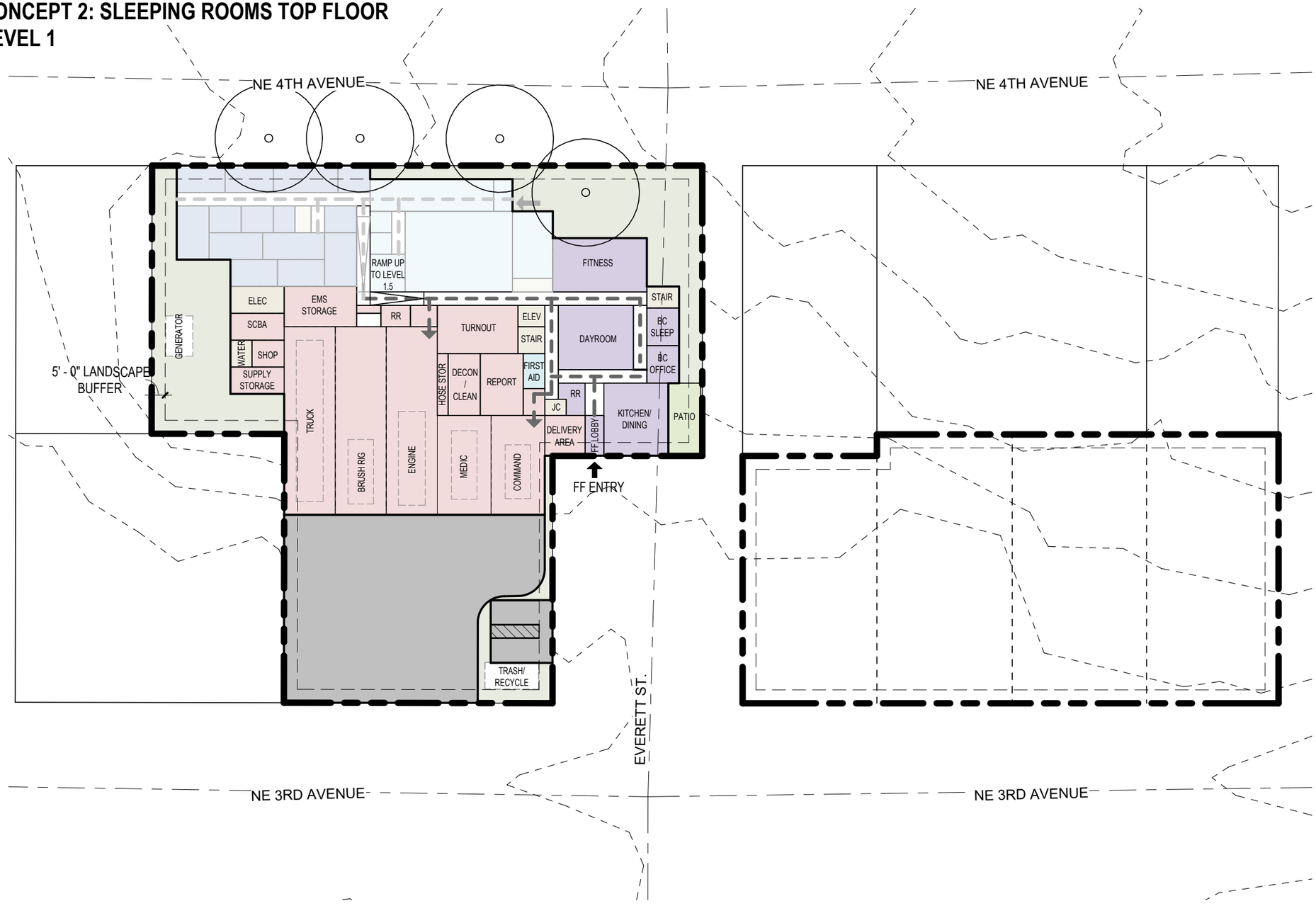
CWFD STATION 41

2/8/2024

ATTACHMENT 'A'

SITE OPTION E + STREET VACATION
CONCEPT 2: SLEEPING ROOMS TOP FLOOR
LEVEL 1



SITE INFORMATION

- ADDRESS: 528 NE 4TH AVE
  CAMAS, WA 98607
- PARCEL NUMBERS: 78100000, 78105000
- PROPERTY OWNERS: CITY OF CAMAS
- LEGAL DESCRIPTION:
  CAMAS LOTS 3,4,5,6 & 7 BLK 25
- SITE AREA: 25,000 SF OR .57 ACRES

PLANNING

- JURISDICTION: CITY OF CAMAS
- CAMAS, WASHINGTON MUNICIPAL CODE (CWMC)
- ZONING: DOWNTOWN COMMERCIAL (DC)

ZONE REQUIREMENTS (CWMC TABLE 18.09.030)

- MAXIMUM LOT COVERAGE: NONE
- MAXIMUM IMPERVIOUS AREA %: N/A
- MAX BUILDING HEIGHT: NONE
- SETBACKS (CWMC TABLE 18.09.030):
  - ROW: NONE
  - SIDE - STREET: NONE
  - REAR: NONE
- LANDSCAPE BUFFERS (CWMC TABLE 18.13.055)
  -ABUTTING STREET: 5'-0" L2 LOW SCREEN
  -ABUTTING COMMERCIAL: 5'-0" L2 LOW SCREEN

PARKING

- DETERMINED BY SIMILAR USES (CWMC 18.11.130)
  - BUSINESS SPACES: 1 SPACE PER 250 SF OF GROSS FLOOR AREA
  - CREW AREA: 1 PER SLEEPING ROOM
- PARKING STALL AND AISLE DIMENSIONAL STANDARDS (CWMC 18.11.020)
  - DRIVE AISLE: 24'-0"
  - STANDARD PARKING SPACE: 9'-0" X 18'-0"
  - COMPACT PARKING SPACE: 8'-0" X 15'-0"
- STALL COUNT: 2 STALLS
  - FF: 0 STALLS
  - ADMIN: 0 STALLS
  - PUBLIC: 2 STALLS

NOTE: PROPERTY LINES ARE APPROXIMATE

0 40' 80'

