



SAN FRANCISCO PLANNING DEPARTMENT

Section 106 Review and Comment

Hearing Date: December 4, 2013
Filing Date: November 19, 2013
Case No.: **2011.0702F**
Project Location: **101 POLK STREET**
San Francisco, California
Project Sponsor: Emerald Polk LLC
532 Folsom Street, Suite 400
San Francisco, CA 94105
Staff Contact: Lily Yegazu – (415) 575-9076
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Reviewed By: Tina Tam – (415) 558-6325
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PROPERTY DESCRIPTION

The subject project site is located at 101 Polk Street, at the northwest corner of Polk and Hayes Streets. The site is bordered by Leck Walesa Alley to the north, Polk Street to the east, Hayes Street to the south, and the property at 150 Hayes Street to the west. The property is a vacant site located within the C-3-G (Downtown General Commercial) Zoning District and 120-X Height and Bulk District and is currently used as a surface parking lot.

The subject property is located adjacent to the Civic Center Historic District, a historic district which is a National Historic Landmark (NHL) District, is listed in the National Register of Historic Places, and is a designated historic district under Article 10 of the Planning Code.

As previously mentioned, the project site is bordered to the west by 150 Hayes Street, a 6-story office building. Two additional structures are located across the street from the project site: 155 Hayes Street, a 9-story office building that was surveyed and evaluated as eligible for the California Register of Historical Places in the Market and Octavia Neighborhood Plan Area Study, and 150 Van Ness Avenue, an 8-story building. All three structures are stylistically identical in their International Style.

REQUESTED ACTION

The United States Department of Housing and Urban Development (HUD) has asked the Planning Department to participate in reviewing the proposed 13-story, 162-unit residential project under Section 106 of the National Historic Preservation Act. Specifically, HUD has requested review and comment on the documents that has been prepared for the Section 106 review, which identify and evaluate the historic properties included in the Area of Potential Effect (APE) of the undertaking. The documents include:

- Letter (email) from HUD to Planning Department initiating Section 106 review (dated November 19, 2013);
- Report from JRP Historical Consulting, LLC on behalf of Project Sponsor - Emerald Fund, Inc. (dated November 5, 2013) which includes:
 - Project Description/Undertaking
 - Area of Potential Effects (APE)
 - Identification of Historic Properties and Assessment of Adverse Effects
 - Historic Architectural Resources
 - Archaeological Resources
 - Archaeological Sensitivity Assessment for the 101 Polk Street Project, prepared by Far Western Anthropological Research Group, Inc., dated October 2013.
 - 101 Polk Street Project Plans and Rendering
 - DPR 523 Form – 155 Hayes Street, San Francisco

The Historic Preservation Commission (HPC) will hold a public hearing on December 4, 2013 to review and comment on the above-mentioned documents. A letter containing the comments of the HPC may be prepared. If so, the letter should conclude with the HPC's view on the effect this undertaking could have upon historic properties, if any, within the project Area of Potential Effect (APE). The Director of the Planning Department will forward the letter containing comments of the HPC to the Lead Agency (HUD) with copies to the State Historic Preservation Officer (SHPO), the Project Sponsor, and any other interested parties.

PROJECT DESCRIPTION / UNDERTAKING

The proposed undertaking would result in the merging of existing two lots (Lots 002 and 003) currently used as surface parking lot and the construction of a 13-story, 120-foot-tall residential building with 162 dwelling units (19 would be affordable units) over a 51 parking space subterranean garage. The street frontages along Polk and Hayes Streets would consist of walk-up residential units, and the building's lobby. Access to the subterranean parking garage is provided from the Lech Walesa Alley frontage.

PARTICIPANTS

Lead Federal Agency

Any project that involves Federal funding must be reviewed under Section 106 of the National Historic Preservation Act. The U.S. Department of Housing and Urban Development (HUD) is the lead agency for the Section 106 review of the proposed project.

Lead Federal Representatives

The Project Sponsor is acquiring a loan from HUD and the HUD San Francisco Office is currently processing the application. The "Pre Application Conditions" require Section 106 compliance. The

Planning Department, as the Certified Local Government representative, will act as a consulting party in the Section 106 review, per the Section 106 regulation.

Consulting Parties

Consulting parties participate in the Section 106 review by serving as advisory bodies to the lead agency.

BACKGROUND

The Planning Department previously reviewed the proposed project and its potential impact on the adjacent historic resources. The Planning Department also reviewed a Historic Resources Evaluation (HRE) prepared by JRP Historical Consulting, LLC (dated November 22, 2012) and issued a [Historic Resources Evaluation Response \(HRER\)](#) on December 21, 2012 concurring with the JRP HRE that the proposed project while visible from the district, will not interfere with any of the district's primary axial views or the interrelations between the buildings within the adjacent historic district. The Department concurred that the new building will serve as a general framing element in a surrounding skyline that is characterized by a mix of low- and high-rise construction and construction types.

Furthermore, the Department also concurred with the JRP HRE that the proposed project will not destroy historic materials, features or partial relationships that characterize the adjacent historic district. The Department found that the proposed new construction is differentiated from but compatible with the historic district in conformance with the Secretary's Standards and as such, the Department found that the proposed project would not result in a significant impact to historical resources, and that it is not anticipated to contribute to any potential cumulative impact to the historical resources. The Department's determination was also incorporated into the CEQA document prepared for the project.

ENVIRONMENTAL REVIEW STATUS

The environmental effects of the Project were determined by the San Francisco Planning Department to have been fully reviewed under a Mitigated Negative Declaration (MND) prepared for the project in accordance with the California Environmental Quality Act (California Public Resources Code Sections 21000 et seq.), Title 14 California Code of Regulations Sections 15000 et seq., and Chapter 31 of the San Francisco Administrative Code.

On March 27, 2013, a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the project was published for public review. On May 9, 2013, the Planning Commission found the Final MND to be adequate, accurate and objective, reflected the independent analysis and judgment of the Department of City Planning and the Planning Commission, and approved the FMND for the Project in compliance with CEQA, the CEQA Guidelines and Chapter 31.

The potential impacts of the project were analyzed, including site-specific and cumulative effects of the project in accordance with the provisions set forth in the CEQA Guidelines. The FMND determined that the project, as proposed, to be in conformance with the *Secretary of Interior's Standards for Rehabilitation*. Furthermore, with the adoption of appropriate mitigation measures, the FMND determined the project would have less than significant impacts on the following:

- cultural and paleontological resources that would be caused by a substantial adverse change in the significance of a historical resource;
- impacts to archeological resources that would be caused by a substantial adverse change in the significance of an archeological resource;
- impacts to unique paleontological resource or site or unique geologic feature; or
- disturbance of any human remains.

A complete potential impact analysis and the *Secretary of Interior's Standards* compliance determination are fully detailed in the FMND document ([Case No. 2011.0702E](#)) issued for the project.

COMPLIANCE WITH THE PLANNING CODE PROVISIONS

On May 9, 2013, the Planning Commission held a public hearing and granted approval of the project pursuant to Planning Code Sections 309 with requested Exceptions from Code Sections 134(d), Rear Yard, 148, Ground-Level Wind Currents, and Section 151.1(e),), Limitation on Residential Accessory Parking. In addition, the Planning Commission granted approval of a Conditional Use Authorizations under Planning Code Sections 124(f), 215 and 303, to allow additional square footage above that permitted by the base floor area ratio ("FAR") limit for the construction of dwellings affordable for 20 years to households whose incomes are within 150 percent of the median income and to allow a residential density ratio that is greater than one unit per 125 square feet of lot area within the C-3-G (Downtown Commercial, General) District and a 120-X Height and Bulk District.

STAFF ANALYSIS

The APE includes the project site, properties located within the Civic Center Historic District, as well as the property at 150 Hayes Street that is located directly to the west of the project site. Although the project site is located outside of the Civic Center Historic District, both the Civic Center Historic District and 150 Hayes Street are included in the APE to assess potential visual impact on the integrity of the historic district and potential indirect effects that the project may have on the adjacent property at 150 Hayes Street.

The building at 150 Hayes Street was constructed by The California State Automobile Association (CSAA) in 1967-68 as an annex to its complex of buildings at 150 Van Ness Avenue and 155 Hayes Street. Constructed in 1967-1968, the building at 150 Hayes Street had not been previously evaluated. JRP surveyed and evaluated the building at 150 Hayes Street for this Section 106 evaluation and concluded that the property does not appear to meet the criteria for listing in the national Register of Historic Places. As such, the structure at 150 Hayes Street is not being considered a historic property for this Section 106 analysis leaving the Civic Center Historic District as the only historic property within the 101 Polk Street APE.

As the proposed project at 101 Polk Street is directly adjacent to the sole historic property (Civic Center Historic District) in the APE but outside of the boundaries of said historic district, there is no potential for the project to have a direct adverse effect on the historic district. In addition, the new building will be part of the general urban setting of the historic district and will not diminish the historic integrity of the district and as such, will not cause an indirect adverse effect to the historic district. As fully described in

the JRP report, the design of the proposed project is sensitive to the district, with a compatible aesthetic that maintains the integrity of the district. As such, the proposed project at 101 Polk Street is consistent with the Secretary of the Interior's Standards as it relates to new construction adjacent to historic properties.

In addition, the Archaeological Sensitivity Assessment for the project also concluded that the project has little, if any, potential to adversely affect a prehistoric archaeological deposit and there is a low sensitivity for historic-era archeological resource to be present in the Archaeological APE.

ATTACHMENTS

- Parcel Map
- Sanborn Map
- Aerial Photo
- Zoning Map
- Site Photos

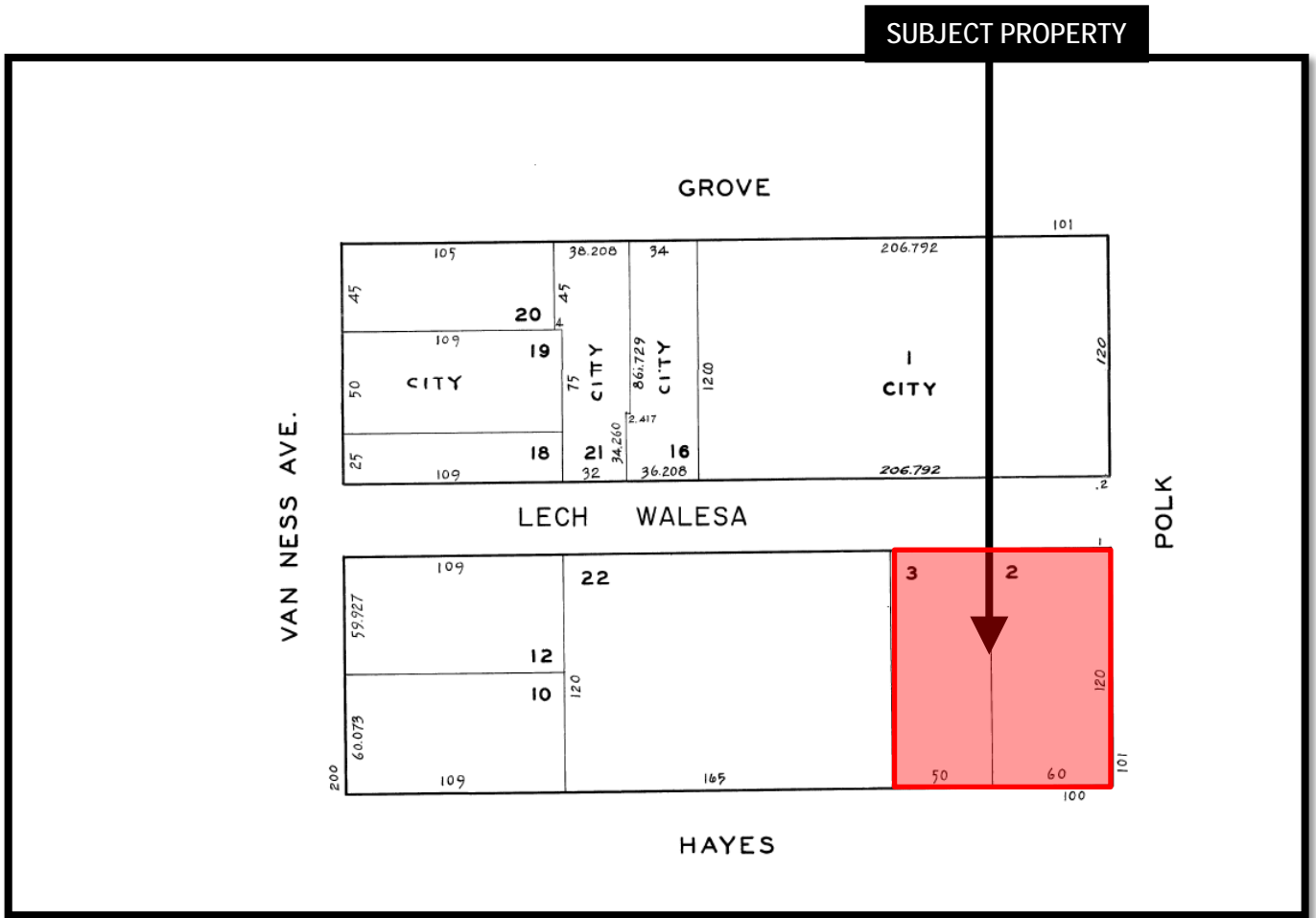
Letter (email) from HUD to John Rahaim, San Francisco Planning Department Director, initiating Section 106 review (November 19, 2013)

Report from JRP Historical Consulting, LLC on behalf of Project Sponsor - Emerald Fund, Inc. (dated November 5, 2013) which includes Map of Area of Potential Effects (APE)

Plans for the proposed project at 101 Polk Street

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Parcel Map



SUBJECT PROPERTY

GROVE

VAN NESS AVE.

