# HAINES PUBLIC SAFETY FACILITY

## PROGRAMMING NARRATIVE

MARCH 10, 2021


Haines Borough Contact:

Edward Coffland, PE

Director of Public Facilities

BETTISWORTH NORTH

TCA architecture • planning

# CONTENTS



## Bettisworth North Contact


Roy Rountree, Principal

rrountree@bettisworthnorth.com

907.561.5780

# PROJECT TEAM

## Architecture & Landscape

Roy Rountree, AIA, Principal

Bettisworth North Architects & Planners

2600 Denali Street, Suite 710, Anchorage, AK 99503

Phone: 907.561.5780  Email: rrountree@bettisworthnorth.com

Brian Harris, AIA, LEED® AP, Principal

TCA Architecture | Planning, Public Safety Facility Specialist

6211 Roosevelt Way NE, Seattle, WA 98115

Phone: 206.522.3830  Email: brian@tca-inc.com

Mélisa Babb, ALSA, Landscape Architect

Bettisworth North Architects & Planners

2600 Denali Street, Suite 710, Anchorage, AK 99503

Phone: 907.561.5780  Email: mbabb@bettisworthnorth.com

## Civil Engineering

Dick Somerville, P.E., Vice President

PND Engineers, Inc.

9360 Glacier Hwy., Suite 100, Juneau, AK 99801

Phone: 907.586.2093  Email: dsomerville@pndengineers.com

## Structural Engineering

Scott Gruhn, P.E., Principal

BBFM Engineers, Inc.

845 K St, Anchorage, AK 99501

Phone: 907.274.2236  Email: sgruhn@bbfm.com

## Mechanical & Electrical Engineering

Tim Hickman, P.E., Mechanical Engineer

HZA Engineering, LLC

113 W. Northern Lights Blvd., Suite 240, Anchorage, AK 99503

Phone: 907.562.1012  Email: tim@hza-eng.com

Brett Bingham, P.E., Electrical Engineer

HZA Engineering, LLC

113 W. Northern Lights Blvd., Suite 240, Anchorage, AK 99503

Phone: 907.562.1012  Email: brett@hza-eng.com

## Security Systems Engineering

Jeremy Maxie, P.E., Electrical Engineer

RSA Engineering, Inc.

670 W. Fireweed Ln, Suite 200, Anchorage, AK 99503

Phone: 907.276.0521  Email: jmaxie@rsa-ak.com

## Cost Estimating

Kent Gamble

HMS Inc.

4103 Minnesota Drive, Anchorage, AK 99503

Phone: 907.561.1653  Email: kent@hmsalaska.com

## Haines Community Liaison

Karen Garcia

proHNS, LLC

PO Box 1041, Haines, AK 99827

Phone: 907.419.6070  Email: karen@proHNS.com

# EXECUTIVE SUMMARY

Bettisworth North, with TCA Architecture, has been hired by the Haines Borough to design a new public safety facility to serve the community for the next 50 years. As the foundation for this effort, the Bettisworth North/TCA team has begun the investigation work to quantify facility needs, prior to the facility design. As part of this work, Bettisworth North and TCA together with our consultant team, conducted virtual workshop meetings with the Haines Public Safety Building Committee on January 13-14, 2021, to discuss the operational and space needs of each department operating within the existing Public Safety Building (PSB). These operational and space needs are derived from the certification and regulatory requirements that each department must meet, and from building codes that dictate life safety and accessibility compliance. The resultant building sizes, defined by gross square footages (GSF), provide the starting point for the design of a new Public Safety Facility. The team took three approaches to sizing the facility as follows:

1. Basic Public Safety Facility Space Needs = 22,000 GSF. This facility size includes: Volunteer Fire Department (VFD), Dispatch, Police Department (PD) and Detention, and the Emergency Operations Center (EOC). It assumes some functions currently in the public safety building will be housed elsewhere in Haines. These functions would include the Assembly Chambers, Public Facilities Department, Morgue, and storage areas.

2. Optimal Public Safety Facility Space Needs = 26,000 GSF. This facility size includes all the functions listed above with the addition of the Assembly Chambers, Public Facilities, Records and VFD Storage and Morgue.

3. All-Inclusive Public Safety Facility Space Needs = 35,000 GSF. This facility size includes all the functions listed above with additional space for future growth and other supporting functions.

For comparison, the team measured the existing public safety building at 12,960 GSF. The new facility options are a minimum of double the size of the existing building.

During the virtual workshops, it was determined that the design team would need to identify and investigate several preliminary scenarios for housing the Public Safety departments. The BN/TCA team studied each of these scenarios with our cost estimators and developed preliminary unit costs for each element applicable to each scenario. Scenarios 1 and 2 resulted in both the best operational capabilities and the comparable lowest cost for a new facility. The other less favorable scenarios were more costly and less operationally desirable. These can be referenced in this report under Supplemental Information. Considerations regarding the feasibility of remodeling the existing PSB are also addressed in this report under Supplemental Information.

The best operational capabilities with lowest comparative cost scenarios are described below:

***Scenario 1 – New Building located on the South Site (Preferred Alternative)***

- Developed on Borough-owned property south of the existing Public Safety Building, across Ed Shirley Drive
- New 1-story 26,000 GSF Building with Mechanical Mezzanine (Optimal size)
- Includes: VFD, Dispatch, PD, Detention, EOC, Assembly Chambers, Public Facilities, Records and VFD Storage, and Morgue
- $ 19.4 M Total Comparative Cost
- The preliminary subsurface Geotech findings indicate this site may require less imported soil than the existing site to develop the building and parking areas.

- The building would be located outside the tsunami inundation zone. This is required by code (risk category 4) as well as for state/ federal funding and insurance. The Public Safety departments need to be located in a fully operational building during a tsunami event.

- Project phasing is ideal, with the existing PSB remaining operational during construction to prevent disruption to services.

- Existing PSB is left in its current state to be repurposed at the Borough's discretion. Costs for the building's reuse are not included in the cost matrix.

