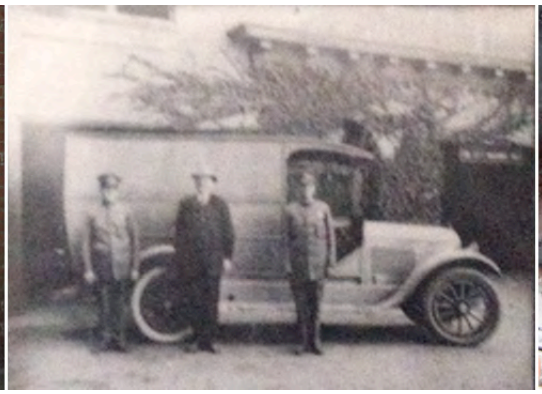

ALAMEDA MUNICIPAL GARAGE

DRAFT core Historic Structure Report

Prepared for
City of Alameda
2263 Santa Clara Ave.
Alameda, CA 94501

Prepared by
Garavaglia Architecture, Inc

25 May 2011

Innovating Tradition

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CHAPTER 1 - INTRODUCTION

PROJECT PURPOSE AND GOALS

The Alameda Municipal Garage (the Garage), located behind Alameda City Hall, was constructed in 1915 as a parking and service garage for City vehicles. The Romanesque Revival style unreinforced masonry building was designed to harmonize with the adjoining City Hall built twenty years earlier. While the building is not individually listed on the National Register of Historic Places, it is assumed to be locally historic for the purposes of this HSR because of its association with the National Register-listed City Hall and the municipal development context developed for that building.

Currently used as storage and parking for select City vehicles, its rehabilitation has been identified as a key component to the City's proposed Civic Center Vision. Currently, this vision includes the adaptive reuse of the structure and its integration into a new public plaza as a part of a second entrance to City Hall.

The City of Alameda has commissioned this core Historic Structure Report (cHSR) to facilitate the reuse of this building. The chief objectives of this document are to document the historic significance and character-defining features of the Garage; determine the work required to complete necessary seismic and other upgrades for occupancy; and to determine the work necessary to preserve and rehabilitate the structure for use as a flexible retail/office/public use venue that is consistent with the Civic Center Vision.

Garavaglia Architecture Inc.' s goal for the project is to create a useful technical and planning document to help the City achieve their goals. This cHSR presents a context for architectural analysis, which provides a foundation for recommendations, treatments, and upgrades to facilitate rehabilitation of the building. All recommendations conform to the Secretary of the Interior's Standards and Alameda's Historic Preservation Element. This cHSR includes the basic preservation documentation needed to further develop the project, and also provides recommendations for additional study in future phases of the construction project.

EXECUTIVE SUMMARY

A definitive use for the Garage must be determined before detailed rehabilitation planning for the building can occur. To aid in these efforts, Garavaglia Architecture, Inc. has studied the historical character of the building, reviewed the relevant code requirements, consulted with the City on its current and future needs for the space, and developed a select number of potential and appropriate uses that could be accommodated within the building. These uses provide a wide range of possibilities and flexibility for the City or a tenant.

Within the wide range of possible uses, Garavaglia Architecture, Inc. has undertaken specific code research to provide guidance on implementing three specific use classifications – Storage Group S, Business Group B and Assembly Group A-3. All have uses that could be implemented within the building in a manner that would be compliant with the Secretary of the Interior's Standards for Rehabilitation. To minimize impacts, we recommend that occupancy be limited to less than 50 people, that the second floor storage area remain as storage regardless of any new uses on the first floor, and that the garage spaces remain relatively open in nature.

Under Storage Group S, the current use, no specific upgrades would be required, however we do recommend that basic deferred maintenance issues be addressed to prevent further deterioration of the materials and prolong the usable life of the structure.

For other changes in use, general areas of consideration are:

- Proximity to adjacent properties – this may require exterior sprinkling of the building to bring it into code compliance.
- Exits – If building occupancy is limited to less than 50 people, no new exits will be required. However, if occupancy is 50 people or higher, at least one additional means of egress may be needed. This can be accommodated rather easily given the extent of exterior walls, location of current window and door openings, and the rather open layout of the interior space.
- ADA – The building is generally in compliance with ADA egress and circulation requirements. As long as the interior first floor spaces remain relatively open, no further modifications should be necessary. The second floor will require access by lift or conveyance, therefore, Garavaglia Architecture, Inc. recommends that this space remain as storage and not open to the public. This will avoid any significant ADA and code-related modifications for the second floor.
- Plumbing – Currently there is one restroom within the building, located on the second floor. If a different use is placed within the building, additional restrooms will be required on the first floor. The number of stalls is determined by the specific use and proposed occupancy. If occupancy is limited to less than 50 people, most uses would require only 1 bathroom per gender. This could easily be accommodated within the current partition spaces or through creation of a separate enclosed space within the large garage volume.

While further analysis will be required when planning for a specific rehabilitation project, the data provided here will serve as a starting point for those considerations. Each use has particular requirements to meet current codes, and each would have slightly varying degrees of impact on the building. Cost implications of the eventual rehabilitation project will also determine which of these scenarios makes the most sense for the City.

Regardless of the eventual use, there are issues of deferred maintenance that should be addressed immediately. These include:

- Repair of the damaged and deteriorating cornice, modillions, and soffit
- Clearing clogged drains and maintaining positive water flow through internal downspouts
- Installation and maintenance of new gutters and external downspouts
- Proper connection of rain leaders to the storm water sewers to eliminate areas where water is deposited directly against the building's foundations
- Localized repointing (after proper testing) to re-establish a sound and weather-resistant building envelope

LOCATION & SETTING

The Alameda Municipal Garage is located behind (north of) Alameda City Hall. It sits at the southwest corner of a municipal and public parking lot, between City Hall and the police station. Access to the site is from Oak Street, approximately halfway between Santa Clara

Avenue and Lincoln Avenue. This area serves as the civic core of Alameda, with the former main public library (1902), the current main public library (2006), the police station (c.1970), City Hall (1896), and Alameda High School (1903-1925, now Alameda Unified School District Administration offices) located within a two-block radius. The Park Street commercial corridor,

Figure 1. Aerial view of the project site. The Alameda Municipal Garage is outlined in yellow. (Image from Google Maps.)

one of the two primary commercial districts in Alameda, is located one block east. Park Street is also a National Register listed historic district. This area of Alameda is approximately seven blocks from the Oakland estuary and approximately ten blocks from San Francisco Bay.

STATEMENT OF SIGNIFICANCE

The Alameda Municipal Garage is locally significant for its role in the transition of Alameda's City government from its 19th century roots to its 20th century form and for its relationship with the National Register listed City Hall. This period was one of marked growth within the City as well as a period of extraordinary technological change. The construction of the garage symbolized the City's commitment to using technology to improve its services, and reduced vehicular maintenance cost, thus providing financially responsible services for the City. Its design is harmonious with City Hall and the two buildings have a clear aesthetic connection, evidence of their historical relationship.

METHODOLOGY

Garavaglia Architecture, Inc. used a three-phase approach to understand the nature of the project and the needs of the resource for the purpose of developing responsive and responsible recommendations. The first phase involved collaboration with the project sponsor, the City of Alameda, and other pertinent stakeholders to identify the collective and individual goals for the project and resource. As part of this phase, Michael Garavaglia and Becky Urbano of Garavaglia Architecture, Inc. met with Dina Tasini from the Economic Development Department, and Simone Wolter of the Community Development Department on 1 February 2011 to identify immediate needs and long-term visions for the subject property.

After the goals for the project had been discussed and agreed upon by all parties, Garavaglia Architecture, Inc. gathered information on the history and development of the building. This included research and review of general information on the history of the Civic Center area as a whole, as well as site-specific information including building permits, historical maps, personal accounts of the building, and other materials. This information was combined with a conditions assessment of the property to develop a brief historic context, construction chronology, and a prioritized list of character-defining features for the resource. Historical integrity was also evaluated and general parameters for the proposed work were established.

Based on the outcome of the stakeholder meeting and historical documentation of the building, Garavaglia Architecture, Inc. developed recommendations for treatment. These recommendations adhere to the Secretary of the Interior's Standards for Rehabilitation and are presented in a prioritized order in this document.

Condition Assessment
Initial evaluation and survey work was completed on 6 January 2011 and 9 March 2011 to determine overall conditions, document configuration and details with measurements and photographs, and to assess the building's current material state and potential for rehabilitation. A team of architecture and engineering professionals was assembled to conduct the surveys and record the property. Major exterior elements and interior spaces of the building were examined, recorded, and assessed for condition and significance.

Research
Garavaglia Architecture Inc. also conducted additional archival research on the subject property and surrounding area. The following repositories were consulted as part of the research process. (See References section below for complete list of resources).

- Alameda Public Library
- The Alameda Museum/Alameda Historical Society

Based on the available budget and current project needs, no further research was conducted. However, before a detailed rehabilitation plan is developed, additional attempts to locate original 1915 drawings of the building and gather historical photographs from the various City departments should be made. Drawings were citied on the c.1990 DPR forms but no drawings could be located as part of this study.

CHAPTER 2 - HISTORICAL BACKGROUND

HISTORICAL SUMMARY

Alameda Development – an Overview
Much has been written about the history and development of Alameda as a community. The information below is quoted from the 1991 City of Alameda General Plan and provides a brief general overview of Alameda's early settlement and development.

> Alameda in its natural state was a peninsula covered by a dense forest of coastal live oak. Prior to the arrival of the Spanish and Mexicans it was inhabited by Coastal Miwoks who sustained themselves through hunting, fishing and gathering. Settlement by non-natives began in 1776 after Luis Peralta divided part of his large East Bay land grant, the Rancho San Antonio, among his four sons. Alameda derived its original name, "the Encinal," from the large stands of native oaks ("encino" means "oak" in Spanish) on the Main Island. The name "Alameda," meaning "grove of poplar trees," was given to the City as a poetic gesture upon popular vote in 1853.
>
> In 1849, the California Gold Rush brought Americans and Northern Europeans to San Francisco Bay. Many made their fortunes in supplying goods and services to the region's burgeoning population. Among these were two young entrepreneurs, William Worthington Chipman and Gideon Aughinbaugh, who purchased the Encinal from Antonio Maria Peralta for $14,000 in 1851, the year after California became a state. They subdivided the land and sold tracts for residences and orchards. By 1872, three separate settlements, the Town of Alameda, Encinal and adjacent lands, and Woodstock, were established in the east, central and western sections of the peninsula. The Town of Alameda was granted a charter by the State Legislature in 1854; incorporation of all peninsula settlements under one local government occurred in 1872.
>
> Early growth of residential, commercial and industrial areas depended upon water and rail transportation, and an excellent climate. The City's industrial waterfront and small commercial districts ("the stations") developed in conjunction with rail improvements, while neighborhoods of Victorian homes were built, and beach resorts attracted tens of thousands of weekend visitors. In 1902, the Tidal Canal was completed and Alameda became an island. Major shipyards and Neptune Beach (the "Coney Island of the West") were established along the northern and southern shores to take advantage of the island's assets.
>
> The decades between 1920 and 1970 witnessed cycles of boom and bust. Following an enlightened era of civic building during the 1920s, Alameda endured difficult years of political scandal and corruption through the 1930s. The entry of the United States into World War II focused the City's attention on the war effort. During World War II, shifts ran around the clock at the Naval Air Station (commissioned in 1940) and in the City's shipyards, and the City's population reached an all-time high of 89,000.
>
> Entering the '90s, Alameda's greatest unknown [was] the effect of impending defense budget cuts on the future of the Alameda Naval Air Station (NAS), which [occupied]

one-quarter of the City's land area and [was] its largest employer.[1]

The Naval Air Station was decommissioned in 1997 after fifty-seven years of continuous service. Today, Alameda is known for its Victorian homes, tree-lined streets, historical business districts, and small-town feel. As of the year 2000, Alameda's population numbered around 72,000 residents.

Municipal growth

Following incorporation in 1872, Alameda's government consisted of a Board of Town Trustees, the town officers (treasurer and assessor) and a Board of School Directors. A concern for public safety soon led to the formation of police and fire departments and Frederick K. Krauth Jr. was hired as the town's first police officer in 1874. The following year saw the addition of two small jails and a patrol wagon. In 1876, the Board of Trustees accepted the enrollment of a volunteer fire company and a fire station was constructed on Webb Avenue in 1877. By 1881 there were six fire companies.[2]

Alameda's government adopted a new town charter in 1878 that provided for a town attorney, a chief of police, a fire department and a superintendent of schools. The creation of the Alameda Free Library in 1879 was enacted by the state legislature and not with the new town charter. The primary result of the new charter was the halt of all public works. Little to no street development happened during the six-and-a-half years of the charter's existence.[3]

The 1878 charter had stifled development in the new town and by the early 1880s, residents began to push for change. The election of November 4, 1894 eliminated the restrictions of the 1878 charter by replacing it with a new General Law charter, and Alameda officially became a city. This new charter reorganized the City's governing structure and empowered the government to call elections for the sale of municipal bonds to fund public improvements. The liberal provisions of this new charter enabled the municipality to undertake a significant program of improvements including the installation of a sewer system, street and sidewalk paving, and installation of an electric light system.[4]

Public buildings completed under the City's General Law government were financed by bonds and included three new primary schools, a high school, and City Hall (1896). City Hall provided permanent, centralized quarters of the City's government and included meeting rooms for trustees, city officers and boards; headquarters and jail facilities for the police department; and a full wing for the library.[5]

By the late 1890s prosperity gave way to recession and the city government made few improvements after 1895. A new high school was constructed in 1903 with the help of a $100,000 bond issue, and a new library was constructed with the help of a Carnegie grant in 1902-3. The residents were again ready for change, however, and a new charter, known as the Freeholders charter, passed in July 1906. The new charter again brought notable changes to the government, establishing a City Council and a mayor, elected for two-year terms. A department

[1] *General Plan of the City of Alameda* (1991) at http://www.cityofalamedaca.gov/City-Hall/General-Plan (accessed: 3.4.2011).
[2] Woody Minor, "A History of Alameda Government, Two Steps Forward, One Back: 1872-1884," *The Alameda Journal* (March 18-24, 1988).
[3] Ibid.
[4] Woody Minor, "A History of Alameda Government, The Victorian Legacy: 1884-1901," *The Alameda Journal* (March 25-31, 1988).
[5] Ibid.

of Electricity was born, as was a Police and Fire Commission. All boards and commissions were made appointive.[6]

