

CARMEL-BY-THE-SEA POLICE DEPARTMENT ASSESSMENT REPORT



Prepared by: Indigo | Hammond + Playle Architects, LLP.

Date: 10/26/2023



PRELIMINARY DRAFT

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Assessment Report Template

❖ OVERVIEW

EXECUTIVE SUMMARY

The Carmel-by-the-Sea Police Department (CPD) Building is located in the heart of this charming and tiny community that regularly swells with tourists. This visiting population drives the functional requirements and responsibilities for the CPD beyond the requirements of its small residential population.

This Draft Assessment Report on the existing Carmel Police Building is based on as-built plans provided by the City, on site visual inspections and interviews with City Staff familiar with the building and its problems, conducted by Indigo and our team of engineers. The portion of the building occupied by the Public Works Department and the adjoining Garage space has been previously assessed by the attached Bureau Veritas's Assessment Report, dated March 2023.

This report addresses the physical problems and code deficiencies of the existing Carmel Police Department building which is over 50 years old and is in such poor condition that it is no longer suitable for occupancy by any City department. It obviously suffers from years of deferred maintenance. In addition, it has never undergone a major remodel to bring it up to current code standards and current Police operational requirements. It is in need of major repairs, upgrades and or replacement of all building systems. The most serious code deficiencies involve life safety issues and lack of required accessibility. **The findings contained herein point to the urgent need for the City of Carmel-by-the-Sea to either move towards a complete and thorough renovation of the existing Police facility or the construction of a new facility.**

This report assumes that the existing PD building, and the Public Works Garage will be the subject of a major remodel and likely expansion within the next 2-5 years for the Police department or some other City department. There are some good salvageable "structural bones" here; however, to make the Police Building usable, the building will likely need to be gutted down to its structure and rebuilt. Whether it is wise to rebuild on the existing bones, demolish the existing buildings and start over with a new building, or simply sell the property, will not be quantifiable until all three phases of this study are completed. The final decision will ultimately also involve historical, political and other considerations that are beyond the scope of this study. At this assessment phase of the study, based on our current findings the estimated budget level cost (rounded) of renovating the existing Police Building for generic Police or City office use would be \$1,175 per sq. ft. or \$10.9 million total cost, assuming no expansion. The estimated budget level cost (rounded) for renovating the Public Works Garage roof will be \$73 per sq. ft. or \$0.9 million total cost.

Currently the typical construction cost for building a new Police Station will be on the order of \$1,200 per sq.ft..

CONCLUSION

Carmel-by-the-Sea needs a new Police Station as soon as possible due to multiple life safety and code deficiencies, as enumerated in the body of this report. The band aid approach, or continuing to do nothing, is not a viable approach from an officer safety or public safety perspective. In addition, Indigo's Carmel Police Department Draft Program Narrative (10-11-2023) indicates the need for a significantly larger Police Station with increased parking, citing a minimum need for a 15,900 sq ft facility on 2/3 of an acre, with a beneficial need (or "want") for an 18,500 sq ft facility on 1 acre. The likely construction cost for either the new or remodeled and expanded facility is likely to cost in the range of \$19.1 million to \$22.2 million. Not including the costs related to Public Works.

Below are three options for moving forward, two of which will be confirmed and quantified by the conceptual design studies that will be carried out next in Task 3 of this study:

1. *Build an entirely new Police Station on a new site to be determined. Police and Public Works remain in existing quarters until completion of the new Station. After Police move, existing buildings are remodeled for use by Public Works and or other agency.*
 - a. *It follows that once Police have vacated the property, the existing Building and Garage shall be renovated for Public Works. Public Works shall move to temporary housing until construction is complete.*
 - b. *There are substantial renovations that will be required in the building to make it an acceptable for this or any other civic use.*
2. *Refurbish the existing Police Building and expand with addition over the Garage. Police move to temporary housing until construction is complete.*
 - a. *Programmatically, Police shall take possession of the existing Public Works spaces, including the basement level of the Police Building, the parking level of the Garage, and the Corporation Yard.*
 - b. *Public Works shall move their operations to a new site to be determined.*
 - c. *Regarding the required addition over the Garage, its programming and design shall be explored in Task 3 of this study. However, using a 9,000 square foot, 1-story frame structure with a simple mansard frame roof as the basis for preliminary analysis of this addition, the Structural Assessment herein has determined that with some modifications the existing Garage can successfully support it. This is vital to the success of this option, because an addition of this size would likely allow for a design that needs the minimum programmatic needs for a modern Police facility serving Carmel-by-the-Sea's residents, its daytime workforce, and its tourists.*
3. *Demolish existing, Police Station and Public Works Garage, build new facilities on the existing site. Police move to temporary housing until construction is complete.*
 - a. *This option presupposes that Police take sole possession of the property.*
 - b. *Public Works shall move their operations to a new site to be determined.*
 - c. *Cost of removing the existing buildings completely will have to be investigated.*

If the chosen path is simply to abandon the property, this will come with costs that will then have to be investigated.

SCOPE OF STUDY

Obtain background and historical information about the facility from City staff prior to the walk-through portion of the assessment. Review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.

Visit the Police Building property to evaluate the general condition of the buildings and site. Observe a representative sample of the interior spaces, including some Public Works spaces, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms. Review maintenance records and procedures with the in-place maintenance personnel.

Provide a full description of the property with descriptions of in-place systems and commentary on observed conditions. Identify those components and conditions that are exhibiting deferred maintenance issues and provide estimates for immediate repair and replacement costs. And provide needed renovation cost estimates based on observed conditions, maintenance history and industry standard useful life estimates.

Provide recommendations for additional studies, if required, with related budgetary information. Provide an Executive Summary at the beginning of this report, which highlights key information for the City's consideration.

GOALS OF THE CITY

Carmel-by-the-Sea's goals in commissioning this assessment are as follows:

- ◆ *Improving the safety and security of the Police Station. This may involve making changes to the building and site layouts and security features, as well as addressing any shared spaces or security concerns with Public Works.*
- ◆ *Creating a more functional and efficient work environment for Police staff and officers. This may involve providing more space for offices, equipment, and storage, as well as improving the flow of traffic through the building.*
- ◆ *Making the Police Station more accessible to members of the public with disabilities. This may involve adding ramps, elevators, and other accessibility features.*
- ◆ *To ensure that the Police Station meets the needs of the community in a way that is cost-effective and sustainable. This includes considering the impact of tourism on the department's workload and the need to provide a safe and welcoming environment for visitors.*
- ◆ *Improving the overall appearance and image of the Police Station. This may involve making cosmetic improvements to the building and grounds, as well as making the station more visible and welcoming to visitors.*
- ◆ *By commissioning an assessment of the condition of its existing Police Station, Carmel is taking a positive step towards ensuring that its Police Department has the facilities and resources it needs to continue to protect and serve its community.*

❖ SITE ASSESSMENT

SITE ACCESSIBILITY

Existing Conditions

The Police Building site is well-maintained, but has no accessible paths of travel to and from the public way. The inability for the public to access the site and public entry is in direct contradiction with the Americans with Disabilities Act. The ADA prohibits discrimination against people with disabilities in all areas of public life, including local government services. Barring hardship exemptions, ADA Title III regulations require that all government facilities be readily accessible to and usable by people with disabilities. The following barriers, among others, make the existing Police Building facility inaccessible to people with disabilities:

- ◆ *Stairs without ramps or elevators*
- ◆ *Doors that are too narrow or heavy for people with disabilities to open*
- ◆ *Bathrooms that lack accessible clearances and grab bars*
- ◆ *Zero accessible parking spaces: none for patrol, none for staff, none for the public*

Additionally, Junipero Street, where the primary site access is located, is on a greater than 5% slope all across the frontage. This makes it difficult, if not impossible, for people with disabilities to access the Police Station from whichever crowded street they've parked on nearby.

Repairs & Replacements

- ◆ *A new level onsite public parking space in the north lot with all required clearances and grades.*
- ◆ *This new space shall connect to a new, possibly temporary, level path which maintains this grade,*

wrapping around the front of the building to the front lobby for wheel chair or elderly access.

- ◆ *At grade with the new level parking space, a new path from the sidewalk will connect the new level path, the new public parking space, and also continue along an accessible slope to the Staff Entry.*

Renovations:

- ◆ *Make main public and staff paths of travel to and from the public way accessible, including the Police lobby front door and the staff entry front door. Provide new entry doors and landings, permanent ramps and walks meeting accessible grades, and update planters to maintain the look and feel of the site.*



Figure 1 – Existing Plaza Entry Path & Steps

SITE SECURITY

Existing Conditions

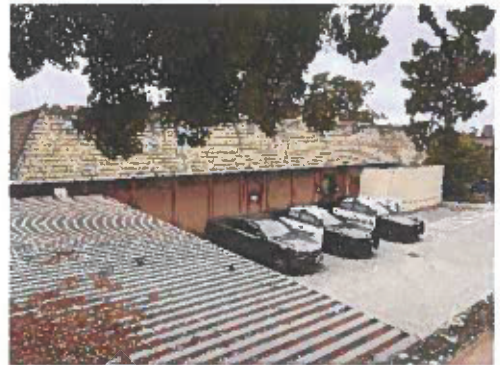


Figure 2 – View into Existing Non-Secure Patrol Parking Lot from 4th Avenue

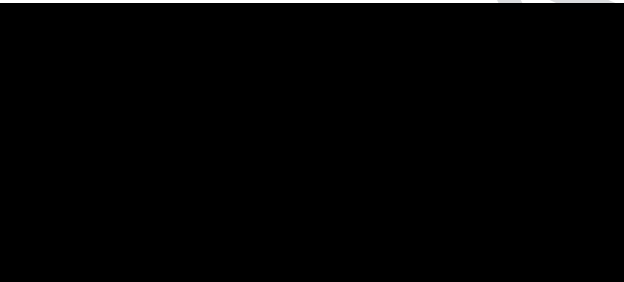
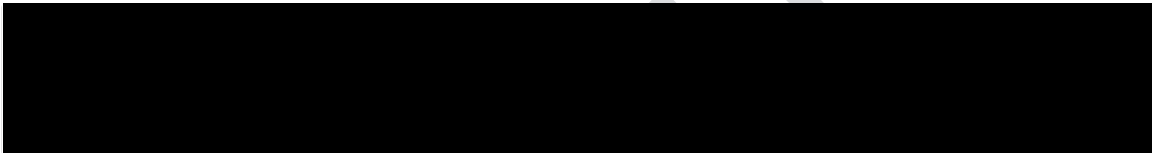
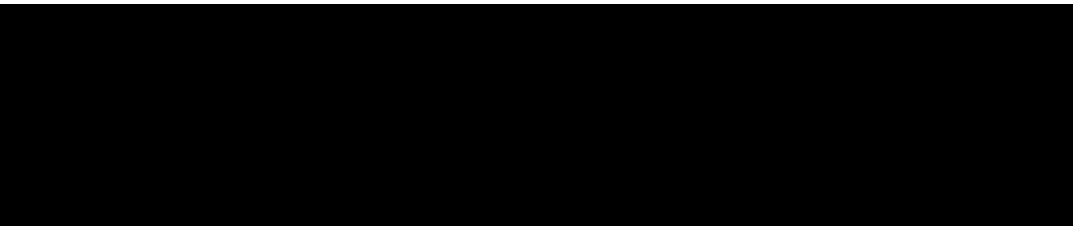
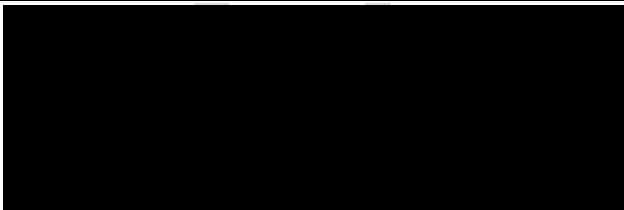


Figure 3 – Existing Front Landscaping



Repairs & Replacements

- ◆ *No immediate short-term site security repairs or replacements are identified, as perimeter fencing would require gates, which would require renovations to provide site circulation space.*

Renovations:

- ◆ *Security fencing / wall at the perimeter.*
- ◆ *Motorized vehicular gate.*
- ◆ *New site lighting.*
- ◆ *New site security system.*
- ◆ *Maintain the cloud-based camera system at this facility.*



Figure 4 – View into Existing Non-Secure Patrol Covered Parking from Roof

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SITE CIVIL

Existing Conditions

Water Service

The water service that provides only domestic water is adequate (Fig. 1).



