return fans, matched to each supply fan, provide ducted return air from the various areas of the building back to the fan room to either be recirculated or relieved to the exterior of the building. The return fans are Pace units that appear to have been installed during the 1985 expansion. The fans appear to be operating as designed, but are nearing the end of their expected useful life and may need to be replaced in the next 5-10 years.

General building exhaust is provided by multiple exhaust fans that discharge through a wall louver or roof hoods. The exhaust fans are Pace units that appear to have been installed during the 1985 expansion. The fans appear to be operating as designed, but are nearing the end of their expected useful life and may need to be replaced in the next 5-10 years.

The basement level, which consists primarily of the shooting range, is served by a dedicated supply and return fan located in the basement boiler room. The shooting range unit is operated by a manual wall switch located in the firing range. This unit and ventilation system appears to be original to the building construction to serve the firing range. Code requirements serving firing ranges have changed considerably since the original building construction and needs to be analyzed to verify it meets current codes.

The ducting and duct insulation viewed while on site appeared to be in good condition. The ductwork looks to be original to the building construction and 1985 expansion and has likely not been cleaned. It is recommended the ductwork throughout the building be cleaned internally to remove dust, debris, and any mold or mold spores.

**Humidity Control:** The building has no active humidification or dehumidification equipment. Maintenance personnel indicated the building frequently experiences issues with humidity and condensation forming on interior surfaces.

**Building Controls:** The building mechanical systems control is accomplished primarily by a pneumatic control system which consists of a central air compressor, air drier, pneumatic control panels, pneumatic valves, and pneumatic damper operators. The pneumatic control system is currently inoperable, and several pneumatic operators have had their pneumatic tubing removed or the actuator removed from the damper linkage. The air handler hot deck/cold deck outside air and return air dampers are manually adjusted by maintenance personnel to maintain zone temperature comfort.

Perimeter finned tube elements have been retrofitted with dedicated control valves with integral space thermal bulb and user adjustable thermostat.

The central boiler system has a Honeywell direct digital control (DDC) system to control and monitor the boilers.

### **Mechanical Recommendations:**

Observations of mechanical conditions and deficiencies are detailed, with areas, quantities, and recommendations in the following Exhibit and in the subsequent pages:

Exhibit E      Mechanical Condition Assessment – 13 Pages

Key mechanical recommendations include but are not limited to:

#### **Plumbing:**

1. **Observation/Deficiency:** Domestic hot water system does not meet current code for limiting water temperature at hand wash sinks to prevent scalding.
  - a. **Correction:** Provide a single, central tempering valve for building-wide temperature control and ASSE 1070 thermostatic mixing valves at handwash sinks (approximately 17 locations).
2. **Observation/Deficiency:** Two penal fixtures have bubblers that are non-operational.
  - a. **Correction:** Replace two penal fixtures with new.
3. **Observation/Deficiency:** Roof drains observed were filled with moss and vegetation and had broken strainers. This could lead to blocked drains and poor drainage off the flat room sections.
  - a. **Correction:** Replace roof drains with new (three roof drains total).

#### **Fuel Oil:**

1. **Observation/Deficiency:** The underground, single wall fuel oil storage tank is past its expected life and does not meet current standards.
  - a. **Correction:** Replace the underground storage tank with a nominal 1,500 gallon Type I double-wall fuel oil above ground storage tank. Provide one 3/4-inch fuel oil supply pipe routed above grade to serve the fuel oil boiler burner with appurtenances and interior "tiger loop". Provide new 50-gallon day tank with supply and overflow return pumps to serve the generator. Provide 3/4-inch supply and 1-inch return routed above grade from the above ground storage tank to the day tank. Pipe to be welded black steel.

#### **Fire Protection:**

1. **Observation/Deficiency:** Fire sprinkler dry pipe system is served by the air compressor also providing air to the inoperable pneumatic control system. Potential future leaks in the pneumatic control system could result in the compressor unable to adequately supply the dry pipe sprinkler system.
  - a. **Correction:** Provide dedicated, UL 3/4 Hp dedicated air compressor to serve the dry pipe system.

2. **Observation/Deficiency:** The fire sprinkler system appears to be original to the building and may not meet current life-safety code requirements for the current usage and code cycle.
  - a. **Correction:** Obtain the services of a registered Architect to develop an updated life-safety plan for the current building use. Obtain the services of a certified fire protection system designer or licensed fire protection contractor to analyze the existing fire sprinkler system based on the updated life-safety plan to verify any modifications needed to the sprinkler system.

### Hydronic Heating:

1. **Observation/Deficiency:** Several areas of the building are experiencing air in the hydronic system which can cause inefficient heating and premature piping failure.
  - a. **Correction:** Replace existing expansion tank in the level 3 fan room with appropriately sized diaphragm or bladder type expansion tank in the basement boiler room and refill the hydronic system to purge air.
2. **Observation/Deficiency:** The building circulation pumps (P-2 thru 5) appear to be original to the 1985 building expansion and are also operated at constant volume.
  - a. **Correction:** Replace building circulation pumps with primary/standby pumps with integral variable speed drives and provide new control valves for supply fan heating coils and building terminal heating units. Approximately 35 new control valves, two 130 GPM circulation pumps with integral variable speed drives, and two 50 GPM circulation pumps with integral variable speed drives.

**Cooling:** Existing ventilation units have spaces reserved for direct expansion cooling coils to be installed, however, no complaints were reported regarding the building or occupants overheating.

**Telecom and Electrical Room Cooling:** No observations or deficiencies requiring any corrections.

### Ventilation:

1. **Observation/Deficiency:** Supply fan (SF-3) is currently providing a constant volume of 6,200 CFM (primarily recirculated) to the Apparatus Bay which equates to approximately 1.24 CFM/SF. This is a lot of air to be providing for this type of space and could potentially be reduced for a majority of the year to save energy costs. It is also only receiving approximately 600 CFM of exhaust air, which does not meet code requirements for an enclosed parking garage.
  - a. **Correction:** Obtain the services of a registered mechanical engineer to analyze the existing space for heating and cooling loads and design a ventilation system to adequately heat, cool, and ventilate the space. Estimate 250 CFM dedicated, constant volume exhaust fan, 3,750 CFM dedicated purge exhaust fan to be operated upon high levels of carbon monoxide or nitrogen dioxide, and new 5,000 CFM variable volume ventilation unit with heating coil to provide make-up, heating, and cooling air.
2. **Observation/Deficiency:** Ductwork appears to be original the building construction and 1985 expansion and has likely never been cleaned.



- a. **Correction:** Hire the services of a duct cleaning contractor to clean the internal surfaces of the ducting throughout the building.
3. **Observation/Deficiency:** It is unclear whether the building is receiving adequate outside air for indoor air quality based on the number of occupants in the building and the lack of control over the outside air/return air control dampers.
  - a. **Correction:** Obtain the services of a registered mechanical engineer to analyze the existing ventilation systems and building occupancy and provide a recommendation for outside air volumes required. Obtain the services of a NEBB certified testing, adjusting, and balancing agency to balance the ventilation systems to the designed airflows.
4. **Observation/Deficiency:** Supply, return, and exhaust fans are nearing the end of their expected useful life and are operating at constant volume which leads to increased energy usage.
  - a. **Correction:** Replace the ventilation system supply and return fans with two variable volume air handler units (approximately 1.2 CFM/SF) and variable air volume boxes with reheat coils (approximately 15 zones) for better zone control and increased energy efficiency.
5. **Observation/Deficiency:** The firing range ventilation system appears to be original to the building construction.
  - a. **Correction:** Obtain the services of a professional mechanical engineer to analyze the firing range ventilation system and verify whether it meets current code requirements and industry standards.

#### Humidity Control:

1. **Observation/Deficiency:** Maintenance personnel indicated the building experiences high humidity levels which condense on interior surfaces causing water damage, mold, and degradation of equipment.
  - a. **Correction:** Provide direct expansion cooling coils to supply fans (SF-1 and SF-3) to cool incoming air below dewpoint and assist in removing moisture from the outside air.

#### Building Controls:

1. **Observation/Deficiency:** The building mechanical systems are primarily controlled by an inoperable pneumatic control system. Except for the boilers, the building does not have any monitoring or alarming capabilities currently functional. Mechanical system valves and dampers are manually adjusted by maintenance personnel to satisfy occupant comfort.
  - a. **Correction:** Replace existing building pneumatic controls with direct digital controls and building automation system (BAS).

#### General:

1. **Observation/Deficiency:** Building mechanical equipment is not seismically restrained.

- a. **Correction:** Hire the services of a professional engineer to design seismic restraints for the equipment throughout this essential building.

## Electrical Condition Summary

The facility is a two-story structure with basement (Level 0) and penthouse (Level 3) fan room comprising some 34,500 square feet. The building was constructed in 1985. Electrical systems within the facility are mostly original and are functioning adequately with the exception of the fire alarm system. Ongoing maintenance is being provided with some replacement of failed equipment reported and some minor equipment added since the original construction was completed. Electrical systems observed include lighting, power distribution, telecommunications, fire alarm, and video surveillance.

Equipment throughout the building does not appear to be seismically restrained. Electrical equipment and systems will need to be analyzed to determine appropriate seismic restraints to be provided for this essential facility.

**Life Expectancy:** The Life Expectancy numbers in this report are based on ASHRAE guidelines, industry standards (RS Means) and AMC Engineer's experience with these types of systems and equipment. The life expectancies noted are nominal numbers and equipment, if properly maintained, can be expected to continue to function beyond its nominal life expectancy, although it may no longer function as originally intended and may require excessive or constant maintenance to maintain functionality.

The following major categories of equipment have nominal Life Expectancies as noted below:

1. Lighting Equipment: Lighting equipment typically has an expected life of 15 years.
2. Power Distribution Equipment: Power Distribution equipment and its associated conduit pathways and feeder/branch circuit wiring has a nominal life expectancy of 30 years.
3. Fire Alarm Equipment: Fire alarm equipment has a nominal life expectancy of 15 years.
4. Horizontal Telecom Distribution: Horizontal telecom distribution equipment has a nominal life expectancy of 15 years.
5. Backbone Telecom Distribution: Telecom rooms (including racks, cable support systems, patch panels, etc.) and fiber optic backbone cabling have a nominal life expectancy of 15 years. Copper backbone cabling and backbone conduit pathways and innerducts have a nominal life expectancy of 30 years.
6. Closed Circuit Television System Equipment: CCTV equipment has a nominal life expectancy of 15 years.

**Existing Condition:** The following definitions are used in the narrative for describing the conditions of the individual elements and systems assessed. Additional notes may be offered to explain various characteristics observed during the inspection.

