MACKENZIE.

Monroe Police Department

Facility Assessment

June 26, 2024

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PROJECT TEAM

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- Paul Ryan - Commander | City Project Manager
- Deborah Knight - City Administrator
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MACKENZIE

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PROJECT INTRODUCTION

The City of Monroe selected Mackenzie to assist with an evaluation of the existing conditions and address deficiencies of the current facility and work with City staff to determine the operations-based needs for future facility planning.

The objective is to develop a facility to better meet the City's needs and goals; provide a more efficient operational model and layout; better align with the current space demand for the City's Police Department; and allow for future prospective staff and facility growth. Included in the study was the development of a conceptual floor plan and site design for the current site and two additional sites (210 Kelsey Street & 599 W Columbia Street), with input received through the stakeholder team; an estimation of anticipated project costs, inclusive of construction, consultant, and owner costs needed to fund the project for the city's consideration. The project has been conceived as a build-out to meet the needs of the Police Department for the next 20 plus years and provide functionalities common to a modern police facility.

Mackenzie, a Pacific Northwest firm established in 1960, provides an integrated design approach to projects, including architecture, structural engineering, landscape architecture, civil engineering, land use planning, transportation planning and interior design services. Mackenzie's Public Projects team specializes in municipal and emergency response facility design, space needs evaluations, and bond campaign assistance. In the past decade, Mackenzie has worked on publicly funded projects in Oregon and Washington for more than 50 counties and municipalities, providing design and engineering services for more than 85 fire facilities, 70 law enforcement facilities and 20 municipal office buildings.

The existing Monroe police department building is a one-story structure constructed in 1993. It was built along a generally flat site within the Monroe municipal campus and is adjacent to the original City Hall, now under construction for the future Administrative and Justice Building. It measures an estimated total of 9,500 SF and is about 28 feet tall from the ground to the roof ridge.

The existing site contains four existing buildings that currently function as Monroe City Hall, Monroe Police Station, a garage storage area, and a shed, with landscaping along the Main Street frontage and parking area. The site includes surface parking along the exterior boundary and an interior lot secured south of City Hall.

The goal and process of this study was structured to determine existing space and operational challenges and determine the 20 year needs forecast for the department. The evaluations of the existing facility included observations of the facilities and grounds (and review for compliance with current Building Code, ADA Accessibility, NFPA standards and WAC administrative code requirements), and review of reference drawings of the existing facility. Additionally, an ASCE 41 structural assessment was conducted of the existing facility to evaluate the building's deficiencies in terms of seismic performance.

The information contained within this report provides a detailed overview of Mackenzie's work with the City of Monroe Project Team and Police Department. All steps involved in this process have been documented and organized based on the associated task, and are contained within the pages of this report for the City's consideration.

Project Background

Public facility design, specifically police facilities, are unique in that the building and all its functions are tools integral to the effective and efficient enhancement of agency operations and safety. Law enforcement design focuses on functionality, and its critical role in meeting the stringent requirements associated with protection and security of the building, its staff, and the community served. Jurisdictional, state, and federal criteria for safety, security and operational procedures drive these requirements and invariably impact design considerations and cost. These criteria ensure that this facility is not only able to improve operational efficiency on a day-to-day basis, but is capable of evolving over the life of the building, resisting and responding to emergency events, providing critical services for the citizens of Monroe, enhancing the built environment with a civic presence reflective of the surrounding area, and encouraging investment in the community.

EXECUTIVE SUMMARY

The following report encompasses the primary tasks requested by the City of Monroe to determine the feasibility of a replacement facility in meeting the criteria stated above including:

1. Existing Conditions Evaluation

2. Programming and Workshops

3. Facility Tours

4. Site Selections | Evaluation

5. Conceptual Design

6. Project Cost Development

Process and Methodology

Mackenzie employed programming, communication, consensus-building, and goal-setting techniques to ensure that the final report meets the expectations of the stakeholders involved in the process. Using a multidisciplinary approach, extensive public project experience, and lessons learned on previous police and public building projects, the team provided architectural, structural, space planning, site planning and land use planning services to meet the project objectives and deliverables.

Mackenzie worked with the City of Monroe to support and strengthen dialogue between the Design Team and the City stakeholders.

Task #1: Existing Conditions Evaluation

Mackenzie toured the existing facilities to examine and document the current space deficiencies, operations, structural, mechanical, electrical, and plumbing deficiencies of the existing facility as it pertains to design requirements for an essential facility. This evaluation set the stage for future programming dialogue around operational requirements, department culture, and required adjacencies—both those indicative of law enforcement facilities in general as well as those unique to the City of Monroe. The preliminary focus of this task was to concentrate on examination and documentation of existing infrastructure, access and current circulation, secure and public parking, ADA compliance, life safety compliance and additional land use regulatory requirements.

Task #2: Programming and Workshops

Mackenzie worked closely with the City of Monroe Police Department to carefully identfy the current space needs and project those needs out based on a 20-year forecast. To do so, Mackenzie guided the City & Police Department through the process of space needs identification and required space allocations. From that, the Design Team developed a program matrix that identified the required spaces, their approximate size and amenities to be provided within them. In addition to the primary functional space of the facility, the team projected circulation space and requirements for utilitarian areas, such as mechanical, electrical, and data room spaces to comprise a complete, comprehensive programming document. Evaluation of the space needs program determined that a facility of approximately 27,800 square feet would be necessary to both right size the building to current needs and to allow for 20-year growth of the Police Department.

The programming process also included a discussion of site-related requirements identified during the staff interviews (secure parking, public parking, staff patio area, trash | recycling, emergency generator, etc.) to determine an appropriate site area able to accommodate both building and site program elements. Projections indicate a 20-year demand for approximately 50 paved parking stalls for the public, 12 secured covered spaces for squad vehicles, and 64 uncovered secured spaces for squad vehicles.

Conclusion:

Key building deficiencies:

- Insufficient space for on-duty patrol vehicles and cross traffic with public works vehicles and patrol vehicles.
- Current facility is not in compliance with current America with Disabilities Act (ADA) code.
- Insufficient secure storage space.
- Evidence storage is not in temperature-controlled environment (failing insulation, air | water infiltration).
- Lack of visual and audio privacy throughout facility (interview rooms, conference rooms, etc).
- Soft interview rooms are located within secure space (juveniles and victims need to be walked through secure areas).
- Armory and weapon's cleaning are not located adjacent to each other.

- Security vulnerabilities present risk to visitors and staff.
- Building does not meet the requirements of the current building code for an essential facility, nor passes all of the ASCE 41 Seismic Evaluation.
- Evidence Building and Training Facility do not have fire protection.

Task #3: Facility Tours

The City of Monroe arranged tours of three comparable law enforcement stations with key staff. Facilities were selected that are similar to Monroe based on size and specific program elements. The intent of these tours was to observe recently completed facilities, learn how those agencies developed the design to meet their needs, and challenge high-level assumptions considered during workshops. While on these tours, particular attention was given to the flow of spaces, durability of materials and finishes used, and how the building was aging. These tours further test assumptions made during programming, as observation of the layout of a space or size of a room will sometimes adjust expectations of space allocation or confirm the layout of furniture and equipment. Lessons learned and items in need of refinement were discussed at the conclusion of the tours and relevant items were clarified in the program as a final approved document.

Conclusions:

- Adequate storage in facilities.
- Visual access from patrol to holding area.
- Large evidence processing areas.
- Large, open fitness and defensive tactics area.

Task #4: Site Selection | Evaluation

After programming confirmation, Mackenzie worked with stakeholders to develop a list of five (5) possible sites potentially suitable for development. An additional site (599 W Columbia Street) was also added later in this process. Each site was evaluated using selection criteria developed by Mackenzie and in alignment with International Association of Chief Police (IACP) guidelines. Evaluation criteria included zoning impacts, geographic considerations, site access, public presence, and compatibility with neighborhood, location, proximity to other city | government functions, site development costs, property availability, expansion opportunities and ability to meet program requirements.

Based on this process, and utilizing programming and costing data, adjacency requirements and operational necessities, the City of Monroe and Mackenzie identified the existing site (Site 1), 210 Kelsey Street (Site 3) and 599 W Columbia Street (Site 6) as best suited to meet the needs of the Police Department.

Each of these three sites were conceptually developed to test and demonstrate application of building site and building programmatic needs. Of the three sites, the existing campus site required demolition of the existing Police Station building and consideration of a new two story building in order to maximize secure parking needs, access and interaction with the Administration and Justice Wing. Sites at 210 Kelsey Street and 599 W Columbia Street were found to be large enough to support a single story building option and supporting parking needs.

Site 1 - Existing Police Site

Pros:
- Existing Site - can utilize existing utility connections and access points
- Located off a main road, multiple access | egress points
- City of Monroe owns current site and adjacent site, permitted for government use & retains existing adjacency to other city functions

Cons:
- Undersized for program and parking needs
- Building will need to be completely demolished, requiring displacement of police operations
- Construction site requires two-story structure
- Construction may impact utility services to Administrative and Justice Wing

Site 2 - North Kelsey Retail Area:

Pros:
- Relatively flat
- Near commercial activities
- Large enough to accommodate program functions
- Access to major road | hwy
- Available site utilities likely
- Owned by City of Monroe

Cons:
- Not Permitted Outright, will require LID's ($)
- Multiple parcels; city only wishes to explore lots on the edge which may not be feasible | lead to disjointed structures.

Site 3 – School District Football Field:

Pros:
- Site is well proportioned and shaped, virtually flat and well graded (Single parcel)
- Near commercial activities
- Well sized, nearly double required acreage
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

Cons:
- Proximity to residences, buffer area likely needed to the North and South
- High cost of half street improvements through site

Site 4 – North of Existing Walmart

Pros:
- Near commercial activities
- Single parcel, well sized, nearly double required acreage
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

Cons:
- Site is not owned by the City of Monroe
- Pricing and availability unknown
- Not directly accessible by major roads
- Variations in grading

Site 5 – West of Existing Walmart

Pros:
- Site is owned by City of Monroe
- Near commercial activities
- Single parcel
- Oversized
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

Cons:
- Not directly accessible by major roads
- Variations in grading
- Partial wetland on site
- Site was previously a landfill and may have questionable soil
- Partial wetland presence
- Tree line cuts through site

Site 6 – School District Baseball Field

Pros:
- Site is proportioned and regular in shape
- Site is virtually flat and well graded
- Near commercial activities
- Single parcel
- Site likely to support single story programming
- Site can support program parking
- Site can support growth
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

Cons:
- Proximity to residences, buffer area likely needed to the North and South
- No current street access points
- High cost of street improvement through site
- Site larger than required for project program

Task #5: Conceptual Design

Building upon the programming data and the approved site test fit, Mackenzie developed two adjacency floor plan diagrams and reviewed those with Police and City staff (single level & two level options). Once the Police and the City staff selected an adjacency floor plan diagram, a more formalized and defined floor plan was created that met the operational necessities of the Police Department. The individual site plans were simultaneously refined as a part of this process.

Task #6: Project Cost Estimate

Based on the final concept designs, Wiggins Preconstruction Services developed a Statement of Probable Cost for the updated facilities and the associated site improvements. These cost projections are comprised of the opinion of costs related to the anticipated raw construction costs

and general contractor margins based on a publicly funded project requiring prevailing wage rates for construction.

In conjunction with the development of the construction costs, Mackenzie prepared cost forecasts for consultant costs, including architectural | engineering fees, construction management fees, special inspections, and geotechnical inspections. Mackenzie worked with the City to evaluate and compile potential owner costs, including fixtures, furnishings and equipment; lockers and shelving; moving costs; and applicable permit fees. A final cost matrix has been prepared that provides a comprehensive look at all anticipated costs associated with the project, summarized to reflect the construction cost, consultant costs and owner costs.

Note: a single level floor plan at the existing campus site would necessitate removal and relocation of two existing buildings, along with parking lot and vehicle access areas that are currently utilized by Parks and Public Works maintenance and operations.

Next Steps:

- Determine preferred site (1, 3, or 6)
- Determine funding mechanism

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Existing Conditions Evaluation

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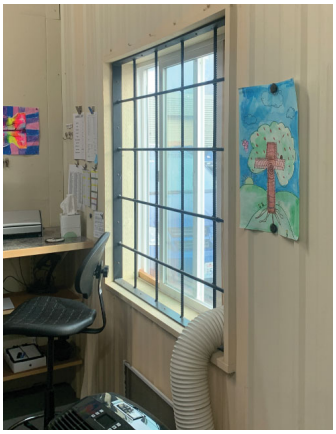
EXISTING FACILITY ASSESSMENT

SITE AND PROJECT DESCRIPTION

The subject site contains four existing buildings that currently function as Monroe City Hall, Monroe Police Station, a garage storage area, and a shed, with landscaping along the Main Street frontage and parking area. The site includes surface parking along the exterior boundary and an interior lot south of City Hall.

SITE OVERVIEW

Jurisdiction:	City of Monroe
Address:	806 W Main Street
Tax Lot ID:	27060100301900
Site Size:	3.69 AC (Approx. 160,736.4 SF)
Building Area:	Approx. 28,450 SF
Owner:	City of Monroe
Current Base Zone:	MN (Mixed Use – Neighborhood)
Comprehensive Plan Designation:	MU (Mixed Use)



1. EVIDENCE STORAGE

- Security improvements needed at doors and windows.
- Unfinished HVAC venting at storage. Temperature control issues.
- Water damage at evidence storage ceiling. Water infiltration at garage doors. Rusting at exterior finishes.
- Stairs to mezzanine not ADA compliant.

2. GARAGE AND MAT ROOM

- Damage to insulation and all exposed finishes due to weather exposure, deposits from birds and rodents. Space is non-conditioned and open to exterior elements.
- Limited gym space, officers use facilities at nearby fire station. Existing MAT Room lacks storage space and proper clearances for utilities.

3. SECURE PARKING AND IMPOUND LOT

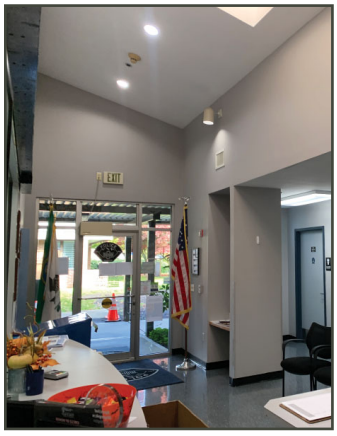
- Impound has more vehicle spaces than needed and lacks overhead rain protection. Water pools from adjacent building to concrete pad.
- Tow trucks bringing impounded vehicles to the police station block the emergency access drive meant for police and fire vehicles.

4. OFFICE AREAS

- Clerestory windows cause harsh glares on computer screens at open office area. Temperature control and lighting are issues for occupants.
- The open briefing area is sized insufficiently and lacks privacy.
- Windows at Chief and Deputy offices are adjacent to public space and have no ballistics protection. Chief's office has multiple doors and acts as a pass-through for other offices.

5. LOBBY | LOCKERS AND RESTROOMS

- Countertops and work stations in lobby not ADA compliant. Lack of adequate turning radius in lobby at sign-in vestibule.
- Existing showers are not ADA compliant. Non-used shower stalls are utilized for storage.
- The facility lacks an emergency vestibule for crisis situations.



6. INTAKE AND HOLDING

- Inactive holding cells are utilized for storage.
- City employees and detainees use same fingerprint equipment in intake area within the secured space.
- Weapon maintenance is accessed off of the intake room.

7. STORAGE AND SUPPORT SPACES

- Department has had to purchase storage sheds to accommodate for lack of adequate storage. Excess holding cells, restroom stalls and open office space have also been converted to storage.
- Storage needs to include, but are not limited to; locked file storage, training equipment storage, secure specialty equipment storage and temperature controlled evidence storage.

8. GENERAL DEFICIENCIES

- Numerous acoustical ceiling tiles are missing | damaged throughout the facility. Multiple locations of worn or missing carpet tile throughout the facility.
- Lack of privacy both visual and audio for confidential information due to open office layout, lack of public spaces and public circulation.
- Insufficient spacing for on-duty cars and emergency response egress.

EVALUATION OF DEFICIENCIES

ARCHITECTURE

Mackenzie performed an analysis of the existing facility and the deficiencies therein. The majority of concerns raised were inadequate security and access control, limited storage space, water infiltration at auxiliary spaces, temperature control | lighting deficiencies and the separation of public and private | secure spaces. Please see the following for specific architectural findings from our site evaluation.

Evidence Storage:

- Temperature control issues are prevalent throughout this space due to failing insulation and air | water infiltration from overhead doors and rodent damage. Evidence area lacks running water needed for hygiene and safety purposes when handling incoming evidence. Drying racks and biohazard storage require power.
- Stairs to storage loft are not in code compliance. This loft is undersized and cannot accommodate for future growth, materials in this area need to be stored for 99 years. Booking and storage buildings are exposed plywood, roof structure is exposed.

Impound Lot:

- The impound lot has space for 7 cars with operable gates to each space. The gates at the impound lot open directly to a road used for both police and fire emergency response. Lot consists of gravel ground and concrete utility pads with no overhead covering.
- Gutters from the surrounding evidence room drain off the stem wall into this lot and pool at the concrete pad leaving rust and algae deposits.

Garage:

- No doors at garage leaving space completely open to the elements. Damage to insulation and all exposed finishes due to weather exposure, deposits from birds and rodents and gunfire. This space is used for storage for ATVs, bicycles and motorcycles in addition to materials for target practice. Water infiltration occurs at garage door opening.

Wellness Room:

- The Wellness Room is the only on-campus fitness space for the entire facility. Officers utilize fitness equipment at the fire department. Walls are finished with gyp board up to low point of roof structure and an FRP finish to +/- 8’-0” above finish floor. Finish floor shows rust at exposed concrete and is covered with padding for combat training. Hot water heater and electrical panel are exposed and do not have adequate utility clearances per code.

EVALUATION OF DEFICIENCIES

POLICE BUILDING:

Open Office Areas:

- Noise transfer issues throughout open offices and adjacent areas, mainly the interview room and conference room.
- Lack of privacy both visual and audio for confidential information due to open office layout and public circulation. Windows from enclosed office spaces look into open office area are shielded by blinds for privacy.
- Clerestory windows cause lighting and heat transfer issues. Battery powered shades previously installed are difficult to maintain at the specified height and are no longer operational. Overhead task lighting used to compensate for lighting inefficiencies.
- Steel gate installed near copy area is not in use. Copy area does not have secured file storage for confidential documents.

Support Services:

- Soft interview room is missing ceiling tiles. Juveniles and victims need to be brought through secured space and multiple office spaces in order to reach this space. Privacy and audio issues are paramount, staff has set up a white noise machine to mitigate sound transfer.
- Lack of secured storage for high value equipment. Some open work stations and utility | tech closets are used for storage.
- Support Services office suite is adjacent to holding cells and experiences issues with noise transfer.

Deputy, Chief and Commander Offices:

- Non-ballistic rated windows in offices share direct access to public parking, better security needed.
- Multiple access doors to Chief's office limits privacy.
- Chief's office contains cabinetry and sink not necessary for office space.

Armory | Weapon Cleaning:

- Armory and Weapon Cleaning spaces are placed on opposite ends of the building. Circulation from one room to the other involves crossing through the detective's office suite and open office area.
- Armory is currently located in the criminal investigations department office and is not easily accessible to commissioned staff.
- Armory requires air filtration, exhaust and protective insulation, humidity is a current concern. The space is currently in disrepair with wall finishes scuffed and stripping from wall.
- Weapon Cleaning area is adjacent to intake | fingerprinting area. This is in the secured area but is often accessed by the public so safety is a concern.

EVALUATION OF DEFICIENCIES

- Casework in current Weapon Cleaning room is not secured and door swings | drawer pulls are not functional. This room requires proximity to the exterior due to the air pressurization, debris and exhaust caused by the equipment.

Intake and Holding Cells:

- Intake and fingerprinting area shared by public, city staff and detainees. Separate areas preferred, one towards public access and one towards secure | holding cells. Fire Sprinkler Controls are accessed off intake area.
- This space currently holds 6 holding cells, only 3 are in use, the remainder are used as storage. One holding cell had a cuff transfer access panel built into the door, this will be useful for all holding cells. One of the non-used holding cells contains a shower which is not in use.
- Priority items for holding cells include, but are not limited to: surveillance and security, access control flushing, damage resistant finishes, floor drains and sound attenuation.

Break Room and Lobby:

- The facility lacks an emergency vestibule for crisis situations.
- The delegated public area is not fully compliant with accessibility standards. Accessible counter space and work stations are needed for filling out forms.
- Multi-use restrooms have been converted to gender neutral single-use restrooms. Each restroom has two fixtures, yet only one can be used at a time. The restroom lock system does not have an override for crisis scenarios.
- There are currently no publicly accessible spaces for: private phone calls and interviews, secure property storage, a meeting room or a workstation.
- The current Break Room lacks sufficient pantry space, casework and food prep space. There is a large electrical closet directly off the Break Room with concerning proximity to water coolers and possible ‘wet’ spaces. The Break Room is currently the facility’s only shared recreational space.

STRUCTURAL

- A visual observation of the structure and a review of existing drawings were conducted, and the full report in the appendix of this document details the findings. An ASCE 41-17 Tier 1 seismic evaluation of the Police Building was performed using standard checklists, with the exception of non-structural checklists. Non-structural elements are not included in the scope of this report and should be evaluated in a later phase of the project.
- Due to the police function, the building is classified as Immediate Occupancy, meaning that the building performance metric for the evaluation is that it should be able to be immediately occupied following a major seismic event with only cosmetic damage. This

EVALUATION OF DEFICIENCIES

classification is consistent with the intent of the new building code in its designation of newly constructed police stations as “Essential Facilities.”

- In summary, the building is in fair condition and no major retrofits or repairs appear to be required by code at this time if no modifications are to be made to the building. However, since the building was designed to an old code, it does not appear to meet the requirements of the current building code for essential facilities, nor does it pass all of the ASCE 41 checks for Immediate Occupancy. Retrofits are likely needed in order to qualify the building for Immediate Occupancy. This work includes but is not limited to strengthening of shear walls, new and upgraded lateral force resisting connections, and possible soil improvements and | or foundation strengthening to mitigate liquefaction hazards. This retrofit work can be pursued on a voluntary basis, or it may be required by code if a substantial alteration is triggered due to other renovations or additions to the building.

SITE CIVIL

Evidence Building

- Gutters have holes in them at multiple locations. Water is leaking down the siding and pools at the top of the foundation stem wall. Due to improper flashing, it leaks underneath the siding and gets absorbed by the insulation and seeps into the interior of the Evidence Storage building.
- Asphalt pavement is cracked at this corner of the building and slopes towards building. Foundation slab is partially exposed, flashing is subpar, evidence of historical water damage.

Police Building

- Asphalt pavement cracked and slopes towards building foundation slab. Clear signs of historical water damage. Moss has overgrown much of the area. Adjacent rain leader is contributing to the damp environment. Should be tightlined into catch basin, but the associated building appears to be marked for demolition as part of the new City Hall.
- Rain leaders along the west side of the building are tightlined to the existing storm system located within the central parking lot. At the surface level the drainage seems adequate and there were no signs of water damage.
- This CB marks the point of connection to the downstream storm system for all pipes and catch basins servicing the police department building and central parking lot. Storm water is collected and routed south along the west side of the building. At Village Ct it then heads east to this point shown. From here all stormwater from the parking lot to the north, the central lot, and police department heads south.

MEP DEFICIENCY REPORT

MECHANICAL

Existing Conditions

- BCE Engineers, Inc. performed a mechanical assessment of the existing Monroe Police Department at 818 W. Main Street in Monroe, WA. The physical walkthrough occurred on October 26th, 2023. The assessment noted the existing mechanical related items, including plumbing, HVAC, and fire protection systems. The buildings assessed were the main police building, the evidence building, and the training building.

Main Police Building

- The existing police building is approximately 9,400 square feet.

- A mechanical room is located on the Northwest side of the facility and contains the building's main water heater and the hydronic heating system (boiler, pumps, expansion tank, etc.). The fire sprinkler riser and the cold water header enters the building on the west side and is located in cabinetry in the "Booking Room". The fire sprinkler system has a main double check backflow preventor as well as a smaller bypass double check backflow preventor with meter. The main domestic water pipe does not have a backflow preventor and it was undetermined if there is a site double check backflow preventor.

- The main water heater is gas-fired, natural draft (about 85% efficient) and appears to have been replaced about 10 years ago. The hot water piping system appears to be all copper except the connections at the water heater which are galvanized steel. It is assumed that the original building was built with galvanized piping and then retrofitted with copper at some time. There is a good chance that there are other parts of the building that have some galvanized pipe which may be closing up due to corrosion.

- The main domestic water pipe has a pressure reducing valve on it, so pressure is good. If fixtures start losing flow due to corrosion in the galvanized pipe, the pressure could be turned up at the pressure reducing valve. No other evidence was found in the rest of the building that galvanized pipe was outside of the main mechanical room. The circulation pump has been recently replaced. It was reported that the plumbing fixtures were replaced 6 years ago. The whole facility has institutional grade fixtures that are in good shape. The water closets and urinals have flush valves.

- The holding cells have proper stainless steel penal plumbing fixtures. All of the holding cell plumbing piping is located within secure plumbing chases. The water heater should have about 10 years of life left. Assuming that most of the piping system was replaced more recently, there should be around 30 years of life remaining on the domestic water system besides the water heater.

MEP DEFICIENCY REPORT

- There is no fire sprinkler header water pressure gauge. The domestic cold water header has a pressure reducing valve and a pressure gauge showing about 55 PSI after the pressure reducing valve. The fire sprinkler system is a wet system. The piping is steel and appears to be adequately sized for this facility. The sprinkler heads appear to be original to the building which puts them at approximately 30 years old. Sprinkler heads are to be replaced at 50 years old, so there is less than 20 years of life left on the sprinkler heads. The rest of the system should have at least 20 years of life also so minor modifications can be done with a remodel.

- The heating, ventilation, and air conditioning system (HVAC) on the building is provided by an exterior variable volume air handler (VAV) with hydronic heating coil and a split system refrigerant (DX) cooling coil. The interior VAV terminals are shut-off style terminals with hydronic reheat coils to provide zone comfort. Each shut-off terminal has an adjustable thermostat. The split outdoor condensing unit does not have its proper clearances for heat rejection. A single boiler is located in the main mechanical room. It is approximately 80% efficient and is naturally aspirated.

- There appears to be proper combustion air louvers for the boiler. The heating water pump motor and balance valve has been recently replaced. According to maintenance staff, they have trouble providing proper zone control with the current system due to failing equipment. The VAV main air handler and DX condenser is approximately 10 years past its service life. The boiler | heating water system is right at its listed lifespan. According to maintenance staff, the air handler system is planned to be replaced within a year. Hydronic systems for this sized building are expensive (per square foot). Before the air handlers are replaced, it should be considered to replace the entire HVAC system because the hydronic system is at its service life.

- For this size of a building, it is recommended to replace the current system with a variable refrigerant flow (VRF) heat pump system with a dedicated outside air system (DOAS) for ventilation. This is a highly efficient, cost effective HVAC system for this size of building that will have very good zone control.

Evidence Building

- The existing evidence building is a “warehouse” style building with minimal heat and ventilation. The HVAC system consists of a gas-fired, high intensity radiant heater, a wall prop fan for ventilation, a ceiling fan for air circulation, a split system heat pump unit, and a portable dehumidifier. The radiant heater and prop fan appear to be original to the building (30 years old?). The split system heat pump appears to be added within 10 years. There is also a portion of the building that does not have any HVAC equipment. There is approximately 10 years of service life with most of the equipment. However,

the conditioning of the space is minimal. If more precise conditioning is desired, all of the equipment should be replaced with properly sized equipment.

- There is no domestic plumbing or fire sprinklers in the Evidence Building.

Training Building

- The Training building is attached to the Evidence Building and is the same "warehouse" style building. These buildings share a gas meter and gas piping. The HVAC system consists of a gas-fired unit heater with no formal ventilation. The unit heater looks to be installed within 10 years and should have at least 10 years of service life left. Domestic water service comes from "Joe's Shop" which is a separate building that was not assessed. There is an isolation valve in the wall with an access panel. An electric water heater and utility sink was installed approximately 10 years ago. All of the domestic water piping and waste piping is exposed to view. The plumbing fixture and water heater should have at least 15 years of service life.

- There are no fire sprinklers in the Training Building.

ELECTRICAL

Site Electrical

- The existing site electrical system appears to be in adequate condition.

- Site lighting consists of pole mounted fixtures in the parking area on the east side of the building and wall-mounted fixtures for the interior courtyard parking spaces. It was reported that lighting levels were low in the courtyard parking area.

- The existing backup generator at the SE corner of the campus is well past its expected life and leaking fluid. There are concerns from maintenance staff that it may not fire up during a power outage.

Evidence Storage and Training Building

- Lighting within the building consists of fluorescent fixtures that have been retrofitted with LED tubes. Controls are limited to manual switches with no automatic shut-off or dimming devices.

- Power panels (loadcenter style) are located in the NE and SE corners of the building. These are fed from the to-be-demolished Maintenance building that's directly to the North. Devices appear to be in adequate shape.

- The building has a Sonitrol Access Control System that is functional. A small wall-mounted IDF exists on the SW wall.

- The fire alarm system appears to be a newer Honeywell (Gamewell) addressable system with radio transmitter.

MEP DEFICIENCY REPORT

Police Building

- Lighting within the building consists of multiple styles of fluorescent fixtures that have been retrofitted with LED replacement bulbs. Controls appear to be original to the building with no occupancy or daylight harvesting sensors. It was noted that the central office space had low lighting levels.

- The building is served by a transformer located just outside of the SW corner. It feeds a main distribution panel located in a closet in the SW corner of the building (just off of the Lounge). The MDP serves one panel in the same closet (Panel B) and one in the boiler room on the opposite side of the building (Panel B1). A 150 amp Automatic Transfer Switch is located in the main electrical closet as well and appears to serve Panel B in the same closet. Devices throughout appear to be in adequate condition.

- A Sonitrol Access Control system provides general card access for the building. Recent changes have moved the Sonitrol Control panels to a location outside of the existing Boiler Room. An additional card access system exists at the Booking and Patrol Entry doors. This system is aging and has parts that are becoming difficult to replace.

- An intrusion alarm system is not installed in the building.

- The PA system has speakers throughout the building and is connected to the radio system. There weren't any reported issues with the system. Components appeared to be in adequate condition.

- Telecommunications originate in the Boiler Room. Fiber enters the building there and feeds CAT 5 patch panels. These panels feed CAT 5 cables throughout the facility. Many abandoned telephone and telcommunications cables are terminated on the west wall of the room. An abandoned server room exists near the NW corner of the building. Existing termination blocks are located on the south wall of the room.

- The existing Fire Alarm System consists of a Notifier SFP-400 zone panel, radio transmitter and original devices throughout the facility. The system was noted to be operational.

Specific items to note are:

- Site Lighting – the existing internal courtyard parking area has low lighting levels at night. We recommend additional pole-mounted lighting within this space to improve safety and security. It was noted that these low lighting levels will be corrected by the Civic Campus Renovation project.

- Backup Generator – the existing generator is very old and in poor condition. This should be replaced to ensure reliable backup power to the building.

- Interior Lighting Fixtures – existing fixtures are all based on fluorescent lighting sources. Even with LED replacement bulbs, the fixtures are less efficient than native-LED fixtures. We recommend having a replacement plan for these fixtures to improve energy efficiency. The fixtures in the Administration area are very inefficient (completely indirect lighting) and should be replaced with fixtures containing more direct illumination to improve energy efficiency and lighting levels in the space.

- Interior Lighting Controls – existing controls are typically manual switches

only. We recommend adding occupancy sensors to all spaces to allow automatic shut-off when the space is unoccupied for an extended period of time. Daylight harvesting sensors should also be considered in perimeter rooms to reduce lighting levels when adequate sunlight is available. In addition, manual controls in normally occupied office spaces should be replaced with manual dimming controls to allow individual light level tuning within the space. All of these recommendations are in line with current energy code requirements.

- Training Room Power Panel – currently served from an adjacent building that is being demolished as part of the Civic Campus Renovation project. This panel needs to be refed from a different source - preferably the existing panel in the SE corner of the Evidence Storage area.

- Alternate Access Control System – the system serving the Booking and Patrol Entry doors should be reviewed and replaced as components | vendor support become unavailable. If possible, this should be tied into the building Sonitrol system.

- Intrusion Alarm System – the building does not currently have an intrusion alarm system. Personnel have noted that the building can become unoccupied at night. Adding a basing intrusion alarm system will allow the building to be alarmed if all officers are out on patrol.

- Telecommunications System – the existing CAT 5e system is very old.z We also recommend updating the cabling and components to more modern Category 6 cabling.

- Fire Alarm System – the Police Building fire alarm system is an old Zone style panel. We recommend replacing the system with an addressable system to increase the amount of information available to maintenance personnel and the fire department.

Conclusions and Recommendations

- The Police Building is in fair condition for its age. The majority of the electrical systems are beyond their anticipated life spans. They will continue to function for the near future, but components will become harder to replace | maintain and will fall further from current code requirements.

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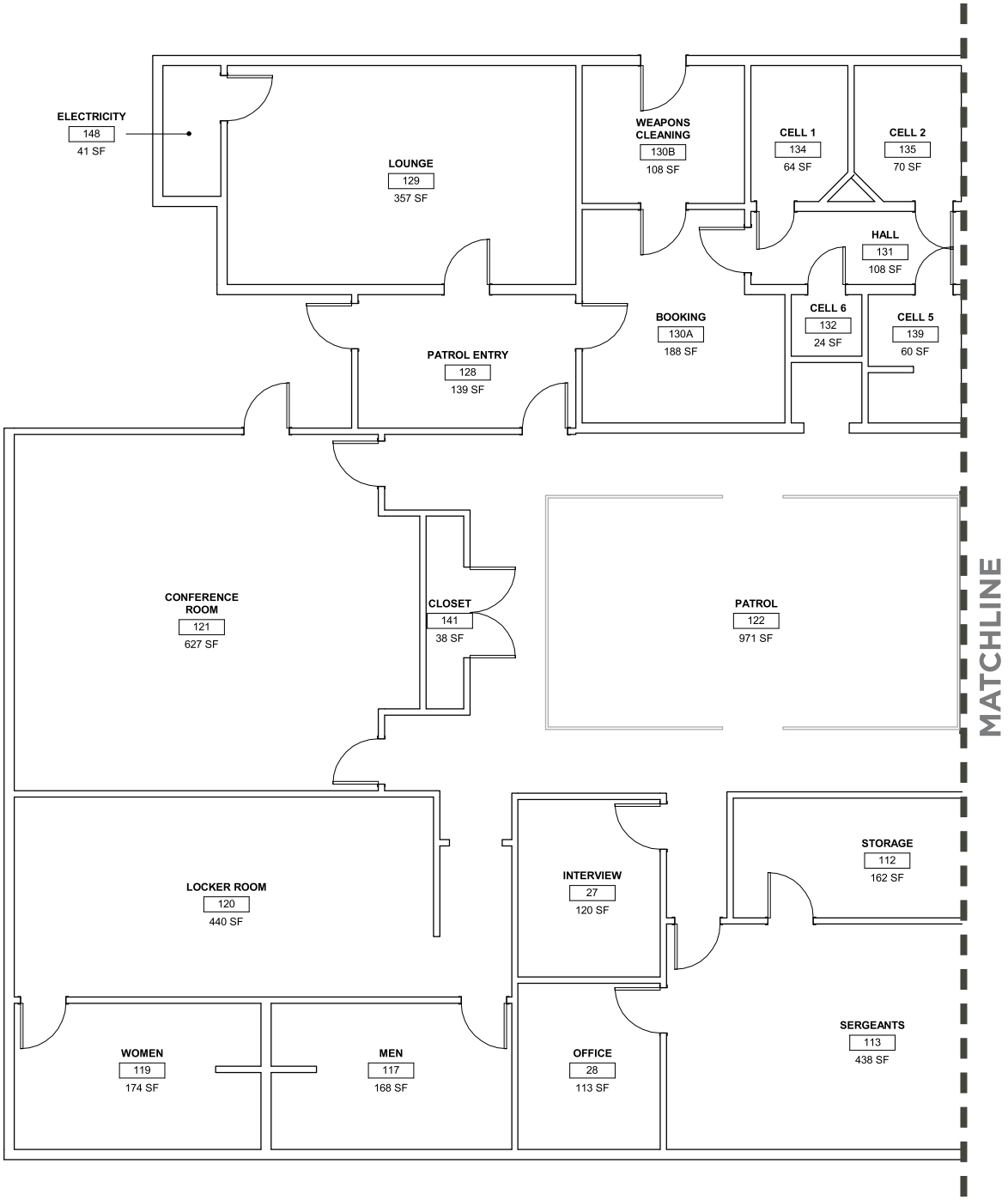
ELECTRICITY
148
41 SF
LOUNGE
129
357 SF
WEAPONS CLEANING
130B
108 SF
CELL 1
134
64 SF
CELL 2
135
70 SF
HALL
131
108 SF
CELL 6
132
24 SF
CELL 5
139
60 SF
BOOKING
130A
188 SF
PATROL ENTRY
128
139 SF
CONFERENCE ROOM
121
627 SF
CLOSET
141
38 SF
PATROL
122
971 SF
MATCHLINE
LOCKER ROOM
120
440 SF
INTERVIEW
27
120 SF
STORAGE
112
162 SF
WOMEN
119
174 SF
MEN
117
168 SF
OFFICE
28
113 SF
SERGEANTS
113
438 SF

EXISTING FLOOR PLAN

0′ 16′ 32′ 64′

SCALE: 1/16” = 1’-0”

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Programming

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PROGRAMMING SUMMARY

Mackenzie began the programming effort by working closely with the Monroe Police Department staff and City Project Team to evaluate program deficiencies in the current facility and specific needs per division. The Monroe Police Department generated a staffing projection illustrating the current number of occupants and predicted occupants for the next 20 years. Using this document and past experiences with police facilities, all while incorporating current staff feedback, Mackenzie determined current space needs and forecasted future needs that will accommodate Department functions for the next 20 years, and beyond.