POLK

LECH WALEISA

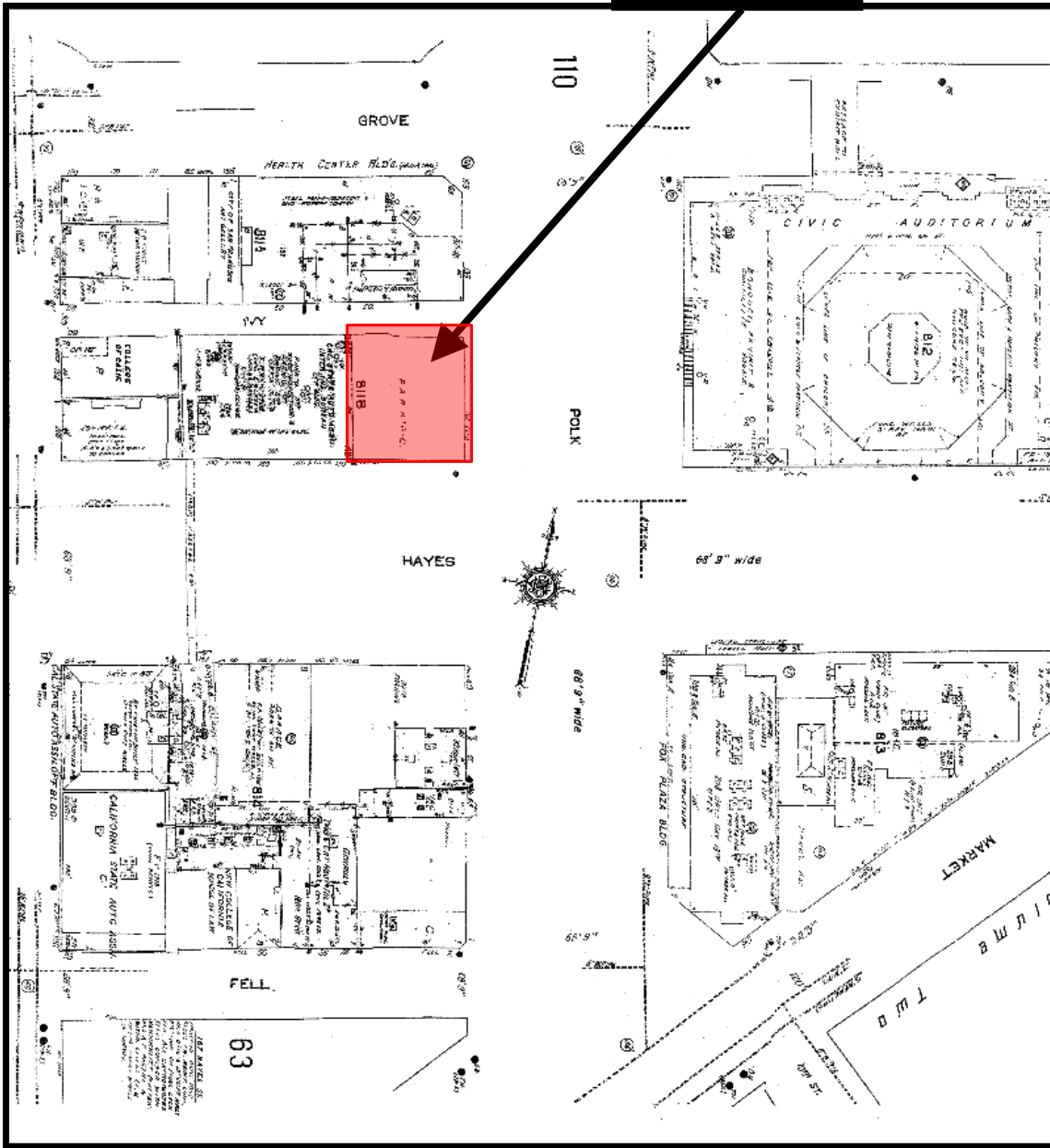
HAYES



Section 106 Review and Comment
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101 Polk Street

Sanborn Map*

SUBJECT PROPERTY



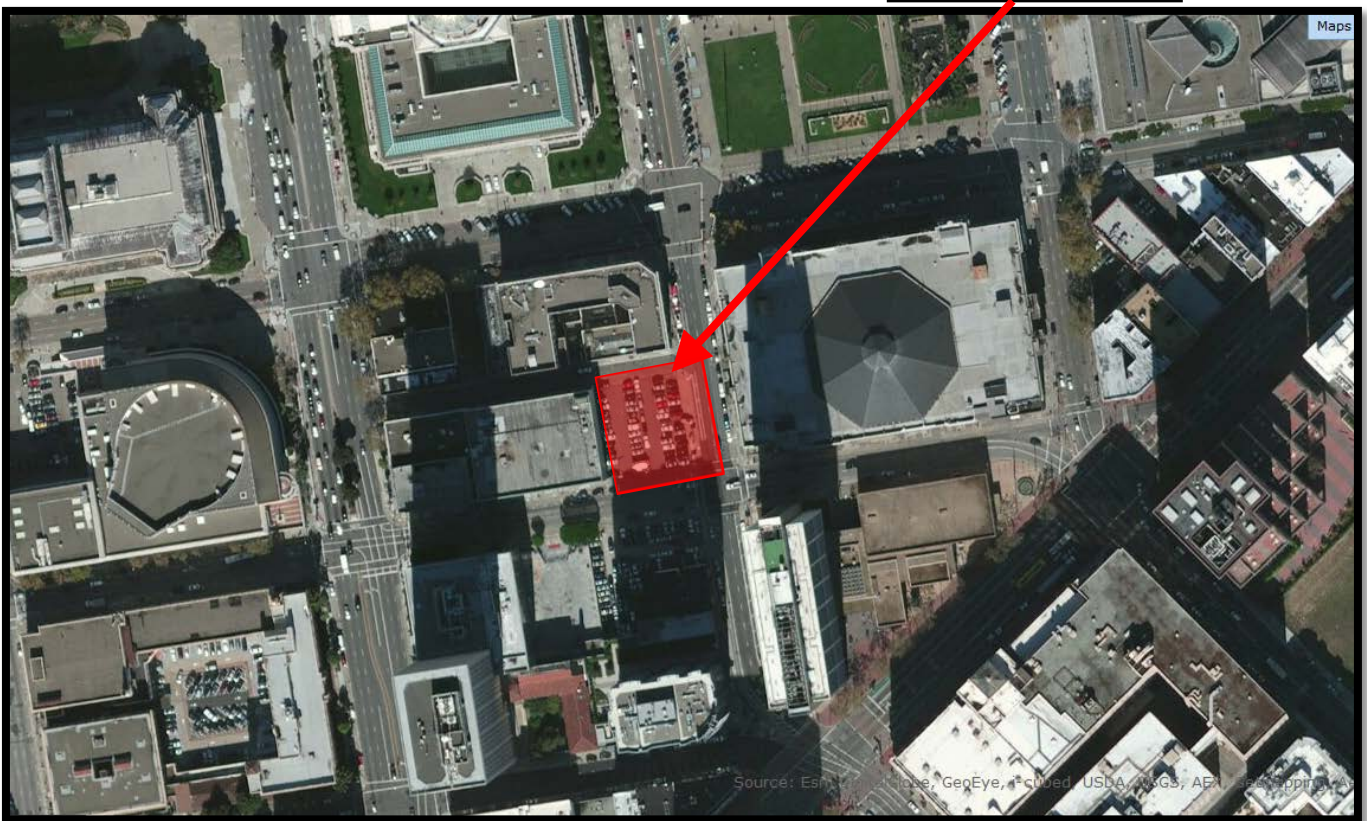
*The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.



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101 Polk Street

Aerial Photo

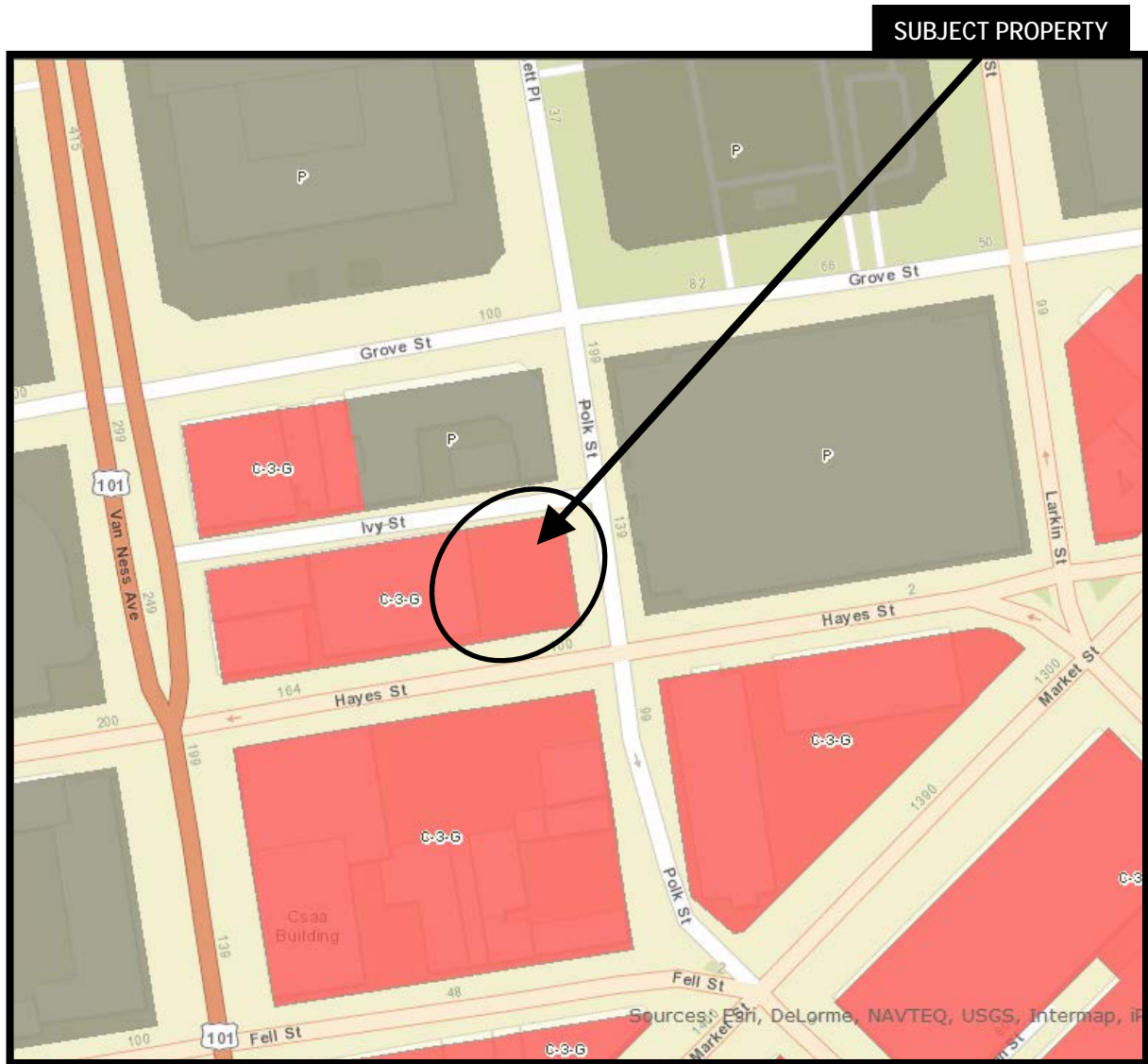
SUBJECT PROPERTY



Source: Esri, DeLorme, GeoEye, "Clubbed", USBA, IGN, Aero, and other providers



Zoning Map

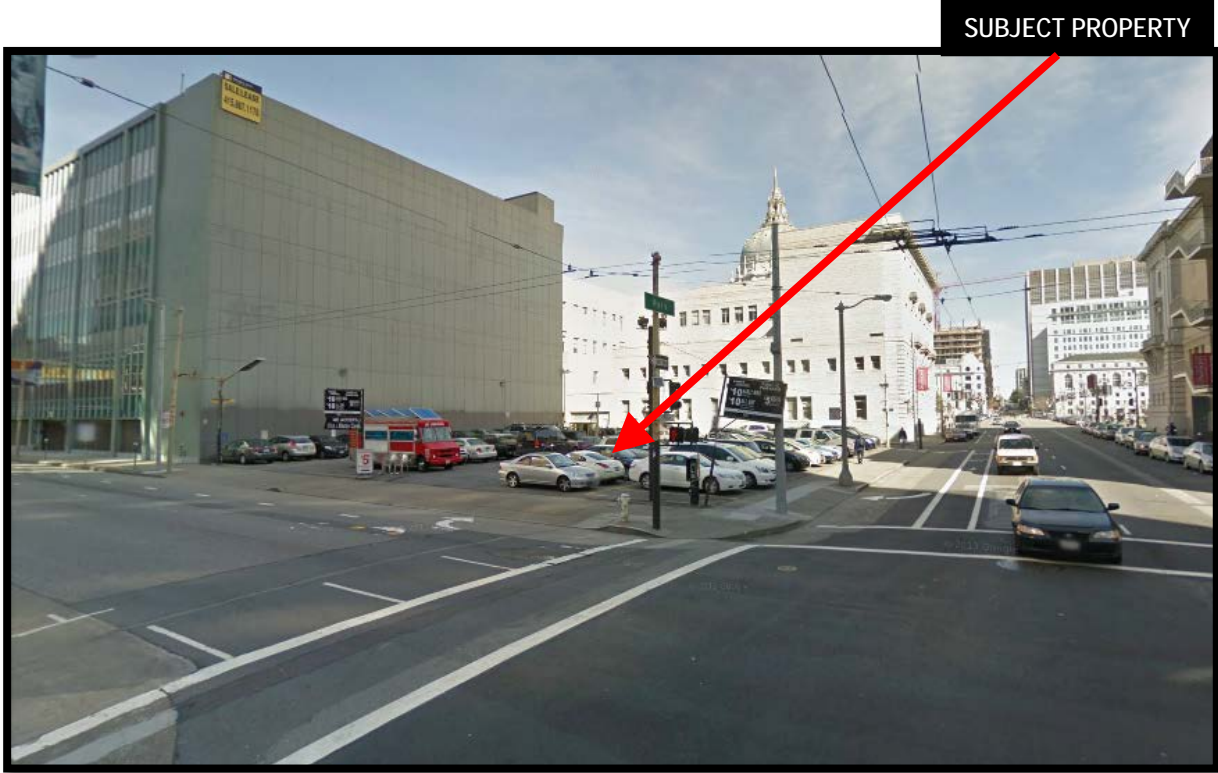


SUBJECT PROPERTY

Section 106 Review and Comment
Case Number 2011.0702F
101 Polk Street



Site Photos



Section 106 Review and Comment
Case Number 2011.0702F
101 Polk Street

Yegazu, Lily

From: Yegazu, Lily
Sent: Thursday, November 21, 2013 3:18 PM
To: Yegazu, Lily
Subject: FW: 101 Polk Street--Request for Historic Preservation Commission Hearing

From: Katz, Robert H [<mailto:Robert.H.Katz@hud.gov>]
Sent: Tuesday, November 19, 2013 11:00 AM
To: Rahaim, John; Tam, Tina
Cc: Kodiyan, Erica B; Corcoran, Angela M
Subject: 101 Polk Street--Request for Historic Preservation Commission Hearing

Dear Mr. Rahaim,

We understand that in order to secure a place on the Historic Preservation Commission's December 4 hearing agenda we will need to submit a request to have the city be a third-party consultant on HUD's Section 106 review of the above-referenced proposed project, a 13-story, 162-unit development with 19 units reserved for those individuals and families having incomes at 55% of AMI. For your review I am attaching a historic and archaeological review letter obtained by the lender from JRP Historical Consulting, LLC which was prepared in order to meet the requirements of 36 CFR 800 as part of our consultation process with the State Historic Preservation Officer.