Figure 5 – Existing Water Service

Storm Drainage

The storm drainage system serving the courtyard and roof of the Public Works Service Garage needs inspection to determine the source of water leaks into the garage below (Figs. 2-3).



Figure 6 – Existing Garage Roof Paving

The city should have the garage roof and courtyard drainage system inspected to see if it can be determined how water may be entering the garage below and make necessary repairs.

Refer to recommendations contained in the report prepared by Bureau Veritas dated March 23, 2023.



Figure 7 – Existing Garage Roof Paving

Site Paving

The site paving is in good condition, with only minor surface cracks (Figs. 4-6).



Figure 8 – Existing site paving

Sanitary Sewerage

The sanitary sewer system is in good condition as reported by Public Works staff.

Run a color dye test of the garage floor drains (Fig. 7) to confirm that they discharge to the sewer system and not routed to the onsite storm drain recycled water system (Fig. 8) as such a connection would be a violation of public health code.



Figure 9 - Existing Site Paving

Repairs & Replacements

- ◆ Site Paving - No immediate action is to be taken at this time. Regularly monitor all areas of site paving and take remedial action when warranted by changed site conditions that may present a hazard for people and/or operations.



Figure 10 - Existing Site Paving

Needed Renovations

The following are the key recommendations if the Police Building were to be remodeled:

- ◆ Inspect the DPW Service Garage roof and courtyard drainage system to see if it can be determined how water may be entering the garage below and make necessary repairs.
- ◆ Run a color dye test of the garage floor drains to confirm that they discharge to the sewer system and not the onsite storm drain recycled water system as such a connection would be a violation of public health code.
- ◆ Sprinkle both wings of the combined structure to provide life safety measures for staff and members of the public who may occupy the building at the time of a fire. As two critical public functions are provided for on site, Police and Public Works, both wings of the combined structure should be sprinkled to provide life safety measures for staff and members of the public who may occupy the building at the time of a fire. If this is done, a new fire service should be installed, tapping into the main in Junipero Street. Sizing of a new fire service will need to be confirmed by a certified fire suppression system designer and based on available pressure in the

public main, information that may be available from Calm Water or determined through a fire flow test of a nearby hydrant. A new fire service would require an above ground backflow prevention device located behind the public sidewalk.

- ◆ Consider providing submetering of the existing domestic service line behind the existing master meter so that each wing of the building has its own shutoff valve for improved operational and maintenance needs. A potential added benefit would be the ability to separately track water use between wings of the building if the city so desires.

Though the Police Building site would benefit now from the above recommended upgrades, the cost of doing so absent a full-scale remodel would be short-sighted and prohibitive in our opinion.



Figure 11 – Existing garage floor drains

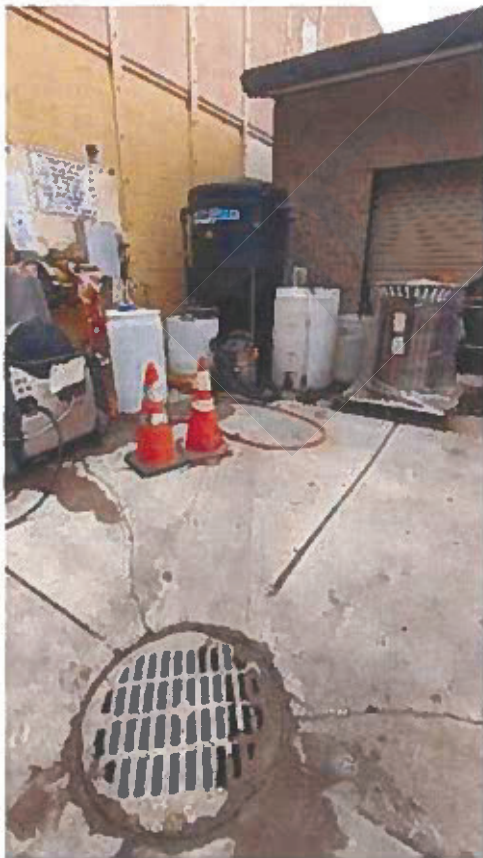


Figure 12 – Existing storm drain

❖ BUILDING ASSESSMENT

STRUCTURAL

Existing Conditions

A previous ASCE 41-17 Tier 1 seismic assessment was performed and issued by Bureau Veritas on March 23, 2023. Upon review of this assessment, some deficiencies were identified; however, the depth of investigation appeared shallow with many possible deficiencies deemed unknown. Miyamoto International was contracted to provide additional review to accompany the Bureau Veritas report. Following is a summary of conditions encountered and deficiencies identified by Miyamoto International.

A preliminary structural condition assessment of the Carmel Police Department and garage was

performed on-site on August 2, 2023. During this assessment, the following conditions were encountered in the existing building:

- ◆ The structure of the 2nd floor PD concrete and wood roof structure is in good condition with no evidence of structural deterioration or damage.
- ◆ Numerous cracks were observed in the concrete slab at the roof (1st floor suspended slab) of the garage along with staining near cracks that might be indicative of water infiltration in the concrete. (See Figures)
- ◆ Significant rock pockets were observed in concrete roof beams of garage and evidence of lack of adequate consolidation of concrete during original construction. (See Figures)
- ◆ Multiple full height vertical cracks with widths between 1/16" to 1/8" were observed in the North

concrete retaining wall adjacent to PD parking lot. (See Figures.)

In addition to the preliminary structural condition assessment, An ASCE 41-17 Tier 1 seismic evaluation was performed. This Tier 1 evaluation assists in identifying possible deficiencies in structure to meet the current standards for an essential service facility. Based on the Tier 1 evaluation, the following conditions were identified as structural deficiencies:

- ◆ At the Police headquarters, the attachments of the wood framed roof to the concrete shearwalls are likely to require retrofit
- ◆ At the Police headquarters, the wood framed roof diaphragm likely needs to be strengthened.

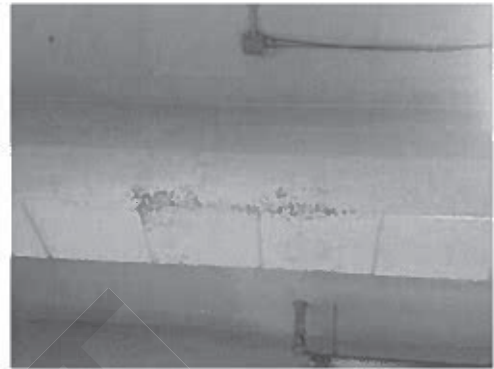


Figure 13 – Rock Pockets in Existing Parking Structure



Figure 14 – Moisture stains through cracks in existing concrete slab

- ◆ *At the Police headquarters, additional shearwalls are likely required.*

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The detailed Tier 1 assessment report can be found in the Appendix of this report.

Repairs & Replacements

In response to the preliminary structural condition assessment performed on August 2, 2023, the following are recommended repairs/investigations for the existing structure:

- ◆ Conduct additional testing to determine the extent of damage to the garage roof structure and the north concrete retaining wall.
- ◆ Remove loose concrete and patch the concrete roof beams of the garage.
- ◆ Repair the cracks in the north concrete retaining wall.

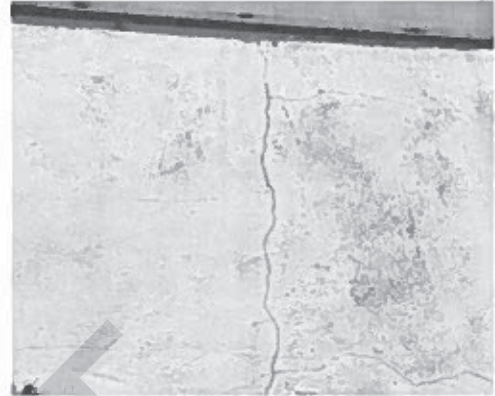


Figure 15 – Cracking in Existing Retaining Wall

Though the Police Building site would benefit now from the above recommended upgrades, the cost of

doing so absent a full-scale remodel may be short-sighted. No immediate life safety issues were observed based on the rapid observation of visible structure during the site visit.

Needed Renovation

If a full-scale remodel were to be performed to bring the existing facilities to current standard for an essential service facility, the following retrofit measures are recommended:

- ◆ Strengthen attachment of the wood framed roof to the concrete shear walls at Police headquarters
- ◆ Strengthen roof diaphragm with additional framing at Police headquarters.
- ◆ Introduce additional concrete shear walls at the Police headquarters.

Stepping beyond the scope or bringing existing facilities up to current standards for an essential service facility, there was investigation of the existing garage to support a new one-story structure. Based on visual observations and analysis of the existing structure, it is feasible for the existing garage to support a new one-story structure. To accommodate a new one-story structure, the following are recommended steps to balance cost of repairs and structural performance:

- ◆ Strengthen existing concrete columns and beams with FRP wrap
- ◆ Frame new one-story structure out of wood to minimize added weight to existing parking garage
- ◆ Introduce new concrete beams and shearwalls in parking structure to support new one-story structure above.

Conceptual structural framing plans for a new one-story structure and retrofit detailing for structural deficiencies are provided in the appendix of this report.

MECHANICAL

Existing Conditions

The existing HVAC systems in the Police department are old and beyond their useful life and need to be replaced. The remodel of the Police department will require an upgrade to the HVAC systems to ensure adequate ventilation. Personnel have complained about the lack of exhaust ventilation in many areas, indicating a need for improvement. The existing HVAC equipment only supplies heating, which may be fine, because personnel have indicated that non-cooled airflow is sufficient during the summer months. The hot water piping for hydronic heating is not insulated.

The evidence room does not have acceptable room conditions or exhaust. Recognized standards recommend a room temperature of no higher than 75°F, Relative Humidity \leq 60% and a minimum exhaust rate of 12 air changes per hour (ACH) and be under a negative pressure related to adjacent spaces. The room needs to have a dedicated 100% outside air unit with all the air exhausted to the exterior. This prevents dangerous materials from recirculating back into the HVAC system.

The locker areas are also under ventilated & exhausted. The locker areas need to have a dedicated HVAC system with a minimum of 12 air changes per hour (ACH) and be under negative pressure related to adjacent spaces.

The following are the key recommendations listed into three categories (Repairs & Replacements; Needed Renovations (per code). Hot water heating boiler is 50+ years old and needs to be replaced.

Repairs & Replacements

Provide a new, high efficiency heating boiler.