EXCELLENT Condition	Near New Condition. Not requiring capital expenditures at this time.
GOOD Condition	Reasonable Condition. Not requiring capital expenditures or replacement at this time.
FAIR Condition:	Deteriorating Condition. Nearing the end of its useful life or requires immediate maintenance. Likely to deteriorate to Poor Condition if not addressed.
POOR Condition:	Observable deterioration and/or operational problems. Has reached the end of its useful life and requires immediate replacement or maintenance.

**Suitability for Existing Use:** This report includes statements on whether equipment is suitable for its current existing use. This assessment is based on limited observation and is intended to convey whether the equipment, as installed, is in at least Fair Condition and is fulfilling its original intended function. For example, a light fixture is suitable for its intended use if it is operable and provides light. There may be other issues such as are lighting levels appropriate in the area the fixture is lighting that are not addressed by this assessment.

**Compliant with Existing Standards:** The report indicates whether equipment is compliant with existing standards. This means that it appears to be operating as designed and appears to be in compliance with current codes and standards. Equipment that is suitable for its existing use but does not meet the expected standard for performance is considered noncompliant. Note that these assessments are based on limited investigations and there may non-compliant items that were not observed or reported.

### **Observations**

**Lighting:** The building primarily utilizes linear fluorescent type fixtures with a mixture of 40W T12 and 32W T12 lamps, with compact fluorescent and incandescent down lights used in select areas. Interior space lighting is predominantly controlled by manual switches located at room entrances. Interior space lighting is predominantly controlled by low voltage (24V AC) relays which are in turn controlled by common area switches located in centralized locations. These low voltage relays (General Electric (GE) RR-7 and RR-9 relays) were somewhat typical for area switching during the 1980s and 1990s.

Select light fixtures appear to have had their lamps replaced with LEDs such as in the Fire Department's Apparatus Bay. Although typically not as effective as light fixtures that have been

engineered from the start to function with LEDs, we estimate that some energy and maintenance savings have been realized as a result of the light fixture revisions. We estimate that approximately 10% - 15% of the light fixtures in the facility have been revised in such a manner.

Life Safety emergency lighting is provided by battery backed emergency lighting inverters. These inverters appear to date from the original building construction, although seemingly functional (and reportedly so), they should be replaced due their age and potential difficulty in obtaining parts.

Exit signs are internally illuminated type with a mixture of red and green backlit lettering and with battery back-up.

Building mounted site lighting consists of LED fixtures spaced around the perimeter of the building and recessed high pressure sodium downlights in covered exterior areas. Pole mounted site lighting consists of high intensity discharge (HID) fixtures around the parking surfaces and drive surfaces. Site lighting is controlled via a lighting contactor operated by a photocell.

The interior lighting system is in FAIR condition, is suitable for its existing use, and is compliant with existing standards. The exterior lighting system is in POOR condition, although it is suitable for its existing use, and it is compliant with existing standards.

The Life Safety emergency lighting system is in POOR condition, although suitable for its existing use, and compliant with existing standards, and should be replaced at the earliest convenience.

Although the existing interior lighting system will likely serve the building and building occupants adequately for some time, consideration should be given to a building wide light fixture replacement with LED style light fixtures.

**Power Distribution:** The building is served by two (2) electrical services from two different utility transformers.

The first (secondary) electrical service is dedicated to serving the electric boiler located in the boiler room and is a 400 Amp, 480V/277V, 3 phase, 4 wire service.

The second (primary) electrical service is the actual building electrical service and is a 1,000 Amp, 208Y/120V, 3 phase, 4 wire service. The main distribution panel (MDP) for the building is a 1,000 Amp, 208Y/120 Volt, 3-phase, 4-wire switchboard with a 1,000 Amp main circuit breaker located in the MDP. The power distribution system includes branch circuit panels that are located throughout the building.

The building is backed up by a single, interior, 250KW, 208Y/120V, 3-phase, 4-wire, diesel fired engine/generator feeding a 1,000 Amp, 208Y/120 Volt, 3-phase, 4-wire automatic transfer switch (ATS) located within the building in the main electrical room on Level 0. The MDP main circuit breaker section feeds the normal power source input of the ATS. The alternate source input of the ATS is fed from the generator. In turn, the ATS feeds the distribution section of the MDP providing generator power to the entire building. The system is configured in accordance with NEC Article 702 for Optional Standby Systems for this essential facility.

The engine/generator appears to be in POOR condition. The ATS appears to be in POOR condition. Both are showing their age.

The MDP and the standby branch power distribution system appear to be relatively well maintained, but both have reached the end of their useful lives and should be replaced. Similar to the engine/generator, the MDP and the standby branch power distribution system are showing their age.

The MDP and the standby power distribution system are in FAIR condition, are suitable for their existing use, and are compliant with existing standards. The engine/generator and ATS are in POOR condition, although both are suitable for their existing uses, and are compliant with existing standards.

**Telecommunications:** The system is comprised of a non-uniform cabling plant with multi-port telephone/data outlets located throughout the facility. Telecom outlets appear to have been provided on as-needed basis, leading to what appears to be a haphazard (although functional) installation with no similar installation methods or parts. Cables are routed from each outlet to a local telecommunication room. The horizontal cabling terminates on rack mounted modular patch panels located in floor mounted telecommunication racks. Backbone cabling between telecom racks located in select areas is multi-mode fiber optic cabling.

There are currently no dedicated telecom rooms located within the building. Telecom racks located in the building are in spaces utilized for other purposes like storage. One such area is on Level 1 and looks to predominantly serve the Police Department. This area is in Room 125. The second area is one Level 2 and looks to predominantly serve the Court System. This area is in Room 248. Neither of these two locations are actively cooled, although neither location was observed to be overly warm.

The telecommunication system is in FAIR condition, is suitable for its existing use, although it is not compliant with most existing telecommunications standards (ANSI/TIA-568, 569, 606, and 607).

Given that the essential building serves such an important function for the City and Borough of Wrangell, we recommend installation of a premise wide telecom distribution system with at least one (1) centralized telecom room located on each floor with high bandwidth fiber optic backbone cable connecting the telecom rooms and a uniform horizontal cable plant. The telecom distribution system should be designed and installed in accordance with the latest ANSI/TIA-568, 569, 606, and 607 standards as well as in accordance with the BICSI Telecommunications Distribution Methods Manual.

**Fire Alarm System:** The system is comprised of a Simplex 2001 hardwired, zone based, conventional fire alarm system. Horn/strobes and strobes are located throughout the facility as generally required by the Code enforced at the time of construction. Smoke detectors are generally provided where required by Code and are generally provided in all rooms, spaces, corridors, and hallways comprising a comprehensive smoke detection system. There are a few locations where they have not been provided and where they are required by Code. These locations are:

1. Sleeping areas in the Fire Department EMT residence area.
2. Above the fire alarm control panel.

Notification appliances are generally provided where required by the Code enforced at the time of construction, although coverage is lacking per current Codes and the American with Disability Act Accessibility Guidelines (ADAAG) requirements.

Recent fire alarm system inspection reports (2017 test report) also indicate that some aspects of the existing fire alarm system are no longer functional. In addition, the existing fire alarm system is 30-35 years old making maintenance problematic as parts become more difficult to obtain. Finally, there have been reported issues with the fire alarm system. These reported issues with the existing fire alarm system are as follows:

1. Failure of fire alarm system backup batteries.
2. Trouble not reported properly when battery removed.
3. Ground fault indicator LED non-functional on lamp test.
4. System failed to operate on battery power.
5. All detectors need sensitivity test as they were slow to respond to smoke.
6. All heat detectors are 20 years beyond their useful life and need replacement.

The fire alarm system no longer meets Code requirements and is in POOR condition, is NOT suitable for its existing use, is NOT compliant with existing standards, and should be replaced at the earliest convenience.

**Access Control System:** The building does not utilize an electronic access control system. Doors requiring specific personnel access and limiting access to others is done with battery powered cipher locks.

**Video Surveillance:** The system is an IP based video surveillance system. CCTV cameras have been provided in select areas of the building. Anecdotal reports by those who maintain, operate, and administer the system indicates that the system is operating well and is well maintained.

The video surveillance system is in GOOD condition, is suitable for its existing use, and is compliant with existing standards.

### **Recommendations**

Observations of electrical conditions and deficiencies are detailed, with areas, quantities, and recommendations in the following Exhibit and in the subsequent pages:

Exhibit F      Electrical Condition Assessment – 13 Pages

Key Electrical recommendations include but are not limited to:

#### **Lighting:**

1. **Observation/Deficiency:** Emergency lighting is provided by vintage emergency lighting inverters likely from the original building construction whose proper operation is suspect.
  - a. **Correction:** Replace the three 1,200 VA emergency lighting inverters with new emergency lighting inverters that are UL Listed for the purpose. For the purposes of this report, assume replacement of the three (3) existing 1,200 VA inverters in a “like for like” exchange.

2. **Observation/Deficiency:** Emergency lighting not provided at building exits.
  - a. **Correction:** Re-wire some of the exterior lights and connect them to the nearest available emergency lighting inverter circuit.
3. **Observation/Deficiency:** Fan room general purpose lighting is provided by light fixtures utilizing 40W, T12 fluorescent tubes.
  - a. **Correction:** Replace the fan room lighting with nominal 1-foot x 4-foot LED fixtures.
4. **Observation/Deficiency:** Jail cell general purpose lighting is provided by penal style, surface mount light fixtures utilizing 40W, T12 fluorescent tubes. Many of these fixture's on/off switches were inoperative and/or faulty. Several of the light fixtures themselves appeared not to function.
  - a. **Correction:** Replace jail cell general purpose light fixtures with penal style, surface wall mount LED fixtures.
5. **Observation/Deficiency:** Wiring devices such as light switches appear to date from the original construction. The devices are past their useful life and can be expected to fail at any time.
  - a. **Correction:** Replace wiring devices such as light switches with new devices in a "like for like" exchange.

**Power:**

1. **Observation/Deficiency:** The electrical distribution system and related equipment in this facility are well beyond their RS Means listed useful lives, although they appear to be in fair condition. Due to their age and condition, these items may be expected to fail at any time and be difficult to obtain replacement parts for. This deficiency includes the building's 1,000 Amp Main Distribution Panel (MDP), twelve (12) electrical branch circuit panels and all associated feeders.
  - a. **Correction:** Replace electrical items and systems that have exceeded their remaining useful life with new, generally of similar size and/or type, including: Main Distribution Panel, one automatic transfer switch, and twelve (12) electrical branch circuit panels and all associated feeders.
2. **Observation/Deficiency:** The backup generator distribution system and related equipment in this facility are well beyond their RS Means listed useful lives and are in poor condition. Due to their age and condition, these items may be expected to fail at any time and be difficult to obtain replacement parts for. This deficiency includes the building's interior backup generator, one automatic transfer switch, and all associated feeders.
  - a. **Correction:** Replace electrical items and systems that have exceeded their remaining useful life with new, generally of similar size and/or type, including: one (1) backup generator, one automatic transfer switch, and all associated feeders.
3. **Observation/Deficiency:** Building electrical panels are not labeled for arc flash hazard as required by Code. NFPA 70 (NEC) 110.16 & NFPA 70E.
  - a. **Correction:** Perform a short circuit analysis and arc flash hazard study and label electrical panels for their respective arc flash hazard present.