Will this message suffice or would you prefer a more formal request on agency letterhead and is there a particular format needed for our request? Is the attached report sufficient or will your staff require additional information. Please respond to this message at your earliest convenience.

Sincerely,



BOB KATZ | SENIOR APPRAISER/MAP COORDINATOR
U.S. DEPARTMENT OF **HOUSING AND URBAN DEVELOPMENT**

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Stephen R. Wee, Principal / President
Rand F. Herbert, Principal / Vice President
Meta Bunse, Partner
Christopher D. McMorris, Partner

November 5, 2013

Marc Babsin
Principal
Emerald Fund, Inc.
532 Folsom Street, Suite 400
San Francisco, CA 94105

Dear Mr. Babsin:

JRP Historical Consulting, LLC (JRP) prepared this letter report for Emerald Fund's project at 101 Polk Street in San Francisco, California, the location of which is shown in Figure 1. The proposed project site is bordered by Hayes Street to the south, Lech Walesa Alley to the north, and Polk Street to the east. The 13,200-square-foot site is currently in use as a surface parking lot. The proposed project is for construction of a 13-story, 162 unit residential building on the site, with a subterranean garage for vehicle and bicycle parking accessible from the Lech Walesa Alley. Street frontage along Polk and Hayes streets would consist of walk-up residential units, as well as the building's lobby and leasing area.

The 101 Polk Street project is acquiring a loan from the US Department of Housing and Urban Development (HUD) and, as such, the project constitutes an undertaking for which the agency is required to comply with Section 106 of the National Historic Preservation Act. You provided me a portion of HUD's "Pre Application Conditions" for the 101 Polk Street project (HUD Project No. 121-35951) that presented the required Section 106 compliance documentation as follows:

Prior to submission of the firm commitment application, HUD will need to have information sufficient to request a Section 106 determination from the City and County of San Francisco that can be submitted to the California SHPO. This information should include delineation of the Area of Potential Effects of the proposed project, identification of all properties within the Area of Potential Effects which are listed on or eligible for inclusion in the National Register of Historic Places, including a complete description and assessment of each property over fifty years old, identification of all federally-recognized Native American tribes with a potential interest in the undertaking and a determination as to the likelihood of encountering historic or prehistoric artifacts during the course of site excavation. This information should include and Section 106

analysis previously prepared for the subject property that has been issued by the City and County of San Francisco.

With your approval, JRP contracted with Far Western Anthropological Research Group, Inc. (Far Western) to assist with Section 106 compliance documentation for the 101 Polk Street Project. Far Western prepared an archaeological sensitivity assessment for the project, with assistance from Environmental Science Associates (ESA).

This letter report provides information for a Section 106 determination that can be submitted to the State Historic Preservation Officer (SHPO), in compliance with Title 36 Code of Federal Regulations Part 800 (36 CFR 800), including delineation of the project's Area of Potential Effects (APE) and identification of historic properties, i.e., those properties listed in or eligible for listing in the National Register of Historic Places, located in the APE. This includes description and assessment of properties over fifty years old in the APE and analysis regarding the project's potential to cause an adverse effect to historic properties. Furthermore, this letter report provides information about communication with the Native American Heritage Commission and conclusions regarding the likelihood of encountering historic or prehistoric artifacts during the course of site excavation or project activities.

JRP and the City of San Francisco Planning Department previously conducted analysis regarding cultural resources for the 101 Polk Street project's compliance with the California Environmental Quality Act (CEQA), but no previous analysis has been conducted specifically for Section 106 compliance for this project.

As presented herein, the 101 Polk Street project will not cause an adverse effect to historic properties.

Area of Potential Effects

The APE includes the area of direct impact and an area that could be potentially affected indirectly by the project, as shown in Figure 2. The Archaeological APE is the project site and area of direct impact at 101 Polk Street on parcels (block/lot) 0811/002 and 0811/003, which are adjacent parcels currently occupied by a surface parking lot with no permanent buildings. The Architectural APE includes the project site, the property at 150 Hayes Street that is directly west of the project site, and the adjacent Civic Center Historic District, which is a National Historic Landmark District (NHLD) and is listed in the National Register of Historic Places (NRHP). The property at 150 Hayes Street is included in the APE for potential indirect effects that the project may have on the property, and, although located outside of the historic district boundaries, the project at 101 Polk Street has the potential to visually impact the Civic Center's historic integrity and thus the historic district is also included in the APE.



Figure 1: Location of the 101 Polk Street Project

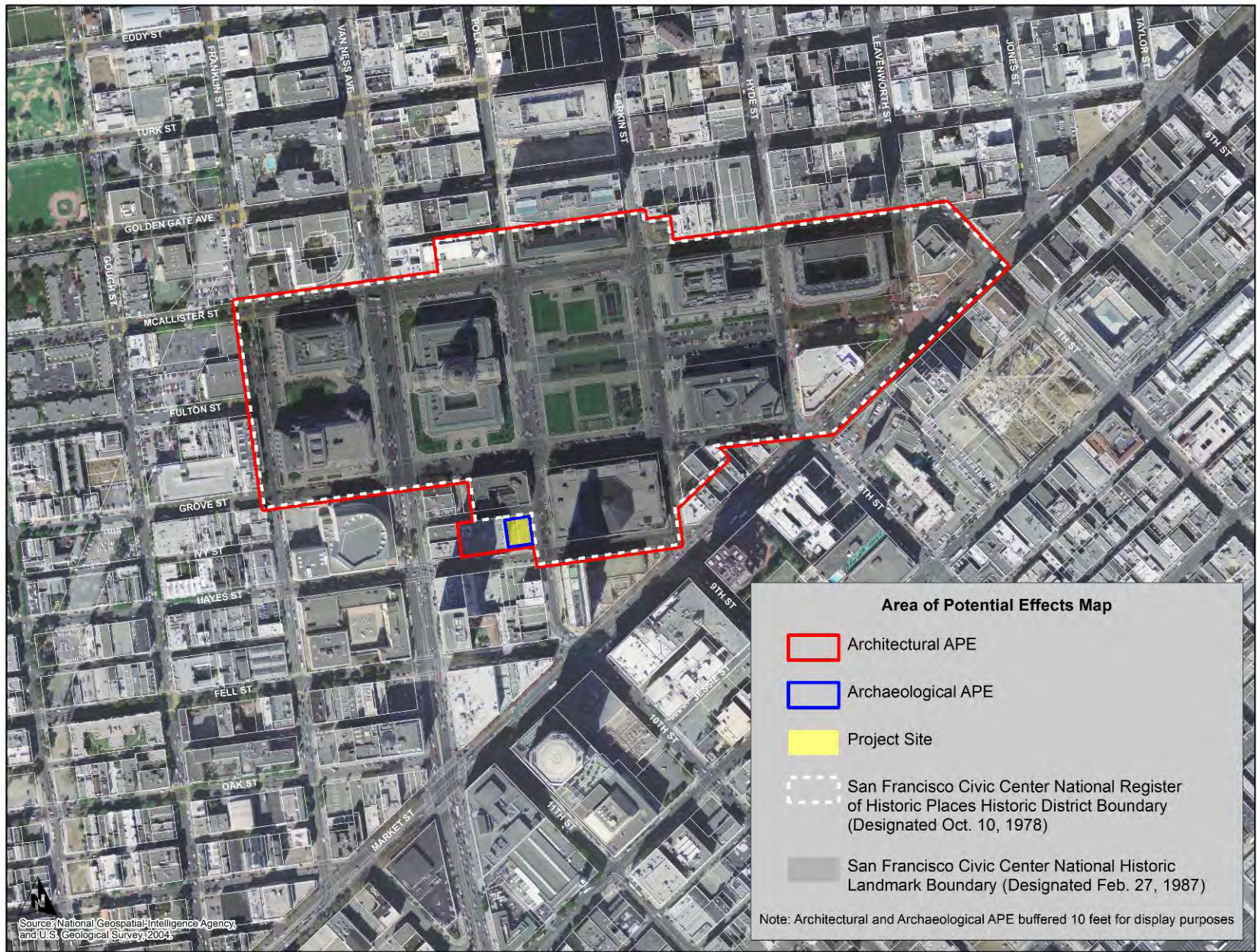


Figure 2: Area of Potential Effects Map for the 101 Polk Street Project

Identification of Historic Properties and Assessment of Adverse Effects

JRP identified historic properties in the APE and analyzed the project's potential to cause an adverse effect to historic properties. Far Western assessed the potential for the project to affect prehistoric archaeological resources, and ESA assessed the potential for the project to affect historic archaeological resources.

Historic Architectural Resources

I, JRP Partner and Architectural Historian Christopher McMorris, along with JRP Architectural Historian Polly Allen, conducted a study of the project to assess its potential to affect historic resources in 2012. This study was conducted for the project's compliance with CEQA, as it pertains to historical resources and assessed project impacts on Civic Center Historic District. Both Ms. Allen and I qualify under the United States Secretary of Interior's Professional Qualification Standards under History and Architectural History. The following identification of historic properties and assessment of adverse effects is largely taken from the 2012 study, with analysis refocused for Section 106 compliance. I took the present-day photographs, provided herein, in July 2012.

JRP examined standard sources of information that identify known and potential historic resources such as buildings, structures, objects, districts, or sites that had been previously recorded or evaluated in the APE. This included review of the NRHP, California Historical Landmarks and Points of Historical Interest publications and updates, and the Office of Historic Preservation, California Historical Resources Information System for San Francisco County, April 2012. Far Western conducted a records search for this project at the Northwest Information Center, and JRP reviewed the results of the records search, as they pertained to historic architectural resources. Additional background research was done through the San Francisco Planning Department's Property Information Map website to further collect data on the historic status of buildings and to confirm dates of construction of properties in the APE. JRP also reviewed the City of San Francisco's CEQA process for this project to identify relevant steps taken to involve the public and local government. The San Francisco Planning Department received letters of support, including from planning advocates SPUR, and no opposition to the project appears in the record. The Planning Department's Historic Preservation Staff reviewed the project and JRP's analysis regarding impacts to the Civic Center Historic District, agreeing with JRP's conclusion that the project would not adversely affect the historic district. This conclusion was incorporated into the CEQA environmental document and the San Francisco Planning Commission approved the project in May 2013.¹ Supplementing the City's public

¹ National Park Service, National Register Information System, online database: <http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome> (accessed October 2013); Office of Historic Preservation, California Historical Landmarks (Sacramento: California State Parks, 1996); Office of Historic Preservation, California Points of Historical Interest (Sacramento: California State Parks, May 1992); California Department of Parks and Recreation, Office of Historic Preservation, "California Historical Resources," <http://ohp.parks.ca.gov/listedresources/?view=all>; Northwest Information Center, Sonoma State University Records Search, October 10, 2013 conducted by Far Western Anthropological Research Group; San Francisco

process, JRP sent a letter dated October 7, 2013 to San Francisco Architectural Heritage to provide information about the project and solicit their input. JRP did not receive a response. Furthermore, JRP identified that the building at 150 Hayes Street, built in 1967-68, had not been previously evaluated. The results of JRP's background research and review of previous identification efforts is that the Civic Center Historic District is the sole historic property within the 101 Polk Street APE. Besides the vacant project site and the property at 150 Hayes Street, all properties in the APE more than 50 years old are either contributors or non-contributors to the historic district.

Prior to the 1906 earthquake and fire in San Francisco, the block on which the project site is located was developed with several small commercial buildings, flats, and a Catholic school. The buildings appear to have been destroyed in the earthquake and fire, and by the 1910s the site was developed with a small auto service station that included a small mechanic shop as well as an open air washing area, as shown in Figure 3. The station was part of a spate of automobile-related construction in the area, with the Van Ness Avenue corridor emerging as one of the West Coast's premier Auto Rows during the period. At this time, virtually the entire block of Hayes Street between Polk Street and Van Ness Avenue was devoted to similar small-scale auto uses, with an auto body and paint shop, auto and motorcycle garage and service business, as shown below. This modest commercial construction at 101 Polk Street was removed by the 1970s, however, and the site has since been a paved auto parking lot with no permanent structures.²

The California State Automobile Association (CSAA) constructed the building at 150 Hayes Street in 1967-68 as an annex to its complex of buildings at 150 Van Ness Avenue and 155 Hayes Street. JRP surveyed and evaluated the building at 150 Hayes Street for this study, concluding that the property does not appear to meet the criteria for listing in the National Register of Historic Places. Thus, it is not being considered as a historic property for Section 106 and no further analysis regarding this property is provided. The DPR 523 form for 150 Hayes Street is provided in Attachment A.³

The proposed development site at 101 Polk Street is directly south of the Civic Center, which is listed as an NRHP historic district and an NHL. The Civic Center, shown in the Figure 4, has been the subject of numerous historical evaluations and studies, which are summarized herein.