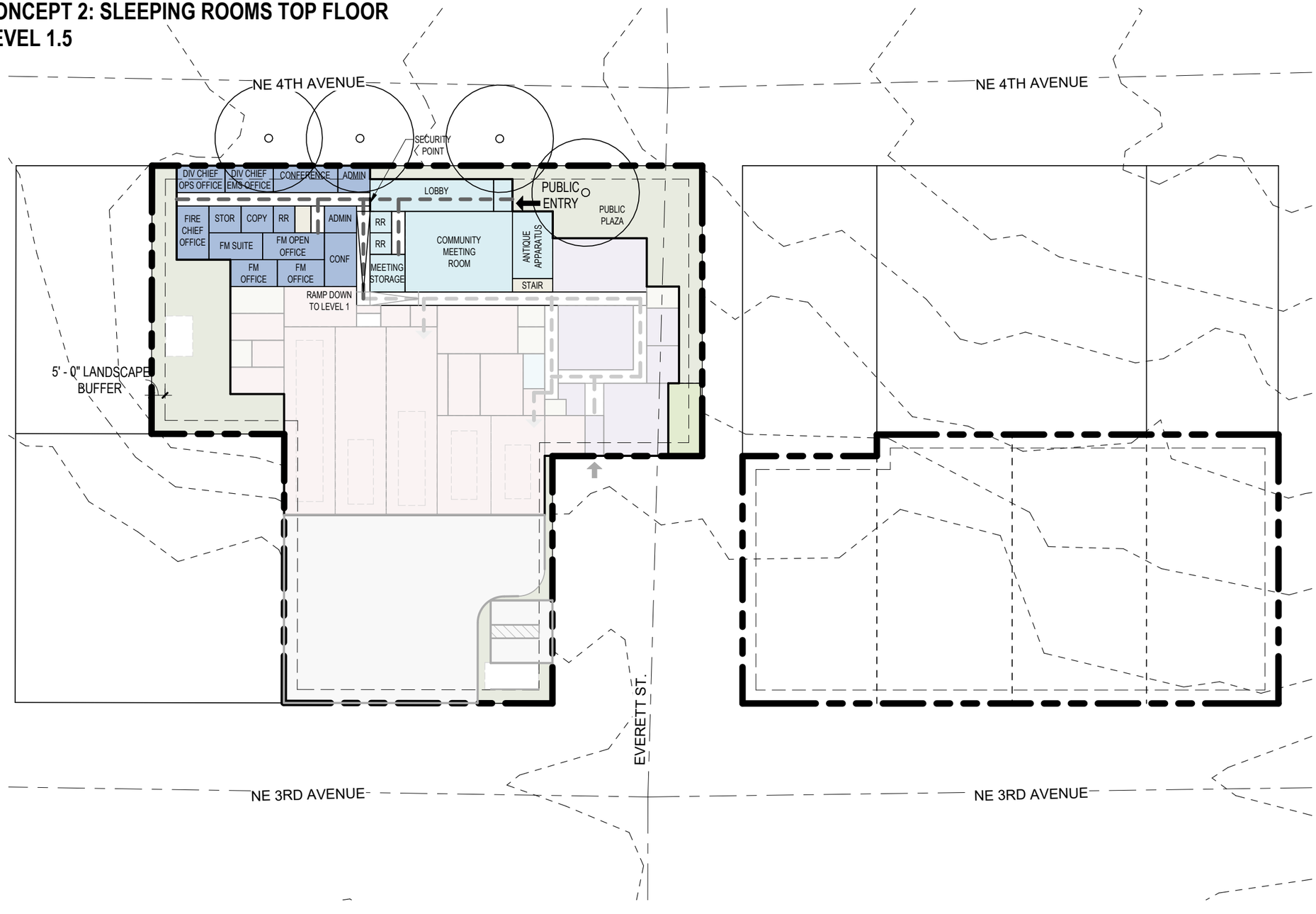
TCA
ARCHITECTURE + PLANNING + DESIGN

CWFD STATION 41

2/8/2024

ATTACHMENT 'A'

SITE OPTION E + STREET VACATION
CONCEPT 2: SLEEPING ROOMS TOP FLOOR
LEVEL 1.5



NOTE: PROPERTY LINES ARE APPROXIMATE

0 40' 80'

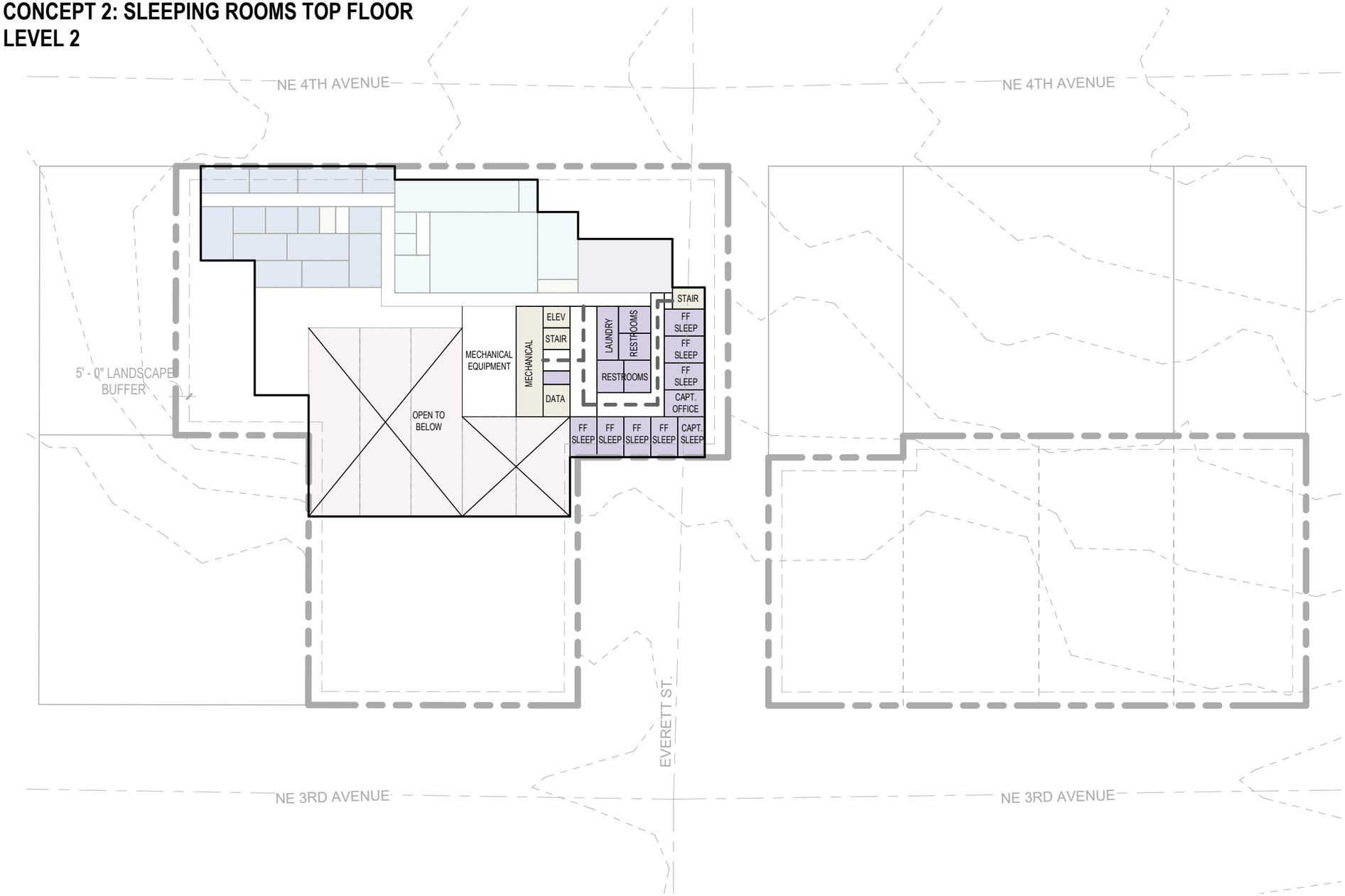
TCA
ARCHITECTURE + PLANNING + DESIGN

CWFD STATION 41

2/8/2024

ATTACHMENT ‘A’

SITE OPTION E + STREET VACATION
CONCEPT 2: SLEEPING ROOMS TOP FLOOR
LEVEL 2



NOTE: PROPERTY LINES ARE APPROXIMATE

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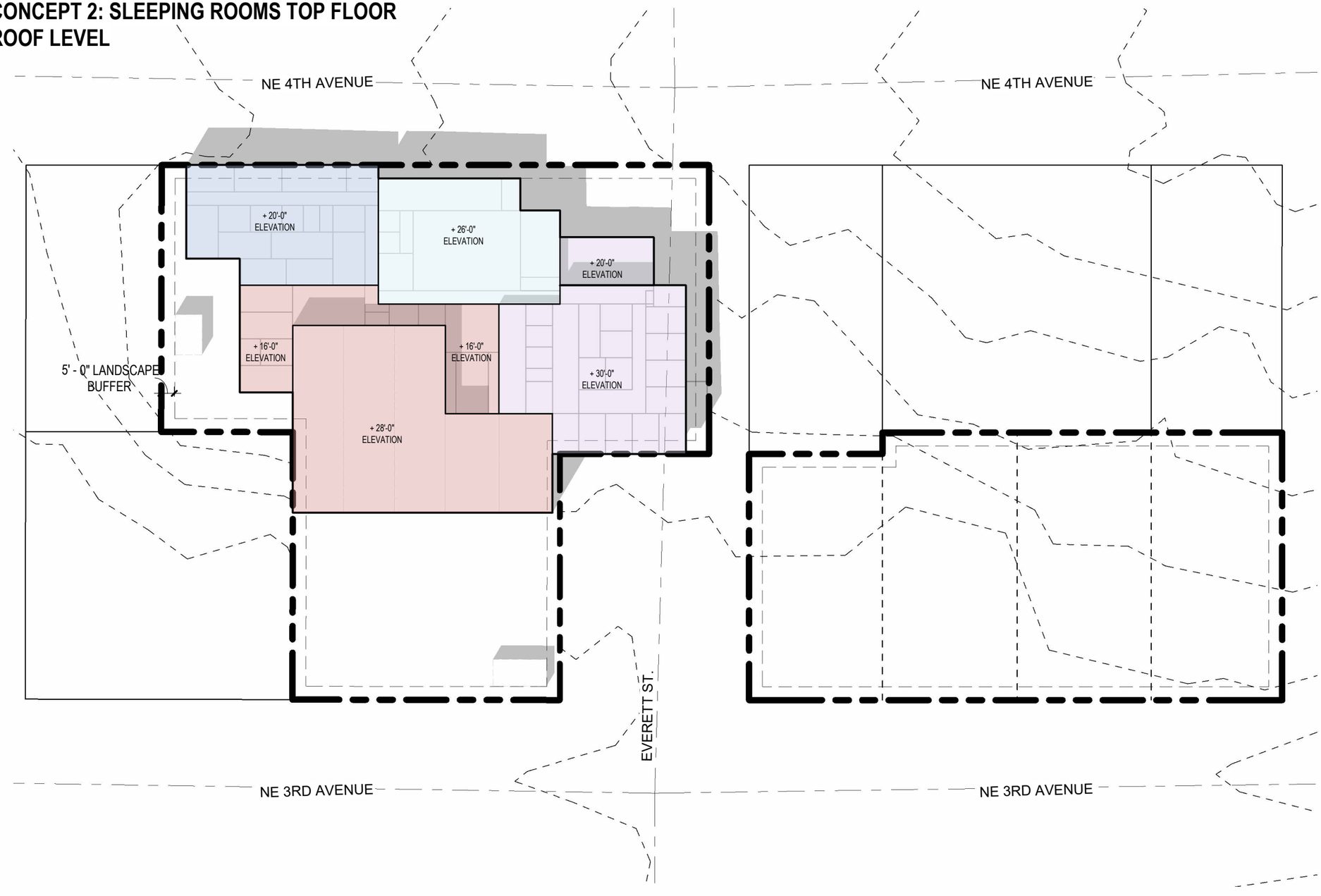
TCA
ARCHITECTURE + PLANNING + DESIGN