Heating hot water piping not insulated. To provide improved, more energy efficient heating for the building the hot water piping for hydronic heating needs to be insulated as soon as possible.



Figure 16 - Existing onsite storm drain recycled water system



Figure 17 - Existing Hot Water Boiler (Mechanical Room)

Needed Renovations

The boiler flue pipe location does not meet code and needs to be extended to the proper height and location.



Figure 18 – Existing Hot Water Boiler (Mechanical Room)



Figure 19 – Garage Storage - Existing Uninsulated Hydronic Piping



Figure 20 – Existing (Damaged) Hot Water Heating Piping Insulation

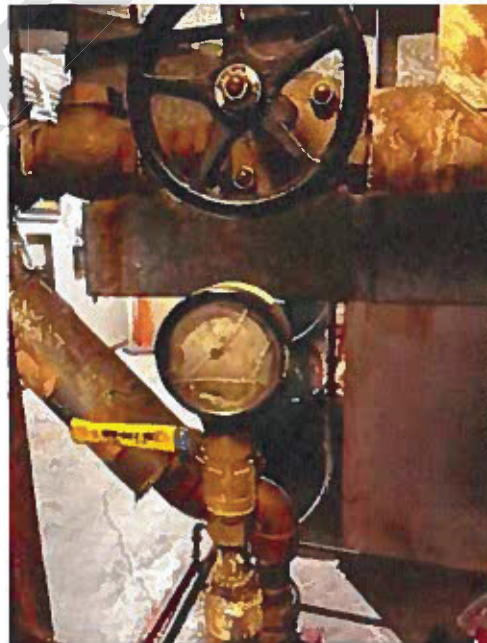


Figure 21 – Existing (Damaged & Non-Functional) Pressure Gauge

Heating hot water pipes in the Garage are located almost directly above electrical panels and generator ATS. These pipes need to be relocated for safety.



Figure 23 – Existing Hot Water Pipes Over Transfer Switch



Figure 22 – Existing Hot Water Boiler Flue

The existing evidence room needs to have additional exhaust due to the products stored. The room needs to be negative and 100% exhausted at a rate no lower than 12 air changes per hour.

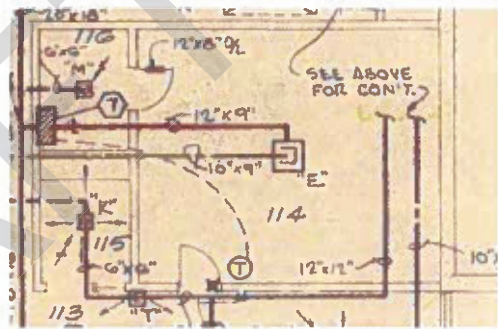


Figure 24 – Existing Evidence Room

The indoor shooting range ventilation and exhaust system needs to be replaced to meet OSHA and NIOSH requirements for air quality in the space, how air is distributed and exhausted and how it is filtered at the exterior.

Cost-prohibitive absent a full remodel - Replace existing HVAC systems with new, upgraded systems that can adequately ventilate the remodeled Police department.



Figure 25 – Existing Shooting Range Exhaust Fan/Filtration Unit

- ◆ *The new system should include exhaust ventilation in all necessary areas.*
- ◆ *The new system shall provide non-cooled airflow during the summer months.*
- ◆ *This will improve the working conditions for personnel and ensure that the building is properly ventilated.*
- ◆ *Replace the hot water distribution pumps, piping, ductwork, diffusers control valves, controls and piping.*



Figure 26 – Existing Shooting Range Exhaust Ventilation



Figure 28 – Existing Shooting Range Supply Ventilation



Figure 27 – Existing Air Handler in Attic



Figure 29 – Existing Hot Water Heating Coil Temperature Control Valve (TCV) in Attic

ELECTRICAL

The following are the key recommendations listed into three categories (Repairs & Replacements; Needed Renovations (per code).

Repairs & Replacements

The existing power utility service transformer location in corner under a canopy is not compliant with current PG&E standards. The existing location would cause a substantial delay in a timely replacement if an equipment failure were to occur.

If the existing service size remains as-is then the existing transformer and location may be able to remain unless specifically directed otherwise by PG&E. If the electrical service is upsized then the utility company transformer will need to be replaced and relocated to meet current standards.



Figure 30 – Existing utility company transformer location



Figure 31 – Electrical box missing cover

There are existing non-code compliant and exposed wire splices in the attic.

All electrical boxes are required to have covers and wire splices need to be remade and located in electrical boxes as required.



Figure 32 – Electrical splices not in electrical box.

Needed Renovations

The roof top lightning protection system has failed. The installation is antiquated and no longer complies with NFPA 780, the standard reference by the electrical code for lightning protection. This presents a current safety risk to life and property.



Figure 33 – Existing disconnected lightning protection

The lighting in the Police parking area is insufficient and is a safety risk. The existing lighting needs to be replaced and supplemented.



Figure 34 – Existing parking area

The existing 400-amp main switchboard installed in 1966, per the nameplate, is clean and in fair condition. The switchboard is at the end of its useful life. After 50 years the grease in the breakers is usually hardened, creating the potential for the breakers to not operate properly. The insulated bracing supporting the bussing tends to become brittle and starts to lose its resistive properties after 50 years. There are no spaces for future breakers. There is no evidence of maintenance testing as recommended by NETA, International Electrical Testing Association and ANSI, American National Standards Institute. The main switchboard should be replaced.



Figure 35 – Existing parking area light fixture

Many of the panelboards are of the same vintage as the main switchboard and should be replaced. Most have limited space or capacity for the addition of breakers or load. Most of the panel nameplates have amperage ratings greater than the feeder size. There are no labels on the panels to indicate the limited feeder rating.



Figure 36 – Existing Switchboard

The building is supported by an emergency generator, automatic transfer switch and emergency power distribution switchboard. The system is fairly new. The generator's weatherproof enclosure tends to leak moisture when it rains. The raised platform for the generator has insufficient working clearance along the sides. An extension of the platform is required to meet working space requirements per the manufacturer and OSHA.



Figure 37 - Clearance in front of existing generator

The breakers in the emergency power distribution switchboard are not labeled for the loads supported as required by the electrical code.



Figure 38 - Existing power distribution switchboard

The mounting heights of the existing fire alarm control panel and manual pull station do not meet code.



Figure 39 - Existing Fire Alarm Control Panel

There is no remote annunciator located in the lobby. The remote annunciator listed for the existing fire alarm control panel is no longer available. Recommend the replacement of the existing fire alarm panel with a listed remote annunciator, placing the fire alarm panel at the code required height. Relocate pull station to meet current requirements.



Figure 40 - Existing Manual Pull Station

PLUMBING

Existing Conditions

The plumbing systems in the building are old and corroded. Over the years, the sewer lines have begun to clog, and the water lines have developed restricted areas of flow due to mineral deposits and calcium buildup. This has caused a number of problems, including:

- ◆ *Leaks: The corroded pipes are more likely to leak, which can cause water damage to the building.*
- ◆ *Clogs: The clogged sewer lines can cause backups and flooding.*
- ◆ *Low water pressure: The restricted water lines can cause low water pressure, which can make it difficult to use faucets and appliances.*
- ◆ *Unsanitary conditions: The buildup of minerals and bacteria in the pipes can create unsanitary conditions.*

Repairs & Replacements

Cost-prohibitive absent a full remodel - Replace the plumbing systems. The existing systems are likely beyond their useful life and could fail, causing leaks, flooding, and other problems.

Only recommended if entire plumbing system is replaced. Install water softeners to remove minerals and calcium buildup from the water, which can help to extend the life of the plumbing systems.

Needed Renovations

Install backflow preventers to prevent contaminated water from entering the potable water system to meet the California Plumbing Code.

The water heater in the mechanical room was replaced recently but, there was no expansion tank installed. This is code requirement and if not installed could result in pipe leaks when the water is heated and expands.

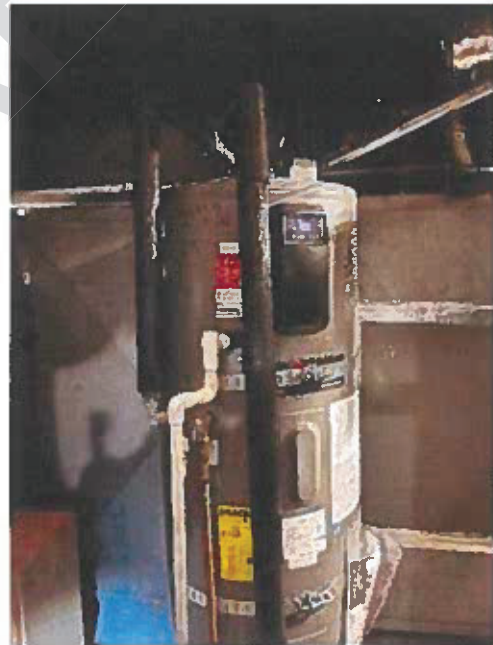


Figure 41 – Existing Hot Water Heater (No Expansion Tank)

*The restroom plumbing fixtures need replacement.
Also, additional restroom facilities are needed.*



Figure 42 – Existing Restroom

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Narrow flights of stairs with minimal landing clearances connect all three stories of the Police Building, failing to meet acceptable vertical circulation requirements for accessibility and egress.

Virtually all interior partition walls encroach on horizontal accessibility requirements, whether on the circulation clearance side or the interior room clearance side, or both. Most doors are at least slightly narrower than the 32-inch minimum clear opening width. Hardware on those doors generally

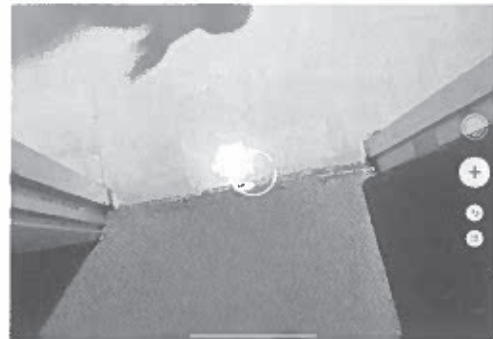


Figure 43 – Existing 31.5-inch opening

provides less than minimum grasping purchase and greater than 5-pounds maximum pulling force in failing to meet accessibility requirements. Floor transitions were often greater than ¼-inch maximum level change between interior spaces. Not all doors have signage mounted within the acceptable range and including raised lettering and brail for the visually impaired. Building controls, including thermostats and light switches, are not all mounted within the acceptable range.