The initial program analysis totalled roughly 38,000 square feet and after rigorous stakeholder review, the program was reduced by nearly 26% to come to a grand total of 27,823 SF. This total square footage includes a 30% increase for general building circulation and interstitial space (i.e. wall thickness), which has been found to be an average for facilities of this type.

Program needs for the facility were developed by means of project meetings with the Monroe Police Department Staff, questionnaires and interactive staff workshops, project site evaluations and concept floor plans developed by Mackenzie. Meetings included members of each department of the Monroe Police Department staff, administration personnel, evidence technicians, patrol staff and criminal investigations.

Space | Room Use	Staffing Requirements				Total Required Square Footage			
	Exist	Move-in	10 year	20 year	Exist	Move-in	10 year	20 year
Department: Summary								
Administration	4	5	6	6	1,149	1,290	1,373	1,373
Criminal Investigation Detectives	6	6	9	9	671	1,539	1,799	1,799
Evidence	0	0	0	0	2,072	4,064	4,064	4,064
Firearm	0	0	0	0	204	655	655	655
Patrol	24	24	26	27	4,325	2,730	2,730	2,980
Records	5	6	9	9	603	1,788	1,871	1,871
Support Services Division	7	8	8	8	891	1,797	1,797	1,797
Victim Support	0.2	0.5	0.5	1.0	0	390	390	390
Common Areas	0	0	0	0	3,044	12,895	12,895	12,895
TOTAL:	46.2	49.5	58.5	60	12,959	27,147	27,573	27,823
Exterior Requirements					0	41,590	45,190	47,590
Total Site Requirements					12,959	68,737	72,763	75,413
Parking								
Parking (Public)		53	53	53	0	8,172	8,172	8,172
* Two (2) stalls to be accessible, one (1) van accessible stall (3 total)								
Parking (Secure)		61	70	76	0	10,798	12,598	13,798
* Three (3) stalls to be accessible, one (1) van accessible stall (4 total)								
TOTAL PARKING REQUIREMENTS		114	123	129				

PROGRAM

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Administration															
Administration															
Chief of Police	1	1	1	1	1	1	1	1	14	20	280	Private	280	280	280
Locked storage | personnel records															
Deputy Chief of Police	1	1	1	1	1	1	1	1	14	16	224	Private	224	224	224
Locked storage | personnel records															
Commander	1	2	2	2	1	2	2	2	12	15	180	Private	360	360	360
Locked storage | personnel records															
Executive Assistant	1	1	2	2	1	1	2	2	8	8	64	WS	64	128	128
Group Total	4	5	6	6									928	992	992
Administration Support Spaces															
Restroom					0	1	1	1	8	8	64		64	64	64
Group Total													64	64	64
SUBTOTAL	4	5	6	6								**SUBTOTAL:**	992	1,056	1,056
												GENERAL CIRCULATION (30%):	298	317	317
												TOTAL SQUARE FOOTAGE:	1,290	1,373	1,373

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Criminal Investigation Division															
Staff Area															
Sergeant	1	1	0	0	1	1	0	0	10	12	120	Private	120	0	0
Interviews and secure filing (5 drawer)															
Sergeant (Persons)	0	0	1	1	0	0	1	1	10	12	120	Private	0	120	120
Sergeant (Property Crime)	0	0	1	1	0	0	1	1	10	12	120	Private	0	120	120
Detective (People)	2	2	2	2	2	2	2	2	8	10	80	WS	160	160	160
Meetings with prosecuters on individual level. Soundproofing for phone interviews/ recorded phone calls/ / privacy.															
Detective (Property)	2	2	3	3	2	2	3	3	8	10	80	WS	160	240	240
Crime Analyst | Tech (Lab)	0	0	1	1	1	1	1	1	12	15	180	Private	180	180	180
RF shielding															
Administrative Assistant	1	1	1	1	1	1	1	1	8	8	64	WS	64	64	64
near entry, file cabinets															
Group Total	6	6	9	9									684	884	884
Support Spaces															
Lobby					1	1	1	1	8	10	80		80	80	80
Tactical Operations Conference (9-12)					1	1	1	1	12	15	180		180	180	180
Storage					1	1	1	1	10	16	160		160	160	160
Interview					1	1	1	1	8	10	80		80	80	80
"soft interview space" - capable for other detectives to monitor - video to work stations and patrol bay area															
Group Total													500	500	500
SUBTOTAL	6	6	9	9								**SUBTOTAL:**	1,184	1,384	1,384
												GENERAL CIRCULATION (30%):	355	415	415
												TOTAL SQUARE FOOTAGE:	1,539	1,799	1,799

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Evidence															
Evidence Staff Spaces															
Evidence Technician	1	1	1	1	1	1	1	1	8	8	64	WS	64	64	64
Property Room Assistant	0	0	0.5	0.5		1	1	1	6	8	48	WS	48	48	48
Group Total	1	1	1.5	1.5									112	112	112
Evidence Support Spaces															
Evidence Laboratory					1	1	1	1	15	25	375		375	375	375
Processing: counters, island															
Property | Evidence Intake					1	1	1	1	15	25	375		375	375	375
Property | Evidence Main Storage					1	1	1	1	25	35	875		875	875	875
Bulk Property Evidence Storage					1	1	1	1	12	18	216		216	216	216
Drying Cabinets					1	1	1	1	5	5	25		25	25	25
2 cabinets currently. One in evidence, one at officer space															
Refrigerated | Freezer Storage					1	1	1	1	5	5	25		25	25	25
Refrigerator at officer side and at evidence storage (long-term). 1 bank of pass-though lockers will be refrigerated															
Drug Vault					0	1	1	1	8	10	80		80	80	80
Negative pressure, compressed air decon station															
Cash Storage Vault					0	1	1	1	5	5	25		25	25	25
Weapons Storage					0	1	1	1	8	10	80		80	80	80
Supply Storage					0	1	1	1	6	8	48		48	48	48
Bicycle Storage (impound)					1	1	1	1	10	15	150		150	150	150
Copy | Print Area					0	1	1	1	5	8	40		40	40	40
Evidence Garage (1 bay)					0	1	1	1	20	35	700		700	700	700
Overhead protection for processing, enclosed. Mobile vehicle lift.															
Group Total	0	0	0	0									3,014	3,014	3,014
SUBTOTAL	0	0	0	0							**SUBTOTAL:**		3,126	3,126	3,126
											GENERAL CIRCULATION (30%):		938	938	938
											TOTAL SQUARE FOOTAGE:		4,064	4,064	4,064

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Firearms															
Staff Spaces															
Instructors	0	0	0	0											
Collateral position, training storage needed															
Group Total	0	0	0	0									0	0	0
Support Spaces															
Firearm Storage						1	1	1	12	16	192		192	192	192
Ammunition, targets, tools, equipment, range supplies															
Weapon Maintenance						1	1	1	10	12	120		120	120	120
Armory						1	1	1	12	16	192		192	192	192
Group Total	0	0	0	0									504	504	504
SUBTOTAL	0	0	0	0								**SUBTOTAL:**	504	504	504
												GENERAL CIRCULATION (30%):	151	151	151
												TOTAL SQUARE FOOTAGE:	655	655	655

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Patrol															
Patrol															
Sergeant	4	4	4	5	4	4	4	5	10	12	120	Private	480	480	600
Private Office - individual for each. Not directly adjacent to open offices															
Officers | K9	20	20	22	22	8	10	10	12	6	6	36	Shared	360	360	432
Sound privacy from Admin.															
Group Total	24	24	26	27									840	840	1032
Patrol Support Spaces															
Briefing Room (15 - 20)					0	1	1	1	20	25	500		500	500	500
Dedicated - can be used as a conference room in non-briefing size. Admin staff brought in for briefing as well, separate from work stations. +/-15-20 occupants. Visual access to RTCC															
Storage | Files					0	1	1	1	8	10	80		80	80	80
Uniforms | First Aid | Tactical Tools															
Secure Storage					0	1	1	1	10	12	120		120	120	120
Group Total	0	0	0	0									700	700	700
Holding															
Holding Cells (hard interview)					5	2	2	2	8	10	80		160	160	160
Intake | BAC | Fingerprinting					0	1	1	1	10	16	160		160	160	160
State patrol utilization. Dedicated fingerprinting area separate from public.															
Interview Room (Hard)					0	2	2	2	8	10	80		160	160	160
Restroom					0	1	1	1	8	10	80		80	80	80
Secure, non-locking, controlled flush															
Group Total	0	0	0	0									560	560	560
SUBTOTAL	24	24	26	27								**SUBTOTAL:**	2,100	2,100	2,292
												GENERAL CIRCULATION (30%):	630	630	688
												TOTAL SQUARE FOOTAGE:	2,730	2,730	2,980

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PreDesign Programmir
Job #: 2230268.(
12/6/202

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Records															
Records															
Administrative Manager	1	1	1	1	1	1	1	1	10	12	120	Private	120	120	120
Adminstrative Assistant	4	4	5	5	4	4	5	5	8	8	64	WS	256	320	320
Privacy component needed.															
Logistics Technician	0	0	1	1	0	1	1	1	8	8	64	WS	64	64	64
Space needs to be tied to equipment closet. (quartermaster)															
IT | Technical Services	0	1	2	2	0	1	1	1	15	18	270	Shared	270	270	270
2-3 monitors.															
Group Total	5	6	9	9									710	774	774
Records Support Spaces (non-staff)															
Record Storage					1	1	1	1	15	20	300	Secure	300	300	300
Four 4'-0" sections of floor to ceiling shelving for record archives. Desk in or around space for scanning purposes. Possibility of combining space with work room or adjacent layout.															
Work Room					1	1	1	1	10	16	160		160	160	160
Copier, printer, supplies & forms near records storage. Minimize foot traffic to space.															
Copy | Forms | Supplies					1	1	1	1	5	5	25		25	25	25
Dedicated space - can be in work room.															
Gear Storage | PPE					1	1	1	1	12	15	180		180	180	180
Logistics person responsible for maintaining. Storage/ equipment coordinated w/ logistics. Clothing, belt equipment (not high value assets, controlled environment).															
Group Total	0	0	0	0									665	665	665
SUBTOTAL	5	6	9	9								**SUBTOTAL:**	1,375	1,439	1,439
												GENERAL CIRCULATION (30%):	413	432	432
												TOTAL SQUARE FOOTAGE:	1,788	1,871	1,871

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Support Services															
Staff Spaces															
Sergeant	1	1	1	1	1	1	1	1	10	12	120	Private	120	120	120
Secure File Storage															
Outreach Officer	1	1	1	1	1	1	1	1	8	8	64	WS	64	64	64
Workspace in a shared office. Most space needed, Shared office with Social Worker and Behavorial Health Navigator															
Social Worker	0.5	0.5	0.5	0.5	1	1	1	1	12	16	192	Shared	192	192	192
Workspace in a shared office. Field based position, does not need large space. Secured storage needed. Shared office with Outreach Officer and Behavorial Health Navigator															
Behavorial Health Navigator	0.5	0.5	0.5	0.5								Shared			
Workspace in a shared office. Field based position, does not need large space. Shared office with Outreach Officer and Social Worker.															
Volunteers	2	2	2	2	2	2	2	2	6	6	36	WS	72	72	72
School Resource Officer	1	1	1	1	1	1	1	1	15	18	270	Shared	270	270	270
Workspace in a shared office with Community Service Officer															
Community Service Officer	1	2	2	2											
Workspace in a shared office. Crime prevention storage. Shared Office with School Resource Officer															
Training Officer	0	1	1	1	0	1	1	1	8	8	64	WS	64	64	64
Group Total	7	8	8	8									782	782	782
Support Spaces															
Storage					0	1	1	1	15	20	300		300	300	300
Locked room. Investigations closet, holding cells closet, sheds, sargeants conference room. Connected to armory, weapons maintenance, quartermaster. Crime prevention in separate storage (CSO)															
Training Equipment Room					0	1	1	1	15	20	300		300	300	300
Connection to armory for firearms training, firing range, sallyport and storage. Barricades for EVOC. Steel table for prep. Signs, cones, materials for training and patrol.															
Group Total	0	0	0	0									600	600	600
SUBTOTAL	7	8	8	8								**SUBTOTAL:**	1,382	1,382	1,382
												GENERAL CIRCULATION (30%):	415	415	415
												TOTAL SQUARE FOOTAGE:	1,797	1,797	1,797

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Victim Support Division															
Staff Spaces															
DV Advocate	0.2	0.5	0.5	1	1	1	1	1	12	15	180	Private	180	180	180
Adjacent to lobby - private office, small conference table															
Group Total	0.2	0.5	0.5	1									180	180	180
Support Spaces															
Kid's Room					0	1	1	1	10	12	120		120	120	120
Secure, near DV advocate and conference room. Protective custody for patrol officers															
Group Total	0	0	0	0									120	120	120
SUBTOTAL	0.2	0.5	0.5	1								**SUBTOTAL:**	300	300	300
												GENERAL CIRCULATION (30%):	90	90	90
												TOTAL SQUARE FOOTAGE:	390	390	390

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Common Areas															
Public Areas - Lobby															
Entry | Emergency Vestibule					1	1	1	1	8	10	80		80	80	80
Lobby					1	1	1	1	10	15	150		150	150	150
6-8 People. Public fingerprinting area - off lobby just behind secured door.															
Public Counter					1	1	1	1	8	15	120		120	120	120
Two stations plus ADA Counter - privacy between two stations, space to fill out forms/ statements (work space), TTY for hearing impaired. Privacy panels															
Public Restrooms					2	2	2	2	12	18	216		432	432	432
Single-use stalls (consider multi-use stalls to eliminate locking component). Security/ safety component															
Soft Interview Room						1	1	1	8	10	80		80	80	80
Off the lobby - dual use for form/ statement fill out. Dual access - one from lobby side and one from secured.															
Community Room					0	1	1	1	25	40	1000		1000	1000	1000
Capacity: 60, To be used for department wide training															
Community Room Storage					0	1	1	1	8	10	80		80	80	80
Community Room Storage (Secure)					0	1	1	1	8	10	80		80	80	80
Community Room AV					0	1	1	1	5	5	25		25	25	25
Group Total	0	0	0	0									2207	2207	2207
Secure Support Spaces															
Conference Room (12-15)					0	1	1	1	18	22	396		396	396	396
Evidence Pick-up					0	1	1	1	8	10	80		80	80	80
Dedicated space off the lobby (secure). Door into main lobby (locked). Preferably attached to property room. Public facing access															
Supply Storage					0	1	1	1	5	8	40		40	40	40
Honor Guard, SWAT, radio.															
Break Room (Secure)					0	1	1	1	20	30	600		600	600	600
Sink, (2) MW, DW, Plumbed Coffee Maker, (2) Sinks, (3) Refrigerators, Water Cooler, Stove, Garbage disposal, standing height counters, TV.															
Central Copy | Print | Mail					0	1	1	1	10	16	160		160	160	160
Police Entry Vestibule (Secure)					1	1	1	1	8	10	80		80	80	80
Off secure parking															
Duty Gear Lockers					0	1	1	1	8	20	160		160	160	160
Go bags															
Sally Port (Vehicular)					0	1	1	1	35	40	1400		1400	1400	1400
2 car - direct access to holding cells, cold/hot water, drain, snow tire/chain storage, Compressed Air. Covered space for searches of impounded vehicles (separate)															
Sally Port (Storage)					0	1	1	1	8	10	80		80	80	80
Patrol Bicycle Storage					0	1	1	1	8	10	80		80	80	80
Motor Storage					0	1	1	1	8	10	80		80	80	80
K9 Kennels (Police K9)					0	2	2	2	5	5	25		50	50	50
K9 Treatment Grooming | Storage					0	1	1	1	10	12	120		120	120	120
Dog Wash															
Animal Control Kennels					0	1	1	1	8	10	80		80	80	80
Temperature controlled - off the Sally Port. Holding space for lost animals. Transport kennels. Floor drain for cleaning purposes. Space for 2-3 animals.															
Server Room Closet					1	1	1	1	8	10	80		80	80	80
HVAC. 3 sided access with shelving. Possible location of backup server (noise and HVAC concerns).															
Electrical Room					1	1	1	1	12	18	216		216	216	216
Mechanical Room					1	1	1	1	12	18	216		216	216	216
IDF Room					1	1	1	1	6	8	48		48	48	48
Sprinkler Riser Room					1	1	1	1	6	8	48		48	48	48

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Group Total	0	0	0	0									4014	4014	4014
Police Restrooms | Showers | Bunks															
Fitness Room | Defensive Tactics					1	1	1	1	40	50	2000		2000	2000	2000
Mats, free weights, yoga balls, treadmills, elipitcal, rowing, universal gym, spin bike. Accessible to city staff. Wellness area/ mobility training open spaces.															
Defensive Tactics Storage					0	1	1	1	10	12	120		120	120	120
Moveable walls for housing simulation															
Fitness Equipment Storage					0	1	1	1	6	8	48		48	48	48
Locker					1	1	1	1	20	35	700		700	700	700
Single Shower | Restroom					2	3	3	3	10	12	120		360	360	360
Restroom					1	2	2	2	8	8	64		128	128	128
Janitor					1	1	1	1	8	8	64		64	64	64
Bunk Room | Quiet Room					0	1	1	1	8	8	64		64	64	64
Wellness Room					0	1	1	1	8	8	64		64	64	64
Nursing Room. (not for fitness). Dedicated desk/ space for decompression. Hybrid use - procedural department use.															
Decon Room					0	1	1	1	10	15	150		150	150	150
Utility Sink, Wash Area, Washer | Dryer (integrated with locker rooms)															
Group Total	0	0	0	0									3,698	3,698	3,698
SUBTOTAL	0	0	0	0								**SUBTOTAL:**	9,919	9,919	9,919
												GENERAL CIRCULATION (30%):	2,976	2,976	2,976
												TOTAL SQUARE FOOTAGE:	12,895	12,895	12,895

Space | Room Use	Staffing Requirements				Space Requirements				Recommended Space Standards			Space Type	Total Required Square Footage		
	Exist	Move-in	10 yr	20 yr	Exist	Move-in	10 yr	20 yr	W	L	Area		Move-in	10 yr	20 yr
Department: Exterior															
Public Parking															
Public Parking						47	47	47	9	18	162		7614	7614	761
Public Parking (Accessible)						3	3	3	9	18	162		486	486	48
Bicycle Parking						3	3	3	4	6	24		72	72	7
Group Total						53	53	53					8172	8172	817
Secure Parking															
Command Vehicles					3	4	4	4	10	20	200	Covered	800	800	80
Sergeant Vehiciles					6	6	6	8	10	20	200	Covered	1200	1200	160
Patrol Vehicles					12	16	23	25	10	20	200	Covered	3200	4600	500
CID Vehicles					4	4	6	8	10	20	200	Covered	800	1200	160
Special Function					16	16	16	16	10	20	200	Covered	3200	3200	320
Firearms trailer, evidence van, CSO (2), Outreach, Motors (2), F150 , Impala, camera trailer, range truck, volunteer vehicles, traffic car, K9 (3), SRO															
SWAT Vehicle					1	1	1	1	16	30	480	Covered	480	480	48
Radar Trailer						1	1	1	10	10	100	Covered	100	100	10
Weatherproof | secure															
ATV						1	1	1	6	8	48	Covered	48	48	4
Patrol Bicycles						5	5	5	4	6	24	Covered	120	120	12
Patrol Motorcycles						1	1	1	3	5	15	Covered	15	15	1
Storage						1	1	1	5	5	25		25	25	2
Ram, Rubber Helmets, Spit Smocks. Located between patrol and vehicle area.															
Evidence Impound						5	5	5	9	18	162		810	810	81
Group Total						61	70	76					10798	12598	1379
Common Use															
Outdoor Patio						1	1	1	15	20	300		300	300	30
Near Break Room, picnic tables & seating, glass roll up garage door															
Emergency Generator						1	1	1	15	25	375		375	375	37
Trash | Recycling						1	1	1	15	25	375		375	375	37
Transformer						1	1	1	15	15	225		225	225	22
Mechanical Units						1	1	1	10	15	150		150	150	15
Flag Pole						1	1	1	5	5	25		25	25	2
Entry Plaza						1	1	1	15	25	375		375	375	37
Group Total													1825	1825	182
SUBTOTAL													20,795	22,595	23,79
GENERAL CIRCULATION (100%)													20,795	22,595	23,79
TOTAL SQUARE FOOTAGE *(Exterior)*													41,590	45,190	47,59

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FURNITURE INVENTORY

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Space | Room Use	Staffing Requirements				Existing												Move-in											
	Exist	Move-in	10 yr	20 yr	C1	C2	C3	C4	C5	C6	C7	WS1	WS2	WS3	WS4	WS5	C1	C2	C3	C4	C5	C6	C7	WS1	WS2	WS3	WS4	WS5
Administration																												
Chief of Police	1	1	1	1	1												1											
Deputy Chief of Police	1	1	1	1		1												1										
Commander	1	2	2	2			1												2									
Executive Assistant	1	1	2	2								1												1				
Group Total:	4	5	6	6	1	1	1	0	0	0	0	1	0	0	0	0	1	1	2	0	0	0	0	1	0	0	0	0
Criminal Investigation Division																												
Sergeant	1	1	0	0				1												1								
Sergeant (Persons)	0	0	1	1				0												0								
Sergeant (Property Crime)	0	0	1	1				0												0								
Detective (People)	2	2	2	2									2												2			
Detective (Property)	2	2	3	3									2												2			
Crime Analyst | Tech (Lab)	0	0	1	1					0												0							
Administrative Assistant	1	1	1	1										1												1		
Group Total:	6	6	9	9	0	0	0	1	0	0	0	0	4	1	0	0	0	0	0	1	0	0	0	0	4	1	0	0
Evidence																												
Evidence Technician	1	1	1	1										1												1		
Property Room Assistant	0	0	0.5	0.5												0												0
Group Total:	1	1	1.5	1.5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Firearms																												
Instructors	0	0	0	0																								
Group Total:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Patrol																												
Sergeant	4	4	4	5				4												4								
Officers | K9	20	20	22	22											20												20	
Group Total:	24	24	26	27	0	0	0	4	0	0	0	0	0	0	20	0	0	0	0	4	0	0	0	0	0	0	20	0
Records																												
Administrative Manager	1	1	1	1				1												1								
Adminstrative Assistant	4	4	5	5										4												4		
Logistics Technician	0	0	1	1										0												0		
IT | Technical Services	0	1	2	2						0												1						
Group Total:	5	6	9	9	0	0	0	1	0	0	0	0	0	4	0	0	0	0	0	1	0	1	0	0	0	4	0	0
Department: Support Services																												
Sergeant	1	1	1	1				1												1								
Outreach Officer	1	1	1	1										1												1		
Social Worker	0.5	0.5	0.5	0.5							1												1					
Behavorial Health Navigator	0.5	0.5	0.5	0.5							1												1					
Volunteers	2	2	2	2											2												2	
School Resource Officer	1	1	1	1						1												1						
Community Service Officer	1	2	2	2						1												2						
Training Officer	0	1	1	1										0												1		
Group Total:	7	8	8	8	0	0	0	1	0	2	1	0	0	1	2	0	0	0	0	1	0	3	1	0	0	1	2	0
Victim Support Division																												
DV Advocate	0.2	0.5	0.5	1			1												1									
Group Total:	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	47.2	50.2	59.7	60.7	1	1	1	7	0	2	1	1	4	7	22	0	1	1	3	7	0	4	1	1	4	7	22	0

FURNITURE INVENTORY

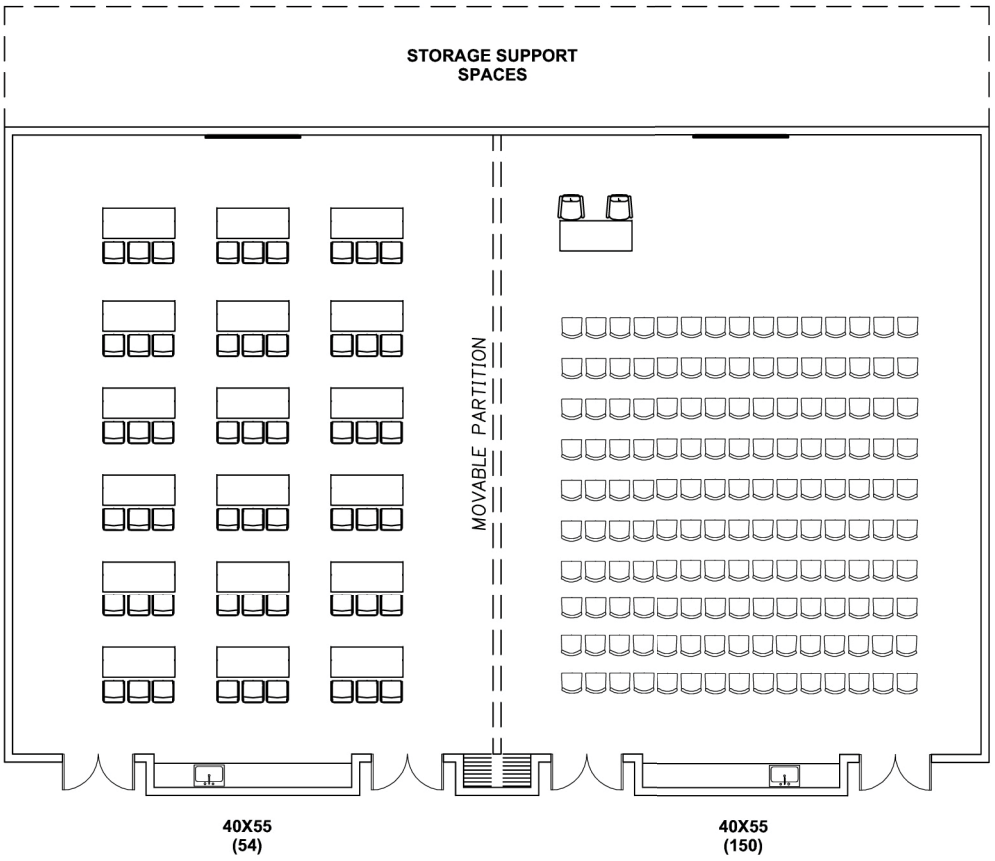
Space | Room Use	Staffing Requirements				10 Year											20 Year										
	Exist	Move-in	10 yr	20 yr	C1	C2	C3	C4	C5	C6	C7	WS1	WS2	WS3	WS4	WS5	C1	C2	C3	C4	C5	C6	C7	WS1	WS2	WS3	WS4
Chief of Police	1	1	1	1	1												1										
Deputy Chief of Police	1	1	1	1		1												1									
Commander	1	2	2	2			2												2								
Executive Assistant	1	1	2	2								2												2			
Group Total:	4	5	6	6	1	1	2	0	0	0	0	2	0	0	0	0	1	1	2	0	0	0	0	2	0	0	0
Sergeant	1	1	0	0				0												0							
Sergeant (Persons)	0	0	1	1				1												1							
Sergeant (Property Crime)	0	0	1	1				1												1							
Detective (People)	2	2	2	2									2												2		
Detective (Property)	2	2	3	3									3												3		
Crime Analyst | Tech (Lab)	0	0	1	1					1												1						
Administrative Assistant	1	1	1	1										1												1	
Group Total:	6	6	9	9	0	0	0	2	1	0	0	0	5	1	0	0	0	0	0	2	1	0	0	0	5	1	0
Evidence Technician	1	1	1	1										1												1	
Property Room Assistant	0	0	0.5	0.5												1											
Group Total:	1	1	1.5	1.5	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0
Instructors	0	0	0	0																							
Group Total:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sergeant	4	4	4	5				4												5							
Officers | K9	20	20	22	22											22												22
Group Total:	24	24	26	27	0	0	0	4	0	0	0	0	0	0	22	0	0	0	0	5	0	0	0	0	0	0	22
Administrative Manager	1	1	1	1				1												1							
Adminstrative Assistant	4	4	5	5										5												5	
Logistics Technician	0	0	1	1										1												1	
IT | Technical Services	0	1	2	2						2												2					
Group Total:	5	6	9	9	0	0	0	1	0	2	0	0	0	6	0	0	0	0	0	1	0	2	0	0	0	6	0
Sergeant	1	1	1	1				1												1							
Outreach Officer	1	1	1	1										1												1	
Social Worker	0.5	0.5	0.5	0.5							1												1				
Behavorial Health Navigator	0.5	0.5	0.5	0.5							1												1				
Volunteers	2	2	2	2											2												2
School Resource Officer	1	1	1	1						1												1					
Community Service Officer	1	2	2	2						2												2					
Training Officer	0	1	1	1										1												1	
Group Total:	7	8	8	8	0	0	0	1	0	3	1	0	0	1	2	0	0	0	0	1	0	3	1	0	0	1	2
DV Advocate	0.2	0.5	0.5	1			1												1								
Group Total:	0.2	0.2	0.2	0.2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	47.2	50.2	59.7	60.7	1	1	3	8	1	5	1	2	5	9	24	1	1	1	3	9	1	5	1	2	5	9	24

SPACE STANDARDS

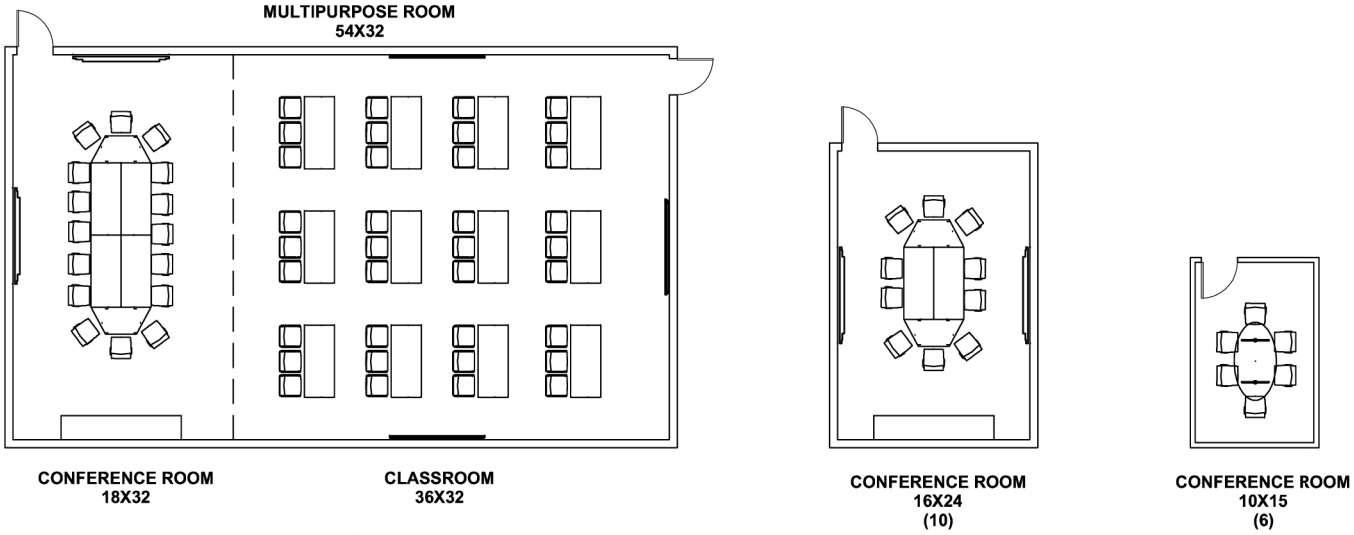
The following information has been developed based on Mackenzie's past experience with over 125 emergency response facilities, data we track on regional and national trends in police facilities as well as architectural standards and interaction with the Monroe Police department stakeholders. The spaces developed and depicted are shown as a means to aid in efficiently comparing sizes for offices, support spaces and primary function spaces unique to law enforcement facilities.

These have been utilized as a visual aid to help stakeholders understand the general parameters associated with rooms and functions.

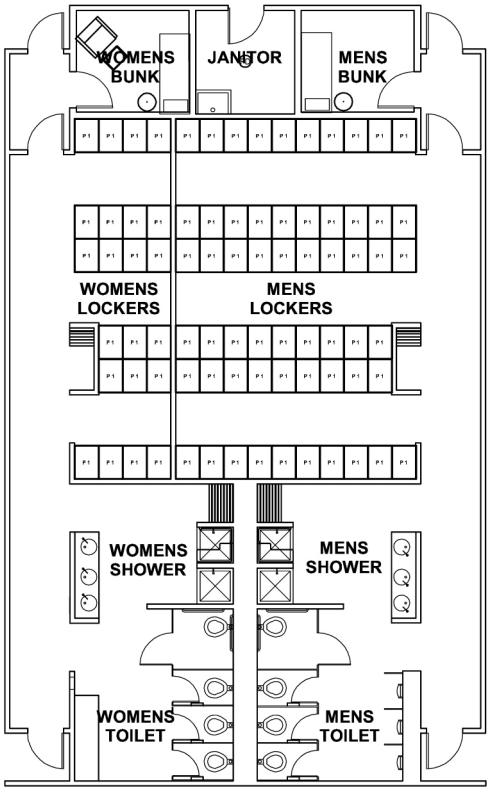
The following layouts are provided for reference, and to indicate baseline dimensions and room layouts for discussion during the programming process. Actual room dimensions often adjust during the plan development task to account for special adjacencies and other design parameters.