***Scenario 2 – New Building on the Existing Site***

- New 1-story 26,000 GSF Building with Mechanical Mezzanine (Optimal size)

- Includes: VFD, Dispatch, PD, Detention, EOC, Assembly Chambers, Public Facilities, Records and VFD Storage, and Morgue

- $ 19.8 M Total Comparative Cost. This cost could increase significantly as Geotechnical investigations are further refined.

- Project phasing is ideal, with the existing PSB remaining operational during construction to prevent disruption to services.

- Existing PSB would be demolished after new building move-in to allow for construction of a new parking lot, thus losing the opportunity of generating revenue from selling or repurposing the building.

- The development will raise the current site grading high enough to avoid classification within the tsunami inundation zone. The existing PSB is within the maximum tsunami inundation zone.

See the following pages for Scenario 1 and 2 site space plan drawings.

**Next Steps**

Bettisworth North and TCA are requesting that the Public Safety Building Committee and Borough Assembly provide approval to proceed with Scenario 1 to advance the Schematic Design as outlined in the project scope.

Bettisworth North will submit a one-page project synopsis to be used for fund raising efforts. The Borough is seeking outside funding, both state and federal, and not proposing to raise taxes, to make the new facility a reality. A lobbyist has been engaged to speak with legislators about this project.

Bettisworth North will develop a webpage that will contain all the information within this report. Please submit questions and comments about this project to Ed Coffland (ecoffland@haines.ak.us) and Carolann Wooton (cwooton@haines.ak.us).

For more information about the conditions of the existing Public Safety Building, search "Haines Borough Public Safety Building" on YouTube.

**Scenario 1 – New Building on South Site**

This scenario consists of constructing a new building, outside of the maximum tsunami inundation zone, on the undeveloped site to the south of the existing site, across Ed Shirley Drive. The existing building would remain operational during construction. The new building would be sized to support all existing operations and spaces as indicated below. In this scenario the existing building is left in its current state to be repurposed at the Borough's discretion. Costs for the building's reuse are not included in the cost matrix.

***New 1-story Building with Mechanical Mezzanine – 26,000 GSF***

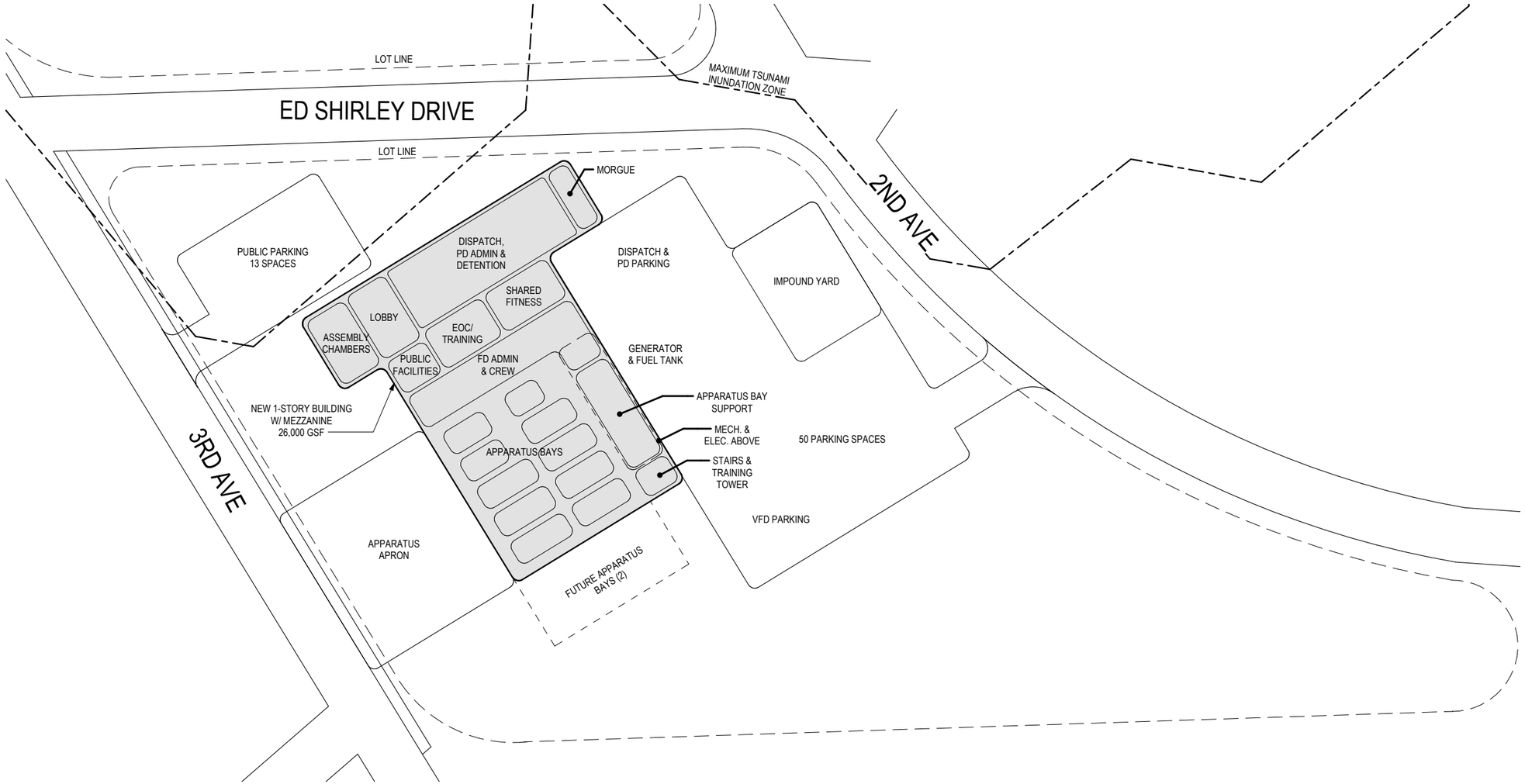
- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center
- Assembly Chambers
- Public Facilities
- Records and VFD Storage
- Morgue

Total Comparative Cost (from matrix): $ 19.4 M

**PLAN LEGEND**

EXISTING

NEW




SCENARIO 1 - SITE PLAN

1/32" = 1'-0"

0 10 20 30 40 60 80 100

TRUE NORTH

PLAN NORTH

TCA architecture • planning

BETTISWORTH NORTH

ARCHITECTURE PLANNING LANDSCAPE INTERIORS

WWW. BETTISWORTHNORTH.COM

**Scenario 2 – New Building on Existing Site**

This scenario consists of constructing a new building on the existing site while the existing building is operational. The new building would be sized to support all existing operations and spaces as indicated below. The building would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone. A protected walkway would need to be constructed to allow access to the Assembly Chambers during construction of the new building. Upon completion and move-in to the new building, the existing public safety building would be demolished to allow for construction of a new parking lot. The existing building demolition would include hazmat abatement of the affected finishes to legally dispose of those materials. Once these are abated, the building demolition would be completed.

