

Esquimalt Public Safety Building

Feasibility Study

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FINAL DRAFT



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Executive Summary

The Township of Esquimalt wishes to replace their existing Fire Hall and Police Facility as the current building is old, cramped and unable to meet current operational and post-disaster standards. It is a vital piece of community infrastructure that is at the core of meeting the needs of community emergency and disaster responsiveness. These facilities contain a great deal of vital equipment and inventory of vehicles that are critical to the responsiveness to any event that occurs within the community. The need to bring this facility into the modern era is a huge investment in community resilience and providing for the Citizens of Esquimalt in their time of greatest need.

This study identifies the new and expanded program of spaces needed to serve the community for the next 30 years. The study has also produced a concept design for the new Public Safety Building and confirmed how the program can fit on the site and still meet the functional and operational needs of both Fire, Police and Community Safety Services.

The resultant design will be a three storey building of 3,883sm (41,796 sf) in area with an underground parking structure for 43 operational vehicles. The size of the building is such that it will occupy the entire site between Esquimalt Road and Carlisle Avenue and occupy most of the frontage onto Park Place. It will contain a 4 bay Fire Hall, Police Facility, Community Safety Services Offices, Offices for the Capital Regional District and a retail space fronting Esquimalt Road.

Residential uses were considered but were abandoned due to the complexity of putting residential above a 24/7 operational facility, the lack of suitable parking capacity on the site and the restrictive legal title across the middle of the site. The Public Safety requirements must take priority and the operational needs should not be

compromised by adding a separate use on the site.

In order to build the new building, the existing Fire and Police functions will need to be moved to another location for a period of two years. This enables the construction to proceed without being encumbered by working around an existing facility, which would drive up construction cost and complexity. The Fire Department have supported the relocation of Fire Services to a temporary facility on the south end of the parking lot at Archie Browning Recreation center and the Police can relocate to a Township owned property at 398 Fraser Street.

The overall Construction Cost of the new Building is estimated to be in the range of \$29.6M to \$32.4M.

In addition to the cost of construction, the total Project Costs must include the move of existing facilities to other sites during construction, demolition and abatement of the existing building, soft costs and escalation assumptions. Core Projects Ltd has recommended that the Township include an additional 30% on top of the Construction Cost to cover this associated work. This results in a Project Budget in the range of \$38.5M to \$43.6M.

The recommendation of the report is to ask Council to support the construction of a stand-alone Public Safety Building on the site with a single level of underground parking. The next stage is to proceed with more detailed design and to arrive at more certainty around the budget for construction and other project related costs.

This next stage can commence immediately if required.

1.0 Current Situation

1.1 Site

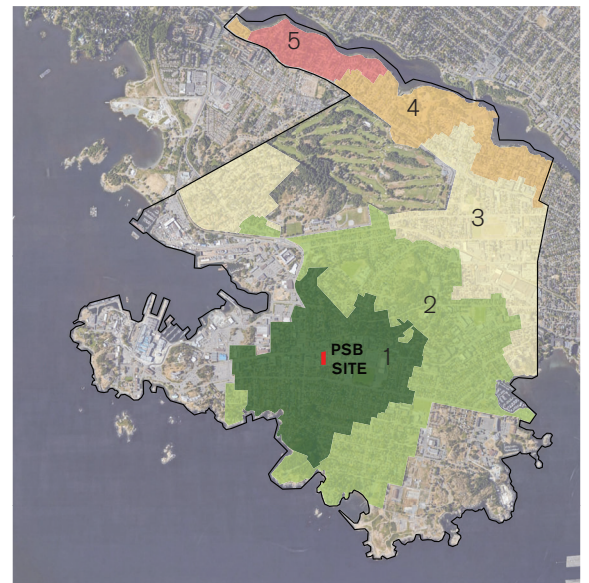
The current Public Safety Building occupies a site in the West Bay Area close to the downtown core and is a combined Fire Hall and Police Department. The site is in the southern half of the community and close to the Naval Base.

The Township currently owns the site at 500 Park Place adjacent to Esquimalt Road. The current Public Safety Building occupies the south end of the site facing Carlisle Avenue. The site is bordered on three sides by streets: Esquimalt Road to the north, Park Place to the east and Carlisle Avenue to the south. The western boundary is alongside several other properties whose buildings are located at the Property Line.

The site is centrally located within the Municipal boundary and offers reduced response times for both Fire and Police when reaching all parts of the Town. Currently Fire Trucks leaving the site exit south onto Carlisle as the primary feeder route into the community.



▲ Public Safety Building Site



▲ Township boundary and emergency response time (each colour change represents 1 min. of travel)



▲ Public Safety Building Site - Located within Esquimalt Village

The Site is within one block of the Municipal Hall and is close to a new civic plaza being developed around the new Library. The central location also supports good public access to the site, when members of the public need to visit Community Police Reception. The North end of the site has been cleared of buildings and is occupied by a temporary parking lot.

1.2 Site Condition Today



▲ View of site looking NW across Park Pl.



▲ View of site looking SW across Esquimalt Rd.



▲ View of site looking NW across Carlisle Ave.



▲ View of site looking NE across Carlisle Ave.



▲ View of site looking SE across Esquimalt Rd.



▲ View of site looking W from Park Pl.

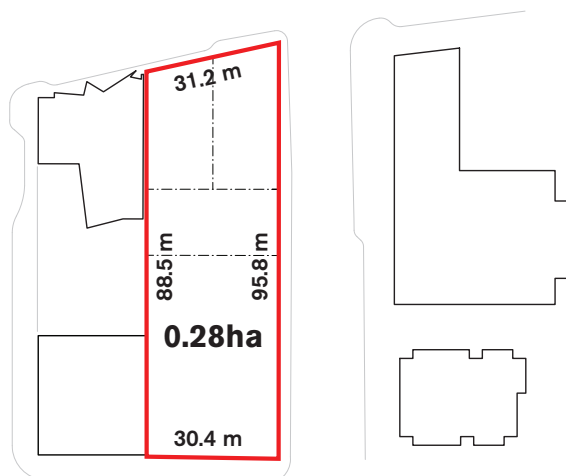
1.3 Site Statistics

Site Size

The current site area is 2,810sm (30,235sf)

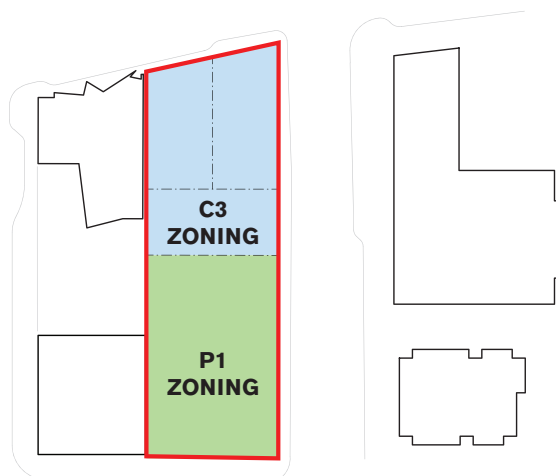
Site Dimensions

The site is long rectangle with the narrow frontage on Esquimalt and Carlisle. The site dimensions are shown below:



Current Zoning

The site is occupied by three legal lots and a Laneway designated area at the center of the site. The Northern lots facing onto Esquimalt Road are zoned **C3-Core Commercial** and the southern lot (with the existing Public Safety Building on it) is zoned **P1 Public - Institutional**.



	C3 Zoning Requirements	P1 Zoning Requirements
Max Building Height	13m	13m
Max Lot Coverage	80% above second storey	40% of the Area of a Parcel

Potential Outcomes:

Given the single use proposed (Public / Institutional) and the various legal parcels that exist today, it would be preferable to consolidate the lots into a single lot and describe the density, site coverage, setbacks, height limits that work for the proposed building. (This process needs to be confirmed with Planning staff at the Municipality to confirm process and eligibility.)

Height Limits

The height limit for these sites is currently 13m above the ground plane. Given the sloped site, this ground plane will vary. However, the operational needs of the fire hall require certain minimal floor to floor heights for the apparatus bays and the upper floors are based on commercial / institutional floor to floor heights. All of this suggests that the height of the new building (at 3 storeys) will exceed this height limit. It is also likely that communication antennae and masts would be mounted on the hose tower above the current height limit.

Potential Outcomes:

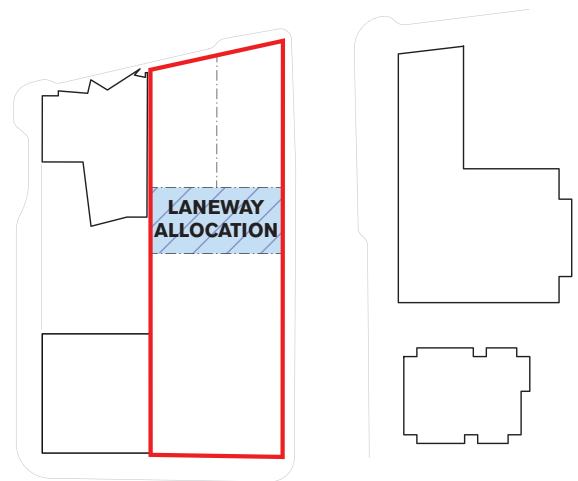
Either the height would require a variance or Esquimalt may choose to re-zone and consolidate the property with new height parameters that meet the operational demands.

Permitted Density

The permitted density stipulated in the P1 and C3 zones will be exceeded with the proposed building, resulting in the need for the creation of a new zone or a variance to the existing zones.

Legal Encumbrances

The current property is made of 4 legal lots with a historic "laneway" allowance running through the center of the site from Esat to West. This remains on legal title and has a legal limitation that only permits municipal uses on the right of way. This would preclude Residential or Commercial uses being placed in the center of the Site.



1.4 Adjacent Buildings

There are two adjacent buildings to the west of the site, and both are built right up to the current property line with no setbacks. The building at 1245 Esquimalt Road is a mixed-use commercial building with ground level retail and commercial office space above. It is a four storey building occupying the north end of the property. The street frontage on Esquimalt directly adjacent to this building is quite narrow and the building steps back at the upper floors. The building currently has windows directly facing the public safety building site and because they are at the zero-lot line are actually non-compliant. Any future building on the PSB site could either respect those window locations or ignore them.



▲ 1245 Esquimalt Rd.

The second building is located at 521 - 529 Comerford Street and occupies the southern end of the site facing onto Carlisle Avenue. The building is four stories high with some covered at grade parking and contains low-income rental suites. Some unit balconies and windows face onto the PSB site along the east property line



▲ 521-529 Comerford St.

1.5 Existing Building

The existing Public Safety Building occupies the full width of the site close to Carlisle Avenue. The three Fire Hall Apparatus Bays face both north and south, while the primary response route and apron faces Carlisle Avenue with a generous setback for a vehicle apron. The Police Department occupies the western part of the building and is entered off the “laneway” side to the north. The building is two storeys and is built right up to the lot lines on the west and east frontages.

This building will be demolished as part of the new building development.

The building is long past its service life and does not meet current post disaster standards. Much of the facility is inadequate for modern Fire Fighting and Policing Services and many of the rooms are small and function poorly.



▲ View of Fire Hall apron from across Carlisle Ave.



▲ View of existing entrance and parking off laneway.



▲ View of north facing apparatus bays off Park Pl.

2.0 Key Objective of the Process



2.1 Process

The Township intends to construct a new Public Safety Building. This building will incorporate several community, emergency and Township functions within one complete structure. The Township is currently providing policing, fire, and emergency management in the existing public safety building located at 500 Park Place. In 2018, the Township purchased additional land north of the existing facility to expand the new public safety building site and offer the opportunity to build new whilst retaining operations at the existing facility.

Desired Facility

At the outset of the Feasibility Study, it was suggested the new Public Safety Building would be approximately 35,000 to 45,000 sq ft and contain an expanded Fire Hall, Police Functions, Emergency Operations Centre and Community Safety Offices; In addition, the Township's agreement with the Capital Regional District required that the building contain 250 sq ft of space for the Capital Regional District. Through the feasibility study process, we have been able to help the Township better define their needs and create a site-specific program. (see Section 11.1)

The Township hopes to maintain the operations at the current Public Safety Building throughout construction, and then remove and develop the land under the current footprint. Township Mayor and Council have expressed a desire for this project to consider integrating Commercial and/or Residential use into the development. The magnitude of this integration was not clear at the outset and part of the feasibility process was to further explore these options.

Feasibility Study Task List:

- To create a detailed program of rooms for the new facility based on interviews and meetings with Fire, Police and Township staff.
- To test out various options for how this program could be organized on the site to suit functional and operational needs given the constraints on the site and relationship to adjacent properties and streets.
- To develop a preferred option that best suits the Township's needs.
- This study will include an opinion on overall project schedule.
- To prepare a Class D estimate of the probable overall cost of construction for the preferred option.
- To prepare an overall project cost summary and project schedule, working with the Township Staff and Core Projects Ltd, the Project Managers.
- Include statements on constructability issues, risks and challenges.
- To prepare a summary report outlining the process, outcomes, recommendations and next steps.
- To make a presentation to Council of the outcomes and recommendations.

(Note: At the outset, the study was undertaken without additional consultants as this was not an explicit requirement of the process. Mechanical, Electrical, Structural, drawing packages were not required at the feasibility stage. A full project team will be procured when soliciting for full design services. The timing and mechanism of that stage of the procurement process has not yet been determined.)

3.0 Defining the Future Need



3.1 Program of Functional Needs

In the spring of 2020, a space program was prepared for the Corporation of the Township of Esquimalt which involved coordination with representatives of the Corporation of the Township of Esquimalt, Esquimalt Fire Department and the Esquimalt Division of the Victoria Police Department.

The vision for the Esquimalt Public Safety Building is to consolidate Township Community Safety Services, Fire Services, Police Services along with a satellite Capital Regional District office into a shared building.

Currently, the Public Safety Building at 500 Park Place accommodates Fire and Police Services. Township Community Safety Services are located partly at the existing public safety building and otherwise at the Town Hall at 1229 Esquimalt Road.

Space requirements were developed based on precedent and the functional and operational requirements unique to the services accommodated. Support spaces such as meeting, and fitness facilities are planned to be shared by all building occupants. The detailed functional program document is included in Section 11.1.

The Public Safety Building will include the following components:

- Community Access Centre: Spaces supporting community access to the building, plus meeting and training activities.
- Capital Regional District Space: Spaces supporting Capital Regional District activities in Esquimalt.
- Community Safety Services Space: Spaces supporting Township Community Safety Services administration.
- Police Services Space: Spaces supporting the Victoria Police Esquimalt Division activities.
- Fire Services Space: Spaces supporting Fire Services staff activities.
- Shared Support Spaces: Spaces supporting meeting and fitness facilities for Police and Fire staff.
- Shared Building Support Spaces: Spaces supporting IT infrastructure, shipping & receiving, and building services.
- Shared and Secure Parking Facilities: Parking for service vehicles, and large equipment storage.

3.2 Area Summary

The summary of overall areas below shows an overall building area of 47,160 sf and a single level of underground parking at 22,656 sf.

Project Area

The following table summarizes the current and future space requirements for the project:

Component	Net Area (nsf)	Component Gross Area (cgsf)	Circulation Factor
Community Access Centre	2,393	2,751	1.15
Capital Regional District Space	250	363	1.45
Community Safety Services Space	1,124	1,630	1.45
Police Services	9,204	13,346	1.45
Fire Services Space	12,740	18,473	1.45
Shared Support Spaces	1,740	2,175	1.25
Shared Building Support Spaces	450	563	1.25
Subtotal, Component Gross Area		39,229	
Building Gross Area (@1.2)		47,160	
Shared and Secure Parking Facilities ¹	11,328	22,656	2.0

Note:

1. Shared and Secure Parking Facilities may be provided in a separate structure from the main building.

3.3 Future Growth Allowance

This program accounts for the immediate needs of each department and anticipates future growth needs when the facility opens. The future growth elements in the final functional program are as follows:

Shared Facilities:

- A publicly accessible meeting space
- A multipurpose fitness / training facility
- Accommodations for the Capital Regional District

Police:

- Space supporting a traffic unit
- A project room
- A secure interview area
- 2 secure vehicle bays
- Exhibit processing and storage facilities
- Facilities supporting up to 20 additional personnel (including the traffic unit)

Fire:

- One additional apparatus bay
- Facilities supporting up to 6 additional Fire Services personnel

Consideration of Retail / Residential Use

The operational needs of the Public Safety Building are clear, but Council requested that we consider other uses on the site to maximize the potential build out of the property. Whilst these uses are not a priority over the Public Safety Functions, if they can be reasonably added, then this should be considered.

Retail Use

The frontage along Esquimalt Road has a distinct public retail function and is a vibrant part of Downtown Esquimalt. It would be advantageous to have retail facing Esquimalt Road to provide some life and continuity of activity along the street. In the planning of the new building it became apparent that some area could be provided on the ground floor for retail with the Public Safety Functions being located behind and accessed off Park Place.

In discussions with local realtors it was felt that a retail unit size between 1,200-1,500 sf would be ideal. Anything larger would need to attract a larger tenant and would likely demand greater need for parking, larger, more bulky deliveries and back of house areas. The smaller unit size is more desirable for a wider range of tenants and can be serviced from the front, off the street. Equally the retail must be stand alone and cannot inter-connect with the Public Safety Functions behind in any way. The smaller retail would also not require dedicated parking and customers would park in other public parking areas and walk to the store.

There is an option to delete the retail use altogether, but this would place Public Safety functions on the street edge which has no benefit to the public realm with “dead” frontages with little public use and closed off from the passer-by.

Outcome:

On balance, it was felt to be a benefit to the project to add a small retail unit of 1,440 sf along the northern frontage of the site completely separated from the rest of the building behind. This will animate the building frontage, allow for a small public plaza at the NE corner of the site and gain some revenue for the Municipality in rent.

It is also possible that, in the future, this space could be re-captured and used for the Public Safety needs, if they demand more space over the life of this building.

Residential Use

Residential (low income rental) housing was considered for this site at the request of Council. The Public Safety Functions need to be at grade and as such take priority over the lower floors of the building. This suggests that any residential use would be placed on top of the Fire and Police Functions below.

There are three main drawbacks with incorporating this use:

1. The legal easement in the center of the site does not allow the construction of residential use on this area. This would mean that the residential would have to be built on the northern or southern end of the site (or both) with a gap between. This effectively creates two smaller residential buildings that would each require an independent street level entry. These residential entries significantly impact the functional and operational needs of the Public Safety functions.

2. The residential use would require parking. The site is almost fully occupied with Public Safety functions and no area is available for residential parking except underground. Most of the operational vehicles for Fire and Police will need to be in the underground and residential parking would be in direct conflict with the movement of operational vehicles on the site. This is not desired or effective. Placing residential parking on a second level below the operational vehicles comes at high cost and does not seem economically viable.
3. The Public safety Functions would need to be built to a Post-Disaster standard and as the residential use would be located on top, the construction cost per sf of the residential would also increase over a more typical residential development.

There were as some initial assumptions in discussion with Council, that there would be spare capacity on the site, but it became quickly apparent that was not the case and that the Public Safety Functions actually occupy a large percentage of the site.

Outcome:

All these challenges will add considerable cost to the build cost for the residential and limit its economic viability. The use is also incompatible with the priority needs of Police and Fire and would create security, planning and operational risks. Based on this analysis, it was decided to not proceed with any residential use on this site.