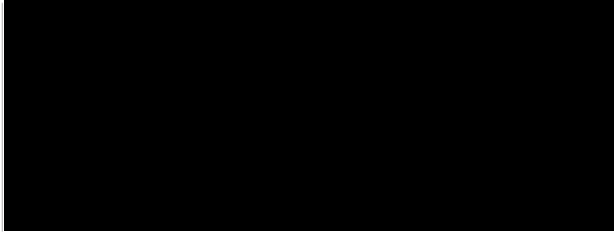
Repairs & Replacements

- ◆ *Immediate short-term solutions to most of the building interior accessibility and egress issues are likely infeasible short of a complete “gut job” renovation of the building. As such, no immediate building accessibility repairs or replacements are identified.*

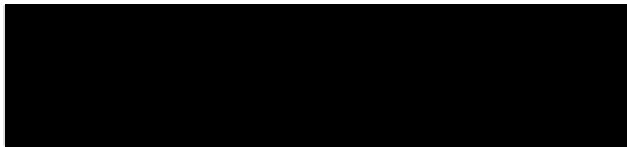
Renovations:

- ◆ *To meet horizontal circulation requirements, all existing partition walls shall be demolished and replaced new walls, including accessible doors, hardware, and signage.*
- ◆ *To meet vertical circulation requirements, insertion of an elevator assembly is required to provide accessibility to all three floors of the Police Building. Assembly shall include pit, shaft and control room. Assembly shall include structural interventions to accommodate the shaft and pit installation.*
- ◆ *To meet vertical circulation requirements, insertion of stairs is required to meet or exceed minimum standards for width, rise, run, and landing depth.*

Access Control



Cameras



Alarm System



Secure Envelope

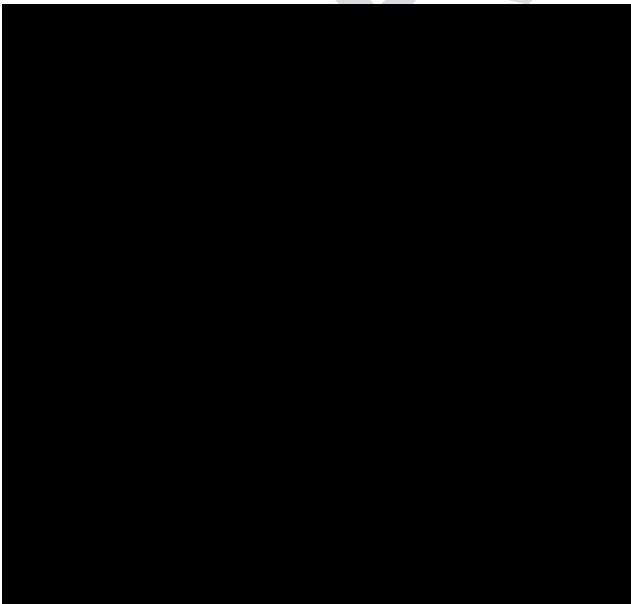
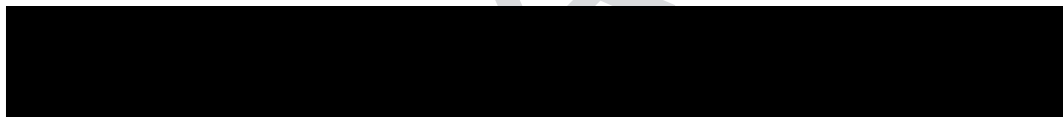


Figure 44 - Typical Keypad Door Lock

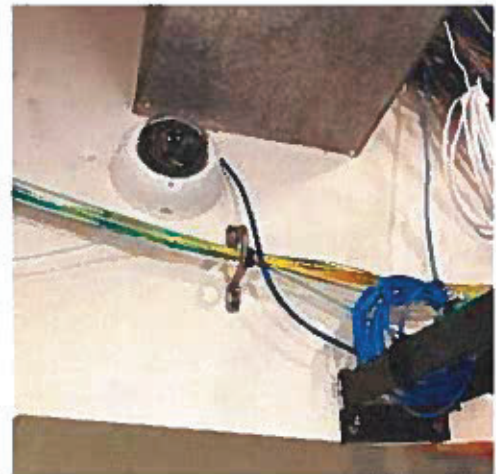
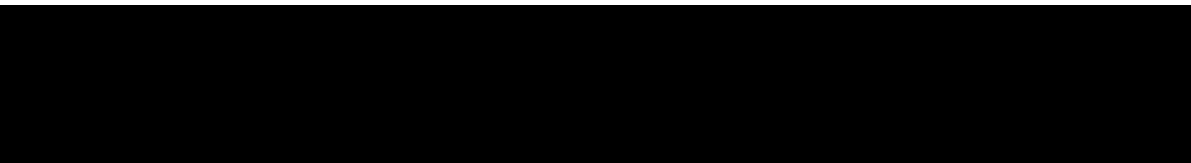
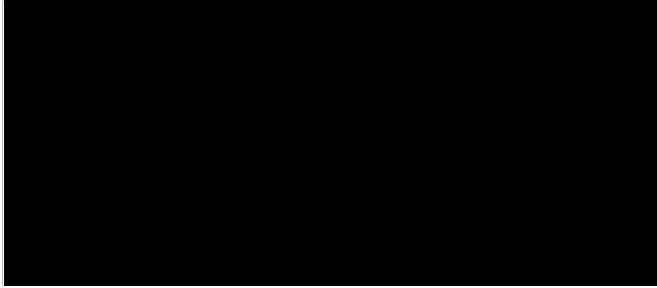


Figure 45 - Typical Camera





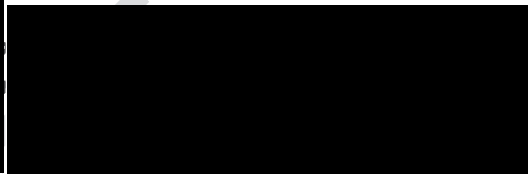
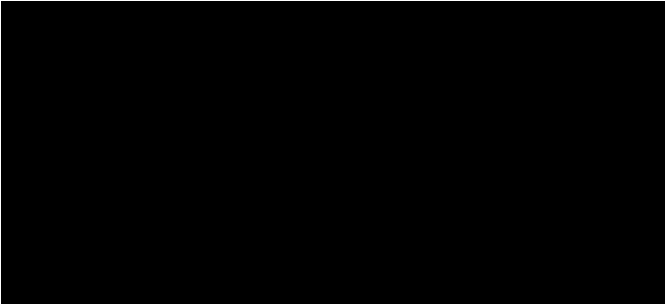
DRAFT



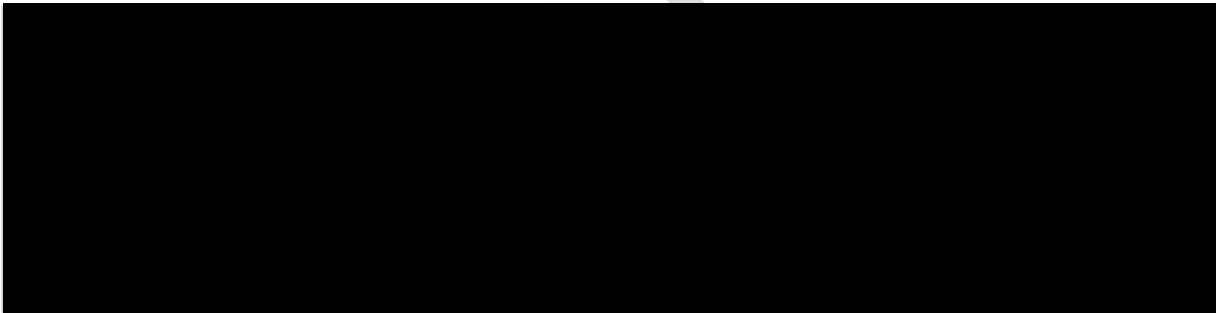
Repairs & Replacements



Figure 46 - Existing Reception Window



Renovations:



ARCHITECTURAL SYSTEMS

Existing Conditions

All other architectural systems are at or near the end of their useful life with the exception of the main structural walls that are reinforced concrete.

The following are the key findings from the Architectural Systems assessment:

- ◆ *The concurrently developed Program Assessment has determined that the Police have less than half the space they need to meet minimum standards.*
- ◆ *See related Accessibility and Security Assessments above.*
- ◆ *The interior finishes are in fair to poor condition.*

Some walls and doors have failing paint. Where some walls have been modified, there are no finishes and bare gypsum and wood are exposed. Some ceiling tiles are damaged. Flooring is worn and near the end of its useful life. Fixtures, receptacles, switches, and low-voltage wiring are loose and exposed in many locations throughout the building.

- ◆ *The exterior walls are uninsulated.*
- ◆ *The single-paned glazing fails to meet current energy code and has poor acoustic properties.*
- ◆ *The built-up roofing and coping is in poor condition.*
- ◆ *The original mansard shingles are beyond failing and some are now missing, exposing bare roof deck.*
- ◆ *Hazardous materials like lead and asbestos are present in the building.*
- ◆ *Water intrusion is causing damage to equipment and creating environmental hazards.*

Repairs & Replacements

- ◆ *Immediate short-term solutions to any of the building's architectural systems shortcomings are likely infeasible short of a complete "gut job" renovation of the building.*



Figure 47 – Existing Staff Entry & Dispatch Workstations & Copy Area



Figure 48 – Existing Duct Insulation

Renovations:

- ◆ *Demolition and Hazardous Materials Removal.*
- ◆ *New Flooring Throughout – see also Building Accessibility.*
- ◆ *New Elevator – see also Building Accessibility.*
- ◆ *New Stairs – see also Building Accessibility.*
- ◆ *New Doors Throughout – see also Building Accessibility and Security.*
- ◆ *New Partitions Throughout – see also Building Accessibility and Security.*
- ◆ *New Windows Throughout.*
- ◆ *New Skylights where feasible.*
- ◆ *New Roofing and Insulation.*
- ◆ *New Exterior Wall Insulation.*
- ◆ *New Finishes Throughout, including Exterior Finishes.*
- ◆ *New Firing Range.*
- ◆ *New Mechanical, Electrical, Plumbing, Security, Telecom, and Structural for the above as applies.*

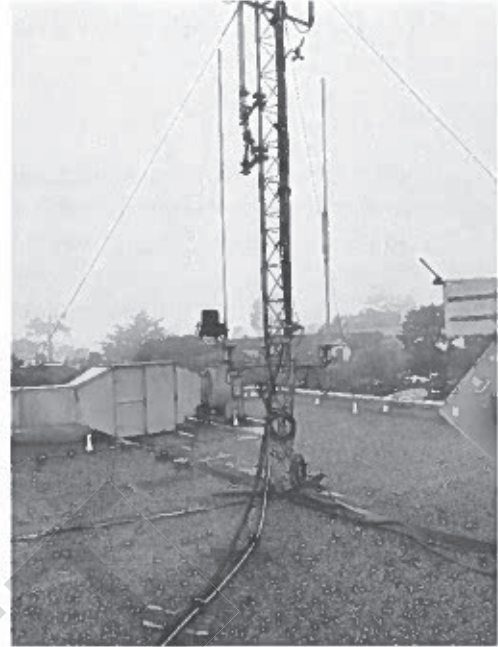


Figure 49 – Existing Roof

TELECOM

Existing Conditions

Telecom Systems Summary

Telecommunications system revolves around the intermediate level MPOE/MDF room 207. All service providers copper, fiber, and coaxial lines feed into this room. Many legacy items such as the existing Avaya PBX, abandoned / unused cables, 66-blocks, and equipment can be removed, consolidated, and cleaned up. However, it will be extremely difficult to try to change this room as the service provider point of demarcation and it is recommended that it is kept as such. A floor mounted cabinet within this room houses existing security head end equipment.