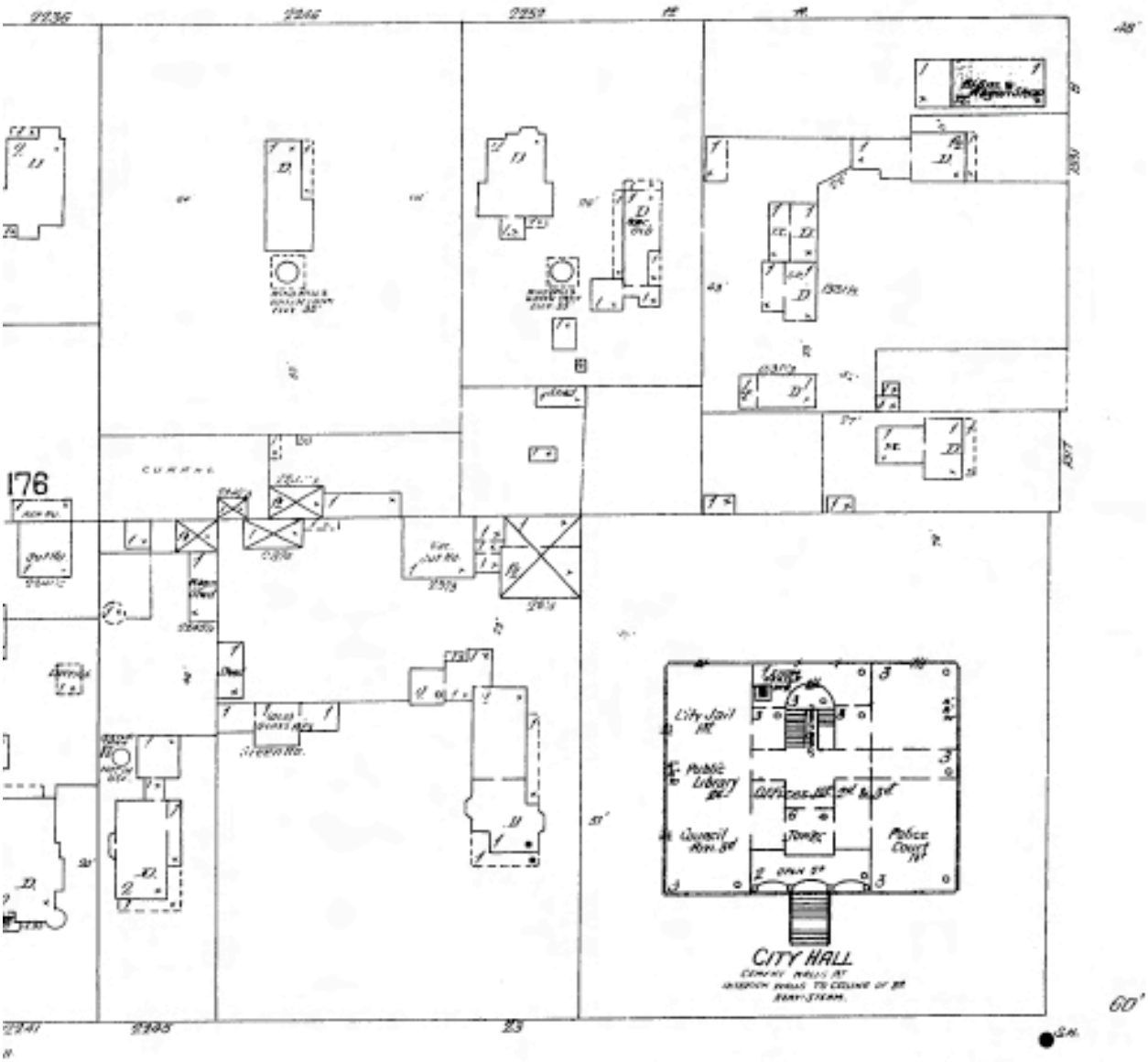


Figure 2. Detail of the 1897 Sanborn Fire Insurance Map showing the newly constructed City Hall. Note the size of the City Hall lot and the buildings behind it where the parking lot, garage and Police station now sit.

Prosperity had returned to the island and a population explosion, resulting in part from an influx of new residents after the 1906 earthquake, led to a building boom with bungalows being

[6] Woody Minor, "A History of Alameda Government, Transition: 1900-1917," *The Alameda Journal* (April 1-April 7, 1988).

built by the hundreds across the island. Sizeable bond issues funded replacement of the city's original fire station with a new Mission Revival style facility, and represented a sizeable investment in new schools including Washington (1909), Haight (1910), Porter (1916) and Lincoln (1917). Additional improvements were made to the electric system at this time and the city's first park system was created.[7]

Following this period of improvement and growth, residents were once again calling for revisions to the city's governing system. A group of local civic reformers, spurred by the Chamber of Commerce, formed the Charter League of Alameda in 1916 to advocate for a new city manager form of government. At a special municipal hearing in January 1917, the new charter was adopted by a vote of 2,095 to 1,801. Alameda thus became the third city in the Bay Area to adopt the city manager form of government. With minor changes it is the form of government used in Alameda today.[8]

In the years following World War I, Alameda's municipal government assembled an impressive list of achievements. The park system was expanded in the early 1920s, and the Municipal Golf Course opened in 1927. The Alameda Health Center was built in 1923 to house the offices of the health department and social services and three new fire stations were constructed between 1924 and 1929. The new Alameda High School was also completed in 1926 next to the older high school.[9] This period of expansion coincided with the rapid introduction of technology into mainstream America. The City was adapting to its expanding scope of services to an expanding constituency, while augmenting its traditional methods with new ones more reliant on machines. Not the least of which was the gasoline engine that allowed for improved fire, police and municipal services.

Municipal Garage

When City Hall was constructed in 1896, Alameda was still a city dominated by horses, carriages and livery stables. The Police and Fire Departments relied on animal labor to haul their wagons and equipment and on foot patrols for day-to-day activities. Automobiles were available but were playthings of the extremely wealthy. However, this began to rapidly change after the turn of the century.

In 1905, the State of California introduced its first vehicle registration fee.[10] This fee was collected once and was good for the period of ownership of the vehicle. In 1907, the California State Automobile Association (CSAA, now part of the American Automobile Association or AAA), was founded in San Francisco as a group of automobile enthusiasts interested in sharing information on travel routes, interesting trips and logistical information. At this time, travel via automobile was still a novelty and people treated it like a hobby. Travel was difficult because many roads were not paved; most were not more than dirt tracks and gasoline distribution was not standardized.[11]

[7] Ibid.
[8] Woody Minor, "A History of Alameda Government, Creation of the Modern City: 1917," *The Alameda Journal* (April 8-April 14, 1988).
[9] Woody Minor, "A History of Alameda Government, Triumph: 1917-1929," *The Alameda Journal* (April 15-April 21, 1988).
[10] James J. Fink, *American Adopts the Automobile:1895-1910*, (Cambridge, Massachusetts: MIT Press, 1970), 167.
[11] Michael Karl Witzel, American Gas Station: History and Folklore of Gas Stations in America, (Osceola, Wisconsin: MBI Publishing Company, 1992), 13.

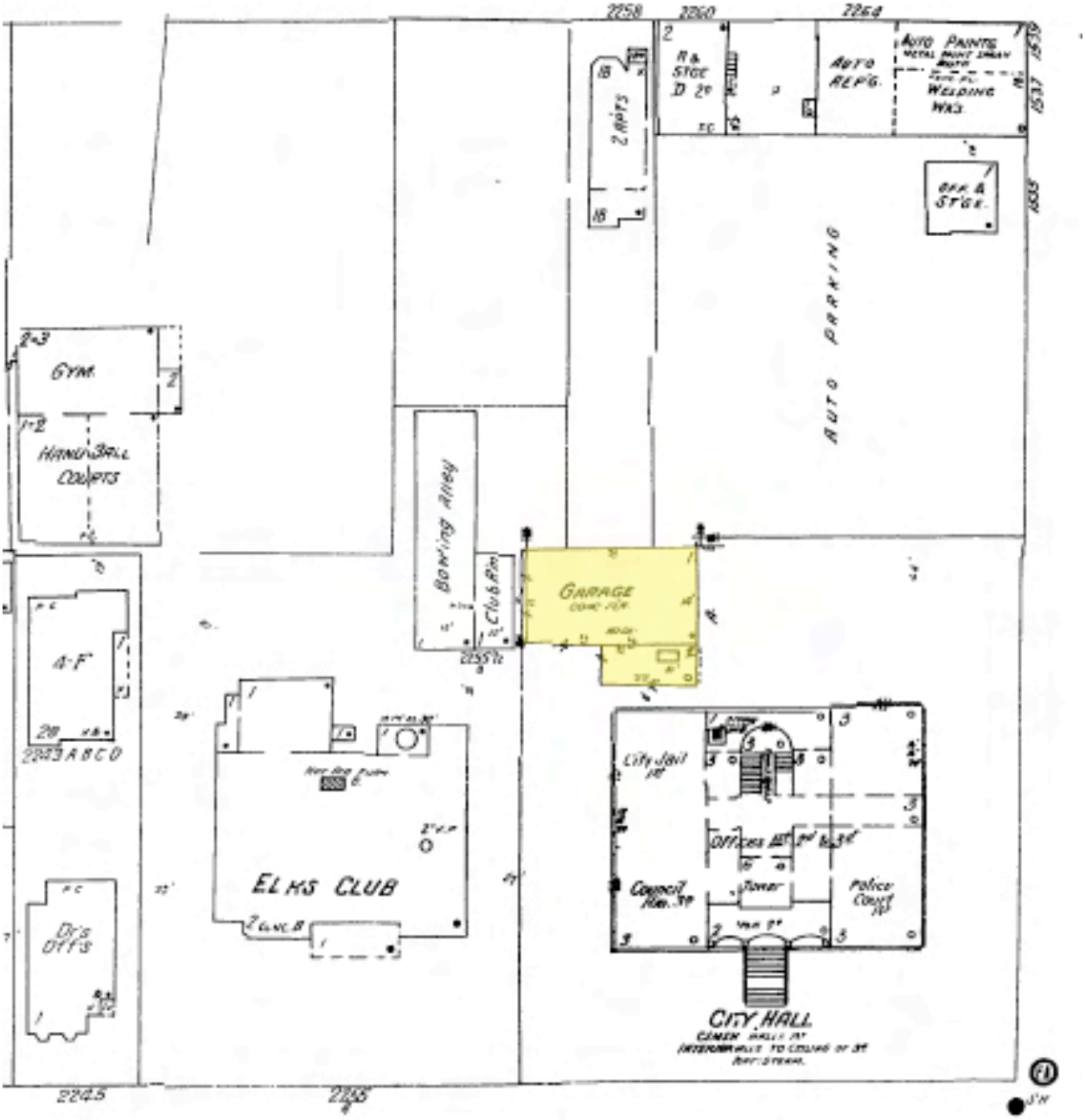


Figure 3. Detail of the 1948 Sanborn Fire Insurance Map showing Municipal Garage behind City Hall and the large parking lot taking up most of the current Civic Center area. Note the presence of the formal Elks Club and the current secondary Elks building, shown here as a bowling alley.

This changed in 1908 when Henry Ford introduced his Model T automobile, bringing car ownership within the range of families of more moderate means. Soon owning a car, and using a car for travel became an accepted part of life. It did not replace the horse and wagon but was becoming more common throughout the United States and northern California. These machines

did require constant maintenance however, both because of the sub-standard roads and the inexperience of the driving public. Proliferation of auto mechanic garages began to service the growing number of motor vehicles on the roads. In fact, by 1910 there were over 450,000 vehicles registered in the United States. This increased dramatically to 2.3 million in 1915.[12] Cities began to realize that as they motorized their municipal vehicles, it was necessary to also create municipal garages to service them. As the number of vehicles increased, so did the number of service garages and parking structures.

By 1915, it was not uncommon for cities to maintain their own municipal garages to service their vehicles. In Alameda, the municipal garage was constructed in 1915, almost immediately behind City Hall. Great efforts were taken to ensure that the modest 1- and 2-story building would be compatible in design and style with the much larger City Hall. A hipped, standing seam roof on the 2nd floor section echoes that seen on the larger building, as do the arched brick headers, the oversized pressed-metal cornice, and the red brick walls. Its status as a utilitarian structure is evident in the use of lesser quality bricks, lack of tinted mortar joints, and simplicity of the interior finishes. However, it is more ornate than would be expected of a municipal garage that did not have such a close physical relationship to City Hall.

According to the 1990 Department of Parks and Recreation (DPR) Primary (A) form and Building, Structure, Object (BSO) forms, the building was constructed in 1915 for $3,750 by A.T. Spence for the City of Alameda. The second floor office area was supposedly used by the Alameda Police Department as a photography lab. The DPR forms cite original permit records and drawings, although these documents could not be located during the course of this HSR project. Mention is made of an early addition to the 1-story garage area, thus generating the current form, however, substantiated evidence to support the extension of the building to the west could not be found.

PROPERTY DEVELOPMENT CHRONOLOGY

1915	Building constructed by builder A.T. Spence at a cost of $3,750.[13]
1920	At this time the building had no awning on the front. The garage doors for the small garage were composed of double leafs with side hinges and glazing. It is unclear whether doors existed for the larger opening as a sign hangs down from the opening header and no doors are present in historical photographs from this era. Some ivy is present around the larger garage door opening.[14]
1927	Heavy ivy coverage by this date.[15]
1954	Appears as it does today with a pressed metal framed awning over the central arched window. There are no large trees behind the building.[16]
1994	Three fuel tanks removed from parking lot adjacent to building[17]

[12] William Howard Taft and the first motoring presidency, p387. These numbers are a bit misleading as some cars were registered in multiple states and the registration process was not uniform between states. However, the relative numbers are revealing.
[13] Department of Parks and Recreation (DPR) form for "City Hall Garage", September 1990.

[14] Description from observations of a historical photo dated 1920. Alameda Museum Collection Contact Prints.
[15] Description from observations of a historical photo dated 1927. Alameda Museum Collection Contact Prints.
[16] Alameda Times-Star "Year of Decision" May 4, 1954, photograph.
[17] Alameda Times-Star "Tank Removal from City Hall Lot Continues" June 21, 1994.

HISTORICAL SIGNIFICANCE

Current Historical Status

The Garage is not currently listed on the local, state or national inventories as a historical resource. It has been previously evaluated and determined eligible for listing on the National Register, however the documentation supporting this conclusion could not be located.[18] In 1990 the building was surveyed and the following conclusion was made:

The significance of the Municipal Garage was not assessed in the National Register nomination report for Alameda City Hall, even though it shares the same parcel. Since City Hall was listed on the National Register in 1982, perhaps the Municipal Garage should be considered as a contributing outbuilding. It is clearly eligible for the National Register on the local level of significance.[19]

Based on the information gathered during research for this document, and previously prepared assessments, Garavaglia Architecture, Inc. recommends the building be considered eligible for listing on the local register of historic resources. It retains a high degree of integrity as a municipal garage, is stylistically sympathetic to the City Hall, and was clearly designed to be connected visually to this larger historic resource. This building type (Municipal Garage) was once common but is now rare. This type of building is typically demolished for more modern facilities. If more information on its role in the early mechanization of Alameda's vehicular fleet is found, the building might be eligible for the California Register of Historical Resources at the local level; however, given the current understanding based on available documentation, Garavaglia Architecture, Inc. does not find the building eligible for individual listing on the National Register of Historic Places.