4.0 Site Constraints and Opportunities



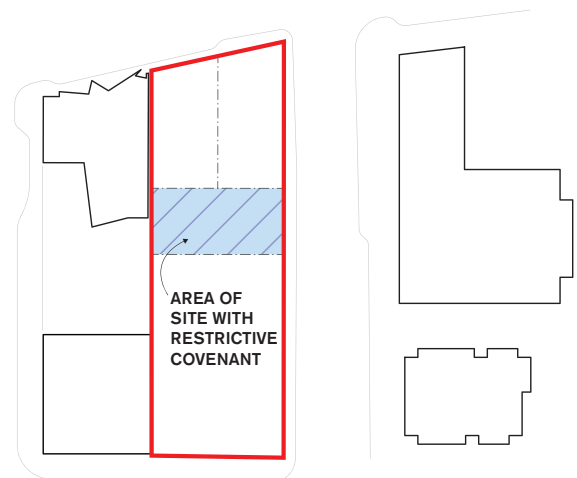
4.1 Site Constraints

Physical Constraints

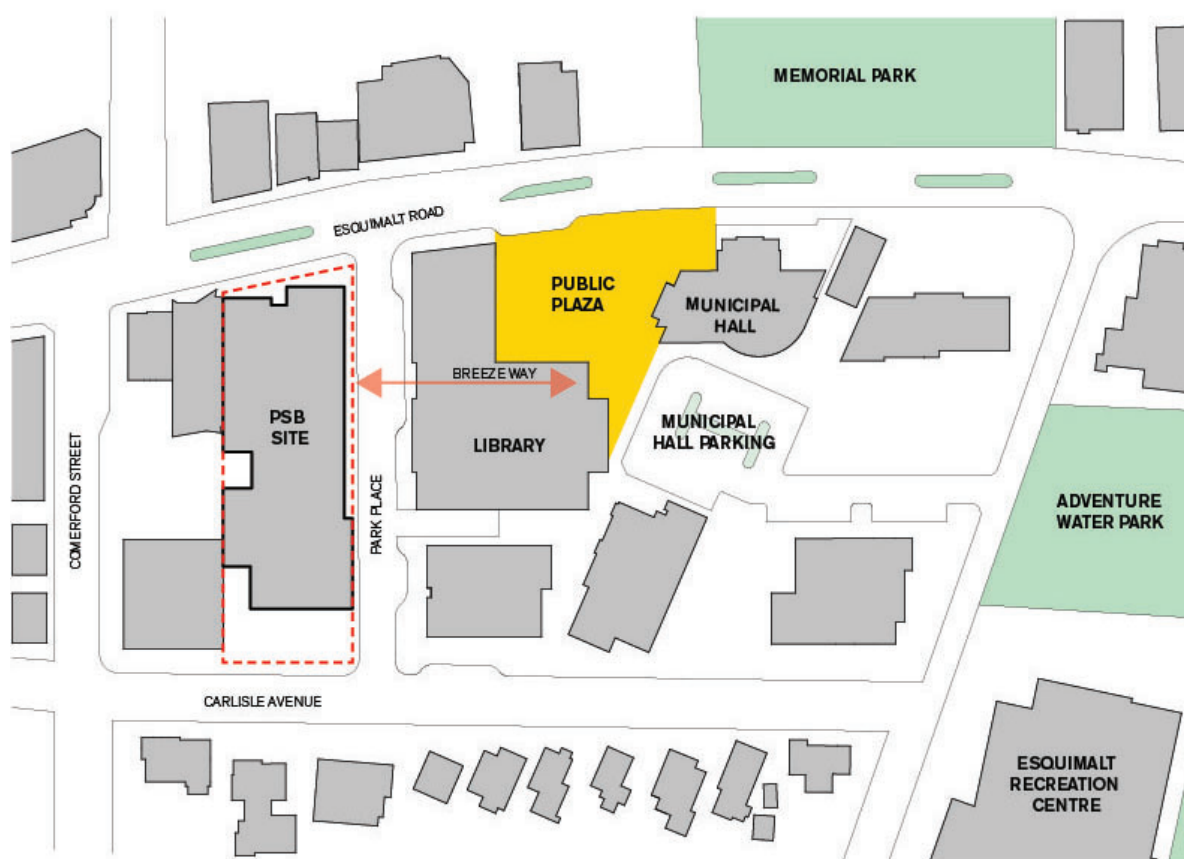
- The site slopes down from Esquimalt Road towards Carlisle Avenue. The drop across the site is approximately 1.5m (5ft). This alters the ground level entry grades depending on which part of the site you enter the building and will affect the placement of vehicle crossings.
- The site is bounded by three municipal roads with each having a pedestrian sidewalk along their edges. This creates conflict of movement between pedestrians and vehicles leaving the site (often in a hurry).
- The fourth side (west) is a zero-lot line with the adjacent property and has two buildings located directly at the property line. One is a rental building at the south end of the site and the other is a commercial building facing Esquimalt Road at the north end of the site. Both buildings are relatively new, with exterior walls built at the property line or set back a few feet.
- Park Place is a relatively minor road and is limited in width, which makes turning of large fire vehicles difficult without large setbacks on the site.
- It is noted that the adjoining site for the new library demonstrated that this area is underlain with bedrock and that excavation of basements more than one level may incur greater costs.
- The Downtown location and the footprint of the expected building area required make for a tight construction site with limitations on access and places for site operations.

Legal Constraints

- The centre of the site is crossed by a lot that has a covenant stating that no future use that is not Public Institutional can be built on this land. The Township of Esquimalt owns all the land under consideration but have this historical limit placed on one part of the property.
- No road widening allowances are contemplated and buildings can be built to the property line if required.



4.2 Site Opportunities



Pedestrian Linkages to Municipal Precinct

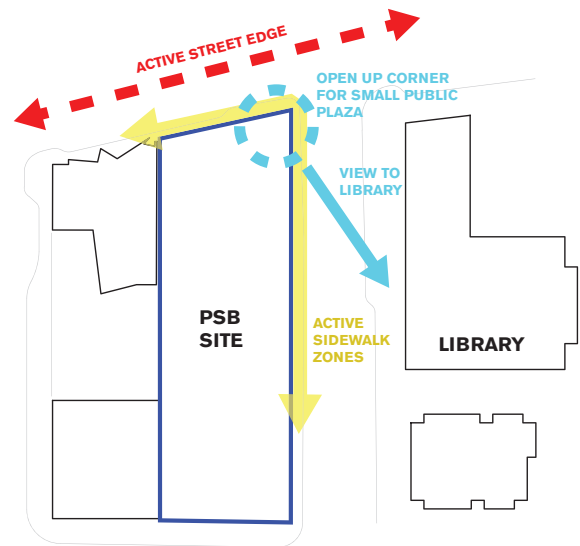
The site will become an integral part of the Municipal Precinct and the intention is to find ways to link the public realm along Esquimalt Road and Park Place to the new Public Plaza at the Library and to the entry of the Municipal Hall. There is a public breezeway that provides pedestrian access through the new development on Park Place east towards Municipal Hall. This breezeway links to the new public Plaza between the Hall and the new Library.

This new pedestrian link comes out on Park Place opposite the Public Safety Building site and provides an opportunity to reinforce the pedestrian linkages east to west for the Precinct.

Enhance and Improve the Public Realm on Esquimalt Road

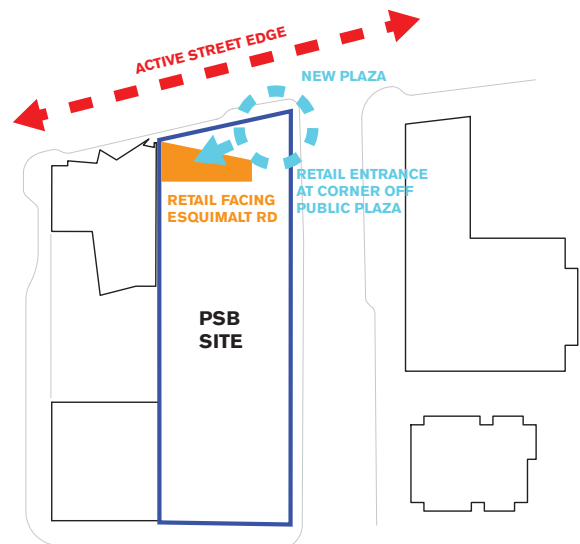
The new building will have a frontage onto Esquimalt Road and be part of a continuous public connection along this street through the heart of the community. The site provides an opportunity to reinforce this east-west connection and provide public sidewalks and places to pause.

The North-east corner of the site is significant in that it marks a transition from the busier Esquimalt Road to the quieter Park Place. By opening this corner to public outdoor space, it would encourage a flow of pedestrians into the Municipal precinct and access to the Library. It could also provide a place of brief respite along Esquimalt Road as the south side of the street can feel tight and narrow in parts. It also opens the view to the Library further down Park Place.



Activate Street Frontage along Esquimalt Road

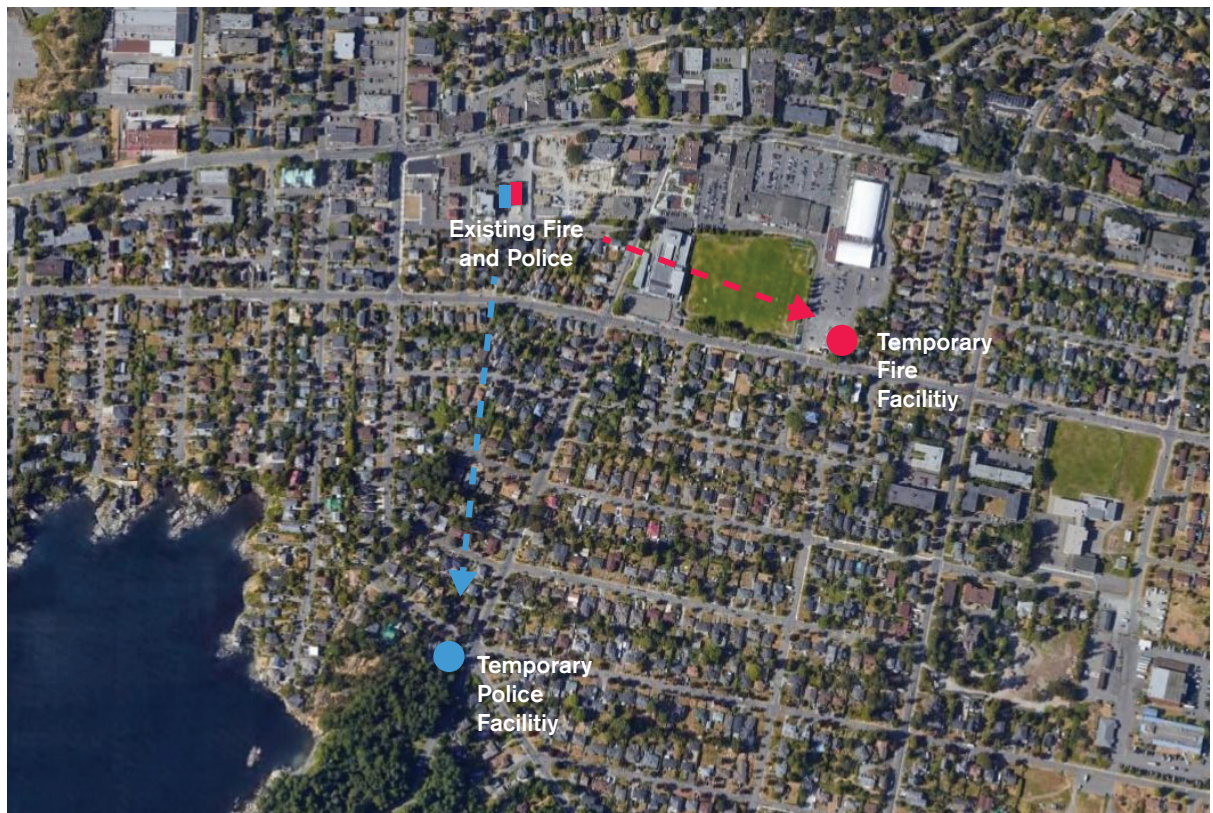
The building has an opportunity to add to the animation of the street edge on the ground floor by adding a retail component. This would help to provide retail continuity along the southern edge of the street. This could also work in tandem with the small public place at the corner to provide a natural place to enter the retail space.



5.0 Temporary Facilities and Phasing



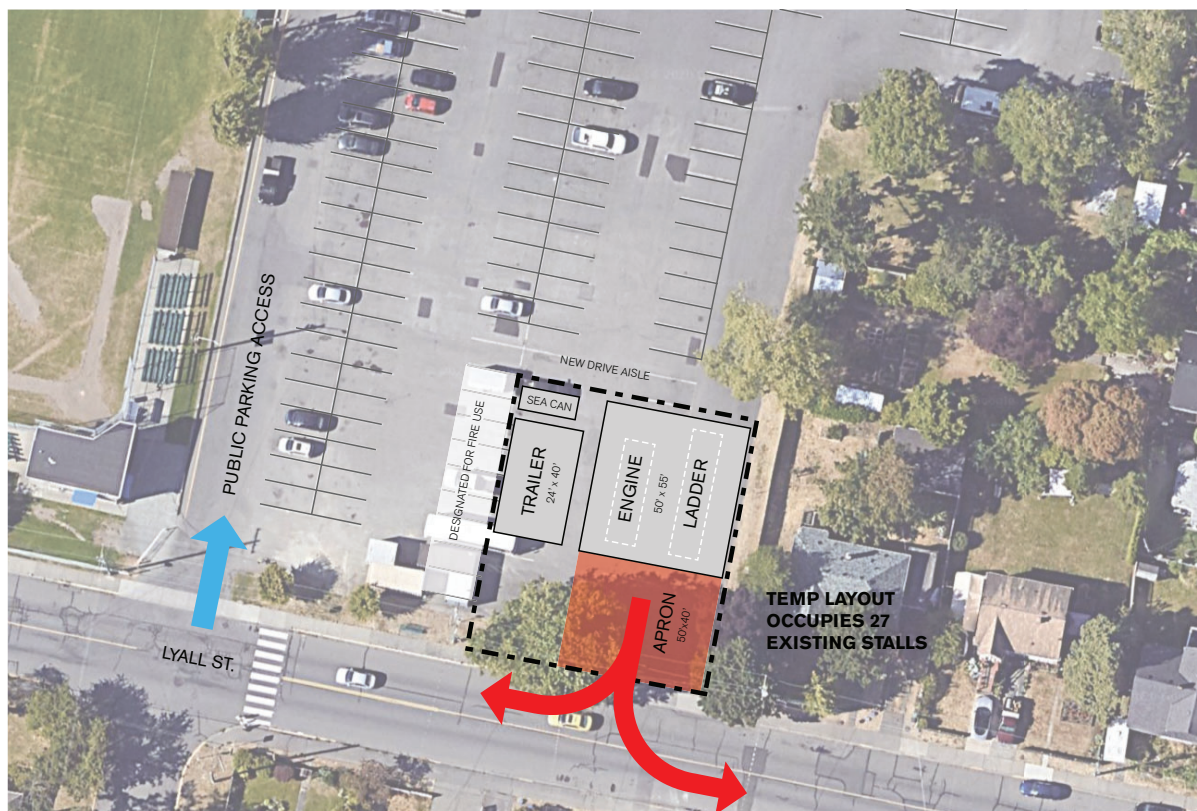
It became apparent very quickly in the feasibility process that the program for the new facility would occupy most of the site and that underground parking would need to go under the entire building (and beyond).



▲ Proposed location of temporary fire and police facilities

We did examine the possibility of retaining the existing hall in operation whilst construction occurs around it. With Fire Services needing to be at the south end, it would be necessary to move them off site at some stage in order to build the entire building. If a Temporary Facility was inevitable, it was decided to consider that option more carefully and take the advantage of freeing up the entire site for construction. This would have the benefit of avoiding construction phasing costs and working around the existing building. By moving the Fire and Police off site, the economies in construction are significant. This benefit is off-set by the need to build temporary facilities but these were considered in the manner described in 5.1 and 5.2 following.

5.1 Temporary Fire Hall



▲ Proposed location of temporary fire hall

A site at the rear of the Archie Browning Recreation Centre parking lot was identified and was analyzed for feasibility. The temporary Hall would face Lyall Street and have two temporary Apparatus Bays under a “tented” structure, a portable structure for the suppression teams and some lay down area for storage, sea-cans and vehicle parking. These types of facilities have been built successfully in Vancouver, Richmond and other jurisdictions. There will be a cost to provide utilities and services to the site and there will be a temporary loss of public parking at ABRC, but it is at the most remote end of the lot away from the main building.

It is anticipated that the temporary hall will be in place for approximately 2 years whilst the new building is constructed.



▲ Example of temporary hall for Vancouver Fire Hall 17

5.2 Temporary Police Department

Staff have identified an existing property at 398 Fraser Street that can house Police operations temporarily during construction. It is currently an existing single-family home and will be adapted to suit the Police need on a temporary basis. This will reduce temporary lease costs and will utilize a property that the Township already owns. The location is further out of the center but was still felt to be workable by the Police Department. There would be costs to move and relocate operations and new data/tel/communication infrastructure would need to move over temporarily.



▲ 398 Fraser St.

6.0 Program Organization on the Site



6.1 Site Organization – Placement of Fire Apparatus Bays

One of the primary drivers of the site organization (where parts of the program are placed on the site) are the location of the Fire Apparatus Bays. These components need to face the roads and be set back far enough from the curb to allow vehicles to be pulled out onto a service apron for daily inspections and equipment checks. This demands a large site area and needs to be orientated to gain quick and easy access to the road system. This directly impacts and improves the response time for the Fire Department. Equally, any fire truck should be able to make the minimum number of turns and vehicle movements in order to leave the hall and get to the incident as quickly as possible.

The movement of these large fire vehicles takes up a large area and the site is long and narrow. Most new Fire Halls operate with a “drive through” bay configuration, whereby the vehicles leave from the front and return through the back in a continuous circulation loop. The challenge on tight urban site such as this, is that this takes up a considerably large part of the site. The location of the bays on the site are best located where there is ease of access to the response routes. Placing the bays facing Esquimalt Road is difficult because of the central median running down this part of the street which restricts access and turning radii for the trucks. Esquimalt Road is also the busiest street and would lead to greater conflicts with traffic. Whilst this

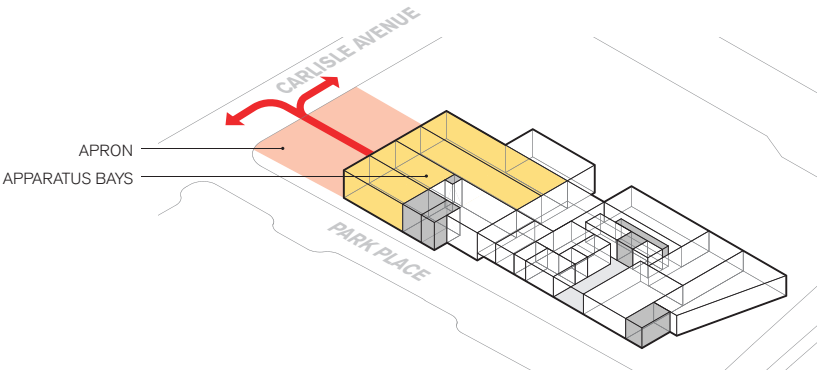
could be overcome with traffic controls, the curve of the street reduces sightlines for fast moving traffic. Equally, these challenges would require more changes to the civil infrastructure and an increase to project cost. This option was abandoned early in the process.

From a community perspective, having a Fire Hall facing a primary walking and shopping street in the neighborhood does not lend itself to best use of this frontage.

Options to exit Fire vehicles onto Park Place are limited by the width of the road (which is considerably narrower than Carlisle Avenue) and limits effective and efficient truck turning. Also, the requirement for a front apron would push the bays to the back of the site.

Outcome:
The Fire Department have supported a configuration of 4 bays which are “back-in” only with an operational apron in front of the bays deep enough to allow the ladder truck to be fully pulled out without affecting the adjacent streets.

The best option was to face the bays towards Carlisle Avenue, which repeats the current configuration on the site.

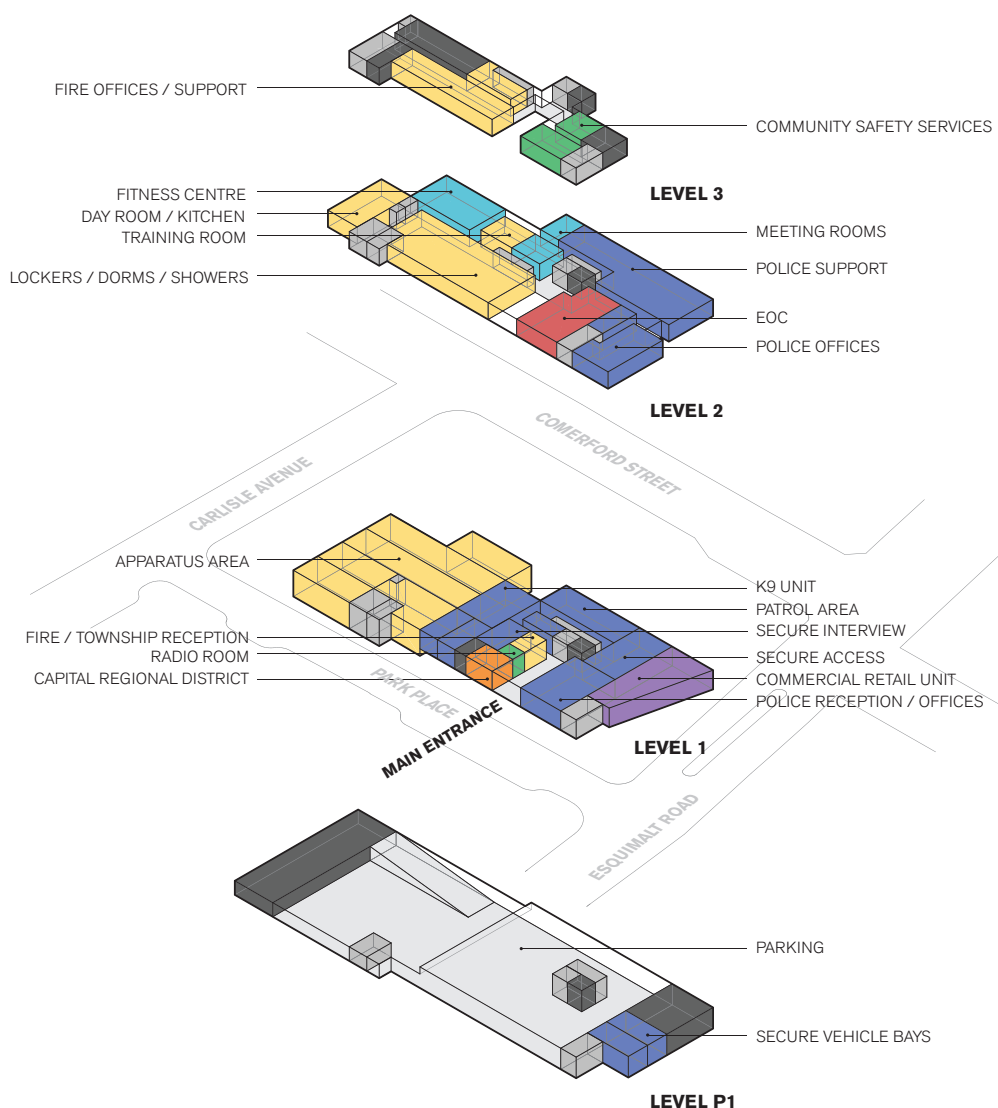


▲ Location of Apparatus Bays on site

6.2 Site Organization – Placement of Primary Programs

The programming exercise revealed the need for a large part of Police and Fire programs need to be at the street level for operational reasons. This meant that most of the site would be filled with the building with no extra surface area for parking (other than the apron in front of the apparatus bays).