CWFD STATION 41

2/8/2024

ATTACHMENT 'A'

SITE OPTION E + STREET VACATION
CONCEPT 2: SLEEPING ROOMS TOP FLOOR
ROOF LEVEL



NOTE: PROPERTY LINES ARE APPROXIMATE

0 40' 80'

TCA
ARCHITECTURE + PLANNING + DESIGN

ATTACHMENT 'B'

Camas/Washougal Fire Station 41
2022 Capital Improvement Program

Johansson Wing Architects

Date: August 22, 2023

Public	# of People	Qty	Width	Length	Area (ea)	Net Area	Remarks
Vestibule		1	7 ft	7 ft	49	49	Tables for 30; seating for 50
Lobby		1	10 ft	15 ft	150	150	
Community/Training Room		1	30 ft	40 ft	1200	1200	Tables for 30; seating for 50
Training Storage		1	10 ft	20 ft	200	200	
Public Restroom		2	8 ft	8 ft	64	128	
Antique Rig Showcase		1	15 ft	30 ft	450	450	Optional-segregated from lobby
First Aid Room		1	10 ft	10 ft	100	100	
					240	240	
SUBTOTAL						**2468**	

Admin	# of People	Qty	Width	Length	Area (ea)	Net Area	Remarks
Fire Chief's Office	1	1	12 ft	20 ft	240	240	
Division Chief Ops Office	1	1	10 ft	18 ft	180	180	
Division Chief EMS Office	1	1	10 ft	18 ft	180	180	
Fire Marshal Suite	3	3	10 ft	18 ft	180	540	Standalone Division
Shared Workspace FM Suite		1	10 ft	18 ft	180	180	Direct access to exterior/lobby
Admin Assistant	2	2	10 ft	12 ft	120	240	1 admin assistant for FM office
Small Conference		2	10 ft	20 ft	200	400	1 small conference for FM office
Records Storage		1	10 ft	12 ft	120	120	
Copy/Work Room		1	8 ft	10 ft	80	80	
SUBTOTAL	8					**2160**	

Crew Area	# of People	Qty	Width	Length	Area (ea)	Net Area	Remarks
Battalion Chief Office	1	1	12 ft	14 ft	168	168	
Battalion Chief Sleeping Room	1	1	10 ft	12 ft	120	120	
Captain's Office	1	1	10 ft	14 ft	140	140	
Captain's Sleeping Room	1	1	10 ft	10 ft	100	100	
Sleeping Room	7	7	10 ft	10 ft	100	700	Eng (3), Med (2), Truck (3)
Toilet/Shower Room		4	10 ft	12 ft	120	480	
External Locker Alcove		9	5 ft	10 ft	50	450	36 lockers - 4 shifts in future
Kitchen/Dining		1	16 ft	40 ft	640	640	
Dayroom		1	28 ft	24 ft	672	672	
Physical Training		1	20 ft	35 ft	700	700	SF to be validated
Laundry		1	8 ft	10 ft	80	80	
Radio Charging Station		1	4 ft	8 ft	32	32	In Report Writing Area
Report Writing		5	10 ft	6 ft	60	300	
SUBTOTAL	11					4582	

ATTACHMENT 'B'

Apparatus Support	# of People	Qty	Width	Length	Area (ea)	Net Area	Remarks
Apparatus Bay		5	15 ft	70 ft	1050	5250	Eng (1), Med (1), Truck (1), Command (1), Brush Rig (1)
Turnout		1	28 ft	19 ft	532	532	
Decon/ Cleaning		1	10 ft	25 ft	250	250	Segregated area
Decon Toilet/Shower		1	9 ft	10 ft	90	90	
EMS Storage		1	27 ft	15 ft	405	405	
Mezzanine		1	10 ft	40 ft	400	400	Optional; might use for training
Work Room/Shop		1	10 ft	12 ft	120	120	
SCBA Compressor & Maint.		1	10 ft	20 ft	200	200	Isolated SCBA and House Air Compressor
Hose Storage		1	8 ft	16 ft	128	128	
Supply Storage		1	12 ft	20 ft	240	240	
Decon Vestibules/Airlock		2	8 ft	10 ft	80	160	
Delivery Area		1	12 ft	20 ft	240	240	
Apparatus Wash Alcove		1	3 ft	10 ft	30	30	
SUBTOTAL						**8045**	

Building Support	# of People	Qty	Width	Length	Area (ea)	Net Area	Remarks
Stairs per Floor		4	8 ft	10 ft	80	320	
Data		1	12 ft	10 ft	120	120	
Elevator per Floor		2	8 ft	10 ft	80	160	
Electrical		1	20 ft	10 ft	200	200	
Janitor Closet per Floor		2	6 ft	8 ft	48	96	
Mechanical		0	10 ft	20 ft	200	0	
Sprinkler Riser Room		1	8 ft	10 ft	80	80	
Elevator Machine Room		1	10 ft	10 ft	100	100	
SUBTOTAL						**1076**	

TOTAL EMPLOYEES	19						
SUBTOTAL							
Net SF						**18331**	
(Net: Gross Factor)	27%					4949	
Gross SF						**23280**	
Total						**23280**	

Site	# of People	Qty	Width	Length	Area (ea)	Net Area	Remarks
Public Parking		10	9 ft	18 ft	162	1620	Street?
Staff Parking		30	9 ft	18 ft	162	4860	
Generator		1	10 ft	15 ft	150	150	May vary by site w/ external plug for mobile unit
Trash/Recycling Enclosure		1	10 ft	20 ft	200	200	
Patio		1	20 ft	20 ft	400	400	

ATTACHMENT ‘C’

Architectural Concept Narrative

Project Description

CWFD HQ Fire Station 41 is planned as a 23,280 square foot station to be developed on a 0.57 acre parcel located at 528 NE 4th Ave, Camas, WA. The City of Camas owns this property. CWFD prefers NE 3rd Avenue for emergency response. Upon opening for service, 5-6 personnel (in 4 shifts) will staff the station, and the apparatus bay will house 1 engine, 1 truck, 1 command vehicle, 1 medic and 1 brush rig. The station will have the ability to house 9 fire fighters for future growth.

Project Understandings and Considerations:

- Site consists of 2 parcels which would need to be combined by boundary line adjustments.
- Environmental Assessment and Geotechnical Investigations have not been performed to date. Estimating excludes environmental mitigation measures and soil improvements. A site contingency is included to mitigate risks from unforeseen conditions.
- A topographic survey has not been provided. The concept is based on available GIS information.

Code Data and Analysis

1. Local AHJ: City of Camas

2. Building Codes: 2021 IBC and I-Codes, UPC as amended by state and local government, WAC 296-305, 2010 ADA Standards, 2017 ANSI-ICC A117.1.
    a. Occupancies:
        i. Fire Station: B, R-3, S-1, S-2.
    b. Type of Construction: V-B, Sprinklered.
    c. Allowable Area: No maximum lot coverage regulations.
    d. Allowable Stories/Height: Not limited.
    e. Separations:
        i. A non-separated mixed-use occupancy approach is taken per IBC 508.3.
        ii. 1-hour fire-resistive construction is required between sleeping rooms and the apparatus bay per WAC 296-305-06507. An IBC 1-hour fire barrier will be used for assembly requirements.
        iii. 1/2 hour partition between sleeping rooms per IBC 420.2 & 708.1.