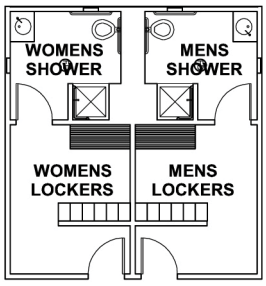
TRAINING CLASSROOM LAYOUTS



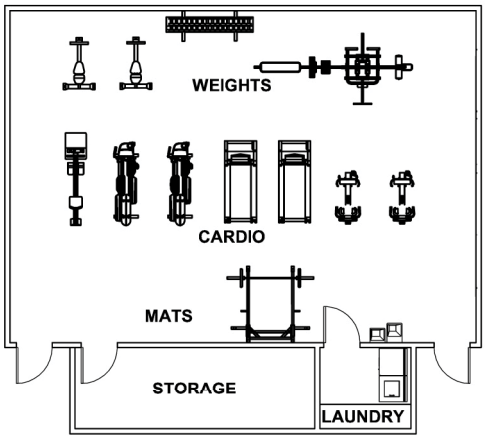
TYPICAL CONFERENCE LAYOUTS



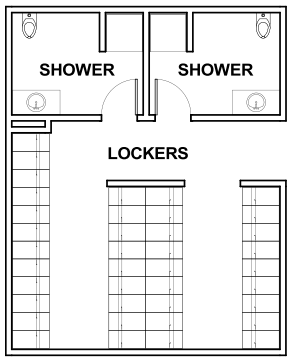
DUTY LOCKER ROOM / SHOWER ROOM



LOCKER ROOM / SHOWER ROOM

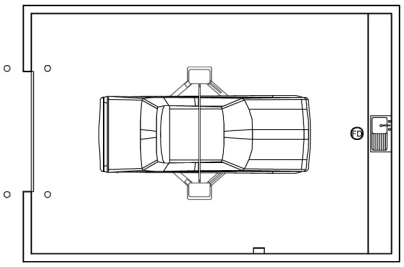


FITNESS

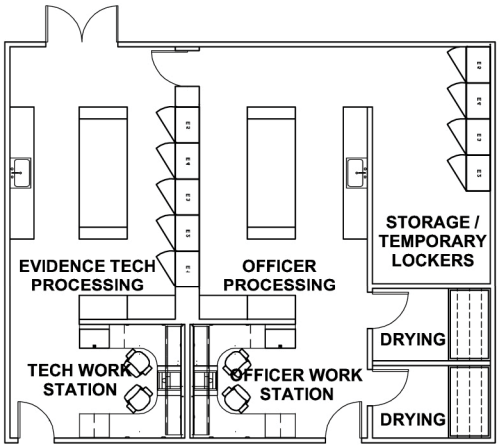


GENDER NEUTRAL LOCKER ROOM / SHOWER ROOM

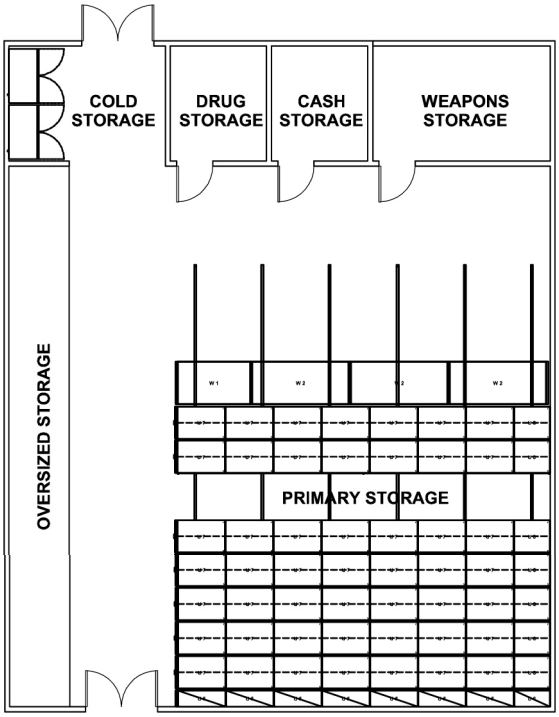
LOCKER / FITNESS LAYOUTS



EVIDENCE VEHICLE GARAGE
20X30

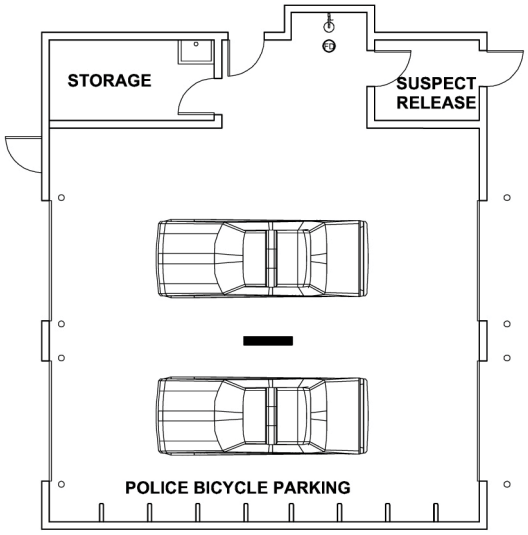


EVIDENCE PROCESSING

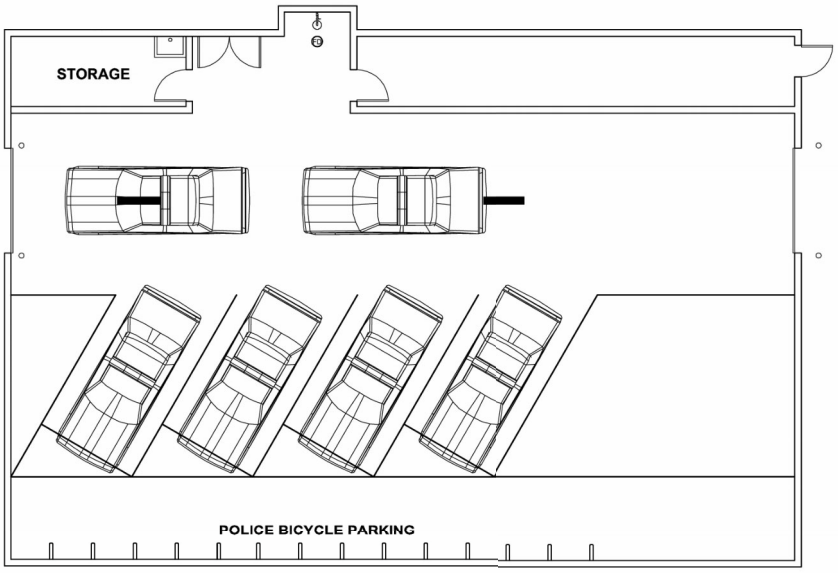


EVIDENCE STORAGE
45X75

PROPERTY / EVIDENCE SPACE LAYOUTS



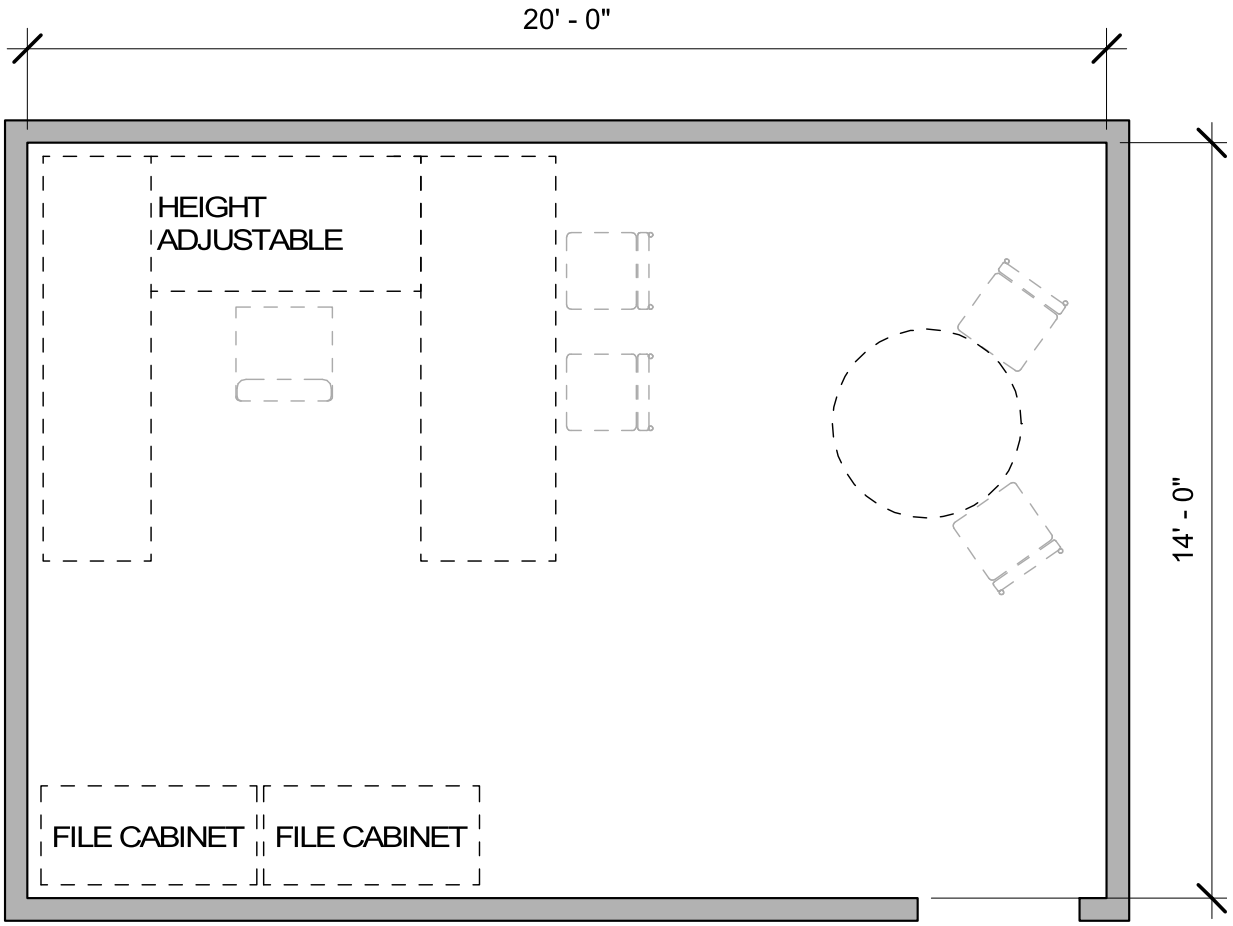
TWO VEHICLE SALLYPORT
35X40



MULTI VEHICLE SALLYPORT
50X75 (65X75 W/ TWO-WIDE DRIVE)

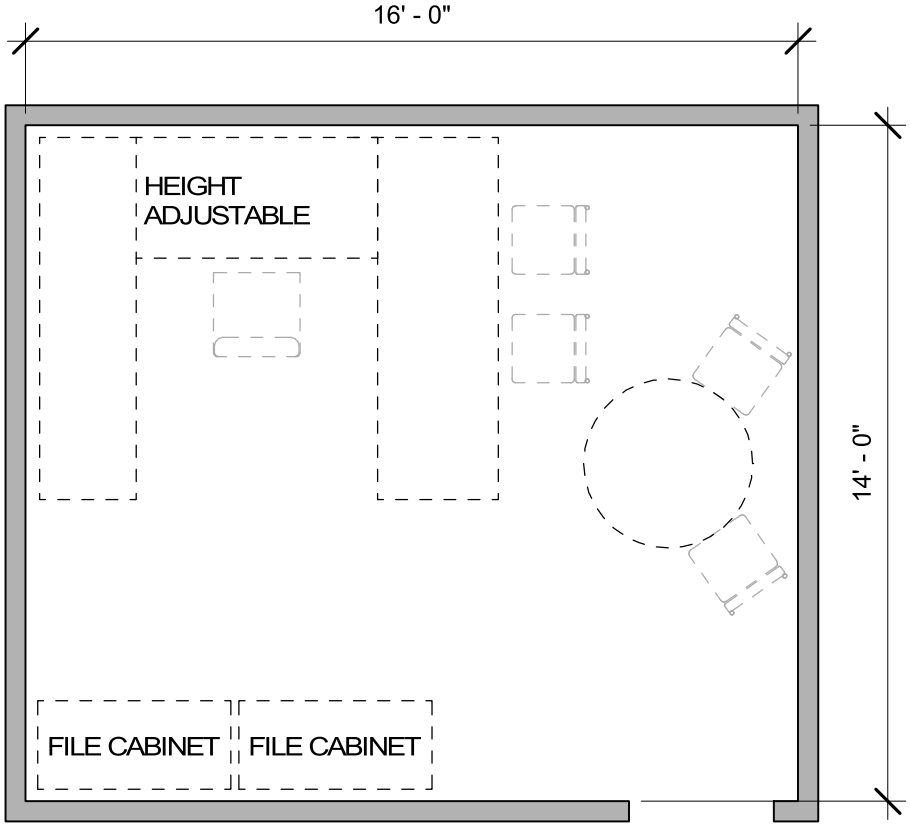
SALLY PORT / SUSPECT PROCESSING LAYOUTS

OFFICE AND WORKSTATION STANDARDS



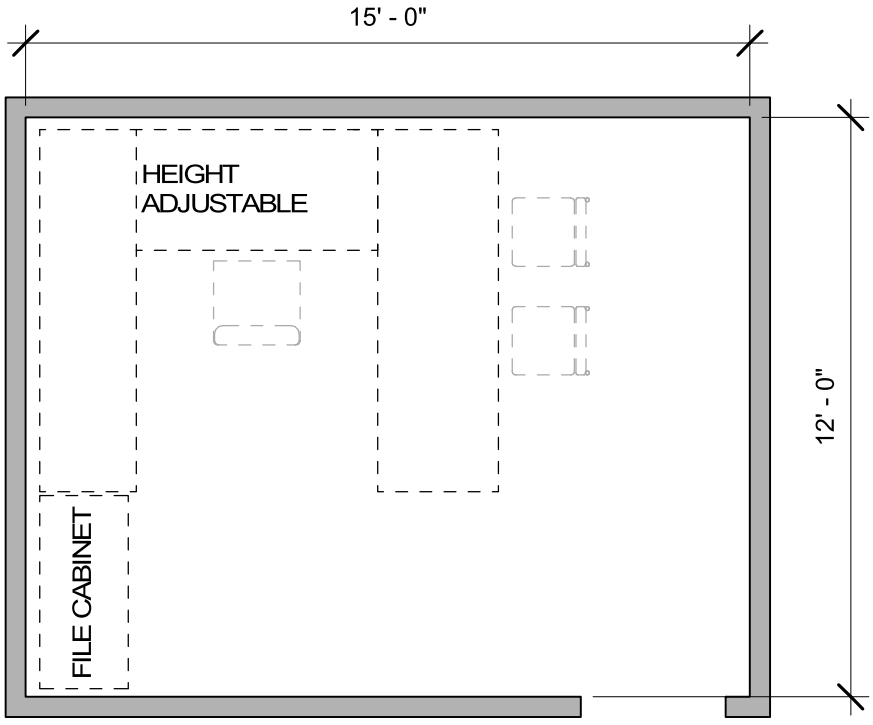
PRIVATE OFFICE - C1
14 x 20

FURNITURE:
-EXEC. DESK W/ GUEST CHAIRS
-SMALL CONF. TABLE/CHAIRS
-FILES
-CREDENZA/PERSONAL ITEMS



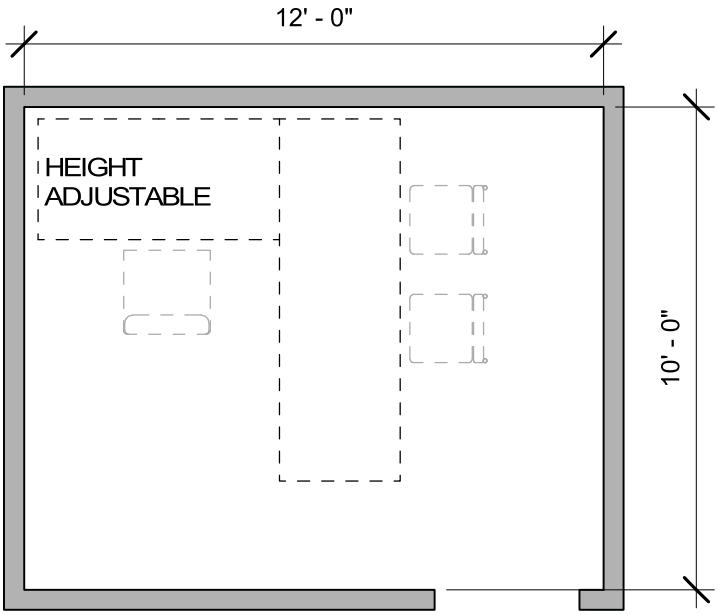
PRIVATE OFFICE - C2
14 x 16

FURNITURE:
-EXEC. DESK W/ GUEST CHAIRS
-SMALL CONF. TABLE/CHAIRS
-FILES
-CREDENZA/PERSONAL ITEMS
-DUAL MONITOR ARM



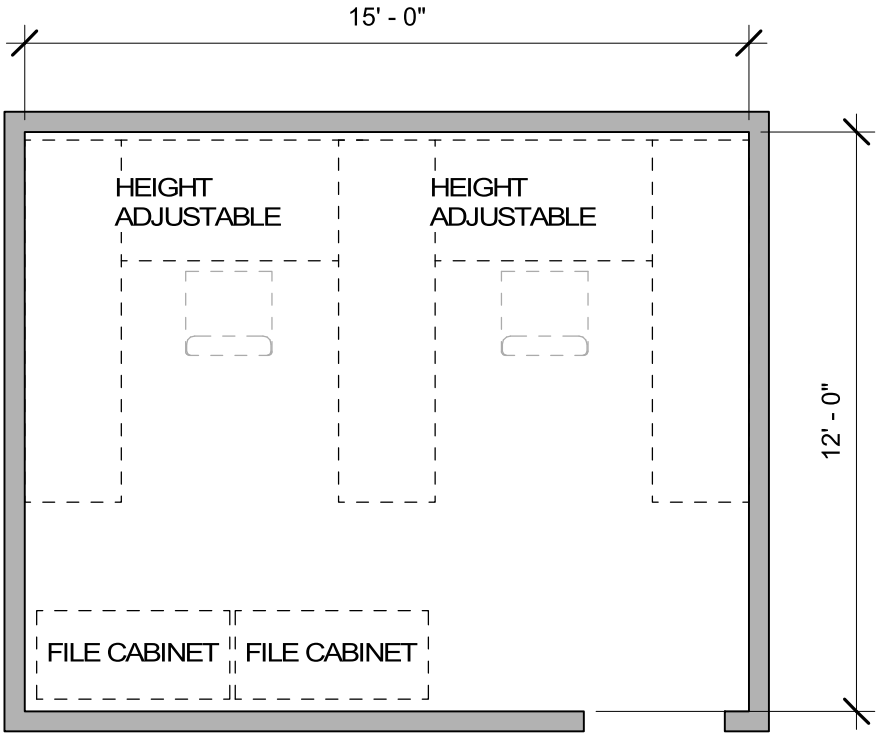
PRIVATE OFFICE - C3
12 x 15

FURNITURE:
-EXEC. DESK W/ GUEST CHAIRS
-FILES



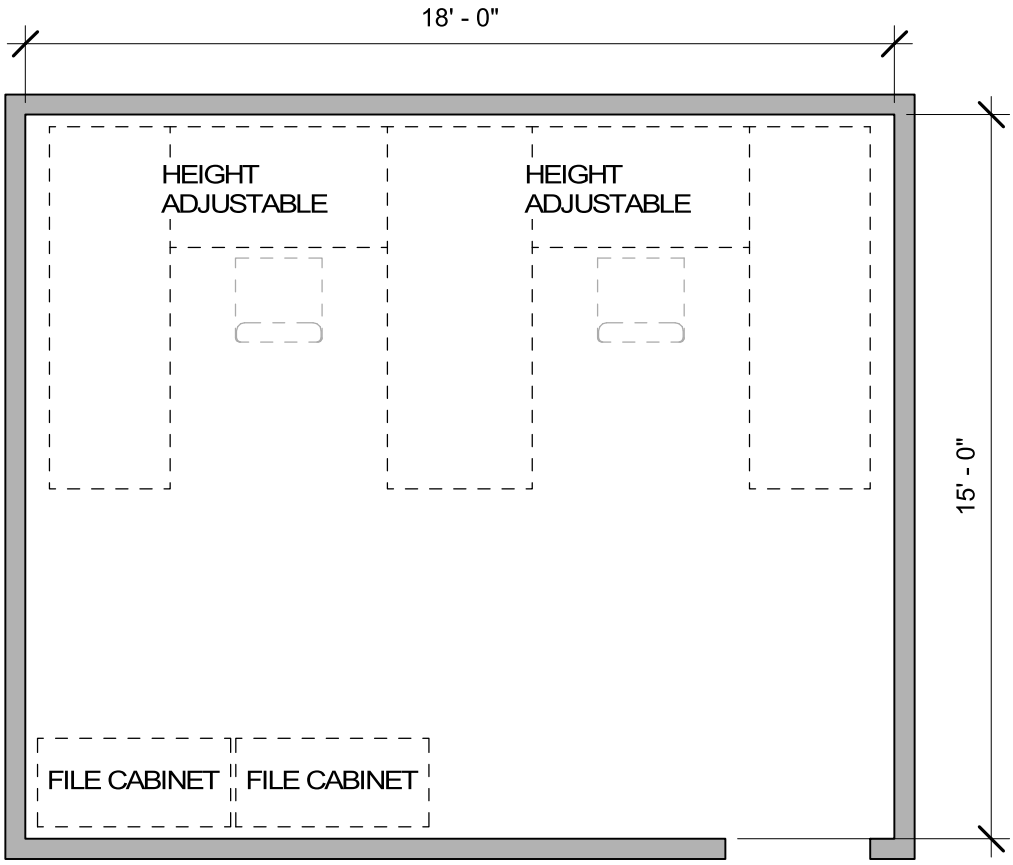
PRIVATE OFFICE - C4
10 x 12

FURNITURE:
-EXEC. DESK W/ GUEST CHAIRS
-FILES



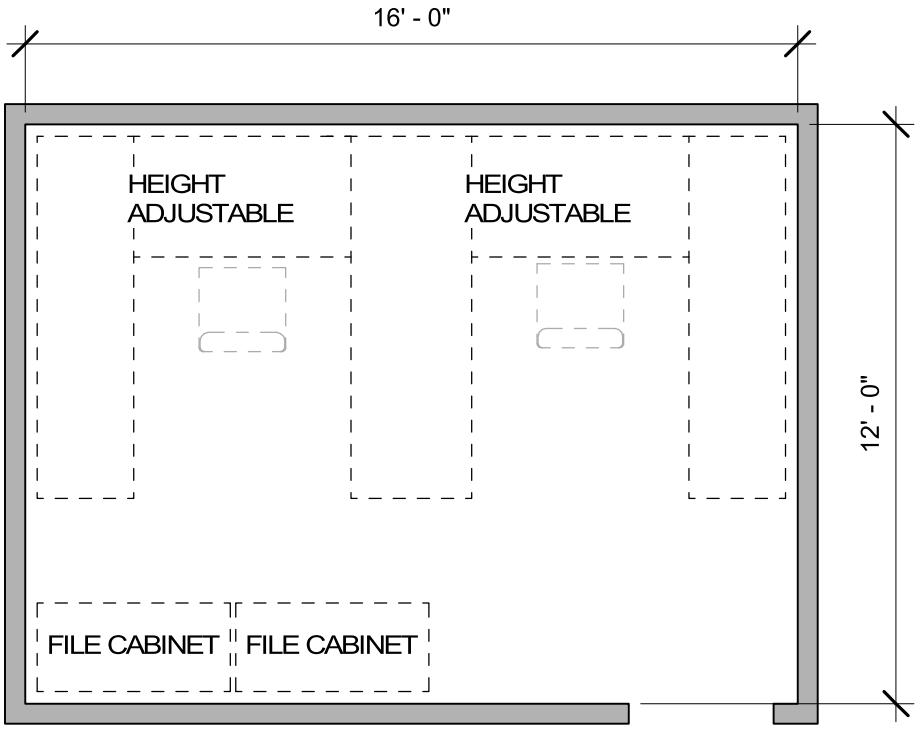
PRIVATE OFFICE - C5
12 x 15 SHARED OFFICE

FURNITURE:
-EXEC. DESKS W/ GUEST CHAIRS
-FILES



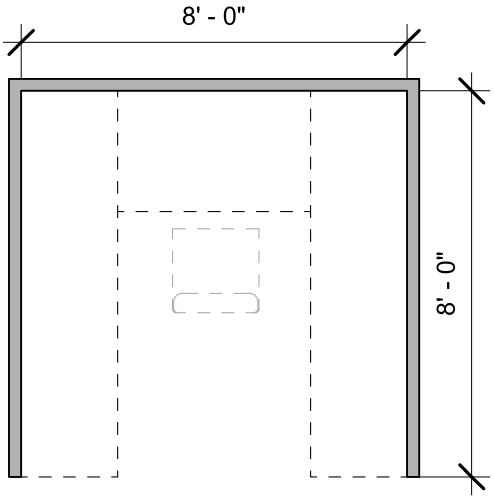
PRIVATE OFFICE - C6
15 x 18 SHARED OFFICE

FURNITURE:
-EXEC. DESKS W/ GUEST CHAIRS
-FILES

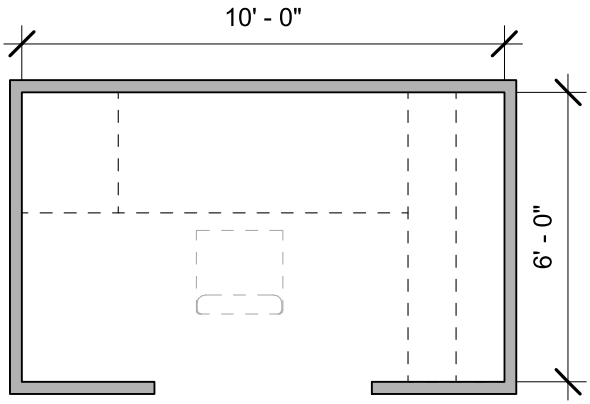


PRIVATE OFFICE - C7
12 x 16 SHARED OFFICE

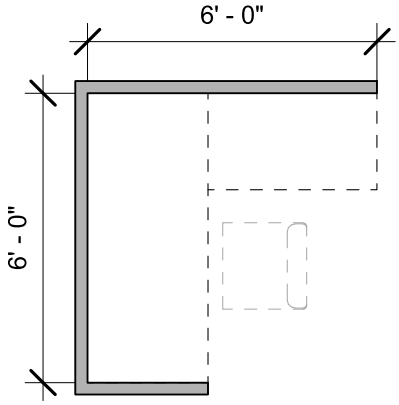
FURNITURE:
-EXEC. DESKS W/ GUEST CHAIRS
-FILES



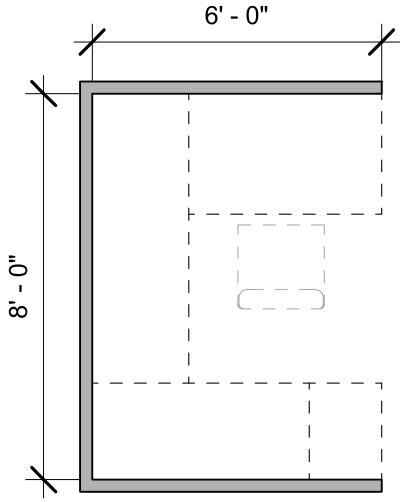
WORKSTATION - WS1
8 x 8



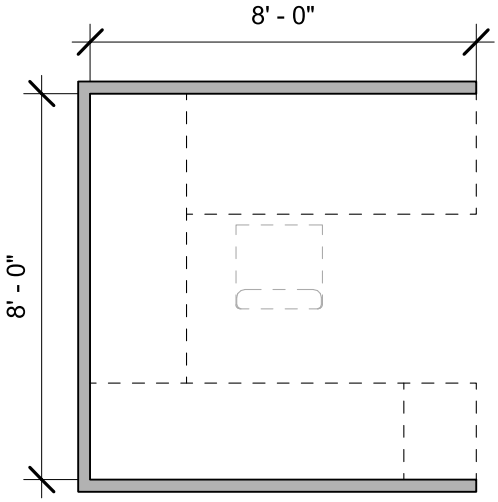
WORKSTATION - WS2
8 x 10



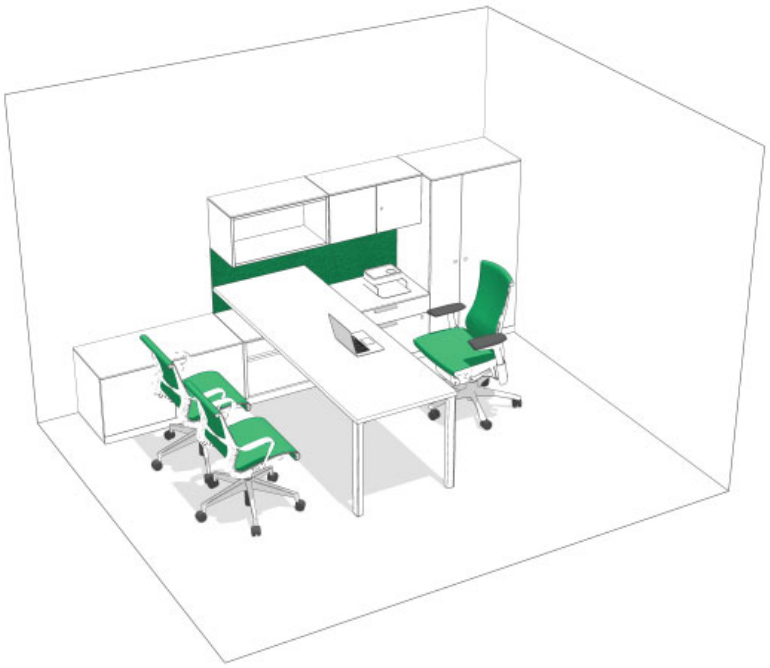
WORKSTATION - WS4
6 x 6



WORKSTATION - WS5
6 x 8



WORKSTATION - WS3
8 x 8



Private Office: Private, lockable enclosed spaces which provide privacy for employees who are frequently engaged in work activities of a confidential nature.

Standard Workstations: Open plan workstations can offer an opportunity for a stronger connection between staff. Walls can be medium or high divider walls or panels configured into ‘neighborhoods’ or ‘suites’.

Benching Workstation: Open plan workstations with a single straight work surface and medium to low divider walls or panels between stations. This can be utilized for Patrol Report Writing.

Unassigned | Jump Workstation: The practice of allocating either standard workstations or benching desks to workers only when they are in use or on a rotating system, rather than giving each worker a dedicated work space. This model works well for highly mobile positions, cadets or part-time employees.

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Facility Tours

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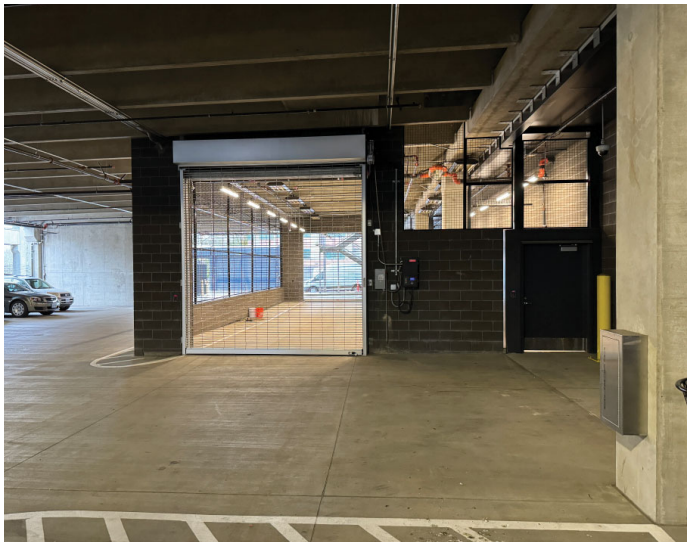
FACILITY TOUR 1: KEIZER CITY HALL & POLICE DEPARTMENT - KEIZER, OREGON

PROS

- 600 person meeting room with kitchenette | food prep space.
- Mailbox areas and gun rails at hallways.
- Wellness | nursing room with cot, refrigerator and sink.
- Seperate area for returned | rebagging evidence.
- Lots of storage and separation. Seperate access for drug and weapon evidence storage. Seperate evidence release area close to lobby.
- Ideal workspace configuration and office sizes. (Larger chief's offices for guests, two officers to a work station, allowing for privacy and ownership of space).

CONS

- Small, crowded gym space.
- Showers too close to front entrance of restrooms.
- Undersized Criminal Investigation Department space.
- Evidence tech area too far from patrol.
- Lacks outdoor covered area.
- Community room doubles as Defensive Tactics Mat Room.
- Open concept layout at admin assistant area can be disruptive.



FACILITY TOUR 2: SALEM POLICE DEPARTMENT - SALEM, OREGON

PROS

- Kiosks for private records and non-emergency dispatch.
- Cell phone area with charging stations.
- All staff has visual access to security cameras.
- Lounge | quiet area for brainstorming, relaxation, small collaboration meetings or meals.
- Great lunch room layout - booth and chair seating, exterior covered area and balcony.
- Forensic technology room with protective finishes for internet privacy.
- Efficient locker room layout and locker system.
- Domestic Violence Advocate area with seperate area for privacy and safety of children (extra-soft interview room).

CONS

- Concern with safety and security with circulation at property release area.
- Evidence return area much too small.
- Multi-story lobby causes too much noise transfer.
- Training simulator not utilized - staff would prefer more training space instead.
- Patrol briefing room is too open, more privacy or soundproofing needed.

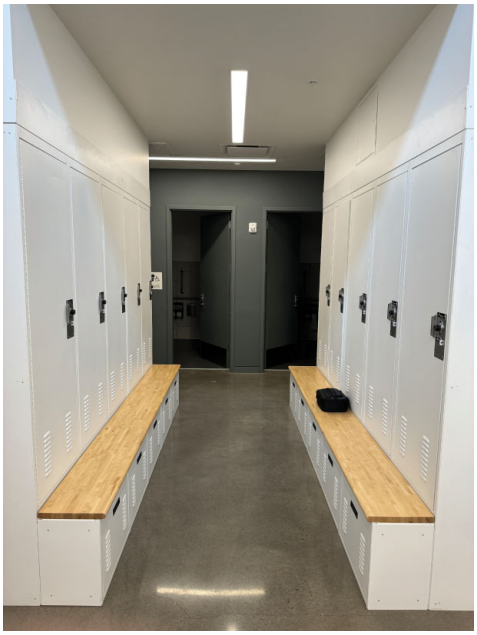
FACILITY TOUR 3: ALBANY POLICE DEPARTMENT - ALBANY, OREGON

PROS

- Second level lobby and reception area at elevator.
- Patrol has visual access of booking area. Effective layout of booking area.
- Great evidence processing area - contains a large processing table and pass-through evidence drop-off.
- Best sized evidence area of all toured facilities - contains vehicle evidence pull-through.
- Investigation area is equipped with a separate storage room.

CONS

- Fitness area on the second floor has a narrow layout and causes noise to transfer to work stations below.
- Exposed structural elements near property release area raise safety concerns.



FACILITY TOUR 4: OREGON CITY POLICE DEPARTMENT - OREGON CITY, OREGON

PROS

- Desired design aesthetic - high ceilings, exposed wood finishes, Scandanavian lighting design.
- Open records staff area.
- Centrally located glass wall briefing room.
- Patrol areas have both open, walk-through supply areas and secure weapons storage rooms.
- Changing suites with and without showers located off locker area.
- Large, open concept gym and Defensive Tactics Mat room with garage door and tall ceilings for circulation.
- Closed focus rooms off patrol area for reports.