The placement of the Apparatus Bays on Carlisle Avenue gathered the Fire Suppression functions to the southern end of the site and left the Northern part for Police Functions.



- ▲ 3-D Diagram: Facility program stacked in 3 levels over underground parkade

The Police functions have a more pressing need for public access, since community Policing enquiries happen at the main entry lobby to the Police Station. The Fire department administration has less public demand and most visitors are either pre-planned by appointment or for deliveries.

This Public access is naturally placed at the northern end of the site, closer to other municipal functions and the more active pedestrian streets.

Outcome:

The Fire suppression Functions are best located next to the bays and placed at the southern end of the site. The Police functions should be at the northern end with a public access to reception in an obvious place, close to the main street frontages. Less public facing programs can be moved to the upper floors.

6.3 Site Organization – Placement of Operational Vehicle Parking

The Police and Fire have a demand for 48 stalls of parking and some of these stalls also need to be oversized in order to accommodate some of the larger vehicles. Given the site constraints and limited ground floor area, the parking will need to be placed in an underground parking structure below the building. In order to fit all the stalls and circulation needs, the parking area takes up nearly all the site including under the Fire Hall apron.

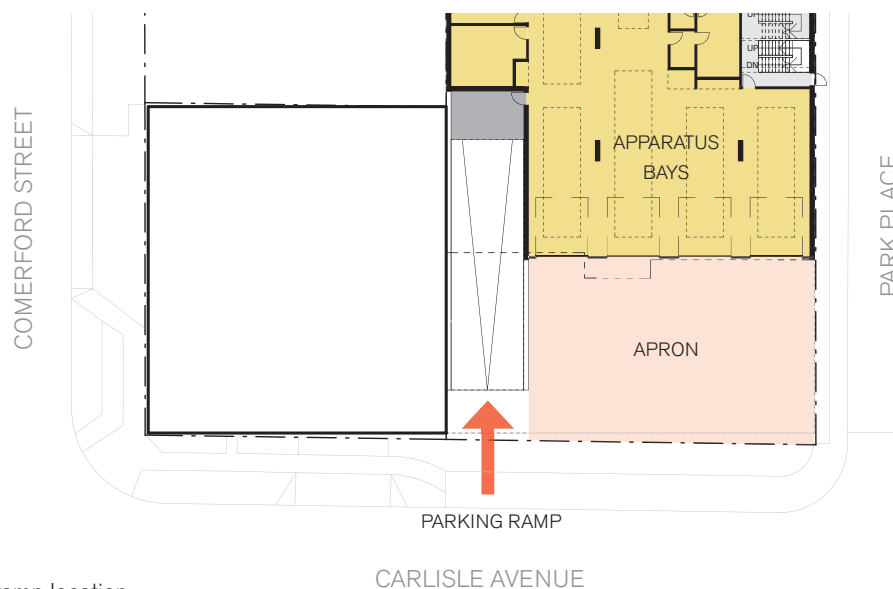
The site is underlain with a layer of bedrock which makes creating a basement costly, but it is the only way to fit the parking demand. Fortunately, the parking layout at this feasibility stage indicates that between 46-48 stalls can fit on one level. The advantage of having the operational vehicles underground is that they can be in a secure area and protected and increase their service life. Maintenance and refueling of these vehicles would occur off-site.

Several options were considered for the ramp down into the parking, but it is always most efficient to come into the basement from the lowest point on the site. In our case, this is Carlisle Avenue, and this reduces the length of the ramp needed to get down to the basement. This means that the ramp takes up the minimal area on the site and frees up more space for parking.

Since the width of the site is limited, the ramp is in the SW corner of the site alongside the 4 apparatus bays. There is just enough width across the site to accommodate the ramp and 4 bays.

Outcome:

The operational vehicle parking is within one level of underground parking secured by an overhead gate and provides direct access to Carlisle Avenue for quick response times. The only vehicles needed at grade are the two K9 unit vehicle stalls which are placed off Park Place close to the K9 unit operational area for dog training, cleaning and feeding.



- ▲ Underground parkade ramp location

6.4 Site Organization – Fire Function Stacking

The program was divided into those operational functions that require ground floor access and move the less critical functions to the upper floors. As such, the ground floor of the Fire Hall is taken up with the immediate operational needs of the suppression teams and what is needed to service the vehicles. This level includes the turnout gear room, workshops, hose and equipment storage, washrooms, fire pole and hose tower.

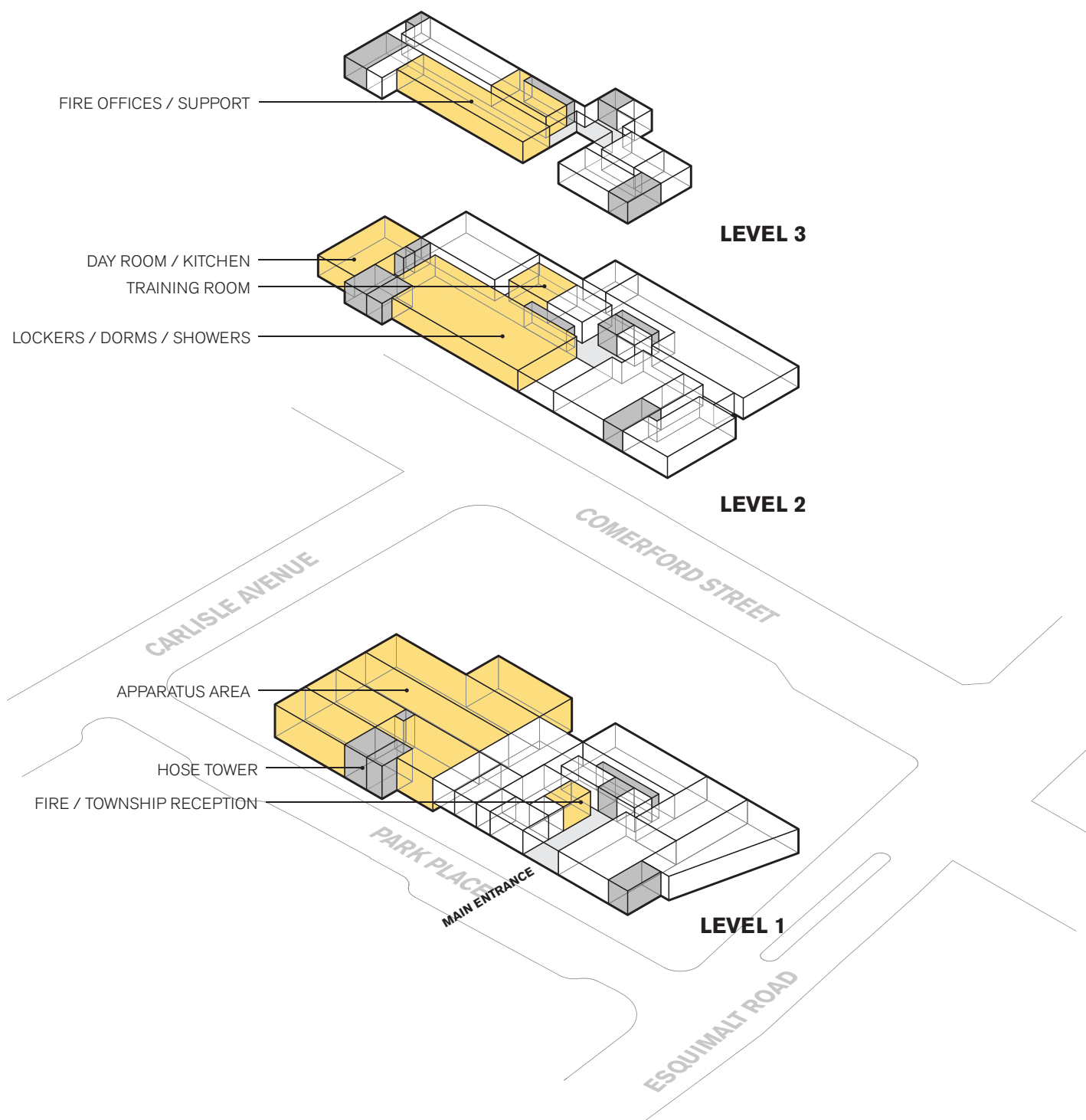
The hose tower is placed on the east side of the site directly adjacent to the bays. This allows it to be close to the bays for hose drying activities and open for ladder training. Training would demand that for these periods, Park Place may need to be closed off temporarily.

Directly above the suppression areas are the dayroom and dorms for the suppression teams. Quick access to the vehicle bays is provided by a pole and a stair within the hose tower.

Fire Administration staff are not critical to the initial Fire Response and are therefore located at level 3 above the suppression team area.

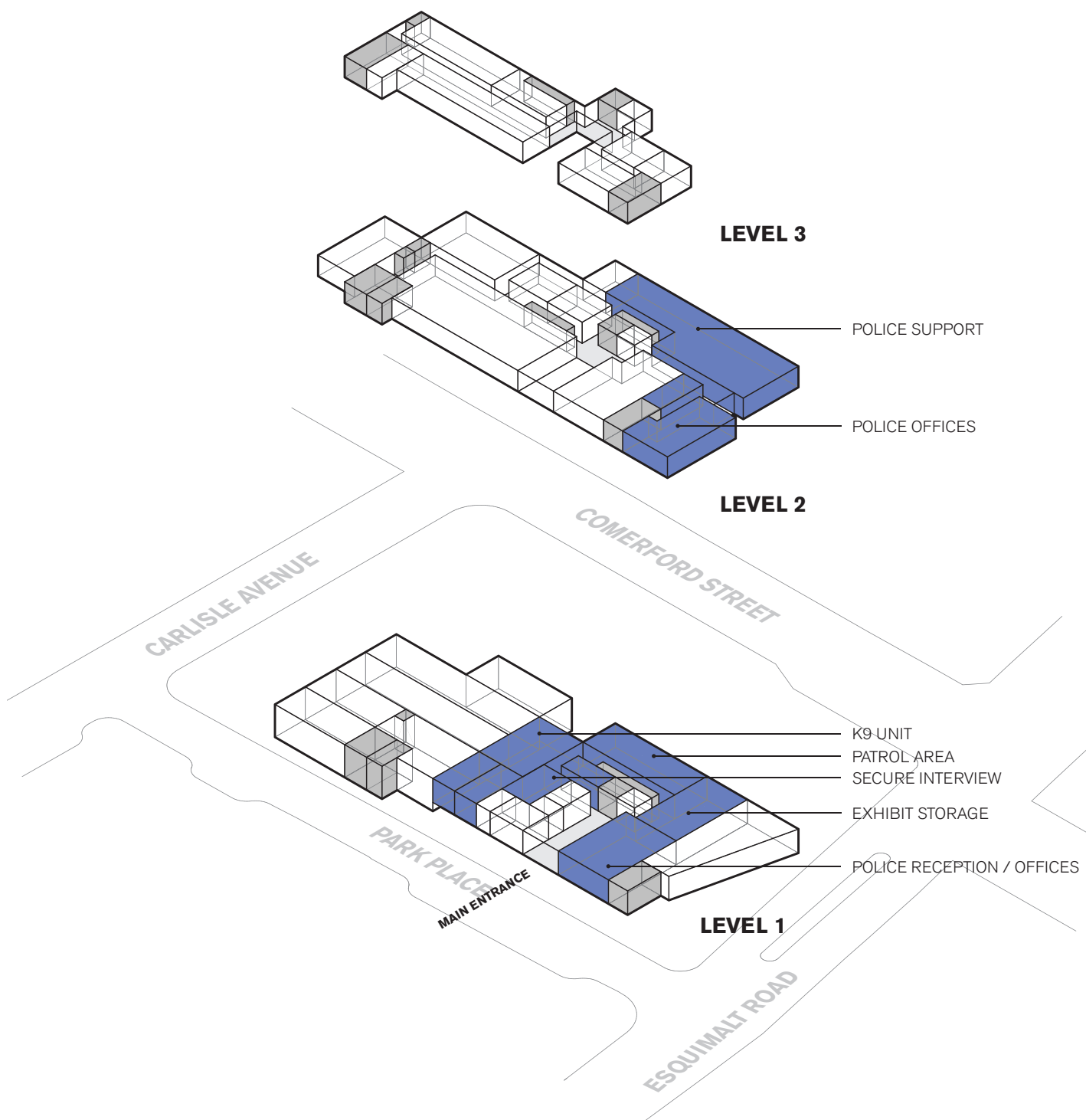
Outcome:

The Fire functions are all grouped at the southern end of the site and stacked directly on top of each other to allow rapid deployment via stairs and descent poles. The stacking model puts operational vehicles functions at grade and then teams directly above. Less critical functions are moved to the highest floor.

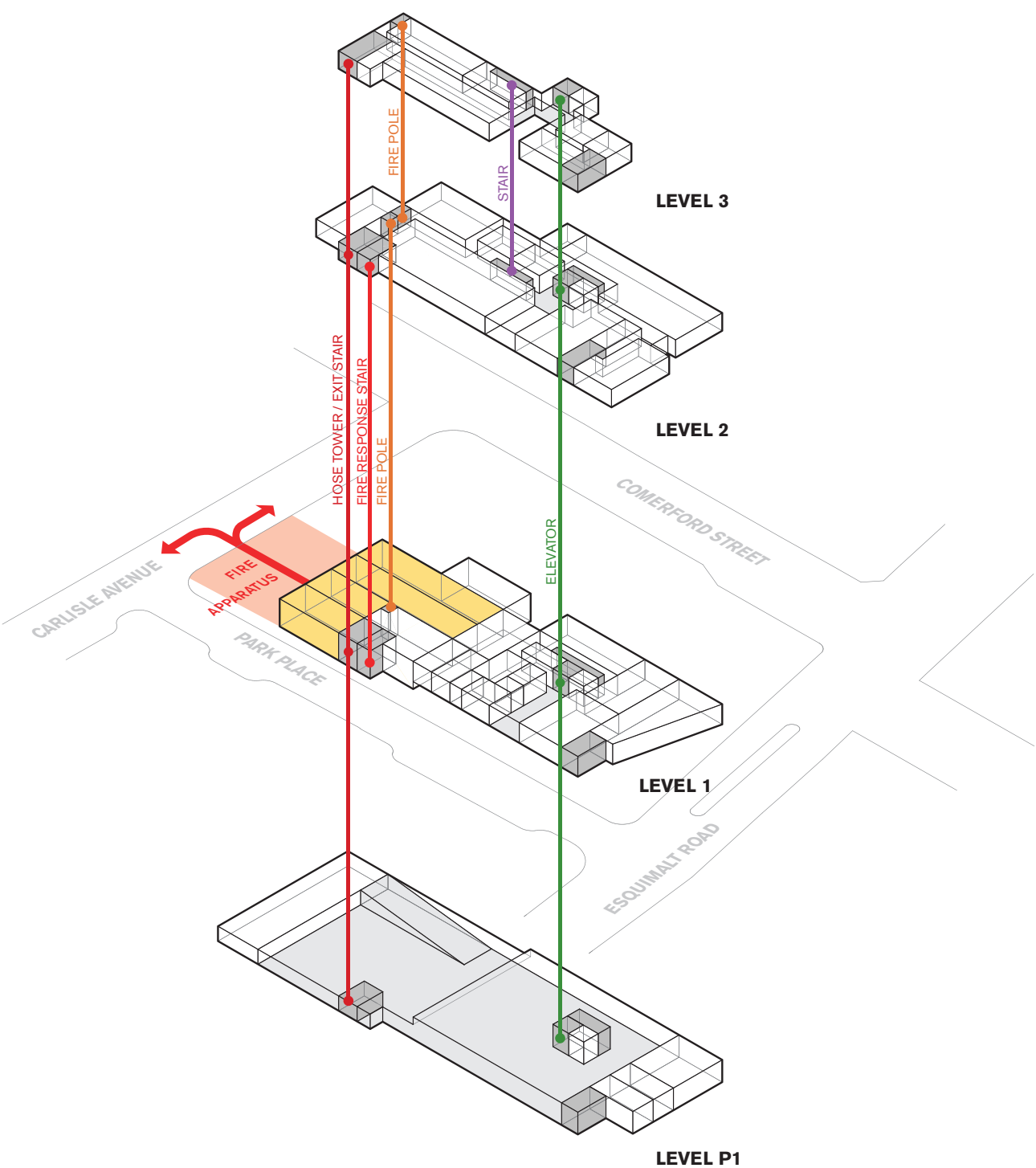


6.5 Site Organization – Police Function Stacking

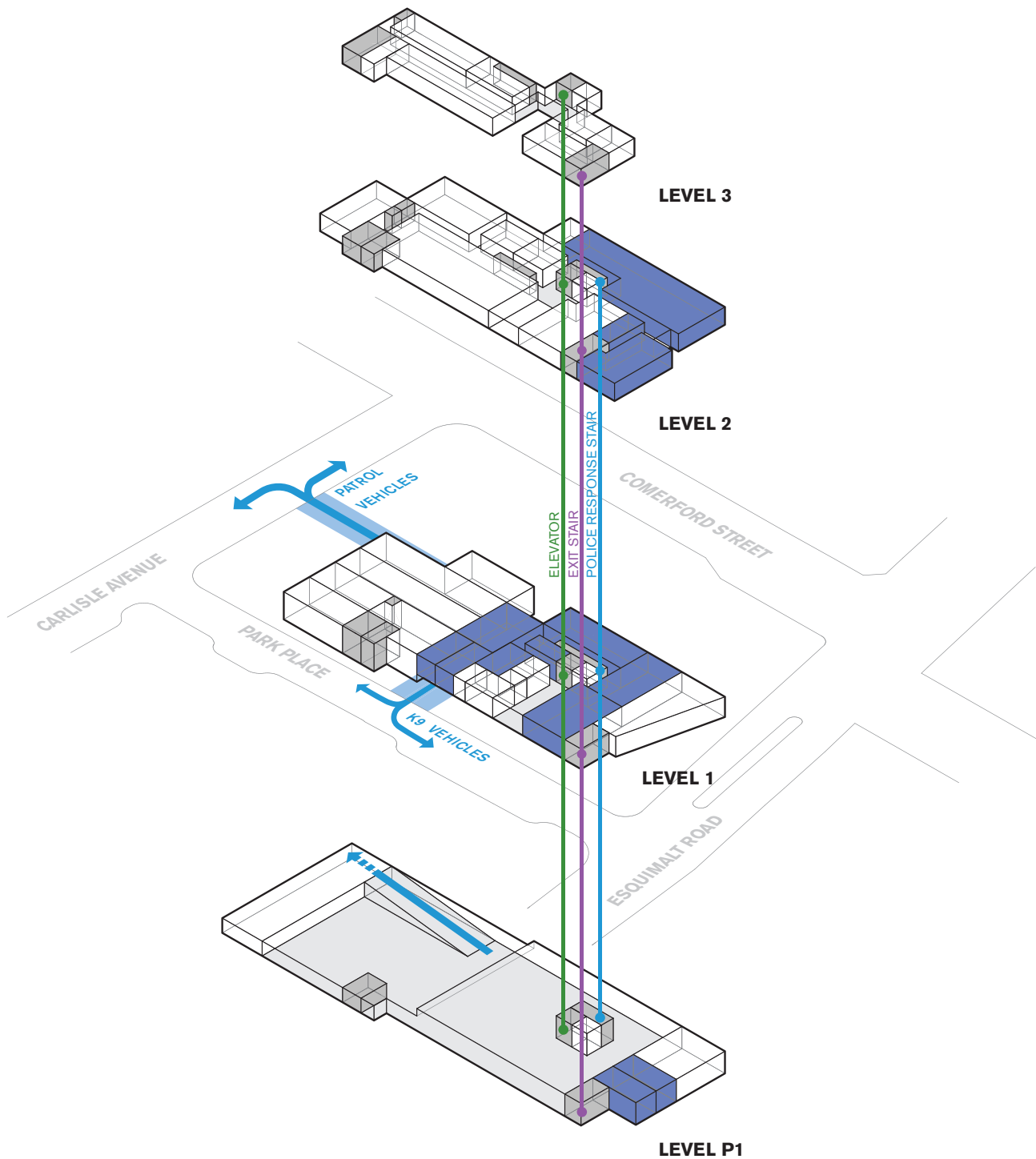
Police functions adopt the same approach with public access and operational personnel placed on the lowest floor (at street level and close to the patrol vehicles in the basement) and the administrative and support functions on the upper floors. The public reception is located at the main entry to the building and is segregated from the secure operational areas behind. The Operational Patrol team workroom is on the main floor with direct access to the patrol vehicles in the basement below.