Period of Significance

Based on the information above, Garavaglia Architecture, Inc. has assigned a period of significance from 1915 – 1961 for the subject property. This period corresponds to the date of construction through the current 50-year threshold for historic resources. Because the building continues to serve, even in a limited way, as a municipal garage for the Police motor brigade, the period of significance may change with time.

[18] Office of Historic Preservation, Directory of Properties in the Historic Property File for Alameda County, 10-05-10.
[19] Department of Parks and Recreation (DPR) form for "City Hall Garage", September 1990.

CHAPTER 3 - CONDITIONS ASSESSMENT

PHYSICAL DESCRIPTION

The Alameda Municipal Garage is a two-story brick building built in 1915. It is comprised of a larger one-story garage and a two-story office over smaller garage. Situated at the rear lot line, the building is abutted by a civic parking lot to the east (front), City Hall to the south, the Elk's Lodge to the west, and the Police lot and station to the north. A shallow gabled roof with a stepped brick parapet tops the one-story portion of the building; rolled asphalt roofing clads the roof surface. A hipped roof covered in standing seam copper cladding tops the two-story portion and a large skylight pierces its north roof plane. Copper gutters border the eave line, and the broad eave overhang is enclosed by a pressed metal soffit with block-like modillions and a plain frieze, all of which are set above a corbelled brick cornice. The building as a whole is set on a concrete slab foundation.

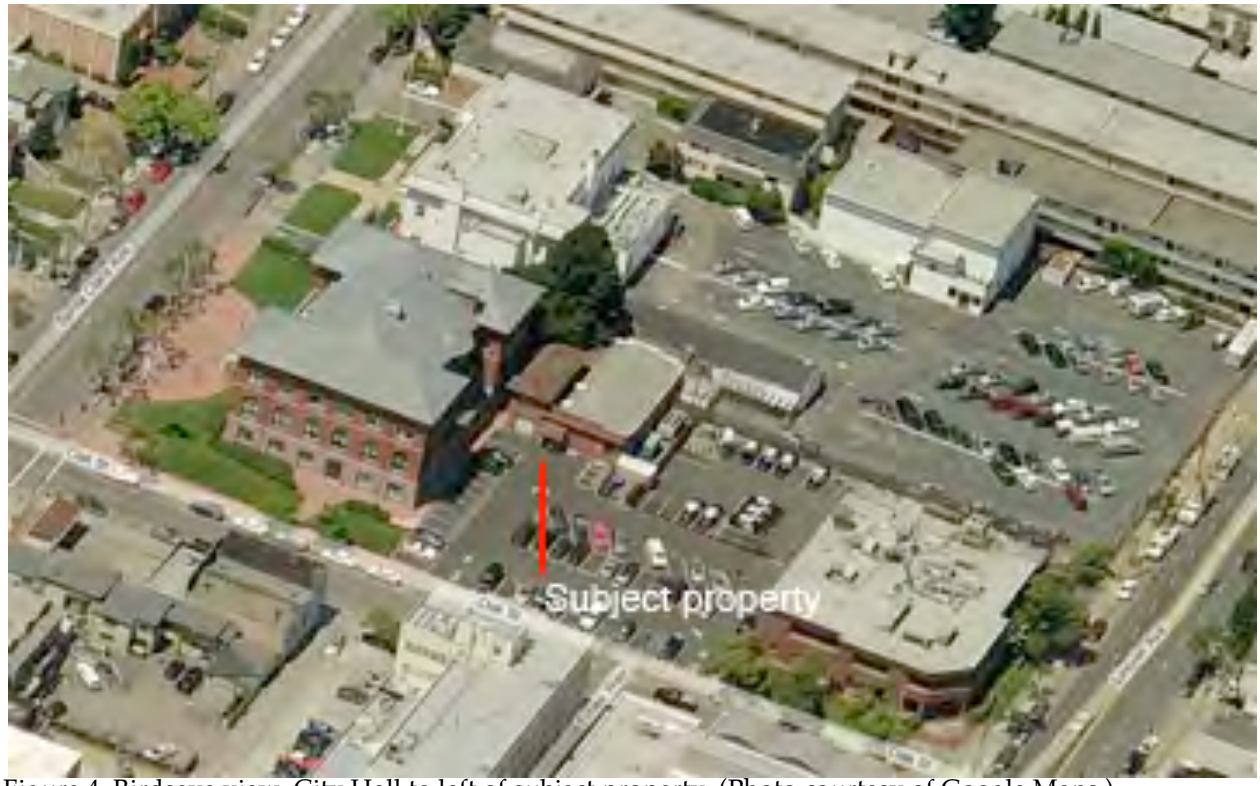


Figure 4. Birdseye view. City Hall to left of subject property. (Photo courtesy of Google Maps.)

Exterior
The primary (east) elevation features two, modern, roll-up vehicular entry doors, one for each interior garage space. A pair of one-over-one, double-hung wood windows pierce the wall face above the vehicular entrance of the two-story portion of the building. The second vehicular entrance is flanked on either side by a single arched, double-hung wood window. A pent roof with faux Spanish tile pressed metal roof cladding shades the south arched window. A corbelled brick and pressed metal cornice stretches across the one-story portion of this

Figure 5. Primary (east) elevation. (Photo by Garavaglia Architecture, Inc., 2011)

Figure 6. North elevation. (Photo by Garavaglia Architecture, Inc., 2011)

elevation, above the window and door openings, and the façade terminates in an asymmetrical stepped parapet. The north elevation faces the police lot and consists of a solid brick wall. No window or door openings are located on this elevation.

The one-story portion of the rear (west) elevation features two arched window openings with one-over-one wood sash windows with ogee lugs. A stepped brick parapet wall tops this section of the elevation. The two-story portion of the rear elevation is recessed from the one-story wall face and features a single arched window opening with one-over-one wood sash window. A small, flat-roofed storage room with wood paneled access door is set in the junction between the two wings of the building.

The south elevation of the Municipal Garage faces the north elevation of Alameda's City Hall. The two-story portion features four, arched ground-level window openings with one-over-one wood sash windows with ogee lugs; a wood paneled door provides pedestrian access to the second floor at the west end of this wall. Two flat-arched window openings with one-over-one wood sash windows mark the second story. The recessed one-story portion of the south elevation is characterized by a large wall opening (former vehicular access) that has been infilled with vertical-groove wood siding and an inset access door.

(Note: See drawings for configuration of rear and south elevations. Full photo representation is not available due to proximity of neighboring buildings.)

Interior

Figure 7. Main garage space. (Photo by Garavaglia Architecture, Inc., 2011.)

The garage interior is composed of three primary sections: the main garage, the small garage and the second-floor office. The main garage has unfinished brick exterior walls and exposed wood trusses. The space is broken up into visually open areas (garage and police evidence storage) and modern enclosed spaces (document and other storage room). The entire space is accessed through a pedestrian door built into a portion of a modern roll-up garage door. At the north wall, a former garage door opening has been filled with plywood and a pedestrian door

The modern storage rooms were inserted into the larger garage volume to create areas that could be effectively climate-controlled. They are constructed of wood frame partition walls with gypsum board and a textured finish. They have finished ceilings and carpeted floors. Only the front room, currently used for document storage, has a window. All the others are lit with a combination of electrical lights and skylights. From the main garage space, mechanical equipment and the skylight housings are clearly visible above the enclosed rooms.

Figure 8. Electrical area. (Photo by Garavaglia Architecture, Inc., 2011.)

The small garage space is accessed from a standard roll-up garage door and has a scored concrete floor and exposed joist framing at the ceiling. The exterior walls are exposed brick and the interior walls are covered with unfinished gypsum board. Three arched header windows line the north wall. They are largely covered over on the interior with boards, equipment and

Figure 9. Enclosed stair leading from the south elevation to the second floor storage area. Based on remaining fabric, the area above the molding was likely originally open, with an entry door at the middle landing shown at the lower center of the photograph. (Photo by Garavaglia Architecture, Inc., 2011)

shelving. Lighting is primarily from florescent fixtures suspended from the ceiling.

The only original pedestrian door remaining is located on the north elevation at the west end of the two-story section, facing City Hall. An original wood stair, enclosed by painted brick and beadboard paneling leads to the second-floor office space. This area is partitioned into three rooms: the front room, a middle room and a bathroom along the west wall. The front room faces east and contains a pair of flat arch window openings with wood double-hung sashes. The middle room has two flat arch windows facing north. A single arched double hung sash faces west in the bathroom. All rooms are finished with yellow tile flooring, painted white brick or beadboard walls and a beadboard ceiling trimmed with quarter-round and ogee molding. The partition walls are gypsum board with a textured finish. A large skylight in the middle room is

boxed out with beadboard and glazed with wire glass. A small alcove on the south wall houses an old knob-and-tube fuse box. The two main rooms are filled with shelves and boxes of paper.

This space has been altered over time. There is evidence that the space was one room originally with a railing near the stair instead of the enclosed stair that appears today. There is evidence on the middle stair landing that a second door or a gate was installed. From here the stair continued up to the open office space. The continuous ceiling trim, remnants of beadboard finishes and markings on different finish elements all support this arrangement.

Figure 10. Storage room at the el-junction between the two-story and one-story building sections. Stenciled numbers, hook and shelving are extant as are the rusted canisters shown here. Standing water, a failing room and mortar loss are evident. (Photo by Garavaglia Architecture, Inc., 2011.)

On the exterior, a small storage room is built in the intersection of the large garage and the two-story portion of the building. This room has painted brick walls, a concrete floor and wood shelving along most walls. Stenciled numbers mark hooks along the top of the wall, and, at the time of the survey, rusting cans of an unknown material sat on the wet concrete floor.

Structure

Roofs

The gable roof over the one-story section is composed of trusses spaced at 7′-0″ on center (o.c.) The webs of the truss are 1-7/8″ x 5-3/8″ members with double bottom and top 2″ x 7-3/4″ chords. The trusses also have vertical tie rods between the chords. Some trusses have metal ties along the bottom cord that anchor into the masonry walls. There are 1-7/8″ x 5-3/8″ purlins spaced at 30″ o.c. that span between the trusses. The roof has 1x straight decking with a rolled asphalt roofing material finish. Crickets along the north and south walls are framed with 1-7/8″ x 5-3/8″ wood joists. They span 3′-7″ off the wall perpendicular to the roof framing and are spaced at 32″ o.c.

Note: Inspection of the hip roof over the two-story section was limited to obstructed visual observation from a small ceiling access panel in the second floor restroom.

Visually the rafters appear to be 2″x 10″ at 24″ o.c with a 1x ridge and 1x straight decking. The ceiling joists are 2″ x 5-3/4″ at 16″ o.c. The second floor framing consists of 2″ x 13″ joists spaced 16″ o.c. The joists are supported in pockets at the masonry wall.

Walls

The exterior perimeter walls are three withes, 13″ thick unreinforced brick masonry at the first story and two withes, 8″ unreinforced brick masonry at the parapets and second story.
The interior of the masonry walls are painted in select locations on the first and second levels and unfinished in the primary garage space.

Within the large first floor garage and the second floor office suite, non-historic partition walls have been constructed to separate the original large spaces into more contained and controllable offices and storage areas. At the west side of the building is the Police evidence locker. A wood framed dividing wall is free-standing between this space and the primary garage area; it does not appear to be anchored at its top to the roof framing. Within the storage locker is a storage platform level that is approximately 5′-6″ above the slab floor. This platform has 2″ x 6″ joists at 16″ o.c. with 1x decking. The joists are supported by a ledger mounted to the exterior walls and 4″ square posts. A series of fully enclosed office spaces line the north wall of the garage space. The anchoring of these interior walls could not be verified. There is a small concrete storage room on the northeast corner that was not accessible. There are metal plates at the exterior north wall where this room is located

On the second floor, the office suite consists of three rooms. All interior partition walls are finished with gypsum board. As noted above, the stairwell to the second floor is covered with 1x beadboard paneling.

Foundation and floors

The foundation of the building was not visible but there is an interior slab on grade that slopes toward two interior drains, one in each garage bay. This slab is not connected to the masonry walls at the perimeter.

Other
The exterior awning on the east elevation measures 12′ by 7.5′ and is supported by 1- 5/8″ x 3-1/2″ rafters spaced 24″ o.c. It has 1x straight decking and a pressed metal roof finish at the top. It is attached to the building at each end by a 2-3/4″ x 3-1/2″ cleat and brace that is bolted through the masonry wall.

CONDITION EVALUATION

Assessment of various features and spaces is done according to an evaluation system that assigns a rating corresponding to the feature's physical condition and potential for reuse. This system utilizes an "Excellent-Good-Fair-Poor" ranking.

Excellent - building or element requires little to no repair or replacement
- Element is in a new or pristine condition
- No work is required to maintain current condition

Good - building or element requires minor repair or replacement
- Routine maintenance should be sufficient to maintain the current condition and /or a cyclical maintenance or repair / rehabilitation project is not specifically required to maintain the current condition or correct deficiencies

Fair - building or element requires moderate repair or replacement
- The feature generally provides an adequate level of service to operations, but
- The feature requires more than routine maintenance attention.
- Also indicates that cyclical maintenance or repair / rehabilitation work may be required in the future.

Poor - feature is in need of immediate attention
- Routine maintenance is needed at a much higher level of effort to meet significant safety and legal requirements
- Cyclical maintenance should be scheduled for the current year and / or
- A special repair / rehabilitation project should be requested consistent with property requirements, priorities and long-term management objectives.

The Alameda Municipal Garage has been used to service and store vehicles since its construction in 1915. Interior partitions were recently added to enclose several areas for office use and document storage. Maintenance has been ongoing, however there is evidence of deferred maintenance and prolonged exposure to moisture. Rising damp and leaking roofs appear to be universal problems throughout the building. The windows and doors appear to be sound but some repair is needed to keep them operable. In general, moisture is the biggest problem plaguing the building.

Because the conditions concerns are nearly universal throughout the building, the following conditions assessment is divided up by building element and the conditions impacting that element. General locations of conditions are discussed and noted on the attached drawings.

Brick Walls (Fair)
Efflorescence
Efflorescence is caused by moisture seeping into a material and leaching out salts. As the salt-laden water migrates to the surface and evaporates, it leaves behind crystals of salt. This is most

Figure 11. Efflorescence at grade in the main garage bay. (Photo by Garavaglia Architecture, Inc., 2011.)

often seen in masonry buildings as a white powdery buildup caused by salt leaching out of the mortar or concrete. This weakens the mortar and can weaken the surrounding masonry matrix as well. As salts crystallize, they expand, causing microcracking in the material. At the Municipal Garage, efflorescence is visible on the interior and the exterior brick walls, both at the base of the walls and near the roofline. This indicates that moisture is both rising up from the ground and infiltrating from the roof. In most areas this has resulted in degradation of the mortar from a solid material to a fine silt that can be blown out of the joints. In more severely affected areas, the bricks around the deteriorated mortar are soft, flaking and losing material integrity. Where the brick surfaces have been painted, the paint is bubbling, soft, and detaching from the wall.