3. Energy Code: 2021 Washington State Energy Code.
    a. Climate Zone: 4C.

Anticipated Bid Date: TBD
Construction Schedule: 395 days (13 months) from NTP until Substantial Completion.

Concept Design Elements:

1. Frontage
    a. See Concept Plan and Rendering
2. Site
    a. See Concept Plan
    b. 8" thick reinforced concrete apparatus bay front apron.
    c. 10' high, 8" wide structural brick enclosure at new pad-mounted backup generator.
    d. Landscaping.
    e. Flagpole with external halyard beacon lighting.
    f. Trash and Recycling enclosure with gates.
    g. Security camera system.
    h. Public plaza with site fixtures and enhanced landscaping.
    i. (2) parking spots adjacent to apron and trash enclosure.

3. Building Structural
    a. Steel structure with Buckling Restrained Braced Frames.
    b. Metal Deck for roof structure with 20% using a Concrete/Metal Deck.
    c. Framing Options:
        i. Steel stud framing.
        ii. Wood stud framing.
    d. Slab on grade.
        i. 8" reinforced concrete at apparatus bay.
        ii. 4" reinforced concrete at other locations.
    e. Conventional footings.
    f. <u>Alternate</u>: Provide wood frame structure as a cost alternate in lieu of steel frame

4. Building Envelope
    a. Exterior Walls: 6" (metal or wood) stud, 1/2" gypsum sheathing, 2" polyiso rigid insul., fluid applied WRB (e.g., Prosoco Cat5), R-21 batt insul. with:
        i. Brick Masonry, 2 colors (20%).
        ii. Metal Siding, concealed fastener, 2 profiles, 2 colors (70%).
        iii. Wood Like/Solid Phenolic Panels (10%).
    b. Roof: 1/4" denz deck coverboard, R-40 polyiso. rigid insulation., vapor barrier with:
        i. Single-Ply Membrane Roof System (e.g., Sarnafil PVC).
        ii. Crickets: tapered insulation (expanded polystyrene).
    c. Roof accessories:
        i. Access hatch.
        ii. Fall protection.
        iii. Skylight allowance.
    d. Windows: Fiberglass (Cascadia or similar).
    e. Doors & Frames: Storefront (fiberglass); Insulated Hollow Metal, OH Sectional Alum. fully glazed at Fitness Room and Antique Apparatus display.
    f. Bay Door Options:
    g. <u>Alternates</u>
        i. 14' x 14' Hi-speed Coiling Doors (Hormann or similar).
        ii. 14' x 14' Side Acting Bi-Fold Doors
        iii. 14' x 14' Sectional doors with vision panels

h. Access Control: proximity and keypad at doors to station, inner lobby door, and gates.

5. Exterior Detailing
    a. Awnings: Prefinished Metal Roofing, Steel Frame.
    b. Mechanical Screen Wall: Posts, Girts and Metal Siding.

6. Vertical Circulation
    a. Hydraulic Elevator – with pit and machine room.
    b. (2) Enclosed Stairs.

7. Patio
    a. Covered BBQ area.
    b. Concrete paving.
    c. Landscaping.
    d. Masonry screen wall.

8. Building Interior
    a. Floors: Primarily Polished Concrete, Athletic Flooring (Exercise Room)
    b. Base: Rubber, Porcelain Tile (Restrooms)
    c. Walls:
        i. Interior Wood Paneling (Lobby) 30%
        ii. Light Orange Peel Texture GWB.
        iii. Fiber-Reinforced Wall Covering (Tnemec product) (Decon, Cleanroom. Airlocks, PPE Storage, Bay Toilet).
    d. Wainscot: 5' high Porcelain Tile (Restrooms).
    e. Wainscot: 8' high CMU Veneer (Apparatus Bay).
    f. Ceilings
        i. Exposed Structure (Apparatus Bay, Fitness, Elec. and Mech. Rms).
        ii. GWB (Restrooms, App. Bay Support Spaces).
        iii. 2x4 Suspended Acoustical Panel.
    g. Doors: Solid Core Wood, Hollow Metal (at Apparatus Bay)
    h. Casework:
        i. Counters:
            1. Solid Surface (Crew Area)
            2. Stainless Steel (Apparatus Bay)
        ii. Cabinets: P-lam with 3mm Edge Banding.
    i. Equipment
        i. Washer Extractor
        ii. Washer & Dryer- Decon
        iii. SCBA Compressor & Remote Fill Station
        iv. RamAir Gear Dryer
        v. Washer & Dryer- Linens
        vi. 6 Burner range with type 1 hood
        vii. 4 Refrigerators
        viii. 2 Dishwashers
        ix. 2 Microwaves
        x. Garbage Disposal

Electrical Concept Narrative

Power Systems

Electrical Service

Optimally 480V service is preferred based on anticipated electrical needs for mechanical heat pumps. The service will terminate in a service rated distribution panel. It will originate from CPU infrastructure with primary power delivered underground to a CPU pad mount transformer located on the fire station site. Secondary service will be delivered underground to the building via a CT cabinet located on the exterior and from there to the Main Distribution Panel in the electrical room. Meter base will be located adjacent to the CT cabinet. Main Distribution Panel will consist of a main circuit breaker and molded case group mounted circuit breakers.

Additionally, 480V power will likely be required should electrical apparatus be used in the future. No electric apparatus are not being considered in the near future.

Power Distribution

Panelboards with bolt in breakers will be provided.

Panelboards will have door in door style hinged doors.

Surge protectors to be provided for all panelboards.

Four total branch panelboards are anticipated.

Branch Circuitry

Branch circuitry will be provided as required for convenience receptacles, equipment, mechanical units and kitchen appliances.

Branch circuitry will be conduit (typically EMT) and wire. EMT will be required for homeruns. MC cable will be allowed for branches from homeruns.

Receptacles not serving equipment required to be on continuously will be controlled per requirements of Washington State Energy Code. Controlled receptacles will be controlled by occupancy sensors which shut the receptacles off when a room is unoccupied.

Shore power will be provided in apparatus bay for rigs. Shore power will consist of cord drops from ceiling with 20 amp or 30 amp outlets.

Controls for apparatus bay doors to be located on driver side of rigs. A central location with controls for all bay doors will also be provided.

Emergency Power System

Service

A diesel or natural gas generator with integral base fuel tank or propane will be provided to backup the entire building for a minimum of 72 hours at full load without refueling. Plug-in for mobile generator.

Elevator will not be on the generator.

Generator will be located in a sound attenuated, weatherproof enclosure.

System will have one automatic transfer switch. Emergency egress lighting will be handled with battery units, battery backup integral to light fixtures, or inverters to avoid a code requirement for a second transfer switch.

Kohler, Caterpillar and Onan are potential manufacturers of the generator system with Kohler being the Owner's preference given several existing facilities have Kohler generators.

Lighting

Equipment

Energy efficient LED lighting will be provided. Fixture types to be selected per ceiling conditions, room types and architectural considerations. Lamping will be LED.

Digital switches will be provided for manual switching in all areas. Automatic control of lighting fixtures will be provided per requirements of Washington State Energy Code. Vacancy or occupancy sensors will be provided in most spaces. Spaces without occupancy sensors will be automatically controlled per a schedule maintained in the lighting control system. Exception is bunk rooms which will have manual switching but no automatic controls.

Photosensors will be provided for automatic dimming of fixtures in daylight zones. Automatic dimming will be configured for fixtures to turn completely off when daylight levels are sufficient.

Lighting controls will be interfaced to Alerting System. Alerting System will signal lighting controls to turn fixtures on in selected areas during an alarm condition. Fixtures will initially turn on at a low level and then ramp up to full brightness.

Lighting control system will be a networked distributed system. Room controllers will be provided in each room and the automatic (occupancy sensors, photosensors) and manual (digital switches) controls will connect to the room controller which in turn determines status of light fixtures. Small rooms will be equipped with digital switches with integral occupancy sensors. These rooms will not require room controllers.

Emergency egress lighting to be provided using battery backup integral to LED fixtures or emergency lighting units ("bugeyes"). Fixtures with battery backup and emergency lighting units to be located as required to achieve code lighting levels for emergency egress lighting. Inverters will be used for fixtures where integral battery backup is not an option.

LED exit signs with battery backup to be located as required by code.

Exterior lighting will generally be located on building walls or under soffits. Pole lights will be used for parking areas. All exterior fixtures will have sharp cutoff optics to reduce light pollution. Exterior fixtures will be controlled by an astronomic timeclock to be on during prescribed hours between dusk and dawn. Selected exterior fixtures will be controlled by occupancy sensors as well. These fixtures will be on at reduced output normally and then increase to full output upon detection of occupancy. All pole fixtures will have integral occupancy sensors.