Property Information Map, <http://ec2-50-17-237-182.compute-1.amazonaws.com/PIM//?dept=planning> (accessed October 2013); San Francisco Planning Commission Meeting Minutes, May 9, 2013, <http://www.sf-planning.org/index.aspx?page=3525> (accessed October 2013), which includes the project's CEQA Mitigated Negative Declaration that includes the conclusions from the JRP historic resources study.

² *Insurance Maps of San Francisco, Volume 1*, (New York: Sanborn Perris Map Company, 1899) Sheet 96; *Insurance Maps of San Francisco, Volume 1* (New York: Sanborn Map Company, 1913-revised 1950) Sheet 111; Page and Turnbull Inc., DPR 523 155 Hayes Street (prepared for the City of San Francisco Market and Octavia Neighborhood Plan Area Study, 2006, 2010).

³ Steven J. Melvin assisted with preparation of the DPR 523 form for 150 Hayes Street. Mr. Melvin qualifies under the United States Secretary of Interior's Professional Qualification Standards under History and Architectural History.

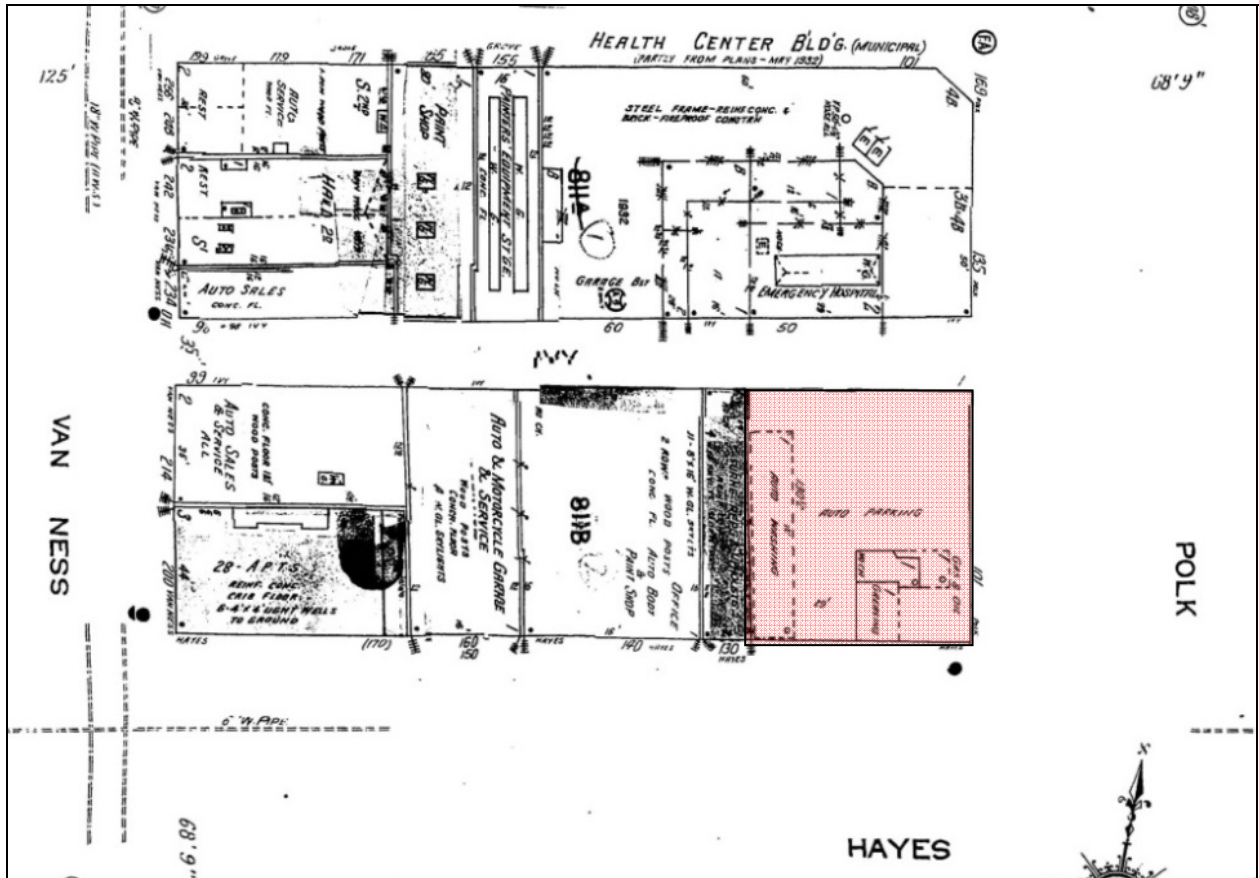


Figure 3: 1913 Sanborn Map depicting auto shop at project site (highlighted).



Figure 4: 1930 Panorama of the Civic Center
 Photograph Courtesy of San Francisco Public Library

The San Francisco Civic Center was listed in the NRHP on October 10, 1978. Subsequently, the Civic Center was designated as a NHLHD on February 27, 1987. Since this designation, the district was also listed as a San Francisco City Landmark District in 1994 (the boundaries of the NRHP, NHLHD, and the San Francisco City District differ slightly).

The significance of the Civic Center relates to both its monumental and cohesive City Beautiful design and its relationship to post-1906 earthquake reconstruction and resurgence of San Francisco. In addition, the district is associated with the founding of the United Nations and the drafting of the World War II peace treaties with Japan. The 1987 NHLHD nomination describes the Civic Center's importance as follows:

The San Francisco Civic Center, the scene of events of national and international importance, outstandingly illustrates the era of turn-of-the-century municipal reform movements in the United States and early public and city planning. By general consensus, its architecture and plan are regarded as one of the finest and most complete manifestations of the "City Beautiful" movement in the United States. The Civic Center also embodies the city's phoenix-like resurgence after the disastrous 1906 earthquake and fires. The Civic Center remains the permanent manifestation of this phenomenon.

The character-defining features identified in the above-referenced nominations are largely the same. Generally, the character-defining feature of the Civic Center is its design as a "principle aggregation of monumental buildings around a central open space." Within this overall context, the Civic Center buildings are unified by a "Beaux Arts classical design. They are organized into horizontal bands of vertically proportioned elements, with the grand order of the facade displayed on two or three floors above a usually rusticated base of one or two ground and partially sub-ground floors. The buildings of the district contain standard features such as overall form, massing, scale, proportion, orientation, depth of face, fenestration and ornamentation, materials, color, texture, architectural detailing, facade line continuity, decorative and sculptural features, street furniture, granite curbing and grille work." Importantly, the district ensemble is also defined by the "degree to which each enhances the group without distracting from the City Hall."⁴

As depicted in project plans and renderings, provided in Attachment B, the design of the new building is defined by a textured masonry grid, which overlays generous rows of windows separated by thin metal spandrel panels. The building is tripartite in form, with a defined base, shaft, and cornice.

⁴ Michael Corbett, *Civic Center National Register Nomination* (admitted to the National Register October 10, 1978); History Division, National Park Service, *Civic Center National Historic Landmark Nomination* (admitted to the National Register February 27, 1987); San Francisco Planning Code. Article 10: Preservation of Historical Architectural and Aesthetic Landmarks, Appendix J.

The base of the proposed building includes the first three stories. In this area the masonry framing is articulated stone, providing a substantial foundation along the street-wall and at each corner of the building. The windows along the street-wall are of an oversize scale, allowing visual connection between the street and lobby area.

The shaft of the building, which extends to the twelfth floor, is separated from the base by a narrow belt course. The treatment of the masonry grid in this area is differentiated from that of the base, with a textured aesthetic that departs from the stone treatment of the former. Columns of small metal balconies line this area of the building, projecting slightly from the masonry grid. On Polk Street the balconies are every-other-level, while the remainder of the elevations include balconies at every level. In general, the shaft of the building maintains a horizontal form, with masonry banding running along each level that terminates at well-defined masonry clad corners. On Polk Street this horizontality is further defined by the staggered balconies, with the spacing between floors breaking up the vertical rhythm of the balcony columns.

The masonry grid terminates over the twelfth floor, above which rises the thirteenth floor which is characterized by a largely unbroken expanse of windows, with only small spandrel panels separating the units. A modest cornice projects above this level, providing a subtle visual termination.

Within this tripartite framework, the Polk Street façade includes a single vertical column of windows running unbroken from the base of the building to the cornice. This “ribbon” of glass denotes the entrance to the building, providing a subtle visual cue that breaks up the otherwise regular grid.

Although the site does not share historical associations with the Civic Center Historic District, because of its proximity to the district it does play a contextual role within the overall setting of the district. The site is directly south of the Department of Public Health Building, a restrained Italian Renaissance style, granite-clad building constructed in 1932, shown in Figure 5, which is a contributing element of the district. The principal entrance of the Department of Public Health Building is located on the corner of Grove and Polk streets, facing away from the proposed project site and angled to face the Civic Center Plaza to the north. This building is characterized by a tripartite design, with a smooth granite base, a two-story level of rusticated block cut by plain rectangular windows, and a cut stone upper level beneath a distinct cornice adorned with a frieze band and dentil molding. Balconets line the belt course and a classically derived balcony runs the length of the primary facades at the upper level on both Polk and Grove streets.

The proposed project site is also located across from the Exposition (Civic) Auditorium, shown in Figure 6, a Beaux Arts style granite and brick clad building constructed in 1915 that is also a contributor to the district. Like the Department of Public Health Building, the Auditorium faces Civic Center Plaza to the north, with one of its secondary elevations oriented toward the proposed project site to the west. The façade, facing Grove Street, is characterized by a

symmetrically ordered central entrance with prominent arched windows and broad canopy. Flanking wings extend from this main body. Like the adjacent Department of Public Health Building, and much of the district, the design is characterized by a tripartite aesthetic, with a two-story rusticated base, smooth-walled upper stories, and a prominent cornice with stylized false attic above.

While these contributing buildings, and the Civic Center as a whole, are not oriented toward the project site, the proposed development would be a visible framing element in the immediate setting outside the district's boundaries, as shown in Figure 7. The site would rise above the southern perimeter of the district, directly behind both the Department of Public Health and the Exposition Auditorium. Currently, multiple other high-rise buildings line this viewshed, with 1390 Market Street and 100 Van Ness Avenue the most prominent at 29 stories.

In addition to those buildings that frame the southern boundary, many high-rise buildings are situated around the perimeter of the district. Of particular note is the recently completed San Francisco Public Utilities Commission Building at 525 Golden Gate Avenue, a 13 story glass high rise directly to the north of the district; the Hiram W. Johnson building, a 14 story stone-clad 1998 addition to the California State Building, shown in Figure 8; and the National Register listed 100 McAllister Street, a yellow-brick Gothic high-rise building directly behind the Federal Building that was constructed in 1930. A variety of low-rise commercial and residential buildings, dating from various periods of the city's development, are interspersed between the taller buildings that are visually prominent from within the historic district.

Thus, the neighborhood context for the proposed development is associated with both the Civic Center itself, including the district's character-defining features, as well as the context of the development immediately surrounding the district. At present, this perimeter is characterized by a broad range of architectural design from a number of periods and includes high and low-rise construction as well as glass, masonry, and stone / concrete treatments.



**Figure 5: Department of Public Health Building
Proposed project location indicated with red arrow**



**Figure 6: Exposition (Civic) Auditorium
Proposed project site indicate in background with red arrow**



**Figure 7: View on Polk Street south From Civic Center Plaza
Proposed project site indicated with red arrow;
1390 Market Street and 100 Van Ness Avenue flanking**



**Figure 8: View on Polk Street facing north from Civic Center Plaza
525 Golden Gate Avenue and Hiram W. Johnson Building flanking**

As noted, the Civic Center Historic District is the sole historic property in the APE. The proposed new construction at 101 Polk Street will be outside the boundaries of the historic district and there is no potential for the project to have a direct adverse effect on the historic property. The new building will be part of the general urban setting of the historic property. The following is analysis regarding the project's potential to cause an indirect adverse effect to the historic property. This includes assessment of the ways in which the new construction's design conforms with the Secretary of the Interior's Standards for the Treatment of Historic Properties as a means to avoid an adverse effect.

The proposed project at 101 Polk Street will not diminish the historic integrity of the Civic Center Historic District and thus not cause an indirect adverse effect to the historic property. The historic district and its contributors will remain in the same *location*, and because the proposed project is located outside of district boundaries it will not destroy or alter historic materials, features, or spatial relationships that characterize its integrity of *design, materials, and workmanship*. As discussed in detail below in relation to the Secretary of the Interior's Standards, the design of the proposed project is sensitive to the district, with a compatible aesthetic that maintains the integrity of the district's *setting and feeling*. By maintaining the above aspects of integrity, the proposed project allows the Civic Center Historic District to maintain historic integrity of *association*, with character-defining features of the district intact and able to convey historical associations.

For this project, the Rehabilitation Treatment (one of the four Secretary of the Interior's Standards for the Treatment of Historic Properties) guides the appropriate development of new construction within the setting of the adjacent Civic Center Historic District, emphasizing compatibility between historic properties and new construction / new uses. Two of the ten standards under the Rehabilitation Treatment are specifically applicable: Standard Nine and Standard Ten include important guidance for contextual construction, given as follows:

Rehabilitation Standard 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 shall 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.

Rehabilitation Standard 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.

Rehabilitation Standards 1 through 8 are generally not applicable for the project at 101 Polk Street and its relationship with the adjacent historic property. As a result of the project, no physical alterations to the Civic Center Historic District will occur, as it will continue its current uses and its historic character will be retained and preserved.

The proposed project conforms with the Secretary of the Interior's Rehabilitation Standards Nine and Ten. The district's contributing buildings and the spatial relationships within the district will remain intact, and both during and following construction of the new building at 101 Polk Street the district will retain all of the character-defining features that convey its significance. Generally, the proposed project will not alter the district's character-defining identity as a "principle aggregation of monumental buildings around a central open space." While the new building will be visible from the district, it will not interfere with any of the district's primary axial views or the interrelationships between the buildings. The district's contributing buildings are oriented toward each other, with the Plaza acting as a central open space and providing strong east-to-west vistas. Because it is located to the south of this composition, the proposed project does not interfere with this character-defining spatial layout. Rather, the building would appear as a general framing element in a surrounding skyline that is at present characterized by a mix of low and high-rise construction and construction types.