Biogrowth

Biogrowth is a broad term that encompasses any plant or plant-like growth on a building. It could range from moss or mold to grass and vines. Two things are generally needed to support biogrowth on a building: moisture and dirt or a rough surface. The rising damp and roof water infiltration have saturated bricks at the bottom and tops of the walls. These areas attract and hold airborne dirt and become good places to support biogrowth. The heavy rains of the past

Figure 12. Biogrowth at downspout, south elevation. (Photo by Garavaglia Architecture, Inc., 2011.)

few months have exacerbated the condition, which appears in most areas as a green tint to the walls. This is true along the south parapet wall and at areas where downspouts are no longer keeping runoff away from the building surface. Areas that can hold more debris, such as the damaged cornice, tops of parapet walls, and roof-wall junctions, can support more robust plants.

Moisture Staining

Moisture staining can take the forms of a green tint related to biogrowth, or as darker areas on the walls where water has been absorbed by the walls or has run over the surface, depositing dirt and debris. Moisture staining is evident at the top of the walls (down approximately 3 feet), and from grade up (approximately 3 feet). Areas around broken downspouts are generally

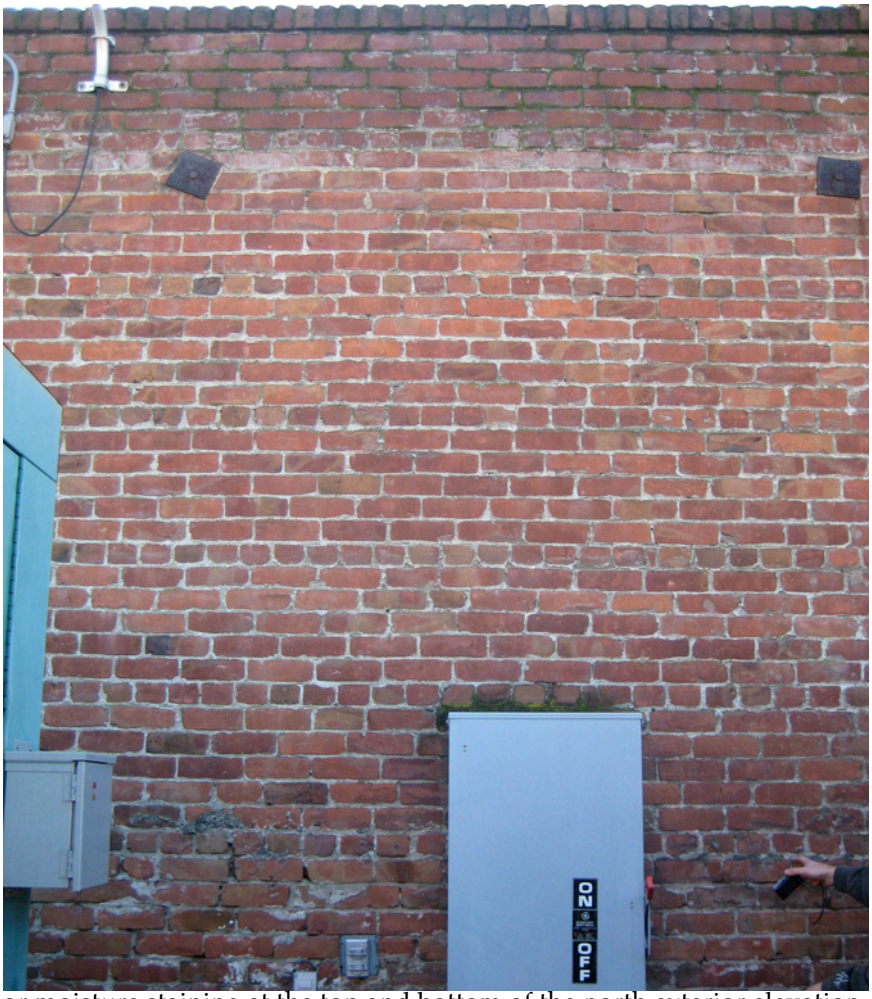


Figure 13. Exterior moisture staining at the top and bottom of the north exterior elevation. Missing mortar is a major concern on this elevation. (Photo by Garavaglia Architecture, Inc., 2011.)

darkened from water retention as well. On the interior, roof leaks have allowed water to move into and down finished surfaces. On unfinished wood framing, moisture stains resemble white lines marking the extent of water infiltration. These are seen on the roof framing, particularly above the current evidence locker at the west side of the building.

Cracking

Cracking is rather limited throughout the building. On the north elevation, there is a long crack that travels almost the entire height of the wall. Some historical accounts describe an addition to the building early it its existence; it is possible that this crack may mark the boundary of the addition. Alternatively, differential settlement in the two foundations, over time, may result in a crack like this one.

At the arched window headers, cracks extend through the headers, through both joints and bricks. This is a result of mortar loss and shifts in material. Some of this damage may be due to seismic activity but no widespread cracking of this type (long diagonal cracks at building corners) was observed.

Figure 14. Missing mortar near grade on the north elevation. (Photo by Garavaglia Architecture, Inc., 2011.)

Figure 15. Arched header mortar loss in Garage Room 1. (Photo by Garavaglia Architecture, Inc., 2011.)

Figure 16. Crack in north elevation. This crack is the full height of the wall and extends through the wall width. (Photo by Garavaglia Architecture, Inc., 2011.)

OTHER OBSERVATIONS

Voids and improper shear test repairs

The north wall has a void through two wythes of brick, presumably from a former vent or pipe location. Throughout the building, single bricks have been replaced with a dark, non-historic mortar. In one case, the brick was left missing (west elevation, northwest corner). These indicate that shear testing was conducted as some point in the past. This was likely done in conjunction with the rehabilitation of City Hall in the 1990s. While no damage was observed from these repairs of former voids, all voids and improper repairs should be addressed during the eventual rehabilitation of the structure. Testing of the mortar should be done prior to repairs to determine an appropriate mortar mix.

Figure 17. Missing brick at west elevation. This is likely a shear test location dating to the rehabilitation of City Hall in the 1990s. (Photo by Garavaglia Architecture, Inc., 2011.)

Figure 18. Northeast corner impact damage. Note the jagged brick corners and missing material. (Photo by Garavaglia Architecture, Inc., 2011.)

Impact damage
The southeast corner of the building is chipped and damaged from previous attachments and from impact damage. Bricks are loose, their fired surfaces are broken and the mortar is deteriorated. These conditions will weaken the corner of the building over time if they are not addressed appropriately.

Windows (Fair-Poor)
Glazing Putty
The windows throughout the building are in need of general maintenance now to prevent more serious, structural damage later on. While most of the glazing is intact, the glazing putty is dry, cracked, and sometimes missing. This condition will allow the glass to fall out and break with slight movements. It also allows moisture to get behind the glass and into the narrow channels

Figure 19. Typical window condition with unpainted sashes and cracked putty. (Photo by Garavaglia Architecture, Inc., 2011.)

where the glass sits in the frame. Because these frame elements are often of narrow cross-section, highly decorative or have delicate joints, moisture damage will progress rapidly and the integrity of the window could be lost relatively quickly.

Operability
Only the second-floor windows were tested for operability. Access was restricted to the remaining windows. In general, the windows had limited or no operability.

Roof / Drainage (Poor)

Figure 20. Ponding at the junction with the two-story wall. (Photo by Garavaglia Architecture, Inc., 2011.)

Supplemental supports
There are 7-3/4″ square posts located under some trusses that provide additional support. These posts are located at the north and south elevations within the primary garage bay. At least one area corresponds with a large through-wall crack. Previous repairs are visible and have not solved the problem. Brief observations of the hipped roof indicated that the hips are not properly supported. Further analysis is necessary.

Figure 21. Detail of a standard cornice condition. (Photo by Garavaglia Architecture, Inc., 2011.)

Ponding and Disconnected Downspouts
The roof is designed to drain at the northeast and southeast corners of the one-story portion of the building. Water flows to these corners and into internal downspouts that drain at the front of the building, near grade. Two other exterior downspouts are partially attached to drain the north and west sides of the copper standing seam hip roof over the two-story section. Only the southeast drain appears to be properly functioning. The northeast drain is blocked by debris at the roof, causing ponding along the wall where the gable roof intersects with the wall of the two-story section. Internally, this drain appears to be leaking. Moisture staining, heavy efflorescence and mortar loss extend down the wall on both the interior and exterior. The exterior drains are not connected along their full length, resulting in water draining down the wall. Once at grade, water is not properly directed away from the building. This is the primary source of rising damp found throughout the building.

Deteriorated Gutters
Also contributing to the poor water management are highly deteriorated gutters on the building. Large voids allow water to drop along walls and adjacent to the building foundation. This is a secondary source of rising damp at locations further from the four drains mentioned above.

Cornice and Canopy (poor)
Voids and Material Failure
The pressed metal cornice is severely deteriorated. Large voids are clearly visible from the ground. Holes in the cornice not only accelerate damage of the cornice itself, but also allow moisture to penetrate the wood framing structure supporting the cornice and roof. On the metal awning roof, voids allow water to contact the framing structure, causing structural damage. The tails of the rafters are splitting and it appears the roof is slightly sagging at mid span. One of the diagonal supports is sliding out of its support notch.

Other
The storage platform in the Police evidence locker is not properly anchored to the exterior walls.

EXISTING SYSTEMS CONDITIONS

Mechanical
The existing mechanical system consists of two gas packaged units, one that feeds the second story space and one that feeds the first floor enclosed storage spaces and telecom room. It is unclear whether the existing HVAC units have outside air intakes for code required ventilation. The upstairs office space has operable windows that could meet the ventilation requirements. The open garage space and evidence storage spaces are not provided with tempered air. If a different use is proposed for these spaces, there would be a requirement for heating and ventilation as a minimum.

Electrical
There are three existing meters located within the garage enclosure currently mounted to a structure that is built within the garage. There are two distribution panels located on the first floor adjacent to the meters. There is an abandoned fuse distribution box at the second floor level. The existing power runs are in conduit that is run perpendicular and parallel to most structural members. The conduit is exposed at the first floor garage and storage areas. The conduit and wiring is concealed at the second story storage rooms. The existing outlet devices are in fair condition.

The existing lighting system consists of 4′ linear fluorescent fixtures located at the garage level that are supplemented with 12″ diameter surface mounted incandescent lights. The lights are past their useful equipment life and in need of replacement. The lights at the second story consist of 4′ linear fixtures surface mounted to the ceiling. These lights are in fair condition.

There is an existing CCTV system at the first floor level of the garage with a few cameras located at the exterior of the building.

The existing telephone and data system for the building is located in a closet. The existing wires are supported by j-hooks or wire straps. The existing wire distribution system should be re-configured for code compliant support of wiring.

Plumbing
The existing plumbing systems in the building consist of one single occupant restroom at the second floor level. The fixtures appear to be in fair condition.

The main water feed for the building appears to come from an adjacent building and is not independently metered. There are two hose bibs mounted at the exterior of the building for general use. If restrooms were added to the building at the ground floor it would require saw cutting of the existing floor for new sanitary sewer pipes. Cold water piping could be run tight to the ceiling for distribution. The gas service for the building is at the northeast corner of the building, just to the right of the main garage door. It appears to be in good condition and not in need of replacement.

EXISTING BUILDING CODE COMPLIANCE

All building projects must meet a defined minimum level of life/safety requirements to protect human life and the building resource itself. The State of California adopted the 2009 International Building Code (IBC) along with specific additions, deletions, and classifications and is it known as the 2010 California Building Code (CBC). This code includes requirements for disabled access to sites and buildings, and has developed extensive energy conservation requirements.

The State has specific methodologies for addressing "historic" structures. This code is referred as the California Historical Building Code (CHBC). Because this building is officially recognized as a contributor to a proposed expanded National Landmark District, the CHBC can be used for code evaluations. The CHBC is used for qualified historic buildings and provides alternative methods for meeting the spirit of the "regular" code and a level of safety, which protects the occupants of the structure. It is *the* code, which may be used for historic structures when desired by the project sponsor.

This preliminary analysis is not exhaustive, but should serve as a discussion tool to inform further resource planning. Basic building code analysis was undertaken to define the context for applicable codes and areas of non-compliance. This analysis starts with the CHBC prior to using the CBC. The 2010 California Building Code went into effect on January 1, 2011. It should be noted that the current codes in effect when permits are sought will be the governing codes for the project.

The building was evaluated for its construction type, occupancy, proximity to other buildings, etc. There is general compliance with disabled accessibility. Major construction work will trigger full compliance for accessibility although the CHBC provides for alternative minimum standards. Final use and design for the building will help refine the compliance requirements.

Relevant Sections of the CHBC
General sections that establish the intent of the 2010 California Historical Building Code are quoted as follows:

8-101.2 Purpose
The purpose of the CHBC is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties (Chapter 8-2). The CHBC is intended to provide solutions for

the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular code (as defined in Chapter 8-2) when dealing with qualified historical buildings or properties.

8-101.3 Intent
The intent of the CHBC is to facilitate the preservation and continuing use of qualified historical buildings or properties while providing reasonable safety for the building occupants and access for persons with disabilities.

8-102.1 Application
The CHBC is applicable to all issues regarding code compliance for qualified historical buildings or properties. The CHBC may be used in conjunction with the regular code to provide solutions to facilitate the preservation of qualified historical buildings or properties. The CHBC shall be used by any agency with jurisdiction and whenever compliance with the code is required for qualified historical buildings or properties.

8-604 Equivalent Facilitation
Use of other designs and technologies, or deviation from particular technical and scoping requirements, are permitted if the application of the alternative provisions contained in Section 8-603 would threaten or destroy the historical significance or character-defining features of the historical building or property.

1. Such alternatives shall be applied only on an item-by-item or a case-by-case basis.

2. Access provided by experiences, services, functions, materials and resources through methods including, but not limited to, maps, plans, videos, virtual reality and related equipment, at accessible levels. The alternative design and/or technologies used will provide substantially equivalent or greater accessibility to, and usability of, the facility.

3. The official charged with the enforcement of the standards shall document the reasons for the application of the design and/or technologies and their effect on the historical significance or character-defining features. Such documentation shall be in accordance with Section 8-602.2, Item 2, and shall include the opinion and comments of state or local accessibility officials, and the opinion and comments of representative local groups of people with disabilities. Such documentation shall be retained in the permanent file of the enforcing agency. Copies of the required documentation should be available at the facility upon request. Note: For commercial facilities and places of public accommodation (Title III entities). Equivalent facilitation for an element of a building or property when applied as a waiver of an ADA accessibility requirement will not be entitled to the Federal Department of Justice certification of this code as rebuttable evidence of compliance for that element.