***New 1-story Building with Mechanical Mezzanine – 26,000 GSF***

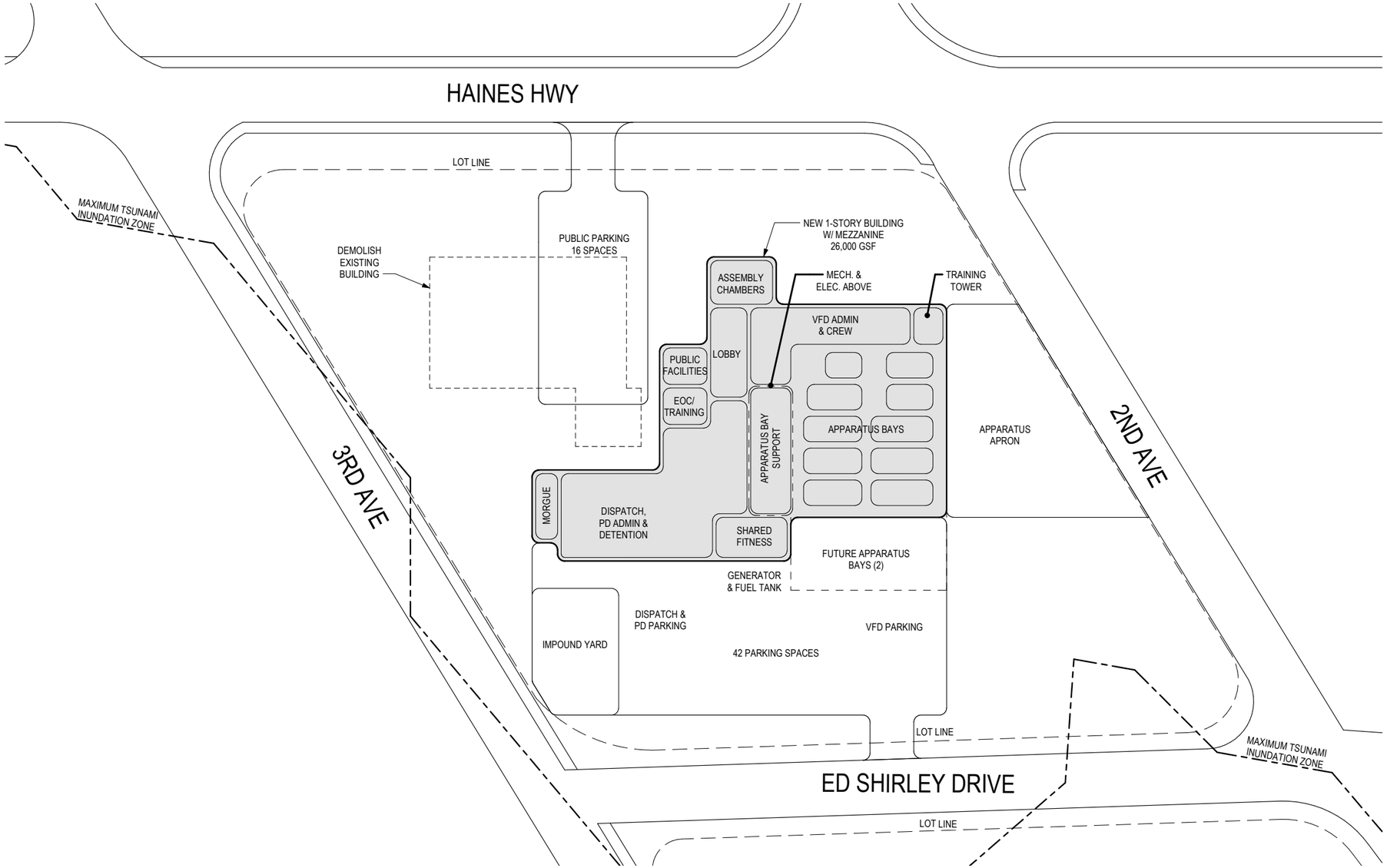
- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center
- Assembly Chambers
- Public Facilities
- Record Storage
- Morgue

Total Comparative Cost (from matrix): $19.8 M

**PLAN LEGEND**

DEMOLITION

NEW




SCENARIO 2 - SITE PLAN
1/32" = 1'-0"

0 10 20 30 40 60 80 100

TRUE NORTH PLAN NORTH

TCA architecture • planning

BETTISWORTH NORTH
ARCHITECTURE PLANNING LANDSCAPE INTERIORS

# APPENDIX A

# SUPPLEMENTAL INFORMATION

# NEW BUILDING PLUS REMODEL SCENARIOS

## Scenario 3 – New plus Remodel

This scenario consists of constructing a new building on the existing site that would be sized to support the fundamental operations of a public safety facility as indicated below. The building would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone. It considers the remodeling of the existing public safety building (scenario 3a) or the remodeling of the Floreske Building (scenario 3b) to house non-emergency operations as indicated below.

**Scenario 3a – Remodel existing Public Safety Building**

This scope would involve new flooring and paint, re-roofing, hazardous materials abatement, as well as converting the Holding rooms into two accessible restrooms and a larger Lobby. This scenario would also involve both minor and extensive mechanical and electrical improvements for the 1-story and 2-story portions of the building, respectively. The total comparative cost from the cost matrix is $21 M.

**Scenario 3b – Purchase and remodel existing Floreske Building**

This scope would involve a remodel to convert the offices on the ground floor to Assembly Chambers and accessible/ larger restrooms. Mechanical and electrical improvements would be required, as well as the installation of a sprinkler system and new water line to the City water main. The total comparative cost from the cost matrix is $20.3 M.