4. **Observation/Deficiency:** No exterior fused service disconnect has been provided for either of the two electrical services.
  - a. **Correction:** Provide an exterior fused service disconnect for each of the two electrical services. Provide signage for exterior service disconnects in accordance with the NEC.
5. **Observation/Deficiency:** No signage at service entrance identifying location of stand-by power source.
  - a. **Correction:** Provide signage at service entrance identifying location of stand-by power source in accordance with the NEC.
6. **Observation/Deficiency:** Wiring devices such as receptacles appear to date from the original construction. The devices are past their useful life and can be expected to fail at any time.
  - a. **Correction:** Replace wiring devices such as receptacles with new devices in a "like for like" exchange.

### Special Systems

1. **Observation/Deficiency:** The existing fire alarm system does not function correctly, parts of it are inoperative, aspects of the installation no longer meet Code requirements, the system is obsolete, and maintenance parts are or will become increasingly difficult to obtain.
  - a. **Correction:** Replace the existing fire alarm system in its entirety including initiating devices, indicating devices, fire alarm control panel, fire alarm annunciators, etc.
2. **Observation/Deficiency:** The existing telecommunications distribution system does not adhere to any current standards and probably does not adequately serve the building.
  - a. **Correction:** Provide a telecom distribution system designed and installed in accordance with the latest ANSI/TIA-568, 569, 606, and 607 standards and with the BICSI Telecommunications Distribution Methods Manual.

## Hazardous Materials Narrative

### Overview

Potentially hazardous materials have been identified in Public Safety Building that will be affected by the proposed renovations. Those materials include asbestos and lead.

### Building Description

Public Safety Building was originally constructed in two phases. Phase I was constructed at an unknown date, but likely to be close in date to the Phase II addition which occurred in 1985. The Phase 1 construction included the basement firing range, and adjacent mechanical room and toilets. The Phase II project removed some of the temporary stair and roof areas, and added the remainder of the structure in close to the same layout as exists today. There have been various investigations through the years related to water leaks, and deteriorated siding, and mold sampling.

The Building is built on a site that slopes down to the west and has 3 levels, with the main entrance and fire department equipment bays being on the main or street level, with an open garage, boiler/mechanical room, and firing range in the lower or basement level, with the entrance into the garage being on the west side of the building. The main floor has the police and dispatch offices, along with a secured jail area, and the fire department equipment bays. The 2nd floor has the fire department offices and training room, an apartment for transient workers, the court clerks offices, judges offices, courtroom and jury room along with a Department of Motor Vehicles office, and other smaller offices.

The building has a slab-on-grade foundation with concrete and metal beams forming the structure for the lower floor. The main and second floors have glue-laminated beam, along with wood "truss joists" supporting wood floor and roof decks.

Interior portions of the building typically consisted of the following:

1. Floor finishes: vinyl composition floor tiles, carpeting, sheet vinyl, ceramic mosaic floor tiles, and bare concrete.
2. Wall finishes: gypsum wall board, decorative ceramic wall tiles, fiber reinforced plastic wall panels, acoustic carpeted wall panels, and exposed concrete.
3. Ceiling finishes: gypsum wall board, lay-in ceiling tiles, glued-on ceiling tiles, and exposed concrete structure.

The Building has various roof levels with pitched metal roofs with standing seams, and flat, inverted roof membrane assembly roofs. The flat roofs have had decades of reported roof leaks.

Heating and ventilation at the building is provided by various air handling systems, with hydronic heating, and oil fired boilers.

### Asbestos-Containing Materials

The following asbestos-containing materials are known or assumed to exist in this building.

1. Black sink undercoating on a stainless steel drinking fountain (0.75% asbestos, assumed to contain more than 1% asbestos).

2. Black sound lining of flush mounted and bowl shaped ceiling mounted speaker boxes (confirmed asbestos).
3. Black mastic of 12" x 12" Floor tile of Phase 1 in basement (confirmed asbestos).
4. Paper-like lining of underground, green, fiberglass "Spunstrand" duct, assumed to be serving the exhaust system of the firing range (confirmed asbestos).

### **Lead-Containing Materials**

Lead-containing materials that are known or assumed to be present are summarized below.

1. Painted interior and exterior surfaces.
2. Painted windows, doors and frames.
3. Painted mechanical and electrical equipment.
4. Lead-containing dust in and on architectural, structural, mechanical, and electrical components.
5. Lead-acid batteries for generator, exit and emergency lights, and backup batteries for other equipment, such as fire alarm panels.
6. Lead caulking in bell and spigot pipe joints.
7. Lead in pipe solder at copper pipe fittings.
8. Painted structural and miscellaneous steel.
9. Lead-based paints on structural steel.

### **Other Potential Hazardous Materials**

Other potential hazardous materials that are known or assumed to be present are summarized below.

1. Mercury-containing fluorescent light tubes.
2. High Intensity Discharge (HID) light fixtures with mercury-containing bulbs and assumed PCB-containing ballasts.
3. Self-illuminating exit signs with radioactive components.
4. Refrigeration equipment with ozone depleting substances (ODS).
5. Heating system components with glycol.

### **Hazardous Material Recommendations**

If any asbestos and other hazardous materials are scheduled to be disturbed or removed by this project, they are required to be removed and properly disposed of by trained workers under controlled conditions and in accordance with all applicable regulations.

### **Regulatory Compliance and Waste Disposal**

All work must be performed in compliance with applicable Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and State of Alaska regulations and standards. The Contractor is responsible for properly storing, marking, labeling, securing, and transporting hazardous wastes. All hazardous wastes shall be collected in Contractor-furnished approved containers and taken to an approved landfill for disposal. The Contractor is responsible for all costs associated with waste disposal. All waste transportation and disposal activities must be conducted in accordance with the applicable federal and state regulations and standards.

The Federal Occupational Safety and Health Administration (29 CFR 1926.1101) and the State of Alaska Department of Labor (8 AAC 61) have promulgated regulations requiring testing for airborne asbestos fibers; setting allowable exposure limits for workers potentially exposed to airborne asbestos fibers; establishing contamination controls, work practices, and medical surveillance; and setting worker certification and protection requirements. These regulations apply to all workplace activities involving asbestos.

The EPA regulations, issued as Title 40 of the Code of Federal Regulations, Part 61 (40 CFR 61) under the National Emission Standards for Hazardous Air Pollutants (NESHAP) established procedures for handling ACM during asbestos removal and waste disposal. These regulations required an owner (or the owner's contractor) to notify the EPA of asbestos removal operations and to establish responsibility for the removal, transportation, and disposal of asbestos.

The disposal of asbestos waste is regulated by the EPA, the Alaska Department of Environmental Conservation, and the disposal site operator. Wastes being transported to the disposal site must be sealed in leak tight containers prior to disposal and must be accompanied by disposal permits and waste manifests.

Federal OSHA (29 CFR 1926.62) and the State of Alaska (8 AAC Chapter 61) have promulgated regulations that apply to all construction work where employees may be exposed to lead. The disturbance of any surfaces painted with lead-containing paint requires lead-trained personnel, personnel protective procedures, and air monitoring until exposure levels can be determined. If initial monitoring verifies that the work practices being used are not exposing workers, monitoring and protection procedures may be relaxed.

The EPA requires that actual construction or demolition debris that contains lead or lead-containing paint or other heavy metals be tested using the TCLP test to determine if the waste must be treated as hazardous waste. All federal, state and local standards regulating lead and lead-containing wastes should be followed during the demolition or renovation of this building.

The EPA has promulgated regulations (40 CFR Part 761) that cover the proper handling and disposal of PCB-containing equipment. All construction workers who are required to remove or handle PCB-containing or PCB-contaminated equipment or to transport or dispose of PCB wastes shall be trained and certified as required by the U.S. Department of Labor (29 CFR 1910.120) and the State of Alaska Department of Labor (8 AAC 61).

Mercury and mercury-containing products are considered hazardous waste if TCLP testing of the waste for mercury confirms the mercury content to be greater than the EPA criteria of 0.2 mg/l. Typically mercury from fluorescent lights, thermostats, and thermometers is removed and recycled in accordance with the EPA Universal Waste Standard, 40 CFR 273.

## Summary

Asbestos and other hazardous materials will have very little impact on the likely renovations, unless the drinking fountain, speaker boxes, and floor tiles in the basement are affected by the proposed renovations. The buried "Spunstrand" underground ductwork is unlikely to be disturbed unless the shooting range is completely revised. Refer to the drawings and specifications for more detailed information about the types and extents of hazardous materials that will be affected by the proposed renovations.

## CITY & BOROUGH OF WRANGELL, ALASKA BOROUGH ASSEMBLY AGENDA STATEMENT

<u>AGENDA ITEM TITLE:</u>	<u>DATE:</u>	November 19, 2020
	<u>Agenda Section</u>	<b>13</b>

**RESOLUTION No. 11-20-1553** OF THE ASSEMBLY OF THE CITY AND BOROUGH OF WRANGELL, ALASKA AMENDING THE FY 2021 BUDGET IN THE GENERAL FUND TRANSFERRING \$58,500 FROM THE GENERAL FUND RESERVES TO THE PUBLIC SAFETY BUILDING FACILITIES MAINTENANCE AND REPAIR ACCOUNT FOR THE PUBLIC SAFETY BUILDING SHORING WALL PROJECT AND AUTHORIZING ITS EXPENDITURE

SUBMITTED BY:

Amber Al-Haddad, Capital Facilities Director

FISCAL NOTE:

**Expenditure Required:** \$58,500

FY 20:	FY 21: \$58,500	FY22:
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**Amount Budgeted:**

**Account Number(s):**

11000-015-7002

**Account Name(s):**

Public Safety Building, Facilities  
Maintenance & Repair

**Unencumbered Balance(s) (prior to  
expenditure):**

\$

Reviews/Approvals/Recommendations

<input type="checkbox"/>	Commission, Board or Committee
Name(s)	
Name(s)	
<input type="checkbox"/>	Attorney
<input type="checkbox"/>	Insurance

ATTACHMENTS: 1. Resolution No. 11-20-1553

### RECOMMENDATION MOTION:

Move to approve Resolution No. 11-20-1553.