Furthermore, the proposed construction at 101 Polk Street is compatible with the district's historic materials, features, size, scale and proportion, and massing. The new building's tripartite design echoes one of the essential classically derived design features found in the historic district and provides visual connection to the district. Similarly, by employing a masonry grid atop the largely glass façade, the design of the building provides continuity with the district's material characteristics. Additionally, the metal balconies, modest cornice line, and horizontal massing of the façade, particularly on Polk Street, all serve to present unifying contextual characteristics that are compatible with the adjacent historical resource. The new building will be taller than its historic neighbors, but will not overwhelm them in this urban setting.

While the design of the proposed project is responsive to the district, it does not create a false sense of history by replicating the architectural designs found within the historic district. The building is clearly modern in its design and interpretation, with its largely glass façade, inventive masonry grid, and undulating courtyard at the building's southwest corner. Through these design details, the proposed project is well differentiated from the Civic Center Historic District. In addition, the proposed project will be physically distinct from the district, and if the building at 101 Polk Street were to be removed in the future, such action would not alter the essential form and historic integrity of the district.

The proposed project at 101 Polk Street also does not present cumulative impacts to the Civic Center Historic District. As noted, the historic district will retain historic integrity and the proposed project conforms with the Secretary of the Interior's Standards that relate to new construction adjacent to historic properties. The project's design features are compatible with important design features found within the historic district and thus this project, taken together with previous projects at the Civic Center Historic District's boundaries, does not create a cumulative effect that diminishes the setting of this historic property and it will remain a distinct entity that can convey its significance through its physical form within the surrounding setting of the neighborhood.

Archaeological Resources

Far Western and ESA prepared an "Archaeological Sensitivity Assessment" for the 101 Polk Street Project. It is provided in Attachment C. The report was prepared by Dr. Brian F. Byrd, Jack Meyer, Heidi Koenig, and Dr. Rebecca Allen, all of whom meet the United States Secretary of Interior's Professional Qualification Standards under Archaeology. The Archaeological APE is the project site, which accounts for the horizontal extent of the APE. The vertical extent of the Archaeological APE varies across the project site and extends to a maximum depth of 25 feet (7.6 meters) below ground surface to account for proposed excavation and construction activities.

As presented in the archaeological report, Far Western and ESA conducted research and analysis to assess the likelihood of encountering prehistoric or historic cultural material during the course of site excavation or project activities. The archaeologists performed a records search, conducted archival research, and communicated with the Native American Heritage Commission. Far Western conducted a records search for this project at the Northwest Information Center at Sonoma State University in Rohnert Park, California on October 10, 2013. The records search, discussed further in the report, was negative as no archaeological sites have been previously recorded within the Archaeological APE or within a 1/4-mile buffer around it. Far Western also contacted the Native American Heritage Commission on October 7, 2013, and requested a search of their Sacred Lands files to determine if there were known cultural sites within or near the APE. On October 15, the Commission responded, stating that no Native American cultural resources were reported from the sacred lands file records search. A list of interested Native American groups and individuals was also requested, and a list of nine contacts was provided. No federally-recognized Native American tribes with a potential interest in the project were identified. Archival research was then conducted to support assessment of potential historic archaeological resources that might be encountered at the project site.

The archaeological report concludes that the 101 Polk Street Project has little, if any, potential to adversely affect a prehistoric archaeological deposit and there is a low sensitivity for historic-era archaeological resources to be present in the Archaeological APE. Thus, no further prehistoric or historic-era archaeological study, identification, or monitoring efforts are recommended for the project as it is currently defined and proposed. The report provides analysis that supports the conclusion that the historical ground surface, where potential prehistoric archaeological deposits could be located, lies about 14.6 to 23.5 feet (4.4 to 7.1 meters) below the maximum depth of project-related earth disturbances activities, which extend to a maximum depth of about 25 feet (7.6 meters) below the existing ground surface. Furthermore, analysis in the report indicates that the upper 10-14 feet of subsurface area in the Archaeological APE consists of artificially placed fill and that groundwater is present at approximately 16 feet below the existing ground surface. The depth of this fill and likely previous subsurface disturbances are sufficient to indicate that evidence of past historic land use are very unlikely to be present within the maximum vertical extent of the project impacts.

As noted, this letter report provides information for a Section 106 determination that can be submitted to SHPO, in compliance with 36 CRF 800, including delineation of the APE,

identification of historic properties within the APE, and assessment of adverse effects to historic properties. This letter report also provides information about communication with the Native American Heritage Commission and determination regarding the likelihood of encountering historic or prehistoric artifacts during the course of site excavation. Please contact me if you have questions about the information and/or conclusions presented in this letter report.

Sincerely,



Christopher McMorris
Partner / Architectural Historian

Enclosures

Attachment A: DPR 523 Form – 150 Hayes Street, San Francisco

Attachment B: Project Plans

Attachment C: Far Western Anthropological Research Group, Inc., Archaeological Sensitivity Assessment for the 101 Polk Street Project, San Francisco, California, October 2013.

Attachment A: DPR 523 Form – 155 Hayes Street, San Francisco

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 8

*Resource Name or # (Assigned by recorder) 150 Hayes Street

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County San Francisco

*b. USGS 7.5' Quad San Francisco North Date 2012 T 8N; R 4E; ___ ¼ of Sec ___; M.D. B.M.

c. Address 150 Hayes Street City San Francisco Zip 94102

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____mE/ _____mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Block / Lot: 0811-022

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The property at 150 Hayes Street is an International Style Modern office building situated on the north side of the street mid-block between Polk Street and Van Ness Avenue (**Photograph 1**). The six story building is a former annex to the California State Automobile Association's (CSAA) complex of buildings across Hayes Street. The building covers the 120'x165' parcel. The building is connected to its western neighbor via a footbridge at the second floor of 155 Hayes Street, which was an addition to the building at 150 Van Ness Avenue (the original component of the CSAA complex) (**Photograph 2**). Completed in 1968, the flat roofed rectangular building at 150 Hayes Street stylistically matches the other buildings of the CAA complex and has concrete frame clad in cast stone veneer and glass / plastic panel curtain wall on the south side, along with concrete panels on the east, west, and north sides (**Photograph 3**). (See Continuation Sheet.)

*P3b. Resource Attributes: (List attributes and codes) HP7 – Commercial Building, over 3 stories

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Photograph 1. South and east sides, camera facing northwest, 11/4/13.

*P6. Date Constructed/Age and Sources:
 Historic Prehistoric Both
1967-1968 (Van Ness Auto Row Support Structures and Assessor Record)

*P7. Owner and Address:
Academy of Art University
79 New Montgomery Street, 4th fl.
San Francisco, CA 94105

*P8. Recorded by: (Name, affiliation, address)
Steven Melvin / Christopher McMorris
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618

*P9. Date Recorded:
November 4, 2013

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "Letter Report to Marc Babsin, Emerald Fund, Regarding Section 106 compliance for 101 Polk Street Project," November 2013.

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record
 District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record
 Other (list) _____

DPR 523A (1/95)

*Required Information

B1. Historic Name: California State Automobile Association Annex

B2. Common Name: _____

B3. Original Use: Office Building B4. Present Use: Office Building

*B5. Architectural Style: International Style Modern

*B6. Construction History: (Construction date, alteration, and date of alterations) Built in 1967-1968; used by CSAA and as commercial office space until 2008; Academy of Art University recently purchased and occupied the building.

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: Albert F. Roller b. Builder: _____

*B10. Significance: Theme n/a Area n/a

Period of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The building at 150 Hayes Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). Although the building retains historic integrity, it lacks historic significance. This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, and is not a historical resource for the purposes of CEQA.

Historic Context

The historic context for 150 Hayes Street is its development as the annex to the California State Automobile Association (CSAA) complex situated on the south side of Hayes Street and on Van Ness Avenue, as well as an office building constructed in the International Style / Corporate Modernism style. The property at 150 Hayes Street is located in San Francisco's Downtown / Civic Center area and is just off Van Ness Avenue, which is a prominent thoroughfare in the city, and located a block south of the San Francisco Civic Center and City Hall. (See Continuation Sheet.)

B11. Additional Resource Attributes: (List attributes and codes) _____

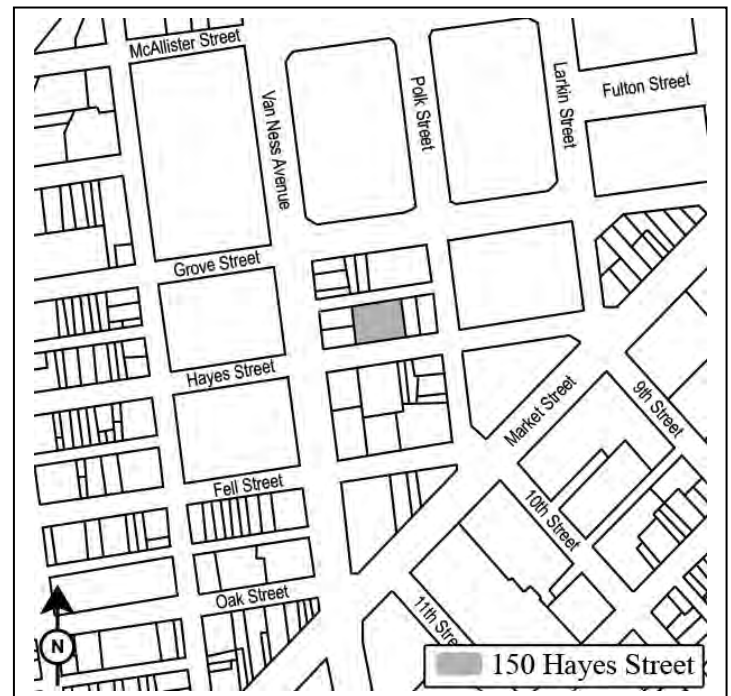
*B12. References: William Kostura, *Van Ness Auto Row Support Structures: A Survey of Automobile-Related Buildings along the Van Ness Avenue Corridor*, prepared for San Francisco Department of City Planning, 2010; Page & Turnbull, *150 Van Ness Avenue, San Francisco, Historic Resource Evaluation*, prepared for Van Ness Hayes Associates, LLC, May 2013; *Polk's San Francisco City Directory*, various years; John F. Gaine and George S. Koyl, *American Architects Directory*, 3rd ed. (New York: R.R. Bowker Co., 1970), 776; Mary Brown, Preservation Planner San Francisco City and County Planning Department, "San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement," January 2011, 247-248; Page & Turnbull, *Market & Octavia Area Plan Historic Context Statement*, prepared for San Francisco Planning Department, 2007 and see B10 footnotes.

B13. Remarks:

*B14. Evaluator: Christopher McMorris

*Date of Evaluation: November 2013

(This space reserved for official comments.)



P3a. Description (continued):

The aluminum framed glass entrance on Hayes Street is recessed at the west end of the building. Besides the small lobby at the entrance, most of the first floor is a parking garage that has two driveways on the south side and one on the north side. The south side upper stories are comprised of bands of aluminum framed paired casement windows over a single fixed pane separated by teal-colored spandrels (**Photograph 4** and **Photograph 5**). The upper stories on the north side include aluminum frame windows similar to those on the south side (**Photograph 6**). The east side of the building is currently covered by a large mural depicting the America's Cup sailing race in San Francisco Bay. The pedestrian bridge is steel frame and clad in concrete with an inset arched detail beneath its panel of windows and flat roof. The Academy of Art University currently occupies the building.

B10. Significance (continued):

Prior to the 1906 earthquake and fire in San Francisco, the block on which this property sits was developed starting in the mid nineteenth century with small commercial buildings, flats, and a Catholic school. These properties were all destroyed by the 1906 earthquake and fire and by the mid-twentieth century the parcel that became 150 Hayes Street was occupied by a furniture repair and upholstery shop, an auto body and paint shop, and an auto/motorcycle garage and service building, all of which were demolished for construction of the CSAA annex.¹ Construction of 150 Hayes Street in 1967-68 was for expansion of the CSAA facility that was originally constructed at 150 Van Ness Avenue in 1926, which occurred during the latter time period in which Van Ness Avenue was one of the West Coast's premier auto rows that included show rooms and auto shops / service businesses.²

The CSAA – the northern and central California affiliate of the American Automobile Association (AAA) – constructed its headquarters at 150 Van Ness Avenue in 1926. The non-profit organization had its origins in 1901 and grew substantially in the initial decades of the twentieth century. The building at 150 Van Ness Avenue illustrated CSAA's success in promoting motor vehicle transportation. The headquarters was originally a seven story Spanish Renaissance Revival-style building designed by architect George W. Kelham. Post World War II expansion in auto travel in California led CSAA to extend its role and services. In response, the automobile association constructed the nine-story International Style Modern building at 155 Hayes Street in 1958-59 as an addition to the east side of the original headquarters, with the two buildings linked on the interior. Following construction of the CSAA Annex at 150 Hayes Street in 1968, the building at 150 Van Ness Avenue underwent a façade redesign the following year, wherein much of the building's original plaster ornament was removed and replaced by a new curtain wall of glazing and plastic panels set in a light metal frame. During this period CSAA expanded its services into insurance and world-wide travel assistance services, as well as lent its support to major transportation improvement initiatives such as development of the Bay Area Rapid Transit system. The building at 150 Hayes Street included a vehicle diagnostic service area and claims office for CSAA members, and also included office space leased to other entities such as Dun & Bradstreet, Inc., Pacific Telephone & Telegraph, and Deleuw-Greenly-Hyman clean water project. In 1972, CSAA further expanded its complex with construction of the 29 story building at 100 Van Ness Avenue (which is currently having its original concrete cladding replaced). CSAA owned and occupied this complex of buildings until 2008.³

¹ *Insurance Maps of San Francisco, Volume 1*, (New York: Sanborn Perris Map Company, 1899) Sheet 96; *Insurance Maps of San Francisco, Volume 1* (New York: Sanborn Map Company, 1913-revised 1950) Sheet 111.

² See: William Kostura, *Van Ness Auto Row Support Structures: A Survey of Automobile-Related Buildings along the Van Ness Avenue Corridor*, prepared for San Francisco Department of City Planning, 2010.