Analysis of Current Code Compliance
Construction Type and Height
Based on the 2010 California Building Code (CBC), the building is of Type VB construction. The "V" designation permits the building to be constructed of any material allowed by the code. The "B" designation for this construction type indicates that the building components are not required to be fire-rated.

Under the California Historic Building Code (CHBC), the building's height and number of stories are not limited provided they do not exceed the historical design. Since there are currently no plans for additional levels, the building's height and number of stories are not an issue.

Use Groups/ Occupancy
Storage Group S
The current use is classified as Miscellaneous Group S - Storage. Within this group, there are two specific sub-classifications: Group S-1, moderate-hazard storage, and Group S-2, low-hazard storage.

Fire Protection
Compliance with the CBC wall rating, property line, and unprotected opening proximity should be analyzed in accordance with a legal survey of the property. Such a survey is recommended prior to the start of any further construction planning.

CBC has specific fire ratings for exterior walls based on the distance from adjacent properties. The requirements for fire resistant rating of exterior walls are listed in Table 602 of the CBC. The requirements for the maximum area of unprotected or protected openings permitted in an exterior wall in any story shall not exceed the values set forth in Table 704.8. Based on the current understanding of the property boundaries, the close proximity of the municipal garage to adjacent properties may impact the required fire protection measures as out lined below

Fire Separation Distance
The south and west exterior walls are in close proximity to adjacent buildings and property lines. The west wall is built at the property line, immediately adjacent to the Elk's Lodge . The fire resistant rating for the west wall is a 1-hour fire rating for a S-1 use and a 2-hour rating for a S-2 use. The south property line is approximately 3'-11" from the garage. The fire resistant rating for the south wall for will be a 1-hour fire rating for a S-1 use and a 2-hour fire rating for a S-2 use. However, because the exterior walls are made of brick, the existing wall classification exceeds the 2-hour fire rating. The building is in compliance for the fire rating of the exterior walls.

Unprotected Openings
Unprotected opening are an issue on the west and south sides because of their close proximity to neighboring buildings. The west wall contains two unprotected windows, which are not permitted by code. The total percentage of unprotected exterior openings represented by the two existing windows on the west wall is approximately 3%. There are currently six unprotected windows and two doors on the building's south side that are not permitted by code. The total percentage of unprotected exterior openings represented by the six existing window openings is approximately 9%. Code compliance could be achieved through the addition of exterior sprinklers or fire shutters. From a preservation perspective, sprinklers are preferred over shutters to limit visual impacts on the building.

It should be noted that there are smoke detectors located throughout the first floor area that are currently operational. It is recommended that these devices remain and that regular maintenance includes testing of the fire warning system.

Fire Sprinklers
Sprinklers are a fire protection concern for the interior of the building. The building's size, uses, and occupant load are taken into consideration when researching this code issue. Because of the small amount of square footage and low occupant load, fire sprinklers are not required for the current storage use.

Egress Compliance
The building has components in place for proper egress. Buildings will generally only be required to become completely compliant when certain alterations, such as the addition of offices, toilet rooms, corridors, and aisles are made, and use changes are undertaken.

Number of Exits
Only one exit needs to be provided from the building for the existing storage use. In addition, accessible spaces shall be provided with at least one accessible means of egress. The Garage currently exceeds the number of required exits and all first floor exits are at grade and could be made ADA accessible with minor modifications to thresholds and door operation hardware. The building is in general compliance with these requirements.

Accessibility
As an existing garage and a storage facility, the building has accessibility components in place to the first floor. The ground floor is generally flat with little to no slope or change in levels. The garage is accessed by two large roll-up garage doors that make it easy to enter the building. The existing interior doors are 3′-0″ and are accessible from the Garage 1 space. The building is generally compliant with accessibility requirements for the current use.

Toilet Rooms
There is an existing, non-accessible toilet room at the west end of the second floor. Retaining the current storage use will not require the installation of an accessible toilet in the building.

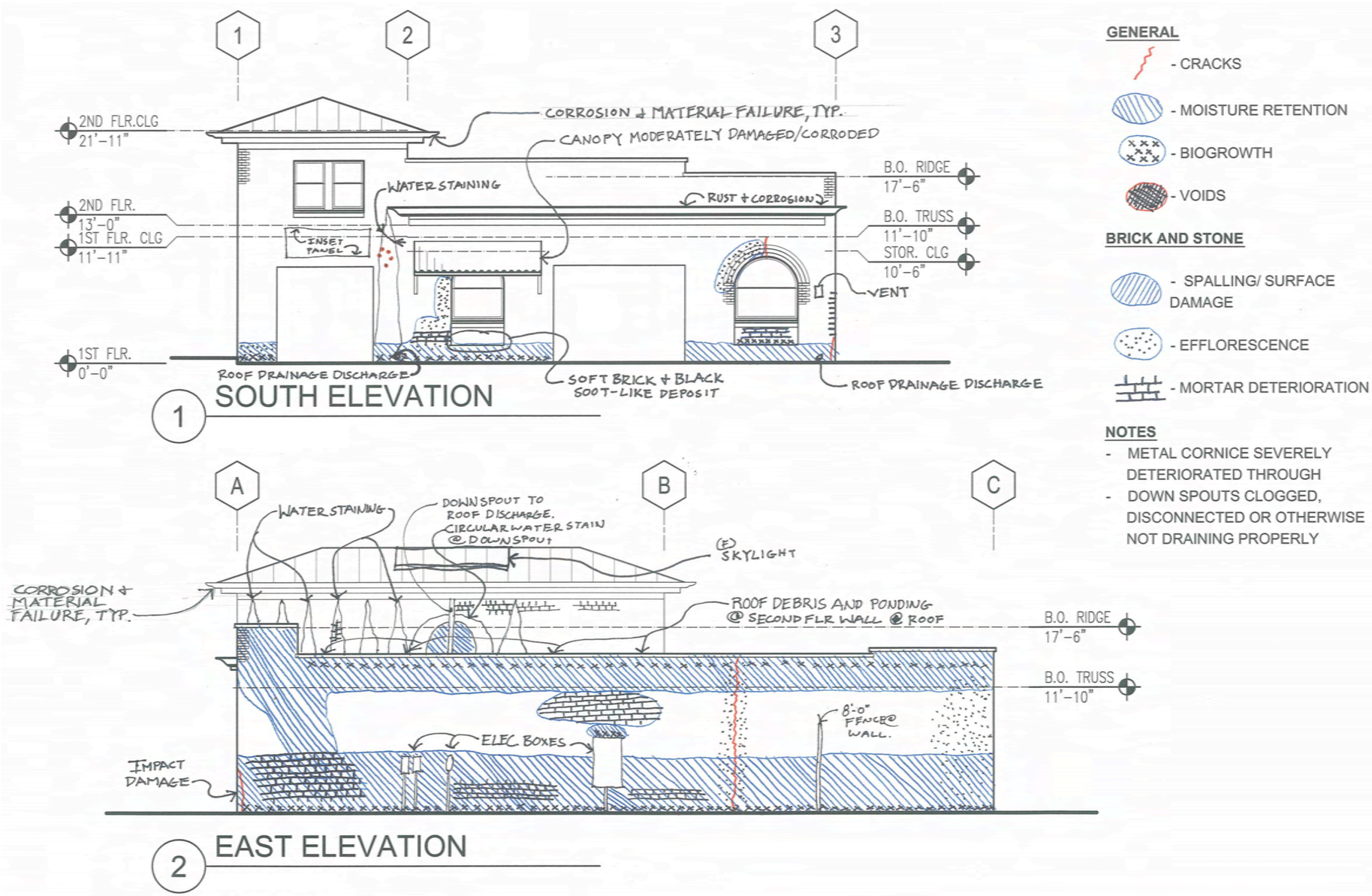
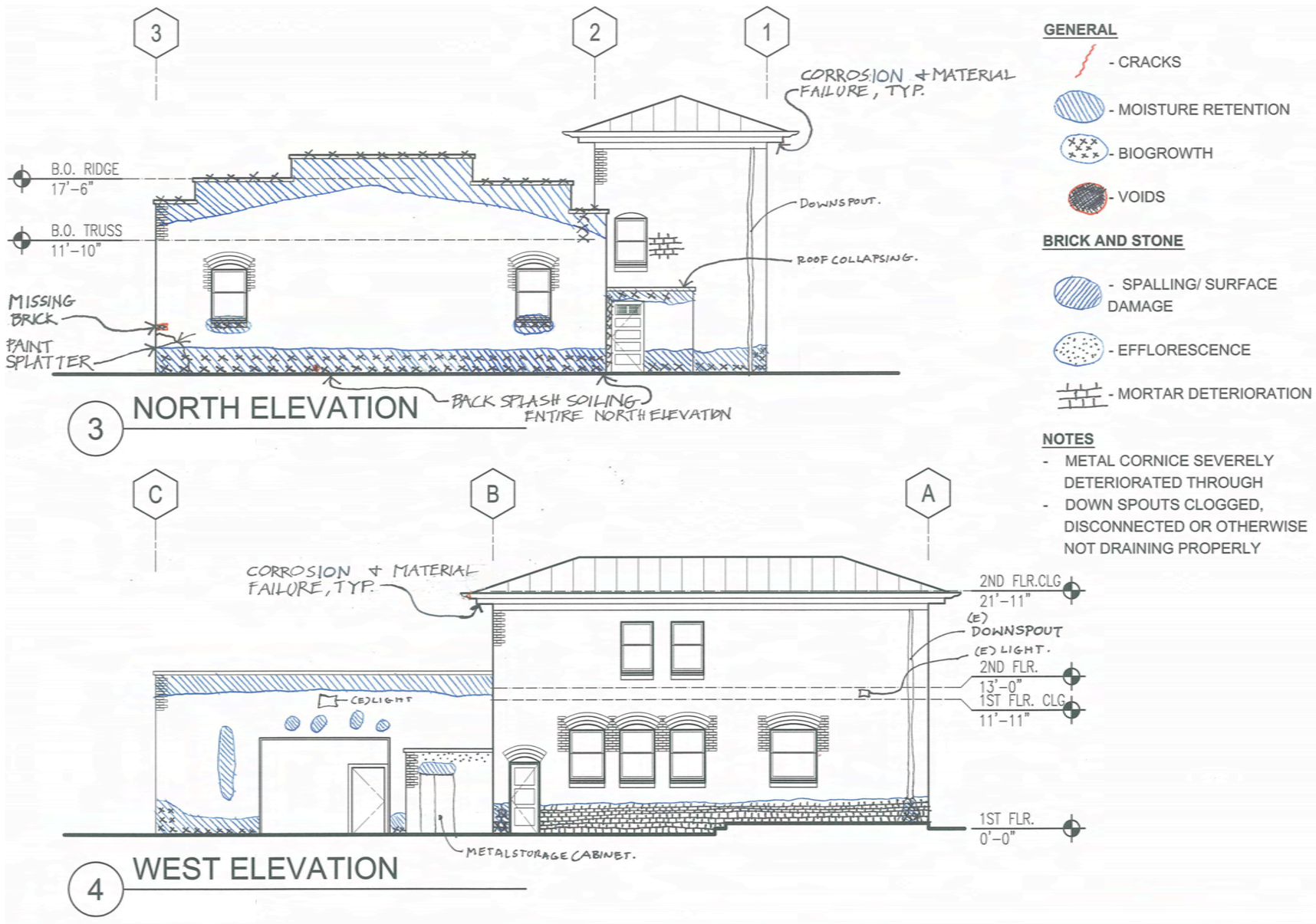


Figure 22. South and East Elevations, conditions assessment diagrams. Conditions were noted in January 2011 at the height of a long period of wet weather. (drawings not to scale).



GENERAL

- CRACKS
- MOISTURE RETENTION
- BIOGROWTH
- VOIDS

BRICK AND STONE

- SPALLING/ SURFACE DAMAGE
- EFFLORESCENCE
- MORTAR DETERIORATION

NOTES

- METAL CORNICE SEVERELY DETERIORATED THROUGH
- DOWN SPOUTS CLOGGED, DISCONNECTED OR OTHERWISE NOT DRAINING PROPERLY

Figure 23. North and West Elevations, conditions assessment diagrams. Conditions were noted in January 2011 at the height of a long period of wet weather. (drawings not to scale).

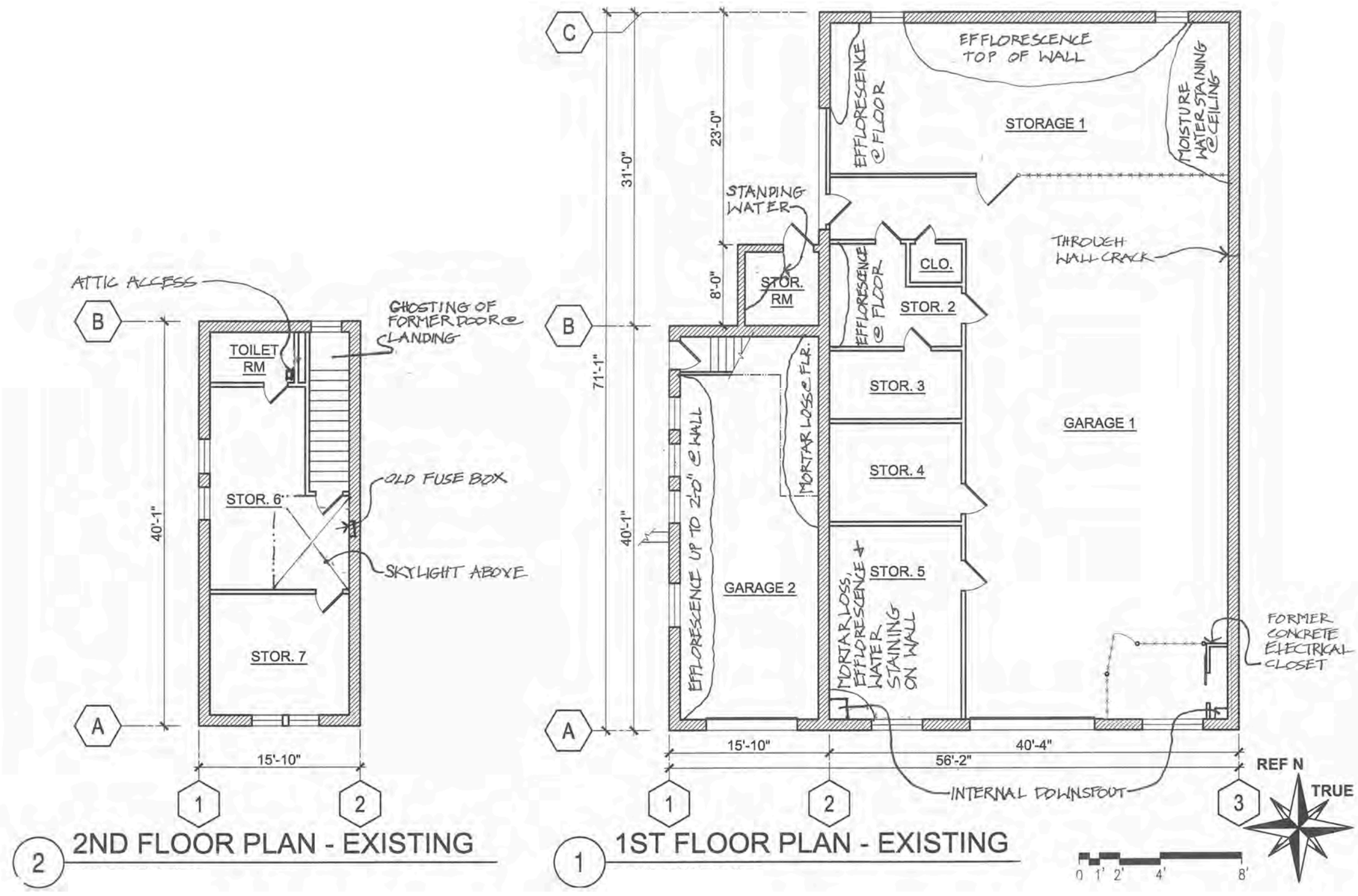


Figure 24. 1st and 2nd floor plans, conditions assessment diagrams. Conditions were noted in January 2011 at the height of a long period of wet weather. (drawings not to scale).