## SUMMARY STATEMENT:

During the Public Safety Building Site Assessment Survey, performed by AMC Engineering in September 2020, it was determined that rot in certain structural components posed a life safety hazard.

The engineer recommended that a 36' section of the exterior wall be shored, as soon as possible (and before significant snow fall), to support the second level floor and second level roof. The section of wall of concern is a 36' wide length of the parapet-style wall on the backside of the building with structural glulam rot and deterioration on the ends of the floor and roof joists.

PND Engineers, who performed the structural portion of the building assessment with the AMC Engineering team, with assistance from NorthWinds Architects, who performed the architectural portion of the building assessment, developed the A&E drawings and submitted them for review by the Fire Marshal.

CBW staff worked with the engineers and one of our local material suppliers to determine the most readily available timber products, including those already located in Wrangell and the balance of what was needed for the project to be acquired from Washington. The design and material identification work was also performed in conjunction with the Fire Marshal's office, ahead of their formal plan review, to ensure that the design would be approved with the materials most readily available.

Data and phone line extensions are scheduled to be made by the State of Alaska Court agency's IT personnel during the week of November 16<sup>th</sup>, to accommodate the relocation of the Court Clerk staff and public access during the period of construction. Their relocation will be made to the Court Room.

Design is complete, the framing timbers have been acquired, and construction costs are now known. The breakdown of project costs is as follows:

- Engineering Design \$6,000 (sole sourced by CBW)
- Heavy Timber acquisition \$11,023 (purchased directly by the CBW)
- Concrete Footing construction \$5,620 (hired through the local contractor pool to advance the concrete curing before wall construction)
- Shoring Wall Framing and associated construction \$35,750 (bid received through a competitive solicitation)

Funding in the amount of \$58,500 is required for the design and construction of a temporary shoring wall at the Public Safety Building.

Resolution 11-20-1553 amends the FY21 Budget to accommodate expenditures for this project.

## CITY AND BOROUGH OF WRANGELL, ALASKA

RESOLUTION NO. 11-20-1553

A RESOLUTION OF THE ASSEMBLY OF THE CITY AND BOROUGH OF WRANGELL, ALASKA AMENDING THE FY 2021 BUDGET IN THE GENERAL FUND TRANSFERRING \$58,500 FROM THE GENERAL FUND RESERVES TO THE PUBLIC SAFETY BUILDING FACILITIES MAINTENANCE AND REPAIR ACCOUNT FOR THE PUBLIC SAFETY BUILDING SHORING WALL PROJECT AND AUTHORIZING ITS EXPENDITURE

WHEREAS, during the Public Safety Building Site Assessment Survey performed by AMC Engineering in September 2020, it was determined that rot in structural components posed a life safety hazard and a recommendation was made that the roof and floor be shored as soon as possible; and

WHEREAS, funding in the amount of \$58,500 is required for the design and construction of a temporary shoring wall at the Public Safety Building.

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF WRANGELL, ALASKA, that:

Section 1: The FY 2021 Budget in the General Fund is amended to reflect an increase in transfer of funds in the amount of \$58,500 from General Fund Reserves.

Section 2: The FY 2021 Budget in the General Fund is amended to reflect an increase in the authorized expenditures in the Facilities Maintenance and Repair Account (11000 015 7002) in the amount of \$58,500.

PASSED AND APPROVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF WRANGELL, ALASKA this 19<sup>th</sup> day of November, 2020.

CITY & BOROUGH OF WRANGELL, ALASKA

\_\_\_\_\_  
Stephen Prysunka, Mayor

ATTEST: \_\_\_\_\_  
Kim Lane, Borough Clerk



## CITY & BOROUGH OF WRANGELL, ALASKA BOROUGH ASSEMBLY AGENDA STATEMENT

<u>AGENDA ITEM TITLE:</u>	<u>DATE:</u>	November 19, 2020
	<u>Agenda Section</u>	<b>13</b>

Approval of a Contract Award to Johnson Construction & Supply, Inc. in the Amount of \$35,750 for the Public Safety Building Shoring Wall Project

SUBMITTED BY:

Amber Al-Haddad, Capital Facilities Director

FISCAL NOTE:

**Expenditure Required:** \$35,750

FY 20:	FY 21: \$35,750	FY22:
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**Amount Budgeted:**

**Account Number(s):**

11000-015-7002

**Account Name(s):**

Public Safety Building, Facilities  
Maintenance & Repair

**Unencumbered Balance(s) (prior to  
expenditure):**

\$58,500 (for this project following  
approval of Resolution)

Reviews/Approvals/Recommendations

<input type="checkbox"/>	Commission, Board or Committee
Name(s)	
Name(s)	
<input type="checkbox"/>	Attorney
<input type="checkbox"/>	Insurance

ATTACHMENTS: 1. Proposal from Johnson Construction & Supply, Inc. dated November 10, 2020;  
2. Request for Quotes, Wall Shoring at Public Safety Building

**RECOMMENDATION MOTION:**

Move to approve a Contract Award to Johnson Construction & Supply, Inc. in the Amount of \$35,750 for the Public Safety Building Shoring Wall Project.

**SUMMARY STATEMENT:**

During the Public Safety Building Site Assessment Survey, performed by AMC Engineering in September 2020, it was determined that rot in certain structural components of the exterior wall posed a life safety hazard. The engineers recommended that a section of the exterior wall be shored to support the second level floor and second level roof.

Following completion of design and Fire Marshal approval, a competitive solicitation was issued for the construction of the wood-framed shoring wall (with the majority of wood materials identified as Owner-provided and the concrete footings identified as constructed by Others).

On November 10th, the CBW received one bid in response to the solicitation, from Johnson Construction & Supply, Inc., in the amount of \$35,750. Staff recommends awarding the contract to Johnson Construction & Supply, Inc.

Staff anticipates the approval of a requested budget amendment to the FY21 Budget for this project. The resolution amending the budget appears on the Assembly Agenda for the special meeting scheduled on November 19th.

(Note: For clarification to the attached Fire Marshal Permit, which indicates the permit is for a **Foundation Only**, the reference to the foundation is for the full-height foundation wall.)



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**JOHNSON CONSTRUCTION & SUPPLY, INC.**

P.O. Box 795, Wrangell, Alaska 99929, Tel: (907) 874-2375, Fax: (907) 874-3121

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November 10, 2020

City & Borough of Wrangell  
P.O. Box 531  
Wrangell, Alaska 99929

Re: Wall Shoring at Public Safety Building

Johnson Construction & Supply Inc. proposes labor, materials not supplied by owner & equipment to construct two timber framed walls sheathed in treated plywood from concrete footings by others to the underside level 2 floor joists and including drywall soffit patching. Upper level court office wall work to include two wood framed walls with no wall coverings directly above the new shoring walls on lower level. ACT system cutting and patching included. This work is based on PND Engineers three page's drawings S100, S101, and S102 and including City of Wrangell 3 page's RFQ dated 11/3/2020.

This proposal is based on using Alaska Title 36, Public Projects prevailing wage provisions. JCSI tried to keep this project under a certain threshold to avoid using the prevailing wages. We were not too much over the \$25,000.00 threshold.

Exclusions: taping/mudding of drywall, painting, plumbing/heating.

Total price \$35,750.00

Thank you,

Harley Johnson

**City & Borough of Wrangell  
REQUEST FOR QUOTES  
Wall Shoring at Public Safety Building**

Issue Date: November 3, 2020

The City and Borough of Wrangell is seeking Quotes from qualified contractors to construct shoring walls at the Public Safety Building. A mandatory, onsite review of the work and the working conditions is scheduled for November 5, 2020 at 9:00 a.m. Quotes are due by 10:00 a.m. on Tuesday, November 10, 2020. Quotes shall be hand delivered to the Capital Facilities office at 101 Second Avenue or emailed to [aal-haddad@wrangell.com](mailto:aal-haddad@wrangell.com).

**General Notes**

1. Contractor is responsible for a thorough investigation of the work site.
2. Contractor will repair any damage to adjacent properties or structures created by their work. Contractor is responsible for protection of site work including concrete and asphalt paving, curbs, and landscaping.
3. Submit Quote as a lump sum price for all required labor, materials (except as otherwise indicated as Owner-provided materials and/or construction by others), and equipment to perform the work as described below.
4. Alaska Title 36, Public Projects, including prevailing wage provisions, shall apply to contracts totaling \$25,000 or more.
5. By submitting a Quote, the Contractor confirms a full understanding of the scope of work and work environment/conditions.
6. Work shall be coordinated directly with the Capital Facilities Department. Work shall commence within a week of all materials arriving in Wrangell, which is anticipated to be no later than November 17, 2020. The wall construction shall be complete no later than two weeks following construction commencement. Drywall and ACT repairs shall be complete no later than two weeks following wall construction completion.
7. Time is of the essence in performing this work. Work completed after the completion date will have liquidated damages assessed at \$250/calendar day.
8. Fire Marshal Construction permit attached.
9. Alaska Court System background check forms attached.

**Site Access and Security**

1. Interior Building restrictions affecting this project include, but are not necessarily limited to, the following: Limits of interior staging and material storage areas, Conditions of Owner's Occupancy Building Access, Use of Owner's Vertical Transportation, Security Clearances and Waste Disposal..
  - A. The Owner will continue to occupy and operate the building. The Contractor shall coordinate with the Owner to allow operations to continue and shall cooperate with Owner throughout the construction activities to minimize conflict and to facilitate Owner usage. Contractor shall, at all times, conduct their operations to insure the least inconvenience to staff, visitors, and the general public.
  - B. Points of entry into the Public Safety Building for this Contract is limited. As much as practicable, the west, rear entrance at the lower level Parking Garage shall be used after Owner

has obtained security clearances for the Contractor's personnel, and the Contractor will be required to use the same lower level entrance for off-loading of materials.

- C. The Contractor is limited to the use of all stairways and elevator for transportation of materials and equipment. Provide and maintain adequate protection for the Owner's equipment while in use and ensure that loads do not exceed posted elevator load capacity. Maintain Owner's equipment neat and clean.
- D. Security Clearances: Prior to commencing work on site, the Owner will require that a security check be conducted on all Contractor personnel and all subcontractor personnel who will work on the Public Safety Building premises. The Contractor shall obtain Criminal History Reports for all personnel requiring access to the Public Safety Building for this project from the Alaska Dept. of Public Safety. There is a fee from the Dept. of Public Safety for Criminal History Reports, and the Contractor shall include such costs in their Quote. Report shall be submitted to the Owner for review and security clearance 48 hours prior to requesting access on site. Any person, including the Contractor or any principal, officer or employee of the Contractor, or principal, officer, or employee of a Subcontractor, who has been convicted of any felony or any crime involving moral turpitude within the previous ten years, or who has pending court actions, is prohibited from working on Court premises until such a time as the charges are dismissed. The Owner may limit or reject certain individuals if their presence is determined by the Contracting Officer to be detrimental to the normal conduct of business. The required background check submittal form is included herein.