***New 1-story Building – 22,000 GSF***

- Includes: Volunteer Fire Department, Dispatch, Police Department, Detention, and Emergency Operations Center

***Remodel Existing Building – 12,960 GSF (PSB) or 7,000 GSF (Floreske Building)***

- Includes: Assembly Chambers with new accessible restrooms, Public Facilities, Records Storage, VFD Auxiliary Storage & Fire Extinguisher Refill, and Morgue

## Scenario 4 – Demo-Addition-Remodel

This scenario consists of demolishing the 2-story portion of the existing building and constructing an addition sized to include most of the current operations as indicated below. The 1-story portion of the existing building would be remodeled to house non-emergency functions as indicated below. The addition would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone and would include interior stairs/ramp to connect the remodeled 1-story portion of the existing building.

The reason for identifying the 2-story section for removal is because it is the most problematic and limiting portion of the existing building with respect to a remodel. The 2-story section cannot accommodate the installation of a new HVAC system due to the low ceiling heights. It also does not currently have code legal stair exits or a code mandated elevator, so any remodel would include the addition of these costly elements. The accumulation of water in the crawlspace and the impact this water has had on the wood floor structure over time is a significant concern.

The existing foundation piles need to be taken into consideration in order to construct an addition over the demolished 2-story section. Removal of the deep piles will depend on the foundation type required for the addition but will likely necessitate removal. The total comparative cost from the cost matrix is $21.3 M.

***New 1-story Addition with Mechanical Mezzanine – 25,000 GSF***

- Includes: Volunteer Fire Department, Dispatch, Police Department, Detention, Emergency Operations Center, Public Facilities, and Morgue

***Remodel 1-story portion of Existing Building – 4,896 GSF***

- Includes: Assembly Chambers, Records Storage, and VFD Auxiliary Storage & Fire Extinguisher Refill

See the following pages for Scenario 3a and 4 site space plan drawings.

# OTHER ALTERNATIVES

## Remodel Existing Public Safety Building

Considerations include the following:

- It will be necessary to find temporary facilities offsite to house Dispatch, VFD, PD and Assembly meetings during any remodel activities of the existing building.
- Major foundation repair to slow continuing settlement and "bounciness" of slab on grade. Currently the floor slab flexes when emergency vehicles exit the bays.
- Major upgrades to structural, mechanical and electrical systems to meet current code for an essential facility. Essential facility codes require the building structure to be designed 50% stronger than standard buildings.
- Complete demolition down to the framing for hazardous materials abatement, and replacement of rotted members of crawlspace foundation.
- The narrow apparatus bays and doors limit the ability to store upgraded/future apparatus.
- The building's elevation relative to Haines topography currently puts it within the maximum tsunami inundation zone which is not recommended for an Emergency Operations Center.
- The building's overall square footage limits essential operations if multiple departments and functions continue to be housed under the same roof. Bringing egress routes and restrooms up to current accessibility standards would further decrease space for department functions.

## Purchase and Remodel Existing Floreske Building

Considerations include the following:

- The building's overall square footage is not adequate to house the operations essential for both the VFD and PD. This would result in splitting up the 2 departments thereby losing both functional and operational efficiencies if they were co-located.
- The 50 feet building depth is too shallow to stack the apparatus, therefore additional bays would need to be constructed on the one end of the building. For instance, two ambulances could not be parked end to end in the bays. The doors to the bays are also narrower than industry standards, which may limit housing future apparatus and also creates increased risk to staff, apparatus and facility damage.

- The Holding areas (Building Code group I-3) require the entire building to have an automatic sprinkler system. This would need to be installed.
- The concrete slab in the shop slopes to a central trench drain running the width of the bays. The floor would need to be leveled if the space is to be used as workspace or meeting space.
- The HVAC system would need to be upgraded to meet fresh air exchanges standards.

**Scenario 3a – Build New & Remodel Existing Public Safety Building**

This scenario consists of constructing a new building on the existing site that would be sized to support the fundamental operations of a public safety facility as indicated below. The building would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone. It considers the remodeling of the existing public safety building (scenario 3a) or the remodeling of the Floreske Building (scenario 3b) to house non-emergency operations as indicated below.