CONS

- No Sally Port or holding cells.
- Vehicle processing area is too small.
- Layout of public restrooms off lobby not preferred for visual access issues.
- Space Savers and records storage are too high to be easily accessed.

Site Selection

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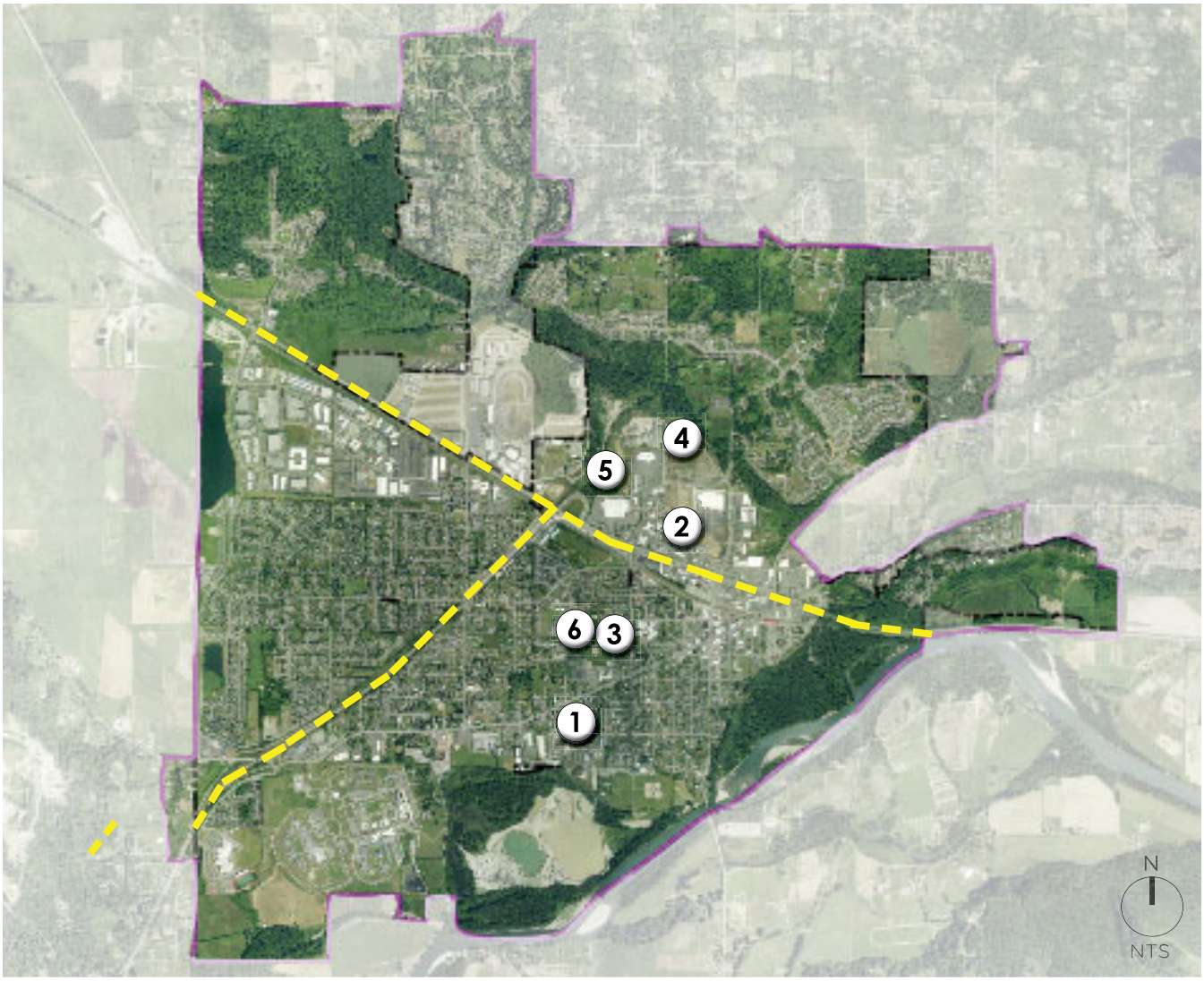
MAP OF POTENTIAL SITES

After developing the space-needs program for the Monroe Police Department, and after touring comparable facilities in the region, Mackenzie prepared a series of site test fit diagrams. These site test fits allowed the team to analyze each of the sites to determine if the space-needs program was able to fit on the selected sites. This process also helped the team further evaluate the operational flow and larger programmatic adjacencies of the site and building.

It's crucial to note that these site selections do not imply any commitment from the City to pursue a purchase and sales agreement for the identified land, nor does it imply the land is considered available for sale. This exercise remains exploratory at this phase of the project.



LEGEND

Major Highway

City Boundary

Urban Growth Boundary

Evaluated Site #

- SITE 1: Existing City Campus
- SITE 2: North Kelsey Retail Area
- SITE 3: School District Football Field
- SITE 4: North of Existing Walmart
- SITE 5: West of Existing Walmart
- SITE 6: School District Baseball Field

ZONING AND DEVELOPMENT REQUIREMENTS

	SITE 1: EXISTING POLICE SITE	SITE 2: NORTH KELSEY RETAIL	SITE 3: SCHOOL DISTRICT FOOTBALL FIELD
PROPERTY ADDRESS:	806 W Main Street	Tjerne Place, Monroe, WA 98272	210 Kelsey Street, Monroe, WA 98272
SITE AREA	3.69 acres	1.12 acres to 3.25 acres	4.75 acres
TAX LOT(S)	27060100301900	27060100115500, 27060100115400, 27060100115300, 27060100115200, 27060100115100	27060100100400
OWNER	City of Monroe	City of Monroe	Monroe School District
ZONE & JURISDICTION	MN (Mixed Use – Neighborhood)	General Commercial (GC)	Institutional (IN)
ALLOWED USE	Government facilities are a permitted use.	Not permitted for public safety and government facilities	Government facilities is an allowed use, limited to courts, fire stations, government administration buildings, police stations, public works maintenance and storage facilities.
MIN. LANDSCAPE REQUIREMENTS	20% of site area	Perimeter and Parking Lot Landscape	Perimeter and Parking Lot Landscape
MAX. LOT COVERAGE	80% of site area	100% Site Area	80% of site area
PARKING RATIO	1 space for every 300 occupants	1 space for every 300 occupants	1 space for every 300 occupants
MAX BUILDING HEIGHT	45’	45′	45′ (55’ allowed with CUP)
MAX. BUILDING SETBACKS	10’ front yard and rear yard setbacks. 5’ side yard setbacks	No front or side yard setbacks, 10′ rear yard setback	10′ setbacks at front side and rear yards
SLOPE/TREES	Limited	Limited	None
PROPERTY AVAILABILITY	City Owned	City Owned	TBD
WETLANDS/SENSITIVE AREAS	None	None	None
FRONTAGE IMPROVEMENTS	A. Minimum Street Frontage - N/A B. Minimum Street Frontage for Panhandle Lots- 20’ C. Minimum Street Frontage for Lots with Public Street Access from a Private Access Tract or Easement - 20’	A. Minimum Street Frontage - N/A B. Minimum Street Frontage for Panhandle Lots- 20′ C. Minimum Street Frontage for Lots with Public Street Access from a Private Access Tract or Easement - 20′	A. Minimum Street Frontage - 30′ B. Minimum Street Frontage for Panhandle Lots- 20′ C. Minimum Street Frontage for Lots with Public Street Access from a Private Access Tract or Easement - 20′

SITE 4: NORTH OF EXISTING WALMART	SITE 5: WEST OF EXISTING WALMART	SITE 6: SCHOOL DISTRICT BASEBALL FIELD
Labeled as "unknown" by Snohomish County Assessor's Office	Labeled as "unknown" by Snohomish County Assessor's Office	599 W Columbia Street
5.74 Acres	11.32 Acres	6.68 Acres
28063600403700	28063600402900	27060100205100
Corporation Owned	City of Monroe	Monroe School District
General Commercial (GC)	General Commercial (GC)	Institutional (IN)
Government facilities are a permitted use.	Government facilities are a permitted use.	Government facilities is an allowed use, limited to courts, fire stations, government administration buildings, police stations, public works maintenance and storage facilities.
Perimeter and Parking Lot Landscape	Perimeter and Parking Lot Landscape	Perimeter and Parking Lot Landscape
100% of Site Area	100% of Site Area	80% of Site Area
1 space for every 300 occupants	1 space for every 300 occupants	1 space for every 300 occupants
45′	45′	45' (55' allowed with CUP)
No front or side yard setbacks, 10′ rear yard setback	No building setbacks	10' setbacks at front side and rear yards
Limited	Some	None
TBD	City Owned	TBD
None	There is at least one sensitive land as listed in Chapter 17.44 SHMC: Floodplains and Wetlands.	There is at least one sensitive land None Floodplains and Wetlands.
A. Minimum Street Frontage - N/A B. Minimum Street Frontage for Panhandle Lots- 20′ C. Minimum Street Frontage for Lots with Public Street Access from a Private Access Tract or Easement - 20′	A. Minimum Street Frontage - N/A B. Minimum Street Frontage for Panhandle Lots- 20′ C. Minimum Street Frontage for Lots with Public Street Access from a Private Access Tract or Easement - 20′	A. Minimum Street Frontage - 30' B. Minimum Street Frontage for Panhandle Lots - 20' C. Minimum Street Frontage for Lots with Public Street Access from a Private Access Tract or Easement - 20'

SITE BREAKDOWN

SITE 1: EXISTING POLICE SITE

LOCATION

- 806 W Main Street
- Parcel Number: 27060100301900
- Existing Building Size: Approx. 9,000 SF
- Proposed Building Size: Approx. 27,000 SF
- Owner: City of Monroe

SIZE

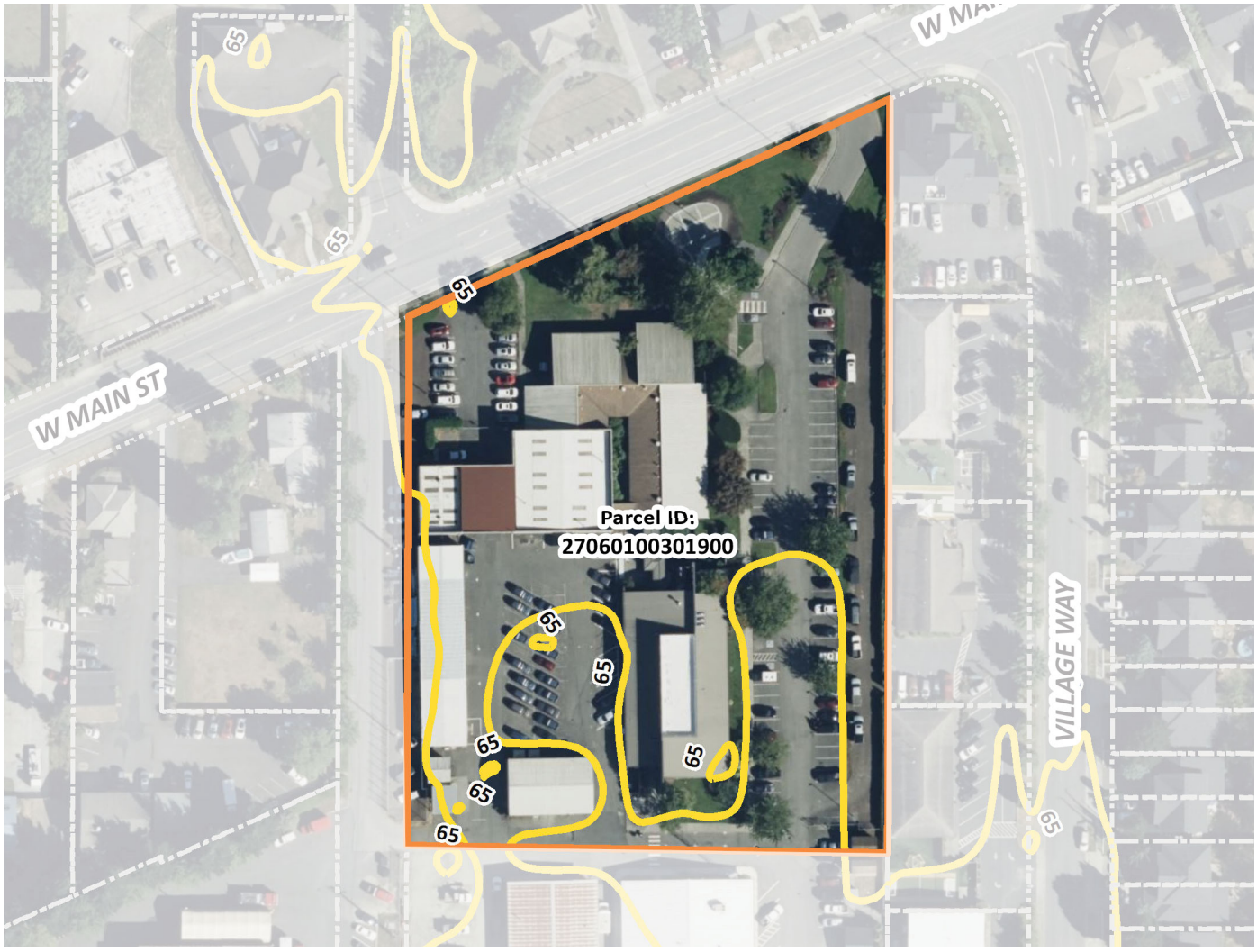
- 1.12 acres to 3.25 acres
- 160,736 SF

ZONING

- MN (Mixed Use – Neighborhood)

USE

- Government use allowed, site will remain utilized for the same purpose.



PROS

- Existing Site - can utilize existing utility connections and access points
- Located off a main road, multiple access | egress points
- City of Monroe owns current site and adjacent site
- Permitted for government use
- Retains existing adjacency to other city functions

CONS

- Undersized for program and parking needs
- Building will need to be completely demolished, requiring displacement of police operations
- Construction site requires two-story structure
- Construction may impact utility services to Administrative and Justice Wing

SITE 2: NORTH KELSEY RETAIL AREA

LOCATION

- Tjerne Place, Monroe, WA 98272
- Parcel Number: 27060100115500, 27060100115400, 27060100115300, 27060100115200, 27060100115100
- Existing Building Size: None
- Owner: City of Monroe
- Overlay(s): North Kelsey | Tjerne Place Overlay (NK/TP-O)

SIZE

- 1.12 acres to 3.25 acres
- 50,094 SF
- Price: TBD

ZONING

- General Commercial (GC)

USE

- Government Facilities are not an allowed use under current zoning regulations. Specifically, the NK/TO-O overlay prohibits government facilities.

PROS

- Relatively flat
- Near commercial activities
- Large enough
- Access to major road | hwy
- Available site utilities likely
- Owned by City of Monroe

CONS

- Not Permitted Outright, will require LID's ($)
- Multiple parcels; city only wishes to explore lots on the edge which may not be feasible | lead to disjointed structures

SITE 3: SCHOOL DISTRICT FOOTBALL FIELD

LOCATION

- 210 Kelsey Street, Monroe, WA 98272
- Parcel Number: 27060100100400
- Existing Building Size: None
- Owner: Monroe School District
- Overlay(s): None

SIZE

- Parcel Size: 4.75 acres

ZONING

- Institutional (IN)

USE

- Public Safety Services

- Government Facility is an allowed use, limited to courts, fire stations, government administration buildings, police stations, public works maintenance and storage facilities.

PROS

- Site is well proportioned and shaped
- Site is virtually flat and well graded
- Near commercial activities
- Single parcel
- Well sized, nearly double required acreage
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

CONS

- Proximity to residences, buffer area likely needed to the North and South
- High cost of half street improvements through site

SITE 4: NORTH OF EXISTING WALMART

LOCATION

- Address labeled as "unknown" by Snohomish County Assessor's office
- Parcel Number: 28063600403700
- Existing Building Size: None
- Corporation Owned
- Overlay(s): North Kelsey Planning Area & Planned Development Area. The western half of the site is located within the airport compatibility overlay.

SIZE

- 5.74 Acres

ZONING

- General Commercial

USE

- Public Safety Services
- Government Facility is a permitted use

PROS

- Near commercial activities
- Single parcel
- Well sized, nearly double required acreage
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

CONS

- Site is not owned by the City of Monroe
- Pricing and availability unknown
- Not directly accessible by major roads
- Variations in grading

WETLAND AREA

SITE 5: WEST OF EXISTING WALMART

LOCATION

- Address labeled as “unknown” on by Snohomish County Assessor’s Office
- Parcel Number: 2806360040290
- Existing Building Size: None
- Owner: City of Monrioe
- Overlay(s): None

SIZE

- 11.32 Acres
- Price: TBD

ZONING

- General Commercial

USE

- Public Safety Services
- Government Facility is a permitted use

PROS

- Site is owned by City of Monroe
- Near commercial activities
- Single parcel
- Oversized
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

CONS

- Not directly accessible by major roads
- Variations in grading
- Partial wetland on site
- Site was previously a landfill and may have questionable soil
- Partial wetland presence
- Tree line cuts through site

SITE 6: SCHOOL DISTRICT BASEBALL FIELD

LOCATION

- 599 W Columbia Street, Monroe, WA 98272
- Parcel Number: 27060100205100
- Existing Building Size: None
- Owner: Monroe School District
- Overlay(s): None

SIZE

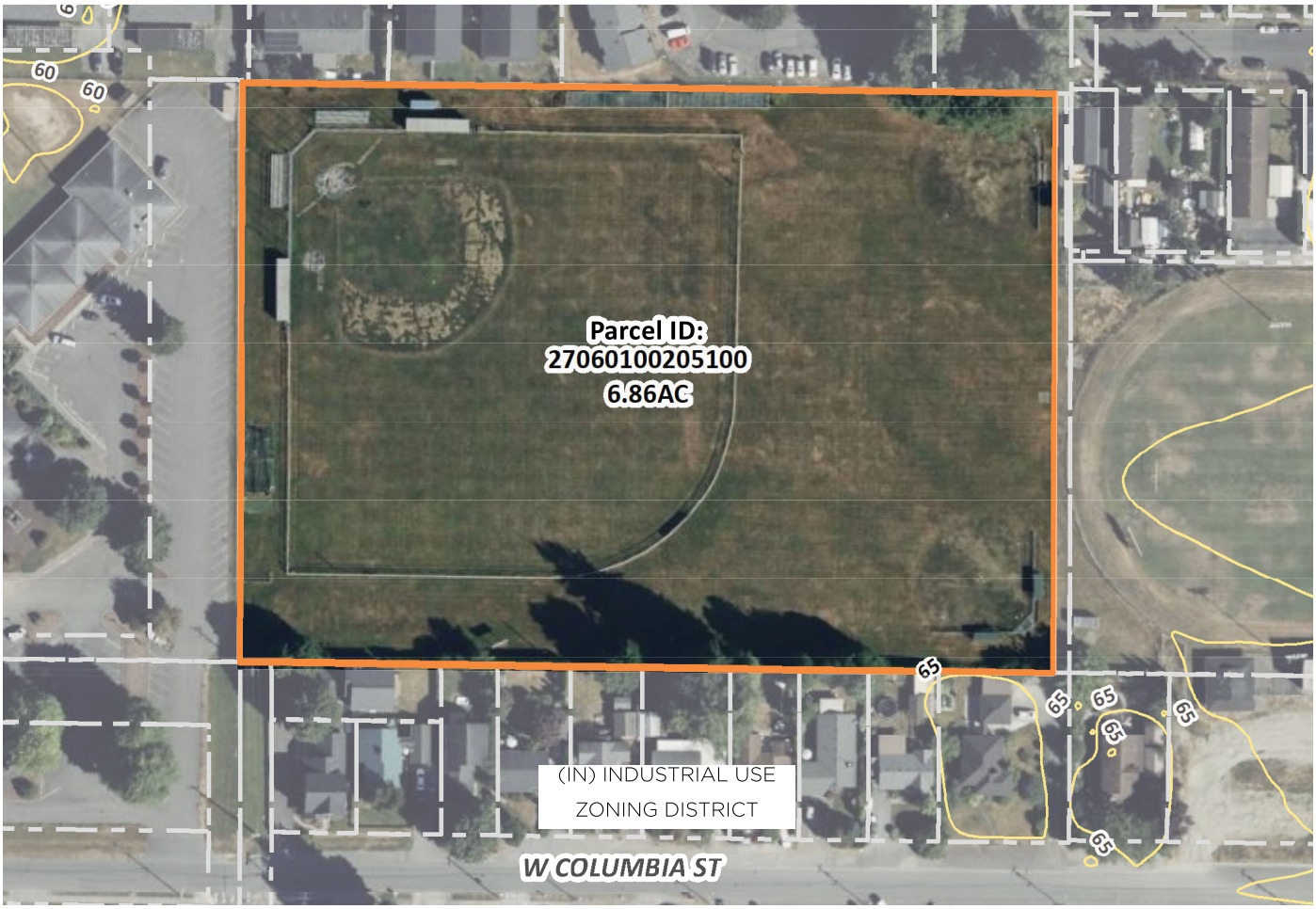
- Parcel Size: 6.86 acres
- Price: TBD

ZONING

- Institutional (IN)

USE

- Public Safety Services
- Government Facility is an allowed use, limited to courts, fire stations, government administration buildings, police stations, public works maintenance and storage facilities.



PROS

- Site is proportioned and regular in shape
- Site is virtually flat and well graded
- Near commercial activities
- Single parcel
- Site likely to support single story programming
- Site can support program parking
- Site can support growth
- Available site utilities likely
- Properly zoned for public safety services, usage allows for government facilities

CONS

- Proximity to residences, buffer area likely needed to the North and South
- No current street access points
- High cost of street improvement through site
- Site larger than required for project program

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Plan Development

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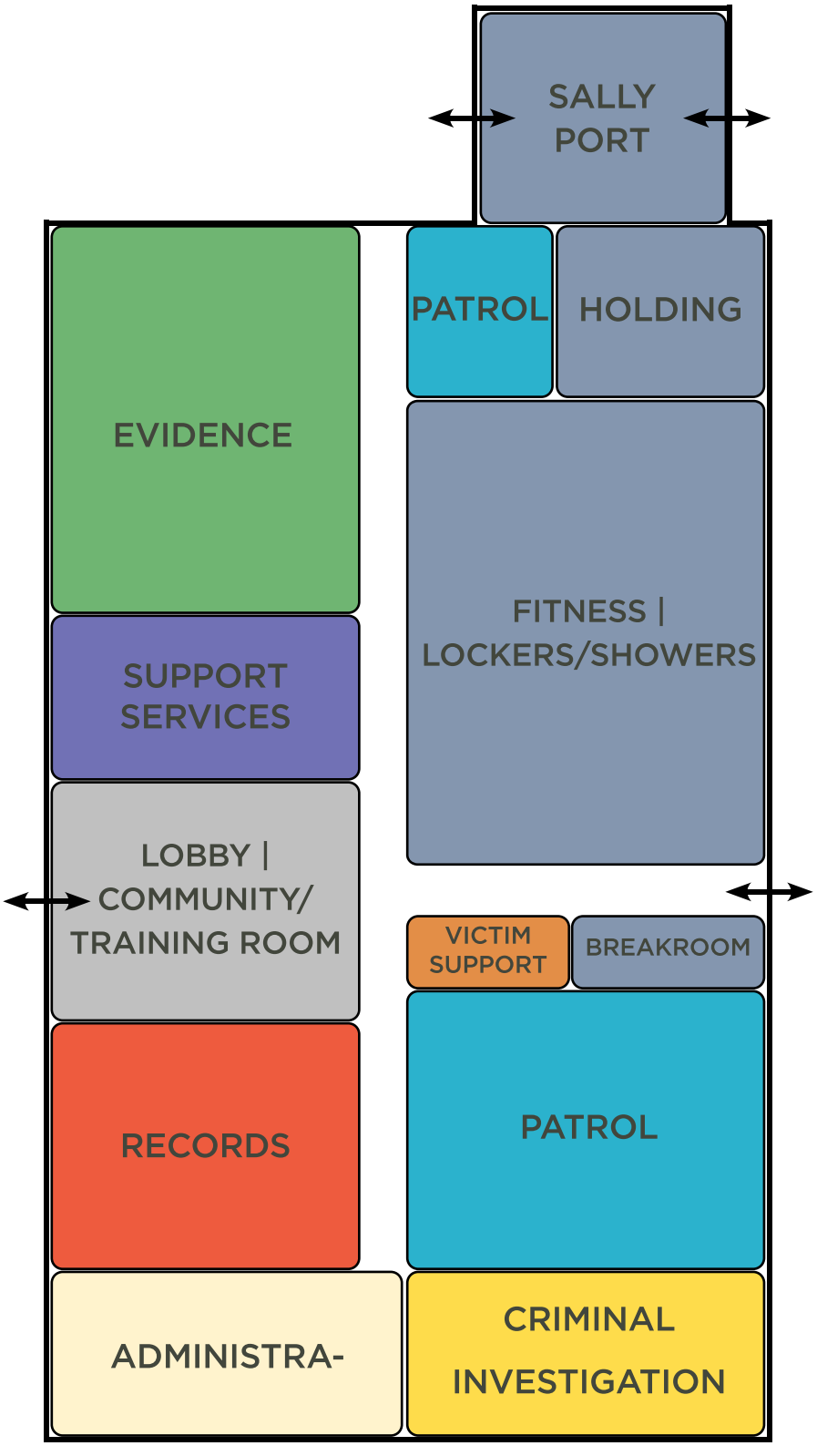
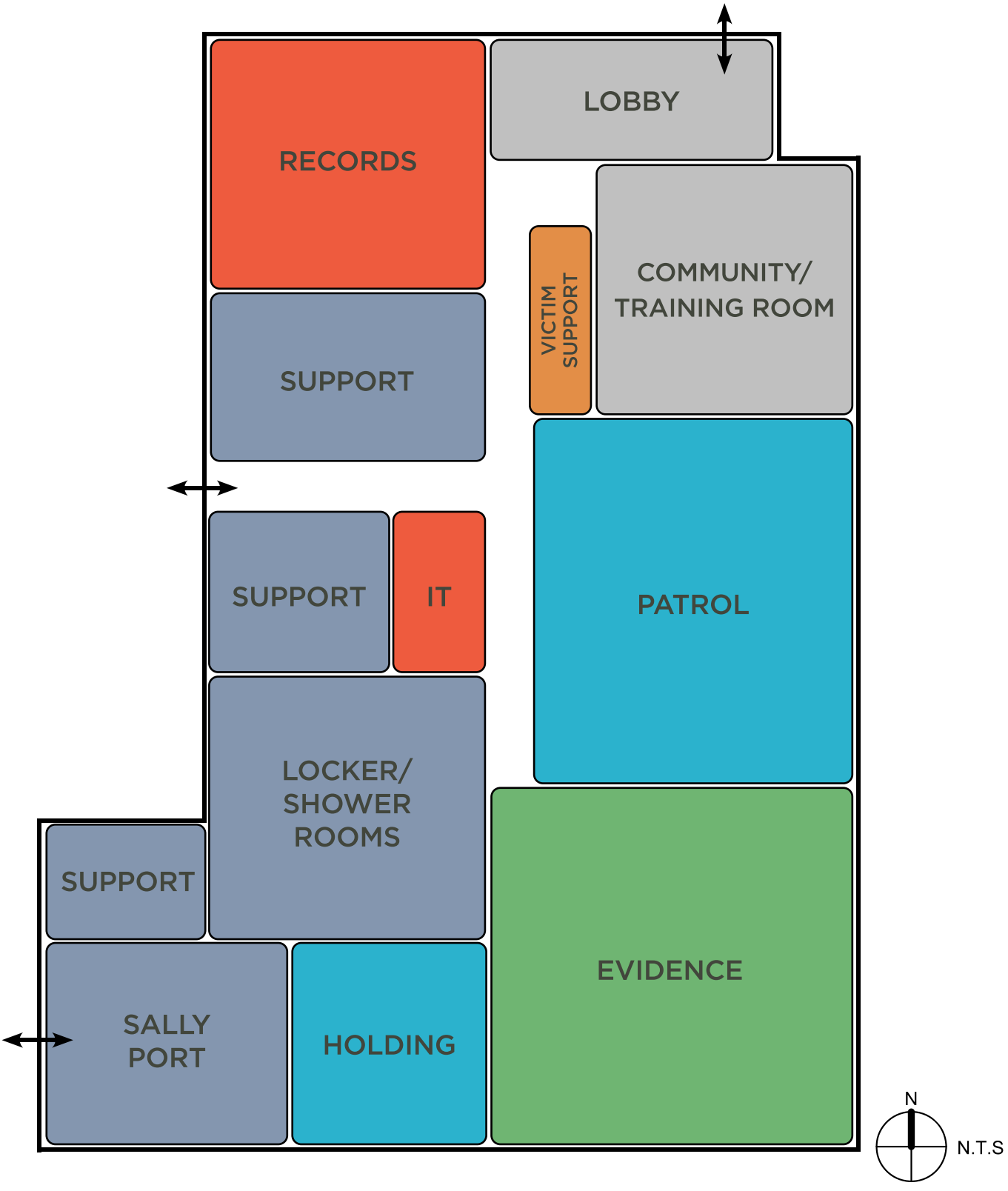
ADJACENCY DIAGRAMS