Communications Systems Analysis

Telephone/Data/TV

Fiber optic?, telephone and TV services will be delivered to the building underground. (3)4" conduits will be provided from locations coordinated with franchise utilities. Cabling for services will be by applicable utilities.

Services will be routed to the main communications room in the building.

A complete raceway system for data, voice and TV cabling will be provided in project. Raceways will be 1" EMT minimum. Cables will be routed in raceways where in walls or above non-accessible ceilings. Open cabling allowed above accessible ceilings.

Data/voice cables and outlets will be Cat 6. Cables will homerun to rack mounted patch panels in comm room. Outlets will be located as required by program. Typical comm outlet at each workstation or other location will be a 2-port outlet. Outlets will be provided at selected locations for wireless access points.

TV cables will be RG6 coax with F-style connectors. Cable will homerun to wall mounted TV headend in comm room.

Fire Alarm System

Equipment

System will meet code requirements. RF based wireless monitoring will be utilized. If necessary, an antenna for the RF signal will be installed.

Smoke alarms and CO detectors will be provided for bunk rooms and outside of bunk rooms.

Addressable fire alarm system will be provided. Smoke detection to be provided for egress pathways and elevator recall. Horn/strobes and strobes to be provided throughout building for code required audibility and visibility levels.

LCD annunciator to be located at fire fighter entry.

Other Systems

Alerting

Station alerting system will be provided. System will receive dispatch communications from local 911 dispatch system. Upon an alarm condition for station, alerting system will take the following actions:

- Sound alarm via paging speakers
- Distribute alarm message via paging speakers
- Signal lighting controls to bring lights on in selected rooms. Lights in bunk rooms will be ramped up slowly to a prescribed output level upon receiving alerting signal.
- Activate visual indicator wall lights
- Shut down gas and electric appliances

Alerting system will include dynamic check-in capability. Firefighters will be able to check-in daily in the alerting system to a particular bunk room. The system will then dynamically configure notifications to only alert the bunk rooms occupied by firefighters involved in the particular type of alarm. Only the applicable bunk rooms will be notified with each alarm.

Alerting system headend equipment will be rack mounted in the data room.

Paging system speakers will be located to deliver alarms and messages throughout the building. The paging system can also be used for general announcements, messages and communications.

Doorbell system will be connected to Alerting system so that tones can be distributed throughout building over paging speakers.

Doorbell

A doorbell system will be provided with a doorbell at the main entry and possibly at other entries.

Doorbell will be tied into the paging system for distribution of tone throughout the facility.

2-Way communication intercom to integrate into the building at entry points.

Access Control System

Access control system will be provided with card readers at all exterior man doors. Each door will include an electric strike, door switch (for monitoring door position), card reader, and request to exit (REX) device.

CCTV System

CCTV system will be provided with cameras to view all entries. Cameras will be IP based with a Cat 6 cable run to each camera location.

Audio Visual System

AV cabling and connectors will be provided in selected rooms coordinated with monitors and projectors to be used.

PV System

Photovoltaic panels will be located on roof. Size of system to be based on code requirements.

Inverters will be located on roof or in main electrical room.

Electric Vehicle Charging Stations

Level 2 charging stations will be provided in parking lot if required. Quantity to be determined. Minimum number to be per code requirements.

Charging stations for electrical apparatus are not required.

Antennas

Antennas for fire department communications will be located on the roof. Conduits will be provided from rooftop antenna locations to station office and comm room as required to support cabling needs at antennas.

Mechanical Concept Narrative

Fire Protection Description: NFPA 13 compliant sprinkler system with full building coverage.

Plumbing Description: New plumbing fixtures. New heat pump water heater with storage tanks. Air compressor with distribution piping and outlet. Air piping to SCBA fill. Natural gas (or LPG) service to kitchen range and BBQ with solenoid valves.

HVAC Description: New VRF heat pump systems with dedicated outdoor air system (ERV) in the admin, living quarters and support areas. New package rooftop heat pump for the apparatus bay. New vehicle source capture exhaust system for the apparatus bay. Type I kitchen hood with makeup air if required by AHJ.

I. Site Work/Utilities
1. Fire service to the building.
2. Water service to the building to accommodate flush-valve toilets.
3. Sewer service to the building.
4. Apparatus bay drainage oil/water separator (sewer) .
5. Natural gas (LPG) service to the building for kitchen range and BBQ.

II. Fire Protection
A. General:
1. New NFPA 13 wet sprinkler system with dry heads where required.
2. Semi-recessed heads in ceilings. Exposed heads with guard covers.
3. Schedule 40 black steel or thinwall steel pipe. Threaded or grooved end fittings.
B. Service: A 6" fire service and post FDC.
C. A dry system will be needed to cover long overhangs and cold attic spaces.

III. Plumbing
A. Piping materials will be as follows.
1. Above grade water: Type 'L' copper.
2. Below grade water: Type 'K' copper.
3. Above grade waste: Cast iron.
4. Below grade waste: PVC plastic pipe.
5. Vent: PVC/ABS.
6. Natural gas / LPG: Schedule 40 black steel.
7. Pipe insulation: Preformed fiberglass with white laminated jacket. Molded PVC covers.
B. Plumbing Fixtures will be as follows:
1. Water Closets: Floor mount, vitreous china, open front seats, water saving dual-flush (1.6/1.1 gpf) manual flush valves. ADA compliance as required.
2. Lavatories: Countertop or wall-hung units, vitreous china, manual single handle mixing faucet. ADA compliant.
3. Showers: Single piece fiberglass stalls with single lever pressure balancing valve and adjustable 1.8 gpm Water Sense spray head. ADA compliance with grab bars, fold down seat and hand wand as required.
4. Kitchen Sinks: 18-gauge stainless steel, double bowl unit with single lever faucet, swing spout, hose spray, garbage disposal and "insta-hot".
5. Laundry Sink: 18-gauge stainless steel, deep single bowl with single lever faucet, swing spout.

6. Janitor Service Sink: 24" x 24" molded stone floor mount with wall mount mixing faucet, pail hook, edge guards, backsplash and hose.
7. Faucets: Commercial quality, polished chrome plated, cast brass.
8. Cold Water Valve: Installed at locations for refrigerator ice makers and coffee makers.
9. Pot Filler Faucet: Installed at center line above stove.
10. Decon Sink: Heavy duty, stainless steel scullery type with drain boards and back-splash, single bowl unit with blade handle faucet, swing spout, rotary drain valve and commercial style hand spray.
11. Eyewash: Swing down style mount on decon sink with CSA certified mixing valve meeting ANSI Z358.1 providing tempered water.
12. Water Coolers: Electric, ADA double fountain hi-lo units with bottle filler.

C. Domestic Hot Water:
1. Domestic heat pump water heater (HPWH) storage tanks electric water heater finishing tank located in a water room. Exterior supply and return piping with 3" insulation, heat trace and aluminum jacket run from the water room to the HPWH.
2. There will be a recirculating hot water piping loop and pump that ensures a short wait for hot water at fixtures.
3. Master mixing valve to supply 120 F water from 140 F storage.
4. Point of use mixing valves at each lavatory.

D. Plumbing accessories will be provided as follows:
1. Laundry Box: Fire rated, with hot and cold water connections and drain.
2. Hose bibbs (interior): Located in work areas and bays.
3. Hose reels: Located at interior hose bibb locations in the apparatus bay.
4. Floor drains: Cast iron body, round polished nickel bronze strainer with trap primer. Located in potential wet areas (restrooms, etc.)
5. Gear Extractor: Hot & cold water supply with RPBA protection and trench drain indirect waste.
6. Trench drains: Extra-heavy duty, 6" width, center lengthwise in each bay.

E. Natural gas (LPG) systems and piping will be as follows:
1. Piping to kitchen range and BBQ.
2. Normally closed solenoid valves will be provided to shut off gas to the kitchen range and barbecue automatically on station call alarm, with separate wall mounted manual resets controlled by the station alerting system.

F. Compressed air system as follows:
1. Tank mounted 175 psi reciprocating type compressor with filters for shop air.
2. Wall outlets, with quick connect fittings, in the shop and apparatus bay and overhead air drops with reels in the apparatus bay.

G. Elevator hoistway sump pump, with controls and force-main piping

IV. Heating, Ventilation and Air Conditioning

A. Living Quarters: VRFZ (variable refrigerant flow zoning) multi-zone heat pump system with individual fan coils for each zone connected to central exterior condensing units via refrigerant controller/manifolds and built-in electronic digital controls. R-410A refrigerant system.