***New 1-story Building – 22,000 GSF***

- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center

***Remodel Existing Building – 12,960 GSF (PSB) or 7,000 GSF (Floreske Blg)***

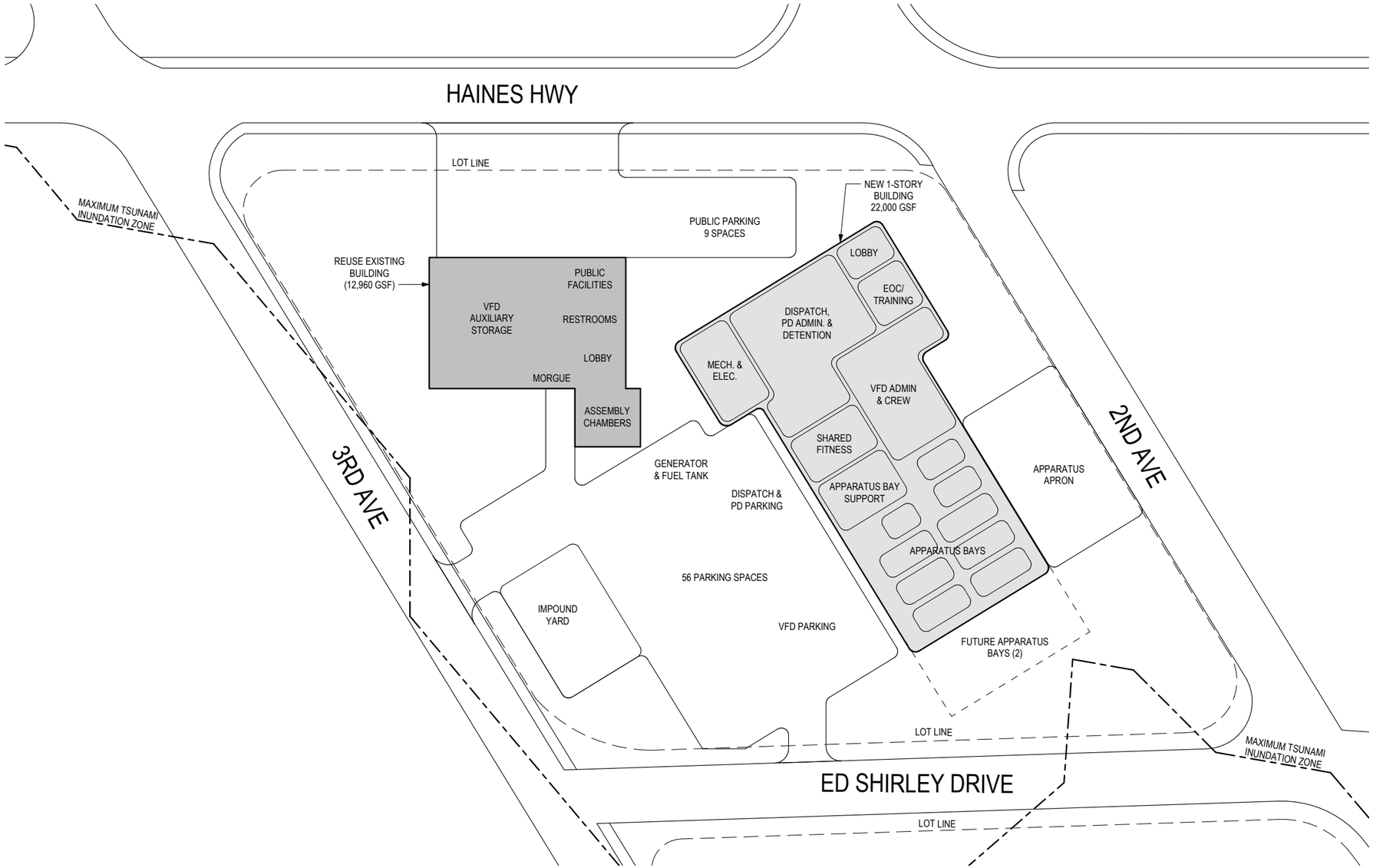
- Assembly Chambers with new accessible restrooms
- Public Facilities
- Records Storage
- VFD Auxiliary Storage & Fire Extinguisher Refill
- Morgue

Total Comparative Cost (from matrix): $ 21 M

**PLAN LEGEND**

EXISTING

NEW




SCENARIO 3 - SITE PLAN

1/32" = 1'-0"

0 10 20 30 40 60 80 100

TRUE NORTH PLAN NORTH

T C A architecture • planning

BETTISWORTH NORTH ARCHITECTURE PLANNING LANDSCAPE INTERIORS

**Scenario 4 – Demo-Addition-Remodel**

This scenario consists of demolishing the 2-story portion of the existing building and constructing an addition sized to include most of the current operations as indicated below. The 1-story portion of the existing building would be remodeled to house non-emergency functions as indicated below. The addition would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone, and would include interior stairs/ramp to connect the remodeled 1-story portion of the existing building.

The reason for identifying the 2-story section for removal is because it is the most problematic portion of the existing building with respect to a remodel. The 2-story section cannot accomodate the installation of a new HVAC system due to the low ceiling heights. It also does not currently have code legal stair exits or a code mandated elevator, so any remodel would include the addition of these costly elements. The accumulation of water in the crawlspace and the impact this water has had on the wood floor structure over time is a significant concern.

The existing foundation piles need to be taken into consideration in order to construct an addition over the demolished 2-story section. Removal of the deep piles will depend on the foundation type required for the addition but will likely necessitate removal.

***New 1-story Addition with Mechanical Mezzanine – 25,000 GSF***

- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center
- Public Facilities
- Morgue

***Remodel portion of Existing Building – 4,896 GSF***

- Assembly Chambers
- Records Storage
- VFD Auxiliary Storage & Fire Extinguisher Refill

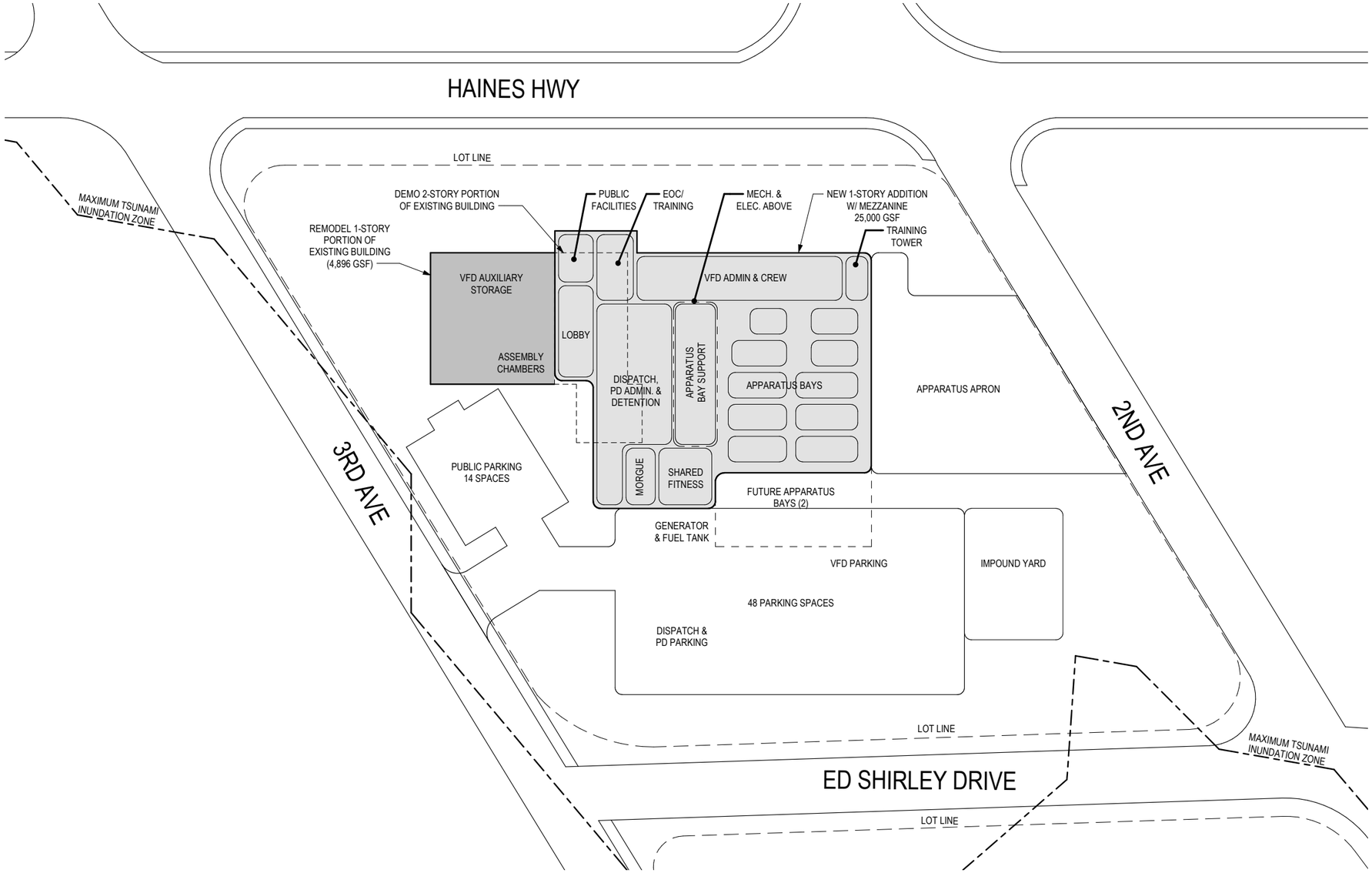
Total Comparative Cost (from matrix): $ 21.3 M