CHAPTER 4 – ARCHITECTURAL EVALUATION

Understanding the historical background for the Municipal Garage provides a context for understanding the relative importance of this building in the overall development of the City of Alameda and its civic center. Understanding the existing conditions generates a clear physical context for material, structural and systems analysis. The combination of these two courses of study allows for consideration of the building's history as presented in its physical form. It is this process that establishes the parameters for developing recommendations that are consistent with the Secretary of the Interior's Standards and the goal of proper building stewardship. This analysis includes an evaluation of historical integrity, identification of character-defining features and development of a prioritized list of spaces that reflect the construction chronology and importance of the various parts of the building.

EVALUATION OF INTEGRITY

Integrity is the measure by which properties are evaluated. To retain integrity a property must have most of the seven aspects of integrity as defined by the National Register Criteria for Evaluation. The seven aspects of integrity are quoted as follows:

- Location - Location is the place where the historic property was constructed or the place where the historic event occurred.
- Design - Design is the combination of elements that create the form, plan, space, structure, and style of a property.
- Setting - Setting is the physical environment of the historic property.
- Materials - Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration form a historic property.
- Workmanship - Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling - Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.
- Association – Association is the direct link between an important historic event or person and a historic property.

According to the Office of Historic Preservation's Technical Assistance Series Bulletin #6:

> Integrity is the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Historical resources eligible for listing in the California Register must meet one of the criteria of significance described above and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for

listing in the California Register.[20]

In general, the Alameda Municipal Garage retains a very high degree of integrity in the following areas:

- Location – The Garage has not been moved, nor have any of its surrounding buildings been moved or significantly altered. Its spatial relationship with City Hall remains unaltered, as does its appearance from various approaches to the structure.

- Design – There are very few modern intrusions into the building. Original fabric is largely intact, if somewhat deteriorated in places. The original design intent of the building is clearly communicated.

- Setting - Very little has changed in the general vicinity of the property since its construction. Its relationship with the rest of the property remains largely intact in spite of the presence of the expanded parking lots and various fences.

- Materials – The simplicity of the original design and finishes remains. Very few areas have been modified or the construction materials altered since 1915. The walls are largely exposed brick and beadboard. All newer materials are clearly differentiated and are obviously of contemporary origins.

- Feeling – The architectural form of the building remains true to its original design. Its utilitarian nature remains intact. This is communicated through its current design - open garage spaces - and its usage as a storage and mechanical facility.

- Association – The original association with the City of Alameda, City Hall and the Police Department are all still present. The building remains in its historic use, if in a limited capacity.

- The Alameda Municipal Garage has diminished integrity in the following area:

- Workmanship – The building has not been proactively maintained in recent years. Consequently, workmanship over time has diminished. This is particularly true of the copper cornice and frieze.

CHARACTER-DEFINING FEATURES

Assessment of various features and spaces is done according to a prioritized evaluation system where each of these elements is assigned a priority rating to create a sense of the relative historical importance of these spaces and features. In assessing the historic importance of each feature, a rating scale of "Premier-Important-Contributing-Non-Contributing" is used. In general, this system allows for the analysis of the structure as a whole to guide what types of work should be done, and where such work could be completed with the least damage to the historic integrity of the resource.

Prioritization of CDFs

[20] Office of Historic Preservation, Department of Parks and Recreation. California Register and National Register: A Comparison. Technical Assistance Series No. 6.

When planning for rehabilitation of a historic resource it is often helpful to prioritize its character-defining features. The hierarchy for prioritization of features is similar to that used for spaces (primary, important contributing and non-contributing,) but the definitions are more specific.

Premier
A premier rating is given to those features that are directly associated with the identified period or periods of significance and whose contribution to the interpretation and communication of a historic resource is of primary importance. If these features are removed, the historic integrity of the resource is highly compromised. Depending on the size, scale, and relationship of these items with the period of significance, historic integrity could be lost altogether. For these reasons, when developing mitigation plans for project-related work, all elements labeled, "premier" should not be altered in any fashion and should be protected to the highest degree whenever possible. Failing to do so could result in significant impacts to the resource.

For the Alameda Municipal Garage premier exterior features include:
- Red brick masonry walls
- Oversized cornice and frieze elements
- Arched window headers
- Copper hipped roof
- Recessed panels on east elevation
- Window placement
- Door placement on east elevation

Premier interior features include:
- Open layout with exposed framing
- Beadboard finishes

Important
Features given a rating of important are also directly associated with the identified period or periods of significance and they also inform the interpretation and communication of the historic resource. These elements differ from premier elements because they embody, to a lesser degree, historic aspects of the resource. Sometimes they are secondary decorative elements, which if removed or altered would affect the space, but still allow the historic nature of the space to be discerned, even if in a more limited way. Other times they are associated with lesser aspects of the period of significance or are not documented to the original construction.

For the Alameda Municipal Garage important exterior features include:
- Side entry on north elevation

Important interior features include:
- Interior stairwell
- Second-floor skylight

Contributing
Contributing elements augment the interpretation of historic significance but do not hold a high level of historic value themselves. They could be items that have been previously compromised, modern replacements for original items, been installed after the period of significance but are still of a high artistic or cultural value, still available for replacement in kind, or simply related to the period of significance but not of primary historic importance. The loss of contributing

elements lessens the overall level of integrity of the historic resource but not to a level where its interpretation of significance or historical importance is severely compromised.

For the Alameda Municipal Garage contributing exterior features include:
- Pressed metal awning roof on east side
- Storage room on west wall of two-story section

Contributing interior features include:
- Scored concrete floor
- Concrete utility closest at northeast corner

Non-Contributing
These elements are typically from outside the period of significance, are of poor quality, are still commercially available or are not related to the period of significance or any figures or events associated with the historic interpretation of the resource. When possible, all alterations and modifications should be undertaken with designs that only effect non-contributing elements, or that limit their disruptions to mostly non-contributing elements. Such designs will retain the maximum level of historic integrity and result in the least amount of damage and disruption to the resource as a whole.

For the Alameda Municipal Garage non-contributing exterior features include:
- Current garage doors on all sides

Non-contributing interior features include:
- All interior partition walls
- One-story section skylights
- Chain-link fencing
- Gypsum board finishes
- Vinyl tile floor finishes on second floor

PRIORITIZATION OF ARCHITECTURAL SPACES

Character Defining Spaces
For the Alameda Municipal Garage, the prioritization of spaces takes into consideration a number of factors, including documented original intent, function of spaces, modifications to and evolution of the spaces, material integrity and current condition. All impact the eventual determination of significance for a given space. For the Alameda Municipal Garage, the general hierarchy of prioritization criteria is as follows.

Primary (Light Blue)
Primary areas are those areas that are directly associated with the identified period of significance and whose contribution to the interpretation and communication of the historic resource is of greatest importance. Loss of these spaces would significantly impact the resource. For these reasons, when developing rehabilitation plans for project-related work, all areas labeled "primary" should not be altered in any fashion. Failing to preserve these areas could result in a significant impact to the resource.

For the Municipal Garage, primary areas include those areas whose function was known to be directly associated with the operations of the municipal fleet and that still appear to retain a high degree of integrity. They include the garage spaces as these areas were used for storage

and maintenance of the City's first non-fire emergency vehicles.

Secondary (Teal)
Secondary areas for the Municipal Garage are directly associated with the identified period of significance and informing the interpretation and communication of the historic resource but to a lesser degree than those with a primary ranking. These areas help to define the physical and historical context for the resource but do not independently represent the historical significance of the site. These spaces differ from primary areas because they embody historic aspects of the resource to a lesser degree. Sometimes they are secondary mechanical features connected to the operation of the building but were not directly involved in the primary function. Potential alterations in these areas would impact the resource, but loss of any one area or element may or may not be of consequence to the historical integrity of the resource. However, cumulative loss in these areas is of concern, therefore they are included for further consideration. How these spaces are treated will impact the setting for the resource.

Secondary spaces were designated because either they were designed to influence the experience of the space they are associated with lesser aspects of the period of significance, or they have lost a certain measure of their historical integrity but still retain enough to be of historical value to the authentic experience of the resource.

For the Municipal Garage, secondary spaces include the second floor area and the exterior storage unit. The second floor area is reported to have originally been used for police photography lab purposes, but has been modified somewhat over time. However, most of these modifications are reversible even though no traces of the original use do remain. The exterior storage unit retains traces of its original use with stenciled numbers, hooks and shelving, although it has suffered from neglect.

Non-Contributing (Gray)
Non-Contributing areas for the Municipal Garage are defined as being from outside the period of significance, of poor quality or not related to the period of significance or any figures or events associated with the historic interpretation of the resource.

Any space shaded gray should be considered non-contributing. When possible, all alterations and modifications should be undertaken with designs that only affect non-contributing areas, or that limit their disruptions to mostly non-contributing spaces. Careful consideration of the impacts on these areas will retain the maximum level of historic integrity and result in the least amount of damage and disruption to the resource as a whole.

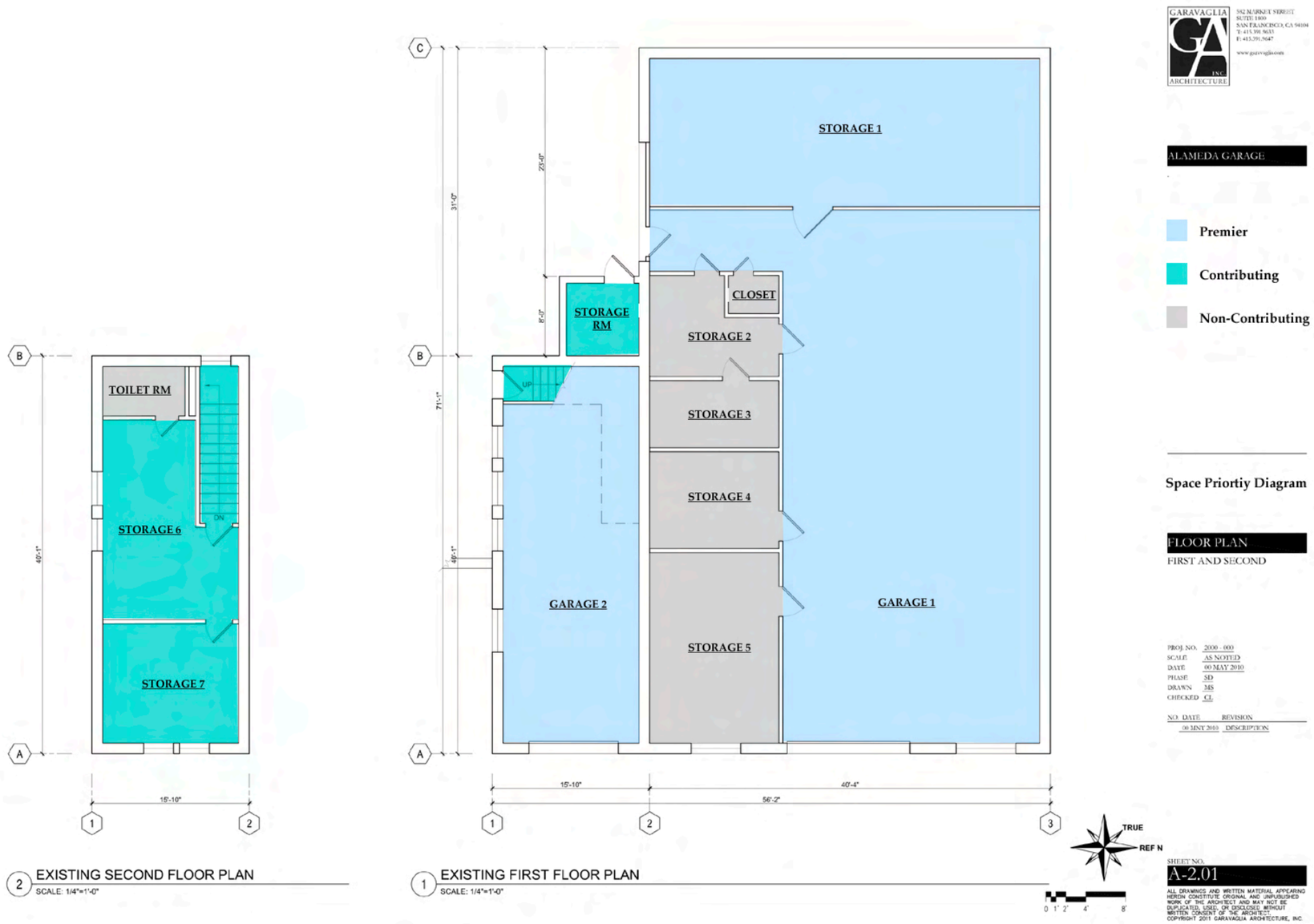


Figure 25. Space Priority Diagram showing the hierarchy of architectural spaces within the Municipal Garage based on historical importance. . (drawings not to scale).

CHAPTER 5 – PROPOSED WORK & RECOMMENDATIONS

At this time, no specific use has been determined for the Alameda Municipal Garage. One of the primary goals of this study is to provide background for determining an appropriate use, or classes of uses, that could be accommodated within the building in a manner compliant with the Secretary of the Interior's Standards for Rehabilitation. This work is divided into two categories: Addressing Existing Conditions and Recommendations for New Uses.