B. Support Spaces: VRFZ (variable refrigerant flow zoning) multi-zone heat pump system with individual fan coils for each zone connected to central exterior condensing units via refrigerant controller/manifolds and built-in electronic digital controls. R-410A refrigerant system.

C. DOAS/ERV: Decoupled Dedicated Outside Air (DOAS) unit to supply outside air directly to all occupied areas of the building and recover heat from exhaust air through an Energy Recovery Ventilator (ERV). The ERV unit consists of outside air intake, MERV 13 high efficiency filters, supply

fan, exhaust fan and heat exchanger. Two separate ERV units, one unit serves the living and work areas, and the other unit serves the support spaces.

D. Fan Coils: Horizontal ducted units consisting of filter box, refrigerant coil and fan.
Ductless wall, ceiling or floor units consisting of filters, refrigerant coil and fan.

E. Zones: Each zone will be ventilated by the ERV and served by a fan coil with a wall mounted temperature control located in the space served. Each Sleep Room will be a separate zone as will the Kitchen, Exercise, Lobby, Conference Rm and Offices, and support areas.

F. Exhaust: Provide in Restrooms, Laundry, Janitor and Exercise. Ducting to ERV for continuous operation in conjunction with outside air supply for ventilation and building pressure.

H. Controls:

1. VRFZ zone sensor controls with LCD display and space temperature adjustment.
2. VRFZ central controller with touch screen interface for system operation and remote web interface.
3. ERV remote interface with LCD display.
4. Other equipment with standalone electronic controls.
5. Provide controls internet connectivity for remote access by District.

I. Apparatus Bays

1. Package rooftop heat pump with backup electric heat, spiral ductwork with drum louvers.
2. Ventilation: General exhaust at 1.5 CFM/ft2 controlled manually with a wall timer or automatically activated with CO/NO2 sensors. Alarm bell warning for high CO/NO2 levels. Wall louvers with motorized dampers for intake when exhaust fan is operating.
3. Vehicle Exhaust: Source capture exhaust system on rails with nozzle attached to the apparatus.
4. HVLS ceiling fans.
5. 1-1/2" threaded pipe domestic water outlet for vehicle filling.

J. PPE Storage Room (Bunker Gear)

1. 2-speed ventilation (via ERV) with drying mode.
2. Drying cabinet or tubular system..
3. Heat maintains room temperature and provides passive gear drying.
4. Exhaust fan operates continuously.

K. Kitchen

1. Type I hood above range with roof mounted exhaust fan. Type 1 system include Ansul fire suppression in hood.
2. Hood makeup air with inline fan, filters and electric heat tempering.
3. Pot filler over range.
4. Exterior BBQ gas outlet.

L. SCBA Compressor Room

1. Cooling ventilation with roof exhaust fan and intake air louver. Hard-piped breathable air intake.

ATTACHMENT ‘E’

CWFD
Headquarters Station 41
Camas, WA

Conceptual Estimate
Version: DRAFT
February 28, 2024

Prepared for:
Camas-Washougal Fire Department

EXECUTIVE SUMMARY

PROJECT INFORMATION

Owner:	CWFD	**Project Name:**	Headquarters Station 41
Location:	Camas, WA	**Project Type:**	Fire Station w/ Admin
FS 41 GSF:	23,280	**Site Gross Area:**	25,000

PROJECT SCHEDULE

Bid Date:	Q4, 2025	**Construction Strt:**	Q1, 2026
Duration:	14 Months	**Mid-Point:**	Q3, 2026
Phasing:	Single Phase		

DOCUMENTS INFORMATION

Drawings Set:	Conceptual Cost Set	**Design Firm:**	Aetta / TCA Architects
Other Reports:	Example Fire Station Site Visits - Meeting Minutes		

ESTIMATE DESCRIPTION

Estimate Level:	Conceptual Estimate	**Estimate Date:**	February 28, 2024
Delivery Method:	Design Bid Build	**Set Aside Reqs:**	None
Swing Shift?	No	**Occupied Bldg?**	No
Renovation?	No	**Critical Facility?**	No

ESTIMATOR

Name:	Matt Wiggins	**Title:**	Principal
Phone:	(360) 870-5100	**Email:**	mattw@wigginsprecon.com

CWFD
Headquarters Station 41
Camas, WA
Conceptual Estimate

ATTACHMENT 'E'

WIGGINS
PRECONSTRUCTION SERVICES

February 28, 2024

OVERALL PROJECT COST SUMMARY

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Headquarters Station 41 Building	23,280	GSF	$574.06	$13,364,133
Demo Existing Bank	1	ls	$250,000	$250,000
Sitework - Onsite & ROW	25,000	SGA	$51.13	$1,278,177
General Conditions	14	MO	$70,000	$980,000
Estimated Construction Cost (Today's Dollars)	**23,280**	**GSF**	**$681.80**	**$15,872,310**
Escalation to Midpoint (Q3, 2026 @ 4% / Yr)	10%	on	$15,872,310	$1,587,231
Total Estimated Construction Contract (Escalated)	**23,280**	**GSF**	**$749.98**	**$17,459,541**
Design Fees (A/E/Specialty/CA)	12.00%	on	$17,459,541	$2,095,145
Owner Consultants (Survey/Geotech/Hazardous/Commissioning/Testing)	2.00%	on	$17,459,541	$349,191
Printing/Advertising/Reimbursables/Misc	0.50%	on	$17,459,541	$87,298
Permits	1.00%	on	$17,459,541	$174,595
City Administration Cost / Construction Mgmt.	2.00%	on	$17,459,541	$349,191
Builders Risk Insurance	0.75%	on	$17,459,541	$130,947
Service Fees (Power/Gas/Phones/Water/Sanitary)	2.00%	on	$17,459,541	$349,191
Course of Construction Contingency (change orders)	4.75%	on	$17,459,541	$829,328
Furnishings/Equipment/IT Allowance	3.00%	on	$17,459,541	$523,786
Staff Planning/Moving Costs	0.50%	on	$17,459,541	$87,298
Management Reserve (unforeseen project requirements)	3.00%	on	$17,459,541	$523,786
Washington State Sales Tax (Camas)	8.50%	on	$17,459,541	$1,484,061
Total Estimated Project Cost (Escalated)*				**$24,443,357**

Excludes Site Acquisition/Financing Costs & Bond/Legal Costs

BUILDING ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
A10	Foundations	23,280	GSF	$31.79	$739,965
A20	Basement Construction	23,280	GSF	$0.00	$0
B10	Superstructure	23,280	GSF	$66.67	$1,552,000
B20	Exterior Enclosure	23,280	GSF	$88.18	$2,052,884
B30	Roofing	23,280	GSF	$26.64	$620,080
C10	Interior Construction	23,280	GSF	$38.98	$907,360
C20	Stairs	23,280	GSF	$1.30	$30,255
C30	Interior Finishes	23,280	GSF	$28.00	$651,840
D10	Conveying Systems	23,280	GSF	$5.58	$130,000
D20	Plumbing	23,280	GSF	$30.00	$698,400
D30	HVAC	23,280	GSF	$56.44	$1,314,000
D40	Fire Protection	23,280	GSF	$6.00	$139,680
D50	Electrical	23,280	GSF	$71.05	$1,654,000
E10	Equipment	23,280	GSF	$4.94	$115,000
E20	Furnishings (Casework)	23,280	GSF	$10.97	$255,270
F10	Special Construction	23,280	GSF	$0.00	$0
F20	Selective Building Demolition	23,280	GSF	$0.00	$0
Building Direct Construction Costs Subtotal					**$10,860,734**
Estimating / Design Contingency		15.0%	on	$10,860,734	$1,629,110
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$12,489,844	$874,289
Total Building Construction Cost (Today's Dollars)					**$13,364,133**