³ Page & Turnbull, *150 Van Ness Avenue, San Francisco, Historic Resource Evaluation*, prepared for Van Ness Hayes Associates, LLC, May 2013, 3, 9, 28-29, 31-34; Kostura, *Van Ness Auto Row Support Structures*, 71; *Polk's San Francisco City Directory 1969-70* (Monterey, CA: R.L. Polk & Co, 1969), Reverse Directory listing; *Polk's San Francisco City Directory 1971, 1972, 1973* (Monterey Park, CA: R.L. Polk & Co, 1971, 1972, 1973), Reverse Directory listing; *Polk's San Francisco City Directory 1975* (El Monte, CA: R.L. Polk & Co, 1975), Reverse Directory listing.

San Francisco architect Albert F. Roller (1891-1981) designed the building at 150 Hayes Street. He was also the architect for the CSAA addition at 155 Hayes Street, the façade redesign of the CSAA building at 150 Van Ness Avenue, and the building at 100 Van Ness Avenue. Roller was a self-trained architect who began his career in the 1910s and 1920s, working as a draftsman in firms such as Coxhead & Coxhead and Ward & Blohme. He received his architecture license in 1926 and began his own firm, Albert F. Roller & Associates. Roller was well regarded and is known for commercial, institutional, and industrial designs including the John Bruener Co. building (Oakland, 1931), San Francisco County Jail (San Mateo County, 1935), Central Tower of Spreckels Building (San Francisco, 1938), National Broadcasting Company Building (San Francisco, 1941 - demolished) as well as large-scale housing projects such as the Sunnydale housing project (San Francisco, 1941) and US Navy housing project (Vallejo, 1942). He designed the Masonic Memorial Temple (San Francisco, 1958), was on the team of architects that designed the San Francisco Federal Building on Golden Gate Avenue (1959), and was architect of the Well Fargo Annex Building (San Francisco, 1969). Roller was active in San Francisco institutions, serving on the city's Redevelopment Agency in the early 1950s and the Art Commission in the mid to late 1950s.⁴

The CSAA Annex at 150 Hayes Street is built in the International Style / Corporate Modernism style, which are both described in *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* (2011). The building is a relatively modest and late example of the style, which was greatly influenced by Mies van der Rohe, characterized by a lack of historically derived ornament. The building exhibits some of the standard qualities of the style, such as its cubist form and ribbon windows with colored spandrels, but lacks refined and prominent details, such as cantilevered planes on pilotis and articulated framing details seen in more well-known examples. Only a portion of this building illustrates the glass curtain wall design that is a hallmark of this style and there are no features such as a plaza or landscaping.⁵

Evaluation

The other portions of the CSAA complex were previously evaluated. Page & Turnbull recently evaluated 150 Van Ness Avenue and re-evaluated 155 Hayes Street, which was previously evaluated in 2010, concluding both were not NRHP / CRHR eligible. See: Page & Turnbull, *150 Van Ness Avenue, San Francisco, Historic Resource Evaluation*, prepared for Van Ness Hayes Associates, LLC, May 2013, Section VI. The following analysis corresponds with the evaluation of 150 Van Ness Avenue and 155 Hayes Street.

Under NRHP Criterion A / CRHR Criterion 1, the former CSAA Annex at 150 Hayes Street is not historically significance because it lacks importance for its historical association as part of the CSAA's headquarters. CSAA significantly contributed to the establishment of automobile infrastructure and culture during the early twentieth century and this building, constructed in the late 1960s, represents later expansions to the organization's extensive operations, well after its most influential period. While the building included CSAA membership functions, it also served as a commercial office building with various tenants that were subsidiary offices of larger organizations. Furthermore, as the extension of an existing

Polk & Co, 1975), Reverse Directory listing; *Polk's San Francisco City Directory 1982* (Dallas, TX: R.L. Polk & Co, 1982), Reverse Directory listing.

⁴ David Gebhard et al., *The Guide to Architecture In San Francisco and Northern California* (Salt Lake City: Gibbs-Smith Publisher, 1985), 86 and 296; John F. Gaine and George S. Koyl, *American Architects Directory*, 3rd ed. (New York: R.R. Bowker Co., 1970), 776; Albert F. Roller, "Questionnaire for Architects' Roster and/or Register of Architects Qualified for Federal Public Works," American Institute of Architects, May 23, 1946, http://communities.aia.org/sites/hdoaa/wiki/AIA%20scans/Rosters/RollerAlbertF_roster.pdf (accessed November 5, 2013); Mary Brown, Preservation Planner San Francisco City and County Planning Department, "San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement," January 2011, 247-248; "Roller, Albert," Pacific Coast Architecture Database, <https://digital.lib.washington.edu/architect/architects/1785/> (accessed October 2013).

⁵ Mary Brown, Preservation Planner San Francisco City and County Planning Department, *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, January 2011, 167-168.

business when it was constructed, the property does not represent an important development of this portion of the city that is related to post World War II reconstruction and redevelopment.⁶

Under NRHP Criterion B / CRHR Criterion 2, the property at 150 Hayes Street is not significant because no direct important association with the lives of persons significant to history have been identified. No single individual is known to have made demonstrably important contributions to history in this building, at the local, state, or national levels.

Under NRHP Criterion C / CRHR Criterion 3, this property is not significant as an important example of a type, period, or method of construction, it does not represent the important work of a master, nor does it possess high artistic values. The building at 150 Hayes Street is a modest and late example of International Style / Corporate Modernism in San Francisco. As noted above, the building exhibits some of the standard qualities of the style, such as its cubist form and ribbon windows with colored spandrels, but it lacks refined and prominent details, such as cantilevered planes on pilotis and articulated framing details seen in more well-known examples. Only a portion of this building illustrates the glass curtain wall design that is a hallmark of this style and there are no features such as a plaza or landscaping. Although Albert Roller is labeled a “master” in the *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, this building is not an important example of his work, which included period revival, Moderne, and modernists designs during this long career.

Under NRHP Criterion D / CRHR Criterion 4, the property at 150 Hayes Street is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies.

While the property at 150 Hayes Street retains historic integrity of location, setting, design, material, workmanship, feeling, and association, it lacks historic significance and thus does not appear to meet the criteria for listing in the NRHP / CRHR.

⁶ The *Van Ness Auto Row Support Structures Context Statement* includes a hierarchy of potential significance related to its central theme; the most important resources being the remaining early twentieth century auto showrooms, garages, and other buildings directly related to auto sales / repair. The building at 150 Hayes Street has no association with those important property types. Also, the Page & Turnbull, *Market & Octavia Area Plan Historic Context Statement*, includes a theme for “Depression, World War II and Postwar Reconstruction” that indicates that some properties within the plan area could be historically significant as part of efforts during that period to clear underutilized properties to bring in new businesses.

Photographs (continued):



Photograph 2: Other portions of former CSAA complex, 155 Hayes Street connected via footbridge to 150 Hayes Street (on right), camera facing southwest, 11/4/13.



Photograph 3: 150 Hayes Street, north and west sides, camera facing east, 11/4/13.



Photograph 4: 155 Hayes Street south side, camera northeast, 11/4/13.



Photograph 5: 155 Hayes Street, south side detail, camera facing north, 11/4/13.



Photograph 6: 155 Hayes Street, north side detail, camera facing south, 11/4/13.

Attachment B: 101 Polk Street Project Plans



Community Outreach
101 Polk Street, San Francisco

Emerald Fund, Inc.

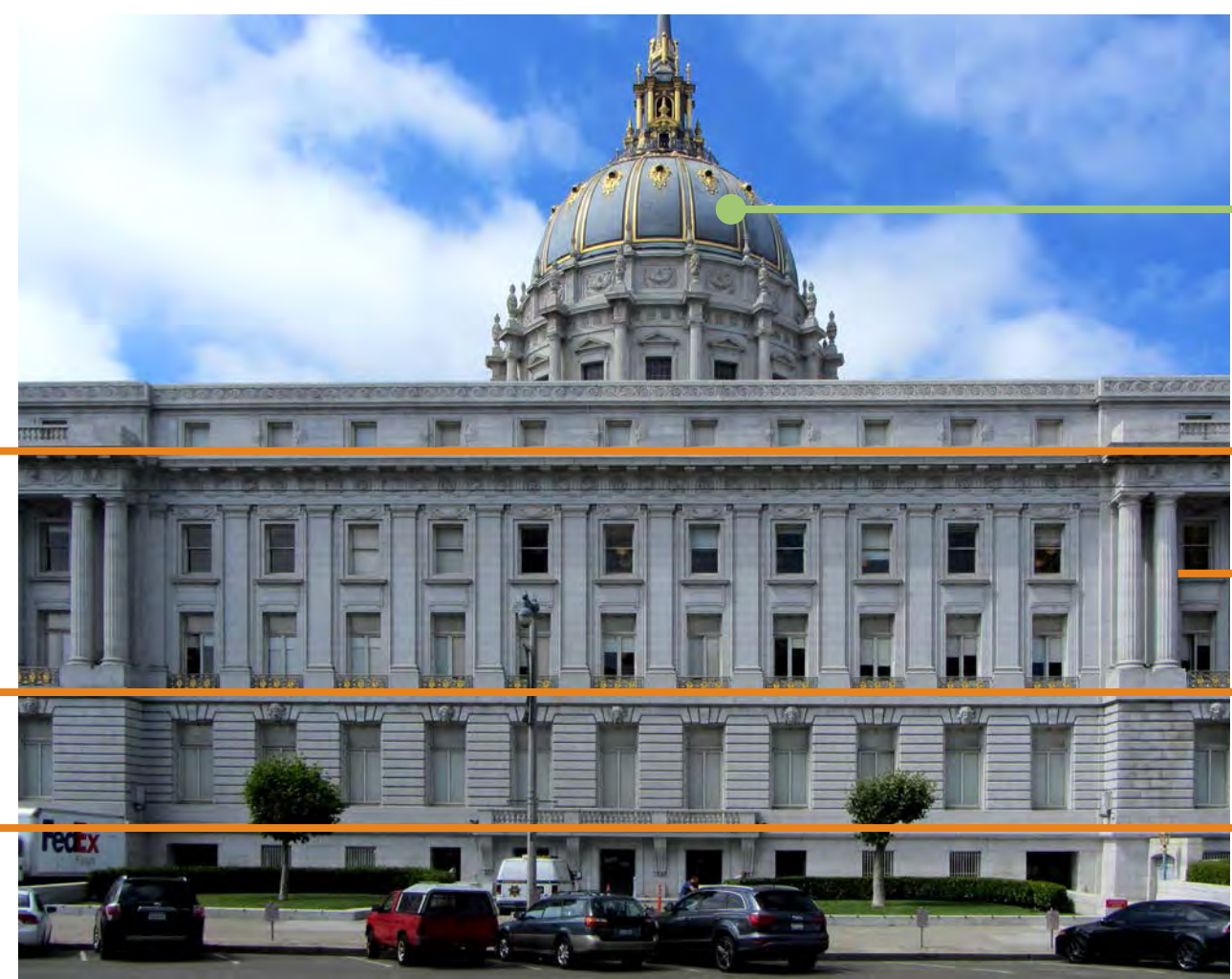












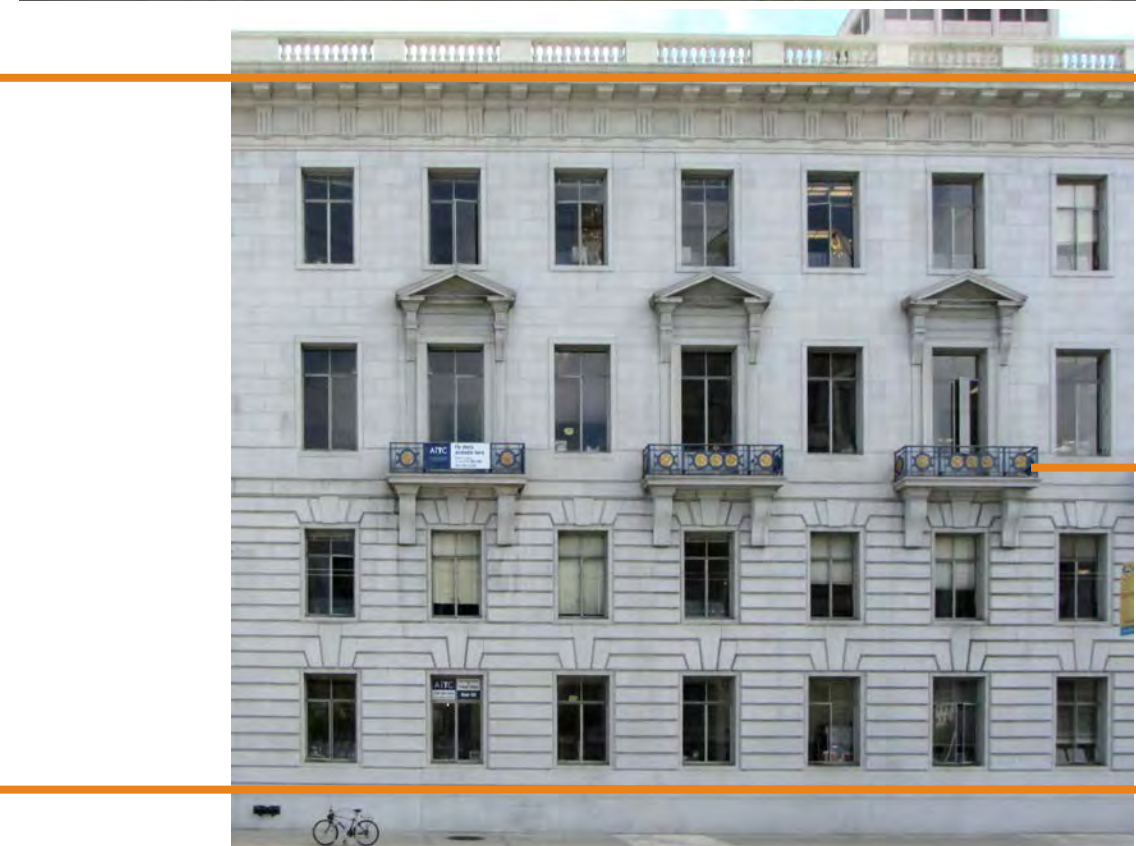
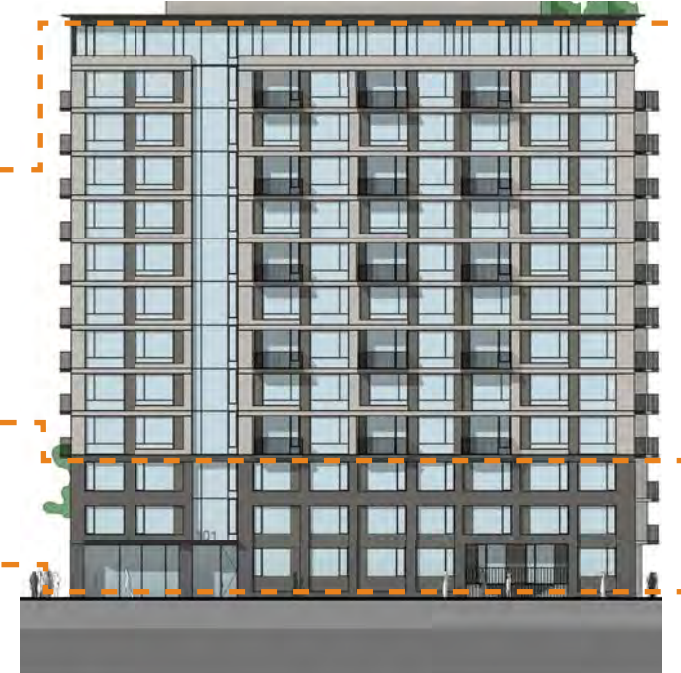
Metal Accents