Much of the business of the Alaska Court System is confidential and not subject to public disclosure. The confidentiality of draft opinions, internal memoranda, conversations regarding pending issues and other court business is essential to the court's function. Additionally, records related to personnel issues, procurement proceedings, internal policy discussions, and other administrative issues are also confidential. Prior to commencing any work under this contract, the Contractor and any Subcontractor shall inform all principals, officers, and employees working on the premises that the disclosure of any confidential court business observed or overheard may result in permanent removal from the premises and may be grounds for termination of contract.

- E. Site Waste Disposal: The Contractor shall use a truck or other Contractor-provided waste container for waste storage and disposal and shall remove waste consistently as needed by project conditions, to prevent overflow of construction waste.

### **Scope of Work**

1. Attached PND Engineers drawing identify details of the scope of work.
2. Lower Level Exterior Wall Work:

Construct two timber-framed walls from concrete footing to underside of Level 2 floor joists. This lower section of the shoring wall is split into two sections to match the plane of the off-set locations of the upper level walls, which is necessary to accommodate the mechanical systems located in the second level ceiling.

Walls will be located on top of two sections of concrete footings, constructed by others, approximately 13-1/2" and 23" (respective to the two wall sections) inside the face of the exterior wall. Bottom plates will be double 8"x12" PPT beams. Wall studs will be 4"x8" PPT at 16" on center. Top plates will be double 2"x8" PPT. 2"x6" blocking will be installed between top of wall and underside of upper level floor joist. Walls shall be sheathed.

The drywall soffit will require cutting and patching to accommodate the wall construction and blocking.

### 3. Upper Level Alaska Court Offices Wall Work:

Construct two timber-framed walls from top of Level 2 floor sheathing/carpeting to underside of roof joists. The upper level walls are off set from one another to accommodate the mechanical systems located in the second level ceiling.

Walls will be located directly above the new shoring walls on the lower level, approximately 13-1/2" and 23" (respective to the two wall sections) inside the face of the exterior wall. Wall studs will be (2) 2"x6" @ 16" on center. Top and bottom plates will be double 2"x6". Wall will be unsheathed.

The Acoustic Ceiling Tile (ACT) system will require cutting and patching to accommodate the wall construction and blocking. A GWB enclosure shall be constructed on the exterior side of the new shoring wall (see drawing detail) in lieu of ACT replacement at those locations.

### 4. Construction by Others: The concrete footings to support the walls at ground level will be constructed by others, in advance of the walls construction. This to expedite the completion of the project.

**Owner-Provided Materials:** A certain amount of Owner-provided materials has been purchased in advance to minimize lead time for materials acquisition and shipment to Wrangell, since time is of the essence in performing this work. Those materials provided are the primary wood materials required to frame both lower and upper walls, from their bottom plates to their top plates. All other materials necessary to complete the project are for the Contractor's responsibility and expense. **Owner-Provided Material List:**

<u>Qty</u>	<u>Description</u>
(4)	8" X 12" X 24' pressure treated
(30)	4" X 8" X 20' pressure treated
(5)	2" X 8" X 12' pressure treated
(2)	2" X 8" X 8' pressure treated
(2)	2" X 8" X 16' pressure treated
(26)	1/2" pressure treated plywood
(60)	Simpson A35 (SS) Framing angle
(12)	2" X 8" X 20' pressure treated for blocking material
(8)	2" X 6" X 16' pressure treated for TJL vertical blocking between the flanges
1(80)	2" X 6" X 12' hem fir #2 for level #2 shoring wall
1(5)	2" X 6" X 14' hem fir #2 top and bottom plates

NOTES:

CODE:

CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION, AS AMENDED BY STATE OF ALASKA.

LOAD CRITERIA:

ROOF SNOW LOAD: 60 PSF  
WIND: 143 MPH, EXPOSURE D  
OFFICE LIVE LOAD: 50 PSF

SHORING WALL HAS BEEN DESIGNED FOR A MAXIMUM 5 YEAR LIFETIME. EXTERIOR SHORING WALL SHALL BE INSPECTED BY MAINTENANCE REGULARLY AND ANY DETERIORATION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

TIMBER:

ALL 2x, 4x, AND 8x MATERIAL SHALL BE HEM-FIR #2. 4x MATERIAL CAN BE SUBSTITUTED FOR (2) 2x MATERIAL. PLYWOOD SHALL CONFORM TO APA PS1 AND SHALL BE MADE WITH EXTERIOR TYPE GLUE.

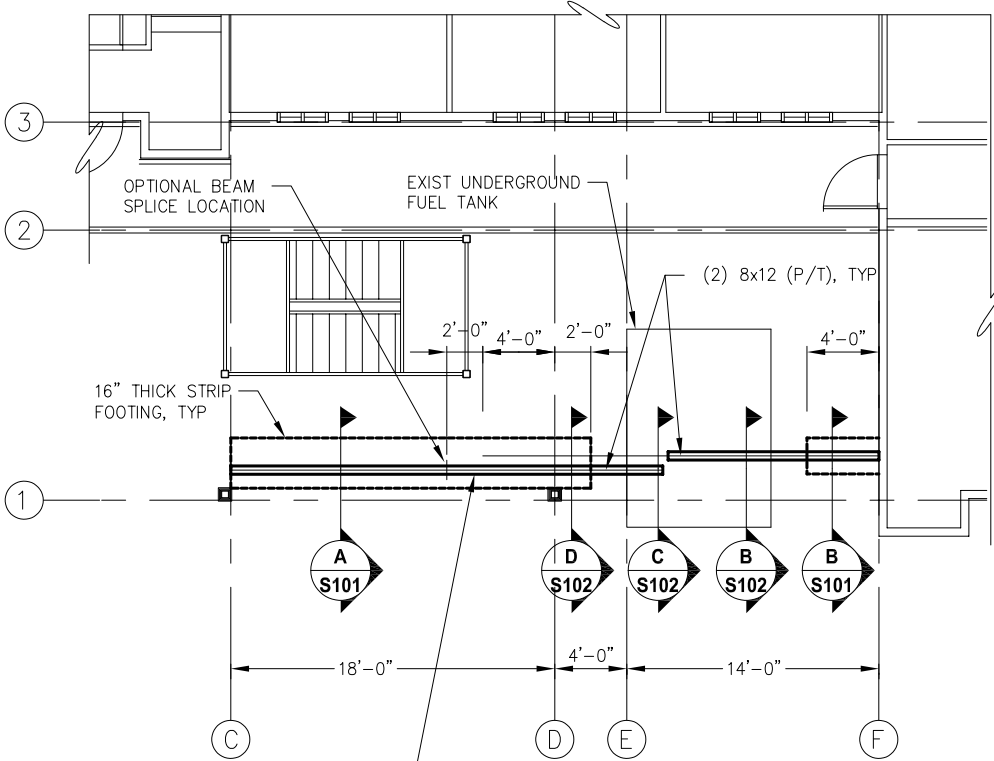
CONCRETE

CONCRETE AND CONCRETE COMPONENTS SHALL BE IN CONFORMANCE WITH THE IBC. SUBMIT MIX DESIGN FOR REVIEW AND APPROVAL PRIOR TO MIXING. CONCRETE MIXING, PLACING, CONSOLIDATION, AND CURING SHALL BE IN CONFORMANCE WITH IBC. CONCRETE STRENGTH SHALL BE  $f'_c=3,000$  PSI AT 28 DAYS. CONCRETE AIR ENTRAINMENT SHALL BE 5% +/- 1%.

CONCRETE REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60. FABRICATE AND PLACE STEEL REINFORCEMENT IN ACCORDANCE WITH CRSI'S "MANUAL OF STANDARD PRACTICE". REINFORCING SHALL BE SUPPORTED ON WELL-CURED BLOCKS OR APPROVED METAL ACCESSORIES. WELDING OF REINFORCING IS PROHIBITED. PROVIDE MINIMUM CONCRETE COVER AS SHOWN ON THE PLANS.

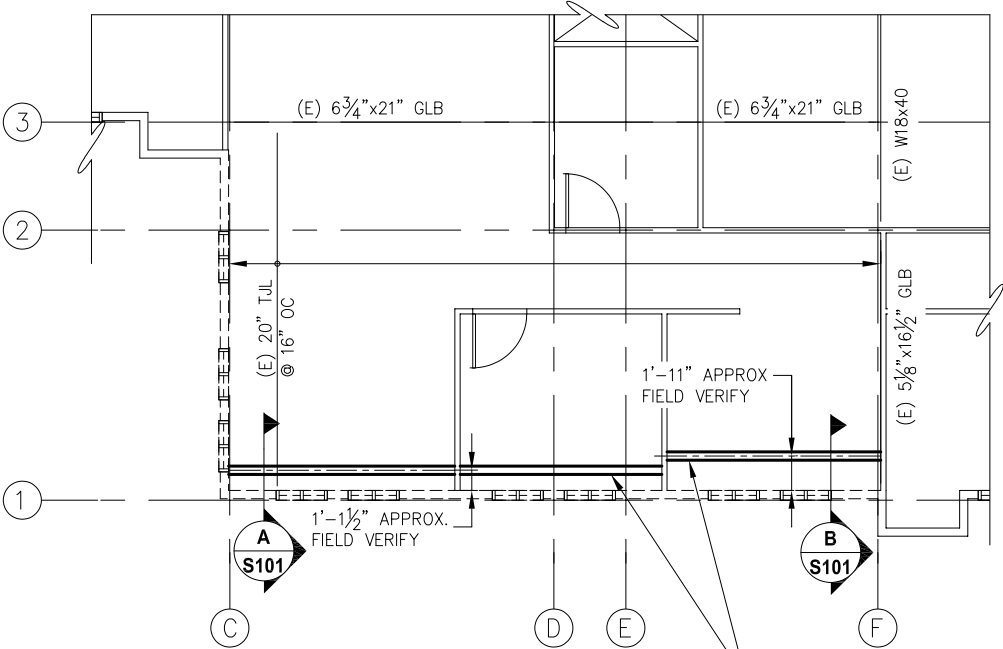
THREADED RODS SHALL BE ASTM A36 AND SHALL HAVE A NUT ON EACH END. ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 36 AND SHALL BE HEADED WITH A NUT ON OPPOSITE END.