HISTORIC STATUS AND RELATED IMPLICATIONS

As a potential historical resource, any work on the Garage should follow the Secretary of the Interior's Standards for the Treatment of Historic Properties. Additionally, financial incentives for income-producing historic properties (tax credits, tax fund, preservation grants, etc.) will require that these Standards be followed. Therefore, it is important that these guidelines be included as a vital part of the planning and implementation processes.

The Secretary of the Interior has developed a series of Treatments and Guidelines for dealing with historic properties. There are four types of treatments, each with their own specific definitions, standards and guidelines for implementation: Preservation, Rehabilitation, Restoration and Reconstruction. Of these four treatments, Rehabilitation is the most appropriate for addressing the issues related to the Alameda Municipal Garage.

Rehabilitation
Rehabilitation is defined as "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values." This is the most widely used treatment as it allows for new uses in historical buildings with some alterations to accommodate those uses. It provides the most flexibility of the four treatments, however with this additional freedom of interpretation comes greater potential for damage. Careful consideration of all new uses and their impacts must be made and consultation with a qualified historic preservation professional is always recommended.

There are ten standards that govern the implementation of Rehabilitation treatments.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

This is the most appropriate treatment for overall development and reuse of the Garage and these standards should be consulted as part of any use determinations or studies. In reality, while one standard will be the defining treatment approach for the project, elements of all four treatments should be used depending on the importance and conditions of individual elements.

ADDRESSING EXISTING CONDITIONS

Deferred Maintenance Issues

Most of the conditions observed on site are the result of deferred maintenance or inappropriate construction decisions. Water and control of water on and around the building is the primary cause of the current deteriorated state of the building. These issues must be addressed first before repairs to the damaged areas can be permanently made. This list is prioritized.

Control drainage and manage moisture intrusions

All drains should be fully cleaned and inspected to verify their functionality. This is particularly true of the internal drains at the east end of the building at the corners of the one-story garage bay. The physical integrity of the downspouts must be assessed. New downspouts may be needed and should be installed prior to any other repairs.

For the exterior downspouts and gutters, new elements should be installed to match the existing. Copper gutters and downspouts are most appropriate for this building. If a substitute material is used, it should have the same visual characteristics as the existing to blend most fully with the remaining historical elements. Downspouts should connect directly to storm drains and these connections should be monitored for any leaks. Where no storm drain is present, water should be directed as far away from the building foundations as possible. Rain leaders and flexible hose extensions may be required.

Test masonry
While visual evidence indicates that shear tests have been recently conducted, no information on these tests could be found during the course of this study. New shear tests should be conducted to more precisely determine the structural characteristics of the masonry walls. Interior and exterior tests distributed between the first and second floors will be required. All tests should be executed according to Section A107.2 Masonry Shear Test of the Uniform Code for Building Conservation 1994

Mortar samples should also be collected and analyzed to determine binder type, aggregate characteristics and relative proportions of binder, or binders, and aggregate. Both petrographic and chemical analyses should be conducted according to the provisions of ASTM C1324. From this a site specific, materially compatible mortar recipe can be developed for use on repairs.

Install French drains and a flexible moisture barrier at the base of the exterior brick walls. Rising damp along the north, west and south walls is a chronic problem not directly related to the runoff drainage problems noted above. These areas are damp because they are continually shaded or the area at grade is substantially covered by concrete. This forces water into more porous areas, such as the brick wall and does not allow for ready evaporation of excess moisture. Installation of a drainage system at grade to improve water management at these locations will limit the amount of water that is currently being wicked up the wall through capillary action. Installation of a reversible moisture barrier against the base of the brick wall will also prevent excess water from coming into contact at these locations. These installations should be done in conjunction with any necessary repointing below grade.

Repoint building, repair cracks, address inappropriate repairs, fill in voids
Now that moisture issues have been addressed, the masonry walls can be made weather-tight. All areas of mortar loss should be raked back to sound material and repointed. On the interior, some areas will require removal of paint prior to repointing. Paint should be removed with the gentlest means possible. A near-neutral pH, gel-based paint removal system, such as Peel-Away Safe Strip is recommended.

Former shear test locations should be cut free and repaired using the appropriate mortar as determined after testing. Fill any cracks with the appropriate mortar mix. Be aware that if this is done prior to any seismic stabilization work, these cracks may open up again and require subsequent repair. Fill any voids with brick selected to match in size, coloring, texture and compressive strength.

Repair windows
The windows should be removed to a workshop to facilitate reconditioning and repairs. All sashes should be stripped of paint. Any loose, soft or brittle wood should be consolidated. Missing areas should be repaired with paintable, cellulose-based filler or Dutchmen repairs as needed. Once the sashes are repaired, the glazing can be reinstalled and new putty applied. The whole assembly should be primed and painted.

While the sashes are removed for repair, the frames can receive the same treatments. Consolidate where necessary. Fill as needed. Then sand prime and paint as appropriate. When both sashes and frames are repaired and any masonry repairs in the area are complete, the sashes should be reinstalled and the weights and pulleys adjusted for proper operability.

Remove efflorescence and biogrowth
These surface conditions will eventually disappear with time if the moisture is managed effectively. However, stains should be removed to limit moisture retention by the debris. Both can be removed with potable water and bleach in a weak solution (1:20 is sufficient). Apply the solution with a soft, natural bristle brush, by hand. Repeated applications and rinses may be necessary for the efflorescence until all the trapped salts have migrated to the surface. No mechanical brushes or power washing should be used.

Anchor the existing storage platform
The storage platform in the Police storage locker should be anchored to the exterior walls.

Further study
Beyond material testing, further structural assessment is required for the supplementary supports in the primary garage bay and the hip roof. Both appear to be areas of chronic structural failure. In the case of the vertical truss supports, large through-wall cracks indicate a problem may exist at the foundation in this area. This may be caused by differential settlement that has stabilized, or it may be an active problem.

The copper-clad hip roof shows signs of failure from inadequate support. Closer and more detailed inspection is needed. This may require enlarging the current access hatch.

Addressing Existing Structural Deficiencies
These recommendations are meant to address the current structural conditions regardless of the proposed use. They are general recommendations based on building type, size, construction and condition. More specific information is provided on the accompanying Preliminary Retrofit plans.

Diaphragms
Horizontal diaphragms should be strengthened by adding a sheathing overlay on top of the existing sheathing or adding new shear wall elements. For the Garage, this work is largely isolated to the roof level. When a new roof is installed, installation of both an appropriate horizontal diaphragm and blocks and straps around the diaphragm openings and perimeter are recommended.

The freestanding platform in the Police evidence locker should be anchored to the masonry walls with epoxy bolts for proper shear transfer.

Masonry walls
Wall bracing should be installed to support the walls for out-of-plane loading. Anchor the wall bracing with epoxy anchors along the wall height as well as at each diaphragm level (two-story section only) and at the foundation. All anchors should be epoxied into place and secured to the existing diaphragm framing with holdown devices.

Further analysis of the in-plane shear capacity of the masonry walls should be completed. Any weaknesses should be addressed appropriately and with sensitivity to the historical character of the building.

Parapet walls
The parapet walls are unbraced currently. They should be supported for out-of-plane loads with bracing. Bracing should not be visible from the surrounding site.

The tops of the parapet walls should receive a fresh parge coat of mortar to limit moisture infiltration.

RECOMMENDATIONS FOR NEW USES

Rehabilitation is the treatment that most fully describes the recommended approach for the Municipal Garage. As such, the first Rehabilitation Standard should be considered most carefully in the early use planning and programming of the building.

> Rehabilitation Standard 1: A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

This is often referred to as implementing an appropriate use. An appropriate use is one that is generally in keeping with the uses historically found within the Garage, or those that are relatively sensitive and can be implemented with limited impacts on the historic resource. In general, those uses that can be accommodated through reversible construction techniques or that provide some additional benefit to the property are most acceptable.

General types of uses have been informally discussed but no definitive use has currently been determined for the Municipal Garage. To help focus future discussions on which uses might be appropriate both for the historic resource and for the City of Alameda, Garavaglia Architecture, Inc. presents the following general parameters for a variety of possible uses. Under each, the major code-required upgrades are presented to provide a sense of the relative scope of work involved with the change of use.

Overall Use Considerations
Any change in use is going to require a base level of mechanical (including HVAC), electrical, and plumbing, upgrades in addition to work required to seismically brace the unreinforced masonry building as previously discussed. Those uses that are most sensitive to the building are those that would result in as few additional upgrades as possible. For example, offices have much lower plumbing needs than large assembly spaces. Such consideration must be weighed against the economic benefits of the use and the ability of the use to be accommodated in the space arrangements available

<u>In general, limiting the occupancy of any of the proposed uses to less than 50 people will enable a Business Group B use and greatly reduce the code required upgrades, thus reducing costs and impacts on the building.</u> Occupancies higher than 50 people are possible, but would fall under the Assembly A-3 group, which has more stringent code compliance provisions. The following discussions assume an occupancy of less than 50 people unless otherwise stated.

Storage Group S (Maintaining Current Use)
The building is currently used as a storage facility with several different City departments each occupying separate spaces for their storage needs. While most spaces are used to store documents, there is select city vehicle parking and maintenance within the two first floor garage spaces as well as a Police evidence locker at the rear of the main ground floor garage area. Retaining a full storage use will not require any MEP or HVAC systems upgrades. However, basic structural upgrades to address seismic instability issues are recommended to bring the building into code compliance. This will also serve as a first step towards enabling any future

use changes to the building if desired.

Economic Feasibility
Retaining the current storage use has a relatively low cost implication, limited to recommended (but voluntary) seismic upgrade expenditures. However, the economic benefits to the City of a retained storage use are minimal.

Business Group B
The first new proposed use category is Business. This occupancy is defined as business uses, which include:

- additional City offices including conference rooms
- training and education center to augment city programs within City Hall
- payment center for permits and other City regulatory bodies
- café
- gallery/exhibit space

This could serve to augment existing training offerings for skill development programs funded by the City or related to City initiatives. Offices for professionals in civic-related fields could also be accommodated to take advantage of proximity to City Hall. These uses could become a revenue generating stream to fund maintenance and upgrades to the building.

Fire and Life Safety Upgrades
Currently, property line adjacencies and unprotected exterior openings are concerns for the current use as well as for changes in use. (See page 32 for discussions on current code deficiencies.) Implementing a new use into the building would generally trigger interior fire protection upgrades through installation of sprinklers. The building's size, uses, and occupant load are taken into consideration when researching this code issue. Because of the small amount of square footage and low occupant load, fire sprinklers are not required for this proposed use.

Egress and Accessibility Upgrades
It is advised under any preservation project to consider the potential implications of utilizing the accessibility provisions of the American with Disabilities Act (ADA) when completing accessibilities upgrades to the building. It is important to note that compliance with the ADA may require adherence to provisions that are stricter than those found in the 2010 California Building Code (CBC) and the California Historic Building Code (CHBC).

The ADA requires that at least one entrance be part of an accessible route requiring 32" minimum clearance at doorways, 36" minimum clearance in an accessible path of travel, which includes aisles and corridors. The ADA also requires an 18" strike side clearance on the pull side of the door and 12" on the push side.

In general, circulation aisles and pedestrian ways require a minimum of 36 inches in clear width. This is currently not an issue, however any future modifications to interior spaces will have to consider these requirements for accessible routes.

Under a new business use, only one entry is required for each space. Provided the new use within Garage 1 is limited to the ground floor, modification to the current pedestrian entrance within the garage door on the east elevation would be required. This is a non-historic garage door that could be replaced with a more pedestrian friendly and ADA compliant entry with

minimal impact to the historic resource.

Any new use in Garage 2 would also require installation of a pedestrian entrance within the current garage door opening.

It is recommended that the second floor remain as storage. If offices or other public use were desired on the second floor, a lift would be required. The available floor area of the second floor does not counterbalance the potential impacts on historic fabric caused by installation of a two-stop elevator or alternative vertical conveyance.

Toilet Room Requirements
Changing the use to Business Group B will require one toilet fixture for both men's and women's rooms.

Economic Feasibility
Relocation of current City services or centers to the garage would free up space within City Hall while still allowing for centralized access to these departments. The overall impact on the building would be minimal, and the costs associated with the necessary upgrades are as minimal as any new use might require. Only basic systems would be installed and the extent of interior improvements to the building would be relatively simple, reversible, and easy to implement – partitions, furniture, etc. If a tenant other than the City were placed within the building, most upgrades could be considered tenant improvements, thus reducing the costs to the City while still providing some income generation through leases.

Assembly Use A-3
The second new proposed use is Assembly. The location of the building within the Civic Center core, within close walking distance to an existing commercial district and ample parking, make it a potentially attractive community or non-retail assembly space. This would be in keeping with the Civic Center vision recently developed for this area. This use could introduce larger numbers of people into the building than the other two uses and may require increased upgrades for exiting and restrooms to accommodate these higher occupancies. Examples of such uses might include:

- Community meeting spaces
- Exhibition hall
- Lecture venue
- Event space
- Art gallery

Assembly uses under the A-3 category have a wide range of occupancies. For this example, we present the implications of less than 50 people as well as the implications of a maximum occupancy of 390.

Fire and Life Safety Upgrades
As with the other proposed uses, proximity to adjacent property lines and unprotected exterior opening remain a concern. On the interior, the potential increase in occupancy under an A-3 use would require fire sprinklers. If the A-3 use is implemented with a low enough occupancy rating this requirement might apply. Consultation with the local fire official is recommended to determine the exact requirements once a project is developed.

Egress and Accessibility Upgrades
Two exits are required for an Assembly A-3 use. In addition, accessible spaces shall be provided with at least one accessible means of egress. The Garage currently exceeds the number of required exits and all first floor exits are at grade and could be made ADA accessible with minor modifications to thresholds and door operation hardware. The open nature of the spaces in Garage 2 allow for flexible selection of where a second means of egress might be. A connection between the two Garage spaces would also be an option to increase circulation and take advantage of the existing egress components in the larger garage space.

Toilet Room Requirements
Assembly Group A-3 will require a minimum of two toilet fixtures, two urinals and two lavatories for the men's room and eight toilet fixtures and two lavatories for the women's restroom to accommodate the increased occupancy.

Economic Feasibility
Such uses could provide a small amount of income to the City through rents depending on the structure of the use agreement. While there are currently conference rooms and meeting spaces provided in City Hall and at the Public Library across the street, this space is more flexible, has easily secured access. and could accommodate a large number of people if desired. Parking may be a concern for large gatherings, but the presence of a municipal parking garage one-block west of the site serves to offset immediate parking concerns.