Strong Cornice Line

2 Story Facade Rhythm

Top of Base Defined by Change of Materials

Subtle Change of Material Scale within the Base



Strong Cornice Line

Individual Balconies with Metalwork

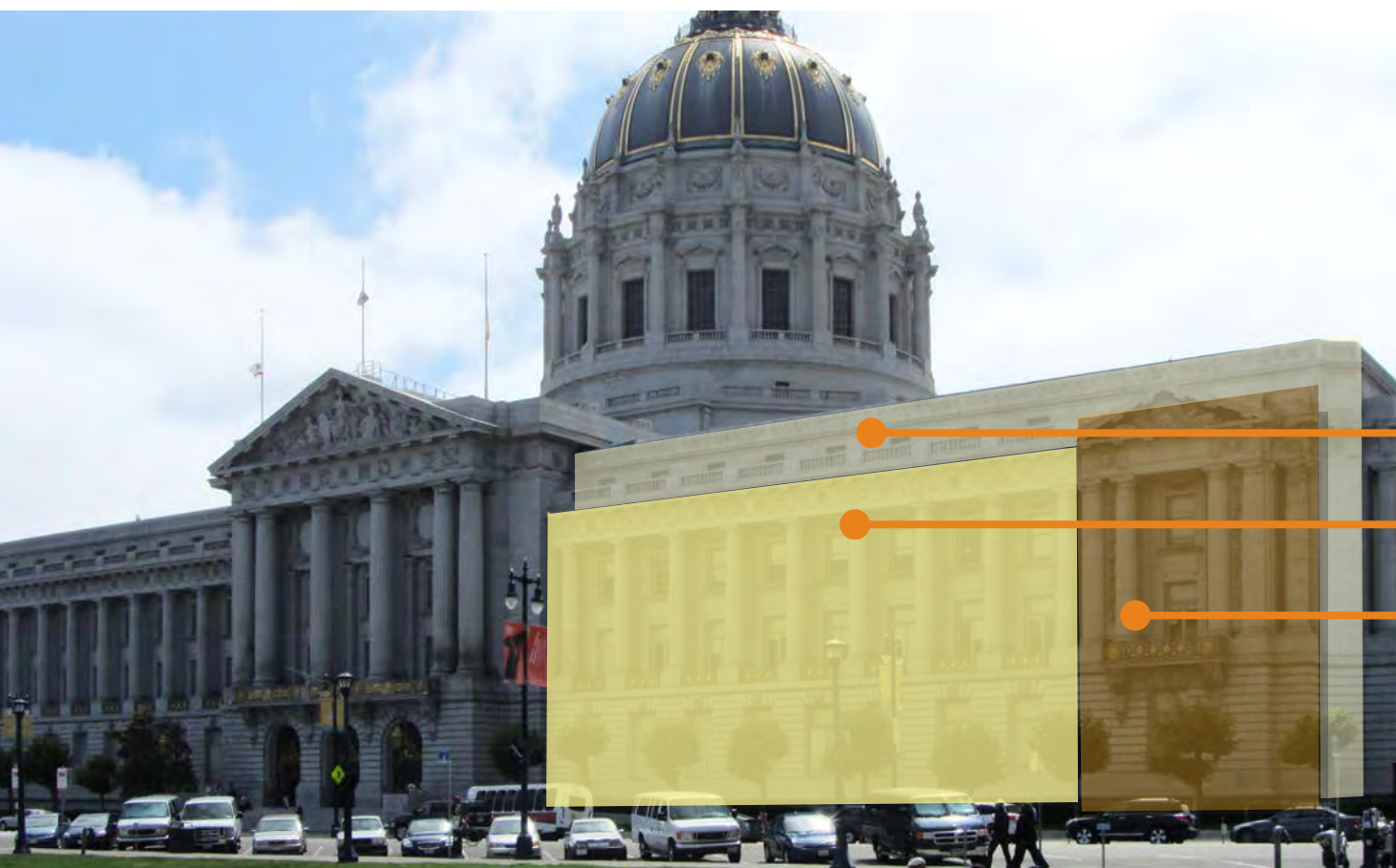
Subtle Change of Material Scale within the Base





Cornice Line Continues Around the Building

Metal Accents



Attic Story

Building Mass Grouping Breaks Down Building Scale

Solid Corners



Area Summary

Residential Apartments								Residential NSF	Residential GSF	Mechanical Space	Parking	Retail (Leasing Office)	Loading Spaces	Circulation	GSF
FFL Elevation (ft)	Flr.	units/ flr.	2 Bedroom	1 Bedroom + Den	1 Bedroom	Large Studio	Small Studio								
Average sf			1035sf	767sf	622sf	512SF	411SF								
135.00	15	Roof													
120.00	14	MECH/OPEN SPACE								2,703					2,703
111.00	13		3	2	4	1	1	8,233	9,540						9,540
102.00	12		3	2	5	1	2	9,171	10,440						10,440
93.00	11		3	2	6	1	1	9,517	10,820						10,820
84.00	10		3	2	6	1	1	9,296	10,550						10,550
75.00	09		3	2	6	1	1	9,296	10,550						10,550
66.00	08		3	2	6	1	1	9,296	10,550						10,550
57.00	07		3	2	6	1	1	9,296	10,550						10,550
48.00	06		3	2	6	1	1	9,296	10,550						10,550
39.00	05		3	2	6	1	1	9,296	10,550						10,550
30.00	04		3	2	6	1	1	9,296	10,550						10,550
21.00	03		3	2	6	1	1	9,296	10,550						10,550
12.00	02		3	2	6	1	1	9,415	10,840						10,840
3.00	01		2	1	5	0	0	5,790	8,255	783	523		2,682	12,243	
-14.00	B1		0	0	0	0	0			11,294		320	1,509	13,123	
		162	38	25	74	12	13	116,494	134,295	2,703	12,077	523	320	4,191	154,109
			23%	15%	46%	7%	8%								

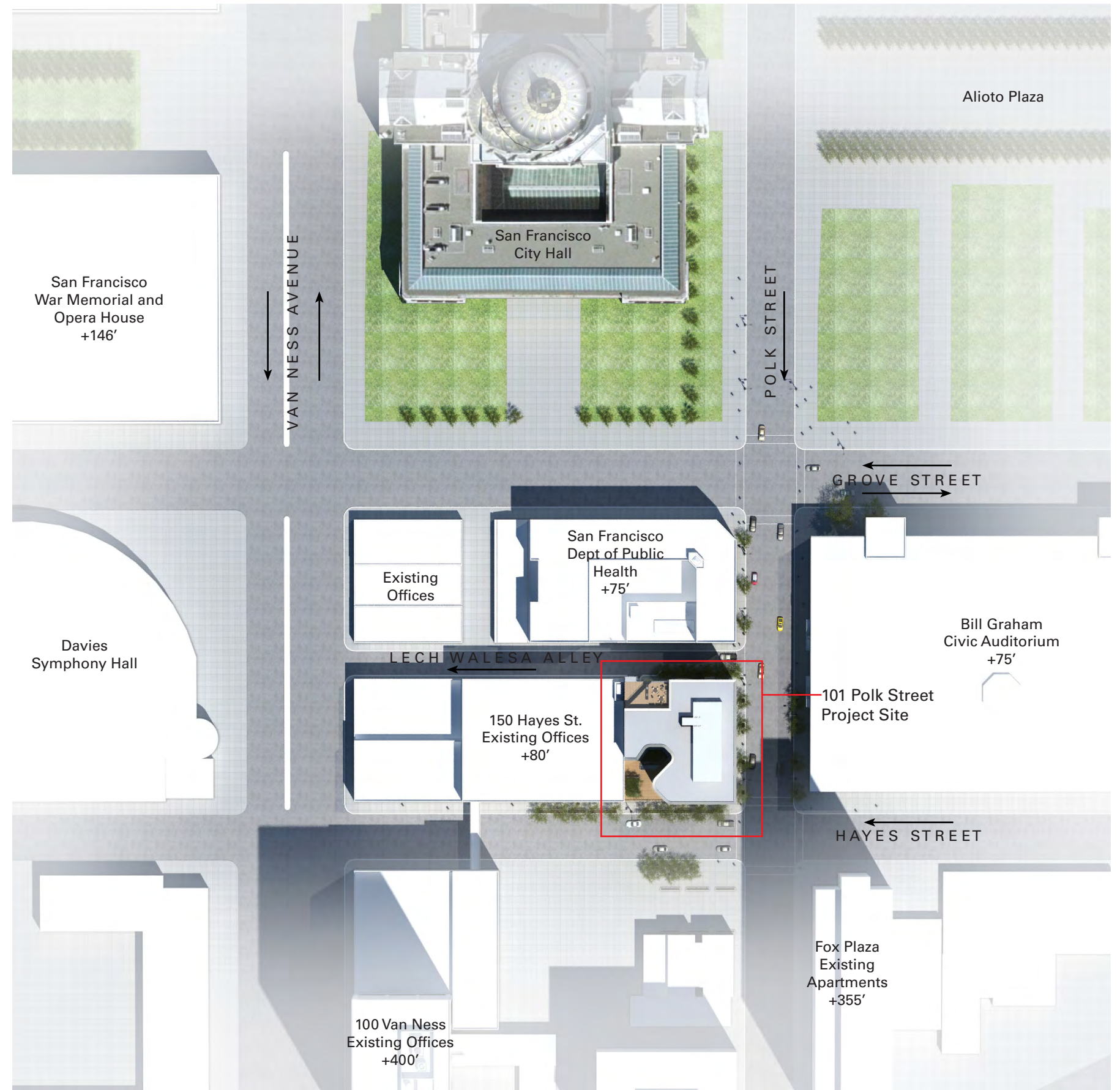
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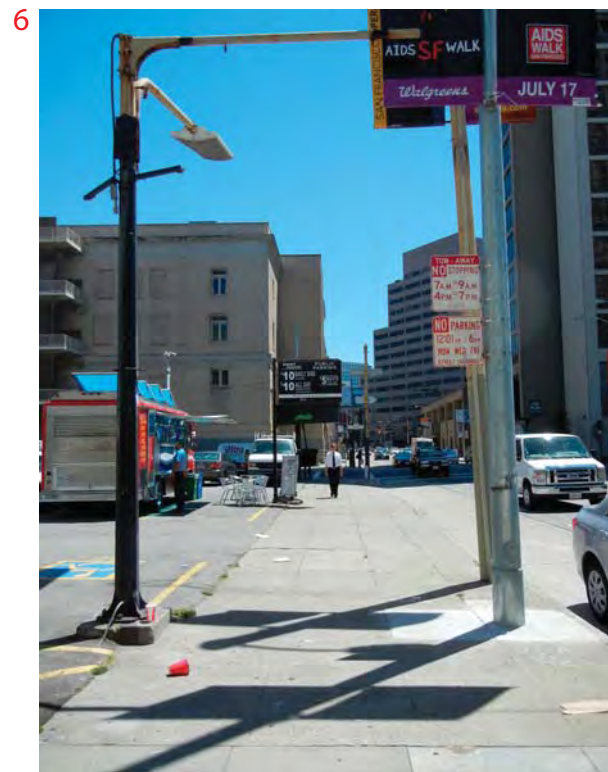
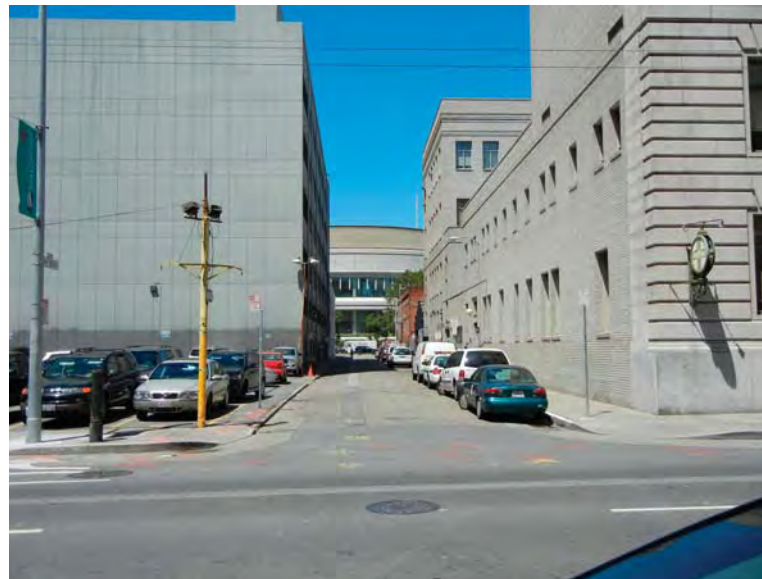
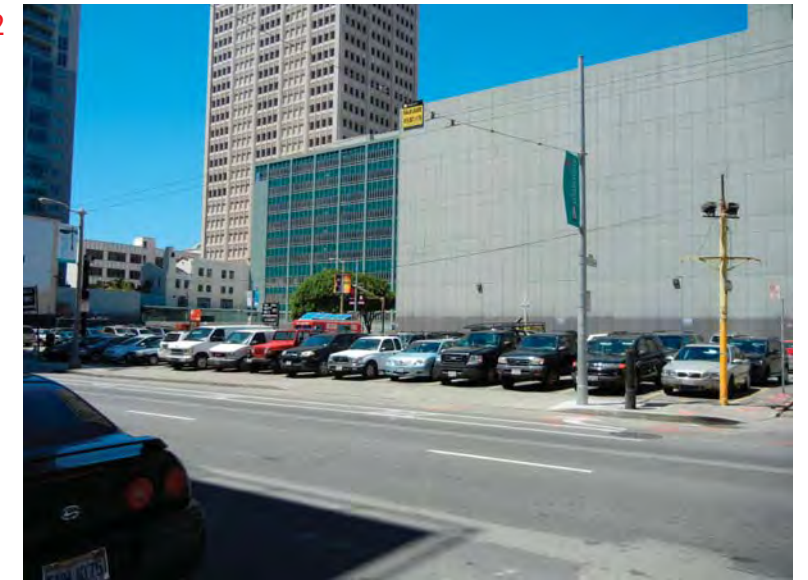
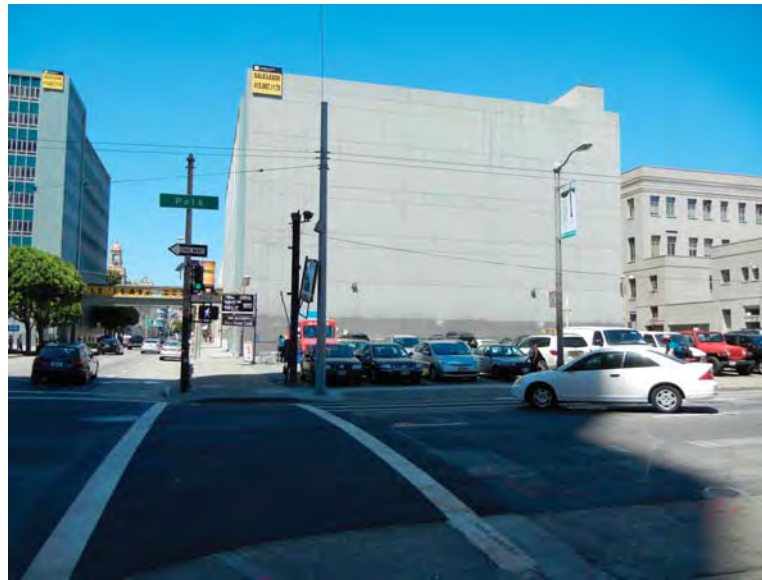
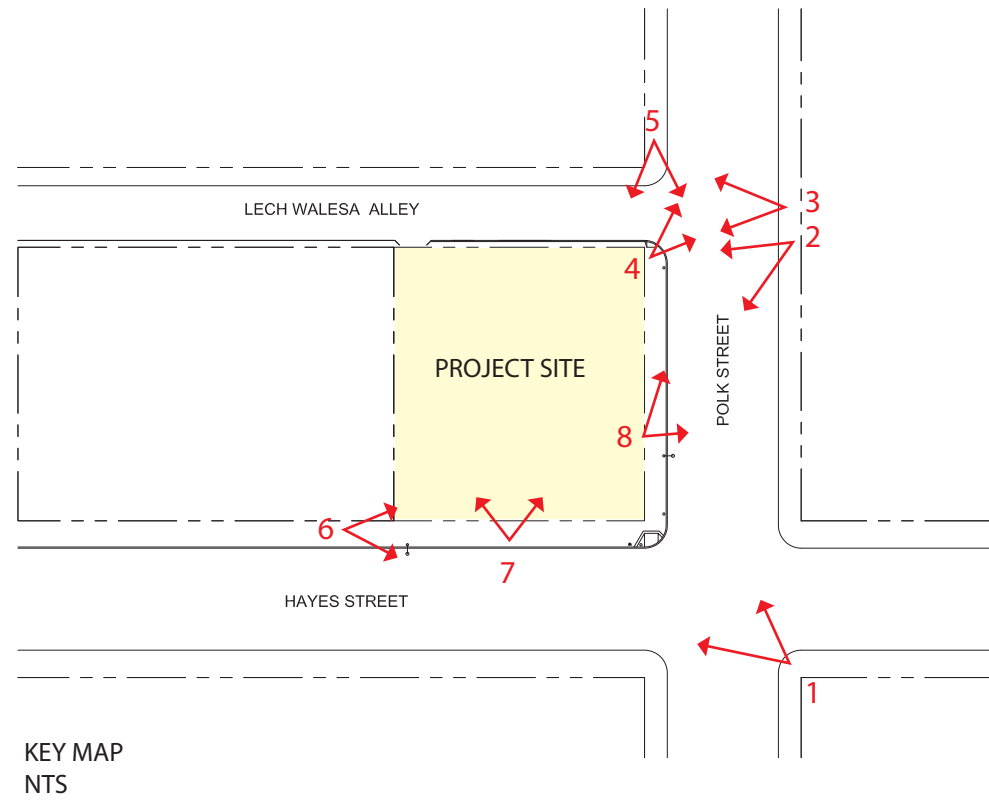
1. Parking @ 0.30 stalls/unit 48 stalls (using puzzler)
2. Site Area: 13,200 gsf
- 3a. FAR Limit: 6-9
- 3b. FAR Limit at 9:1 118,800 sf
- 3c. Total Residential Gross sf 134,295 sf
- 3d. BMR net sf excluded 13,378 sf
- 3e. BMR load excluded 2,136 sf
- 3f. Gross SF Mkt Rate Area 118,781 sf
- 3g. FAR Mkt Rate 9.00
4. Average Unit Size 719 sf
5. Project Load Factor 0.87 residential NSF/GSF
6. Bicycle Parking 53 Required 62 Provided
7. Car Share Parking 1 Required 1 Provided