6.6 Operational Flow Diagrams



▲ Fire Department flow diagram



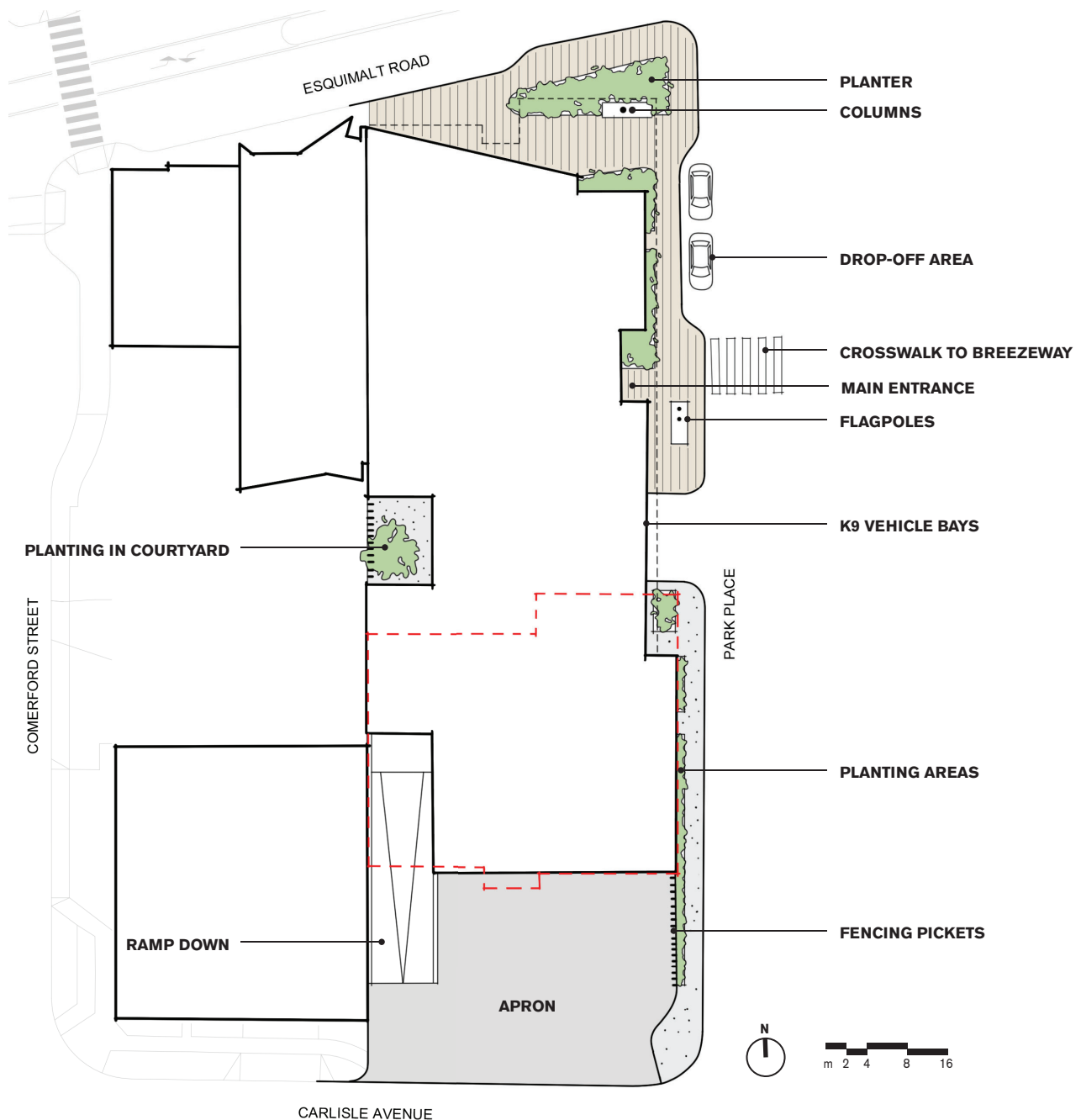
▲ Police Department flow diagram

7.0 Proposed Floor Plans

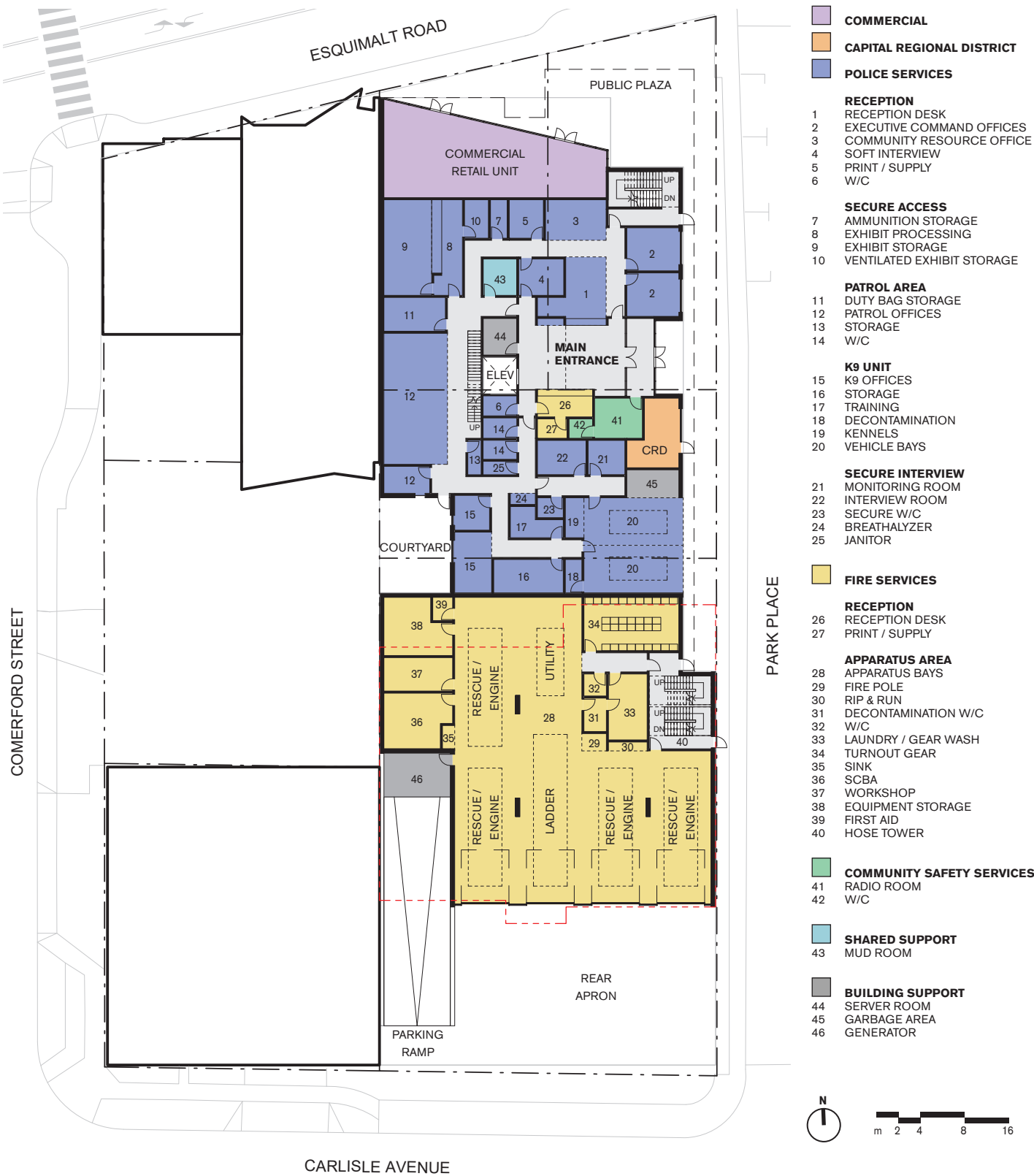


7.1 Street Level Public Realm Plan

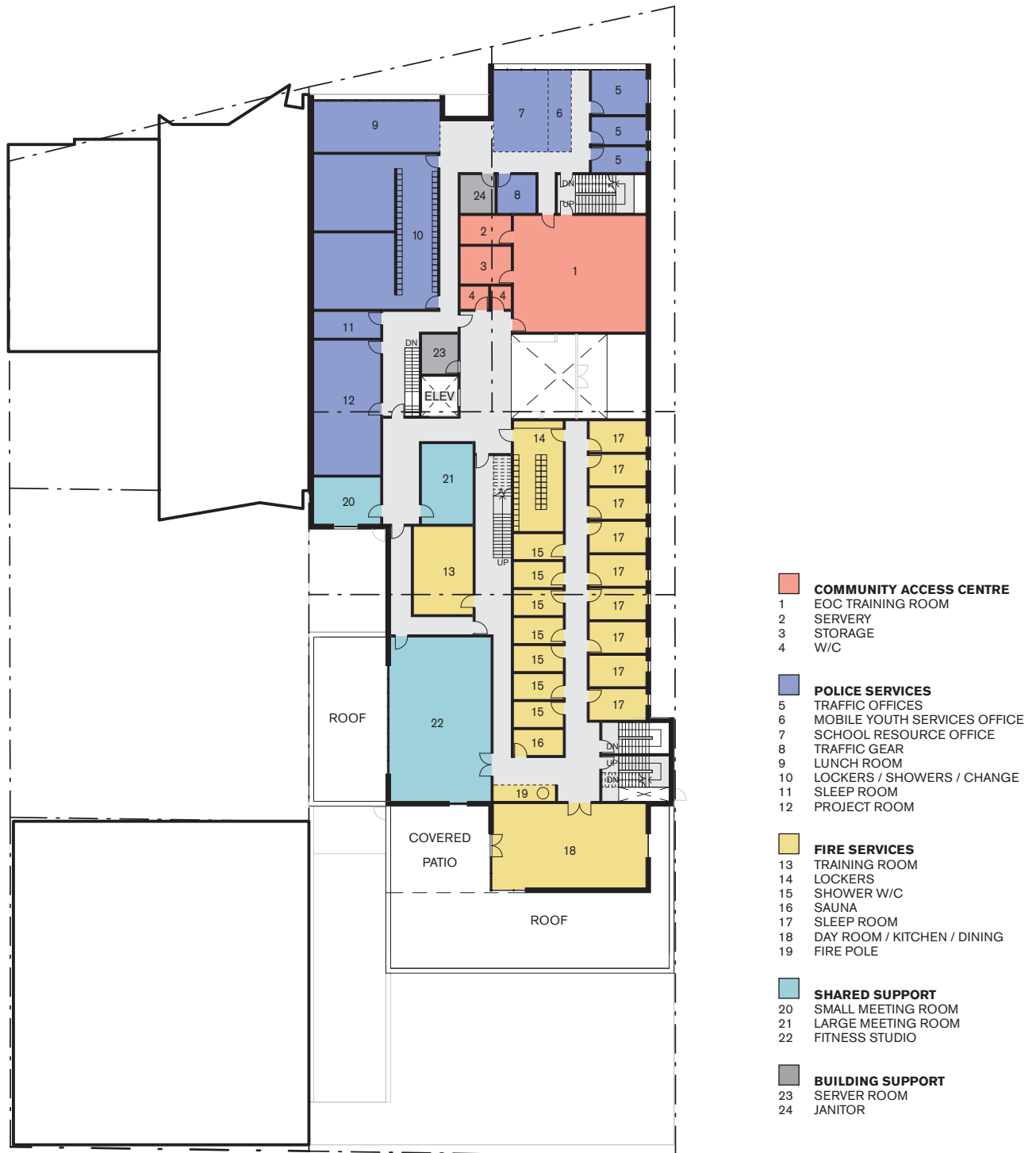
The following floor plans are a result of extensive consultation with the stakeholders and key staff to arrive at a layout that satisfies the operational and functional requirements.



7.2 Ground Floor Plan



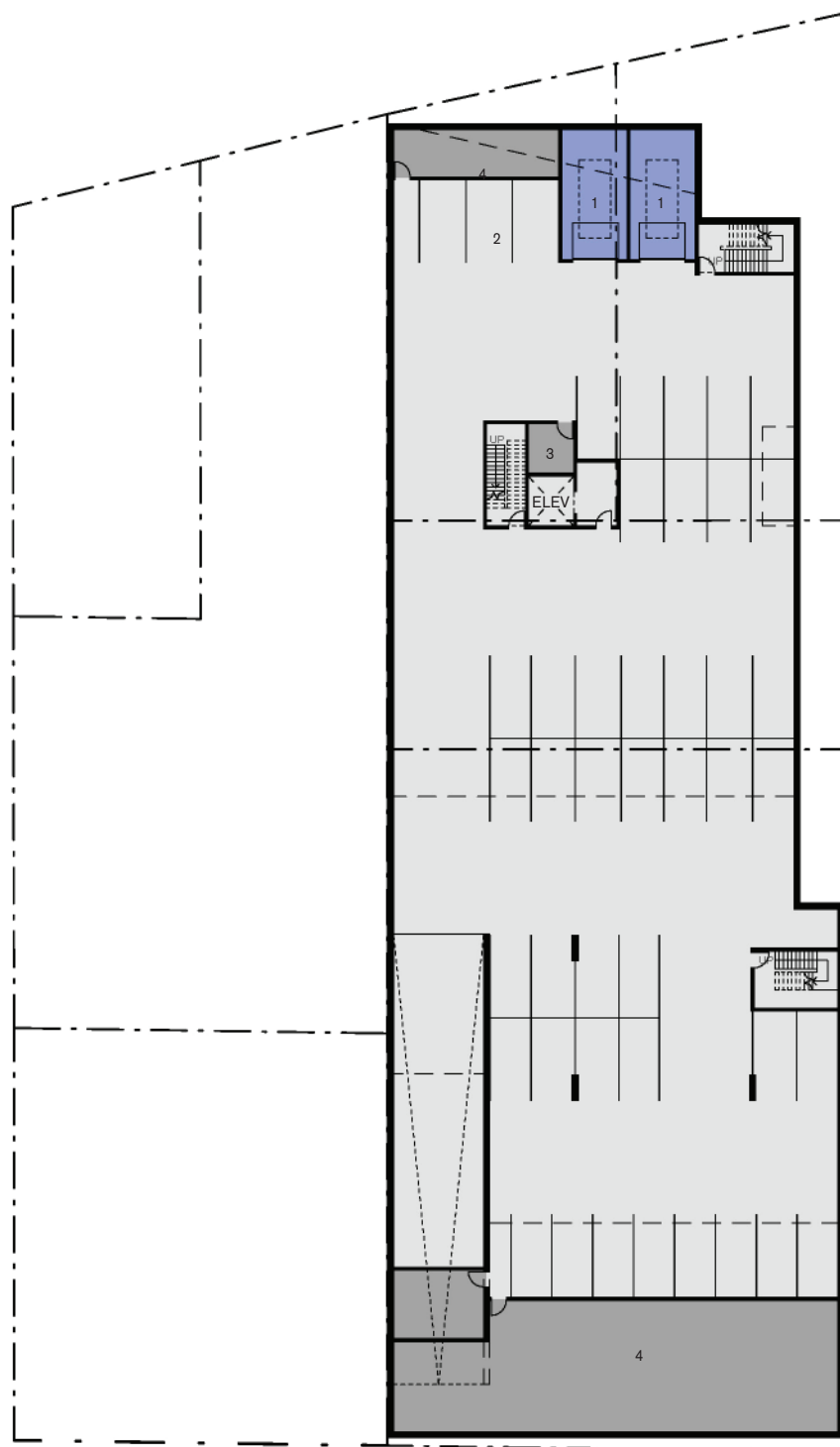
7.3 Second Floor Plan



7.4 Third Floor Plan



7.4 Basement Parking Plan



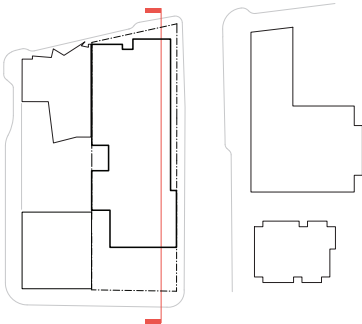
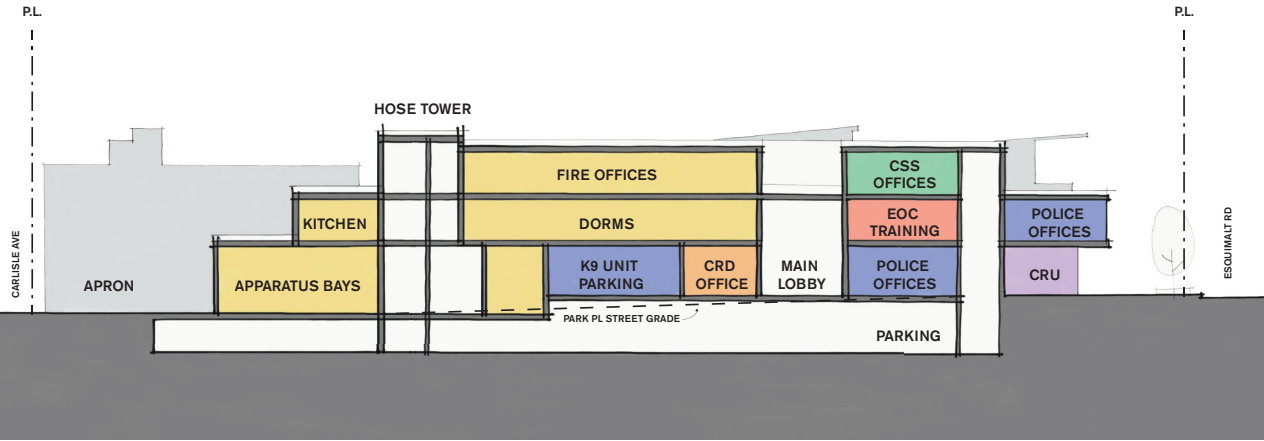
- POLICE SERVICES**
- 1 SECURE VEHICLE BAY
- BUILDING SUPPORT**
- 2 BICYCLE ROOM
- 3 ELEVATOR MACHINE ROOM
- 4 BUILDING SERVICES



m 2 4 8 16

7.5 Building Section

The section below illustrates the cut through the proposed building from north to south. The natural slope of the site from the high point on Esquimalt Road to the low point on Carlisle Avenue is used to advantage by having the Fire Hall Apparatus Bays at the lowest grade and the retail and Police functions with a reduced floor to floor height to the north, yet still meeting the existing street grades. The second floor can then be at a common level across both Police and Fire. The third floor is set back from the main frontages and appears like a penthouse level. The main hose tower is located on Park Place adjacent to the first apparatus bay.



▲ Building section

8.0 Proposed Massing

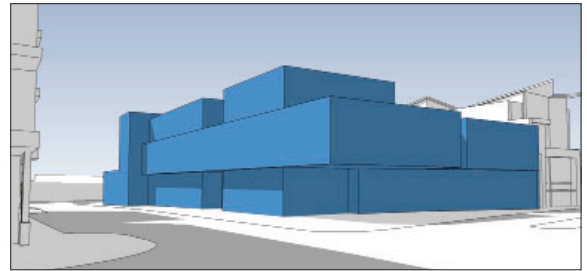


The overall combination of these operational needs resulted in a three-story massing over a single level of underground parking. The following diagrams show the concept in the context of the adjoining buildings and streets.

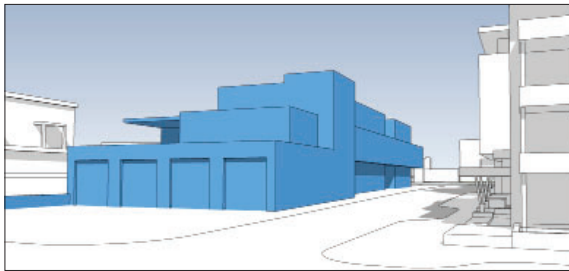
Whilst most of the adjacent buildings are higher than the new Public Safety Building, it is an expression of the functional needs of the building. Stacking the building higher on a smaller footprint was not feasible for operational efficiency. The scale of the floor to floor heights is higher than a typical office or residential floor, so the building is actually made up of three large height floors.



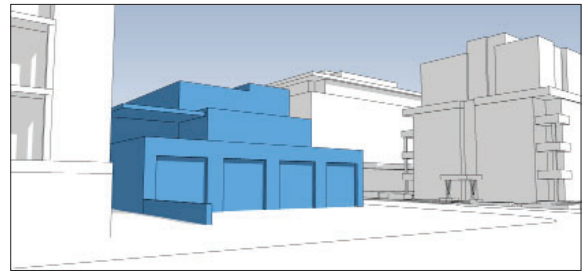
▲ View looking SE across Esquimalt Rd.



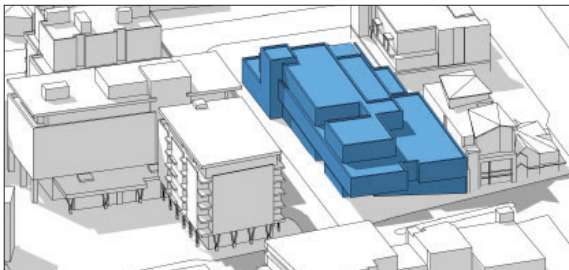
▲ View looking SW across Esquimalt Rd.



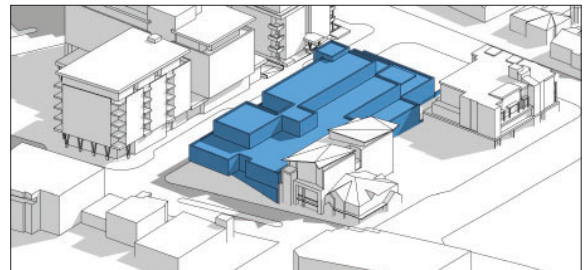
▲ View looking NE across Carlisle Ave.