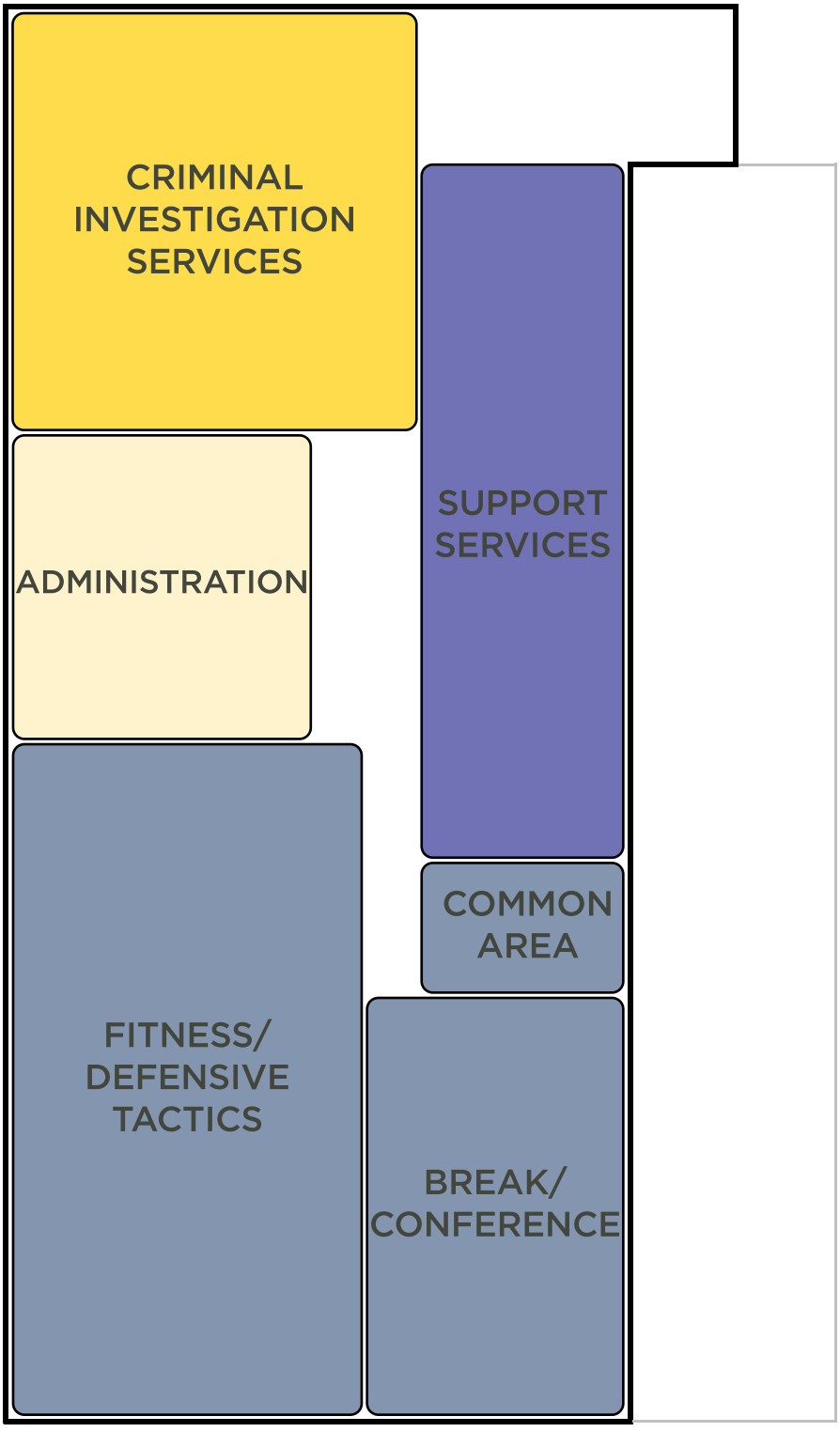
Single Level Adjacency Plan

ADJACENCY DIAGRAMS



Two-Level Adjacency Plan - First Floor

ADJACENCY DIAGRAMS



Two-Level Adjacency Plan - Second Floor

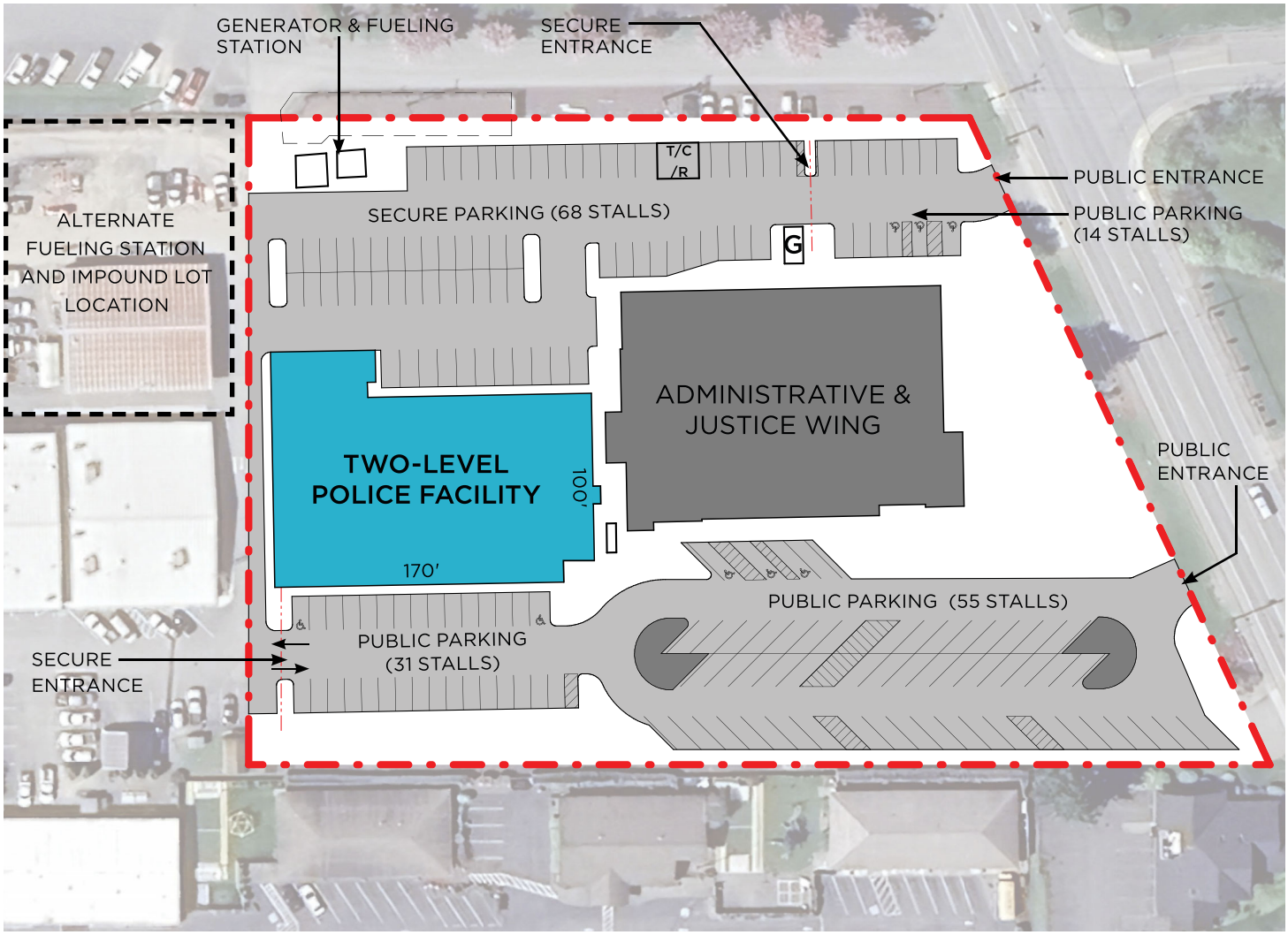
PROPOSED SITE PLANS

SITE 1 - EXISTING CAMPUS TEST FIT TABULATIONS

1ST FLOOR:	17,750 SF
2ND FLOOR:	11,900 SF
BUILDING TOTAL:	**29,650 SF**

SECURE PARKING STALLS: 68
PUBLIC PARKING STALLS: 100

SITE BOUNDARY



EXISTING CAMPUS SITE PLAN

0′ 50′ 100′ 200′

SCALE: 1″ = 100′-0″

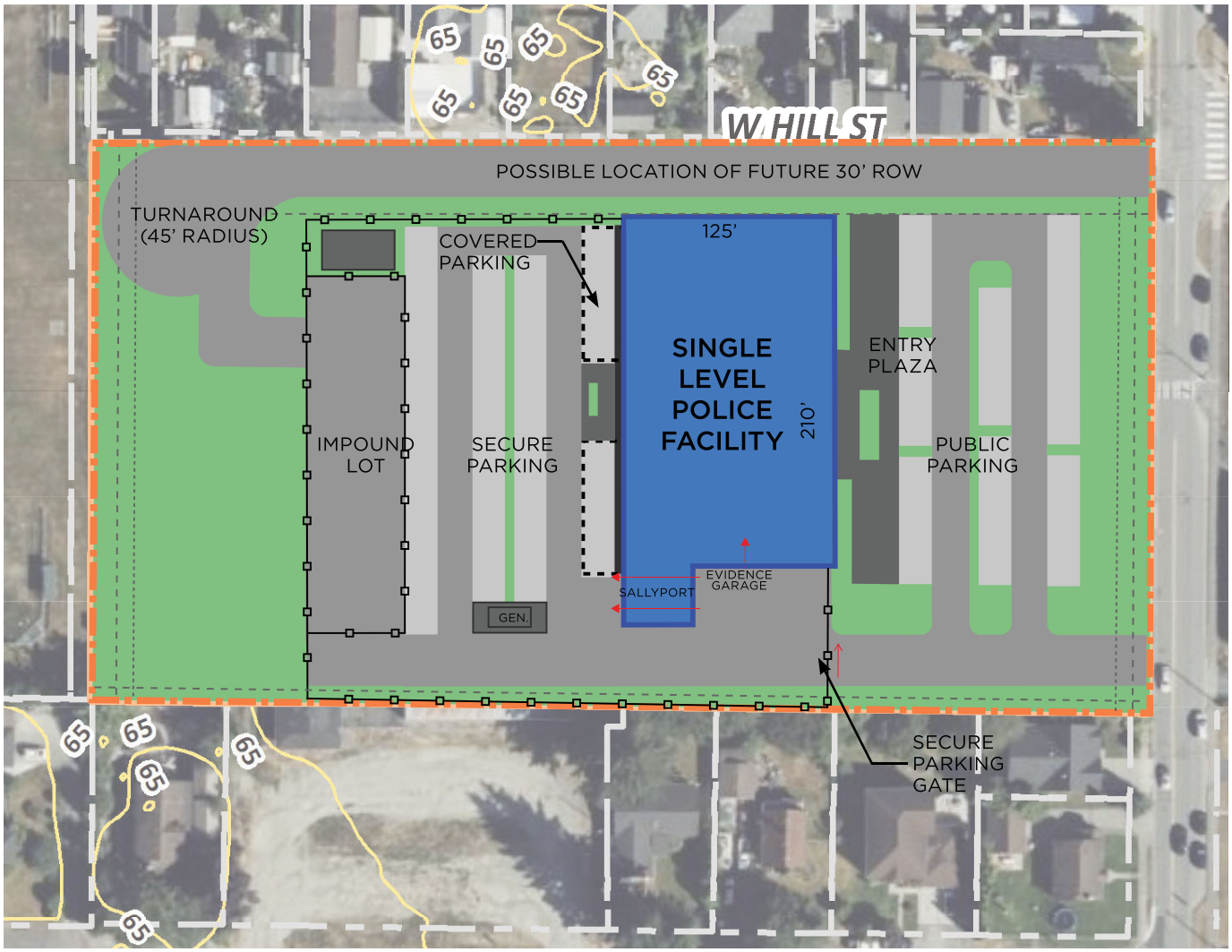
Further expansion of the existing public parking to match the layout of the administrative & justice wing would require further reduction of square footage of the building and not evaluated.

PROPOSED SITE PLANS

SITE 3 - FOOTBALL FIELD TEST FIT TABULATIONS

BUILDING TOTAL:	**27,500 SF**
SECURE PARKING STALLS:	78
PUBLIC PARKING STALLS:	58

SITE BOUNDARY



FOOTBALL FIELD SITE PLAN

0′ 50′ 100′ 200′

SCALE: 1″ = 100′-0″

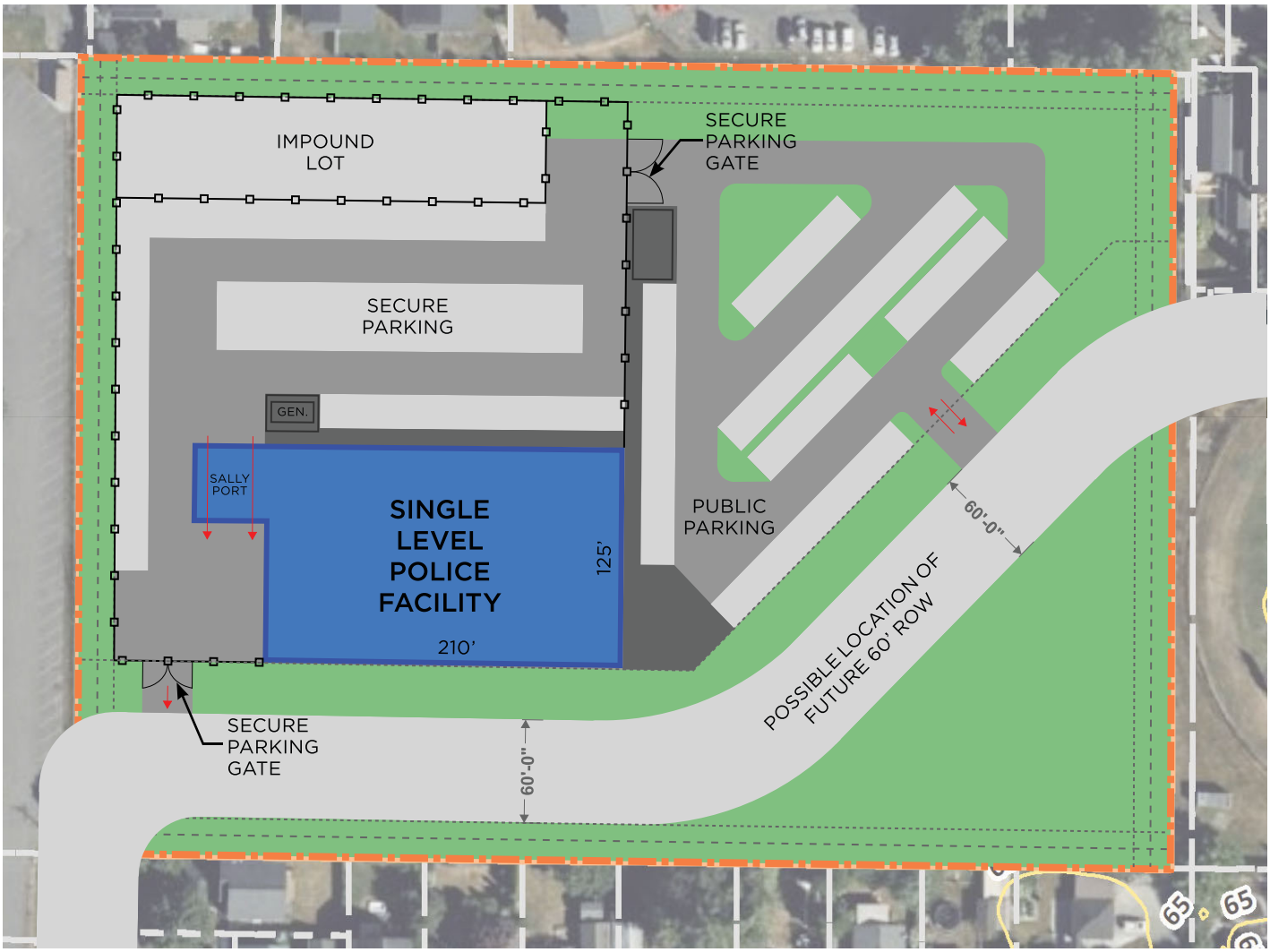
PROPOSED SITE PLANS

SITE 6 - BASEBALL FIELD TEST FIT TABULATIONS

BUILDING TOTAL: **27,500 SF**

SECURE PARKING STALLS: 80
PUBLIC PARKING STALLS: 75

SITE BOUNDARY



BASEBALL FIELD SITE PLAN

0' 50' 100' 200'

SCALE: 1" = 100'-0"

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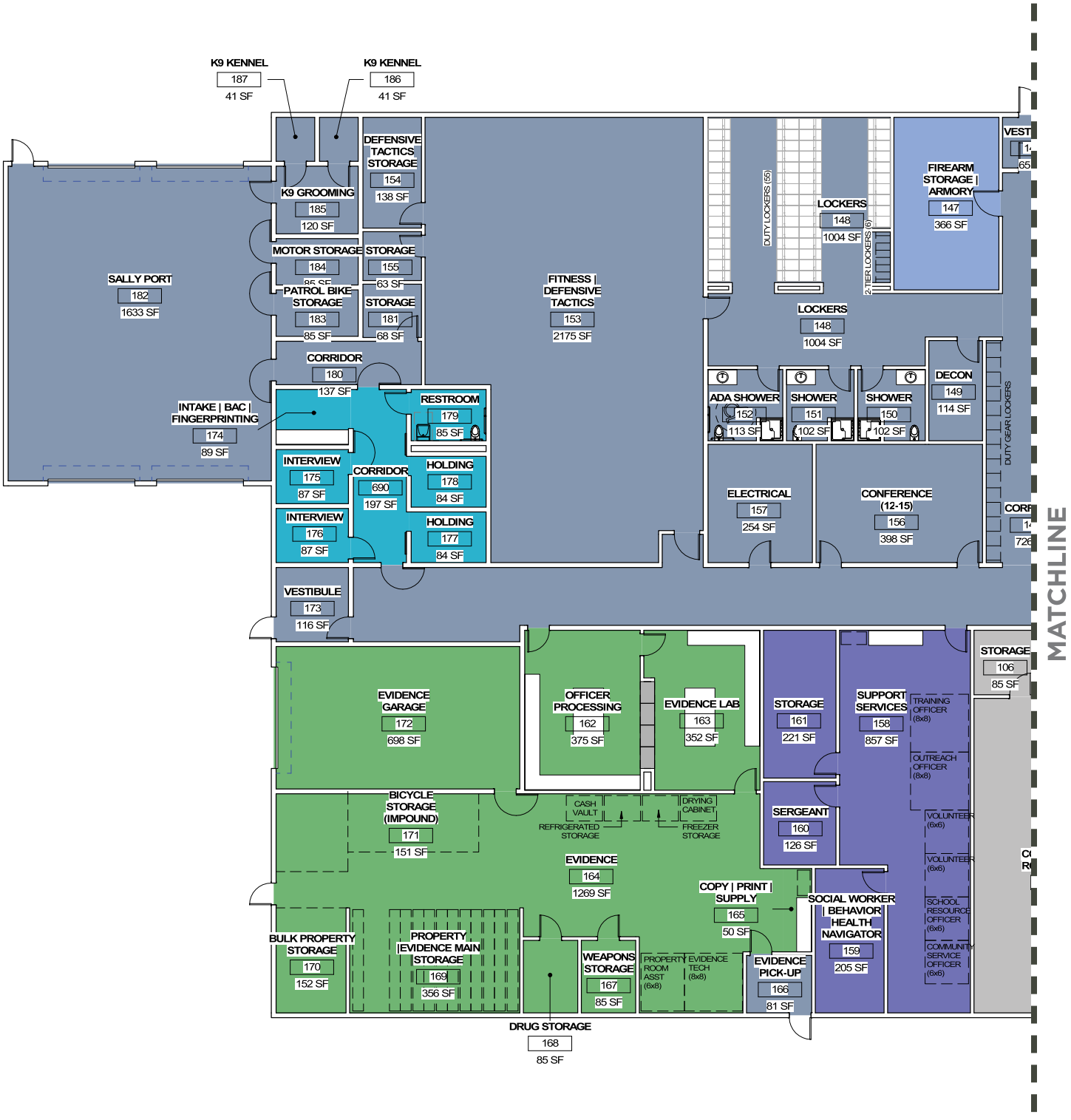
PROPOSED FLOOR PLANS

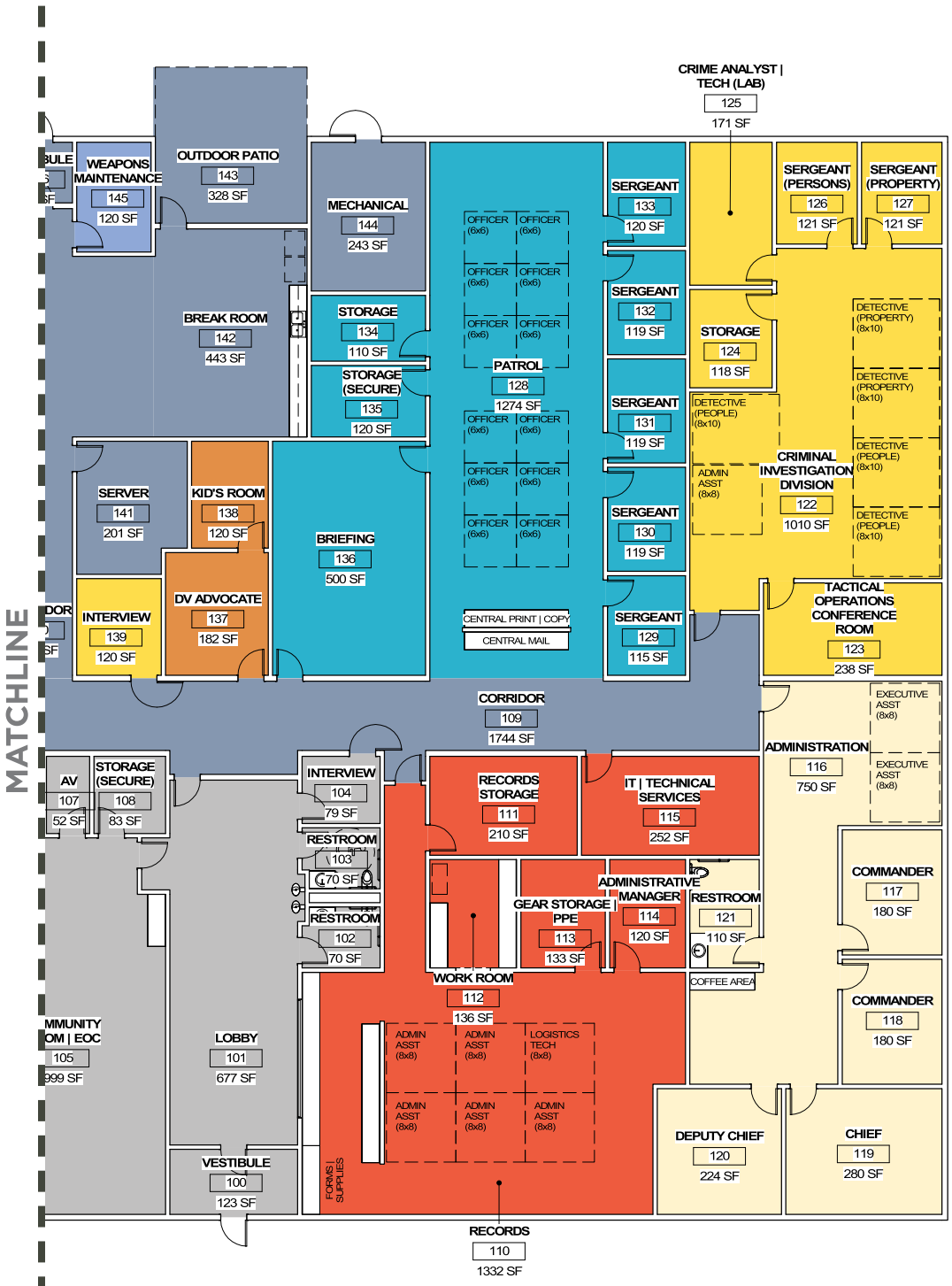


Single Level Police Facility Floor Plan

Monroe Police Department

June 26, 2024

PROPOSED FLOOR PLANS



LEGEND

- COMMON AREAS
- VICTIM SUPPORT
- PATROL
- EVIDENCE
- RECORDS
- COMMON AREAS
- SUPPORT SERVICES
- ADMINISTRATION
- CRIMINAL INVESTIG. SERVICES
- PUBLIC

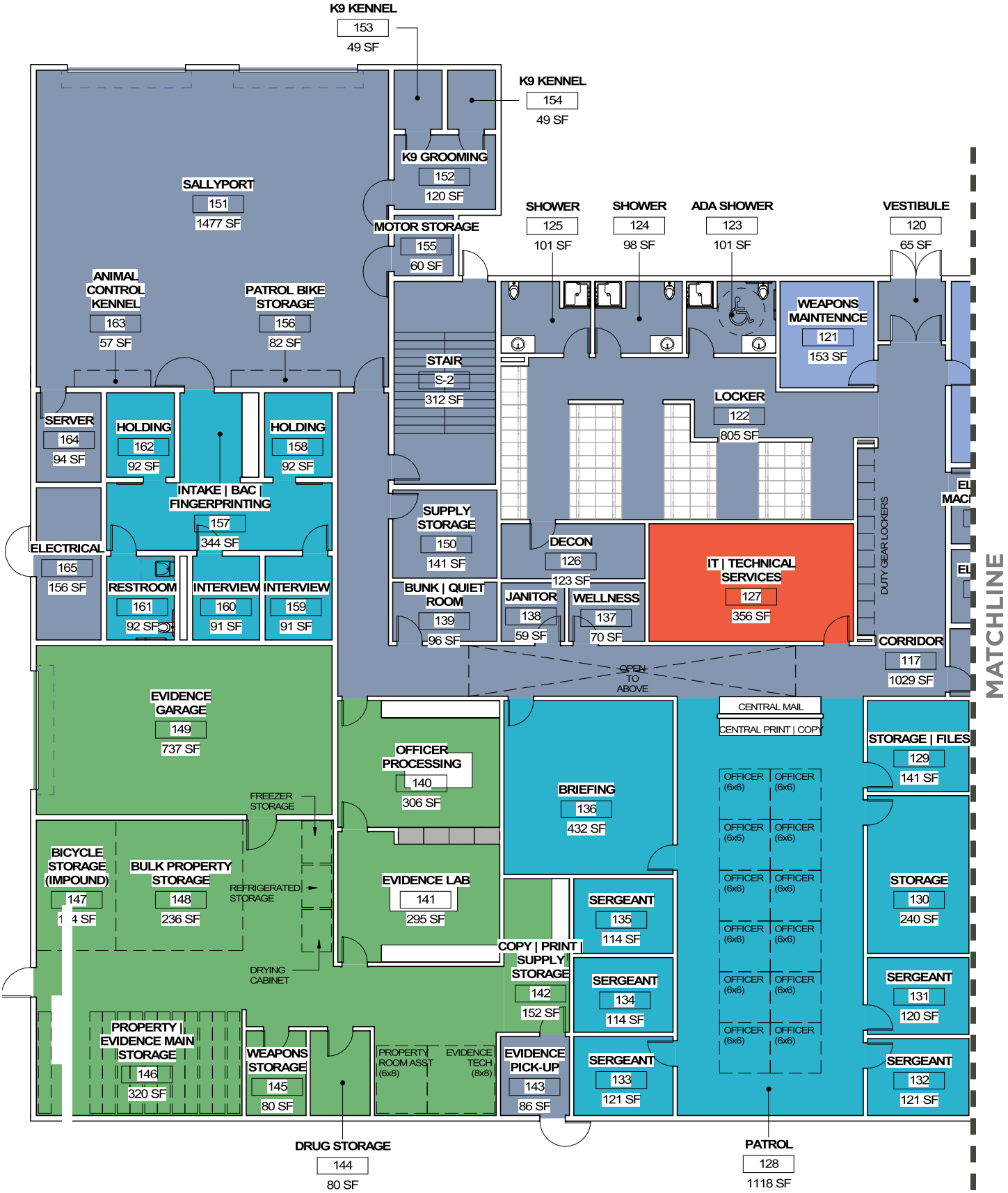
FLOOR PLAN

0′ 10′ 20′ 40′

SCALE: 1" = 20'-0"

MACKENZIE.

PROPOSED FLOOR PLANS

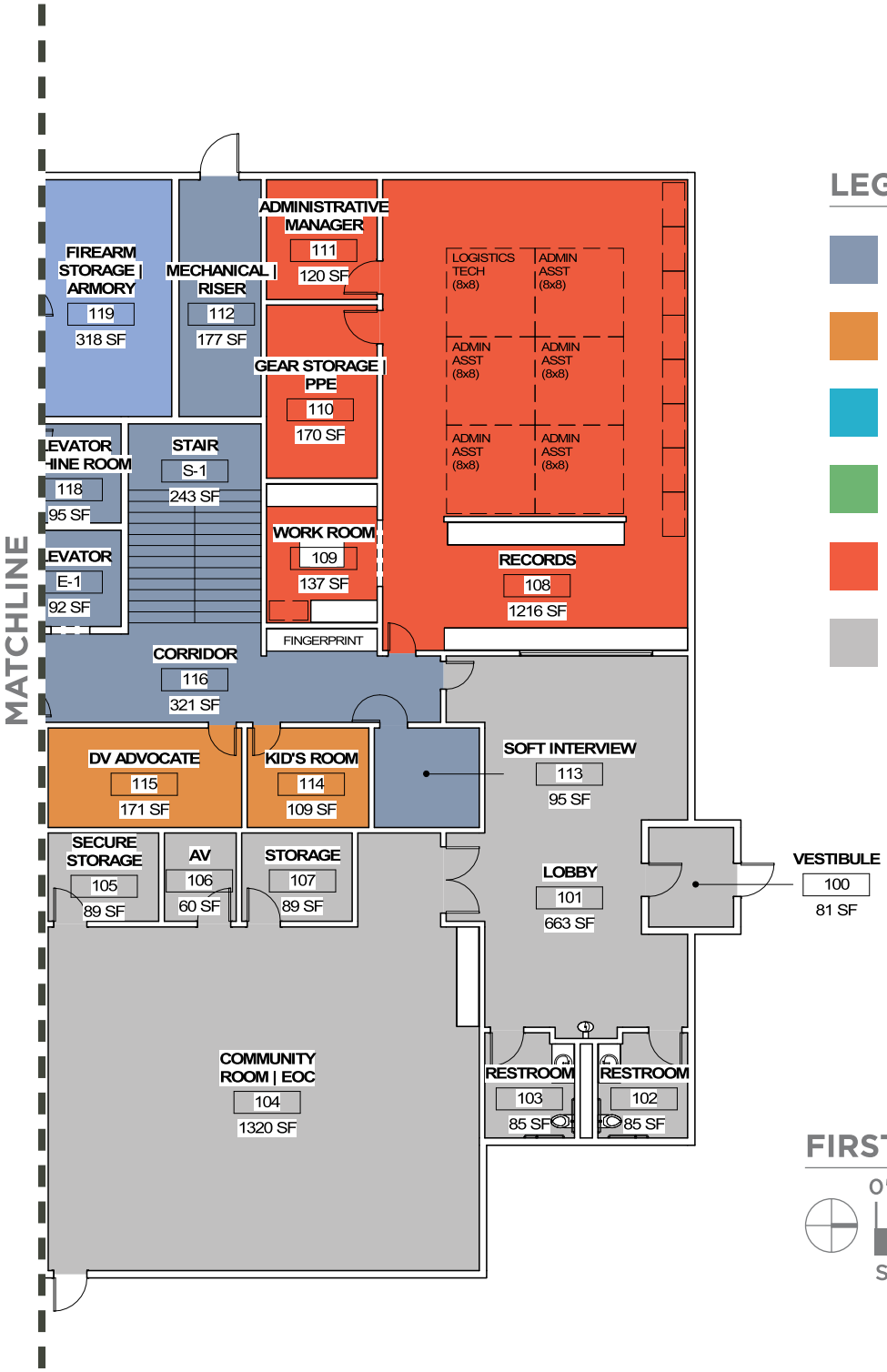


Two-Level Police Facility - First Floor Plan

Monroe Police Department

June 26, 2024

PROPOSED FLOOR PLANS



LEGEND

- COMMON AREAS
- VICTIM SUPPORT
- PATROL
- EVIDENCE
- RECORDS
- PUBLIC

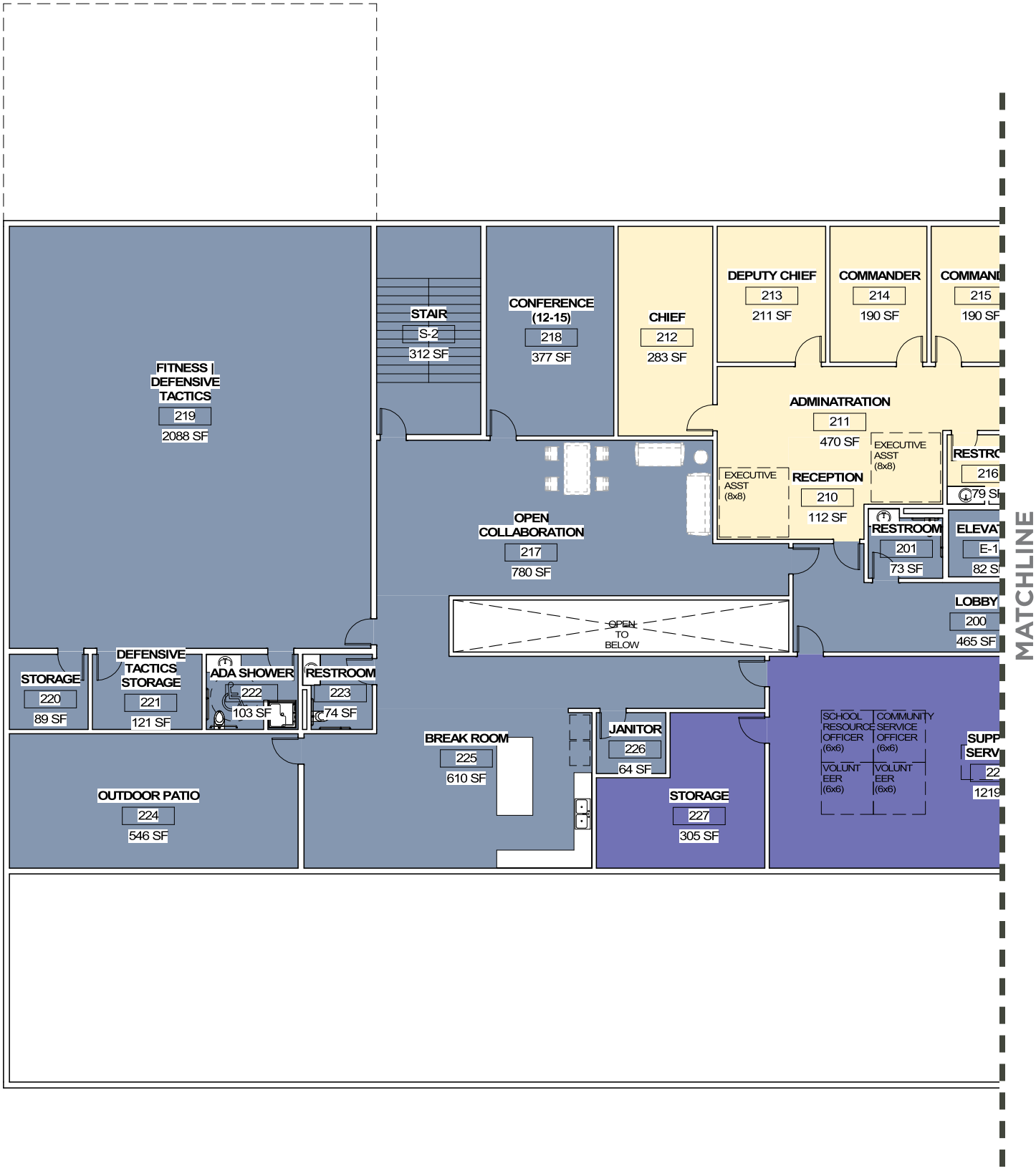
FIRST FLOOR PLAN

0′ 8′ 16′ 32′

SCALE: 1″ = 16′-0″

MACKENZIE.

PROPOSED FLOOR PLANS

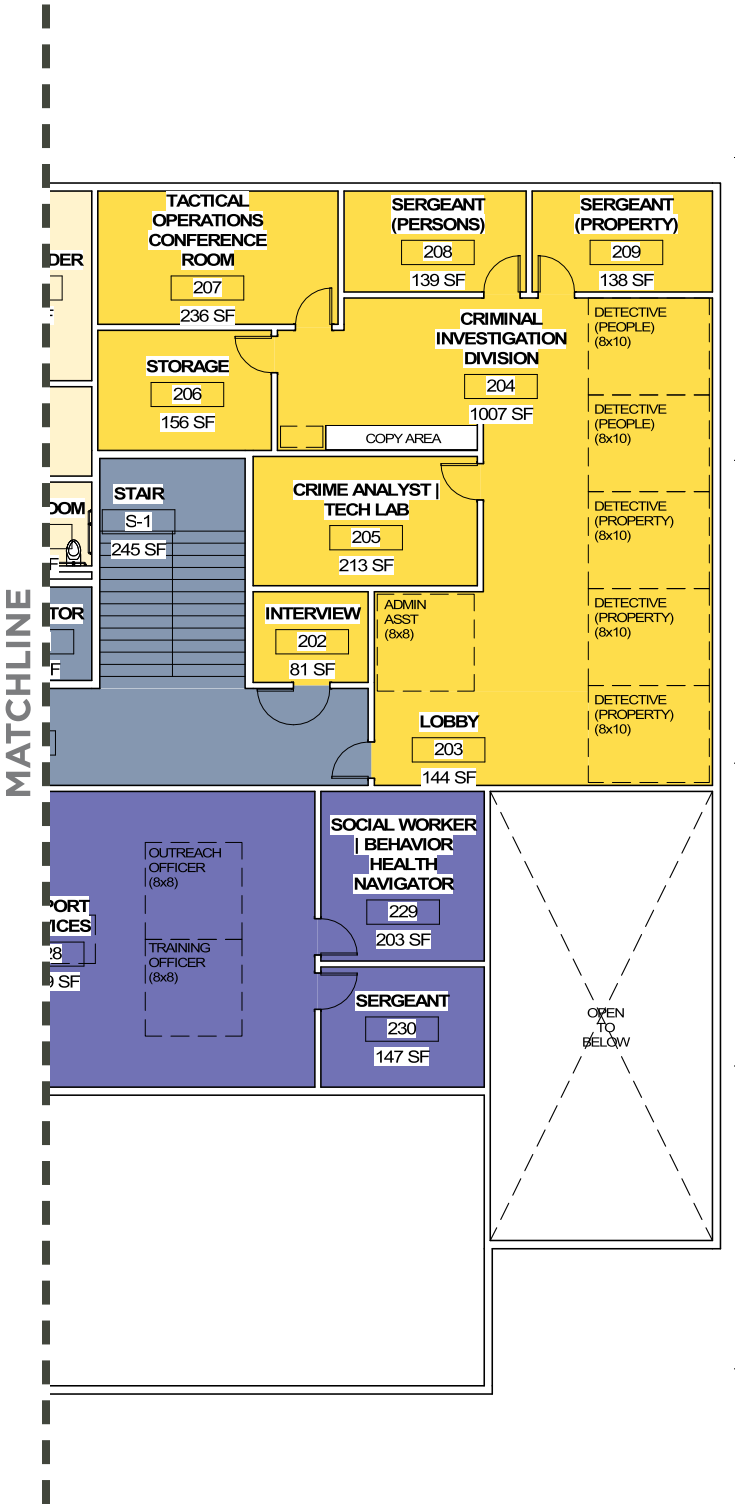


Two-Level Police Facility - Second Floor Plan

Monroe Police Department

June 26, 2024

PROPOSED FLOOR PLANS



LEGEND

- COMMON AREAS
- SUPPORT SERVICES
- ADMINISTRATION
- CRIMINIAL INVESTIGATION SERVICES

SECOND FLOOR PLAN

0′ 8′ 16′ 32′

SCALE: 1″ = 16′-0″

MACKENZIE.

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Project Cost Development

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COST SUMMARY

Following completion of the conceptual site and floor plans for the existing city campus site and the school district athletic field sites, Mackenzie evaluated cost projections for the Police Facility options to meet the Department's needs for the next 20 years. This effort is further broken down through the Supporting Cost Estimates in Appendix A.

Development costs of a project are not limited to construction costs alone and require consideration of other variables. These variables differ between new construction and renovation or expansion, and invariably change from one project to the next depending on site conditions, existing building conditions, building codes, seismic zones and the environment of the construction industry. Differences between estimates arise depending on the design approach, construction costs, and design and engineering costs. Owner costs for furniture, fixtures and equipment are often constant, based on a predetermined budget set by the Department. New construction can often differ substantially due to the single variable of land acquisition. This cost, coupled with higher construction costs, often leads to this being a more expensive option. In the case of the existing city campus, there will not be land acquisition costs lowering the overall costs for a new facility.

Construction costs reflect the raw costs incurred by a general contractor for overhead and profit, bonding and insurance, securing of materials, and general construction of the site and building. In addition to the identified construction costs, an owner's contingency is recommended to ensure dollars are carried through construction for owner changes, design omissions, unforeseen conditions or jurisdictional requirements, among others.

Escalation costs were calculated at 5-year intervals describing the change in construction cost if construction was pushed forward beyond the year 2027. Total project costs are calculated on the following page for the year 2027 as shown on the Monroe Police Department – Cost Summary.

Consultant costs reflect the costs incurred for project management and design of the project from conceptual design through construction administration. Though design fees can vary, costs included in this report reflect standard A/E fee guidelines based on a percentage of construction cost as outlined by the Washington State Department of Enterprise Services. In addition to architectural and engineering services, costs include marketing materials and required services, such as geotechnical inspections and special inspections. A contingency is provided for this category for any unforeseen or additionally requested design services throughout the project.