**PLAN LEGEND**

EXISTING

DEMOLITION

NEW




SCENARIO 4 - SITE PLAN
1/32" = 1'-0"

0 10 20 30 40 60 80 100

TRUE NORTH PLAN NORTH

TCA architecture • planning

BETTISWORTH NORTH
ARCHITECTURE PLANNING LANDSCAPE INTERIORS

# APPENDIX B

# COST MATRICES

| | **Scenario 1**<br>**Build New (South Site) & Abandon Existing PSB** | | | **Scenario 2**<br>**Build New (Existing Site) & Demo Existing PSB** | | |
|---|---|---|---|---|---|---|
| Cost Element | Rate | Quantity | Total Cost | Rate | Quantity | Total Cost |
| New Building Steel Construction | $ 600 /sf | 26,000 gsf | $ 15,600,000 | $ 600 /sf | 26,000 gsf | $ 15,600,000 |
| Minor TI w/ minor Mech and Elec | $ 120 /sf | 0 gsf | $ - | $ 120 /sf | 0 gsf | $ - |
| Minor TI Restrooms and more extensive M&E | $ 300 /sf | 0 gsf | $ - | $ 300 /sf | 0 gsf | $ - |
| Full remodel w/ struct, mech, elec upgrades | $ 450 /sf | 0 gsf | $ - | $ 450 /sf | 0 gsf | $ - |
| Re-roof | $ 25 /sf | 0 gsf | $ - | $ 25 /sf | 0 gsf | $ - |
| Hazmat Abatement | $ 10 /sf | 0 gsf | $ - | $ 10 /sf | 12,960 gsf | $ 129,600 |
| Demolition Work | $ 10 /sf | 0 gsf | $ - | $ 10 /sf | 12,960 gsf | $ 129,600 |
| Sprinkler System | $ 6 /sf | 0 gsf | $ - | $ 6 /sf | 0 gsf | $ - |
| Remodel including restrooms, exterior door infill, Mech and Elec; no structural | $ 350 /sf | 0 gsf | $ - | $ 350 /sf | 0 gsf | $ - |
| Moving costs | $ 30,000 | 1 | $ 30,000 | $ 30,000 | 1 | $ 30,000 |
| Temporary Facilities/ Rental | $ 15,600 /mo | 0 mos | $ - | $ 15,600 /mo | 0 mos | $ - |
| **Subtotal** | | | **$ 15,630,000** | | | **$ 15,889,200** |
| | | | | | | |
| Remodel work Contingency | 15.00% | 0 | | 15.00% | 0 | |
| New Construction Contingency | 8.00% | 1 | $ 1,248,000 | 8.00% | 1 | $ 1,268,736 |
| **Subtotal** | | | **$ 16,878,000** | | | **$ 17,157,936** |
| | | | | | | |
| Estimating Contingency | 15.00% | 1 | $ 2,531,700 | 15.00% | 1 | $ 2,573,690 |
| Additional Design Investigation/ As-built | $ 80,000 | 0 | $ - | $ 20,000 | 1 | $ 20,000 |
| | | | | | | |
| **Total Comparative Cost*** | | | **$ 19,409,700** | | | **$ 19,751,626** |

*These costs do not include soft costs such as permit fees, design fees, furniture & equipment, and construction administration costs. These costs are estimates and do not accurately reflect the actual construction or project costs.