▲ View looking NW across Carlisle Ave.



▲ Aerial view looking SW



▲ Aerial view looking SE



▲ Photo of existing: looking NW across Carlisle Ave.



▲ Conceptual massing of proposed: looking NW across Carlisle Ave.



▲ Photo of existing: looking SW across Esquimalt Rd.



▲ Conceptual massing of proposed: looking SW across Esquimalt Rd.



▲ Photo of existing: looking SE across Esquimalt Rd.



▲ Conceptual massing of proposed: looking SE across Esquimalt Rd.

9.0 Construction Cost



A cost estimate at a Class D level was prepared by Advicas based on these proposed floor plans, program and massing. Their full detailed estimate is included in Section 11.2. The overall summary is included below:

ESTIMATE COSTS

The estimate costs have been developed in First Quarter 2020 dollars only and escalated to the projected construction start date of August 2021. The estimated capital construction cost is as follows:

Building	\$28,023,921	\$405.97/sf
Site Development	\$1,623,742	\$54.20/sf
TOTAL	\$29,647,663	\$429.50/sf

Kinetic Construction also completed a review of the Advicas cost report and compared with recent data available. A comparison of the Advicas cost report and Kinetic review is shown below and provides a range of construction costs that can be anticipated for this project.

In addition to the construction cost of for the new facility and site works, the total project will include other costs for the temporary relocation of police and fire, plus soft costs:

- Relocation of Fire + Police Operations
- Demolition + Hazardous Abatement
- Consultant Fees
- Permit and Insurance Costs
- Escalation + Contingency

Core Projects Ltd has recommended that the Township include an additional 30% on top of the Construction Cost to cover this associated work. Below is a summary of the two cost estimates completed as part of this feasibility study, with estimates of the total project costs.

	Advicas Class-D	Kinetic Review
Parkade	\$1,623,742	\$1,640,000
Building	\$28,023,921	\$30,770,890
CONSTRUCTION TOTAL	\$29,647,663	\$32,410,890
Soft Costs, FF+E and Contingency (30%)	\$8,894,300	\$9,723,267
Temporary Hall and Relocation	\$1,500,000	\$1,500,000
TOTAL PROJECT COST	\$38,543,463	\$43,634,157

10.0 Next Steps

10

10.1 Next Steps

Based on this detailed feasibility study, the site is able to accommodate all the potential needs except a full holding cell component (this will be located off site in Victoria as part of the Victoria Police Department facility). The other uses included within this estimate are the Retail space and the office space for the Capital Regional District.

If the Township can find ways to finance this project (including any temporary facility costs), then they should authorize the design team to continue to develop the design in preparation for tendering the work.

The overall timeline for design and construction is in the region of 24-32 months from the date Council authorizes the work to proceed.

11.0 Appendix



11.1 Functional Program Report

Esquimalt Public Safety Building

SPACE PROGRAM

June 8th, 2020

The content of this document is the product of a collaborative effort of HCMA Architecture + Design, Inform Planning and the Township of Esquimalt and requires the formal approval of these parties prior to its modification or republication. The specifications herein do not absolve the parties providing subsequent design services from their own responsibility to provide fully functional and complete facilities and to satisfy applicable building code requirements.

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Esquimalt Public Safety Building

Space Program

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Executive Summary //

1. Executive Summary

In the spring of 2020, a space program was prepared for the Corporation of the Township of Esquimalt by HCMA Architecture + Design and Inform Planning Inc. for a new public safety building. Preparation of the document involved coordination with representatives of the Corporation of the Township of Esquimalt, Esquimalt Fire Department and the Esquimalt Division of the Victoria Police Department.

The vision for the Esquimalt Public Safety Building is to consolidate Township Community Safety Services, Fire Services, Police Services along with a satellite Capital Regional District office in a shared building.

Currently, a public safety building at 500 Park Place accommodates Fire and Police Services. Township Community Safety Services are located partly at the existing public safety building and otherwise at the Town Hall at 1229 Esquimalt Road.

Space requirements were developed based on precedent and the functional and operational requirements unique to the services accommodated. Support spaces such as meeting, and fitness facilities are planned to be shared by all building occupants.

The basic building block for physically organizing facilities is by functional component. A functional component can be defined as a grouping of activities and assigned spaces that are physically related.

The public safety building will include the following components:

- **Community Access Centre:** spaces supporting community access to the building and meeting and training activities.
- **Capital Regional District Space:** Spaces supporting Capital Regional District activities in Esquimalt.
- **Community Safety Services Space:** Spaces supporting Township Community Safety Services administration.
- **Police Services Space:** Spaces supporting the Victoria Police Esquimalt Division activities.
- **Fire Services Space:** Spaces supporting Fire Services staff activities.
- **Shared Support Spaces:** Spaces supporting meeting and fitness facilities.
- **Shared Building Support Spaces:** Spaces supporting IT infrastructure, shipping & receiving, and building services.
- **Shared and Secure Parking Facilities:** Parking for service vehicles, and large equipment storage.

//

Project Area

The following table summarizes the current and future space requirements for the project:

Component	Net Area (nsf)	Component Gross Area (cgsf)	Circulation Factor
Community Access Centre	2,393	2,751	1.15
Capital Regional District Space	250	363	1.45
Community Safety Services Space	1,124	1,630	1.45
Police Services	9,204	13,346	1.45
Fire Services Space	12,740	18,473	1.45
Shared Support Spaces	1,740	2,175	1.25
Shared Building Support Spaces	450	563	1.25
Subtotal, Component Gross Area		39,229	
Building Gross Area (@1.2)		47,160	
Shared and Secure Parking Facilities ¹	11,328	22,656	2.0

Note:

1. Shared and Secure Parking Facilities may be provided in a separate structure from the main building.

Space program //

2. Introduction

Purpose of the Document

This document provides a preliminary space program for the Esquimalt Public Safety Building. The document will serve a range of purposes including:

- Providing the Township of Esquimalt with a document to guide the preliminary planning of the public safety building.
- Leaving the Township of Esquimalt, Capital Regional District, Fire Services and Victoria Police Services with a reference document that can be used to inform operations planning and assist in decision making into the future.
- Providing HCMA Architecture + Design with an integrated document summarizing preliminary functional, and spatial requirements in sufficient detail for block planning and concept design.

3. Process

To prepare the space program the following work was completed:

- Site tours and interviews with representatives of the Corporation of the Township of Esquimalt, Esquimalt Fire Department and the Esquimalt Division of the Victoria Police Department on March 13th, 2020.
- Review of background information provided by each group between March 9th and 18th, 2020.
- Iterative drafts issued in March and April 2020.

4. Space program

The remainder of this document describes each building component. Consistent information is provided for each component including:

- **Functional Description:** This section outlines the major activities accommodated to support current activities, activities supporting future growth and a standalone police detachment. Where relevant, this section also captures key zones of activity within the component.
- **Staffing & Occupancy Estimates:** This section identifies anticipated staff accommodated in the component during peak activities, and occupancies for spaces potentially used by external parties.
- **External Relationships:** This section identifies the key relationships between components and will inform the blocking and stacking of components in the building.
- **Space requirements:** This section details the room-by-room requirements by the type, number, size (nsf or net square feet) and internal space features for each room / space (as remarks). Spaces programmed that are currently provided in existing facilities are identified.

Space program //

Community Access Centre

Functional Description

The Community Access Area will accommodate public access to the building. It will act as the “front door” to the public safety facility and is where the community will have their first impression of the building. The space will be highly accessible and welcoming. The following key example activities will occur in this component:

- Public wayfinding to Township Community Safety Services, District Services, Police Service and Fire Services.
- Public washrooms.
- Community Resource Officer workspace (3 workstations).
- Police and fire training and large group meetings (up to 32 ppl.).
- Community Meetings (up to 32 ppl.).
- Emergency Operations Centre activation.
- Police Services reception activities including filing statements, witness interviews.
- Township and Fire reception services.
- Statement preparation by members of the public.
- Light food preparation for community meeting, police or fire training or Emergency Operations Centre activities.
- Police services lunchroom.

Staffing & Occupancy Estimate

The table below summarizes peak staffing:

Occupant	Number
Community Resource Officer	3
Total	3

The table below summarizes meeting space occupancy:

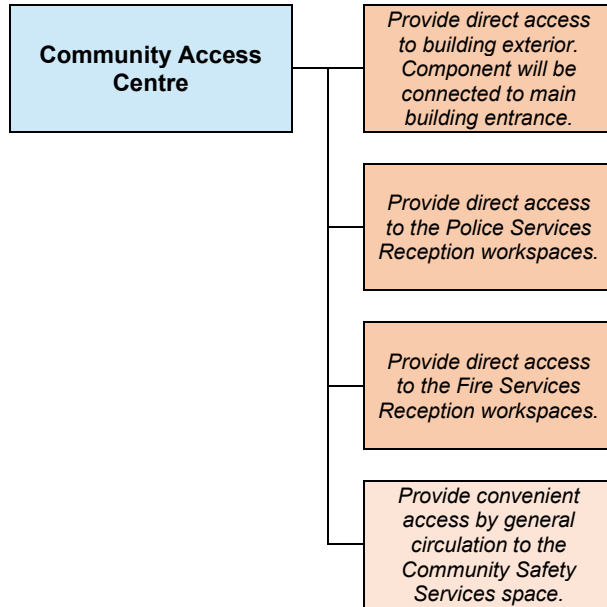
Space	Number
Community Space / Training Room / EOC	32 (max.)
Total	32

Space program //

External Relationships

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

- Direct Access Required
- Convenient Access Required

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Community Access Centre							
	Lobby						
1	Vestibule	—	<i>Incl. clear floor space.</i>	1	1	120	120
2	Lobby	Yes	<i>Incl. soft seating.</i>	1	1	250	250
3	Washroom	—	<i>Accessible and universal.</i>	1	1	80	80
4	Touchdown Alcove	—	<i>Incl. counter w. bench at one side, open on other side.</i>	1	1	24	24
Lobby Sum							474
EOC							
5	Community / Training Room / EOC	Yes	<i>Accom. classroom seating for 28 or meeting seating for 32 (2-16-person meeting table arrangements), 2 means of egress, 1 from Police Services and 1 to main building lobby, securable.</i>		1	900	900
6	Storage Room	—			1	100	100
7	Servery	—	<i>Incl. counter surface, 2 sinks.</i>		1	100	100
8	Washroom	—	<i>Accessible and universal.</i>		2	80	160
EOC Sum							1,260
Police Services Reception							
9	Community Resource Officer Workroom	Yes	<i>Incl. 3 touchdown wkstns., shelving, securable.</i>	1	1	167	167
10	Police Services Queue Space	Yes	<i>Accom. 8 ppl. locate adjacent to public lobby.</i>	1	1	128	128
11	Police Services Reception Desk	Yes	<i>Incl. standing and accessible height counter surfaces, glass partition btwn. public and staff counter areas, filing</i>	1	1	200	200

Space program //

	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
	Community Access Centre						
			<i>behind counter for paper.</i>				
	Police Services Reception Sum						495
	Township & Fire Services Reception						
12	Township & Fire Services Queue Space	Yes	<i>Incl. space for 3 ppl.</i>	1	1	64	64
13	Township & Fire Services Reception Desk	Yes	<i>Incl. standing and accessible height counter surfaces, glass partition btwn. public and staff counter areas, filing behind counter for paper.</i>	1	1	100	100
	Township & Fire Services Reception Sum						164
	Community Access Centre Total						2,393
	Component Gross Area (@ 1.15)						2,751

Space program //

Capital Regional District Space

Functional Description

This component will accommodate the activities of the newly introduced Capital Regional District at the Esquimalt public safety building.

- Capital Regional District satellite office activities.

Staffing & Occupancy Estimate

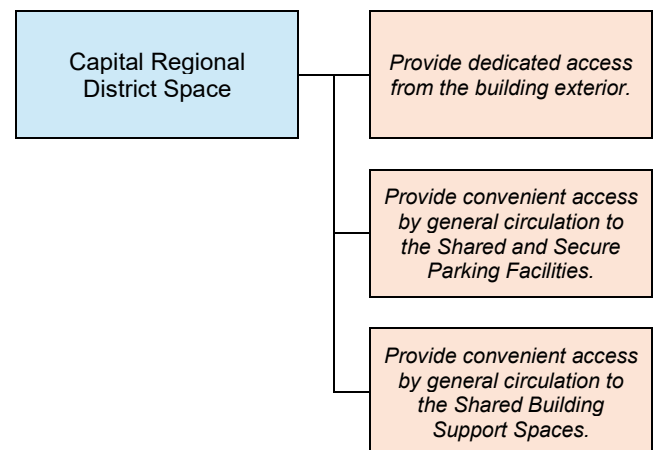
The table below summarizes peak staffing:

Occupant	Number
Capital Regional District Staff	TBD
Total	TBD



External Relationships

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

-  Direct Access Required
-  Convenient Access Required

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Capital Regional District Space							
14	Office Space	—	<i>Details to be confirmed.</i>		1	250	250
Capital Regional District Space Sum							250
Capital Regional District Space Total							250
Component Gross Area (@ 1.45)							363

Space program //

Community Safety Services Space

Functional Description

This component will accommodate the activities of the Township Community Safety Services at the Esquimalt public safety building. The following key example activities will occur in this component:

- Community Safety administration, meeting and amenity facilities.
- Emergency management and preparedness administration.

Staffing & Occupancy Estimate

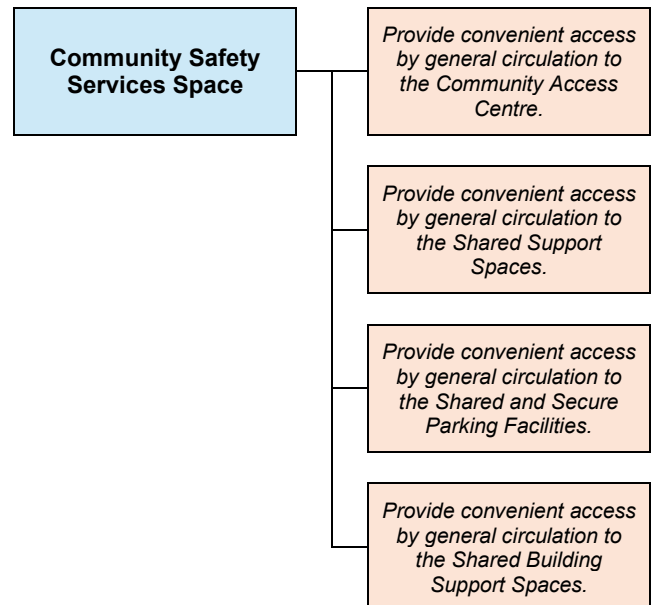
The table below summarizes peak staffing:

Occupant	Number
Director of Community Safety Services	1
Program Manager	1
Community Safety Services Staff	4
Total	6



External Relationships

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

-  Direct Access Required
-  Convenient Access Required

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Community Safety Services Space							
15	Office, Director of Community Safety Services	Yes	<i>Incl. desk w. return, shelving, filing cabinet, meeting space w. layout table, 4 seats, securable.</i>		1	192	192
16	Office, Program Manager	Yes	<i>Incl. desk w. return, shelving, filing cabinet, 2 guest seats, securable.</i>		1	100	100
17	Community Safety Workroom	Yes	<i>Incl. 4 wkstns., securable.</i>		1	252	252
18	Radio Room (w. washroom)	Yes	<i>Incl. table, 3-5 chairs, storage for radio equipment, small accessible washroom.</i>		1	210	210
19	Small Meeting Room	Yes	<i>Incl. table, 4-6 chairs.</i>		1	160	160
20	Lunchroom	Yes	<i>Incl. table, seating, kitchenette.</i>		1	160	160
21	Staff Washroom	Yes	–		1	50	50
Community Safety Services Space Sum							1,124
Community Safety Services Space Total							1,124
Component Gross Area (@ 1.45)							1,630

Space program //

Police Services Space

Functional Description

This component will accommodate the activities of Police Services at the Esquimalt public safety building. The component includes the following functional zones:

- A. Reception (connected to Community Access Centre)
- B. Office Facilities
- C. Staff Support
- D. Secure Interview Area
- E. Secure Vehicle Access Area

The following key example activities will occur in this component:

- Reception activities administration (2 workstations) and print and supply storage.
- Officer and civilian administrative activities including Executive Command (2 offices), Patrol Operations (1 office and 4 workstations), School Resources (4 workstations), Mobile Youth Services (2 workstations), and a police project room. Additional workspace for a new Traffic Unit and anticipated growth in police and civilian staff (+2 offices and +8 workstations).
- Separate male and female locker, shower and change facilities, one universal shower/change and washroom, a sleep room, a gear storage room for the new Traffic Unit and a duty bag storage room.
- Secure interview area, with monitoring rooms and a washroom.
- Facilities supporting secure access to the building by vehicle, including secure vehicle bays, exhibit storage, and spaces supporting the K9-Unit including (1 Sergeant office and 3 workstations).

Staffing & Occupancy Estimate

The table below summarizes peak staffing during a shift change:

Position	Number ¹
Reception Staff (Civilian)	2
Executive Command Staff	2
Patrol Operations & Traffic Staff (Civilian)	25 ²
School Resource Officer Staff	4
Mobile Youth Services Team	2
K9 Unit Staff	4
Total	39 ³

Note:

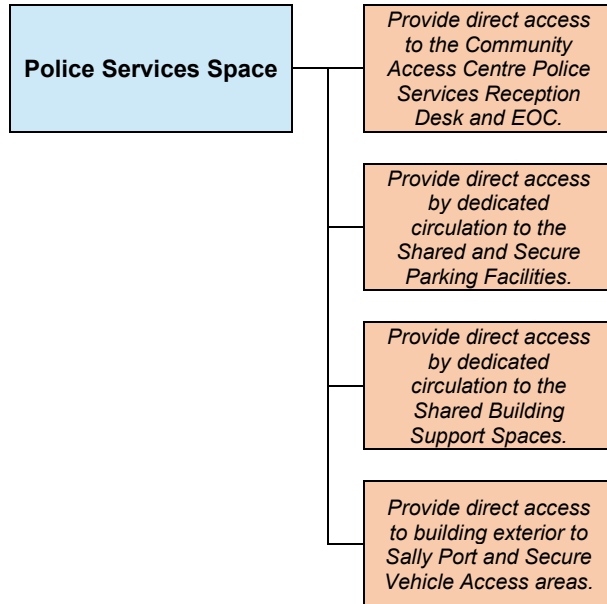
1. Staff may be distributed differently than indicated.
2. Staff will share 6 workspaces.
3. Total workspace requirements = 29.