Owner costs reflect the costs generally incurred directly by the owner throughout the project. This includes all items the owner may wish to contract separately from the general construction of the project. Some additional owner-related costs include relocation into the new facility, jurisdictional fees and furniture and equipment. A contingency is provided in this category for any unforeseen or undefined costs not currently represented.

COST SUMMARY

Monroe Police Department - Cost Summary

New Construction *5/30/2024*

Construction Cost of Facility	Existing Site	Football Field	Baseball Field	Comments
Building Hardcost	**$16,600,480**	**$16,036,760**	**$16,036,760**	
Sitework (on-site)	**$3,374,707**	**$6,213,230**	**$7,706,863**	
Parkings stalls (27) + Impound Lot	**$625,685**	**$0**	**$0**	
ROW Sitework	**$0**	**$1,099,164**	**$1,865,779**	
Contractor General Conditions	**$1,320,000**	**$1,625,000**	**$1,750,000**	
Escalation to midpoint of Construction (Q3, 2027)	**$2,555,422**	**$2,996,899**	**$3,283,128**	4% per year
Subtotal	**$23,850,609**	**$27,971,053**	**$30,642,530**	
Margins				
Owner's Contingency	$2,385,061	$2,797,105	$3,064,253	10.0% Allowance
Sales Tax	$2,466,153	$2,892,207	$3,168,438	9.4% Sales Tax
Subtotal	**$4,851,214**	**$5,689,312**	**$6,232,691**	
Total Construction Costs	**$28,701,823**	**$33,660,365**	**$36,875,221**	
	$941.04 /sf	$1,202.16 /sf	$1,316.97 /sf	

Consultants Costs	Existing Site	Football Field	Baseball Field	
A/E Design and Construction - Base	$2,385,061	$2,797,105	$3,064,253	10.0%
A/E Design and Construction - Expanded Services	$286,207	$335,653	$367,710	
Reimbursables	$47,701	$55,942	$61,285	2.0% Allowance
Owner's Project Manager	$0	$0	$0	Allowance
Topo and Boundary Survey	$12,000	$12,000	$12,000	Allowance
Special Inspections	$35,000	$35,000	$35,000	Allowance
Geotechnical Services	$65,000	$65,000	$65,000	Allowance
Environmental Services	$0	$0	$0	Allowance
Transportation Engineering	$0	$0	$0	Allowance
Haz. Material Survey/Testing/Mitigation Specs	$0	$0	$0	Excluded
Commissioning	$70,000	$70,000	$70,000	Allowance
Arborist	$0	$0	$0	Allowance
Subtotal - Consultants	**$2,900,969**	**$3,370,700**	**$3,675,248**	
Consultants Contingency	$290,097	$337,070	$367,525	10.0%
Total Consultants Costs	**$3,191,066**	**$3,707,770**	**$4,042,773**	
	$104.63 /sf	$132.42 /sf	$144.38 /sf	

Owner Costs	Existing Site	Football Field	Baseball Field	
Land Acquisition	$0	$2,689,830	$3,884,686	Per City
PEMB Public Works Relocation		$0	$0	* Allocation
Fixtures, Furniture & Equipment (FF&E)	$697,544	$635,766	$635,766	Allowance
Fitness Equipment	$60,000	$60,000	$60,000	Allowance
Telephone/Data/AV/Security Equipment	$85,000	$85,000	$85,000	Allowance
Sustainability Registration (i.e. LEED)				Excluded
Moving Allowance	$30,000	$30,000	$30,000	N/A
Temporary Facilities	$120,000	$0	$0	Allowance
Permit Fees	$155,092	$332,055	$337,833	
Subtotal - Owner Costs	**$1,147,636**	**$3,832,651**	**$5,033,285**	
Owner Contingency	$86,073	$287,449	$377,496	7.5% of Owner Costs
Sales Tax	$115,969	$387,289	$508,613	9.4% Sales Tax
Total Owner Costs	**$1,349,677**	**$4,507,389**	**$5,919,395**	
	$44.25 /sf	$160.98 /sf	$211.41 /sf	

Individual Total Project Cost	**$33,242,567**	**$41,875,524**	**$46,837,389**
	$1,089.92 /sf	$1,495.55 /sf	$1,672.76 /sf
Building Size (SF):	*30,500 SF*	*28,000 SF*	*28,000 SF*

Renovation of existing facility was not evaluated due to extensive programming and square footage departures from current building.

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Appendix A: Supporting Cost Estimates

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City of Monroe
Police Station Options

Monroe, WA

Concept Estimates

Version: 2

April 22, 2024

Prepared for:

Mackenzie

City of Monroe
Police Station Options
Monroe, WA
Concept Estimates

WIGGINS
PRECONSTRUCTION SERVICES

April 22, 2024

EXECUTIVE SUMMARY

PROJECT INFORMATION

Owner:	City of Monroe	**Project Name:**	Police Station Options
Location:	Monroe, WA	**Project Type:**	Public Saftey
Building GSF:	See detailed estimates	**Site Gross Area:**	See detailed estimates

PROJECT SCHEDULE

Bid Date:	Q4, 2026	**Construction Strt:**	Q1, 2027
Duration:	13 Months	**Mid-Point:**	Q3, 2027
Phasing:	Single Phase		

DOCUMENTS INFORMATION

Drawings Set:	Concept drawings	**Design Firm:**	Mackenzie
Other Reports:			

ESTIMATE DESCRIPTION

Estimate Level:	Concept Estimates	**Estimate Date:**	April 22, 2024
Delivery Method:	Design - Bid - Build	**Set Aside Reqs:**	No
Swing Shift?	No	**Occupied Bldg?**	No
Renovation?	No	**Critical Facility?**	Yes

ESTIMATOR

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

City of Monroe
Police Station Options
Monroe, WA
Concept Estimates

WIGGINS
PRECONSTRUCTION SERVICES

April 22, 2024

OPTIONS COST SUMMARY

Description	*Option 1 Two story on Existing Site **	*Option 2 One story on Football Field*	*Option 3 One story on Baseball Field*
Building Improvements	$16,600,480	$16,036,760	$16,036,760
Site Work (On-site)	$3,340,994	$6,121,343	$6,297,513
ROW Site Work (drive, sidewalks, LS buffer, etc…)	None Anticipated	$1,032,308	$1,718,670
ROW Underground Power & Telecomm.	Excluded	Excluded	Excluded
Contractor General Conditions	$1,320,000	$1,625,000	$1,750,000
Total Est. Construction Cost (Today's $)	**$21,261,474**	**$24,815,410**	**$25,802,944**
Escalation to Midpoint (Q2, 2027 @ 4% / Yr)	$2,551,377	$2,977,849	$3,096,353
Total Estimated Construction Contract	**$23,812,850**	**$27,793,260**	**$28,899,297**

Option 1 does not include any construction costs to facilitate temporary relocation of existing police operations

Alternates (construction costs including all mark ups and escalation):

Move up schedule by 1 year (decrease escalation)	-$850,459	-$992,616	-$1,032,118
Move out schedule by 1 year (increase escalation)	$850,459	$992,616	$1,032,118
Rooftop Mechanical Equipment Screening	$165,379	$165,379	$165,379
Wood framed superstructure (open web trusses & plywood web joists)	-$614,384	-$601,257	-$601,257
Add 27 parking stalls + impound improvements	$625,685	$625,685	$625,685
Move Opt. 1 Defensive Tactics (1,500 gsf) to PEMB	-$392,776		

City of Monroe
Police Station Options
Monroe, WA
Concept Estimates

WIGGINS
PRECONSTRUCTION SERVICES

April 22, 2024

TWO STORY BUILDING OPTION - ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
A10	Foundations	29,720	GSF	$25.88	$769,030
A20	Basement Construction	29,720	GSF	$0.00	$0
B10	Superstructure	29,720	GSF	$79.63	$2,366,565
B20	Exterior Enclosure	29,720	GSF	$53.87	$1,601,100
B30	Roofing	29,720	GSF	$20.08	$596,730
C10	Interior Construction	29,720	GSF	$44.73	$1,329,260
C20	Stairs	29,720	GSF	$2.86	$85,000
C30	Interior Finishes	29,720	GSF	$35.00	$1,040,200
D10	Conveying Systems	29,720	GSF	$5.05	$150,000
D20	Plumbing	29,720	GSF	$21.71	$645,325
D30	HVAC	29,720	GSF	$62.22	$1,849,079
D40	Fire Protection	29,720	GSF	$7.00	$208,040
D50	Electrical	29,720	GSF	$83.60	$2,484,492
E10	Equipment	29,720	GSF	$2.74	$81,500
E20	Furnishings (Casework)	29,720	GSF	$9.57	$284,520
F10	Special Construction	29,720	GSF	$0.00	$0
F20	Selective Building Demolition	29,720	GSF	$0.00	$0
Building Direct Construction Costs Subtotal					**$13,490,841**
Estimating / Design Contingency		15.0%	on	$13,490,841	$2,023,626
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$15,514,467	$1,086,013
Total Building Construction Cost (Today's Dollars)					**$16,600,480**

City of Monroe
Police Station Options
Monroe, WA
Concept Estimates

WIGGINS
PRECONSTRUCTION SERVICES

April 22, 2024

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
A10 Foundations				
A1010 - Standard Foundations				
Footings - Allowance (1 CY per 60 SF of slab on grade)	302.9	cy	$900.00	$272,625
Perimeter Stem wall	1,220	sf	$60.00	$73,200
Foundation excavation				
Footing excavation & backfill (native)	3,635	cy	$35.00	$127,225
Perimeter Drainage & Insulation				
Perforated footing drains - Allowance	610	lf	$30.00	$18,300
Foundation insulation (2" rigid)	2,440	sf	$4.00	$9,760
Stem walls below grade dampproofing	1,220	sf	$6.00	$7,320
A1010 - Standard Foundations	29,720	GSF	$17.11	$508,430
A1030 - Slabs on Grade				
Slab on Grade, 4" (incl. reinforcing, base course & vapor barrier)	18,175	sf	$12.00	$218,100
Trenches, Pits & Bases				
Elevator Pit (incl. excavation, water proofing)	1	ea	$35,000	$35,000
Mech Pads - Allowance	300	sf	$25.00	$7,500
A1030 - Slabs on Grade	29,720	GSF	$8.77	$260,600
Subtotal A10 Foundations	**29,720**	**GSF**	**$25.88**	**$769,030**
A20 Basement Construction				
Subtotal A20 Basement Construction	**29,720**	**GSF**	**$0.00**	**$0**
B10 Superstructure				
CIP Structural Concrete				
Horizontal Structure				
Topping Slabs				
Slabs on metal floor deck (incl. reinforcing)	11,545	sf	$11.00	$126,995

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
CIP Structural Concrete	29,720	GSF	$4.27	$126,995
Structural Masonry				
8" CMU Walls & Intake, Evidence Garage, Weapons & Drug Storage (includes secure wall reinforcing)	5,915	sf	$40.00	$236,600
Additional CMU for shear walls - Allowance	29,720	gsf	$7.50	$222,900
Structural Masonry	29,720	GSF	$15.46	$459,500
Structural Steel				
Floor & roof structure, beams & columns (incl. 15% for connections				
Floor and roof structural steel framing - Allowance (12 lbs / SF)	356,640	lbs	$4.00	$1,426,560
Miscellaneous Metals				
Misc. allowance - Area budget	29,720	gsf	$2.00	$59,440
Rooftop mech equipment screen framing - See add alt.				$0
Elevator pit ladder, hoist beam, sump grate	1	ea	$3,500	$3,500
Metal decking				
Floor Deck	11,545	sf	$11.00	$126,995
Roof Deck	18,175	sf	$9.00	$163,575
Steel Fireproofing				
Sprayed cementitious fireproofing - Not required				$0
Structural Steel	29,720	GSF	$59.89	$1,780,070
Subtotal B10 Superstructure	**29,720**	**GSF**	**$79.63**	**$2,366,565**
B20 Exterior Enclosure				
B2011, 12 - Exterior Wall Construction & Parapets				
Exterior Wall Assembly - 14' floor to floor, no parapet (GWB - Finish 1 Side, vapor barrier, metal studs, batt insulation, sheathing, WRB, 2" rigid insulation, thermal clips system)	12,800	sf	$40.50	$518,400

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Exterior wall cladding - Allowance (mixture cement board siding, metal panels, masonry veneer) - 80% of exterior enclosure	12,800	sf	$35.00	$448,000
Mechanical screen cladding - See add alt.				$0
Exterior paint & sealants				
Misc. exterior painting, caulking, and sealants - Area budget	16,000	vsf	$1.50	$24,000
Building graphics				
Building identifying signage - Allowance	1	ls	$20,000	$20,000
Miscellaneous exterior enclosure costs				
Contractor support of 3rd party air barrier testing	1	ls	$10,000	$10,000
Mock up	1	ea	$15,000	$15,000
B2011, 12 - Exterior Wall Construction & Parapets	29,720	GSF	$34.84	$1,035,400
B2016 - Exterior Soffits				
None anticipated				$0
B2016 - Exterior Soffits	29,720	GSF	$0.00	$0
B2020 - Exterior Windows				
Aluminum windows systems - Allowance (mixture storefront and curtain wall w/ std. insulated glazing, anodized finish) - 20% of exterior enclosure	3,200	sf	$115.00	$368,000
Premium for ballistic glazing	320	sf	$235.00	$75,200
B2020 - Exterior Windows	29,720	GSF	$14.91	$443,200
B2030 - Exterior Doors				
Glazed doors & entrances				
Storefront doors & hardware, per leaf	5	ea	$7,500	$37,500
ADA auto operator, per vestibule	2	ea	$10,000	$20,000
Solid exterior doors				
HM door, HM frame, and hardware	5	ea	$4,000	$20,000
Overhead doors				
Coiling Door with Motor Operator	3	ea	$15,000	$45,000

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
B2020 - Exterior Doors	29,720	GSF	$4.12	$122,500
Subtotal B20 Exterior Enclosure	**29,720**	**GSF**	**$53.87**	**$1,601,100**
B30 Roofing				
B3010 - Roof Coverings				
Roof finishes & insulation				
Membrane roofing system w/ rigid insulation	18,175	sf	$24.00	$436,200
Flashings & sheet metal				
Roof system copings, flashing & rough carpentry	15%	on	$436,200	$65,430
Accessories				
Walk pads, fall restraint anchors, etc..	18,175	sf	$2.00	$36,350
Pedestal paver system	550	sf	$25.00	$13,750
B3010 - Roof Coverings	29,720	GSF	$18.56	$551,730
B3020 - Roof Openings				
Glazed roof openings				
Aluminum skylights (includes curbs)	250	sf	$150.00	$37,500
Roof hatch & ladder	1	ea	$7,500	$7,500
B3020 - Roof Openings	29,720	GSF	$1.51	$45,000
Subtotal B30 Roofing	**29,720**	**GSF**	**$20.08**	**$596,730**
C10 Interior Construction				
C1010 - Partitions				
GWB Partitions (GWB - Finish 2 Sides, wd framing 2x6, sound batts)	34,800	sf	$16.50	$574,200
Premium for fire and STC rated	10%	on	$574,200	$57,420
Premium for ballistic panels @ Lobby	480	sf	$150.00	$72,000
Misc. carpentry, blocking, & backing - Area budget	29,720	gsf	$1.00	$29,720
Interior caulking & joint sealants - Area budget	29,720	gsf	$0.50	$14,860
Retractable partitions - None anticipated				$0

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Interior storefronts, relites, & railings allowance (premium applied to GWB partitions)	10%	on	$574,200	$57,420
Ballistic rated glazing @ Lobby - Allowance	200	sf	$250.00	$50,000
C1010 - Partitions	29,720	GSF	$28.79	$855,620
C1020 - Interior Doors				
Interior doors, frames, and hardware - per leaf (count from concept drawing)	77	ea	$3,800	$292,600
Door premiums (electronic hardware, storefront, fire rated, special function doors)	15%	on	$292,600	$43,890
Detention doors - See E1020				$0
C1020 - Interior Doors	29,720	GSF	$11.32	$336,490
C1030 - Fittings				
Visual display specialties				
Marker boards - OFOI				*Excluded*
Toilet Accessories				
Unisex Restrooms	5	ea	$2,500.00	$12,500
Unisex restroom w/ shower	4	ea	$3,500.00	$14,000
Lockers				
Duty gear lockers	11	ea	$1,500	$16,500
Police metal locker, full height	57	ea	$1,000	$57,000
Identifying Devices				
Code signage - Area budget	29,720	gsf	$0.25	$7,430
Wayfinding and room signage - Area budget	29,720	gsf	$0.50	$14,860
General fittings and specialties				
FECs, corner guards, knox box, etc… - Area budget	29,720	gsf	$0.50	$14,860
C1030 - Fittings	29,720	GSF	$4.61	$137,150
Subtotal C10 Interior Construction	**29,720**	**GSF**	**$44.73**	**$1,329,260**
C20 Stairs				

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
C2010 - Stair Construction				
Pre-engineered metal stair (incl. picket railings & concrete fill)	1	ea	$35,000	$35,000
Upgraded pre-engineered metal stair (incl. upgrades railings & concrete fill, finished treads)	1	ea	$50,000	$50,000
C2010 - Stair Construction	29,720	GSF	$2.86	$85,000
Subtotal C20 Stairs	**29,720**	**GSF**	**$2.86**	**$85,000**
C30 Interior Finishes				
C3010 - Wall Finishes				
Paint to walls, doors, frames and misc. - Area budget	29,720	gsf	$6.00	$178,320
Wall finishes allowance (wall tile, finish carpentry & millwork, acoustical panels, other)	29,720	gsf	$7.00	$208,040
C3010 - Wall Finishes	29,720	GSF	$13.00	$386,360
C3020 - Floor Finishes				
Floor finish allowance - Police benchmark	29,720	gsf	$10.00	$297,200
C3020 - Floor Finishes	29,720	GSF	$10.00	$297,200
C3030 - Ceiling Finishes				
Ceilings finishes allowance - Police benchmark	29,720	gsf	$12.00	$356,640
C3030 - Ceiling Finishes	29,720	GSF	$12.00	$356,640
Subtotal C30 Interior Finishes	**29,720**	**GSF**	**$35.00**	**$1,040,200**
D10 Conveying Systems				
D1010 - Elevators & Lifts				
Passenger Elevator, hydraulic (two stops)	1	ls	$150,000	$150,000
D1010 - Elevators & Lifts	29,720	GSF	$5.05	$150,000
Subtotal D10 Conveying Systems	**29,720**	**GSF**	**$5.05**	**$150,000**
D20 Plumbing				
Plumbing Contractor General Conditions	29,720	gsf	$2.00	$59,440

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Excavation and Backfill	397	lf	$31.83	$12,637
Sanitary Waste Piping Below Grade	29,720	gsf	$1.23	$36,581
Domestic Water Piping Below Grade	29,720	gsf	$0.41	$12,158
Sanitary Waste Piping Above Grade	29,720	ls	$2.57	$76,279
Domestic Water Piping Above Grade	29,720	gsf	$3.45	$102,667
Plumbing Fixtures, Std.	37	ea	$2,518.00	$93,166
Plumbing Fixture Carriers, Drains, FCO/WCO	45	ea	$487.93	$21,957
Domestic Water Accessories, WHA, Access Panels, Cleanup, Labeling	29,720	gsf	$1.48	$44,058
Oil Water Separator	1	ls	$17,749	$17,749
Domestic Hot Water Equipment	29,720	gsf	$2.05	$60,823
Elevator Sump Pump System	29,720	gsf	$0.31	$9,157
Roof drainage	29,720	gsf	$1.52	$45,210
Compress air system	1	ls	$22,550	$22,550
Plumbing Insulation	29,720	gsf	$0.94	$27,802
Water Treatment	1	ls	$3,091	$3,091
D20 - Plumbing	29,720	GSF	$21.71	$645,325
Subtotal D20 Plumbing	**29,720**	**GSF**	**$21.71**	**$645,325**
D30 HVAC				
HVAC Contractor General Conditions	29,720	gsf	$2.00	$59,440
Refrigeration Equipment	29,720	gsf	$7.17	$213,052
Refrigeration Piping	29,720	gsf	$5.00	$148,633
Refrigeration Insulation	29,720	gsf	$1.99	$59,051
Elevator, MDF, IDF, Split Equipment	1	ls	$21,889	$21,889
Elevator, MDF, IDF, Split Piping Systems	1	ls	$9,887	$9,887
Condensate Piping	29,720	gsf	$0.69	$20,414
HVAC Equipment	29,720	gsf	$16.45	$488,784
Humidity Control in Ammunition & Small Evidence	1	ls	$8,407	$8,407

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
HVAC Ductwork	29,720	gsf	$14.01	$416,412
Duct Insulation, Sound Lining	29,720	gsf	$4.36	$129,567
Controls/EMCS	29,720	gsf	$7.44	$220,998
Air Balancing (TAB)	29,720	gsf	$0.62	$18,545
Third Party Commissioning	29,720	gsf	$0.31	$9,273
Duct Pressure Testing	29,720	gsf	$0.26	$7,727
Seismic	29,720	gsf	$0.21	$6,182
Trucking and Deliveries	29,720	gsf	$0.16	$4,636
Rentals	29,720	gsf	$0.21	$6,182
D30 - HVAC	29,720	GSF	$62.22	$1,849,079
Subtotal D30 HVAC	**29,720**	**GSF**	**$62.22**	**$1,849,079**
D40 Fire Protection				
Sprinkler system - Building area budget	29,720	gsf	$7.00	$208,040
D40 - Fire Protection	29,720	GSF	$7.00	$208,040
Subtotal D40 Fire Protection	**29,720**	**GSF**	**$7.00**	**$208,040**
D50 Electrical				
Distribution	29,720	gsf	$5.50	$163,460
Feeders	29,720	gsf	$3.50	$104,020
Generator & Transfer Equipment (500kW)	1	ls	$250,000	$250,000
Grounding System	29,720	gsf	$0.60	$17,832
Mechanical Equipment and Branch	29,720	gsf	$6.00	$178,320
Power Devices and Branch, EMT concealed	29,720	gsf	$9.50	$282,340
Lighting Fixture Cost LED	29,720	gsf	$11.00	$326,920
Lighting and Branch, EMT installation concealed	29,720	gsf	$8.00	$237,760
Lighting Control	29,720	gsf	$3.00	$89,160
Fire Alarm, EMT concealed (annunciator system)	29,720	gsf	$3.50	$104,020
LV System Rough-in (Tele/Data)	29,720	gsf	$2.00	$59,440

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
LV System & Install	29,720	gsf	$4.00	$118,880
CCTV System	29,720	gsf	$3.00	$89,160
Access Control System (includes rough-in), per door	25	ea	$6,000	$150,000
800 MHz system	29,720	gsf	$2.00	$59,440
A/V Systems	29,720	gsf	$3.00	$89,160
Paging System	29,720	gsf	$1.50	$44,580
Photovoltaic system - Allowance	40	kW	$3,000	$120,000
D50 - Electrical	29,720	GSF	$83.60	$2,484,492
Subtotal D50 Electrical	**29,720**	**GSF**	**$83.60**	**$2,484,492**
E10 Equipment				
E1020 - Institutional Equipment				
Detention equipment				
Detention doors, frames & hardware (Intake only)	6	ea	$9,000	$54,000
Detention toilet accessories	1	ls	$7,500	$7,500
E1020 - Institutional Equipment	29,720	GSF	$2.07	$61,500
E1090 - Other Equipment				
Residential equipment				
Break area appliance package	1	ea	$15,000	$15,000
Laundry washer & dryer package	1	ea	$5,000	$5,000
E1090 - Other Equipment	29,720	GSF	$0.67	$20,000
Subtotal E10 Equipment	**29,720**	**GSF**	**$2.74**	**$81,500**
E20 Furnishings				
E2010 - Fixed Furnishings				
Fixed Casework				
Restroom Counters	9	ea	$1,200.00	$10,800
Intake	1	ls	$6,000	$6,000

TWO STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Breakroom	1	ls	$30,000	$30,000
CI Division Copy Area	1	ls	$15,000	$15,000
Work Room	1	ls	$16,000	$16,000
Coffee Area	1	ls	$5,000	$5,000
Community Room	1	ls	$5,000	$5,000
Officer Processing	1	ls	$30,000	$30,000
Evidence Lab	1	ls	$30,000	$30,000
Evidence Copy / Print / Supply	1	ls	$6,500	$6,500
Support Services	1	ls	$6,500	$6,500
Records	1	ls	$30,000	$30,000
Other Areas TBD	29,720	gsf	$1.00	$29,720
Blinds & other window treatment				
Roller shades, manual	3,200	sf	$20.00	$64,000
E2010 - Fixed Furnishings	29,720	GSF	$9.57	$284,520
E2020 - Moveable Furnishings				
EXCLUDED				
E2020 - Moveable Furnishings	29,720	GSF	$0.00	$0
Subtotal E20 Furnishings	**29,720**	**GSF**	**$9.57**	**$284,520**
F10 Special Construction				
Subtotal F20 Special Construction	**29,720**	**GSF**	**$0.00**	**$0**
F20 Selective Building Demolition				
Subtotal F20 Selective Building Demolition	**29,720**	**GSF**	**$0.00**	**$0**

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WIGGINS
PRECONSTRUCTION SERVICES

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ONE STORY BUILDING OPTION - ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
A10	Foundations	27,700	GSF	$30.29	$839,070
A20	Basement Construction	27,700	GSF	$0.00	$0
B10	Superstructure	27,700	GSF	$76.77	$2,126,555
B20	Exterior Enclosure	27,700	GSF	$52.06	$1,442,116
B30	Roofing	27,700	GSF	$39.09	$1,082,853
C10	Interior Construction	27,700	GSF	$48.88	$1,353,845
C20	Stairs	27,700	GSF	$0.00	$0
C30	Interior Finishes	27,700	GSF	$35.00	$969,500
D10	Conveying Systems	27,700	GSF	$0.00	$0
D20	Plumbing	27,700	GSF	$19.18	$531,250
D30	HVAC	27,700	GSF	$63.58	$1,761,290
D40	Fire Protection	27,700	GSF	$6.50	$180,050
D50	Electrical	27,700	GSF	$84.22	$2,332,970
E10	Equipment	27,700	GSF	$2.94	$81,500
E20	Furnishings (Casework)	27,700	GSF	$11.98	$331,720
F10	Special Construction	27,700	GSF	$0.00	$0
F20	Selective Building Demolition	27,700	GSF	$0.00	$0
Building Direct Construction Costs Subtotal					**$13,032,719**
Estimating / Design Contingency		15.0%	on	$13,032,719	$1,954,908
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$14,987,626	$1,049,134
Total Building Construction Cost (Today's Dollars)					**$16,036,760**

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
A10 Foundations				
A1010 - Standard Foundations				
Footings - Allowance (1 CY per 100 SF of slab on grade)	277.0	cy	$900.00	$249,300
Perimeter Stem wall	1,490	sf	$60.00	$89,400
Foundation excavation				
Footing excavation & backfill (native)	3,324	cy	$35.00	$116,340
Perimeter Drainage & Insulation				
Perforated footing drains - Allowance	765	lf	$30.00	$22,950
Foundation insulation (2" rigid)	3,060	sf	$4.00	$12,240
Stem walls below grade dampproofing	1,490	sf	$6.00	$8,940
A1010 - Standard Foundations	27,700	GSF	$18.02	$499,170
A1030 - Slabs on Grade				
Slab on Grade, 4" (incl. reinforcing, base course & vapor barrier)	27,700	sf	$12.00	$332,400
Trenches, Pits & Bases				
Mech Pads - Allowance	300	sf	$25.00	$7,500
A1030 - Slabs on Grade	27,700	GSF	$12.27	$339,900
Subtotal A10 Foundations	**27,700**	**GSF**	**$30.29**	**$839,070**
A20 Basement Construction				
Subtotal A20 Basement Construction	**27,700**	**GSF**	**$0.00**	**$0**
B10 Superstructure				
Structural Masonry				
8" CMU Walls & Intake, Evidence Garage, Weapons & Drug Storage (includes secure wall reinforcing)	7,960	sf	$40.00	$318,400
Additional CMU for shear walls - Allowance	27,700	gsf	$7.50	$207,750
Structural Masonry	27,700	GSF	$18.99	$526,150

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ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Structural Steel				
Floor & roof structure, beams & columns (incl. 15% for connections				
Floor and roof structural steel framing - Allowance (11 lbs / SF)	319,935	lbs	$4.00	$1,279,740
Miscellaneous Metals				
Misc. allowance - Area budget	27,700	gsf	$2.00	$55,400
Elevator pit ladder, hoist beam, sump grate	1	ea	$3,500	$3,500
Metal decking				
Roof Deck	29,085	sf	$9.00	$261,765
Steel Fireproofing				
Sprayed cementitious fireproofing - Not required				$0
Structural Steel	27,700	GSF	$57.78	$1,600,405
Subtotal B10 Superstructure	**27,700**	**GSF**	**$76.77**	**$2,126,555**
B20 Exterior Enclosure				
B2011, 12 - Exterior Wall Construction & Parapets				
Exterior Wall Assembly (GWB - Finish 1 Side, vapor barrier, metal studs, batt insulation, sheathing, WRB, 2" rigid insulation, thermal clips system)	10,968	sf	$40.50	$444,204
Exterior wall cladding - Allowance (mixture cement board siding, metal panels, masonry veneer) - 80% of exterior enclosure	10,968	sf	$35.00	$383,880
Exterior paint & sealants				
Misc. exterior painting, caulking, and sealants - Area budget	13,710	vsf	$1.50	$20,565
Building graphics				
Building identifying signage - Allowance	1	ls	$20,000	$20,000
Miscellaneous exterior enclosure costs				
Contractor support of 3rd party air barrier testing	1	ls	$10,000	$10,000
Mock up	1	ea	$15,000	$15,000

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
B2011, 12 - Exterior Wall Construction & Parapets	27,700	GSF	$32.26	$893,649
B2016 - Exterior Soffits				
Wood finish @ roof overhangs	1,385	sf	$20.00	$27,700
B2016 - Exterior Soffits	27,700	GSF	$1.00	$27,700
B2020 - Exterior Windows				
Aluminum windows systems - Allowance (mixture storefront and curtain wall w/ std. insulated glazing, anodized finish) - 20% of exterior enclosure	2,742	sf	$115.00	$315,330
Premium for ballistic glazing	274	sf	$235.00	$64,437
B2020 - Exterior Windows	27,700	GSF	$13.71	$379,767
B2030 - Exterior Doors				
Glazed doors & entrances				
Storefront doors & hardware, per leaf	4	ea	$7,500	$30,000
ADA auto operator, per vestibule	2	ea	$10,000	$20,000
Solid exterior doors				
HM door, HM frame, and hardware	4	ea	$4,000	$16,000
Overhead doors				
Coiling Door with Motor Operator	5	ea	$15,000	$75,000
B2020 - Exterior Doors	27,700	GSF	$5.09	$141,000
Subtotal B20 Exterior Enclosure	**27,700**	**GSF**	**$52.06**	**$1,442,116**
B30 Roofing				
B3010 - Roof Coverings				
Roof finishes & insulation				
Mixture of metal and membrane roofing systems w/ rigid insulation	29,085	sf	$30.00	$872,550
Flashings & sheet metal				
Roof system copings, flashing & rough carpentry	15%	on	$872,550	$130,883
Accessories				

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Walk pads, fall restraint anchors, etc..	29,085	sf	$2.00	$58,170
Pedestal paver system	550	sf	$25.00	$13,750
B3010 - Roof Coverings	27,700	GSF	$38.82	$1,075,353
B3020 - Roof Openings				
Roof hatch & ladder	1	ea	$7,500	$7,500
B3020 - Roof Openings	27,700	GSF	$0.27	$7,500
Subtotal B30 Roofing	**27,700**	**GSF**	**$39.09**	**$1,082,853**
C10 Interior Construction				
C1010 - Partitions				
GWB Partitions (GWB - Finish 2 Sides, wd framing 2x6, sound batts)	34,900	sf	$16.50	$575,850
Premium for fire and STC rated	10%	on	$575,850	$57,585
Premium for ballistic panels @ Lobby	500	sf	$150.00	$75,000
Misc. carpentry, blocking, & backing - Area budget	27,700	gsf	$1.00	$27,700
Interior caulking & joint sealants - Area budget	27,700	gsf	$0.50	$13,850
Retractable partitions - None anticipated				$0
Interior storefronts, relites, & railings allowance (premium applied to GWB partitions)	10%	on	$575,850	$57,585
Ballistic rated glazing @ Lobby - Allowance	200	sf	$250.00	$50,000
C1010 - Partitions	27,700	GSF	$30.96	$857,570
C1020 - Interior Doors				
Interior doors, frames, and hardware w/ access control - per leaf (count from concept drawing)	70	ea	$4,500	$315,000
Door premiums (storefront, fire rated, special function doors)	15%	on	$315,000	$47,250
Detention doors - See E1020				$0
C1020 - Interior Doors	27,700	GSF	$13.08	$362,250
C1030 - Fittings				

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Visual display specialties				
Marker boards - OFOI				*Excluded*
Toilet Accessories				
Unisex Restrooms	3	ea	$2,500.00	$7,500
Unisex restroom w/ shower	3	ea	$3,500.00	$10,500
Lockers				
Duty gear lockers	15	ea	$1,500	$22,500
Police metal locker, full height	55	ea	$1,000	$55,000
Std metal locker, 2-tier	6	ea	$650	$3,900
Identifying Devices				
Code signage - Area budget	27,700	gsf	$0.25	$6,925
Wayfinding and room signage - Area budget	27,700	gsf	$0.50	$13,850
General fittings and specialties				
FECs, corner guards, knox box, etc… - Area budget	27,700	gsf	$0.50	$13,850
C1030 - Fittings	27,700	GSF	$4.84	$134,025
Subtotal C10 Interior Construction	**27,700**	**GSF**	**$48.88**	**$1,353,845**
C20 Stairs				
Subtotal C20 Stairs	**27,700**	**GSF**	**$0.00**	**$0**
C30 Interior Finishes				
C3010 - Wall Finishes				
Paint to walls, doors, frames and misc. - Area budget	27,700	gsf	$6.00	$166,200
Wall finishes allowance (wall tile, finish carpentry & millwork, acoustical panels, other)	27,700	gsf	$7.00	$193,900
C3010 - Wall Finishes	27,700	GSF	$13.00	$360,100
C3020 - Floor Finishes				
Floor finish allowance - Police benchmark	27,700	gsf	$10.00	$277,000

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
C3020 - Floor Finishes	27,700	GSF	$10.00	$277,000
C3030 - Ceiling Finishes				
Ceilings finishes allowance - Police benchmark	27,700	gsf	$12.00	$332,400
C3030 - Ceiling Finishes	27,700	GSF	$12.00	$332,400
Subtotal C30 Interior Finishes	**27,700**	**GSF**	**$35.00**	**$969,500**
D10 Conveying Systems				
Subtotal D10 Conveying Systems	**27,700**	**GSF**	**$0.00**	**$0**
D20 Plumbing				
General Conditions	27,700	gsf	$2.00	$55,400
Excavation and Backfill	535	lf	$31.84	$17,033
Sanitary Waste Piping Below Grade	27,700	gsf	$1.92	$53,077
Domestic Water Piping Below Grade	27,700	gsf	$0.59	$16,283
Sanitary Waste Piping Above Grade	27,700	ls	$1.56	$43,126
Domestic Water Piping Above Grade	27,700	gsf	$2.96	$81,970
Plumbing Fixtures	27	ea	$2,427.96	$65,555
Plumbing Fixture Carriers, Drains, FCO/WCO	43	ea	$445.16	$19,142
Domestic Water Accessories, WHA, Access Panels, Cleanup, Labeling	27,700	gsf	$1.92	$53,066
Oil Water Separator	1	ls	$17,749.00	$17,749
Domestic Hot Water Equipment	27,700	gsf	$2.20	$60,817
Compress air system	1	ls	$21,583.00	$21,583
Plumbing Insulation	27,700	gsf	$0.86	$23,838
Water Treatment	1	ls	$2,611	$2,611
D20 - Plumbing	27,700	GSF	$19.18	$531,250
Subtotal D20 Plumbing	**27,700**	**GSF**	**$19.18**	**$531,250**
D30 HVAC				