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
A10 Foundations				
A1010 - Standard Foundations				
Standard footing system (continuous and spread footings) - Allowance (1 cy / 100 sf SOG)	183	cy	$900.00	$164,700
Perimeter Stem wall	1,390	sf	$60.00	$83,400
Building step and ramp stem walls	985	sf	$70.00	$68,950
Foundation excavation				
Footing excavation & backfill (includes 2' over ex. & backfill)	2,196	cy	$40.00	$87,840
Perimeter Drainage & Insulation				
Perforated footing drains - Allowance	635	lf	$30.00	$19,050
Foundation insulation (2" rigid)	1,270	sf	$4.00	$5,080
Perimeter stem walls below grade dampproofing	2,540	sf	$6.00	$15,240
Step / ramp stem walls below grade waterproofing	985	sf	$13.00	$12,805
A1010 - Standard Foundations	23,280	GSF	$19.63	$457,065
A1030 - Slabs on Grade				
Slab on Grade, 4" (incl. reinforcing, base course & vapor barrier)	12,830	sf	$11.00	$141,130
CIP on grade stair up to stepped building area	1	ls	$10,000	$10,000
Slab on Grade, 8" @ App. Bay (incl. reinforcing, base course & vapor barrier)	5,470	sf	$16.00	$87,520
Trenches, Pits & Bases				
Elevator Pit	1	ls	$35,000	$35,000
Trench drain blockouts	150	lf	$20.00	$3,000
Mech Pads - Allowance	250	sf	$25.00	$6,250
A1030 - Slabs on Grade	23,280	GSF	$12.15	$282,900
Subtotal A10 Foundations	**23,280**	**GSF**	**$31.79**	**$739,965**
Subtotal A20 Basement Construction	**23,280**	**GSF**	**$0.00**	**$0**

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
B10 Superstructure				
CIP Structural Concrete				
Horizontal Structure				
Topping Slabs				
Slabs on metal floor deck (incl. reinforcing)	3,745	sf	$11.00	$41,195
CIP Structural Concrete	23,280	GSF	$1.77	$41,195
Structural Steel				
Floor & roof structure, beams, columns & BRB lateral system				
Floor Structure (15 psf allowance)	3,745	sf	$60.00	$224,700
App. Bay Roof Structure (15 psf allowance)	5,470	sf	$60.00	$328,200
Roof Structure, other (13 psf allowance)	12,830	sf	$52.00	$667,160
Metal Deck				
Floor decking	3,745	sf	$11.00	$41,195
Roof decking	12,830	sf	$9.00	$115,470
Acoustical roof decking @ App. Bay	5,470	sf	$16.00	$87,520
Miscellaneous Metals				
Misc. allowance - Area budget	23,280	gsf	$2.00	$46,560
Steel Fireproofing - None required				$0
Structural Steel	23,280	GSF	$64.90	$1,510,805
Subtotal B10 Superstructure	**23,280**	**GSF**	**$66.67**	**$1,552,000**
B20 Exterior Enclosure				
B2011, 12 - Exterior Wall Construction & Parapets				
Exterior Wall Assembly (GWB - Finish 1 Side, vapor barrier, mtl stud framing, batt insulation, sheathing, WRB, 2" rigid insul, z furring)	14,405	sf	$36.50	$525,764
Exterior wall finish				
Mixture brick (20%), metal panels (70%), phenolic (10%) - 75% ratio	14,405	sf	$46.80	$674,131
Exterior paint & sealants				

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Misc. caulking and sealants - Area budget	19,206	vsf	$1.50	$28,809
Building graphics				
Building identifying signage - Allowance	1	ls	$10,000	$10,000
Miscellaneous exterior enclosure costs				
Contractor support of 3rd party air barrier testing	1	ls	$5,000	$5,000
Mock up - None				$0
B2011, 12 - Exterior Wall Construction & Parapets	23,280	GSF	$53.42	$1,243,704
B2020 - Exterior Windows				
Fiberglass & aluminum storefront, std. insulated glazing, standard finish - 25% ratio	4,802	sf	$120.00	$576,180
B2020 - Exterior Windows	23,280	GSF	$24.75	$576,180
B2030 - Exterior Doors				
Glazed doors & entrances				
Storefront doors & hardware, per leaf	2	ea	$7,500	$15,000
ADA auto operator, per vestibule	1	ea	$10,000	$10,000
Solid exterior doors				
HM door, HM frame, and hardware	7	ea	$4,000	$28,000
Overhead doors				
Glazed, motorized @ App. Bay, 14' x 14' (includes fire station accessories)	5	ea	$30,000	$150,000
Glazed, motorized @ exercise and antique apparatus display	2	ea	$15,000	$30,000
B2020 - Exterior Doors	23,280	GSF	$10.01	$233,000
Subtotal B20 Exterior Enclosure	**23,280**	**GSF**	**$88.18**	**$2,052,884**
B30 Roofing				
B3010 - Roof Coverings				
Roof finishes & insulation				
Membrane roofing system w/ rigid insulation	18,300	sf	$24.00	$439,200
Flashings & sheet metal				

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Roof system flashing & rough carpentry	15%	on	$439,200	$65,880
Accessories				
Misc. (walk pads, rooftop ladders, etc…)	1	ls	$30,000	$30,000
Fall restraint anchors (allowance)	1	ls	$50,000	$50,000
B3010 - Roof Coverings	23,280	GSF	$25.13	$585,080
B3020 - Roof Openings				
Glazed roof openings - Allowance	1	ls	$25,000	$25,000
Roof hatch & ladder	1	ea	$10,000	$10,000
B3020 - Roof Openings	23,280	GSF	$1.50	$35,000
Subtotal B30 Roofing	**23,280**	**GSF**	**$26.64**	**$620,080**
C10 Interior Construction				
C1010 - Partitions				
GWB Partitions - 1 sf of wall assembly per building GSF allowance (GWB - Finish 2 Sides, mtl stud framing, sound batts)	23,280	sf	$17.50	$407,400
Premium - Fire rated, STC assemblies	15%	on	$407,400	$61,110
Misc. carpentry, blocking, & backing - Area budget	23,280	sf	$1.00	$23,280
Interior caulking & joint sealants - Area budget	23,280	gsf	$0.50	$11,640
Retractable partitions - None				$0
Interior windows and storefronts (% allowance on partitions)	5%	on	$407,400	$20,370
C1010 - Partitions	23,280	GSF	$22.50	$523,800
C1020 - Interior Doors				
Aluminum Storefront Doors, HW, Complete - None	4	ea	$5,000.00	$20,000
HM / SCW Dr, HM Frame, Hardware, Complete - per leaf (1 door per 375 building GSF allowance)	62	ea	$3,600.00	$223,200
Premium - Fire rated, special hardware	5%	on	$243,200	$12,160
C1020 - Interior Doors	23,280	GSF	$10.97	$255,360
C1030 - Fittings				

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Visual display specialties				
Marker boards - Allowance	1	ls	$10,000	$10,000
Toilet Partitions - None				
Toilet & Janitorial Accessories	23,280	gsf	$1.25	$29,100
Lockers & storage shelving - Allowance				
Gear lockers	1	ls	$60,000	$60,000
Metal storage shelving - OFOI				$0
Dorm wardrobes - Included with E20				$0
Identifying Devices				
Code signage - Area budget	23,280	sf	$0.25	$5,820
Wayfinding and room signage - Area budget	23,280	sf	$0.50	$11,640
General fittings and specialties				
FECs, corner guards, knox box, etc… - Area budget	23,280	gsf	$0.50	$11,640
C1030 - Fittings	23,280	GSF	$5.51	$128,200
Subtotal C10 Interior Construction	**23,280**	**GSF**	**$38.98**	**$907,360**
C20 Stairs				
C2010 - Stair Construction				
Pre-engineered metal stair (includes picket railings & concrete fill)	1	ea	$20,000	$20,000
CIP on grade stair railings	1	ls	$5,000	$5,000
Internal ramp railings	1	ls	$5,000	$5,000
C2010 - Stair Construction	23,280	GSF	$1.29	$30,000
C2020 - Stair Finishes				
Sealed Concrete (panfill tread & landings)	85	sf	$3.00	$255
C2010 - Stair Construction	23,280	GSF	$0.01	$255
Subtotal C20 Stairs	**23,280**	**GSF**	**$1.30**	**$30,255**
C30 Interior Finishes				

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
C3010 - Wall Finishes				
Paint to walls, doors, frames and misc. - Area budget	23,280	sf	$5.00	$116,400
Other Wall Finishes (Restroom Wall Tile, Stainless Panels in Dec	23,280	gsf	$7.50	$174,600
C3010 - Wall Finishes	23,280	GSF	$12.50	$291,000
C3020 - Floor Finishes				
Floor finish and wall base allowance (mixture of resilient, carpet, polished concrete, sealed concrete)	23,280	gsf	$7.50	$174,600
C3020 - Floor Finishes	23,280	GSF	$7.50	$174,600
C3030 - Ceiling Finishes				
Ceiling finish allowance (mixture of ACT, gwb, painted open structure & accent in lobby / community)	23,280	gsf	$8.00	$186,240
C3030 - Ceiling Finishes	23,280	GSF	$8.00	$186,240
Subtotal C30 Interior Finishes	**23,280**	**GSF**	**$28.00**	**$651,840**
D10 Elevator				
D1010 - Elevators & Lifts				
Passenger Elevator,hydrailic	2	stps	$65,000	$130,000
D1010 - Elevators & Lifts	23,280	GSF	$5.58	$130,000
Subtotal D10 Conveying Systems	**23,280**	**GSF**	**$5.58**	**$130,000**
D20 Plumbing				
Plumbing system complete w/ compressed air systema and trench drains in App. Bay	23,280	gsf	$30.00	$698,400
Subtotal D20 Plumbing	**23,280**	**GSF**	**$30.00**	**$698,400**
D30 HVAC				
HVAC system complete	23,280	gsf	$50.00	$1,164,000
Source capture exhaust systems	1	ls	$150,000	$150,000
Subtotal D30 HVAC	**23,280**	**GSF**	**$56.44**	**$1,314,000**