Space program //

External Relationships

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

- Direct Access Required*
- Convenient Access Required*

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Police Services Space							
A Reception							
22	Reception Desk	Yes	See Community Access Centre	1	0	-	-
23	Workspaces (behind desk)	Yes	Incl. wkstn.	1	2	45	90
24	Print / Supply Room	Yes	Incl. counter w. storage above and below, multifunctional device, shredding bin, recycling bin, securable.	1	1	120	120
25	Soft Interview Room	Yes	Incl. built-in table, 4 chairs, securable.	1	1	150	150
A Reception Sum							360
B Office Facilities							
26	Executive Command Inspector's Office	Yes	Incl. desk w. return, shelving, filing cabinet, meeting space w. layout table, 4 seats, securable.	1	1	192	192
27	Executive Command Admin. Sergeant's Office	Yes	Incl. desk w. return, shelving, filing cabinet, meeting space w. layout table, 4 seats, securable.	1	1	192	192
28	Patrol Operations Sergeant Office	Yes	Incl. desk w. return, shelving, filing cabinet, 2 guest seats, securable. Locate near Police Reception Desk.	1	1	100	100
29	Patrol Operations & Traffic Workroom	Yes	Incl. 10 touchdown wkstns., shelving, layout table, securable.	1	1	640	640
30	Patrol Operations Storage	Yes	Incl. shelving, radio chargers, securable.	1	1	40	40
31	Washroom	Yes	Incl. 2 stalls, 1 standard and 1 accessible.	1	2	80	160

Space program //

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Police Services Space							
32	Traffic NCO Office	—	Incl. desk w. return, shelving, filing cabinet, 2 guest seats, securable.		1	100	100
33	Traffic Admin Office	—	Incl. desk w. return, shelving, filing cabinet, 2 guest seats, securable.		1	100	100
34	Analyst Work Room	—	Incl. 2 touchdown wkstns., shelving, securable.		1	113	113
35	School Resource Officer Work Room	Yes	Incl. 4 wkstns., shelving, securable.		1	200	200
36	Mobile Youth Services Workroom	Yes	Incl. 2 wkstns., shelving, securable.		1	185	185
37	Police Project Room	—	Incl. table, 6 seats, lockable shelving at one end, securable, movable partition separating the two rooms, max. capacity when adjoining, 16 persons.		2	300	600
B Office Facilities Sum							2,622
C Staff Support							
38	Lunchroom / Servery	—	Accom. 2 refrigerators, counter w. separated sink, storage cabinets above and beneath, table w. 6 chairs.		1	300	300
39	Sleep Room	—	Incl. single bed, counter surface, securable.		1	120	120
40	Lockers, Showers & Change - Women						
41	Lockers	Yes	Incl. 20- 18"W lockers w. secure drawer.		1	160	160
42	Alcove, Muzzle	Yes	Incl. muzzle, clear floor space.		1	12	12
43	Alcove, Clean Laundry	Yes	Incl. hanging rack.		1	60	60
44	Alcove, Soiled Laundry	Yes	Incl. bins.		1	60	60
45	Showers	Yes	Incl. shower, partition.		3	25	75
46	Sink Area	Yes	Incl. counter surface, 2 sinks.		1	80	80

Space program //

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Police Services Space							
47	Washroom	Yes	Incl. 2 stalls, 1 standard and 1 accessible.		1	120	120
48	Universal Shower / Change / Washroom	—	Incl. accessible shower, toilet, sink w. counter.		1	100	100
49	Lockers, Showers & Change - Men		—				
50	Lockers	Yes	Incl. 25- 18"W lockers w. secure drawer.		1	200	200
51	Alcove, Muzzle	Yes	Incl. muzzle, clear floor space.		1	12	12
52	Alcove, Clean Laundry	Yes	Incl. hanging rack.		1	60	60
53	Alcove, Soiled Laundry	Yes	Incl. bins.		1	60	60
54	Showers	Yes	Incl. shower, partition.		3	25	75
55	Sink Area	Yes	Incl. counter surface, 2 sinks.		1	80	80
56	Washroom	Yes	Incl. 2 urinals and 2 stalls, 1 standard and 1 accessible.		1	160	160
57	Traffic Officer Gear Room	—	Incl. 8- 18"W lockers for traffic gear, securable.		1	64	64
58	Duty Bag Storage Room	—	Incl. 35 cubbies (2'L x 2'W x 2'D), securable.	1	1	180	180
C Staff Support Sum							1,978
E Secure Interview Area							
59	Vestibule	—	Incl. clear floor space, securable.		1	200	200
60	Janitor Room	—	Incl. floor drain, industrial sink, shelving, securable.		1	40	40
61	Interview Room	—	Incl. built-in table, 4 chairs, securable.		1	150	150
62	Monitoring Room	—	Incl. table, seating for 4, securable.		1	110	110
63	Alcove, Breathalyzer Storage	—	Incl. shelving, securable.		1	24	24
64	Washroom	—	Universal, accessible, securable.		1	50	50
E Secure Interview Area Sum							574
F Secure Access Area							
65	Secure Vehicle Bay	—	Securable.		2	550	1,100

Space program //

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Police Services Space							
66	Unenclosed Vehicle Bay (Short Term K9 Unit Parking)	—	<i>Covered, unenclosed.</i>	1	2	550	1,100
67	Exhibit Processing	—	<i>Incl. counter, lockers of various sizes, computer, securable.</i>		1	250	250
68	Ventilated Exhibit Storage	—	<i>Incl. shelving, adequate ventilation, access from exhibit processing room or exhibit storage room.</i>		1	80	80
69	Exhibit Storage	—	<i>Incl. shelving, securable, access from exhibit processing room.</i>		1	400	400
70	Ammunition Storage	Yes	<i>Incl. shelving, securable.</i>		1	64	64
71	K9 Unit Sargent Office	Yes	<i>Incl. desk w. return, shelving, filing cabinet, 2 guest seats, securable. Locate close to vehicle entrance.</i>	1	1	100	100
72	K9 Unit Workroom	Yes	<i>Incl. 3 touchdown wkstns, securable. Locate close to vehicle entrance.</i>	1	1	167	167
73	K9 Unit Equipment Storage	Yes	<i>Incl. 3 x refrigerators, 1 x deep freeze, shelving, sink w. counter, waste separation bin, securable. Locate close to vehicle entrance.</i>	1	1	200	200
74	Dog Kennels	Yes	<i>Incl. chain-link fencing, soft surface. Locate close to vehicle entrance.</i>	1	2	30	60
75	K9 Unit Training Equipment Room	—	<i>Incl. 7 x scent boxes (each 1L' x1W' x1'D), 15-20 suitcases on shelves, securable. Locate close to vehicle entrance.</i>	1	1	100	100
76	K9 Unit Decontamination Room	—	<i>Incl. hose, floor drain, securable. Locate close to vehicle entrance.</i>	1	1	50	50

Space program //

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
	Police Services Space						
	F Secure Access Area Sum						3,671
	Police Services Space Total						9,204
	Component Gross Area (@1.45)						13,346

Space program //

Fire Services Space

Functional Description

This component will accommodate the activities of Fire Services at the Esquimalt public safety building. The component includes the following functional zones:

- A. Reception (connected to Community Access Centre)
- B. Office Facilities
- C. Staff Support
- D. Apparatus Area
- E. Operations Support

The following key example activities will occur in this component:

- Reception activities including property file access, general administration (1 workstation), and print and supply storage.
- Chief (1 office), Deputy Chief (2 offices), and Captain workspaces (1 office) along with a shared open office area (6 workstations preferred), meeting space and storage room for manuals.
- Lounge and day activities, a training room, sleep rooms and male and female locker, shower and change facilities.
- Apparatus bays (4) and apparatus area facilities including a pole room, training tower, decontamination facilities, and a workshop.
- Operations supports, including laundry, gas filling, first aid supply storage, equipment storage and a sauna.
- Universal locker / shower / change facilities.

Staffing & Occupancy Estimate

The table below summarizes peak staffing during a shift change:

Position	Number
Reception Staff	1
Chief	1
Deputy Chief	2 ¹
Captains	4
Fire Suppression Staff	20 ²
Total	28 ³

Note:

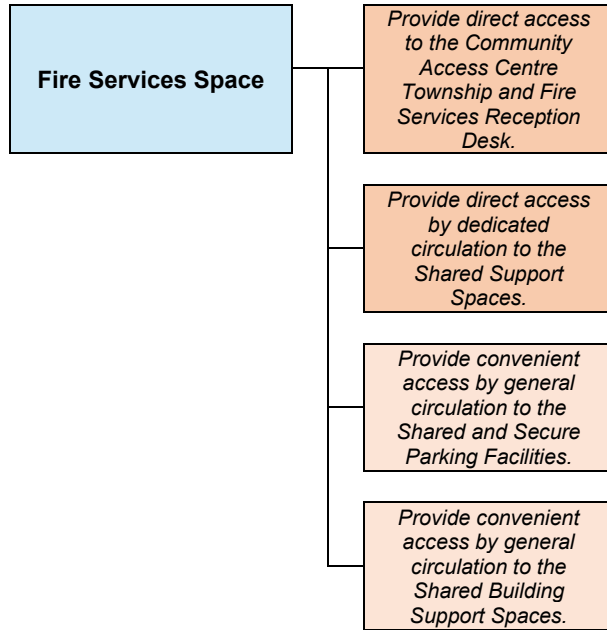
1. Staff will share 1 office.
2. Staff will share 6 workstations.
3. In the future there will be 12 Staff on shift at any given time.

Space program //

External Relationships

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

- Direct Access Required
- Convenient Access Required

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Fire Services Space							
A Reception							
77	Reception Desk	Yes	<i>See Community Access Centre</i>	1	0	-	-
78	Workspaces (behind desk)	Yes	<i>Incl. wkstn.</i>	1	1	45	45
79	Print / Supply Room (behind reception desk)	Yes	<i>Incl. counter w. storage above and below, multifunctional device, shredding bin, recycling bin, securable.</i>	1	1	120	120
80	Property Files	Yes	<i>Accom. 4 x 4-high lateral filing cabinets.</i>		1	80	80
A Reception Sum							245
B Office Facilities							
81	Chief's Office	Yes	<i>Incl. desk w. return, shelving, filing cabinet, meeting space w. layout table, 4 seats, murphy bed, securable.</i>		1	220	220
82	Deputy Chief's Office	Yes	<i>Incl. desk w. return, shelving, filing cabinet, 2 guest seats, securable.</i>		2	120	240
83	Captain Office	Yes	<i>Incl. desk w. return, shelving, filing cabinet, 2 guest seats, securable.</i>		1	100	100
84	Meeting Room		<i>Incl. table, seating for 10-12</i>		1	274	274
85	Open Office Space	Yes	<i>Incl 4 touchdown wkstns. minimum, 6 preferred, securable.</i>		1	333	333

Space program //

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Fire Services Space							
	Storage and Office Supplies	Yes	<i>Incl. counter w. storage above and below, shelving, securable.</i>		1	120	120
86	Staff Washroom	Yes	<i>Universal, accessible.</i>		2	50	100
B Office Facilities Sum							1,387
C Staff Support Facilities							
88	Sleeping Room	Yes	<i>Incl. single bed, counter surface, securable.</i>		9	120	1,080
89	Kitchen, Dining	Yes	<i>Incl. 3 refrigerators, stove, oven, counter w. separated sink, additional sink, storage cabinets, seating for 16.</i>		1	550	550
90	Day Room	Yes	<i>Incl. soft seating, screen, shelving, table for 4-6.</i>		1	400	400
91	Training Room		<i>Incl. table, 8 chairs.</i>		1	300	300
92	Lockers, Shower & Change						
93	Lockers	Yes	<i>Incl. 26 standard full-height lockers minimum, 34 preferred.</i>		1	270	270
94	Alcove, Clean Laundry	Yes	<i>Incl. hanging rack.</i>		1	60	60
95	Alcove, Soiled Laundry	Yes	<i>Incl. bins.</i>		1	60	60
96	Alcove, Clothes Drying	Yes	<i>Incl. hanging rack.</i>		1	20	20
97	Accessible Washroom / Shower / Change Room	Yes	<i>Incl. toilet, sink, shower.</i>		7	90	630
98	Washroom	Yes	–		3	50	150
C Staff Support Facilities Sum							3,520
D Apparatus Area							

Space program //

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Fire Services Space							
99	Apparatus Bay (Full)	Yes	Accom. up to two engines / rescues @ 35' length or a ladder @ 45' length and a utility vehicle @ 20' length w. 8' circulation / hose storage at either end. Height TBD. Each bay 20' wide. Bifold bay doors at one end.	1	2	1,920	3,840
100	Apparatus Bay (Half)	Yes	Accom. One engine or rescue vehicle @ 35' length w. 4' circulation / hose storage at either end. Height TBD. Each bay 20' wide. Bifold bay doors at one end.	1	2	860	1,720
101	Workshop	Yes	Incl. workbench (4'L x 16'W), drill press, tool storage.	1	1	190	190
102	Turnout Gear Room	Yes	Incl. 34 lockers (30"W x 24"D), securable.	1	1	425	425
103	Alcove, Industrial Sink	Yes	Incl. industrial sink, counter.	1	1	24	24
104	Pole Room	Yes	Accom. single pole footprint, no off-set, securable.	1	1	40	40
105	Pole Room	Yes	Accom. single pole footprint, no off-set, securable.	2	1	40	40
106	Training Tower	Yes	Incl. 50' training tower, securable.	1	1	250	250
107	Alcove, Rip & Run	Yes		1	1	24	24
108	Decontamination Room	Yes	Incl. shower, floor drain, industrial sink, securable.	1	1	70	70
109	Washroom	Yes	–		1	80	80
D Apparatus Area Sum							6,703
E Operations Support							

Space program //

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Fire Services Space							
110	SCBA & Gas Filling Room	Yes	<i>Incl. cylinder storage, sink, bins, workbench, adjacent to apparatus area, securable.</i>	1	1	300	300
111	Laundry Machine	Yes	<i>Incl. 1 x washer, 1 x gear washer (industrial grade), 1 x dryer, 1 x drying cabinet, adjacent to apparatus area.</i>		1	200	200
112	First Aid Supply Storage	Yes	<i>Incl. shelving.</i>		1	40	40
113	Equipment Storage	Yes	<i>Incl. rescue randy manikins, seasonal equipment, non-assigned protective equipment, additional items, adjacent to apparatus area, securable.</i>		1	300	300
114	Sauna	Yes	<i>Incl. 2-person sauna cabinet.</i>		1	45	45
E Operations Support Sum							885
Fire Space Total							12,740
Component Gross Area (@ 1.45)							18,473

Space program //

Shared Support Spaces

Functional Description

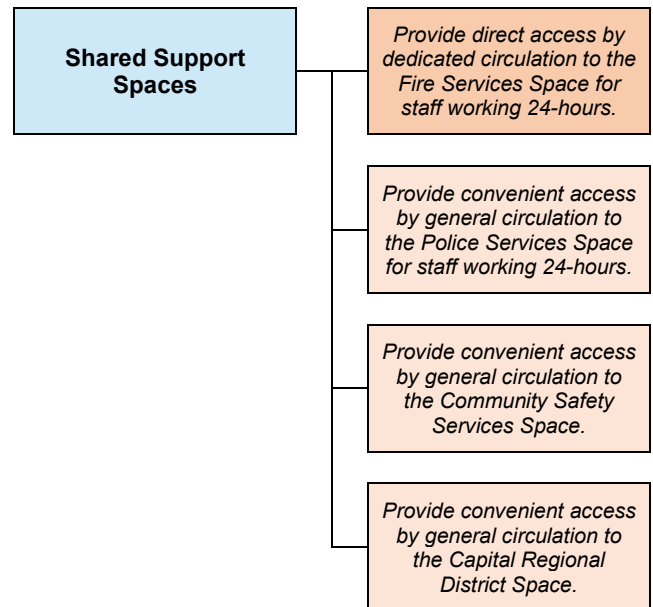
This component will accommodate shared support spaces for the building. It is where Capital Regional District, Community Services, Police Services, and Fire Services staff will prepare and eat food. May staff, particularly Police and Fire Services staff may be stationed at the facility 24 hours a day.

The following key example activities will occur in this component in support of current activities:



- Meeting and training activities in small and mid-sized groups (up to 8 ppl.).
- Food preparation and dining.
- Training and fitness activities.
- A mud room.
- Training and studio fitness activities.

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

-  Direct Access Required
-  Convenient Access Required

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Shared Support Spaces							
115	Meeting Space (Medium)	Yes	<i>Incl. table, 8 seats, securable.</i>		1	300	300
116	Meeting Space (Small)	Yes	<i>Incl. table, 4 seats, securable.</i>		1	160	160
117	Multipurpose Training / Fitness Studio	—	<i>Incl. clear floor space to accom. yoga-like activities for up to 14 or other training. Also incl. 5 x cardio, bench press, universal, free weights.</i>		1	1,200	1,200
118	Mud Room	—	<i>Incl. clear floor space, wall hooks.</i>	1	1	80	80
Shared Support Spaces Sum							1,740
Shared Support Spaces Total							1,740
Component Gross Area (@ 1.25)							2,175

Space program //

Shared Building Support Spaces

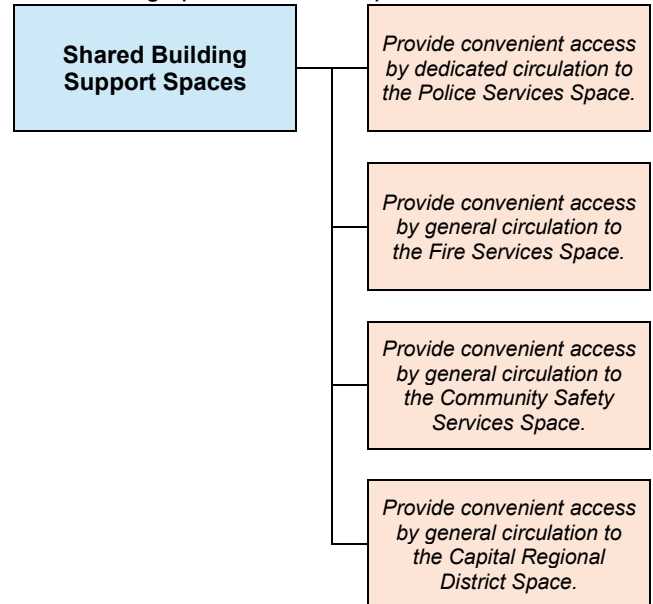
Functional Description

This component will accommodate shared building support spaces for the public safety building. The following key example activities will occur in this component:



- IT Server Rooms for Fire Services and Police Services.¹
- Janitor closet.
- Garbage and recycling.
- Uninterrupted power source room.

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

-  Direct Access Required
-  Convenient Access Required

¹ It is assumed that communications closets and server infrastructure for the Capital Regional District

and Township Community Safety Services will be accommodated in the gross-up factor for the building.

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Shared Building Support Services							
119	IT Rooms (1 per Police, Fire, Township)	Yes	<i>Incl. to be determined server equipment, securable.</i>		3	60	180
120	Garbage and Recycling Area	Yes	<i>Incl. clear floor space, securable.</i>	1	1	120	120
121	Janitor Closet	Yes	<i>Incl. floor drain, industrial sink, shelving, securable.</i>		1	60	60
122	Uninterrupted Power Source	—	<i>Incl. to be determined equipment, securable.</i>		1	90	90
123	Mechanical, Electrical, Communications Rooms	—	<i>Included in gross-up.</i>		0	-	-
Shared Building Support Services Sum							450
Shared Building Support Services Total							450
Component Gross Area (@ 1.25)							563

Space program //

Shared and Secure Parking Facilities

Functional Description

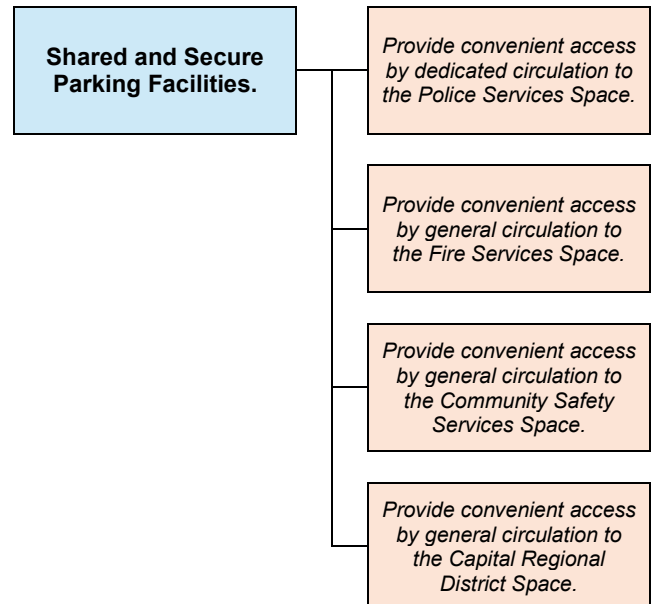
This component will accommodate the shared and secure parking facilities for each building occupant. The following parking requirements support activities:

- Service vehicle parking for Capital Regional District (2 vehicles),
- Community Safety Services vehicle parking (TBD).
- Police Services vehicle parking (35 vehicles, 10 motorcycles).
- Fire Services vehicle parking (3 vehicles).
- Large outdoor equipment storage (3 stalls).
- Short term holding for Police K9 Unit.
- Shared and secure bicycle parking.



External Relationships

External Relationships

This component should be located to achieve the following spatial relationships:



Legend

-  Direct Access Required
-  Convenient Access Required

Space program //

Space Requirements

The following spaces, numbers of spaces, net areas and space contents are minimum requirements.

Project Room #	Space Name	Existing	Remarks	Level	Unit	Unit Area (SF)	Net Area (nsf)
Shared, Secure Parking							
Capital Regional District							
124	District Vehicles	—	Standard size vehicle.	U	2	220	440
Capital Regional District Sum							440
Fire							
125	Utility Vehicles	Yes	Large vehicle.	U	3	260	780
126	Utility Trailer	Yes		U	1	260	260
Fire Sum							1,040
Police							
127	Crash Truck	Yes	Standard size vehicle.	U	1	260	260
128	Patrol Vehicles	Yes	Standard size vehicle.	U	17	220	3,740
129	Esquimalt Division Resource Vehicles	Yes	Standard size vehicle.	U	6	220	1,320
130	K9 Resources	Yes	Large vehicle.	U	6	260	1,560
131	Speed Trailer	Yes	Large vehicle.	U	1	260	260
132	Traffic Vehicles	—	Standard size vehicle.	U	5	220	1,100
133	Traffic Motorcycles	—	2 motorcycles per stall.	U	5	220	1,100
134	Traffic Leader Board	Yes	—	U	1	220	220
Police Sum							9,560
Shared Bicycle Parking							
135	Bicycle Parking	—	Incl. 24 vertical bicycle parking stalls (2'W x 4'D each), securable.	U	1	288	288
Shared Bicycle Parking Sum							288
8 Shared, Secure Parking Total							11,328
Component Gross Area (@ 2.0)							22,656

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11.2 Class D Cost Estimate

REVISED CLASS D ESTIMATE

ESQUIMALT PUBLIC SAFETY BUILDING
500 PARK PLACE, ESQUIMALT, VICTORIA, BC

June 09, 2020

**Prepared by
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- A ELEMENTAL COST ANALYSIS
- B ESTIMATE BACKUP SHEETS

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Advicas Project No. 2020040

INTRODUCTION

This report sets out the estimate of project cost for the proposed Esquimalt Public Safety Building at 500 Park Place, Esquimalt, Victoria, BC.

Project Description

The project consists of the removal of the existing public safety building at 500 Park place and the construction of a new three storey over a single level of underground parking combined post disaster police and fire department building with a commercial retail space and associated site development.