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
HVAC Contractor General Conditions	27,700	gsf	$2.00	$55,400
Refrigeration Equipment	27,700	gsf	$7.50	$207,776
Refrigeration Piping	27,700	gsf	$4.83	$133,655
Refrigeration Insulation	27,700	gsf	$1.90	$52,557
MDF, IDF, Split Equipment	1	ls	$16,417	$16,417
MDF, IDF, Split Piping Systems	1	ls	$7,415	$7,415
Condensate Piping	27,700	gsf	$0.66	$18,144
HVAC Equipment	27,700	gsf	$17.77	$492,235
Humidity Control in Ammunition & Small Evidence	1	ls	$8,407	$8,407
HVAC Ductwork, Grilles and Air Devices	27,700	gsf	$14.11	$390,873
Duct Insulation, Sound Lining	27,700	gsf	$4.39	$121,620
Controls/EMCS	27,700	gsf	$7.49	$207,464
Air Balancing (TAB)	27,700	gsf	$0.63	$17,410
Third Party Commissioning	27,700	gsf	$0.31	$8,705
Duct Pressure Testing	27,700	gsf	$0.26	$7,254
Seismic	27,700	gsf	$0.21	$5,803
Trucking and Deliveries	27,700	gsf	$0.16	$4,352
Rentals	27,700	gsf	$0.21	$5,803
D30 - HVAC	27,700	GSF	$63.58	$1,761,290
Subtotal D30 HVAC	**27,700**	**GSF**	**$63.58**	**$1,761,290**
D40 Fire Protection				
Sprinkler system - Building area budget	27,700	gsf	$6.50	$180,050
D40 - Fire Protection	27,700	GSF	$6.50	$180,050
Subtotal D40 Fire Protection	**27,700**	**GSF**	**$6.50**	**$180,050**
D50 Electrical				
Distribution	27,700	gsf	$5.50	$152,350
Feeders	27,700	gsf	$3.50	$96,950

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Generator & Transfer Equipment (500kW)	1	ls	$250,000	$250,000
Grounding System	27,700	gsf	$0.60	$16,620
Mechanical Equipment and Branch	27,700	gsf	$6.00	$166,200
Power Devices and Branch, EMT concealed	27,700	gsf	$9.50	$263,150
Lighting Fixture Cost LED	27,700	gsf	$11.00	$304,700
Lighting and Branch, EMT installation concealed	27,700	gsf	$8.00	$221,600
Lighting Control	27,700	gsf	$3.00	$83,100
Fire Alarm, EMT concealed (annunciator system)	27,700	gsf	$3.50	$96,950
LV System Rough-in (Tele/Data)	27,700	gsf	$2.00	$55,400
LV System & Install	27,700	gsf	$4.00	$110,800
CCTV System	27,700	gsf	$3.00	$83,100
Access Control System (includes rough-in), per door	22	ea	$6,000	$132,000
800 MHz system	27,700	gsf	$2.00	$55,400
A/V Systems	27,700	gsf	$3.00	$83,100
Paging System	27,700	gsf	$1.50	$41,550
Photovoltaic system - Allowance	40	kW	$3,000	$120,000
D50 - Electrical	27,700	GSF	$84.22	$2,332,970
Subtotal D50 Electrical	**27,700**	**GSF**	**$84.22**	**$2,332,970**
E10 Equipment				
E1020 - Institutional Equipment				
Detention equipment				$0
Detention doors, frames & hardware @ Sallyport & Intake	6	ea	$9,000	$54,000
Detention toilet accessories	1	ls	$7,500	$7,500
E1020 - Institutional Equipment	27,700	GSF	$2.22	$61,500
E1090 - Other Equipment				
Residential equipment				
Break area appliance package	1	ea	$15,000	$15,000

ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Laundry washer & dryer package	1	ea	$5,000	$5,000
E1090 - Other Equipment	27,700	GSF	$0.72	$20,000
Subtotal E10 Equipment	**27,700**	**GSF**	**$2.94**	**$81,500**
E20 Furnishings				
E2010 - Fixed Furnishings				
Fixed Casework				
Restroom Counters	70	ea	$1,200.00	$84,180
Intake	1	ls	$6,000	$6,000
Breakroom	1	ls	$15,000	$15,000
Central Print / Copy / Mail	1	ls	$15,000	$15,000
Work Room	1	ls	$16,000	$16,000
Coffee Area	1	ls	$5,000	$5,000
Community Room	1	ls	$5,000	$5,000
Officer Processing	1	ls	$30,000	$30,000
Evidence Lab	1	ls	$30,000	$30,000
Evidence Copy / Print / Supply	1	ls	$6,500	$6,500
Support Services	1	ls	$6,500	$6,500
Records	1	ls	$30,000	$30,000
Other Areas TBD	27,700	gsf	$1.00	$27,700
Blinds & other window treatment				
Roller shades, manual	2,742	sf	$20.00	$54,840
E2010 - Fixed Furnishings	27,700	GSF	$11.98	$331,720
E2020 - Moveable Furnishings				
EXCLUDED				
E2020 - Moveable Furnishings	27,700	GSF	$0.00	$0
Subtotal E20 Furnishings	**27,700**	**GSF**	**$11.98**	**$331,720**

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ONE STORY BUILDING OPTION - ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
F10 Special Construction				
Subtotal F20 Special Construction	**27,700**	**GSF**	**$0.00**	**$0**
F20 Selective Building Demolition				
Subtotal F20 Selective Building Demolition	**27,700**	**GSF**	**$0.00**	**$0**

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OPTION 1 SITEWORK (ON-SITE) ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00	General Sitework Requirements	55,000	SGA	$2.41	$132,674
G10	Site Preparation	55,000	SGA	$8.56	$470,802
G20	Site Improvements	55,000	SGA	$14.94	$821,675
G30	Site Civil / Mechanical Utilities	55,000	SGA	$17.18	$945,000
G40	Site Electrical Utilities	55,000	SGA	$6.27	$345,000
G50	Other Site Construction	55,000	SGA	$0.00	$0
Sitework Direct Construction Costs Subtotal					**$2,715,151**
Estimating / Design Contingency		15.0%	on	$2,715,151	$407,273
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$3,122,424	$218,570
Total Sitework Construction Cost (Today's Dollars)					**$3,340,994**

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OPTION 1 SITEWORK (ON-SITE) ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00 General Sitework Requirements				
Mobilization(s)	3%	on	$2,237,477	$67,124
Site layout & potholing	55,000	gsf	$1.00	$55,000
Temporary Construction Fencing	1,055	lf	$10.00	$10,550
G00 - General Sitework Requirements	55,000	SGA	$2.41	$132,674
Subtotal G00 General Sitework Requirements	**55,000**	**SGA**	**$2.41**	**$132,674**
G10 Site Preparation				
G1010,20 - Site Clearing & Demolition				
Building demolition				
Remove existing police building	9,600	sf	$11.00	$105,600
Remove other out buildings	8,678	sf	$11.00	$95,458
Demolition of paving & site improvements	27,422	sf	$2.00	$54,844
G1010,20 - Site Clearing & Demolition	55,000	SGA	$4.65	$255,902
G1030 - Site Earthwork				
Site grading & excavation	45,700	sf	$2.00	$91,400
Erosion control & dewatering				
Site area budget (silt fence, silt sock, catch basin protection, etc…)	55,000	sga	$0.50	$27,500
Site Shoring - None				$0
G1030 - Site Earthwork	55,000	SGA	$2.16	$118,900
G1040 - Hazardous Waste Remediation				
Hazardous materials abatement of existing building to be demolished	9,600	sf	$10.00	$96,000
Removal of Contaminated Soil - Allowance				*Excluded*
G1040 - Hazardous Waste Remediation	55,000	SGA	$1.75	$96,000
Subtotal G10 Site Preparation	**55,000**	**SGA**	**$8.56**	**$470,802**
G20 Site Improvements				

OPTION 1 SITEWORK (ON-SITE) ESTIMATE DETAIL

G2010,20,30 - Roadways, Parking Lots, and Ped. Paving				
Asphalt paving (base courses included)				
Grind and overlay @ existing lot for Public Parking (31 stalls)	9,300	sf	$3.00	$27,900
New parking area & drive aisles (3" over 5")	15,200	sf	$6.00	$91,200
Concrete paving (base courses included)				
Concrete site walks	2,850	sf	$8.00	$22,800
Generator & fueling pad (raised)	500	sf	$25.00	$12,500
Curb ramp	2	ea	$5,000.00	$10,000
Curbs - Vertical	1,080	lf	$30.00	$32,400
Markings & signage				
Parking stall striping	99	ea	$50.00	$4,950
Parking stall striping, ADA w/ sign	2	ea	$500.00	$1,000
Plastic traffic arrow	2	ea	$150.00	$300
Misc. parking signs	1	ls	$1,000.00	$1,000
Parking booths & equipment				
Wheel Stops	99	ea	$200.00	$19,800
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving	55,000	SGA	$4.07	$223,850
G2040 - Site Development				
Fences & gates				
Security metal fencing, ornamental - 6'	550	lf	$300.00	$165,000
Security man gate (w/ electronic access), 6' ht - Single swing	1	ea	$10,000	$10,000
Automated Vehicular Gate, Security (w/ electronic access)	1	ea	$40,000	$40,000
Site furnishings				
Area budget (flag pole, seat walls, bike racks, bollards, benches, monument sign, etc…)	55,000	sga	$1.00	$55,000
Misc. structures				
Trash enclosure - Existing to remain				$0
Covered Parking Canopy	2,500	sf	$90.00	$225,000

OPTION 1 SITEWORK (ON-SITE) ESTIMATE DETAIL

Generator / fueling enclosure & canopy	1	ls	$40,000	$40,000
G2040 - Site Development	55,000	SGA	$9.73	$535,000
G2050 - Landscaping				
Area budget (Mixture of Irrigated Planters, Irrigated Lawn, and Non-irrigated Natural Plantings)	8,975	sf	$7.00	$62,825
G2050 - Landscaping	55,000	SGA	$1.14	$62,825
Subtotal G20 Improvements	**55,000**	**SGA**	**$14.94**	**$821,675**
G30 Site Civil / Mechanical Utilities				
G3010 - Water Supply				
Misc. adjustment of existing (assumes existing service will be reused)	1	ls	$35,000	$35,000
G3010 - Water Supply	55,000	SGA	$0.64	$35,000
G3020 - Sanitary Sewer				
Misc. adjustment of existing (assumes existing service will be reused)	1	ls	$10,000	$10,000
G3020 - Sanitary Sewer	55,000	SGA	$0.18	$10,000
G3030 - Storm Sewer				
Drain lines, catch basins, etc… - Allowance	55,000	sga	$1.00	$55,000
Storm water detention tanks	38,500	cf	$20.00	$770,000
G3030 - Storm Sewer	55,000	SGA	$15.00	$825,000
G3040, 50, 60 - Heating, Cooling, & Fuel Distribution				
Relocate Fueling station	1	ls	$75,000	$75,000
G3030, 40, 50 - Heating, Cooling, & Fuel Distribution	55,000	SGA	$1.36	$75,000
Subtotal G30 Site Civil / Mechanical Utilities	**55,000**	**SGA**	**$17.18**	**$945,000**
G40 Site Electrical Utilities				
G4010 - Electrical Distribution				
Electrical utility (new transformer by utility provider)	1	ls	$150,000	$150,000

OPTION 1 SITEWORK (ON-SITE) ESTIMATE DETAIL

Electric vehicle chargers (double head) - 10% of spaces	5	ea	$15,000	$75,000
Site Power (security gate, etc…)	1	ls	$20,000	$20,000
G4010 - Electrical Distribution	55,000	SGA	$4.45	$245,000
G4020 - Site lighting				
Site lighting	1	ls	$75,000	$75,000
G4020 - Site lighting	55,000	SGA	$1.36	$75,000
G4030 - Site communication & security				
Tele/Data utility	1	ls	$25,000	$25,000
G4030 - Site communication & security	55,000	SGA	$0.45	$25,000
Subtotal G40 Site Electrical Utilities	**55,000**	**SGA**	**$6.27**	**$345,000**
Subtotal G50 Other Site Construction	**55,000**	**SGA**	**$0.00**	**$0**

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OPTION 2 SITEWORK (ON-SITE) ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00	General Sitework Requirements	170,000	SGA	$1.87	$318,340
G10	Site Preparation	170,000	SGA	$4.41	$749,889
G20	Site Improvements	170,000	SGA	$11.53	$1,960,200
G30	Site Civil / Mechanical Utilities	170,000	SGA	$8.24	$1,401,250
G40	Site Electrical Utilities	170,000	SGA	$3.21	$545,000
G50	Other Site Construction	170,000	SGA	$0.00	$0
Sitework Direct Construction Costs Subtotal					**$4,974,679**
Estimating / Design Contingency		15.0%	on	$4,974,679	$746,202
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$5,720,881	$400,462
Total Sitework Construction Cost (Today's Dollars)					**$6,121,343**

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OPTION 2 SITEWORK (ON-SITE) ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00 General Sitework Requirements				
Mobilization(s)	3%	on	$4,111,339	$123,340
Site layout & potholing	170,000	gsf	$1.00	$170,000
Temporary Construction Fencing	2,500	lf	$10.00	$25,000
G00 - General Sitework Requirements	170,000	SGA	$1.87	$318,340
Subtotal G00 General Sitework Requirements	**170,000**	**SGA**	**$1.87**	**$318,340**
G10 Site Preparation				
G1010,20 - Site Clearing & Demolition				
Building demolition - None				
Clear & Grub	170,000	sf	$0.30	$51,000
Demolition of misc. site improvements	170,000	sf	$0.50	$85,000
G1010,20 - Site Clearing & Demolition	170,000	SGA	$0.80	$136,000
G1030 - Site Earthwork				
Strip & Haul Off (12")	6,296	sf	$30.00	$188,889
Site grading & excavation	170,000	sf	$2.00	$340,000
Erosion control & dewatering				
Site area budget (silt fence, silt sock, catch basin protection, etc…)	170,000	sga	$0.50	$85,000
Site Shoring - None				$0
G1030 - Site Earthwork	170,000	SGA	$3.61	$613,889
G1040 - Hazardous Waste Remediation				
Removal of Contaminated Soil - Allowance				*Excluded*
G1040 - Hazardous Waste Remediation	170,000	SGA	$0.00	$0
Subtotal G10 Site Preparation	**170,000**	**SGA**	**$4.41**	**$749,889**
G20 Site Improvements				
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving				

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Asphalt paving (base courses included)				
New parking area & drive aisles (3" over 5")	83,000	sf	$6.00	$498,000
Concrete paving (base courses included)				
Concrete site walks	8,000	sf	$8.00	$64,000
Generator & fueling pad (raised)	500	sf	$25.00	$12,500
Curb ramp	2	ea	$5,000.00	$10,000
Curbs - Vertical	3,000	lf	$30.00	$90,000
Markings & signage				
Parking stall striping	136	ea	$50.00	$6,800
Parking stall striping, ADA w/ sign	4	ea	$500.00	$2,000
Plastic traffic arrow	4	ea	$150.00	$600
Misc. parking signs	1	ls	$5,000.00	$5,000
Parking booths & equipment				
Wheel Stops	136	ea	$200.00	$27,200
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving	170,000	SGA	$4.21	$716,100
G2040 - Site Development				
Fences & gates				
Security metal fencing, ornamental - 6'	900	lf	$300.00	$270,000
Security man gate (w/ electronic access), 6' ht - Single swing	2	ea	$10,000	$20,000
Automated Vehicular Gate, Security (w/ electronic access)	2	ea	$40,000	$80,000
Site furnishings				
Area budget (flag pole, seat walls, bike racks, bollards, benches, monument sign, etc…)	170,000	sga	$1.00	$170,000
Misc. structures				
Covered Parking Canopy	3,500	sf	$90.00	$315,000
Trash enclosure	1	ls	$15,000	$15,000
Generator enclosure	1	ls	$15,000	$15,000
G2040 - Site Development	170,000	SGA	$5.21	$885,000
G2050 - Landscaping				

OPTION 2 SITEWORK (ON-SITE) ESTIMATE DETAIL

Area budget (Mixture of Irrigated Planters, Irrigated Lawn, and Non-irrigated Natural Plantings)	51,300	sf	$7.00	$359,100
G2050 - Landscaping	170,000	SGA	$2.11	$359,100
Subtotal G20 Improvements	**170,000**	**SGA**	**$11.53**	**$1,960,200**
G30 Site Civil / Mechanical Utilities				
G3010 - Water Supply				
Domestic and fire water service (from main included w/ ROW estimate)	1	ls	$75,000	$75,000
G3010 - Water Supply	170,000	SGA	$0.44	$75,000
G3020 - Sanitary Sewer				
New sanitary sewer service	1	ls	$35,000	$35,000
G3020 - Sanitary Sewer	170,000	SGA	$0.21	$35,000
G3030 - Storm Sewer				
Drain lines, catch basins, detention, etc… - Allowance	170,000	sga	$1.00	$170,000
Storm water detention chambers	74,750	cf	$15.00	$1,121,250
G3030 - Storm Sewer	170,000	SGA	$7.60	$1,291,250
G3040, 50, 60 - Heating, Cooling, & Fuel Distribution				
Fueling station - None				$0
G3030, 40, 50 - Heating, Cooling, & Fuel Distribution	170,000	SGA	$0.00	$0
Subtotal G30 Site Civil / Mechanical Utilities	**170,000**	**SGA**	**$8.24**	**$1,401,250**
G40 Site Electrical Utilities				
G4010 - Electrical Distribution				
Electrical utility (transformer by utility provider)	1	ls	$200,000	$200,000
Electric vehicle chargers (double head)	7	ea	$15,000	$105,000
Site Power (security gate, etc…)	1	ls	$40,000	$40,000
G4010 - Electrical Distribution	170,000	SGA	$2.03	$345,000
G4020 - Site lighting				

OPTION 2 SITEWORK (ON-SITE) ESTIMATE DETAIL

Site lighting		1	ls	$150,000	$150,000
	G4020 - Site lighting	170,000	SGA	$0.88	$150,000
G4030 - Site communication & security					
Tele/Data utility		1	ls	$50,000	$50,000
	G4030 - Site communication & security	170,000	SGA	$0.29	$50,000
Subtotal G40 Site Electrical Utilities		**170,000**	**SGA**	**$3.21**	**$545,000**
Subtotal G50 Other Site Construction		**170,000**	**SGA**	**$0.00**	**$0**

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OPTION 2 SITEWORK (ROW) ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00	General Sitework Requirements	40,000	SGA	$2.80	$111,814
G10	Site Preparation	40,000	SGA	$3.51	$140,270
G20	Site Improvements	40,000	SGA	$9.01	$360,350
G30	Site Civil / Mechanical Utilities	40,000	SGA	$5.66	$226,500
G40	Site Electrical Utilities	40,000	SGA	$0.00	$0
G50	Other Site Construction	40,000	SGA	$0.00	$0
Sitework Direct Construction Costs Subtotal					**$838,934**
Estimating / Design Contingency		15.0%	on	$838,934	$125,840
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$964,774	$67,534
Total Sitework Construction Cost (Today's Dollars)					**$1,032,308**

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OPTION 2 SITEWORK (ROW) ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00 General Sitework Requirements				
Mobilization(s)	3%	on	$727,120	$21,814
Site layout & potholing	40,000	gsf	$1.00	$40,000
Traffic Control	1	ls	$50,000	$50,000
G00 - General Sitework Requirements	40,000	SGA	$2.80	$111,814
Subtotal G00 General Sitework Requirements	**40,000**	**SGA**	**$2.80**	**$111,814**
G10 Site Preparation				
G1010,20 - Site Clearing & Demolition				
Building demolition - None				
Clear & Grub	34,900	sf	$0.30	$10,470
Demolition of misc. site improvements	40,000	sf	$1.00	$40,000
G1010,20 - Site Clearing & Demolition	40,000	SGA	$1.26	$50,470
G1030 - Site Earthwork				
Site grading & excavation	34,900	sf	$2.00	$69,800
Erosion control & dewatering				
Site area budget (silt fence, silt sock, catch basin protection, etc…)	40,000	sga	$0.50	$20,000
Site Shoring - None				$0
G1030 - Site Earthwork	40,000	SGA	$2.25	$89,800
G1040 - Hazardous Waste Remediation				
Removal of Contaminated Soil - Allowance				*Excluded*
G1040 - Hazardous Waste Remediation	40,000	SGA	$0.00	$0
Subtotal G10 Site Preparation	**40,000**	**SGA**	**$3.51**	**$140,270**
G20 Site Improvements				
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving				
Asphalt paving (base courses included)				

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OPTION 2 SITEWORK (ROW) ESTIMATE DETAIL

Grind and overlay @ Kelsey St.	5,100	sf	$3.00	$15,300
New ROW street paving (2" HMA over 4" ATB & 3" CSBC)	9,950	sf	$7.00	$69,650
Concrete paving (base courses included)				
Concrete drive entry	950	sf	$12.00	$11,400
Concrete side walks	10,000	sf	$9.00	$90,000
Curb and gutter	2,000	lf	$35.00	$70,000
Markings & signage				
Signage & striping	40,000	sga	$0.50	$20,000
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving	40,000	SGA	$6.91	$276,350
G2040 - Site Development				
See onsite estimate				
G2040 - Site Development	40,000	SGA	$0.00	$0
G2050 - Landscaping				
Area budget (Mixture planters and hydroseed w/ trees)	14,000	sf	$6.00	$84,000
G2050 - Landscaping	40,000	SGA	$2.10	$84,000
Subtotal G20 Improvements	**40,000**	**SGA**	**$9.01**	**$360,350**
G30 Site Civil / Mechanical Utilities				
G3010 - Water Supply				
8" Water Main	1,030	lf	$100	$103,000
Hydrants	3	ea	$4,500	$13,500
Connect to existing	2	ea	$5,000	$10,000
G3010 - Water Supply	40,000	SGA	$3.16	$126,500
G3020 - Sanitary Sewer				
See onsite estimate				$0
G3020 - Sanitary Sewer	40,000	SGA	$0.00	$0
G3030 - Storm Sewer				
Drain lines, catch basins, etc… - Allowance	40,000	sga	$2.50	$100,000

OPTION 2 SITEWORK (ROW) ESTIMATE DETAIL

Storm water detention - See onsite estimate				$0
G3030 - Storm Sewer	40,000	SGA	$2.50	$100,000
Subtotal G30 Site Civil / Mechanical Utilities	**40,000**	**SGA**	**$5.66**	**$226,500**
G40 Site Electrical Utilities				
G4010 - Electrical Distribution				
Place Kelsey St utility underground				*Excluded*
G4010 - Electrical Distribution	40,000	SGA	$0.00	$0
G4020 - Site lighting				
Street lights - Not required				$0
G4020 - Site lighting	40,000	SGA	$0.00	$0
G4030 - Site communication & security				
Place Kelsey St utility underground				*Excluded*
G4030 - Site communication & security	40,000	SGA	$0.00	$0
Subtotal G40 Site Electrical Utilities	**40,000**	**SGA**	**$0.00**	**$0**
Subtotal G50 Other Site Construction	**40,000**	**SGA**	**$0.00**	**$0**

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OPTION 3 SITEWORK (ON-SITE) ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00	General Sitework Requirements	170,000	SGA	$1.90	$322,510
G10	Site Preparation	170,000	SGA	$4.41	$749,889
G20	Site Improvements	170,000	SGA	$12.02	$2,044,200
G30	Site Civil / Mechanical Utilities	170,000	SGA	$8.57	$1,456,250
G40	Site Electrical Utilities	170,000	SGA	$3.21	$545,000
G50	Other Site Construction	170,000	SGA	$0.00	$0
	Sitework Direct Construction Costs Subtotal				**$5,117,849**
	Estimating / Design Contingency	15.0%	on	$5,117,849	$767,677
	Contractor Markup (OH&P, Insurance, Bond, B&O Tax)	7.0%	on	$5,885,526	$411,987
	Total Sitework Construction Cost (Today's Dollars)				**$6,297,513**

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OPTION 3 SITEWORK (ON-SITE) ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00 General Sitework Requirements				
Mobilization(s)	3%	on	$4,250,339	$127,510
Site layout & potholing	170,000	gsf	$1.00	$170,000
Temporary Construction Fencing	2,500	lf	$10.00	$25,000
G00 - General Sitework Requirements	170,000	SGA	$1.90	$322,510
Subtotal G00 General Sitework Requirements	**170,000**	**SGA**	**$1.90**	**$322,510**
G10 Site Preparation				
G1010,20 - Site Clearing & Demolition				
Building demolition - None				
Clear & Grub	170,000	sf	$0.30	$51,000
Demolition of misc. site improvements	170,000	sf	$0.50	$85,000
G1010,20 - Site Clearing & Demolition	170,000	SGA	$0.80	$136,000
G1030 - Site Earthwork				
Strip & Haul Off (12")	6,296	sf	$30.00	$188,889
Site grading & excavation	170,000	sf	$2.00	$340,000
Erosion control & dewatering				
Site area budget (silt fence, silt sock, catch basin protection, etc…)	170,000	sga	$0.50	$85,000
Site Shoring - None				$0
G1030 - Site Earthwork	170,000	SGA	$3.61	$613,889
G1040 - Hazardous Waste Remediation				
Removal of Contaminated Soil - Allowance				*Excluded*
G1040 - Hazardous Waste Remediation	170,000	SGA	$0.00	$0
Subtotal G10 Site Preparation	**170,000**	**SGA**	**$4.41**	**$749,889**
G20 Site Improvements				
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving				

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OPTION 3 SITEWORK (ON-SITE) ESTIMATE DETAIL

Asphalt paving (base courses included)				
New parking area & drive aisles (3" over 5")	84,000	sf	$6.00	$504,000
Concrete paving (base courses included)				
Concrete site walks	8,000	sf	$8.00	$64,000
Generator & fueling pad (raised)	500	sf	$25.00	$12,500
Curb ramp	2	ea	$5,000.00	$10,000
Curbs - Vertical	3,000	lf	$30.00	$90,000
Markings & signage				
Parking stall striping	136	ea	$50.00	$6,800
Parking stall striping, ADA w/ sign	4	ea	$500.00	$2,000
Plastic traffic arrow	4	ea	$150.00	$600
Misc. parking signs	1	ls	$5,000.00	$5,000
Parking booths & equipment				
Wheel Stops	136	ea	$200.00	$27,200
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving	170,000	SGA	$4.25	$722,100
G2040 - Site Development				
Fences & gates				
Security metal fencing, ornamental - 6'	900	lf	$300.00	$270,000
Security man gate (w/ electronic access), 6' ht - Single swing	2	ea	$10,000	$20,000
Automated Vehicular Gate, Security (w/ electronic access)	2	ea	$40,000	$80,000
Site furnishings				
Area budget (flag pole, seat walls, bike racks, bollards, benches, monument sign, etc…)	170,000	sga	$1.50	$255,000
Misc. structures				
Covered Parking Canopy	3,500	sf	$90.00	$315,000
Trash enclosure	1	ls	$15,000	$15,000
Generator enclosure	1	ls	$15,000	$15,000
G2040 - Site Development	170,000	SGA	$5.71	$970,000
G2050 - Landscaping				

OPTION 3 SITEWORK (ON-SITE) ESTIMATE DETAIL

Area budget (Mixture of Irrigated Planters, Irrigated Lawn, and Non-irrigated Natural Plantings)	50,300	sf	$7.00	$352,100
G2050 - Landscaping	170,000	SGA	$2.07	$352,100
Subtotal G20 Improvements	**170,000**	**SGA**	**$12.02**	**$2,044,200**
G30 Site Civil / Mechanical Utilities				
G3010 - Water Supply				
Domestic and fire water service (from main included w/ ROW estimate)	1	ls	$90,000	$90,000
G3010 - Water Supply	170,000	SGA	$0.53	$90,000
G3020 - Sanitary Sewer				
New sanitary sewer service	1	ls	$75,000	$75,000
G3020 - Sanitary Sewer	170,000	SGA	$0.44	$75,000
G3030 - Storm Sewer				
Drain lines, catch basins, detention, etc… - Allowance	170,000	sga	$1.00	$170,000
Storm water detention chambers	74,750	cf	$15.00	$1,121,250
G3030 - Storm Sewer	170,000	SGA	$7.60	$1,291,250
G3040, 50, 60 - Heating, Cooling, & Fuel Distribution				
Fueling station - None				$0
G3030, 40, 50 - Heating, Cooling, & Fuel Distribution	170,000	SGA	$0.00	$0
Subtotal G30 Site Civil / Mechanical Utilities	**170,000**	**SGA**	**$8.57**	**$1,456,250**
G40 Site Electrical Utilities				
G4010 - Electrical Distribution				
Electrical utility (transformer by utility provider)	1	ls	$200,000	$200,000
Electric vehicle chargers (double head)	7	ea	$15,000	$105,000
Site Power (security gate, etc…)	1	ls	$40,000	$40,000
G4010 - Electrical Distribution	170,000	SGA	$2.03	$345,000
G4020 - Site lighting				

OPTION 3 SITEWORK (ON-SITE) ESTIMATE DETAIL

Site lighting		1	ls	$150,000	$150,000
	G4020 - Site lighting	170,000	SGA	$0.88	$150,000
G4030 - Site communication & security					
Tele/Data utility		1	ls	$50,000	$50,000
	G4030 - Site communication & security	170,000	SGA	$0.29	$50,000
Subtotal G40 Site Electrical Utilities		**170,000**	**SGA**	**$3.21**	**$545,000**
Subtotal G50 Other Site Construction		**170,000**	**SGA**	**$0.00**	**$0**

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OPTION 3 SITEWORK (ROW) ELEMENTS SUMMARY (UNIFORMAT II)

Ref	*Group Element*	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00	General Sitework Requirements	66,600	SGA	$2.31	$153,885
G10	Site Preparation	66,600	SGA	$3.80	$253,080
G20	Site Improvements	66,600	SGA	$8.94	$595,260
G30	Site Civil / Mechanical Utilities	66,600	SGA	$5.92	$394,500
G40	Site Electrical Utilities	66,600	SGA	$0.00	$0
G50	Other Site Construction	66,600	SGA	$0.00	$0
Sitework Direct Construction Costs Subtotal					**$1,396,725**
Estimating / Design Contingency		15.0%	on	$1,396,725	$209,509
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)		7.0%	on	$1,606,234	$112,436
Total Sitework Construction Cost (Today's Dollars)					**$1,718,670**

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OPTION 3 SITEWORK (ROW) ESTIMATE DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
G00 General Sitework Requirements				
Mobilization(s)	3%	on	$1,242,840	$37,285
Site layout & potholing	66,600	gsf	$1.00	$66,600
Traffic Control	1	ls	$50,000	$50,000
G00 - General Sitework Requirements	66,600	SGA	$2.31	$153,885
Subtotal G00 General Sitework Requirements	**66,600**	**SGA**	**$2.31**	**$153,885**
G10 Site Preparation				
G1010,20 - Site Clearing & Demolition				
Building demolition - None				
Clear & Grub	66,600	sf	$0.30	$19,980
Demolition of misc. site improvements	66,600	sf	$1.00	$66,600
G1010,20 - Site Clearing & Demolition	66,600	SGA	$1.30	$86,580
G1030 - Site Earthwork				
Site grading & excavation	66,600	sf	$2.00	$133,200
Erosion control & dewatering				
Site area budget (silt fence, silt sock, catch basin protection, etc…)	66,600	sga	$0.50	$33,300
Site Shoring - None				$0
G1030 - Site Earthwork	66,600	SGA	$2.50	$166,500
G1040 - Hazardous Waste Remediation				
Removal of Contaminated Soil - Allowance				*Excluded*
G1040 - Hazardous Waste Remediation	66,600	SGA	$0.00	$0
Subtotal G10 Site Preparation	**66,600**	**SGA**	**$3.80**	**$253,080**
G20 Site Improvements				
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving				
Asphalt paving (base courses included)				

OPTION 3 SITEWORK (ROW) ESTIMATE DETAIL

New ROW street paving (2" HMA over 4" ATB & 3" CSBC)	39,960	sf	$7.00	$279,720
Concrete paving (base courses included)				
Concrete drive entry	950	sf	$12.00	$11,400
Concrete side walks	11,100	sf	$9.00	$99,900
Curb and gutter	2,220	lf	$35.00	$77,700
Markings & signage				
Signage & striping	66,600	sga	$0.50	$33,300
G2010,20,30 - Roadways, Parking Lots, and Ped. Paving	66,600	SGA	$7.54	$502,020
G2040 - Site Development				
See onsite estimate				
G2040 - Site Development	66,600	SGA	$0.00	$0
G2050 - Landscaping				
Area budget (Mixture planters and hydroseed w/ trees)	15,540	sf	$6.00	$93,240
G2050 - Landscaping	66,600	SGA	$1.40	$93,240
Subtotal G20 Improvements	**66,600**	**SGA**	**$8.94**	**$595,260**
G30 Site Civil / Mechanical Utilities				
G3010 - Water Supply				
Water Main	1,730	lf	$100	$173,000
Hydrants	10	ea	$4,500	$45,000
Connect to existing	2	ea	$5,000	$10,000
G3010 - Water Supply	66,600	SGA	$3.42	$228,000
G3020 - Sanitary Sewer				
See onsite estimate				$0
G3020 - Sanitary Sewer	66,600	SGA	$0.00	$0
G3030 - Storm Sewer				
Drain lines, catch basins, etc… - Allowance	66,600	sga	$2.50	$166,500
Storm water detention - See onsite estimate				$0

OPTION 3 SITEWORK (ROW) ESTIMATE DETAIL

G3030 - Storm Sewer	66,600	SGA	$2.50	$166,500
Subtotal G30 Site Civil / Mechanical Utilities	**66,600**	**SGA**	**$5.92**	**$394,500**
G40 Site Electrical Utilities				
G4010 - Electrical Distribution				
Place Kelsey St utility underground				*Excluded*
G4010 - Electrical Distribution	66,600	SGA	$0.00	$0
G4020 - Site lighting				
Street lights - Not required				$0
G4020 - Site lighting	66,600	SGA	$0.00	$0
G4030 - Site communication & security				
Place Kelsey St utility underground				*Excluded*
G4030 - Site communication & security	66,600	SGA	$0.00	$0
Subtotal G40 Site Electrical Utilities	**66,600**	**SGA**	**$0.00**	**$0**
Subtotal G50 Other Site Construction	**66,600**	**SGA**	**$0.00**	**$0**

City of Monroe
Police Station Options
Monroe, WA
Concept Estimates

WIGGINS
PRECONSTRUCTION SERVICES

April 22, 2024

ALTERNATE ESTIMATES DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Add Rooftop Mech. Equipment Screening				
Steel framed mechanical equipment screen w/ metal panels	2,000	sf	$60.00	$120,000
Subtotal Direct Costs				**$120,000**
Estimating / Design Contingency	15%	on	$120,000	$18,000
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)	7%	on	$138,000	$9,660
Escalation to Midpoint (Q2, 2027 @ 4% / Yr)	12%	on	$147,660	$17,719
Grand Total Add Rooftop Mech. Equipment Screening				**$165,379**
Wood Framed Superstructure ILO Steel - 2 Story Building				
DECREASE: Change streel framing system to wood framed w/ plywood web joists and open web trusses	29,720	sf	-$15.00	-$445,800
Subtotal Direct Costs				**-$445,800**
Estimating / Design Contingency	15%	on	-$445,800	-$66,870
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)	7%	on	-$512,670	-$35,887
Escalation to Midpoint (Q2, 2027 @ 4% / Yr)	12%	on	-$548,557	-$65,827
Grand Total Wood Framed Superstructure ILO Steel - 2 Story Building				**-$614,384**
Wood Framed Superstructure ILO Steel - 1 Story Building				
DECREASE: Change streel framing system to wood framed w/ plywood web joists and open web trusses	29,085	sf	-$15.00	-$436,275
Subtotal Direct Costs				**-$436,275**
Estimating / Design Contingency	15%	on	-$436,275	-$65,441
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)	7%	on	-$501,716	-$35,120
Escalation to Midpoint (Q2, 2027 @ 4% / Yr)	12%	on	-$536,836	-$64,420
Grand Total Wood Framed Superstructure ILO Steel - 1 Story Building				**-$601,257**

City of Monroe
Police Station Options
Monroe, WA
Concept Estimates

WIGGINS
PRECONSTRUCTION SERVICES

April 22, 2024

ALTERNATE ESTIMATES DETAIL

Description	*QTY*	*UOM*	*$ / UOM*	*Total Cost*
Move Defensive Tactics to PEMB				
DECREASE: Police Station GSF	-1,500	gsf	$500.00	-$750,000
Pre-engineered metal building, 12' eve height (finished)	1,500	gsf	$250.00	$375,000
Associated Sitework	2,000	sga	$45.00	$90,000
Subtotal Direct Costs				**-$285,000**
Estimating / Design Contingency	15%	on	-$285,000	-$42,750
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)	7%	on	-$327,750	-$22,943
Escalation to Midpoint (Q2, 2027 @ 4% / Yr)	12%	on	-$350,693	-$42,083
Grand Total Move Defensive Tactics to PEMB				**-$392,776**
Add 27 Parking Stalls + Impound Improvements				
Add 27 parking stalls to sitework (400 sf each including drive aisle, ped. Access, and code required landscaping)	10,800	sga	$30.00	$324,000
Premium for Impound Lot Improvements (security fence, automatic gate, lighting, security, etc...)	1	ls	$130,000	$130,000
Subtotal Direct Costs				**$454,000**
Estimating / Design Contingency	15%	on	$454,000	$68,100
Contractor Markup (OH&P, Insurance, Bond, B&O Tax)	7%	on	$522,100	$36,547
Escalation to Midpoint (Q2, 2027 @ 4% / Yr)	12%	on	$558,647	$67,038
Grand Total Add 27 Parking Stalls + Impound Improvements				**$625,685**

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Appendix B:
ASCE 41-17 Structural Tier 1 Report

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MACKENZIE.