GALV: DENOTES HOT DIP GALVANIZED  
SS: DENOTES STAINLESS STEEL  
P/T: DENOTES PRESSURE TREATED

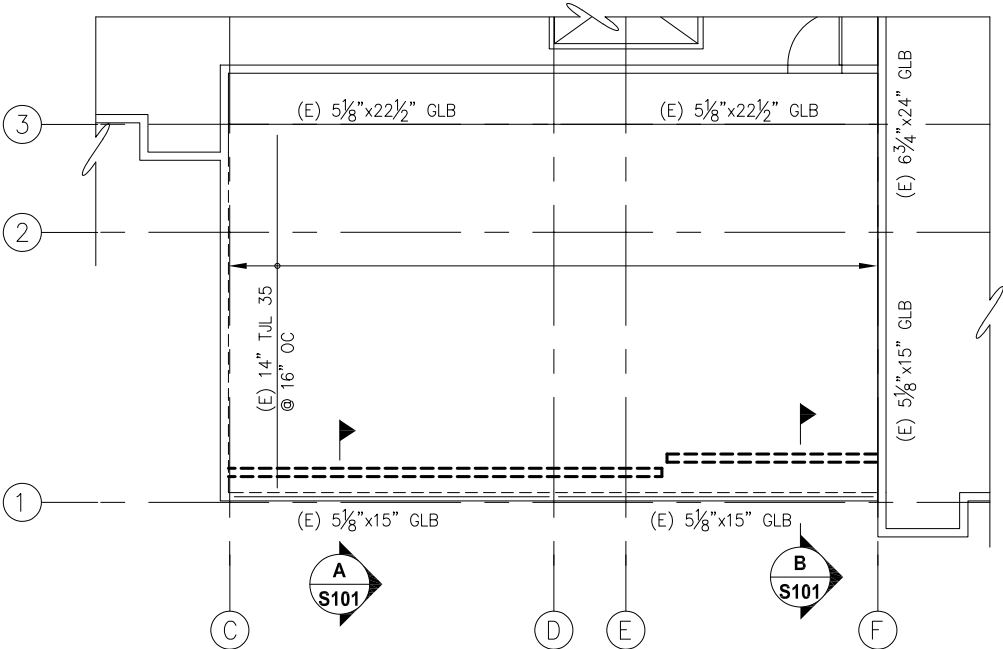


SHORING WALL w/ (2) 2x8 (P/T) @ 16" OC. AND 1/2" PLYWOOD (P/T) WITH 2x8 (P/T) BLKG AND 10d @ 6" OC AT PANEL EDGES AND 10d @ 12" OC IN THE FIELD. ALL NAILS SHALL BE GALV., TYP

1 FOUNDATION PLAN



2 SECOND FLOOR PLAN



3 ROOF FRAMING PLAN

Item c.

REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

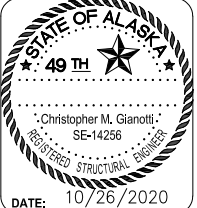
**P****N****D**

ENGINEERS, INC.

9360 Glacier Highway Ste 100  
Juneau, Alaska 99801  
Phone: 907-586-2093  
Fax: 907-586-2099  
www.pndengineers.com

DESIGN: BN  
CHECKED: BN  
DRAWN: KLL  
APPROVED: CMG

SCALE: SCALE IN FEET  
0 4 8ft.



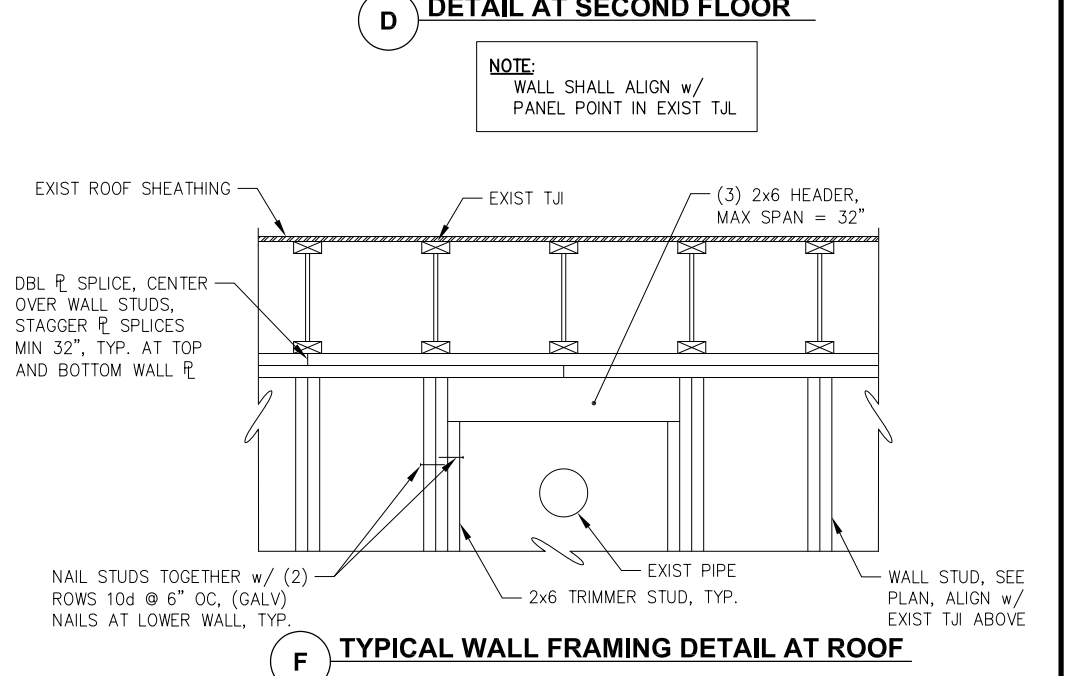
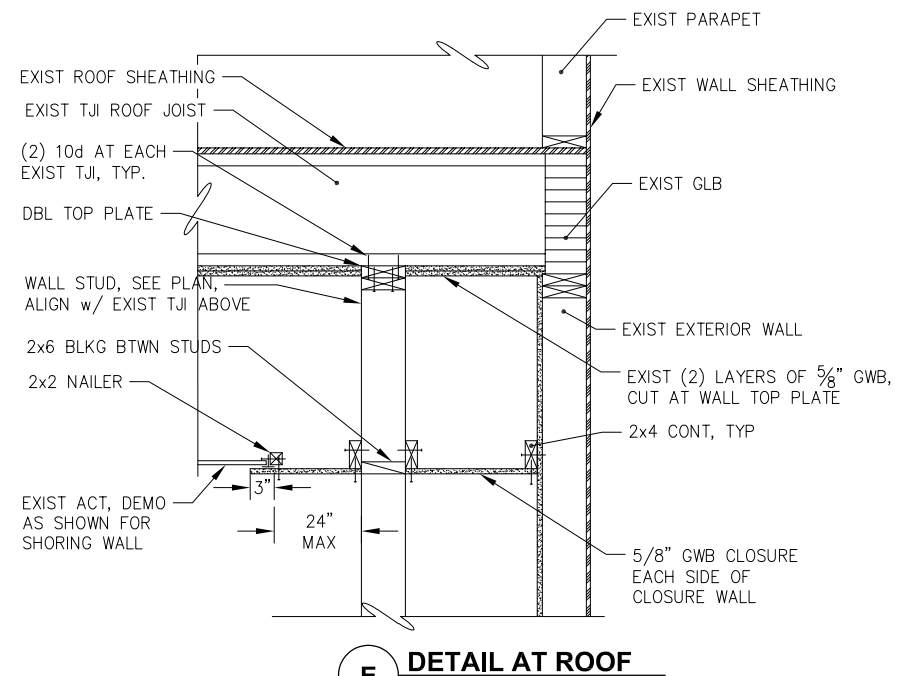
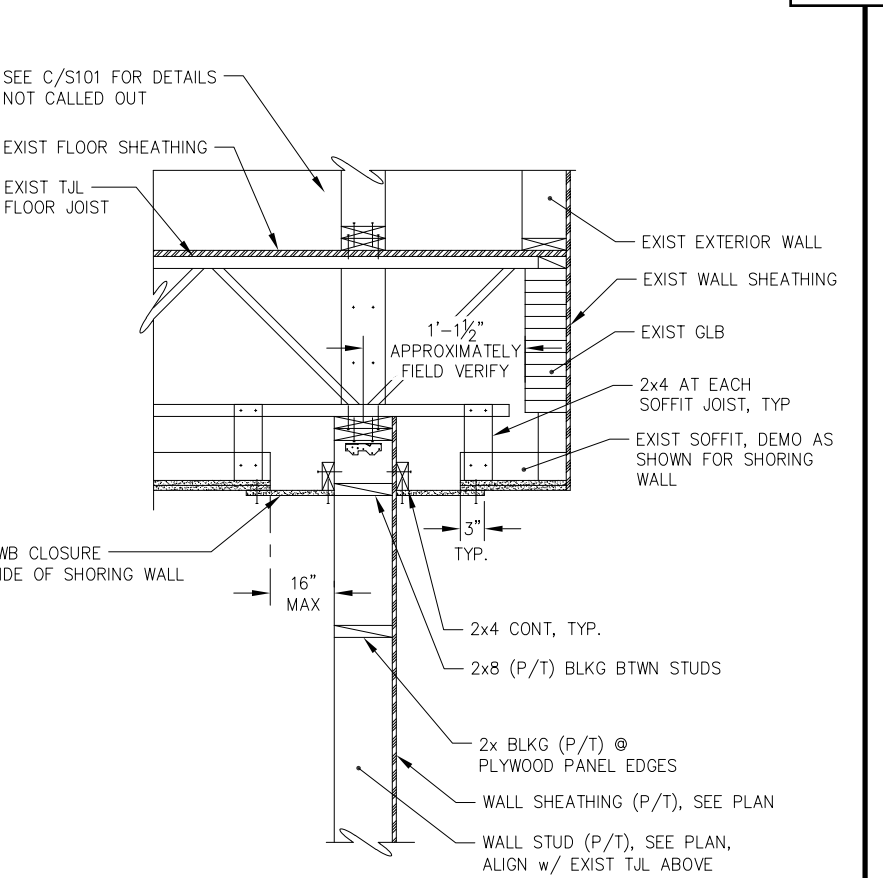
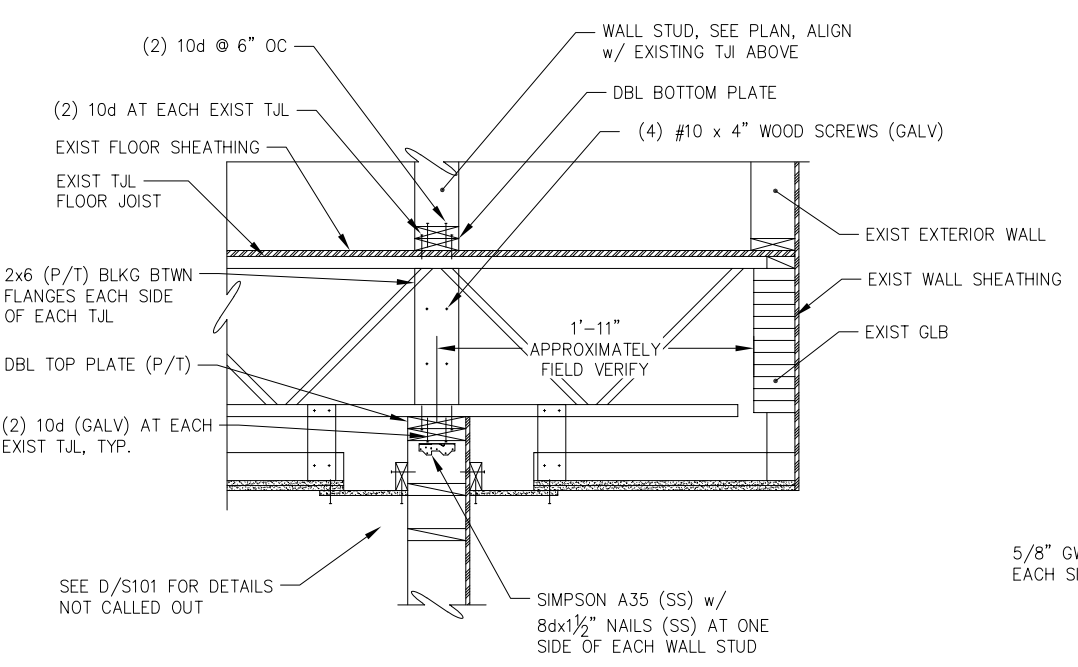
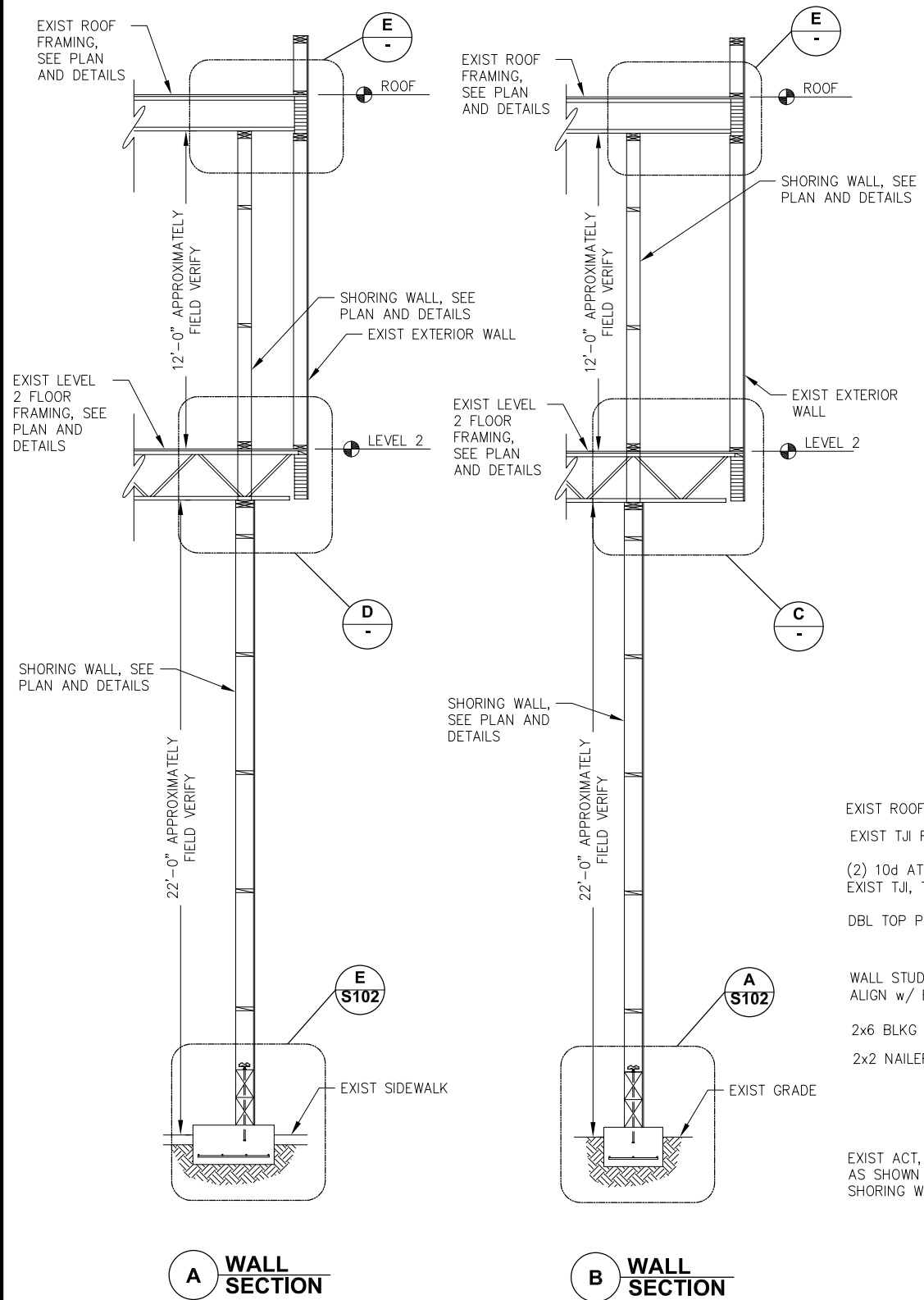
**WRANGELL, ALASKA**  
**WRANGELL PUBLIC SERVICE BUILDING**  
**SHORING WALL**