Gross Floor Area

The gross floor area¹ is:

Basement	24,880 sf
Level 1	18,753 sf
Level 2	17,382 sf
Level 3	7,072 sf
Stair Enclosure	285 sf
Training Tower	653 sf
TOTAL	69,025 sf

¹ measured to the outside face of exterior walls

ESTIMATE COSTS

The estimate costs have been developed in First Quarter 2020 dollars only and escalated to the projected construction start date of August 2021. The estimated capital construction cost is as follows:

Building	\$28,023,921	\$405.97/sf
Site Development	\$1,623,742	\$54.20/sf
TOTAL	\$29,647,663	\$429.50/sf

A breakdown of the estimate, in an elemental format, is included in Appendix A.

Estimate backup sheets are included in Appendix B.

General Requirements and Fee

The General Requirements provide for all General Contractor's costs associated with the management and supervision of the construction work in accordance with the contract documents and construction schedule. Typical costs include site superintendent/foreman, site set up and demobilization, temporary office and storage, temporary equipment including crane, first aid facilities, bonding, and construction insurance.

The General Contractor's Fee includes office expenses, profit, and attendance on building sub trades; and profit on own forces work.

Escalation

The estimate is priced at a known market price level, seen on Vancouver Island as at January 01, 2020 (prior to the impact of COVID-19).

Escalation during Construction Period – the estimate, as is typical, includes any cost increases incurred by the contractor/sub-contractor, and suppliers in conforming to contractor/supplier timelines dictated by the construction schedule. These increases are built into the respective detailed unit rate costs.

Future Escalation – the has been included in the above estimate costs for cost escalation based on values given in Table 1 below, incurred between July 01, 2020 and projected construction start date of August 1, 2021.

COVID-19 Premium – we are all very much aware of the impact of the COVID-19 virus, and the mandated and recommended regulations introduced by the government to protect the health and safety of all in overcoming this challenge.

We have seen over the past four years a market trend reflecting an annual increase in market price levels in the order of 10% per annum. The advent of COVID-19 has had a major impact on the construction industry. While continuing as a deemed essential service, the new government regulations, and guidelines, carried onto the construction site, has translated into the need to adapt the process of construction completion. This will, and has, attracted additional costs. New items introduced into the construction process have included:

- The requirement for limited sub trades/sub-trade personnel on the site at any one time to maintain/ensure social distancing. This has caused suspected inefficiencies in performance of the work, ultimately adding time to work completion. The overall construction completion schedule will lengthen, attracting an increase in the General Contractor's overall supervision and management costs. The trades themselves, through managing inefficiencies, will incur additional cost.
- The limited sub-trade personnel on site will cause all trades to revise their internal schedule to meet their obligations on all projects. We expect this will necessitate the need to build in flexibility on a trade's attendance timeline on site, again lengthening the construction schedule, attracting additional supervision and management costs.
- The setup of wash station facilities on site to provide workers with the necessary facilities to wash hands, sterilize, etc.; employment of staff dedicated to providing ongoing cleaning and sterilization of site offices, equipment, etc. as necessitated throughout the construction.
- Screening of all personnel coming onto site each day.

We have seen a major reduction in projects out on the street requesting tender. From industry bulletins and media, we have noted projects ready for tender, but placed on hold until the market becomes more certain. This situation, sustained over a period, will cause a move in supply and demand, driving down tender prices. This period may happen through continued uncertainty caused by a potential second COVID-19 wave. Developers will also be hesitant in releasing their project onto the street until they are confident that the demand still exists, and it has not reduced or moved.

Viewing the above, we would expect an initial increase in tender price reflecting conformance with the new COVID-19 site protocol. Contractors and sub-trades suppliers currently remain busy from all projects started prior to the COVID-19 outbreak, and therefore the typical lag seen in response time to the new market condition will not take hold until say fourth quarter 2020/first quarter 2021. Thereafter, we expect a downturn in tender price levels followed by a slow return to the Island average norm.

The table below gives the appropriate escalation levels to be incorporated into the estimate – Table 1, accounting for escalation incurred between the time period - January 01, 2020 and the anticipated Construction Start date (total annual escalation percentages compounded over that time period).

Our viewpoint on movement in construction market price levels given the COVID-19 protocol, and assumptions on a future trend in projects released for tender, applied to the Project Cost, is presented as follows:

Table 1 - BUDGET ADJUSTMENT – APPLIED FOR FUTURE ADJUSTMENT IN PROJECT COST

	COVID-19 PREMIUM	CONSTRUCTION MARKET PRICE INCREASE	TOTAL ESCALATION ON CONSTRUCTION COST
2020 – to Mar 11th	0%	0%	0%
2020 – beyond Mar 11th	+11.3%	0%	+11.3%
2021 – Jan to Jun	-1.0%	-19.0%	-20.0%
2021 – Jul to Dec	-1.0%	+2.0%	+1.0%
2022	-1.0%	+1.5%	+0.5%
2023	0%	+1.5%	+1.5%
2024	0%	+2.0%	+2.0%
2025	0%	+2.5%	+2.5%

Note: Island average norm 3.5%, equated over the past thirty five years of construction.

BASIS OF THE ESTIMATE

We have assumed that the work will be tendered competitively in one contract.

In all cases the estimates are based upon our assessment of fair value for the work to be carried out. We define fair value as the amount a prudent contractor, considering all aspects of the project, would quote for the work. We expect our estimate to be in the middle of the bid range to ensure that funding for the work remains adequate for the duration of the project.

It should be noted that Advicas Group Consultants Inc. does not have control over the cost of labour, materials, or equipment, over the Contractor's methods of determining bid prices, or over competitive market conditions. We define competitive conditions in the project as attracting a minimum of three general contractors' bids with a minimum of two sub-trade tenders, and suppliers' tenders, within each of the sub-trade categories. Accordingly, Advicas Group Consultants Inc. cannot and does not warrant or represent that bids will not vary from the estimate.

The current construction market is extremely active, bringing with it a volatility in tender price levels. We have seen tenders exceeding budget where there has been a single general contractor bid, or suspected single sub-trade, or supplier bid. Whilst we endeavor to gauge the developing market conditions, it is not always possible to predict industry interest in this project, and the potential for a poor, uncompetitive, response.

Contingency Reserves

Contingency is an allowance specifically identified within our elemental cost analysis to meet unforeseen circumstances and represents an assessment of the financial risk relating to this project. As detailed design information becomes available, this risk will diminish, and the contingency allowances will accordingly reduce.

Design contingency is introduced into the estimated cost at the earliest estimate stage and is a measurement of the amount and detail of the design information available. As the design develops and systems and material selections are fixed, the amount of the contingency allowance is reduced and is absorbed into the measured elements. On completion of contract documents, at tender stage, the allowance is normally reduced to zero.

Our determination of this risk level and the amount of the contingency allowance is the result of many years of cost planning, on over 4,000 construction projects, and of monitoring the increasing design information that occurs during the design phase. The design contingency is not a discretionary cost element.

A design contingency allowance has been included, calculated at 10% of the construction costs, to provide for unforeseen items arising during the design phase.

No allowance has been made for construction contingency. This typically provides for unforeseen items arising during the construction period – such as field conditions, coordination discrepancies – which will result in change orders and extra costs to the contract, other than changes in scope.

No allowance has been made for project contingency. This is a contingency, held by the Client, to be used at his discretion to fund specific Client driven changes to the project scope, conditions, etc.

Exclusions

The following items are excluded from the capital construction cost:

- Loose furniture, fittings, and equipment including:
 - Office furniture and equipment
 - Artwork, artifacts, or murals
 - Audio visual and media equipment, projection screens
 - Chalkboards, tackboards, and whiteboards
 - Refuse containers, waste bins, etc.
 - Cable TV equipment, wiring, jacks
 - Televisions
 - Telephone equipment, wiring, jacks
 - Computer hubs
 - Computers, server
 - Vending machines
- Decanting and relocating staff, and removal and relocation of loose furniture, fittings, and equipment from the existing public safety building prior to demolition
- Solar hot water system
- Water storage tank
- Site fencing
- Separate prices
- Client Administration costs
- Clerk of Works
- Client Project Manager
- Land acquisition costs
- Offsite costs
- Material testing
- Premium costs associated with environmental contaminants
- Traffic study costs
- Survey fees
- Financing costs
- Legal fees
- Client Insurances costs
- Development cost charges
- Development permit fees
- Phasing of the work
- Out of hours working
- Consultants' fees and expenses
- Construction contingency
- Project contingency
- GST

Taxes

GST is excluded from the estimate.

PST at 7% is included in the estimate.

Documentation

The estimate is based on the following:

- HCMA Architecture + Design
 - EPSB - Floor Plans Drawings dated May 11, 2020 Received May 12, 2020
 - Project description of the Esquimalt Public Safety Building Received May 24, 2020
- Comments on Class D estimate dated May 29, 2020 by HCMA team received between June 01, 2020 and June 08, 2020
- Emails and telephone discussions with the design team during the preparation of the estimate

APPENDIX A

ELEMENTAL COST ANALYSIS

ELEMENTAL COST ANALYSIS

PROJECT: Esquimalt Public Safety Building
500 Park Place, Esquimalt, BC

DATE: 9-Jun-20

TYPE OF ESTIMATE: Class D

GROSS FLOOR AREA: 69,029 sf

ELEMENT	RATIO G.F.A.	ELEMENT QUANTITY	UNIT	UNIT RATE	ELEMENT COST	COST / FLOOR AREA sf	TOTAL COST	%
A1 SUBSTRUCTURE							54.70	3,775,900 13.5%
A11 Standard Foundations	0.41	28,040	sf	39.66	1,112,000	16.11		4.0%
A12 Special Foundations	0.41	28,040	sf	42.80	1,200,000	17.38		4.3%
A13 Basement Excavation	0.24	16,563	cy	88.39	1,463,900	21.21		5.2%
A2 STRUCTURE							73.71	5,088,300 18.2%
A21 Lowest Floor Construction	0.36	24,875	sf	13.05	324,700	4.70		1.2%
A22 Upper Floor Construction	0.64	44,143	sf	61.60	2,719,100	39.39		9.7%
A23 Stair Construction	0.00	177	lf	1549.40	274,500	3.98		1.0%
A24 Roof Construction	0.39	27,125	sf	65.25	1,770,000	25.64		6.3%
A3 EXTERIOR ENCLOSURE							73.72	5,089,000 18.2%
A31 Structural Walls Below Main Fl	0.15	10,516	sf	60.38	635,000	9.20		2.3%
A32 Walls Below Main Floor	0.15	10,516	sf	9.05	95,200	1.38		0.3%
A33 Structural Walls Above Main Fl	0.13	8,805	sf	55.74	490,800	7.11		1.8%
A34 Walls Above Main Floor	0.40	27,416	sf	64.88	1,778,700	25.77		6.3%
A35 Windows	0.11	7,546	sf	107.53	811,400	11.75		2.9%
A36 Doors & Glazed Screens	0.00	19	lvs	5947.37	113,000	1.64		0.4%
A37 Roof Covering	0.39	27,125	sf	36.19	981,600	14.22		3.5%
A38 Roof Glazing								
A39 Projections	0.04	2,637	sf	69.51	183,300	2.66		0.7%
B1 PARTITIONS & DOORS							28.58	1,973,000 7.0%
B11 Fixed Partitions	0.81	56,015	sf	22.35	1,251,800	18.13		4.5%
B12 Structural Partitions	0.12	8,288	sf	55.74	462,000	6.69		1.6%
B13 Movable Partitions	0.01	603	sf	61.55	37,100	0.54		0.1%
B14 Internal Doors	0.00	137	lvs	1621.17	222,100	3.22		0.8%
B2 INTERIOR FINISHES							12.22	843,500 3.0%
B21 Floor Finishes	0.94	64,627	sf	3.98	257,300	3.73		0.9%
B22 Ceiling Finishes	0.94	64,627	sf	3.96	255,700	3.70		0.9%
B23 Wall Finishes	2.18	150,479	sf	2.20	330,500	4.79		1.2%
B3 FITTINGS & EQUIPMENT							12.60	869,500 3.1%
B21 Fittings and Fixtures		69,029	sf	5.93	409,500	5.93		1.5%
B22 Equipment		69,029	sf	3.77	260,000	3.77		0.9%
B33 Conveying Systems	0.00	4	stops	50000.00	200,000	2.90		0.7%
C1 MECHANICAL SYSTEMS							63.69	4,396,400 15.7%
C11 Plumbing and Drainage		69,029	sf	10.72	740,100	10.72		2.6%
C12 Fire Protection		69,029	sf	4.95	341,600	4.95		1.2%
C13 HVAC		69,029	sf	42.44	2,929,900	42.44		10.5%
C14 Controls		69,029	sf	5.57	384,800	5.57		1.4%
C2 ELECTRICAL SYSTEMS							34.69	2,394,300 8.5%
C21 Service & Distribution		69,029	sf	7.44	513,300	7.44		1.8%
C22 Lighting, Devices & Heat		69,029	sf	11.26	777,400	11.26		2.8%
C23 Systems		69,029	sf	15.99	1,103,600	15.99		3.9%
Z GENERAL REQUIREMENTS & ALLOWANCES							70.36	4,856,664 17.3%
Z11 General Requirements					2,687,289	38.93		9.6%
Z12 Fee					2,169,375	31.43		7.7%
Z21 DESIGN CONTINGENCY							42.43	2,928,656 10.5%
Z22 ESCALATION CONTINGENCY							-60.72	(4,191,300)
GST EXCLUDED								
BUILDING COST: Current \$				Excluding GST		405.97	\$28,023,921	

ELEMENTAL COST ANALYSIS

PROJECT: Esquimalt Public Safety Building 500 Park Place, Esquimalt, BC			DATE: 9-Jun-20	
TYPE OF ESTIMATE: Class D			GROSS FLOOR AREA: 69,029 sf	

ELEMENT	RATIO G.F.A.	ELEMENT QUANTITY	UNIT	UNIT RATE	ELEMENT COST	COST / FLOOR AREA sf	TOTAL COST	%
D1 SITE DEVELOPMENT								
D11 General Sitework		29,956	sf	31.16	933,300	31.16	47.25	1,415,500
D12 Mechanical Site Services		29,956	sf	2.84	85,000	2.84		
D13 Electrical Site Services		29,956	sf	13.26	397,200	13.26		
Z GENERAL REQUIREMENTS & ALLOWANCES								
Z11 General Requirements					155,705	5.20	9.39	281,401
Z12 Fee					125,696	4.20		
Z21 DESIGN CONTINGENCY								
Z22 ESCALATION CONTINGENCY							5.66	169,690
							-8.11	(242,849)
GST EXCLUDED								

SITE DEVELOPMENT COST: Current \$	Excluding GST	54.20	\$1,623,742
CONSTRUCTION COST: Current \$	Excluding GST	429.50	\$29,647,663

NOTES:

D2 ALTERN. & DEMOLITION

D22 Alterations
D21 Demolitions

Z GENERAL REQUIREMENTS & ALLOWANCES

Z11 General Requirements
Z12 Fee

Z21 DESIGN CONTINGENCY
Z22 ESCALATION CONTINGENCY

GST EXCLUDED

ALTNS & DEMO COST: Current \$	Excluding GST
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NOTES:

Building	\$28,023,921	\$405.97 /sf
Site Development	\$1,623,742	\$54.20 /sf
Alterations & Demolition		
Total Current \$	<u>\$29,647,663</u>	<u>\$429.50 /sf</u>

APPENDIX B

ESTIMATE BACKUP SHEETS

A1 SUBSTRUCTURE	QUANTITY	UNIT	RATE	COST
A11 Standard Foundations	28,040	sf	\$39.66	\$1,112,000
Standard concrete strip and pad footings including reinforcement, formwork, excavation, backfill, dampproofing, insulation, in slab on grade condition	28,040	sf	\$37.16	\$1,042,000
Premium over foundations for footings by existing building	197	lf	\$304.80	\$60,000
Premium over foundations for elevator pit	1	item	\$10,000.00	\$10,000
A12 Special Foundations	28,040	sf	\$42.80	\$1,200,000
Soil/ rock anchors allowance	1	item	\$1,200,000.00	\$1,200,000
A13 Basement Excavation	16,563	cy	\$88.39	\$1,463,900
Excavate for basement and remove, existing rock 1m below	16,563	cy	\$58.11	\$962,388
Premium over excavation for excavating by existing building	1,070	cy	\$63.46	\$67,894
Backfill excavation with imported engineered fill	1,881	cy	\$53.52	\$100,660
Shotcrete and soil anchors shoring to sides of excavation at proximity to existing roads	1,991	sf	\$167.23	\$333,000
A2 STRUCTURE	QUANTITY	UNIT	RATE	COST
A21 Lowest Floor Construction	24,875	sf	\$13.05	\$324,700
Concrete slab on grade including placement and finish, screed and cure, reinforcement, rigid insulation, moisture barrier, expansion and contraction joints	24,875	sf	\$12.08	\$300,430
150mm structural fill to underside of slab	454	cy	\$53.52	\$24,290
A22 Upper Floor Construction	44,143	sf	\$61.60	\$2,719,100
Suspended concrete floor structure including columns, beams, and slab bands, reinforcement and formwork @ Level 1	10,398	sf	\$52.03	\$540,960
Suspended concrete floor structure including columns, beams, and slab bands, reinforcement and formwork @ Apparatus Bay - Level 1	8,353	sf	\$55.28	\$461,720
Premium over suspended concrete floor structure for trench drain @ Apparatus Bays	220	lf	\$60.96	\$13,400
Premium over suspended concrete floor structure for sloped area @ Apparatus Bays	2,099	sf	\$4.65	\$9,750
Premium over suspended concrete floor structure for step	92	lf	\$457.20	\$42,000
Suspended wood floor structure including columns and beams, CLT and concrete topping	25,392	sf	\$65.03	\$1,651,300
A23 Stair Construction	177	lf	\$1,549.40	\$274,500
1.2m wide concrete/ steel stairs structure and half landings including railings and finish - @ North - total rise	56	lf	\$1,524.00	\$85,000
1.2m wide concrete/ steel stairs structure and half landings including railings and finish - @ GL L-9 - total rise	20	lf	\$1,524.00	\$30,000
1.2m wide concrete/ steel stairs structure and half landings including railings and finish - @ GL C-5 - total rise	16	lf	\$1,524.00	\$25,000
1.2m wide concrete/ steel straight flight stairs and intermediate landings including railings and finish - @ GL C-5, total rise	16	lf	\$1,676.40	\$27,500
1.2m wide concrete/ steel straight flight stairs and intermediate landings including railings and finish - @ GL E-6, total rise	13	lf	\$1,676.40	\$22,000

Class D

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1.2m wide steel stair structure including treads, risers and landings - @ East
(GL L-8) total rise

56 lf \$1,524.00 \$85,000

A24 Roof Construction 27,125 sf \$65.25 \$1,770,000

Suspended flat concrete roof structure including columns, beams, slab bands, reinforcement and formwork - <u>Roof over Basement</u>	5,436	sf	\$55.28	\$300,475
Suspended wood roof structure including glulam columns and beams and CLT - <u>Roof @ Level 2</u>	3,800	sf	\$61.32	\$232,980
Suspended wood roof structure including glulam columns and beams and CLT - <u>Roof @ Level 3</u>	10,215	sf	\$61.32	\$626,340
Suspended wood roof structure including glulam columns and beams and CLT - <u>Main Roof</u>	6,135	sf	\$61.32	\$376,200
Suspended wood roof structure including glulam columns and beams and CLT - <u>Atrium Roof</u>	603	sf	\$61.32	\$36,960
Suspended flat concrete roof slab and slab bands including formwork and reinforcement - Stair @ North	280	sf	\$30.66	\$8,580
Suspended flat steel roof structure including columns, beams, secondary beams and decking - Training Tower @ South	657	sf	\$85.47	\$56,120
Concrete ramp to basement including curbs, line markings, etc. - area on plan	1,938	sf	\$68.28	\$132,300

A3 EXTERIOR ENCLOSURE QUANTITY UNIT RATE COST

A31 Structural Walls Below Main Floor 10,516 sf \$60.38 \$635,000

Concrete wall including reinforcement and formwork	10,516	sf	\$55.74	\$586,200
Premium over concrete wall for work against existing buildings	2,626	sf	\$18.58	\$48,800

A32 Walls Below Main Floor 10,516 sf \$9.05 \$95,200

Waterproofing and rigid insulation to external face of wall	10,516	sf	\$7.90	\$83,045
Premium over waterproofing and rigid insulation for work against existing buildings	2,626	sf	\$4.65	\$12,200

A33 Structural Walls Above Main Floor 8,805 sf \$55.74 \$490,800

Concrete shear walls - Allowance	8,805	sf	\$55.74	\$490,800
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A34 Walls Above Main Floor 27,416 sf \$64.88 \$1,778,700

Brick veneer cladding and connectors, air space, rigid insulation, AV membrane, exterior gypsum sheathing, steel studs, batt insulation, interior gypsum wallboard	16,329	sf	\$62.25	\$1,016,390
Brick veneer cladding and connectors, air space, rigid insulation, AV membrane, concrete wall (see above), furring channels and interior gypsum wallboard	11,076	sf	\$53.88	\$596,820
Galvanized vertical steel grating @ Training tower - Allowance	1,345	sf	\$6.04	\$8,123
Scaffolding allowance	27,405	sf	\$6.04	\$165,490