| | **Scenario 3a**<br>**Build New & Remodel Existing PSB** | | | **Scenario 3b**<br>**Build New & Purchase/ Remodel Floreske Blg** | | | **Scenario 4**<br>**Demo 2-story PSB & Remodel 1-story PSB plus Addition** | | |
|---|---|---|---|---|---|---|---|---|---|
| Cost Element | Rate | Quantity | Total Cost | Rate | Quantity | Total Cost | Rate | Quantity | Total Cost |
| Purchase Price (appraised) | | | | | | $ 500,000 | | | |
| New Building Steel Construction | $ 600 /sf | 22,000 gsf | $ 13,200,000 | $ 600 /sf | 22,000 gsf | $ 13,200,000 | $ 600 /sf | 25,000 gsf | $ 15,000,000 |
| Minor TI w/ minor Mech and Elec | $ 120 /sf | 4,896 gsf | $ 587,520 | $ 120 /sf | 0 gsf | $ - | $ 120 /sf | 0 gsf | $ - |
| Minor TI Restrooms and more extensive M&E | $ 300 /sf | 8,064 gsf | $ 2,419,200 | $ 300 /sf | 0 gsf | $ - | $ 300 /sf | 4,896 gsf | $ 1,468,800 |
| Full remodel w/ struct, mech, elec upgrades | $ 450 /sf | 0 gsf | $ - | $ 450 /sf | 0 gsf | $ - | $ 450 /sf | 0 gsf | $ - |
| Re-roof | $ 25 /sf | 8,928 gsf | $ 223,200 | $ 25 /sf | 0 gsf | $ - | $ 25 /sf | 4,896 gsf | $ 122,400 |
| Hazmat Abatement | $ 10 /sf | 8,064 gsf | $ 80,640 | $ 10 /sf | 0 gsf | $ - | $ 10 /sf | 8,064 gsf | $ 80,640 |
| Demolition Work | $ 10 /sf | 8,064 gsf | $ 80,640 | $ 10 /sf | 0 gsf | $ - | $ 10 /sf | 8,064 gsf | $ 80,640 |
| Sprinkler System | $ 6 /sf | 0 gsf | $ - | $ 6 /sf | 7,000 gsf | $ 42,000 | $ 6 /sf | 0 gsf | $ - |
| Remodel including restrooms, exterior door infill, Mech and Elec; no structural | $ 350 /sf | 0 gsf | $ - | $ 350 /sf | 7,000 gsf | $ 2,450,000 | $ 350 /sf | 0 gsf | $ - |
| Moving costs | $ 30,000 | 1 | $ 30,000 | $ 30,000 | 1 | $ 30,000 | $ 30,000 | 2 | $ 60,000 |
| Temporary Facilities/ Rental | $ 15,600 /mo | 0 mos | $ - | $ 15,600 /mo | 0 mos | $ - | $ 15,600 /mo | 14 mos | $ 218,400 |
| **Subtotal** | | | **$ 16,621,200** | | | **$ 16,222,000** | | | **$ 17,030,880** |
| | | | | | | | | | |
| Remodel work Contingency | 15.00% | 1 | $ 508,680 | 15.00% | 1 | $ 373,800 | 15.00% | 1 | $ 262,872 |
| New Construction Contingency | 8.00% | 1 | $ 1,056,000 | 8.00% | 1 | $ 1,056,000 | 8.00% | 1 | $ 1,200,000 |
| **Subtotal** | | | **$ 18,185,880** | | | **$ 17,651,800** | | | **$ 18,493,752** |
| | | | | | | | | | |
| Estimating Contingency | 15.00% | 1 | $ 2,727,882 | 15.00% | 1 | $ 2,647,770 | 15.00% | 1 | $ 2,774,063 |
| Additional Design Investigation/ As-built | $ 80,000 | 1 | $ 80,000 | $ 20,000 | 1 | $ 20,000 | $ 80,000 | 1 | $ 80,000 |
| | | | | | | | | | |
| **Total Comparative Cost*** | | | **$ 20,993,762** | | | **$ 20,319,570** | | | **$ 21,347,815** |

*These costs do not include soft costs such as permit fees, design fees, furniture & equipment, and construction administration costs. These costs are estimates and do not accurately reflect the actual construction or project costs.

| | **Remodel Current PSB** | | | **Purchase & Remodel Floreske Blg** | | |
|---|---|---|---|---|---|---|
| Cost Element | Rate | Quantity | Total Cost | Rate | Quantity | Total Cost |
| Approximate Purchase Price | | | | | | $ 1,500,000 |
| Minor TI w/ minor Mech and Elec. | $ 120 /sf | 0 gsf | $ - | $ 120 /sf | 0 gsf | $ - |
| Minor TI Restrooms and more extensive M&E | $ 300 /sf | 0 gsf | $ - | $ 300 /sf | 7,000 gsf | $ 2,100,000 |
| Full remodel w/ struct, mech, elec upgrades | $ 450 /sf | 12,960 gsf | $ 5,832,000 | $ 450 /sf | 0 gsf | $ - |
| Re-roof | $ 25 /sf | 8,928 gsf | $ 223,200 | $ 25 /sf | 0 gsf | $ - |
| Hazmat Abatement | $ 10 /sf | 12,960 gsf | $ 129,600 | $ 10 /sf | 0 gsf | $ - |
| Demolition Work | $ 10 /sf | 12,960 gsf | $ 129,600 | $ 10 /sf | 0 gsf | $ - |
| Sprinkler System | $ 6 /sf | 0 gsf | $ - | $ 6 /sf | 7,000 gsf | $ 42,000 |
| Remodel including restrooms, exterior door infill, Mech and Elec; no structural | $ 350 /sf | 0 gsf | $ - | $ 350 /sf | 0 gsf | $ - |
| Moving costs | $ 30,000 | 2 | $ 60,000 | $ 30,000 | 1 | $ 30,000 |
| Temporary Facilities/ Rental | $ 15,600 /mo | 14 mos | $ 218,400 | $ 15,600 /mo | 0 mos | $ - |
| **Subtotal** | | | **$ 6,592,800** | | | **$ 3,672,000** |
| | | | | | | |
| Remodel work Contingency | 15.00% | 1 | $ 947,160 | 15.00% | 1 | $ 321,300 |
| **Subtotal** | | | **$ 7,539,960** | | | **$ 3,993,300** |
| | | | | | | |
| Estimating Contingency | 15.00% | 1 | $ 1,130,994 | 15.00% | 1 | $ 598,995 |
| Additional Design Investigation/ As-built | $ 80,000 | 1 | $ 80,000 | $ 20,000 | 1 | $ 20,000 |
| | | | | | | |
| **Total Comparative Cost*** | | | **$ 8,750,954** | | | **$ 4,612,295** |

*These costs do not include soft costs such as permit fees, design fees, furniture & equipment, and construction administration costs. These costs are estimates and do not accurately reflect the actual construction or project costs.