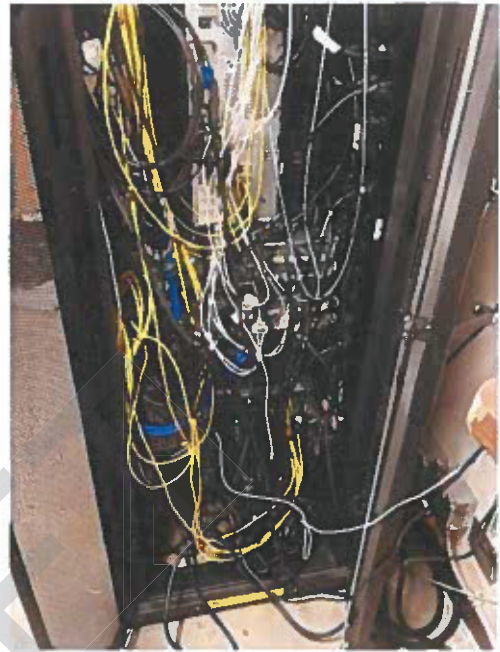


Figure 50 - Existing floor mounted security cabinet

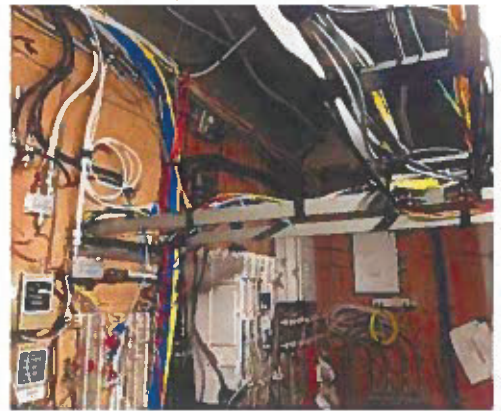


Figure 51 - Incoming copper RJ21X, AT&T fiber optic lines, Avaya PBX, and coaxial antenna connections

An intermediate station cabling distribution frame (IDF) and Motorola antenna amplifiers and antenna distribution exist in the attic space above the upper level accessible via drop down stairwell in the upper-level corridor.

Each will require secure mounting within floor/wall mounted racks.

The Motorola Radius SM50 mobile radio head end and power supply, Aiphone JO-1MD Video Intercom, and Intrado 911 cable and equipment reside in the current dispatch area on the upper level and will require special attention to relocate.

This location can be re-used for new cabling and patch panels, but it is highly recommended that additional plywood flooring be placed for easier / safer access.



Figure 52 - Existing attic IDF with unsafe floor



Figure 53 - Aiphone Video Intercom Detail



Figure 54 - Motorola Radius SM50 mobile radio head end detail

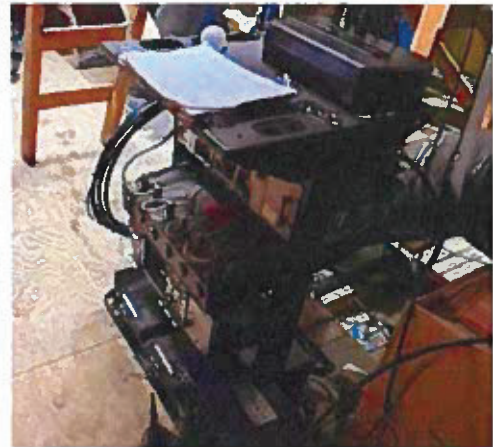


Figure 55 - Existing Motorola amplifiers and distribution

Repairs & Replacements

- ◆ *Immediate short-term solutions to any of the building's telecom systems shortcomings are likely infeasible short of a complete "gut job" renovation of the building.*

Needed Renovations

- ◆ *Many legacy items such as the existing Avaya PBX, abandoned / unused cables, 66-blocks, and equipment can be removed, consolidated, and cleaned up. However, it will be extremely difficult to try to change this room as the service provider*

point of demarcation and it is recommended that it is kept as such. A floor mounted cabinet within this room houses existing security head end equipment.

- ◆ *An intermediate station cabling distribution frame (IDF) and Motorola antenna amplifiers and antenna distribution exists in the attic space above the upper level accessible via drop down stairwell in the upper-level corridor. This location can be re-used for new cabling and patch panels, but it is highly recommended that additional plywood flooring be placed for easier / safer access.*
- ◆ *The Motorola Radius SM50 mobile radio head end and power supply, Aiphone JO-1MD Video Intercom, and Intrado 911 cable and equipment reside in the current dispatch area on the upper level and will require special attention to relocate. Each will require secure mounting within floor/wall mounted racks.*

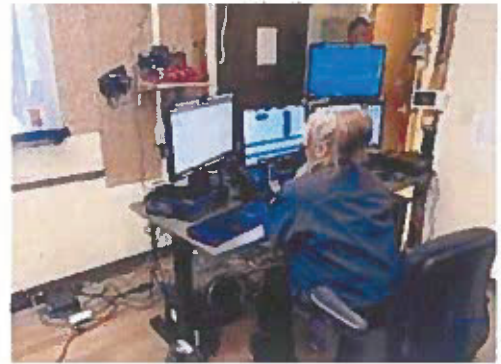


Figure 56 - Motorola Radius SM50 mobile radio head end and Aiphone Video Intercom

HAZARDOUS MATERIALS

Existing Conditions

Cite Previous Hazmat Evaluation

Recommendations

Cite Previous Hazmat Evaluation

DRAFT

❖ COST ESTIMATE

STANDARD MARKUPS

- 11.8 % General Contractor
- 24.0 % Escalation
- 24.0 % Construction Contingency
- Varies Indirect Costs

REPAIR COST ESTIMATE

Police Building Repairs

- ◆ \$0.5 million Estimated Total Project Development Costs
 - Basis: 6,500 sq ft at \$80/ square foot comprising Police-occupied Building Area.
 - Exclusions: Public Works Repairs, including Basement Level, Garage, Public Works Site and Garage Plaza.

Public Works Repairs

- ◆ \$0.8 million Estimated Total Project Development Costs
 - Basis: 11,625 sq ft at \$70/ square foot comprising the Public Works Garage Area.
 - Exclusions: Police Building, including any repair costs associated with Public Works basement level offices and systems. Those costs were quantified separately in the previous assessment study. See appendix for more information.

RENOVATION COST ESTIMATE

Police Building Renovation

- ◆ \$10.9 million Estimated Total Project Development Costs
 - Attribution: A "gut job" renovation without expanding the square footage.
 - Basis: 9,300 sq ft at \$1,175/ square foot comprising Police Building Area.
 - Exclusions: Public Works Garage and Site, including Garage Plaza.

Public Works Renovation

- ◆ \$0.9 million Estimated Total Project Development Costs
 - Attribution: These costs are primarily attributed to renovating the Garage roof.
 - Basis: 11,600 sq ft at \$73/ square foot comprising the Public Works Garage Area, Ancillary Buildings, and Office Structure attached to Garage.
 - Exclusions: Police Building, including any renovation costs associated with Public Works basement level offices and systems. Those costs are quantified in the Police Building Renovation above.

PREVIOUS ASSESSMENT SUMMARY

Summary of Garage Conditions from Previous Assessment

Note: The costs listed in parenthesis below are from the previous assessment. These costs are now encapsulated in the current budget level cost estimates in this report, with markups.

Structural Deficiencies

- ◆ *Repair Immediately – Anchorage of electrical and mechanical equipment. (\$3K)*
- ◆ *Repair Immediately – Anchorage of pre-manufactured structures. (\$13K)*
- ◆ *Repair Immediately – Under-reinforced column caps and adjacent roof slab to resist punching shear. Retrofit per ASCE 41-17 Tier 2 and 3 evaluations. (\$59K)*
- ◆ *Repair Immediately – Unreinforced beam-to-beam and beam-to-column connections. Retrofit per ASCE 41-17 Tier 2 and 3 evaluations. (\$60K)*

Water Intrusion at Garage Plaza Roof and/ or at Wall of Police Building

- ◆ *Repair Immediately - Water intrusion created ponding around the electrical equipment, creating an unsafe environment for City staff. Rework/ replace roofing and flashing at south exterior wall of Police building level. (\$30K)*
- ◆ *Repair Immediately - Signs of water intrusion at drains from plaza level. Rework/ replace drains, roofing, and flashing at plaza. (\$72K)*
- ◆ *Repair Immediately – Concrete roof slab water leakage at drains. Provide epoxy injections at cracks. (\$25K)*
- ◆ *Needed Renovation - Remove all finishes of plaza to structure, rebuild with correct waterproofing material and proper drainage. (\$420K)*

Replace Aged Out Plumbing Systems

- ◆ *Storm water pipe at south end in poor condition.*
- ◆ *Storm water pipe at north end in poor condition.*
- ◆ *Needed Renovation - Replace existing equipment.*
- ◆ *Estimated Cost - \$20,000.*

Replace Aged Out Electrical Systems

- ◆ *600 amp 120/208 V SERVICE WITH meter section and distribution section.*
- ◆ *Distribution section with new 600 amp main and two 200A breakers.*
- ◆ *Panel G1 - 225 amp 120/208V panel with 100A sub-Panel in poor condition.*
- ◆ *Enclosed breaker next to panel"G1" in poor condition.*
- ◆ *Lighting Panel LT in fair condition.*
- ◆ *Fire Alarm system in fair condition.*
- ◆ *Panel G2 - 225 amp 120/208V panel in fair condition.*
- ◆ *Needed Renovation - Replace existing equipment.*
- ◆ *Estimated Cost - \$110,000.*

Mechanical systems serving the garage were not identified as needing improvements.

Summary of Site Conditions from Previous Assessment

Structural Deficiencies

- ◆ *Repair Immediately – Retaining wall at back yard to resist seismic lateral soil pressures. Provide fiber wrapping per ASCE 41-17 Tier 2 and 3 evaluations at wall supporting generator and fuel tank. (\$50K)*

Replace Aged Out Electrical Systems

- ◆ *Repair Immediately - Exterior lighting in poor condition. Replace with LED lights. (\$8K)*

Mechanical systems in fair to good condition:

- ◆ *The direct and tailpipe exhaust system consists of flexible hoses that can be directly attached to the tailpipes of vehicles parked in the garage/maintenance bay. It is also connected to a ducted exhaust system with which an exhaust fan directly exhausts tailpipe emissions to the outside. This system is in good condition.*
- ◆ *The air compressor (Champion HR10-12) is a 10 hp air compressor. It is factort set at pressure of 140-175 psig. It provides compressed air for maintenance, HVAC, and other functions. It is in good condition.*
- ◆ *The heating and ventilating (H&V) units provide heating and ventilation for the northwest and northeast corners of the Main Garage. They are in fair condition.*