A35 Windows 7,546 sf \$107.53 \$811,400

Aluminum thermally broken windows or curtain wall with argon filled, low E, tinted double glazing including flashings and caulking	7,546	sf	\$104.52	\$788,625
Premium cost for opening lights - Allowance	38	no.	\$600.00	\$22,800

A36 Doors & Glazed Screens 19 lvs \$5,947.37 \$113,000

Class D

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Aluminum double glazed, thermally broken door and frame including hardware: Pair	4	prs.	\$4,800.00	\$19,200
Aluminum double glazed, thermally broken door and frame including hardware: Single	1	lvs.	\$2,400.00	\$2,400
Metal door and frame including hardware and finish: Single	6	lvs.	\$1,900.00	\$11,400
Fully glazed overhead sectional doors @ Apparatus Bays	4	no.	\$19,000.00	\$76,000
Premium for automatic opener - allowance	1	no.	\$4,000.00	\$4,000

A37 Roof Covering	27,125	sf	\$36.19	\$981,600
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2 ply roofing membrane including insulation, vapour barrier and protection board	27,125	sf	\$19.97	\$541,800
Asphalt/ concrete topping on roof over basement	5,436	sf	\$18.58	\$101,000
500mm high steel stud parapets with brick veneer cladding	1,096	lf	\$169.16	\$185,370
500mm high steel stud parapets with brick veneer cladding	328	lf	\$147.07	\$48,250
Premium over roofing for roof patio on Level 2 - paving and railing @ Roof Level 2	667	sf	\$27.87	\$18,600
Roof/wall intersection	827	lf	\$47.24	\$39,060
Roof access @ Training Tower - allowance	1	no.	\$5,000.00	\$5,000
Premium over roof membrane for M&E equipment - allowance	1	sum	\$5,000.00	\$5,000
Roof scuppers - Allowance	12	no.	\$500.00	\$6,000
Roof anchors - Allowance	21	no.	\$1,500.00	\$31,500

A38 Roof Glazing

Nil

A39 Projections	2,637	sf	\$69.51	\$183,300
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Exterior finish to exposed soffits	1,970	sf	\$18.58	\$36,600
Canopy @ Patio - allowance	667	sf	\$125.42	\$83,700
Sun shade to East and South - allowance	344	lf	\$182.88	\$63,000

B1 PARTITIONS & DOORS	QUANTITY	UNIT	RATE	COST
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B11 Fixed Partitions	56,015	sf	\$22.35	\$1,251,800
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Steel studs @ 400 o.c., acoustic batt, gypsum wallboard both sides	27,340	sf	\$12.54	\$342,900
Concrete block partition, gypsum wallboard including furring both sides	14,736	sf	\$31.59	\$465,460
Concrete block partition	13,939	sf	\$21.37	\$297,850
Premium over steel studs partitions for glazed walls	2,099	sf	\$65.03	\$136,500
Metal handrail and glazed balustrades to atrium openings	46	lf	\$198.12	\$9,100

B12 Structural Partitions	8,288	sf	\$55.74	\$462,000
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Concrete shear walls - Allowance	8,288	sf	\$55.74	\$462,000
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B13 Movable Partitions	603	sf	\$61.55	\$37,100
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Acoustic folding partition including track and hardware @ Exhibit processing Level 1 & Project Room Level 2	603	sf	\$55.74	\$33,600
Structural bulkhead	46	lf	\$76.20	\$3,500

B14 Internal Doors	137	lvs	\$1,621.17	\$222,100
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Aluminum glazed door and frame including hardware: Pair	2	prs.	\$4,000.00	\$8,000
Aluminum glazed door and frame including hardware: Single	1	lvs.	\$2,000.00	\$2,000
Metal door and frame including hardware and finish: Single	13	lvs.	\$1,600.00	\$20,800
Solid core wood door and metal frame including hardware, and finish: Pair	1	prs.	\$2,010.00	\$2,010
Solid core wood door and metal frame including hardware, and finish: Single	115	lvs.	\$1,300.00	\$149,500

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Metal overhead door including track, hardware and finish	2	no.	\$5,100.00	\$10,200
Premium for glazed lights - allowance	23	no.	\$200.00	\$4,600
Premium for detention grade doors and hardware - allowance	1	sum	\$25,000.00	\$25,000
Premium for automatic door opener				Excluded

B2 INTERIOR FINISHES	QUANTITY	UNIT	RATE	COST
B21 Floor Finishes	64,627	sf	\$3.98	\$257,300
Sheet vinyl flooring/ carpet	23,207	sf	\$5.11	\$118,580
Concrete sealer	30,570	sf	\$1.86	\$56,800
Ceramic tiling	1,496	sf	\$13.94	\$20,850
Polished concrete and sealer	6,674	sf	\$5.11	\$34,100
Resilient sports flooring	1,238	sf	\$8.36	\$10,350
Un-finish floor to commercial space	1,442	sf		
Rubber base	6,411	lf	\$1.52	\$9,770
Ceramic base	702	lf	\$7.62	\$5,350
Entrance mat	1	no.	\$1,500.00	\$1,500
B22 Ceiling Finishes	64,627	sf	\$3.96	\$255,700
Suspended gypsum board, painted	1,496	sf	\$8.36	\$12,510
Clear finish/ paint exposed structure	45,424	sf	\$2.09	\$94,950
Clear finish/ paint exposed structure - high level	10,064	sf	\$3.48	\$35,063
Acoustic T-bar	6,200	sf	\$4.65	\$28,800
Un-finish ceiling to commercial space	1,442	sf		
Insulation to underside of parkade slab	18,751	sf	\$4.18	\$78,390
Gypsum board bulkheads - allowance	1	sum	\$6,000.00	\$6,000
B23 Wall Finishes	150,479	sf	\$2.20	\$330,500
Painted finish	139,403	sf	\$1.39	\$194,265
Ceramic tiling	8,697	sf	\$13.94	\$121,200
Un-finish wall to commercial space	2,379	sf		
Allow for special finishes	1	sum	\$15,000.00	\$15,000

B3 FITTINGS & EQUIPMENT	QUANTITY	UNIT	RATE	COST
B21 Fittings and Fixtures	69,029	sf	\$5.93	\$409,500
Millwork:				
Solid surface counter top with storage below and upper cabinets - allowance	1	sum	\$60,000.00	\$60,000
Vanity counter @ W/C and Sink area - allowance	1	sum	\$10,000.00	\$10,000
Shelving - allowance	1	sum	\$30,000.00	\$30,000
Bench @ Touchdown Alcove, Workshop, SCBA - allowance	1	sum	\$6,000.00	\$6,000
Reception desk @ Police & Fire Reception Level 1	2	item	\$15,000.00	\$30,000
Washroom accessories in Public WC Level 1	1	loc.	\$1,650.00	\$1,650
Washroom accessories in Staff WC Level 1 & 2 & 3	6	loc.	\$1,150.00	\$6,900
Washroom accessories in Decon WC Level 1	1	loc.	\$2,100.00	\$2,100
Washroom accessories in EOC WC Level 2	1	loc.	\$1,550.00	\$1,550
Specialties:				
Gear lockers @ Turnout Gear Level 1	34	no.	\$1,000.00	\$34,000
Full-height lockers @ Traffic Officer Gear Room, Lockers/ Showers Change and Lockers Room	87	no.	\$400.00	\$34,800
Half-height lockers @ Duty Bag Storage Room & Personal storage cubbies	71	no.	\$250.00	\$17,750
Mailing boxes - allowance	1	no.	\$1,500.00	\$1,500
Entrance mat	1	no.	\$1,500.00	\$1,500
Window covering - allowance	1	sum	\$70,100.00	\$70,100
Corner guards & wall protection @ Apparatus bay - allowance	1	sum	\$7,500.00	\$7,500
Vertical bike parking systems in basement	24	no.	\$500.00	\$12,000
White boards				Excluded
Loose Furniture - excluded				Excluded

Class D

DATE: 9-Jun-20

Metals:

Trench drain grates @ Apparatus	220	lf	\$76.20	\$16,750
Security gate in basement	1	sum	\$15,000.00	\$15,000
Miscellaneous:				
Interior signage - allowance	1	item	\$12,000.00	\$12,000
Tactile warning strips @ Stair - allowance	1	sum	\$3,400.00	\$3,400
Premium for detection grade fixtures	1	sum	\$25,000.00	\$25,000
Mirrors in Gym/ Fitness Studio	1	sum	\$10,000.00	\$10,000

B22 Equipment **69,029** **sf** **\$3.77** **\$260,000**

Kitchen equipment - allowance	1	sum	\$60,000.00	\$60,000
Gym/ Fitness equipment	1	sum	\$200,000.00	\$200,000

B33 Conveying Systems **4** **stops** **\$50,000.00** **\$200,000**

Passenger elevator	4	stops	\$50,000.00	\$200,000
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C1 MECHANICAL SYSTEMS **QUANTITY** **UNIT** **RATE** **COST**

C11 Plumbing and Drainage **69,029** **sf** **\$10.72** **\$740,100**

Perimeter drainage	1	sum	\$15,300.00	\$15,300
Storm drain	1	sum	\$20,400.00	\$20,400
Area drains in parkade	6	no.	\$15,600.00	\$93,600
Trench drain to parkade	1	sum	\$3,000.00	\$3,000
Oil/grit interceptor in parkade	1	sum	\$15,000.00	\$15,000
Storm sump and pump in parkade	1	sum	\$12,000.00	\$12,000
Foundation drainage	1	sum	\$10,000.00	\$10,000
Roof drains	1	sum	\$11,240.00	\$11,240
Trench drain sump	1	sum	\$10,500.00	\$10,500
Trench drain	1	sum	\$28,525.00	\$28,525
Sanitary fixtures	1	sum	\$300,000.00	\$300,000
Floor drains	1	sum	\$14,300.00	\$14,300
Area drains	1	sum	\$2,000.00	\$2,000
Hose bibbs	1	sum	\$3,600.00	\$3,600
Rough-in for clothes washer and dishwasher	1	sum	\$3,000.00	\$3,000
Domestic water tanks	1	sum	\$75,000.00	\$75,000
Pumps	1	sum	\$26,000.00	\$26,000
Expansion tanks	1	sum	\$18,100.00	\$18,100
Storage tanks	3	no.	\$9,500.00	\$28,500
Solar hot water system - Deleted	1	sum		
Gas piping				
Compressed air system				
Rain water harvesting	1	sum	\$50,000.00	\$50,000

C12 Fire Protection **69,029** **sf** **\$4.95** **\$341,600**

Fire sprinklers to parkade	1	sum	\$123,300.00	\$123,300
Fire sprinklers to over hangs a, exposed soffits and canopy	1	sum	\$12,000.00	\$12,000
Fire sprinklers to Levels 1, 2 & 3	1	sum	\$197,300.00	\$197,300
100mm Dry Standpipe for Training Purposes	1	sum	\$9,000.00	\$9,000

C13 HVAC **69,029** **sf** **\$42.44** **\$2,929,900**

Underground Parking				
Heating and ventilation	1	sum	\$37,000.00	\$37,000
Ductwork and accessories	1	sum	\$65,000.00	\$65,000
Parking carbon monoxide and nitrogen dioxide detection system	1	sum	\$6,000.00	\$6,000
Elevator machine room exhaust	1	sum	\$1,500.00	\$1,500
Mechanical contractor's general condition	1	sum	\$25,000.00	\$25,000
Apparatus Bay				
In-floor radiant heating	1	sum	\$25,000.00	\$25,000

Class D

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Packaged rooftop HRV with hydronic heating coil	1	sum	\$30,000.00	\$30,000
Specialty exhaust extraction system to include rooftop utility-style upblast fan (Greenheck USF series), interior exhaust ductwork, exhaust rails, telescoping flexible duct drops with electromagnetic truck attachments, packaged controls system	1	sum	\$250,000.00	\$250,000
Commercial Space				
Heating, cooling and ventilation	1	sum	\$25,000.00	\$25,000
Community Access Centre				
Heating, cooling and ventilation	1	sum	\$102,000.00	\$102,000
Capital Regional District Space				
Heating, cooling and ventilation	1	sum	\$15,500.00	\$15,500
Community Safety Services Space				
Heating, cooling and ventilation	1	sum	\$35,000.00	\$35,000
Police Services				
Heating, cooling and ventilation	1	sum	\$685,000.00	\$685,000
Fire Services Space				
Heating, cooling and ventilation	1	sum	\$920,000.00	\$920,000
Shared Support Spaces				
Heating, cooling and ventilation	1	sum	\$95,000.00	\$95,000
Shared Building Support Spaces				
Heating, cooling and ventilation	1	sum	\$25,000.00	\$25,000
Ductwork and accessories	1	sum	\$239,160.00	\$239,160
Allowance for miscellaneous	1	sum	\$100,000.00	\$100,000
Mechanical contractor's general conditions	1	sum	\$248,700.00	\$248,700

C14 Controls	69,029	sf	\$5.57	\$384,800
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Mechanical controls	1	sum	\$384,780.00	\$384,780
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C2 ELECTRICAL SYSTEMS

QUANTITY UNIT RATE COST

C21 Service & Distribution	69,029	sf	\$7.44	\$513,300
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Service and Distribution:

MDP-6MDP - 1200A 600/347V 3p 4w	1	no.	\$30,000.00	\$30,000
CDP - 1200A 600/347V 3p 4w	2	no.	\$10,000.00	\$20,000
SCDP - 400A 600/347V 3p 4w	2	no.	\$8,000.00	\$16,000
MCC	2	no.	\$8,000.00	\$16,000
Installation for above distribution equipment	1	sum	\$57,400.00	\$57,400

Transformers:

30kVA 600/347V - 208/120V	4	no.	\$2,600.00	\$10,400
Installation for above transformer	4	no.	\$1,689.10	\$6,756
45kVA 600/347V - 208/120V	2	no.	\$3,100.00	\$6,200
Installation for above transformer	2	no.	\$1,900.00	\$3,800
225kVA 600/347V - 208/120V	2	no.	\$7,325.00	\$14,650
Installation for above transformer	2	no.	\$2,615.37	\$5,231

Panels:

225A 42CCT	20	no.	\$2,250.00	\$45,000
Installation for panel	20	no.	\$3,800.00	\$76,000

Feeders:

Allowance for feeders for above panels	1	sum	\$84,000.00	\$84,000
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Mechanical Connections:

connections, disconnects, starters, conduit & wire	1	sum	\$121,847.00	\$121,847
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C22 Lighting, Devices & Heat	69,029	sf	\$11.26	\$777,400
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Building

Lighting:

Fixtures, installation, Conduit & Wire	42,474	sf	\$6.50	\$276,220
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Exterior Lighting:

Fixtures, installation, Conduit & Wire	11	sf	\$2,566.19	\$27,622
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Emergency Lighting:

Exit lighting, Emergency lighting, batt, Conduit & Wire	42,474	sf	\$0.74	\$31,568
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Switching:

OCC, LV switch, Switching, Dimmer, Conduit & Wire	42,474	sf	\$1.58	\$67,082
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Receptacles:				
Duplex, T-slot, GFI, Quad, Conduit & Wire	42,474	sf	\$2.79	\$118,380
Minor Electrical & Mechanical Connections:				
Minor Electrical & Mechanical Connections	1	sum	\$59,190.60	\$59,191
Parking				
Lighting:				
Fixtures, installation, Conduit & Wire	26,555	sf	\$5.11	\$135,685
Emergency Lighting:				
Exit lighting, Emergency lighting, batt, Conduit & Wire	26,555	sf	\$0.46	\$12,335
Switching:				
OCC, LV switch, Switching, Dimmer, Conduit & Wire	26,555	sf	\$0.93	\$24,670
Receptacles:				
Duplex, T-slot, GFI, Quad, Conduit & Wire	26,555	sf	\$0.93	\$24,670

C23 Systems	69,029	sf	\$15.99	\$1,103,600
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Fire Alarm system:				
Panel & Annunciator, Pull Station etc. Conduit & Wire	1	sum	\$89,782.00	\$89,782
Cable Tray:				
Cable tray, Corners, Tee's - Conduit & Wire	1	sum	\$12,500.00	\$12,500
Data/Tel:				
Data/tell drops - vertical conduit rough-in's back box	300	no.	\$32.50	\$9,750
3 meters per point for containment drops	2,953	lf	\$4.86	\$14,346
Horizontal copper/copper back bone	1	sum	\$60,000.00	\$60,000
Port faceplate/Test and label	150	no.	\$18.26	\$2,739
Wireless points	10	no.	\$750.00	\$7,500
Management:				
Rack - UPS	2	no.	\$2,500.00	\$5,000
Cable management	8	no.	\$250.00	\$2,000
Port patch panel - Bix, Voice and Data	6	no.	\$1,500.00	\$9,000
Data Switch	6	no.	\$1,500.00	\$9,000
Power supply	12	no.	\$350.00	\$4,200
Additional cost for Management	1	sum	\$11,680.00	\$11,680
Grounding bus bars	2	no.	\$475.00	\$950
Access Control/Security System:				
To exterior doors - conduit & wire	30	no.	\$5,000.00	\$150,000
Additional security	69,029	sf	\$0.93	\$64,130
CCTV:				
Camera	25	no.	\$2,500.00	\$62,500
Installation of cameras	25	no.	\$475.00	\$11,875
Brackets for cameras	25	no.	\$500.00	\$12,500
Camera licenses	25	no.	\$500.00	\$12,500
CAT6 A in 21mm C	2,461	lf	\$8.53	\$21,000
CCTV workstation	1	sum	\$15,000.00	\$15,000
Management:				
Rack - UPS	1	no.	\$2,500.00	\$2,500
Cable management	8	no.	\$150.00	\$1,200
Port patch panel	2	no.	\$1,500.00	\$3,000
Momentary Switch	1	no.	\$500.00	\$500
Power supply	2	no.	\$350.00	\$700
CAT 6A patch panel cords	1	sum	\$2,500.00	\$2,500
NVR & additional equipment	1	sum	\$10,000.00	\$10,000
Public Address System:				
Equipment, Speakers, Conduit & Wire	1	sum	\$96,195.00	\$96,195
General Conditions:				
Testing and commissioning of above systems	1	sum	\$199,525.40	\$199,525
General conditions for Electrical Contractor - demobilization - permits/working drawings - early design	1	sum	\$199,525.40	\$199,525

D1 SITE DEVELOPMENT	QUANTITY	UNIT	RATE	COST
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D11 General Sitework	29,956	sf	\$31.16	\$933,300
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Demolition				
Removal of existing building at 1237, 1239, 1241, 1243 Esquimalt Road				Removed
Removal of existing Public Safety Building	29,881	sf	\$13.94	\$416,400
Asbestos abatement	29,881	sf	\$11.15	\$333,120

Class D

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Remove existing asphalt	17,804	sf	\$0.93	\$16,540
Break up and remove existing cast-in-place concrete @ South	5,866	sf	\$3.25	\$19,075
Break up and remove existing concrete sidewalk @ along Park Place street	2,153	sf	\$3.25	\$7,000
Boulevard upgrade - Esquimalt Road	105	lf	\$213.36	\$22,400
Boulevard upgrade - Park Place	312	lf	\$167.64	\$52,250
Boulevard upgrade - Carlisle Avenue	98	lf	\$167.64	\$16,500
Hard and soft landscaping at North and East areas - Allowance	1	item	\$10,000.00	\$10,000
Site fixtures i.e. bike racks, flagpoles, benches etc. - Allowance	1	item	\$25,000.00	\$25,000
Exterior signage - Allowance	1	item	\$15,000.00	\$15,000

D12 Mechanical Site Services	29,956	sf	\$2.84	\$85,000
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Allowance for storm service	1	sum	\$50,000.00	\$50,000
Allowance for Sanitary service	1	sum	\$15,000.00	\$15,000
Allowance for water service	1	sum	\$20,000.00	\$20,000
Water storage tank - Deleted	1	sum		

D13 Electrical Site Services	29,956	sf	\$13.26	\$397,200
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Pad Mounted Transformer:				
Pad and grounding for transformer	1	sum	\$10,000.00	\$10,000
Generator:				
Allowance for Generator	1	sum	\$200,000.00	\$200,000
Installation for above to include Pad & Grounding	1	sum	\$30,000.00	\$30,000
Trench:				
See Civil				
Pull Box:				
Break into HYDRO and Comm.	1	no.	\$2,500.00	\$2,500
Comm & Power	1	no.	\$4,500.00	\$4,500
Conduit:				
2 -103mm conduit RVPC	164	lf	\$32.75	\$5,372
4 -103mm conduit RVPC	164	lf	\$99.30	\$16,290
Elbows, bell ends, caps adapters	1	sum	\$3,249.30	\$3,249
Site Lighting:				
Parking Lighting - X	5	no.	\$2,000.00	\$10,000
Installation	5	no.	\$570.00	\$2,850
Base	5	no.	\$550.00	\$2,750
Trenching	246	lf	\$30.48	\$7,500
Conduit & Wire	246	lf	\$16.76	\$4,125
Electric Vehicle Charging:				
EV Charging - slow charge - Conduit & Wire	5	no.	\$7,500.00	\$37,500
General Conditions:				
Testing and commissioning of above systems	1	sum	\$26,930.88	\$26,931
General conditions for Electrical Contractor - demobilization - permits/working drawings	1	sum	\$33,663.60	\$33,664
NIC				
Main Pad Mounted transformer & feeders by BC HYDRO				
Communication feeders by others				
BC Hydro, Comm. - Charges				