**SHEET TITLE:**  
**GENERAL NOTES AND FRAMING PLANS**

**S100**

**PND PROJECT NO:** 202078

**C.A.N. NO:** AECC250



REVISIONS				
REV.	DATE	DESCRIPTION	DWN.	CKD.

**PND**  
ENGINEERS, INC.

9360 Glacier Highway Ste 100  
Juneau, Alaska 99801  
Phone: 907-586-2093  
Fax: 907-586-2099  
www.pndengineers.com

DESIGN: BN  
CHECKED: BN  
DRAWN: KLL  
APPROVED: CMG

SCALE: SCALE IN FEET  
0 4 8ft.



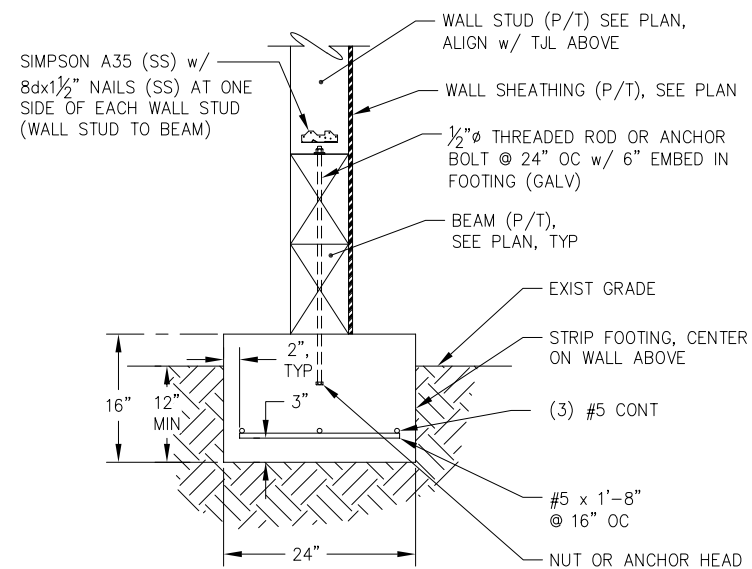
**WRANGELL, ALASKA**  
**WRANGELL PUBLIC SERVICE BUILDING**  
**SHORING WALL**

SHEET TITLE:  
**FRAMING SECTIONS AND DETAILS**

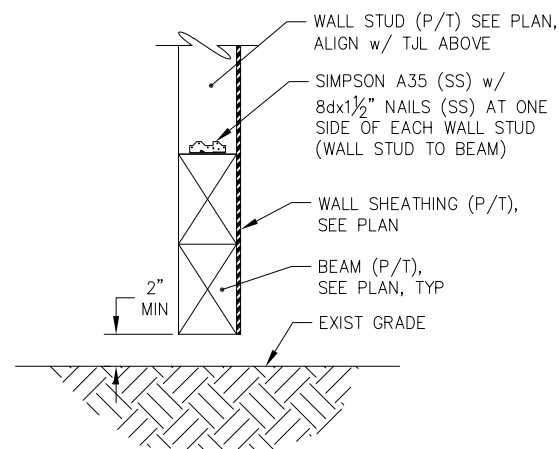
PND PROJECT NO.: 202078  
C.A.N. NO.: AECC250