HAMMOND + PLAYLE
ARCHITECTS, LLP

Police Department - Repairs

Draft Budget Level Estimate

City of Carmel-by-the-Sea, CA

10/26/2023

APPENDIX - 1

Item	Quantity	Unit	Unit Cost	Subtotal Cost	Total Cost (rounded)	Comments
PROJECT DATA						
Total Site Area	0.99	AC				
Total Conditioned Building Area	10,097	SF				
Total Parking Garage Area	11,625	SF				
Total Ancillary Buildings Area	2,830	SF				
Total Building Roof Area	4,874	SF				
Total Patio Roof Area	12,073	SF				
SITE DATA						
Total Site Area (approx.)	43,089	SF				
PD Site Area	21,545	SF				50% of total site (0.5 AC).
PW Site Area	21,545	SF				50% of total site (0.5 AC).
Landscaping	5,299	SF				
Paving	13,054	SF				
Sidewalks	2,975	SF				
Total Building Footprint Area	7,523	SF				
PD Building Footprint Area	3,864	SF				
PW Building Footprint Area	809	SF				
BUILDING DATA						
Conditioned Space	10,097	SF				
PD Building Area	6,438	SF				Does not include basement (currently occupied by PW).
PW Building Area	3,659	SF				Includes basement of PD building.
Unconditioned Space	14,455	SF				
PW Parking Garage Area	11,625	SF				
PW Ancillary Buildings	2,830	SF				
ROOF DATA						
Total Roof Area	16,947	SF				
PD Roof Area	4,874	SF				
PD Roof Area	3,960	SF				
PW Roof Area	914	SF				
Patio Roofing Area	12,073	SF				
Parking garage roof area / Patio area	8,435	SF				
Parking garage planter area	3,638	SF				
DIRECT CONSTRUCTION COST						
A10 FOUNDATIONS	6,438	SF	\$49		\$288,000	
B10 SUPERSTRUCTURE	6,438	SF	\$0		\$0	
B20 EXTERIOR ENCLOSURE	6,438	SF	\$0		\$0	
B30 ROOFING	6,438	SF	\$0		\$0	
C10 INTERIOR CONSTRUCTION	6,438	SF	\$0		\$0	
C20 STAIRS	6,438	SF	\$0		\$0	
C30 INTERIOR FINISHES	6,438	SF	\$0		\$0	
D10 CONVEYING	6,438	SF	\$0		\$0	
D20 PLUMBING	6,438	SF	\$0		\$0	
D30 HVAC	6,438	SF	\$4		\$25,000	
D40 FIRE PROTECTION	6,438	SF	\$6		\$40,000	
D50 ELECTRICAL	6,438	SF	\$0		\$500	
E10 EQUIPMENT	6,438	SF	\$0		\$0	
E20 FURNISHINGS	6,438	SF	\$0		\$0	
F10 SPECIAL CONSTRUCTION	6,438	SF	\$0		\$0	
F20 SELECTIVE BUILDING DEMOLITION	24,552	SF	\$0		\$0	
G10 SITE PREPARATION	6,438	SF	\$0		\$0	
G20 SITE IMPROVEMENTS	6,438	SF	\$16		\$102,000	
G30 SITE MECHANICAL UTILITIES	6,438	SF	\$0		\$0	
G40 SITE ELECTRICAL UTILITIES	21,545	SF	\$6		\$120,000	
G90 OTHER SITE CONSTRUCTION	6,438	SF	\$0		\$0	
GENERAL CONTRACTOR MARKUP						
General Conditions	12.0%	%	\$288,000	\$34,560		
Overhead & Profit	10.0%	%	\$288,000	\$28,800		
Bonds	2.0%	%	\$288,000	\$5,760		
TOTAL DIRECT CONSTRUCTION COST (INCLUDES MARKUP)	6,438	SF	\$56		\$358,000	
ESCALATION AND DESIGN CONTINGENCY						
Escalation to construction midpoint @ 9%/yr	2.25%	%	\$358,000	\$8,055		
Design Contingency	15.0%	%	\$358,000	\$53,700		
ESTIMATED BID DAY CONSTRUCTION COST	6,438	SF	\$68		\$420,000	
CONSTRUCTION CONTINGENCY						
Construction Contingency @ 12%/yr (0.5 yr)	6.0%	%	\$420,000	\$25,200		
ESTIMATED CONSTRUCTION COST AT END OF CONSTRUCTION	6,438	SF	\$68		\$446,000	
INDIRECT COSTS						
	6,438	SF	\$10		\$63,000	
TOTAL PROJECT DEVELOPMENT COSTS	6,438	SF	\$79		\$509,000	
Rounded					\$500,000	



HAMMOND PLAYLE
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Public Works - Repairs

Draft Budget Level Estimate
City of Carmel-by-the-Sea, CA
10/26/2023

Item	Quantity	Unit	Unit Cost	Subtotal Cost	Total Cost (rounded)	Comments
PROJECT DATA						
Total Site Area	0.99	AC				
Total Conditioned Building Area	10,097	SF				
Total Parking Garage Area	11,625	SF				
Total Ancillary Buildings Area	2,830	SF				
Total Building Roof Area	4,874	SF				
Total Patio Roof Area	12,073	SF				
SITE DATA						
Total Site Area (approx.)	43,089	SF				
PD Site Area	21,545	SF				50% of total site (0.5 AC).
PW Site Area	21,545	SF				50% of total site (0.5 AC).
Landscaping	5,299	SF				
Paving	13,054	SF				
Sidewalks	2,975	SF				
Total Building Footprint Area	7,523	SF				
PD Building Footprint Area	3,864	SF				
PW Building Footprint Area	809	SF				
BUILDING DATA						
Conditioned Space	10,097	SF				
PD Building Area	6,438	SF				Does not include basement (currently occupied by PW).
PW Building Area	3,659	SF				Includes basement of PD building.
Unconditioned Space	14,455	SF				
PW Parking Garage Area	11,625	SF				
PW Ancillary Buildings	2,830	SF				
ROOF DATA						
Total Roof Area	16,947	SF				
PD Roof Area	4,874	SF				
PW Roof Area	3,960	SF				
Patio Roofing Area	914	SF				
Parking garage roof area / Patio area	12,073	SF				
Parking garage planter area	8,435	SF				
Parking garage planter area	3,638	SF				
DIRECT CONSTRUCTION COST						
A10 FOUNDATIONS	11,625	SF	\$9	\$105,825	\$105,825	
B10 SUPERSTRUCTURE	11,625	SF	\$1	\$11,625	\$11,625	
B20 EXTERIOR ENCLOSURE	11,625	SF	\$11	\$127,875	\$127,875	
B30 ROOFING	11,625	SF	\$0	\$0	\$0	
C10 INTERIOR CONSTRUCTION	11,625	SF	\$0	\$0	\$0	
C20 STAIRS	11,625	SF	\$0	\$0	\$0	
C30 INTERIOR FINISHES	11,625	SF	\$0	\$0	\$0	
D10 CONVEYING	11,625	SF	\$0	\$0	\$0	
D20 PLUMBING	11,625	SF	\$0	\$0	\$0	
D30 HVAC	11,625	SF	\$7	\$81,375	\$81,375	
D40 FIRE PROTECTION	11,625	SF	\$3	\$34,875	\$34,875	
D50 ELECTRICAL	11,625	SF	\$0	\$0	\$0	
E10 EQUIPMENT	11,625	SF	\$0	\$0	\$0	
E20 FURNISHINGS	11,625	SF	\$0	\$0	\$0	
F10 SPECIAL CONSTRUCTION	11,625	SF	\$0	\$0	\$0	
F20 SELECTIVE BUILDING DEMOLITION	11,625	SF	\$0	\$0	\$0	
G10 SITE PREPARATION	11,625	SF	\$0	\$0	\$0	
G20 SITE IMPROVEMENTS	11,625	SF	\$4	\$46,500	\$46,500	
G30 SITE MECHANICAL UTILITIES	11,625	SF	\$2	\$23,250	\$23,250	
G40 SITE ELECTRICAL UTILITIES	11,625	SF	\$1	\$11,625	\$11,625	
G90 OTHER SITE CONSTRUCTION	11,625	SF	\$0	\$0	\$0	
GENERAL CONTRACTOR MARKUP						
General Conditions	11,625	%	\$9	\$105,825	\$105,825	
Overhead & Profit	11,625	%	\$9	\$105,825	\$105,825	
Bonds	11,625	%	\$9	\$105,825	\$105,825	
TOTAL DIRECT CONSTRUCTION COST (INCLUDES MARKUP)						
	11,625	SF	\$49	\$571,125	\$571,125	
ESCALATION AND DESIGN CONTINGENCY						
Escalation to construction midpoint @ 9%/yr	11,625	%	\$8	\$95,025	\$95,025	
Design Contingency	11,625	%	\$15	\$174,375	\$174,375	
ESTIMATED BID DAY CONSTRUCTION COST						
	11,625	SF	\$58	\$671,525	\$671,525	
CONSTRUCTION CONTINGENCY						
Construction Contingency @ 12%/yr (0.5 yr)	11,625	%	\$4	\$34,875	\$34,875	
ESTIMATED CONSTRUCTION COST AT END OF CONSTRUCTION						
	11,625	SF	\$62	\$711,000	\$711,000	
INDIRECT COSTS						
	11,625	SF	\$9	\$105,825	\$105,825	
TOTAL PROJECT DEVELOPMENT COSTS						
	11,625	SF	\$70	\$812,000	\$812,000	
Rounded						
					\$800,000	



HAMMOND + PLAYLE
ARCHITECTS, LLP

Police Department - Renovation

APPENDIX - 2

Draft Budget Level Estimate

City of Carmel-by-the-Sea, CA
10/26/2023

Item	Quantity	Unit	Unit Cost	Subtotal Cost	Total Cost (rounded)	Comments
PROJECT DATA						
Total Site Area	0.99	AC				
Total Conditioned Building Area	10,097	SF				
Total Parking Garage Area	11,625	SF				
Total Ancillary Buildings Area	2,830	SF				
Total Building Roof Area	4,874	SF				
Total Patio Roof Area	12,073	SF				
SITE DATA						
Total Site Area (approx.)	43,089	SF				
PD Site Area	21,545	SF				50% of total site (0.5 AC)
PW Site Area	21,545	SF				50% of total site (0.5 AC)
Landscaping	5,299	SF				
Paving	13,054	SF				
Sidewalks	2,975	SF				
Total Building Footprint Area	4,673	SF				
PD Building Footprint Area	3,864	SF				
PW Building Footprint Area	809	SF				
BUILDING DATA						
Conditioned Space	24,552	SF				
PD Building Area	10,097	SF				
PW Building Area	5,288	SF				Includes basement (currently occupied by PW). 3 stories. Does not include basement of PD building.
Unconditioned Space	809	SF				
PW Parking Garage Area	14,455	SF				
PW Ancillary Buildings	11,625	SF				
	2,830	SF				
ROOF DATA						
Total Roof Area	16,947	SF				
PD Roof Area	4,874	SF				
PW Roof Area	3,960	SF				
Patio Roofing Area	914	SF				
Parking garage roof area / Patio area	12,073	SF				
Parking garage planter area	8,435	SF				
	3,638	SF				
DIRECT CONSTRUCTION COST						
	9,288	SF	\$695		\$5,522,000	
A10 FOUNDATIONS	9,288	SF	\$60		\$555,728	
B10 SUPERSTRUCTURE	9,288	SF	\$5		\$46,440	
B20 EXTERIOR ENCLOSURE	9,288	SF	\$11		\$104,304	
B30 ROOFING	9,288	SF	\$17		\$160,260	
C10 INTERIOR CONSTRUCTION	9,288	SF	\$25		\$232,200	
C20 STAIRS	9,288	SF	\$0		\$0	
C30 INTERIOR FINISHES	9,288	SF	\$25		\$232,200	
D10 CONVEYING	9,288	SF	\$22		\$200,000	
D20 PLUMBING	9,288	SF	\$24		\$222,000	
D30 HVAC	9,288	SF	\$59		\$543,500	
D40 FIRE PROTECTION	9,288	SF	\$12		\$112,880	
D50 ELECTRICAL	9,288	SF	\$49		\$418,200	
E10 EQUIPMENT	9,288	SF	\$0		\$0	
E20 FURNISHINGS	9,288	SF	\$0		\$0	
F10 SPECIAL CONSTRUCTION	9,288	SF	\$136		\$1,264,400	
F20 SELECTIVE BUILDING DEMOLITION	24,552	SF	\$12		\$287,928	
G10 SITE PREPARATION	9,288	SF	\$0		\$0	
G20 SITE IMPROVEMENTS	9,288	SF	\$103		\$953,165	
G30 SITE MECHANICAL UTILITIES	9,288	SF	\$0		\$0	
G40 SITE ELECTRICAL UTILITIES	9,288	SF	\$20		\$188,089	
G90 OTHER SITE CONSTRUCTION	9,288	SF	\$0		\$0	
GENERAL CONTRACTOR MARKUP						
	9,288	SF	\$70		\$654,000	
General Conditions	5.9%	%	\$5,522,000	\$303,710		
Overhead & Profit	5.0%	%	\$5,522,000	\$276,100		
Bonds	1.34%	%	\$5,522,000	\$73,999		
TOTAL DIRECT CONSTRUCTION COST (INCLUDES MARKUP)	9,288	SF	\$665		\$6,176,000	
ESCALATION AND DESIGN CONTINGENCY						
	9,288	SF	\$160		\$1,483,000	
Escalation to construction midpoint @ 9%/yr	9.0%	%	\$6,176,000	\$555,840		
Design Contingency	15.0%	%	\$6,176,000	\$926,400		
ESTIMATED BID DAY CONSTRUCTION COST	9,288	SF	\$825		\$7,659,000	
CONSTRUCTION CONTINGENCY						
	9,288	SF	\$198		\$1,839,000	
Construction Contingency @ 12%/yr (2 yrs)	24.0%	%	\$7,659,000	\$1,838,160		
ESTIMATED CONSTRUCTION COST AT END OF CONSTRUCTION	9,288	SF	\$1,023		\$9,498,000	
INDIRECT COSTS						
	9,288	SF	\$153		\$1,421,000	
TOTAL PROJECT DEVELOPMENT COSTS	9,288	SF	\$1,176		\$10,919,000	
Rounded					\$10,900,000	