CHAPTER 6: SUMMARY AND CONCLUSION

In summary, the Alameda Municipal Garage is a building that lends itself to a wide range of potential uses and rehabilitation schemes. Its open, flexible layout, low-scale architectural form, proximity to a thriving commercial district and civic center, and relatively high integrity provide many opportunities for new ventures. In general, Garavaglia Architecture, Inc. recommends:

- New uses be limited to the first floor spaces to avoid costly measures related to providing universal access to the small second floor area
- Occupancy be limited to less than 50 people to enable the Business Group B use, thereby limiting impacts from code-required life-safety alterations required for higher occupancies
- Issues of seismic stability and deferred maintenance be included in any proposed work on the building

Keeping to these recommendations, most new uses would require the following upgrades:

- Installation of new roof sheathing with positive anchors to the top of the masonry walls
- Installation of anchors at the floor diaphragm in the two-story section
- Installation of holdown devices at the roof and foundation
- Attachment of the existing storage platforms to the masonry walls
- Diagonal bracing at the parapets
- Installation of exterior fire sprinklers because of proximity to adjacent buildings
- Minor modifications to the existing entry/exit points to eliminate threshold barriers and increase the width of the pedestrian openings.
- Installation of two (2) single-gender bathroom stalls
- Upgrades to the current HVAC systems

For any new use it is also recommended that conditions issues related to deferred maintenance be addressed to improve the stability of the structure. These issues include:

- Repointing of the masonry walls on both the interior and exterior of the building
- Repairs to the roof drains to eliminate ponding and leaks into the interior spaces
- Repairs to the existing runoff-management system. This includes clearing blocked drains, connecting downspouts to sewer drain pipes, installation of new gutters and downspouts in some locations, and repair to damage gutters and downspouts in other locations
- Reconstruction of portions of the zinc cornice
- Repairs to the windows to restore operability
- Repairs to cracks, missing mortar and areas of missing bricks
- Removal of the pressed metal awning on the east elevation (non-historic element)
- Trimming of the trees near the south property boundary to protect against, or greatly reduce, the amount of debris deposited on the roof

The nature of these recommended actions have solutions that provide for protection of the historic resource. Seismic solutions can be implemented with very little visual or material impacts on the building. New uses can be accommodated with primarily reversible improvements. Systems upgrades can be hidden or masked with appropriate design solutions. The exact nature of the impacts for a specific rehabilitation plan for the building will require further definition of a project with detailed research on occupancy loads and requirements. However this cHSR provides the historical analysis and background to support this research when a project is developed.

CHAPTER 7 - BIBLIOGRAPHY & RESOURCES

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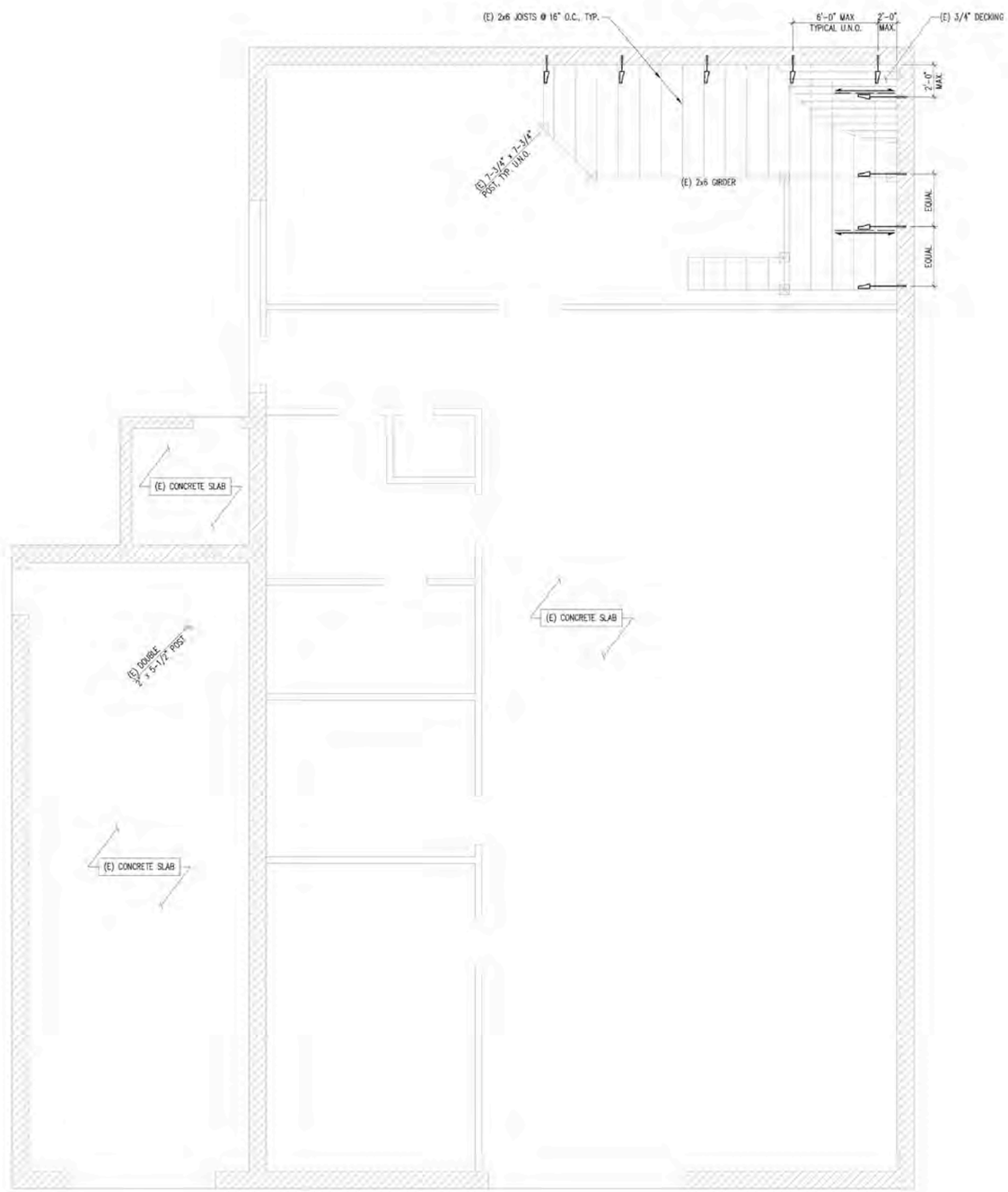
APPENDIX A: STRUCUTRAL DRAWINGS

SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, ELEVATIONS AND WALL LAYOUT. DO NOT SCALE THE STRUCTURAL DRAWINGS.



FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

DUQUETTE
ENGINEERING

4340 STEVENS CREEK BLVD. #200
SAN JOSE, CALIFORNIA 95129

TELEPHONE: 408.615.9200
FACSIMILE: 408.615.9900
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REGISTERED PROFESSIONAL ENGINEER
STEVEN P. POPOVICH
No. S3019
Exp. 3-31-2011
STRUCTURAL
STATE OF CALIFORNIA

PRELIMINARY
NOT FOR CONSTRUCTION

ISSUE	DATE	DESCRIPTION
0	3-15-11	RELEASED FOR PLAN CHECK

PROJECT

Alameda Municipal Garage

Preliminary Retrofit Requirements

SHEET CONTENT

FOUNDATION PLAN

CLIENT

Garavaglia Architecture
c/o Micheal Garavaglia
582 Market Street Ste. 1800
San Francisco, CA 94104
(415) 391-9633

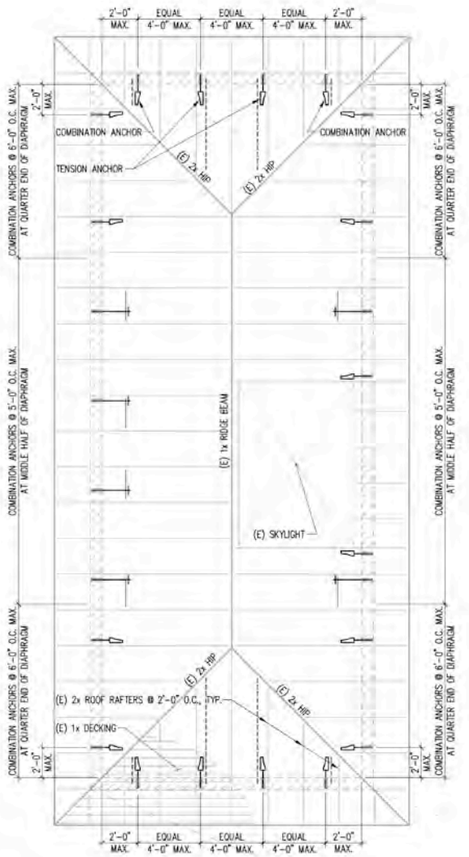
DESIGNED BY: JAC
DRAFTED BY: JGL/ MF
CHECKED BY: SPO
INITIAL DATE: March 15, 2011

JOB No. **10-0163**

SHEET No. **S1**

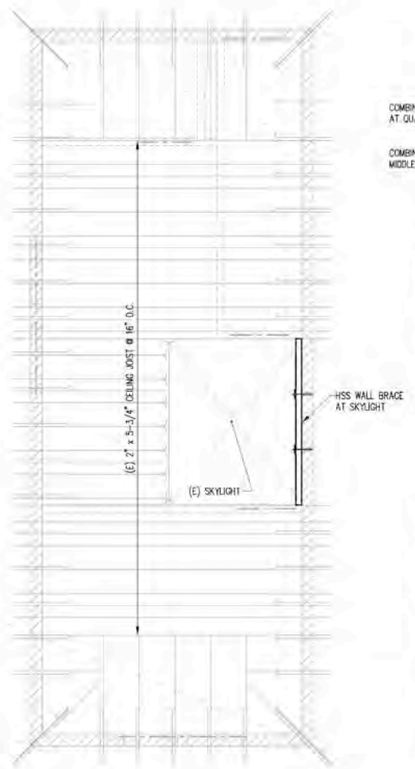
SHEET 1 OF 2

SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, ELEVATIONS AND WALL LAYOUT. DO NOT SCALE THE STRUCTURAL DRAWINGS.



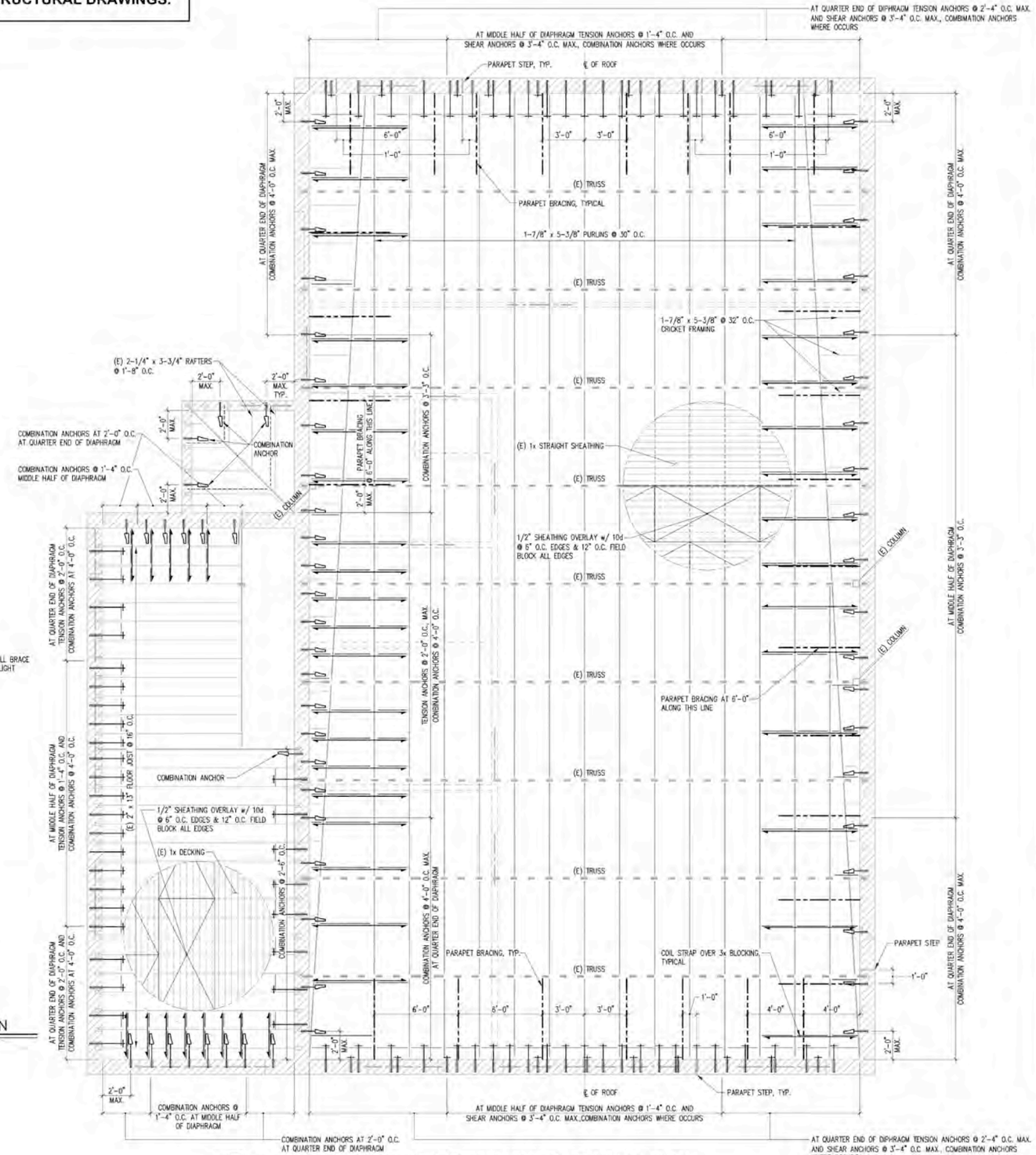
SECOND FLOOR ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"



SECOND FLOOR CEILING FRAMING PLAN

SCALE: 1/4" = 1'-0"



FIRST FLOOR ROOF/SECOND FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0"

DUQUETTE ENGINEERING

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REGISTERED PROFESSIONAL ENGINEER — STEVEN P. DUQUETTE — No. S3019 — Exp. 3-31-2011 — STRUCTURAL — STATE OF CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

ISSUE	DATE	DESCRIPTION
0	3-15-11	RELEASED FOR PLAN CHECK

PROJECT: **Alameda Municipal Garage**

Preliminary Retrofit Requirements

SHEET CONTENT: **FIRST FLOOR ROOF FRAMING PLAN SECOND FLOOR FRAMING PLAN**

CLIENT: Garavaglia Architecture c/o Micheal Garavaglia 582 Market Street Ste. 1800 San Francisco, CA 94104 (415) 391-9633

DESIGNED BY: JAC
DRAFTED BY: JGL / MF
CHECKED BY: SPD
INITIAL DATE: March 15, 2011

JOB No. 10-0163

SHEET No. **S2**

SHEET 2 OF 2