ASCE 41-71 TIER 1 STRUCTURAL ASSESSMENT

To
Monroe Police Department

For
Monroe Police Department Existing Facilities Review

Dated
November 20, 2023

Project Number
2230268.00

MACKENZIE
Since 1960

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1. EXPLANATION OF STRUCTURAL SEISMIC EVALUATION

A seismic evaluation of the Monroe Police Dept (818 W Main Street) was conducted using the American Society of Civil Engineers (ASCE) standard 41-17 "Seismic Evaluation and Retrofit of Existing Buildings." ASCE 41-17 is a nationally recognized standard used by engineers to evaluate and retrofit existing buildings. New building codes include provisions that require or encourage design and detailing practices that ensure acceptable seismic performance of a building. Older existing buildings will not meet these stricter and more recent requirements; however, ASCE 41-17 recognizes the evolving nature of building codes and provides guidelines on deficiency-based and systematic procedures to evaluate and retrofit existing buildings.

Within ASCE 41-17, there are four Building Performance Levels: Collapse Prevention (CP), Life Safety (LS), Immediate Occupancy (IO), and Operational. Most buildings are categorized as and designed for LS Performance Levels. The LS performance level is meant to ensure the safety of building occupants; however, buildings with this performance level will likely experience significant damage that may or may not be repaired or occupied after the earthquake. For critical facilities that need to retain full function immediately post-earthquake to provide emergency response to the community, such as a police station, the building is evaluated to the higher standard of Operational. It should be noted that for structural evaluation, the Operational and Immediate Occupancy criteria are the same. The difference in the two levels is that the support systems and equipment are operational; see Figure 1. Figure 2 includes a summary of each performance level and the anticipated damage for a building designed to each performance level.

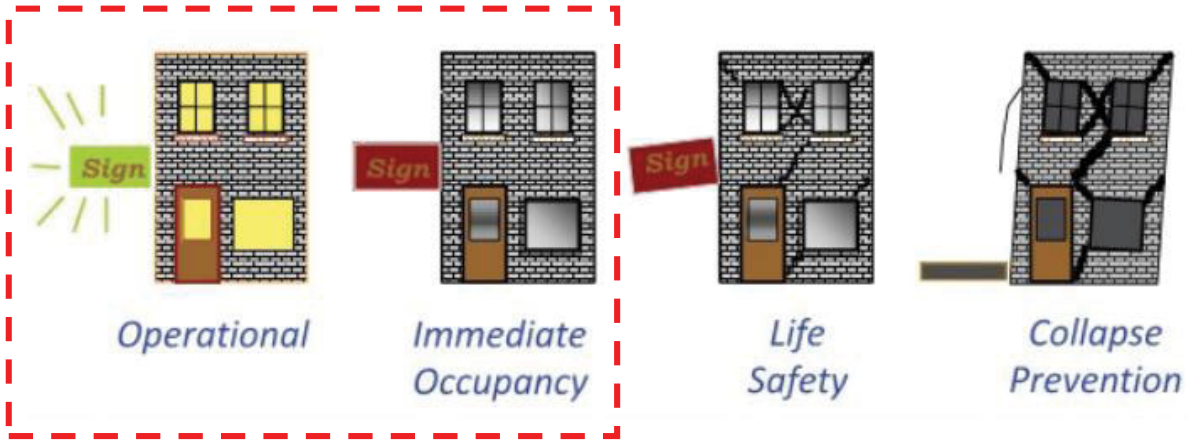

Figure 1: Building Performance Levels

For our evaluation, we have used the Basic Performance Objective for Existing Buildings (BPOE) for Risk Category IV structures. For this performance objective, the building is evaluated to the Life Safety (LS) structural performance level for the BSE-2E seismic hazard and to the Immediate Occupancy (IO) structural performance level for the BSE-1E seismic hazard.

Target Building Performance Levels				
	Collapse Prevention Level (5-D)	Life Safety Level (3-C)	Immediate Occupancy Level (1-B)	Operational Level (1-A)
Overall damage	**Severe**	**Moderate**	**Light**	**Very light**
Structural components	Little residual stiffness and strength to resist lateral loads, but gravity load-bearing columns and walls function. Large permanent drifts. Some exits blocked. Building is near collapse in aftershocks and should not continue to be occupied.	Some residual strength and stiffness left in all stories. Gravity-load-bearing elements function. No out-of-plane failure of walls. Some permanent drift. Damage to partitions. Continued occupancy might not be likely before repair. Building might not be economical to repair.	No permanent drift. Structure substantially retains original strength and stiffness. Continued occupancy likely.	No permanent drift. Structure substantially retains original strength and stiffness. Minor cracking of facades, partitions, and ceilings as well as structural elements. All systems important to normal operation are functional. Continued occupancy and use highly likely.
Nonstructural components	Extensive damage. Infills and unbraced parapets failed or at incipient failure.	Falling hazards, such as parapets, mitigated, but many architectural, mechanical, and electrical systems are damaged.	Equipment and contents are generally secure but might not operate due to mechanical failure or lack of utilities. Some cracking of facades, partitions, and ceilings as well as structural elements. Elevators can be restarted. Fire protection operable.	Negligible damage occurs. GPower and other utilities are available, possibly from standby sources.
Comparison with performance intended for typical buildings designed to codes or standards for new buildings, for the design earthquake	Significantly more damage and greater life-safety risk.	Somewhat more damage and slightly higher life-safety risk.	Less damage and low life-safety risk.	Much less damage and very low life-safety risk.

Figure 2: Damage Control and Building Performance Levels. Source: Table C2-3 ASCE Standard – ASCE/SEI 41-17: American Society of Civil Engineers - Seismic Evaluation and Retrofit of Existing Buildings

ASCE 41-17 incorporates a multi-tier methodology for evaluating existing structures. Tier 1 screening, which was chosen for this analysis, is a preliminary screening phase which utilizes a checklist approach to identify potential seismic hazards. Any identified risks or deficiencies identified in Tier 1 screening are preliminary and may or may not be justifiable using a more rigorous higher tier analysis. If a deficiency is identified in the Tier 1 screening phase, further Tier 2 or Tier 3 analysis can be used to show the specific item is acceptable or be used to design a retrofit measure if the item is proven unacceptable. For seismic hazards that cannot be identified through site observations, non-destructive demolition and material testing may be required as part of future Tier 2 and Tier 3 evaluations.

As part of Tier 1 screening, various analyses or “Quick Checks” are performed where specifically required by ASCE 41 requirements. Not all items that pass the quick check will necessarily pass once more detailed checks are performed nor are they guaranteed to meet current code requirements.

The Tier 1 screening consists of a visual survey, which was conducted on October 26, 2023. For each of the Tier 1 checklist items, an evaluation of Compliant(C), Non-compliant (NC), Not Applicable (N/A), or Unknown (U) is marked. NC does not necessarily mean that the issue cannot be justified with a higher tier evaluation phase; rather, only that it does not pass the Tier 1 screening criteria.

Risk Category	Tier 1 and 2[a] BSE-1E	BSE-2E
I and II	Not evaluated	Collapse Prevention Structural Performance
	Life Safety Nonstructural Performance (3-C)	Hazards Reduced Nonstructural Performance[b] (5-D)
III	Not evaluated	Limited Safety Structural Performance[c]
	Position Retention Nonstructural Performance (2-B)	Hazards Reduced Nonstructural Performance[b] (4-D)
IV	Immediate Occupancy Structural Performance	Life Safety Structural Performance[d]
	Position Retention Nonstructural Performance (1-B)	Hazards Reduced Nonstructural Performance[b] (3-D)

Figure 3: ASCE 41-17 Tier 1 and Tier 2 Evaluation Requirements Source: Table 2-2 ASCE Standard – ASCE/SEI 41-17: American Society of Civil Engineers - Seismic Evaluation and Retrofit of Existing Buildings

Monroe PD Seismic Evaluation Criteria	
Evaluation Standard	ASCE 41-17 (Tier 1 Analysis)
Performance Objective	Immediate Occupancy, Risk Category IV
ASCE 41 Building Type	W2, RM1
Site Soil Classification	D (stiff soil)
Seismic Hazard	BSE-2E/BSE-1E (5% in 50 years, 975-year return/ 20% in 50 years, 225-year return)
ASCE 41-17 Level of Seismicity	High

Scope and Limitations

The Tier 1 analysis is based on site observations of only readily visible items and the existing record drawings. It should be noted that other deficiencies might exist that have not been identified by this screening phase and quick checks due to the limited information. In addition, no material or other testing was performed at this time to aid with this evaluation. Seismic performance of non-structural elements was not evaluated in this assessment and should be included in further study.

The seismic evaluation conducted by Mackenzie highlights the extents of the deficiencies and the need for future attention to the condition of the structure. Detailed descriptions of the deficiencies can be found in the following seismic evaluation summary and attached Tier 1 checklists for the building.

2. STRUCTURAL SEISMIC EVALUATION: SUMMARY

Existing Building Description

The Monroe police department building is a one-story structure constructed circa 1993. It was built along a generally flat site within the Monroe municipal campus and is adjacent to the existing City Hall. It measures an estimated total of 9,500 SF and is about 28 feet tall from the ground to the roof ridge. The building appears to have been designed under the 1988 Uniform Building Code (UBC) according to existing structural drawings dated December 1991.

The structure appears to consist of masonry and wood construction which classifies it as a RM1 and W2 building type according to the ASCE 41 standard. In the longitudinal direction, concrete masonry unit (CMU) walls appear to act as both shear walls and bearing walls supporting the roof framing system. The lateral system in the transverse direction appears to consist solely of wood shear walls. The sloped roof portions of the building surrounding the main open space consist of OSB wood sheathing over gang-nailed wood trusses spanning to exterior and interior CMU and wood walls. Above the exterior CMU walls on the east and west elevations, there is an approximately 32-inch concrete cast in place beam that runs the full length of the walls. This beam appears to be load bearing as the wood roof trusses connect directly to it.

The central portion of the building has a flat roof supported by wood sheathing, 2x12 sub-purlins (per 1991 drawings), and large built-up wood trusses spaced at approximately 12 feet on center. These trusses span to CMU pilasters within the walls. The interior CMU walls are not all continuous to ground and are interrupted by openings and non-structural partitions. The central flat roof is higher than the rest of the building with multiple windows along the east and west sides. This condition creates a diaphragm discontinuity but appears to be resolved with wood shear walls that connect down to the sloped roof and CMU walls below.

According to the existing drawings, the foundations consist of continuous shallow footings supporting all walls with short stem walls also under the wood walls. The interior CMU pilasters bear on shallow spread footings. A 4-inch-thick reinforced concrete slab on grade (per 1991 drawings) appears to extend throughout the whole structure.

At the entrance to the building is a steel framed walkway canopy. It consists of rectangular HSS steel columns, beams, a perimeter steel channel, and 1.5-inch-thick metal roof deck. This structure is directly connected to the wood wall studs of the building and attached mechanical enclosure.

General Condition of Structure

Overall, the structure is in fair condition based on the age and lack of substantial renovation to the building. Simple observations did not show any significant deficiencies that would require immediate repair. The floor slabs and exterior walls did not show any observable signs of settlement. There is some minimal water intrusion noted in a few places, but it does not appear to be affecting the structure. The exterior walls did not appear to have any diagonal cracks; diagonal cracks could be a sign of structural damage.

Light superficial damage, including cracking mortar joints, of the CMU exterior walls was observed at the end locations where the wall continues past the enclosure of the building. However, these portions of the

wall appear to be non-structural and the observed superficial damage does not appear to present a risk to the building. In many rooms, interior partitions and other non-structural elements have been added as part of past renovations.

Tier 1 Checklists Summary

The ASCE 41-17 Tier 1 checklist reveals multiple items that are either non-compliant (NC) or unknown (U) and are summarized below:

- **Masonry Wall Reinforcing – NC** – The reinforcing steel is less than the minimum reinforcing ratios and maximum spacing requirements for shear walls that are resisting seismic forces.
- **Narrow Wood Shear Walls – NC**– Some exterior wood shear walls that are assumed to resist seismic forces do not pass the quick check. They have a height-to-width ratio greater than 1.5:1 which increases the likelihood that there is not enough capacity to resist overturing seismic forces.
- **Roof Chord & Diaphragm Continuity – NC** – The high roof causes a discontinuity in the building diaphragm and chord which are major components of the seismic force resisting system. The wood walls framing the openings may not have enough capacity to transfer the seismic forces from the high roof.
- **Diaphragms** – **NC** – The building appears to have a flexible roof diaphragm consisting of structural wood OSB sheathing that is not fully blocked. The spans are greater than the 30ft maximum limit.
- **Liquefaction** – **NC** – Based on published hazard maps by the State of Washington Dept. of Natural Resources, the building's site has a moderate to high risk of soil liquefaction during a seismic event. The existing drawings do not contain foundation ties or other conventional measures to mitigate liquefaction effects. A geotechnical report dated January 30, 2023, for the whole Monroe Municipal campus was made available to Mackenzie for review. The geotechnical engineer recommends that liquefaction hazard mitigation measures are not required for a 1-2 story light-framed building; however, this recommendation is only applicable to "non-essential" buildings and further study is necessary to confirm design requirements for an essential facility such as this police station. There may be unaddressed liquefaction risks at this existing facility, but further geotechnical recommendations are required to better understand the potential risk.

Based on the nonconforming and unknown checklist items identified it is recommended that further detailed analysis be conducted per ASCE 41-17 Tier 2 and Tier 3 evaluations to determine the necessity and extents of a seismic retrofit for the existing structure. This would possibly require additional visits and may include selective destructive and non-destructive evaluation to further expose the existing structure and material testing.

3. ANCILLARY STRUCTURES

An ancillary building containing the evidence control unit, capital equipment storage, and the force mitigation and wellness room was also observed. This separate structure is an open and enclosed metal framed building and was built circa the 1960s according to City staff. There were no existing drawings available for this building; however, it appears to be a relatively typical pre-engineered metal building. The structure consists of steel wide flange columns and girders and metal Z-shaped channels supporting the roofing. The lateral system appears to consist of steel moment frames in the transverse direction and steel tension-only rod braces in the longitudinal direction. Some bays of the roof contain horizontal diagonal rod bracing. The wall framing consists of horizontally spanning Z-shaped metal channels supporting interior/exterior metal panels and wall finishes. The central room of the evidence control unit has a partial wood framed mezzanine that appears to be self-supported. The other rooms also contain small wood-framed enclosures for secure storage areas.

This building is classified as an S3 structure and was evaluated at the Collapse Prevention Performance Level, based on the assumption that the building will not need to be immediately occupied following a seismic event.

Overall, the structure is in moderate to poor condition based on the age and type of building. Simple observations, however, did not show any significant deficiencies that would require immediate repair.

The ASCE 41-17 Tier 1 checklist reveals multiple items that are either non-compliant (NC) or unknown (U) and are summarized below.

- **Tension Braces – NC** – The axial stress in the diagonal braces exceeds the limit from the quick check.
- **Steel Members and Connections – NC –** Based on the structure age and type, the steel beams and column and their connections do not conform with current seismic design and detailing practices.
- **Connections – U –** It is not known if the columns and wall panels are anchored to a foundation or if the diaphragm is connected to the steel moment frames.

4. RETROFIT CONSIDERATIONS

Seismic retrofit design and sketches are not included in this report; however, the following includes some possible cost considerations for a future retrofit of the existing police building. The largest improvements will most likely be related to the site's soil and foundation system if a geotechnical engineer determines that liquefaction hazard must be mitigated as part of a retrofit. Depending on further geotechnical investigation, soil improvement and/or foundation strengthening such as pin piles may be required for this building to achieve immediate occupancy following a seismic event. If liquefaction need not be mitigated, there may still be some localized foundation work necessary for strengthening foundations under shear wall locations, which could still carry some cost.

Additional improvement may include strengthening of the connections between the CMU and concrete walls to the roof throughout the whole building, adding connections between CMU pilasters and wood shear walls, providing additional sheathing at wood shear walls, providing additional sill bolts and/or hold down devices to existing shear walls, and/or introducing new wood-framed shear walls. There is a chance that some CMU walls may need strengthening with some form of external reinforcement or a braced frame.

A detailed cost estimate should be performed after a Tier 2/Tier 3 study is completed in order to obtain a good understanding of potential costs associated with a seismic retrofit; however, based on our past experience with similar structures we would anticipate costs for a full seismic retrofit (excluding retrofits for liquefaction) to range roughly around the $2M to $3M range. Retrofits for liquefaction could substantially exceed this rough estimate.

APPENDIX: ASCE 41-17 CHECKLISTS

SUMMARY DATA SHEET

BUILDING DATA

Building Name: Monroe Police Dept Date: 10/26/2023

Building Address: 818 W Main St. Monroe, WA 98272

Latitude: Longitude: By: Mackenzie - DNM

Year Built: 1991-1993 Year(s) Remodeled: Original Design Code: Unknown

Area [ft² (m²)]: 9,489 Length [ft (m)]: 133 Width [ft (m)]: 75

No. of Stories: 1 Story Height: 28ft Total Height: 28

USE ☐ Industrial ☐ Office ☐ Warehouse ☐ Hospital ☐ Residential ☐ Educational ☑ Other: Police Station

CONSTRUCTION DATA

Gravity Load Structural System: Light framed wood bearing walls, CMU bearing walls, wood trusses

Exterior Transverse Walls: CMU, wood bearing walls Openings? Yes

Exterior Longitudinal Walls: CMU, wood bearing walls Openings? Yes

Roof Materials/Framing: Wood sheathing (OSB), wood trusses

Intermediate Floors/Framing: N/A

Ground Floor: Slab on grade

Columns: CMU pilasters Foundation: Shallow spread and cont ftg

General Condition of Structure: Good

Levels Below Grade? None

Special Features and Comments: Combination of CMU and wood walls, concrete "beam" cast on top of CMU walls

LATERAL-FORCE-RESISTING SYSTEM

	Longitudinal	Transverse
System:	CMU/wood walls w/ wood sheathing	CMU/wood walls w/ wood sheathing
Vertical Elements:	CMU/wood shear walls	CMU/wood shear walls
Diaphragms:	Wood sheathing (OSB)	Wood sheathing (OSB)
Connections:	Yes	Yes

EVALUATION DATA

BSE-1N Spectral Response Accelerations: S_{DS} = N/A S_{D1} = N/A

Soil Factors: Class = D (Stiff Soil) F_a = 1.2 F_v = 2.0

BSE-2E Spectral Response Accelerations: S_{XS} = 1.04 S_{X1} = 0.6

Level of Seismicity: High Performance Level: Immediate Occupancy

Building Period: T = 0.189

Spectral Acceleration: S_a = 1.04

Modification Factor: $C_m C_1 C_2$ = Building Weight: W = 245k

Pseudolateral Force: $V = C_m C_1 C_2 S_a W$ =

BUILDING CLASSIFICATION:

REQUIRED TIER 1 CHECKLISTS

	Yes	No
Basic Configuration Checklist	☑	☐
Building Type W2/RM1 Structural Checklist	☑	☐
Nonstructural Component Checklist	☐	☑

FURTHER EVALUATION REQUIREMENT: Tier 2 Evaluation

Monroe Police Dept.

Table 17-3. Immediate Occupancy Basic Configuration Checklist

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Very Low Seismicity			
Building System—General			
(C) NC N/A U	LOAD PATH: The structure contains a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation.	5.4.1.1	A.2.1.1
(C) NC N/A U	ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 0.5% of the height of the shorter building in low seismicity, 1.0% in moderate seismicity, and 3.0% in high seismicity.	5.4.1.2	A.2.1.2
C NC (N/A) U	MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure.	5.4.1.3	A.2.1.3
Building System—Building Configuration			
C NC (N/A) U	WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above.	5.4.2.1	A.2.2.2
C NC (N/A) U	SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above.	5.4.2.2	A.2.2.3
(C) NC N/A U	VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation.	5.4.2.3	A.2.2.4
C NC (N/A) U	GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines.	5.4.2.4	A.2.2.5
C NC (N/A) U	MASS: There is no change in effective mass of more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered.	5.4.2.5	A.2.2.6
(C) NC N/A U	TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension.	5.4.2.6	A.2.2.7
Low Seismicity (Complete the Following Items in Addition to the Items for Very Low Seismicity)			
Geologic Site Hazards			
C (NC) N/A U	LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance do not exist in the foundation soils at depths within 50 ft (15.2 m) under the building.	5.4.3.1	A.6.1.1
(C) NC N/A U	SLOPE FAILURE: The building site is located away from potential earthquake-induced slope failures or rockfalls so that it is unaffected by such failures or is capable of accommodating any predicted movements without failure.	5.4.3.1	A.6.1.2
(C) NC N/A U	SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated.	5.4.3.1	A.6.1.3
Moderate and High Seismicity (Complete the Following Items in Addition to the Items for Low Seismicity)			
Foundation Configuration			
(C) NC N/A U	OVERTURNING: The ratio of the least horizontal dimension of the seismic-force-resisting system at the foundation level to the building height (base/height) is greater than $0.6S_a$.	5.4.3.3	A.6.2.1
C (NC) N/A U	TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C.	5.4.3.4	A.6.2.2

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

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Table 17-7. Immediate Occupancy Checklist for Building Type W2

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Very Low Seismicity			
Seismic-Force-Resisting System			
(C) NC N/A U	REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2.	5.5.1.1	A.3.2.1.1
(C) NC N/A U	SHEAR STRESS CHECK: The shear stress in the shear walls, calculated using the Quick Check procedure of Section 4.4.3.3, is less than the following values: Structural panel sheathing 1,000 lb/ft (14.6 kN/m) Diagonal sheathing 700 lb/ft (10.2 kN/m) Straight sheathing 100 lb/ft (1.5 kN/m) All other conditions 100 lb/ft (1.5 kN/m)	5.5.3.1.1	A.3.2.7.1
C NC (N/A) U	STUCCO (EXTERIOR PLASTER) SHEAR WALLS: Multi-story buildings do not rely on exterior stucco walls as the primary seismic-force-resisting system.	5.5.3.6.1	A.3.2.7.2
C NC (N/A) U	GYPSUM WALLBOARD OR PLASTER SHEAR WALLS: Interior plaster or gypsum wallboard is not used for shear walls on buildings more than one story high with the exception of the uppermost level of a multi-story building.	5.5.3.6.1	A.3.2.7.3
C (NC) N/A U	NARROW WOOD SHEAR WALLS: Narrow wood shear walls with an aspect ratio greater than 2-to-1 are not used to resist seismic forces.	5.5.3.6.1	A.3.2.7.4
C NC (N/A) U	WALLS CONNECTED THROUGH FLOORS: Shear walls have an interconnection between stories to transfer overturning and shear forces through the floor.	5.5.3.6.2	A.3.2.7.5
C NC (N/A) U	HILLSIDE SITE: For structures that are taller on at least one side by more than one-half story because of a sloping site, all shear walls on the downhill slope have an aspect ratio less than 1-to-2.	5.5.3.6.3	A.3.2.7.6
C NC (N/A) U	CRIPPLE WALLS: Cripple walls below first-floor-level shear walls are braced to the foundation with wood structural panels.	5.5.3.6.4	A.3.2.7.7
(C) NC N/A U	OPENINGS: Walls with openings greater than 80% of the length are braced with wood structural panel shear walls with aspect ratios of not more than 1.5-to-1 or are supported by adjacent construction through positive ties capable of transferring the seismic forces.	5.5.3.6.5	A.3.2.7.8
(C) NC N/A U	HOLD-DOWN ANCHORS: All shear walls have hold-down anchors attached to the end studs constructed in accordance with acceptable construction practices.	5.5.3.6.6	A.3.2.7.9
Connections			
(C) NC N/A U	WOOD POSTS: There is a positive connection of wood posts to the foundation.	5.7.3.3	A.5.3.3
(C) NC N/A U	WOOD SILLS: All wood sills are bolted to the foundation.	5.7.3.3	A.5.3.4
(C) NC N/A U	GIRDER–COLUMN CONNECTION: There is a positive connection using plates, connection hardware, or straps between the girder and the column support.	5.7.4.1	A.5.4.1

continues

Table 17-7 *(Continued)*. Immediate Occupancy Checklist for Building Type W2

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Foundation System			
C NC (N/A) U	DEEP FOUNDATIONS: Piles and piers are capable of transferring the lateral forces between the structure and the soil.		A.6.2.3
C NC (N/A) U	SLOPING SITES: The difference in foundation embedment depth from one side of the building to another does not exceed one story high.		A.6.2.4
Low, Moderate, and High Seismicity (Complete the Following Items in Addition to the Items for Very Low Seismicity)			
Seismic-Force-Resisting System			
C (NC) N/A U	NARROW WOOD SHEAR WALLS: Narrow wood shear walls with an aspect ratio greater than 1.5-to-1 are not used to resist seismic forces.	5.5.3.6.1	A.3.2.7.4
Diaphragms			
(C) NC N/A U	DIAPHRAGM CONTINUITY: The diaphragms are not composed of split-level floors and do not have expansion joints.	5.6.1.1	A.4.1.1
C NC N/A (U)	ROOF CHORD CONTINUITY: All chord elements are continuous, regardless of changes in roof elevation.	5.6.1.1	A.4.1.3
C NC (N/A) U	DIAPHRAGM REINFORCEMENT AT OPENINGS: There is reinforcing around all diaphragm openings larger than 50% of the building width in either major plan dimension.	5.6.1.5	A.4.1.8
C NC (N/A) U	STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 1-to-1 in the direction being considered.	5.6.2	A.4.2.1
(C) NC N/A U	SPANS: All wood diaphragms with spans greater than 12 ft (3.6 m) consist of wood structural panels or diagonal sheathing.	5.6.2	A.4.2.2
C (NC) N/A U	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 30 ft (9.2 m) and have aspect ratios less than or equal to 3-to-1.	5.6.2	A.4.2.3
(C) NC N/A U	OTHER DIAPHRAGMS: The diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing.	5.6.5	A.4.7.1
Connections			
(C) NC N/A U	WOOD SILL BOLTS: Sill bolts are spaced at 4 ft or less with acceptable edge and end distance provided for wood and concrete.	5.7.3.3	A.5.3.7

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

Table 17-35. Immediate Occupancy Structural Checklist for Building Types RM1 and RM2

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Very Low Seismicity			
Seismic-Force-Resisting System			
(C) NC N/A U	REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2.	5.5.1.1	A.3.2.1.1
(C) NC N/A U	SHEAR STRESS CHECK: The shear stress in the reinforced masonry shear walls, calculated using the Quick Check procedure of Section 4.4.3.3, is less than 70 lb/in.^{2} (4.83 MPa).	5.5.3.1.1	A.3.2.4.1
C (NC) N/A U	REINFORCING STEEL: The total vertical and horizontal reinforcing steel ratio in reinforced masonry walls is greater than 0.002 of the wall with the minimum of 0.0007 in either of the two directions; the spacing of reinforcing steel is less than 48 in., and all vertical bars extend to the top of the walls.	5.5.3.1.3	A.3.2.4.2
Connections			
(C) NC N/A U	WALL ANCHORAGE: Exterior concrete or masonry walls that are dependent on the diaphragm for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections have strength to resist the connection force calculated in the Quick Check procedure of Section 4.4.3.7.	5.7.1.1	A.5.1.1
C (NC) N/A U	WOOD LEDGERS: The connection between the wall panels and the diaphragm does not induce cross-grain bending or tension in the wood ledgers.	5.7.1.3	A.5.1.2
(C) NC N/A U	TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of seismic forces to the shear walls, and the connections are able to develop the lesser of the shear strength of the walls or diaphragms.	5.7.2	A.5.2.1
(C) NC N/A U	FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation, and the dowels are able to develop the lesser of the strength of the walls or the uplift capacity of the foundation.	5.7.3.4	A.5.3.5
(C) NC N/A U	GIRDER–COLUMN CONNECTION: There is a positive connection using plates, connection hardware, or straps between the girder and the column support.	5.7.4.1	A.5.4.1
Stiff Diaphragms			
C NC (N/A) U	TOPPING SLAB: Precast concrete diaphragm elements are interconnected by a continuous reinforced concrete topping slab.	5.6.4	A.4.5.1
C NC (N/A) U	TOPPING SLAB TO WALLS OR FRAMES: Reinforced concrete topping slabs that interconnect the precast concrete diaphragm elements are doweled for transfer of forces into the shear wall or frame elements.	5.7.2	A.5.2.3
Foundation System			
C NC (N/A) U	DEEP FOUNDATIONS: Piles and piers are capable of transferring the lateral forces between the structure and the soil.		A.6.2.3
C NC (N/A) U	SLOPING SITES: The difference in foundation embedment depth from one side of the building to another does not exceed one story.		A.6.2.4
Low, Moderate, and High Seismicity (Complete the Following Items in Addition to the Items for Very Low Seismicity)			
Seismic-Force-Resisting System			
(C) NC N/A U	REINFORCING AT WALL OPENINGS: All wall openings that interrupt rebar have trim reinforcing on all sides.	5.5.3.1.5	A.3.2.4.3
(C) NC N/A U	PROPORTIONS: The height-to-thickness ratio of the shear walls at each story is less than 30.	5.5.3.1.2	A.3.2.4.4
Diaphragms (Stiff or Flexible)			
(C) NC N/A U	OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 15% of the wall length.	5.6.1.3	A.4.1.4
(C) NC N/A U	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS: Diaphragm openings immediately adjacent to exterior masonry shear walls are not greater than 4 ft (1.2 m) long.	5.6.1.3	A.4.1.6
C NC N/A (U)	PLAN IRREGULARITIES: There is tensile capacity to develop the strength of the diaphragm at reentrant corners or other locations of plan irregularities.	5.6.1.4	A.4.1.7
C NC (N/A) U	DIAPHRAGM REINFORCEMENT AT OPENINGS: There is reinforcing around all diaphragm openings larger than 50% of the building width in either major plan dimension.	5.6.1.5	A.4.1.8

Table 17-35 *(Continued)*. Immediate Occupancy Structural Checklist for Building Types RM1 and RM2

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Flexible Diaphragms			
C NC N/A U	CROSS TIES: There are continuous cross ties between diaphragm chords.	5.6.1.2	A.4.1.2
C NC N/A U	STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 1-to-1 in the direction being considered.	5.6.2	A.4.2.1
C NC N/A U	SPANS: All wood diaphragms with spans greater than 12 ft (3.6 m) consist of wood structural panels or diagonal sheathing.	5.6.2	A.4.2.2
C NC N/A U	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 30 ft (9.2 m) and aspect ratios less than or equal to 3-to-1.	5.6.2	A.4.2.3
C NC N/A U	NONCONCRETE FILLED DIAPHRAGMS: Untopped metal deck diaphragms or metal deck diaphragms with fill other than concrete consist of horizontal spans of less than 40 ft (12.2 m) and have aspect ratios less than 4-to-1.	5.6.3	A.4.3.1
C NC N/A U	OTHER DIAPHRAGMS: Diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing.	5.6.5	A.4.7.1
Connections			
C NC N/A U	STIFFNESS OF WALL ANCHORS: Anchors of concrete or masonry walls to wood structural elements are installed taut and are stiff enough to limit the relative movement between the wall and the diaphragm to no greater than 1/8 in. before engagement of the anchors.	5.7.1.2	A.5.1.4

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

Monroe Police Dept. - Ancillary Building

Table 17-12. Collapse Prevention Structural Checklist for Building Type S3

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Low and Moderate Seismicity			
Seismic-Force-Resisting System			
C (NC) N/A U	BRACE AXIAL STRESS CHECK: The axial stress in the diagonals, calculated using the Quick Check procedure of Section 4.4.3.4, is less than $0.50F_y$.	5.5.4.1	A.3.3.1.2
Connections			
C NC N/A (U)	TRANSFER TO STEEL FRAMES: Diaphragms are connected for transfer of seismic forces to the steel moment frames.	5.7.2	A.5.2.2
C NC N/A (U)	STEEL COLUMNS: The columns in seismic-force-resisting frames are anchored to the building foundation.	5.7.3.1	A.5.3.1
High Seismicity (Complete the Following Items in Addition to the Items for Low and Moderate Seismicity)			
Seismic-Force-Resisting System			
C (NC) N/A U	MOMENT-RESISTING CONNECTIONS: All moment connections are able to develop the elastic moment (F_yS) of the adjoining members.	5.5.2.2.1	A.3.1.3.4
C (NC) N/A U	COMPACT MEMBERS: All frame elements meet compact section requirements in accordance with AISC 360, Table B4.1.	5.5.2.2.4	A.3.1.3.8
Diaphragms			
(C) NC N/A U	OTHER DIAPHRAGMS: Diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing.	5.6.5	A.4.7.1
Connections			
C NC N/A (U)	ROOF PANELS: Where considered as diaphragm elements for lateral resistance, metal, plastic, or cementitious roof panels are positively attached to the roof framing to resist seismic forces.	5.7.5	A.5.5.1
C NC N/A (U)	WALL PANELS: Where considered as shear elements for lateral resistance, metal, fiberglass, or cementitious wall panels are positively attached to the framing and foundation to resist seismic forces.	5.7.5	A.5.5.2

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

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