Public Works - Renovation

Draft Budget Level Estimate

City of Carmel-by-the-Sea, CA
10/26/2023

HAMMOND PLAYLE
ARCHITECTS, LLP

Item	Quantity	Unit	Unit Cost	Subtotal Cost	Total Cost (rounded)	Comments
PROJECT DATA						
Total Site Area	0.99	AC				
Total Conditioned Building Area	10,097	SF				
Total Parking Garage Area	11,629	SF				
Total Ancillary Buildings Area	2,830	SF				
Total Building Roof Area	4,874	SF				
Total Patio Roof Area	12,073	SF				
SITE DATA						
Total Site Area (approx.)	43,089	SF				
PD Site Area	21,549	SF				50% of total site (0.5 AC).
PW Site Area	21,549	SF				50% of total site (0.5 AC).
Landscaping	5,299	SF				
Paving	13,054	SF				
Sidewalks	2,979	SF				
Total Building Footprint Area	4,673	SF				
PD Building Footprint Area	3,864	SF				
PW Building Footprint Area	809	SF				
BUILDING DATA						
Conditioned Space	24,552	SF				
PD Building Area	10,097	SF				
PW Building Area	9,288	SF				Includes basement (currently occupied by PW). 3 stories.
Unconditioned Space	809	SF				Does not include basement of PD building.
PW Parking Garage Area	14,459	SF				
PW Ancillary Buildings	11,629	SF				
PW Ancillary Buildings	2,830	SF				
ROOF DATA						
Total Roof Area	16,947	SF				
PD Roof Area	4,874	SF				
PW Roof Area	3,960	SF				
Patio Roofing Area	914	SF				
Parking garage roof area / Patio area	12,073	SF				
Parking garage planter area	8,439	SF				
Parking garage planter area	3,638	SF				
DIRECT CONSTRUCTION COST						
A10 FOUNDATIONS	11,629	SF	\$38	\$440,000	\$440,000	
B10 SUPERSTRUCTURE	11,629	SF	\$0	\$0	\$0	
B20 EXTERIOR ENCLOSURE	11,629	SF	\$36	\$420,000	\$420,000	
B30 ROOFING	11,629	SF	\$0	\$0	\$0	
C10 INTERIOR CONSTRUCTION	809	SF	\$0	\$0	\$0	
C20 STAIRS	11,629	SF	\$0	\$0	\$0	
C30 INTERIOR FINISHES	809	SF	\$0	\$0	\$0	
D10 CONVEYING	11,629	SF	\$0	\$0	\$0	
D20 PLUMBING	11,629	SF	\$0	\$0	\$0	
D30 HVAC	11,629	SF	\$0	\$0	\$0	
D40 FIRE PROTECTION	11,629	SF	\$0	\$0	\$0	
D50 ELECTRICAL	11,629	SF	\$0	\$0	\$0	
E10 EQUIPMENT	11,629	SF	\$0	\$0	\$0	
E20 FURNISHINGS	11,629	SF	\$0	\$0	\$0	
F10 SPECIAL CONSTRUCTION	11,629	SF	\$0	\$0	\$0	
F20 SELECTIVE BUILDING DEMOLITION	24,552	SF	\$0	\$0	\$0	
G10 SITE PREPARATION	11,629	SF	\$0	\$0	\$0	
G20 SITE IMPROVEMENTS	11,629	SF	\$0	\$0	\$0	
G30 SITE MECHANICAL UTILITIES	11,629	SF	\$2	\$20,000	\$20,000	
G40 SITE ELECTRICAL UTILITIES	11,629	SF	\$0	\$0	\$0	
G90 OTHER SITE CONSTRUCTION	11,629	SF	\$0	\$0	\$0	
GENERAL CONTRACTOR MARKUP						
General Conditions	11,629	SF	\$5	\$58,145	\$58,145	
Overhead & Profit	5.9%	%	\$440,000	\$24,200	\$24,200	
Bonds	5.0%	%	\$440,000	\$22,000	\$22,000	
	1.34%	%	\$440,000	\$5,896	\$5,896	
TOTAL DIRECT CONSTRUCTION COST (INCLUDES MARKUP)	11,629	SF	\$42	\$493,000	\$493,000	
ESCALATION AND DESIGN CONTINGENCY						
Escalation to construction midpoint @ 9%/yr	21,629	SF	\$10	\$216,290	\$216,290	
Design Contingency	9.0%	%	\$493,000	\$44,370	\$44,370	
	15.0%	%	\$493,000	\$73,950	\$73,950	
ESTIMATED BID DAY CONSTRUCTION COST	11,629	SF	\$53	\$612,000	\$612,000	
CONSTRUCTION CONTINGENCY						
Construction Contingency @ 12%/yr (2 yrs)	11,629	SF	\$13	\$146,880	\$146,880	
ESTIMATED CONSTRUCTION COST AT END OF CONSTRUCTION	11,629	SF	\$66	\$759,000	\$759,000	
INDIRECT COSTS						
TOTAL PROJECT DEVELOPMENT COSTS	11,629	SF	\$73	\$853,000	\$853,000	
Rounded					\$900,000	

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HAMMOND PLAYLE
ARCHITECTS, LLP

Public Works - Renovation

Draft Budget Level Estimate
City of Carmel-by-the-Sea, CA
10/26/2023

Item	Quantity	Unit	Unit Cost	Subtotal Cost	Total Cost (rounded)	Comments
PROJECT DATA						
Total Site Area	0.99	AC				
Total Conditioned Building Area	10,097	SF				
Total Parking Garage Area	11,625	SF				
Total Ancillary Buildings Area	2,830	SF				
Total Building Roof Area	4,874	SF				
Total Patio Roof Area	12,073	SF				
SITE DATA						
Total Site Area (approx.)	43,089	SF				
PD Site Area	21,545	SF				50% of total site (0.5 AC).
PW Site Area	21,545	SF				50% of total site (0.5 AC).
Landscaping	5,299	SF				
Paving	13,054	SF				
Sidewalks	2,975	SF				
Total Building Footprint Area	4,673	SF				
PD Building Footprint Area	3,864	SF				
PW Building Footprint Area	809	SF				
BUILDING DATA						
Conditioned Space	10,097	SF				
PD Building Area	9,288	SF				Includes basement (currently occupied by PW). 3 stories.
PW Building Area	809	SF				Does not include basement of PD building.
Unconditioned Space	14,455	SF				
PW Parking Garage Area	11,625	SF				
PW Ancillary Buildings	2,830	SF				
ROOF DATA						
Total Roof Area	16,947	SF				
PD Roof Area	4,874	SF				
PW Roof Area	3,960	SF				
Patio Roofing Area	914	SF				
Parking garage roof area / Patio area	12,073	SF				
Parking garage planter area	8,435	SF				
Parking garage planter area	3,638	SF				
DIRECT CONSTRUCTION COST						
A10 FOUNDATIONS	11,625	SF	\$38	\$440,000	\$440,000	
B10 SUPERSTRUCTURE	11,625	SF	\$0	\$0	\$0	
B20 EXTERIOR ENCLOSURE	11,625	SF	\$36	\$420,000	\$420,000	
B30 ROOFING	11,625	SF	\$0	\$0	\$0	
C10 INTERIOR CONSTRUCTION	809	SF	\$0	\$0	\$0	
C20 STAIRS	11,625	SF	\$0	\$0	\$0	
C30 INTERIOR FINISHES	809	SF	\$0	\$0	\$0	
D10 CONVEYING	11,625	SF	\$0	\$0	\$0	
D20 PLUMBING	11,625	SF	\$0	\$0	\$0	
D30 HVAC	11,625	SF	\$0	\$0	\$0	
D40 FIRE PROTECTION	11,625	SF	\$0	\$0	\$0	
D50 ELECTRICAL	11,625	SF	\$0	\$0	\$0	
E10 EQUIPMENT	11,625	SF	\$0	\$0	\$0	
E20 FURNISHINGS	11,625	SF	\$0	\$0	\$0	
F10 SPECIAL CONSTRUCTION	11,625	SF	\$0	\$0	\$0	
F20 SELECTIVE BUILDING DEMOLITION	24,552	SF	\$0	\$0	\$0	
G10 SITE PREPARATION	11,625	SF	\$0	\$0	\$0	
G20 SITE IMPROVEMENTS	11,625	SF	\$0	\$0	\$0	
G30 SITE MECHANICAL UTILITIES	11,625	SF	\$2	\$20,000	\$20,000	
G40 SITE ELECTRICAL UTILITIES	11,625	SF	\$0	\$0	\$0	
G90 OTHER SITE CONSTRUCTION	11,625	SF	\$0	\$0	\$0	
GENERAL CONTRACTOR MARKUP						
General Conditions	5.5%	%	\$440,000	\$24,200		
Overhead & Profit	5.0%	%	\$440,000	\$22,000		
Bonds	1.34%	%	\$440,000	\$5,896		
TOTAL DIRECT CONSTRUCTION COST (INCLUDES MARKUP)	11,625	SF	\$42	\$493,000	\$493,000	
ESCALATION AND DESIGN CONTINGENCY						
Escalation to construction midpoint @ 9%/yr	9.0%	%	\$493,000	\$44,370	\$119,000	
Design Contingency	15.0%	%	\$493,000	\$73,950		
ESTIMATED BID DAY CONSTRUCTION COST	11,625	SF	\$51	\$612,000	\$612,000	
CONSTRUCTION CONTINGENCY						
Construction Contingency @ 12%/yr (2 yrs)	24.0%	%	\$612,000	\$146,880	\$147,000	
ESTIMATED CONSTRUCTION COST AT END OF CONSTRUCTION	11,625	SF	\$65	\$759,000	\$759,000	
INDIRECT COSTS						
TOTAL PROJECT DEVELOPMENT COSTS	11,625	SF	\$73	\$853,000	\$853,000	
Rounded					\$900,000	