**S101**

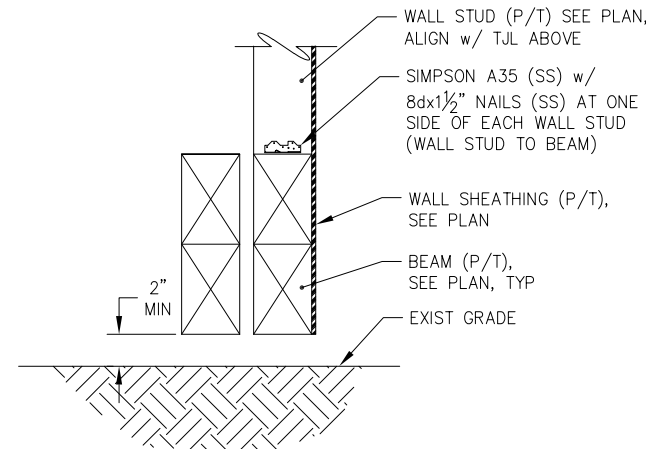




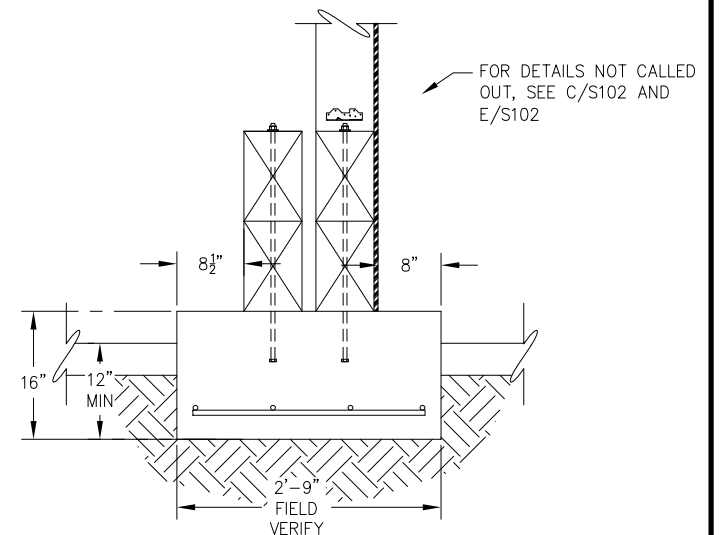
**A** DETAIL AT GRADE



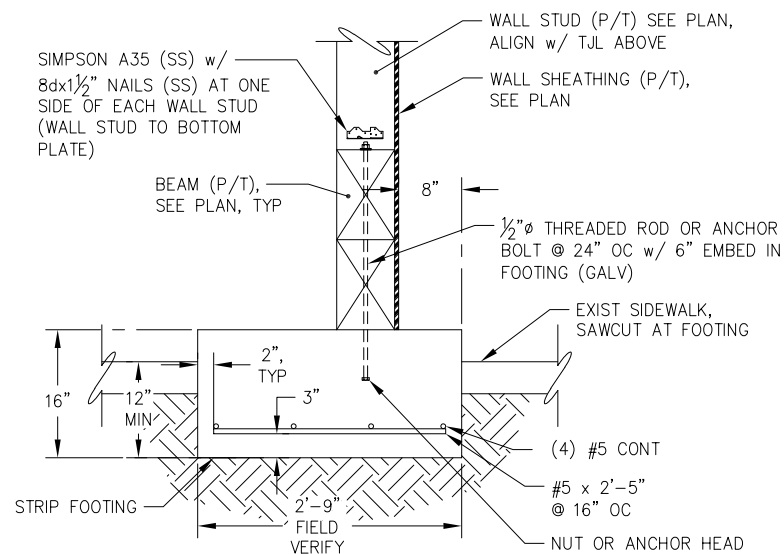
**B** DETAIL AT GRADE



**C** DETAIL AT GRADE



**D** DETAIL AT GRADE



**E** DETAIL AT GRADE

REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

**PND**  
ENGINEERS, INC.

9360 Glacier Highway Ste 100  
Juneau, Alaska 99801  
Phone: 907-586-2093  
Fax: 907-586-2099  
www.pndengineers.com

DESIGN: BN  
DRAWN: KLL

CHECKED: BN  
APPROVED: CMG

SCALE: SCALE IN FEET  
0 4 8ft.



**WRANGELL, ALASKA**  
**WRANGELL PUBLIC SERVICE BUILDING**  
**SHORING WALL**

SHEET TITLE:  
**GENERAL NOTES AND FRAMING PLANS**

PND PROJECT NO.: 202078 C.A.N. NO.: AECC250

**S102**



THE STATE  
of **ALASKA**  
GOVERNOR MIKE DUNLEAVY

## Department of Public Safety

DIVISION OF FIRE AND LIFE SAFETY  
Plan Review Bureau - Anchorage

5700 East Tudor Road  
Anchorage, Alaska 99507-1225  
Main: 907.269.2004  
Fax: 907.269.0098

October 23, 2020

Sean Boily  
North Wind Architects, LLC  
126 Seward St.  
Wrangell, AK 99801

SUBJECT: Wrangell Public Safety Bldg, 431 Zimovia Hwy. -  
Foundation  
CITY: Wrangell  
PLAN REVIEW: 2020Anch1616  
OCCUPANCY: A-3, B, I-3  
2012 INTERNATIONAL BUILDING AND FIRE CODE

Dear Sean Boily:

Plans for the subject facility have been reviewed by this office for conformity with the State Fire Safety Regulations and are hereby approved for a **FOUNDATION PERMIT ONLY**.  
Enclosed is a certificate of approval for the foundation that must be posted on the premises.

It must be understood that the inclusion of and compliance with State Fire Safety Regulations does not preclude the necessity of compliance with the requirements of local codes and ordinances. The plans have not been reviewed for compliance with the federal Americans with Disabilities Act or structural requirements.

If we can be of further assistance in this matter, please feel free to contact us at the address above.

Sincerely,

A handwritten signature in black ink, appearing to read "Jarrett Zuspan".

Jarrett Zuspan  
Plans Examiner

Enclosure: Approval Certificate

State of Alaska  
Office of the State Fire Marshal  
Plan Review

This is to certify that the plans for this building were reviewed by the *State Fire Marshal* on October 23, 2020 for conformance with AS 18.70.010 -- 100; 13 AAC 50.027.

This certificate shall be posted in a conspicuous place on the premises named Wrangell Public Safety Bldg, 431 Zimovia Hwy. and shall remain posted until construction is completed.

**NOTICE:** Any changes or modifications to the approved plans **must** be resubmitted for review by the *State Fire Marshal*.

Plan Review #: **2020Anch1616**

By: 

Jarrett Zuspan  
Plans Examiner

Authority: AS 18.70.080  
Form: 12-741  
(6/01)

**Foundation ONLY**

## SECURITY CLEARANCE REQUIREMENTS for the Alaska State Court System (ACS):

- A. Contractors, agents, principals, officers, or employees who supply goods or services to the Alaska Court System (ACS) must have completed background checks. Any person with the following conditions is restricted from entering or working on the premises
  - a. been convicted of a violent crime or crime of theft within last 5 years;
  - b. been convicted of more than 2 misdemeanors in last 5 years;
  - c. been convicted of more than one felony in last 10 years;
  - d. an on-going Criminal case in the court where work is being performed with ACS (until case is resolved).
- B. The ACS may limit or reject certain individuals if their presence is determined by the Contracting Officer to be detrimental to the normal conduct of the ACS business.
- C. Prior to commencement of any work on court premises, the ACS requires:
  - a. Each contractor, agent, principal, officer or employee who will work on court premises, and/or have access to keys or key cards, to provide a State of Alaska Criminal History Report obtained from the Troopers.
  - b. The ACS will review the Criminal History Report and confirm that it does not indicate any of the above issues that would prohibit the individual from working on the premises and/or have access to the keys and cards. Allow 3 days for clearance approval after Criminal History Report is submitted.
  - c. ACS will verify that there are no on-going or pending Criminal cases in the court.
  - d. ACS may also require fingerprints be taken.

Much of the business of the ACS is necessarily confidential and not subject to public disclosure. The confidentiality of draft opinions, internal memoranda, conversations regarding pending issues and other court business are essential to the court's function. Additionally, records related to personnel issues, procurement proceedings, internal policy discussions, and other administrative issues are also confidential. Prior to commencing any work under this contract, the contractors, agents, principals, officers or employees who supply goods or services to the premises shall inform all contractors, agents, principals, officers, and employees working on the premises that the disclosure of any confidential court business observed or overheard may result in permanent removal from the premises and may be grounds for termination of contract and even criminal prosecution.

**STATE OF ALASKA**  
**DEPARTMENT OF PUBLIC SAFETY**  
**REQUEST FOR CRIMINAL JUSTICE INFORMATION**  
**From the Alaska Criminal History Record Repository**

Item c.

*Original forms must be submitted to:*

Criminal Records and Identification Bureau  
5700 E. Tudor Road, Anchorage, AK 99507  
Telephone: (907) 269-5767 Fax: (907) 269-5091 (RSAs only)  
Include fee: \$20 single copy, \$5 each additional copy  
Check or money order must be made payable to 'State of Alaska'

Type of information being requested (**from other than the record subject**): (Choose ONE)

- ☐ 1. Criminal Justice Information available to **ANY PERSON for ANY PURPOSE**
- This report includes current/open criminal charges and charges that resulted in conviction, excluding sealed records.
- ☐ 2. Criminal Justice Information available to an **INTERESTED PERSON**
- This report includes all criminal charges and dispositions, excluding sealed records
- 2.A. If you checked item 2, the requester must provide the following information:  
I request this report for the purpose of determining whether to grant the record subject supervisory or disciplinary power over (check all that apply):
- ☐ Minor(s)  
☐ Dependent adult(s)  
Title or brief description of the position under consideration: \_\_\_\_\_
- ☐ 3. Criminal Justice Information needed for another purpose authorized by federal or state law.  
Client Number: \_\_\_\_\_  
If you check this box, you **must** provide the client number assigned by the DPS Records and Identification Bureau.  
To obtain a client number, you must provide the applicable state or federal statute to this office for review and approval prior to submitting this request.

*A check or money order payable to the State of Alaska in the amount of \$20 **must** accompany this request. Additional copies, if requested at the time of this request, may be obtained for an additional \$5 per copy. State agencies with a Reimbursable Services Agreement (RSA) in place may fax the appropriate forms. All other requests must be submitted via U.S. Postal Service or in person.*

**Subject Name:** \_\_\_\_\_

Maiden/Alias name(s): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Alaska Drivers License #: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Sex: ☐ -Male ☐ Female Soc Sec No. \_\_\_\_\_

Telephone: \_\_\_\_\_ Msg: \_\_\_\_\_

To be completed by the record subject: *"I authorize the release of my criminal justice information record, (described above) to the named requester."*

Signature of subject: \_\_\_\_\_

Date Signed: \_\_\_\_\_

**Requester Name:** \_\_\_\_\_

Title: \_\_\_\_\_

Business/Agency: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Telephone: \_\_\_\_\_

Sex: ☐ -Male ☐ - Female Soc Sec No. \_\_\_\_\_

The requested record will be mailed to the above named individual at the listed address. If you would like the record faxed, check the box below:

☐ Fax Number: \_\_\_\_\_

Signature of requester: \_\_\_\_\_

Date Signed: \_\_\_\_\_

**Unsworn Falsification Statement (Your request will not be processed if you do not sign this statement.)**

I certify under penalty of unsworn falsification (AS 11.56.210) that the information I am supplying on and with this form is true and correct.

**Record Subject's Signature**

**Date**

**Criminal Records and Identification Bureau Use Only**

☐ Fee Payment Type \_\_\_\_\_  
☐ Fee Waiver/Authorization \_\_\_\_\_  
☐ OCA Number \_\_\_\_\_

☐ Report Sent to Subject \_\_\_\_\_  
☐ Report Sent to Requester \_\_\_\_\_  
☐ R&I Staff initials \_\_\_\_\_

Authority:

AS 11.56.210 - Unsworn Falsification

AS 12.62.160 – Release and Use of Criminal Justice Information; fees

AS 12.62.900 – Definitions

13 AAC 68 Article 4 – Dissemination of Criminal Justice Information

13 AAC 68.905 – Definitions

DPS Form 11/15/03

Revised 2/09/04

Revised 3/01/04

Revised 4/20/04

Revised 11/15/04

Revised 1/13/05

Revised 7//27/06