# APPENDIX C

# SITE INVESTIGATION & TEST PIT MAP

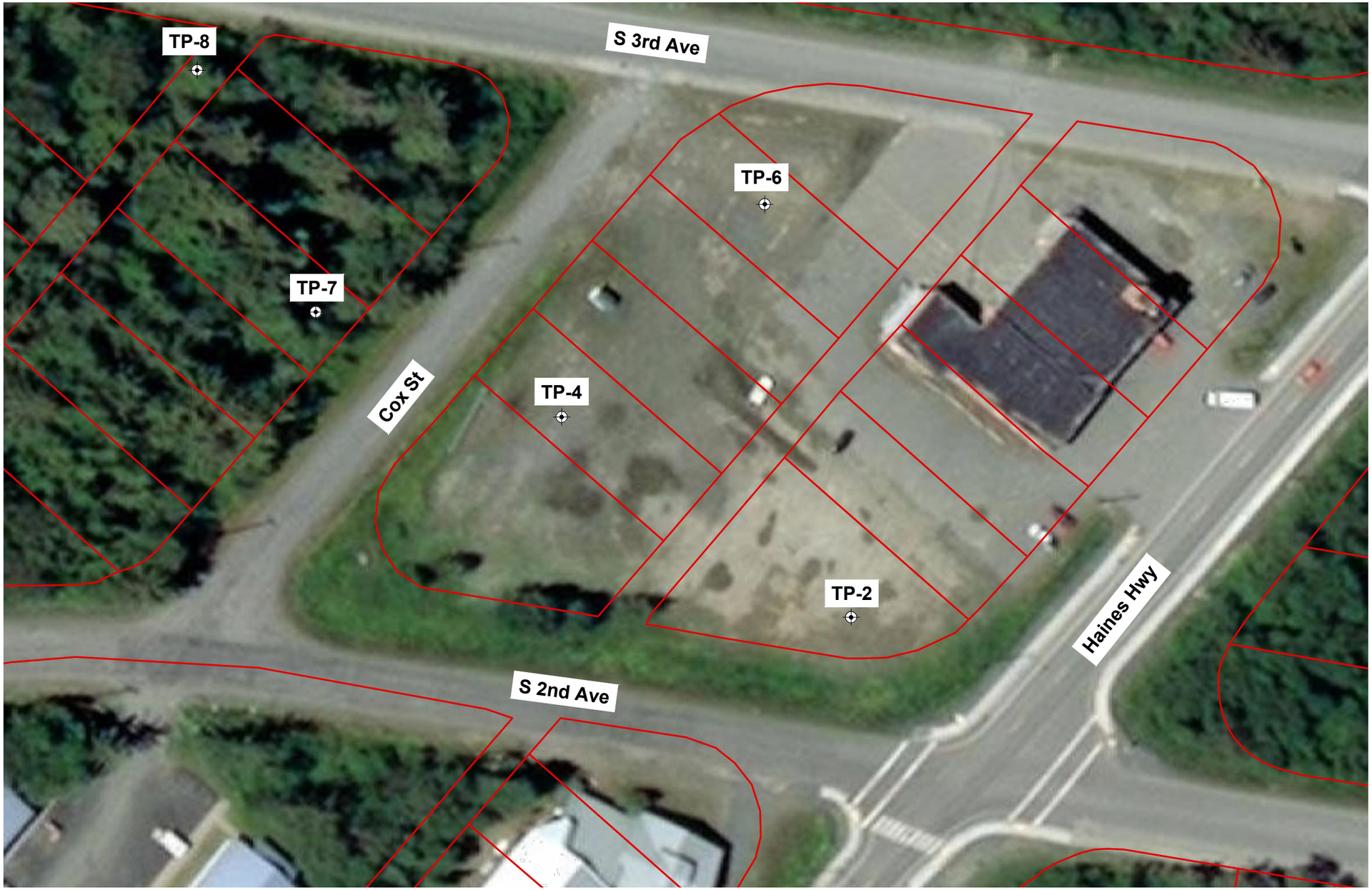
# SITE INVESTIGATION

An initial site investigation was conducted on February 1, 2021. A total of (5) test pits were excavated in the approximate location shown on the Test Pit Map located in the Appendices. Test pits TP-7 and TP-8 were excavated on the undeveloped southern lot. At these locations, the upper 2-3 feet consists of vegetation and a surficial organic mat overlying a thin layer of sand. Below the sand, from about 3-4 feet to the bottom of the excavation (about 13 ft) is a silt or lean clay that is softer towards the surface and increases in stiffness with depth. The water table sits on top of this silt, and water infiltration was significant at TP-7.

Test pits TP-2, TP-4 and TP-6 were excavated around the southern perimeter of the existing public safety site. Subsurface conditions here were consistent at 3-4 feet of sand and gravel fill, over 2-3 feet of waste organics, stumps, wood, brush, etc. (reportedly from when the site was initially developed), over a silt or lean clay to the bottom of the excavations (13-16 feet). Similar to the south site, the silt was softer towards the surface and became stiffer with depth. Groundwater was noted on top of the silt although the volume observed was far less than on the south site. At TP-6 a layer of geotextile was observed between the sand and gravel and the underlying organics.

Collected soil samples are currently undergoing testing. A primary factor of the samples is determining the compressibility of the silt/clay layer over the long-term in order to analyze total and differential settlement. Once compressibility is assessed, the next step is to compare the costs to over-excavate and backfill to the extent required to minimize the risk of settlement, against that of excavation required for a pile-supported foundation with backfill to raise the ground floor level above the tsunami inundation zone. In both cases, the volume of imported fill will be substantial. Dewatering the excavation will also be critical in maintaining integrity of soils at the bottom of any excavation.

If compressibility proves to be a viable concern within the limits of the test pit investigation, we will likely recommend drilling several deeper test holes. This will provide information for both foundation alternatives; the magnitude of settlement is dependent on the thickness of the compressible layer of soil, and a deeper test hole will also provide critical information for pile design.




A **SITE PLAN**

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: SCS CHECKED: CRS
DRAWN: KLL APPROVED:

SCALE: SCALE IN FEET
0 30 60 FT.

DATE: 01/20/2021

**HAINES BOROUGH, ALASKA**
**HAINES PUBLIC SAFETY BUILDING**

SHEET TITLE:
**GEOTECHNICAL EXPLORATION MAP**

PND PROJECT NO.: 202103 C.A.N. AECC250

1