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October 24, 2023

Mr. Jon Hammond
Indigo Architects
Davis, CA
jhammond@indigoarch.com

**Subject: Carmel-by-the-Sea, Junipero Ave & 4th Ave, Tier 1 Evaluation
MI2301012.00**

Dear Mr. Hammond:

Miyamoto International, Inc. has performed a preliminary seismic evaluation of the Carmel Police Department building located at Junipero Ave & 4th Ave in Carmel-by-the-Sea, CA. Our evaluation was based on the following information:

- *Police & Corporation Yard Facility* drawings by Burde, Shaw & Associates Architects and Steven H. Sassoon & Associates, Structural & Civil Engineers, dated February 15, 1966.
- Site visit and visual survey of subject property by this office on August 8, 2023.
- ASCE 41-17, *Seismic Evaluation and Retrofit of Existing Buildings*

ASCE 41, *Seismic Evaluation and Retrofit of Existing Buildings*, is the national standard for such evaluations, and includes a three-tier methodology. Tier 1 is a screening phase that can be used to check seismic compliance for buildings that meet certain qualifying criteria. It is comprised of limited calculations and the completion of checklists that identify critical characteristics of the site, building and, in some cases, building contents and potential seismic deficiencies. Tiers 2 is a deficiency-based evaluation that requires detailed analysis of certain deficiencies identified in Tier 1. Tier 3 is a detailed evaluation of the entire building structure and is required for certain types of deficiencies and structures. The level of complexity increases with each Tier. Included in the scope of this investigation is a Tier 1 evaluation. Due to the presence of several structural irregularities, a Tier 3 evaluation is highly recommended for this structure, however a Tier 1 screening is a good starting point for the identification of potential deficiencies. The following is a summary of our observations and findings.

Existing Building.

The existing 2-story building is comprised of a one story parking garage built of cast-in-place (CIP) concrete and a second story police headquarters built of CIP concrete walls and wood framed roof trusses. The building was designed to conform to the 1964 Uniform Building Code. The bottom story uses a Lateral Force Resisting System (LFRS) of CIP concrete shearwalls and a rigid concrete diaphragm. The second story uses a LFRS of CIP concrete shearwalls with a flexible wood diaphragm. For the purposes of this report, the bottom story is considered as a separate structure from the top story. Based on the stiffness and rigidity of the bottom story parking garage relative to the flexible top story police headquarters, a two-stage approach can be used.

The police headquarters roof structure is comprised of plywood structural sheathing over wood trusses. The parking garage roof structure uses two different CIP concrete systems. The first system is one-way concrete slabs supported by concrete beams, girders, and columns. The second system is a 12" thick two-way concrete slab supported by concrete drop caps and concrete columns. The ground floor is

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comprised of a 5" thick slab-on-grade, columns and walls are supported by spread footings and continuous footings respectively.

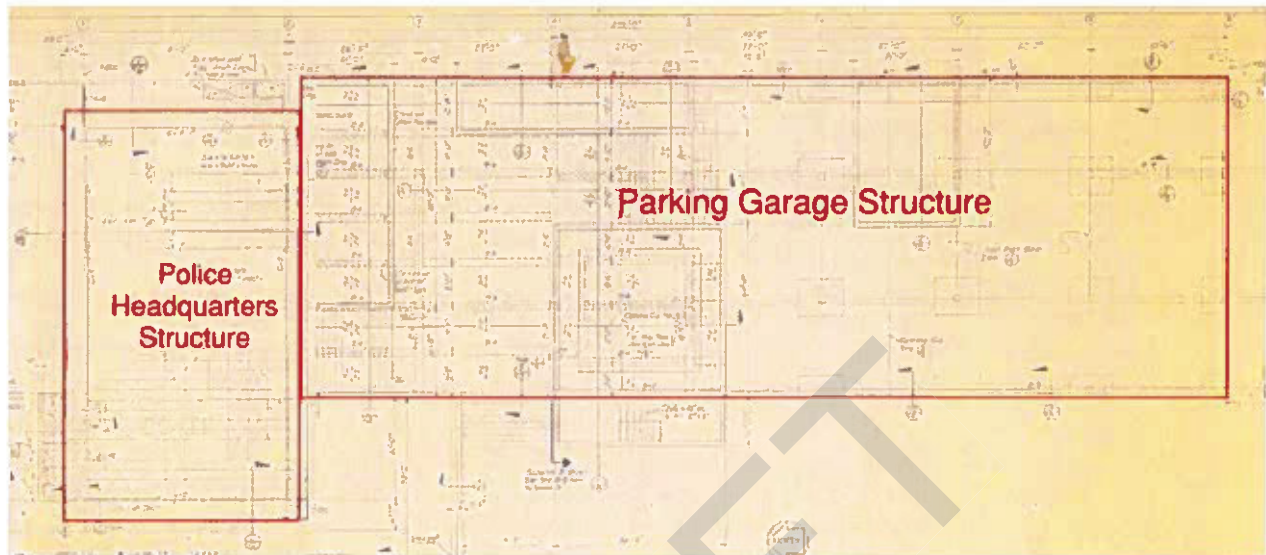


Figure 1. Key plan of building

ASCE 41 Tier 1 Seismic Evaluation.

Based on the proposed occupancy as a *Police Headquarters*, the building was evaluated as a *Risk Category IV* building. Our evaluation found the building is currently **not in compliance** with Tier 1 acceptance criteria. The following non-compliant (NC) conditions were identified by the evaluation, grouped by the applicable ASCE 41 checklist.

Building Type C2a (Police Headquarters, Concrete Shearwalls with Flexible Diaphragm).

1. WALL ANCHORAGE AT FLEXIBLE DIAPHRAGM (NC). Bearing walls that are not positively anchored to the diaphragms may separate from the structure, causing partial collapse of the floors and roof. Nonbearing walls that separate from the structure may represent a significant falling hazard. The hazard amplifies with the height above the building base. Further evaluation and possible retrofit required
2. DIAPHRAGM CONTINUITY (NC). Split-level floors and roofs, or diaphragms interrupted by expansion joints, create discontinuities in the diaphragm. This condition is common in ramped parking structures. It is a problem unless special details are used or seismic-force-resisting elements are provided at the vertical offset of the diaphragm or on both sides of the expansion joint. Such a discontinuity may cause the diaphragm to function as a cantilever element or three-sided diaphragm. If the diaphragm is not supported on at least three sides by seismic-force-resisting elements, torsional forces in the diaphragm may cause it to become unstable. Further evaluation and possible retrofit required.
3. CROSS TIES (NC). Continuous cross ties between diaphragm chords are needed to develop out-of-plane wall forces into the diaphragm. The cross ties should have a positive and direct connection to the walls to keep the walls from separating from the building. Further evaluation and potential retrofit required.
4. TRANSFER TO SHEARWALLS (NC). The floor or roof diaphragms must be connected to the shear walls or concrete to provide a complete load path for the transfer of diaphragm shear forces to

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the walls or frames. Where the wall or frame does not extend the full depth of the diaphragm, this connection may include collectors or drag struts. Further evaluation and possible retrofit required.

5. FOUNDATION DOWELS (NC). The absence of an adequate connection between the shear walls and the foundation is a gap in the load path that limits the ability of the shear walls to resist seismic forces. Further evaluation is required.
6. PLAN IRREGULARITIES (NC). Diaphragms with plan irregularities such as extending wings, plan insets, or E-, T-, X-, L-, or C-shaped configurations have reentrant corners where large tensile and compressive forces can develop. Chords and collectors in the diaphragm may not have sufficient strength at these reentrant corners to resist these tensile forces. Further evaluation is required.

Building Type C2 (Parking Structure, Concrete Shearwalls with Stiff Diaphragm).

7. FLAT SLABS (NC). Flat slabs not designed to participate in the seismic-force-resisting system may still experience seismic forces because of displacements associated with overall building drift. The concern is the transfer of the shear and bending forces between the slab and column, which could result in a punching shear failure. Further evaluation is required.
8. DIAPHRAGM CONTINUITY (NC). Split-level floors and roofs, or diaphragms interrupted by expansion joints, create discontinuities in the diaphragm. This condition is common in ramped parking structures. It is a problem unless special details are used or seismic-force-resisting elements are provided at the vertical offset of the diaphragm or on both sides of the expansion joint. Such a discontinuity may cause the diaphragm to function as a cantilever element or three-sided diaphragm. If the diaphragm is not supported on at least three sides by seismic-force-resisting elements, torsional forces in the diaphragm may cause it to become unstable. Further evaluation is required.
9. FOUNDATION DOWELS (NC). The absence of an adequate connection between the shear walls and the foundation is a gap in the load path that limits the ability of the shear walls to resist seismic forces. Further evaluation is required.
10. DEFLECTION COMPATIBILITY (NC). Frame components, especially columns, that are not specifically designed to participate in the seismic-force-resisting system still undergo displacements associated with overall seismic interstory drifts. Stiff columns, designed for potentially high gravity loads, may develop significant bending moments because of the imposed drifts. The moment or axial force interaction may lead to a non-ductile failure of the columns and a collapse of the building. Further evaluation is required.

Finding and Recommendations.

Our Tier 1 evaluation found the building is currently **not in compliance** with ASCE 41 Tier 1 acceptance criteria. Tier 1 criteria is largely based on prescriptive criteria that is generally expected to be conservative by design. The more detailed Tier 3 evaluation methodology is expected to render some of the non-compliant items compliant. Based on our experience with similar buildings, we anticipate a Tier 3 evaluation will identify the need for retrofit of the following noncompliant items in order to meet the performance objective for an essential services facility:

- Item 2, WALL ANCHORAGE AT FLEXIBLE DIAPHRAGM: At the police headquarters, the attachment of the wood framed roof to the concrete shearwalls are likely to require retrofit.
- Item 3, DIAPHRAGM CONTINUITY: At the police headquarters, the diaphragm likely needs to be strengthened.
- Item 4, CROSS TIES: At the police headquarters, the diaphragm likely needs to be strengthened.

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- Item 5, TRANSFER TO SHEARWALLS: At the police headquarters, the attachment of the wood framed roof to the concrete shearwalls are likely to require retrofit.

Conceptual retrofit measures to address the above deficiencies are provided in Appendix B. Part of the conceptual retrofit includes the addition of 2 concrete shearwalls at the police headquarters. This addition is not a result of a non-compliant item in the Tier 1 checklist. Tier 1 evaluations for buildings with flexible diaphragms do not adequately capture all deficiencies. Based on our engineering judgement, we believe these additional walls will show up as required in a Tier 3 evaluation.

Limitations.

This report does not express or imply any warranty of the existing structure(s) and was developed based solely on visual observations made during a site visit, a review of available construction documentation and limited preliminary calculations. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers practicing in the structural field in this or similar localities at this time. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has been prepared for the indicated client to be used solely for its evaluation of the subject property and may not contain sufficient information for the purposes of other parties or other uses.

Best regards,
Miyamoto International, Inc.

Jacob Gruber, P.E.
Associate

Lon Determan, S.E.
Principal

Attachments:

Appendix A: Existing Structure Retrofit Concepts
Appendix B: New One-story Structure Framing Concepts
Appendix C: Spalling & Crack Repair Details
Appendix D: ASCE 41 Tier 1 Checklists and Supporting Documentation

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Appendix A: Existing Structure Retrofit Concepts

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