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
D40 Fire Protection				
Sprinkler system - Building area budget	23,280	gsf	$6.00	$139,680
Subtotal D40 Fire Protection	**23,280**	**GSF**	**$6.00**	**$139,680**
D50 Electrical				
Electrical & low voltage systems complete	23,280	gsf	$50.00	$1,164,000
Generator & Transfer Equipment (500kW)	1	ls	$250,000	$250,000
A/V Systems (rough-in included above)	1	ls	$40,000	$40,000
FAST (Fast Alerting System)	1	ls	$50,000	$50,000
Photovoltaic system - Allowance	1	ls	$150,000	$150,000
Subtotal D50 Electrical	**23,280**	**GSF**	**$71.05**	**$1,654,000**
E10 Equipment				
E1020 - Institutional Equipment				
Audio-visual equipment - Included in D50				$0
Extractor & turnout gear dryer	1	ls	$45,000	$45,000
E1020 - Institutional Equipment	23,280	GSF	$1.93	$45,000
E1090 - Other Equipment				
Maintenance equipment				
Shop equipment - OFOI				$0
Residential equipment				
Kitchen appliance package (includes type 1 hood)	1	ea	$55,000	$55,000
Break area appliance package	1	ea	$5,000	$5,000
Laundry washer & dryer package	2	ea	$5,000	$10,000
E1090 - Other Equipment	23,280	GSF	$3.01	$70,000
Subtotal E10 Equipment	**23,280**	**GSF**	**$4.94**	**$115,000**

BUILDING ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
E20 Furnishings				
E2010 - Fixed Furnishings				
Fixed Casework				
Kitchen casework with solid surface counters	1	ls	$40,000	$40,000
Break area	1	ls	$10,000	$10,000
Decon	1	ls	$15,000	$15,000
EMS	1	ls	$10,000	$10,000
Dorm wardrobes (2 per FF/ Capt. Sleep)	18	ea	$2,000	$36,000
Misc. TBD - Area budget	23,280	gsf	$2.00	$46,560
Blinds & other window treatment				
Roller shades, manual	4,802	sf	$20.00	$96,030
Blackout shades @ Dorms	112	sf	$15.00	$1,680
E2010 - Fixed Furnishings	23,280	GSF	$10.97	$255,270
E2020 - Moveable Furnishings				
EXCLUDED				
E2020 - Moveable Furnishings	23,280	GSF	$0.00	$0
Subtotal E20 Furnishings	**23,280**	**GSF**	**$10.97**	**$255,270**
Subtotal F10 Special Construction	**23,280**	**GSF**	**$0.00**	**$0**
Subtotal F20 Selective Building Demolition	**23,280**	**GSF**	**$0.00**	**$0**

SITEWORK ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00	General Sitework Requirements	25,000	SGA	$5.59	$139,800
G10	Site Preparation	25,000	SGA	$2.34	$58,500
G20	Site Improvements	25,000	SGA	$21.84	$545,895
G30	Site Civil / Mechanical Utilities	25,000	SGA	$6.85	$171,270
G40	Site Electrical Utilities	25,000	SGA	$3.20	$80,000
G50	Other Site Construction	25,000	SGA	$0.00	$0
Sitework Direct Construction Costs Subtotal					**$995,465**
Estimating / Design Contingency		20.0%	on	$995,465	$199,093
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$1,194,558	$83,619
Total Sitework Construction Cost (Today's Dollars)					**$1,278,177**

SITEWORK ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00 General Sitework Requirements				
Mobilization	1	ls	$47,000	$47,000
Temporary Construction Fencing	830	lf	$10.00	$8,300
Traffic control	13	weeks	$6,500	$84,500
Subtotal G00 General Sitework Requirements	**25,000**	**SGA**	**$5.59**	**$139,800**
G10 Site Preparation				
G1010,20 - Site Clearing & Demolition				
Building demolition				
Remove existing bank building				*Incl. on Summary*
G1010,20 - Site Clearing & Demolition	25,000	SGA	$0.00	$0
G1030 - Site Earthwork (MacKay Sposito Estimate)				
Site grading & excavation				
Clearing & grubbing				
Earthwork - Cut w/ export	1,700	cy	$25.00	$42,500
Earthwork - Fill onsite	300	cy	$40.00	$12,000
Erosion Sediment Control	1	ls	$4,000.00	$4,000
Site Shoring - None				$0
G1030 - Site Earthwork	25,000	SGA	$2.34	$58,500
G1040 - Hazardous Waste Remediation				
Hazardous materials abatement of existing building to be demolished (minor)				*Incl. on Summary*
Removal of Contaminated Soil - Allowance				*Excluded*
G1040 - Hazardous Waste Remediation	25,000	SGA	$0.00	$0
Subtotal G10 Site Preparation	**25,000**	**SGA**	**$2.34**	**$58,500**
G20 Site Improvements				
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving				
Enhanced public plaza	1	ls	$85,600	$85,600
Cement concrete curb	326	lf	$32.00	$10,432

SITEWORK ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
8" reinforced concrete apron	6,200	sf	$25.00	$155,000
Pavement striping	1	ls	$500.00	$500
Hot mix asphalt	40	ton	$160.00	$6,400
Concrete sidewalk	600	sy	$100.00	$60,000
Crushed rock base course	200	cy	$70.00	$14,000
Additional ROW improvements	1	ls	$100,000	$100,000
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving	25,000	SGA	$17.28	$431,932
G2040 - Site Development				
Allowance - (monument sign, fencing, site furnishings, etc…)	25,000	gsf	$2.00	$50,000
Misc. structures				
Trash enclosure	1	ls	$15,000	$15,000
Generator enclosure	1	ls	$25,000	$25,000
G2040 - Site Development	25,000	SGA	$3.60	$90,000
G2050 - Landscaping (MacKay Sposito Estimate)				
Allowance	1	ls	$23,963.00	$23,963
G2050 - Landscaping	25,000	SGA	$0.96	$23,963
Subtotal G20 Site Preparation	**25,000**	**SGA**	**$21.84**	**$545,895**
G30 Site Civil / Mechanical Utilities				
G3010 - Water Supply (MacKay Sposito Estimate)				
New domestic & fire water service	1	ls	$38,000	$38,000
G3010 - Water Supply	25,000	SGA	$1.52	$38,000
G3020 - Sanitary Sewer (MacKay Sposito Estimate)				
New sanitary sewer services	1	ls	$42,420	$42,420
Grease interceptor - See add alternate	1	ls	$15,000	$15,000
Oil / water interceptor	1	ls	$10,000	$10,000
G3020 - Sanitary Sewer	25,000	SGA	$2.70	$67,420
G3030 - Storm Sewer (MacKay Sposito Estimate)				
Drain lines, catch basins, etc…	1	ls	$65,850.00	$65,850

SITEWORK ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Stormwater treatment & infiltration / detention				*Not Required*
G3030 - Storm Sewer	25,000	SGA	$2.63	$65,850
Subtotal G30 Site Civil / Mechanical Utilities	**25,000**	**SGA**	**$6.85**	**$171,270**
G40 Site Electrical Utilities				
G4010 - Electrical Distribution				
Electrical utility	1	ls	$40,000	$40,000
Electric vehicle chargers - None				$0
Site Power (reader board, etc…)	1	ls	$15,000	$15,000
G4010 - Electrical Distribution	25,000	SGA	$2.20	$55,000
G4020 - Site lighting				
None (building mounted)				$0
G4020 - Site lighting	25,000	SGA	$0.00	$0
G4030 - Site communication & security				
Tele/Data utility	1	ls	$25,000	$25,000
G4030 - Site communication & security	25,000	SGA	$1.00	$25,000
Subtotal G40 Site Electrical Utilities	**25,000**	**SGA**	**$3.20**	**$80,000**
Subtotal G50 Other Site Construction	**25,000**	**SGA**	**$0.00**	**$0**