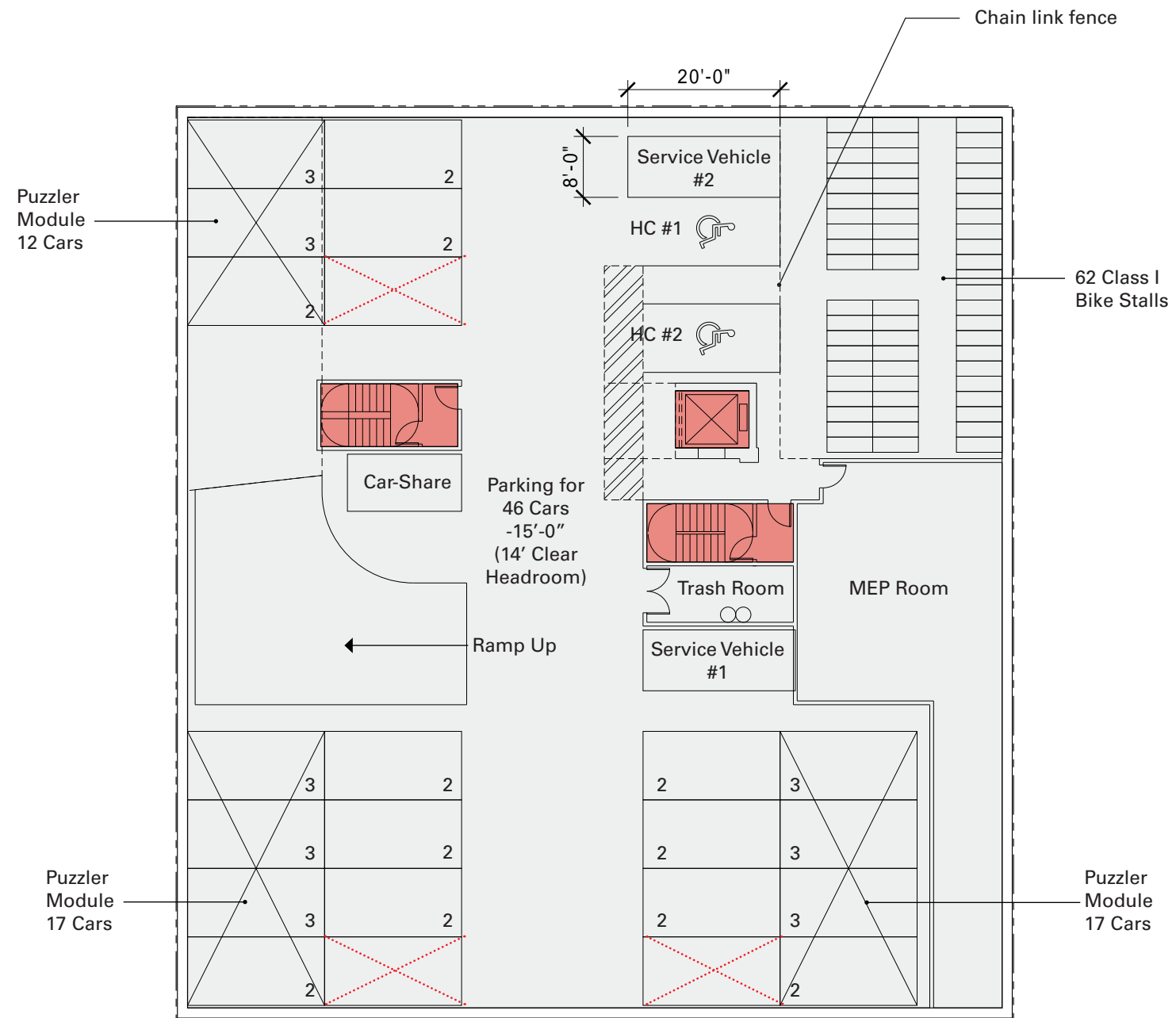
BMR Summary - 12%			
Unit Type	Area	Unit #	Total
Studio	478	3	1,434
1 Bed	654	12	7,852
2 Bed	1023	4	4,092
		19	13,378

Open Space Summary			
	sf/unit	units	sf
Common Open Space Required	48	162	7,776
Private Open Space Provided (balconies)		77	5,303
Remaining Common Open Space Required			2,473
Common Open Space Provided			
Roof terrace (level 12)			935
Solarium			1,285
Roof Garden (level 02)			1,968
Total Common Open Space Provided			4,188

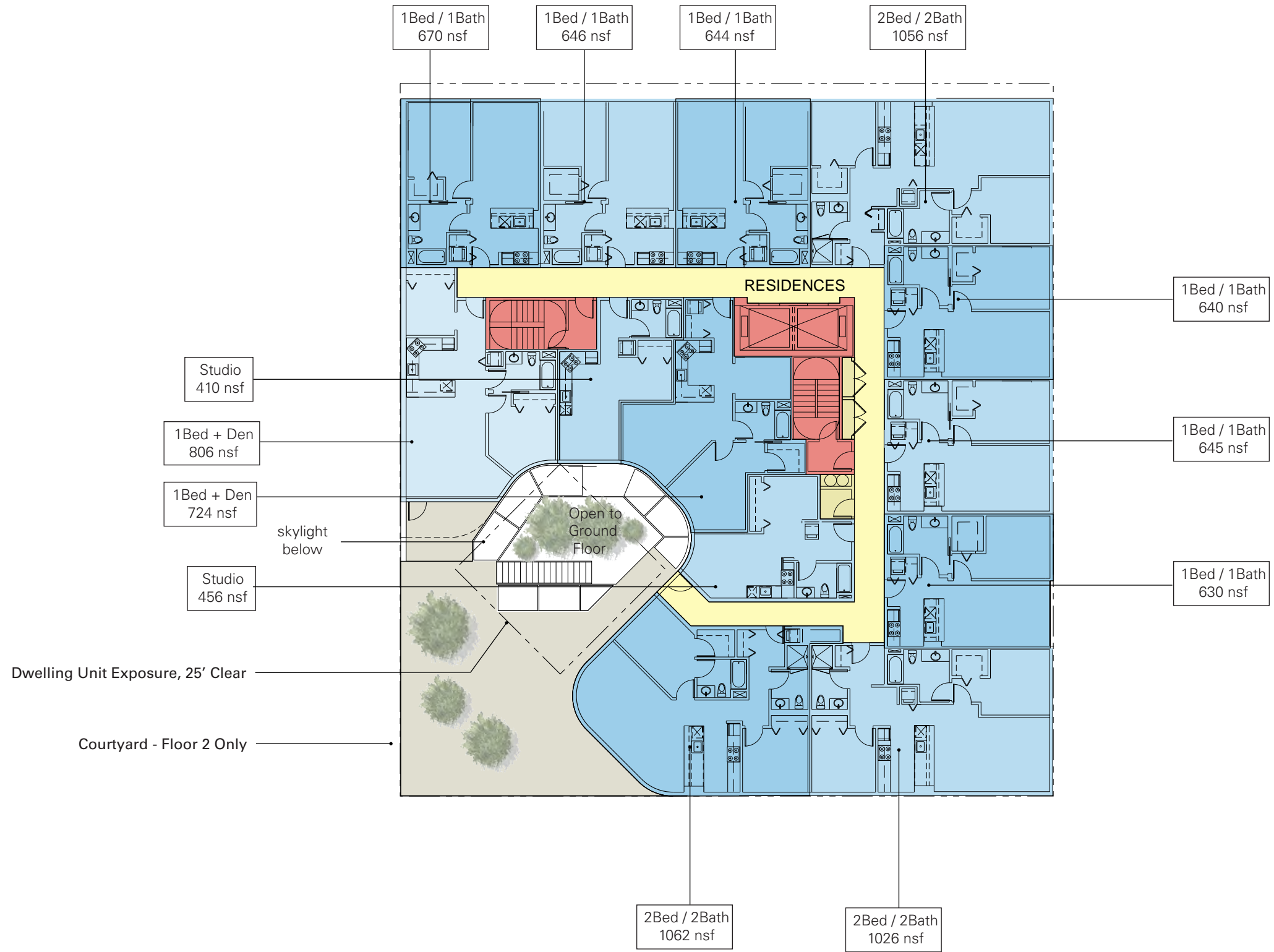




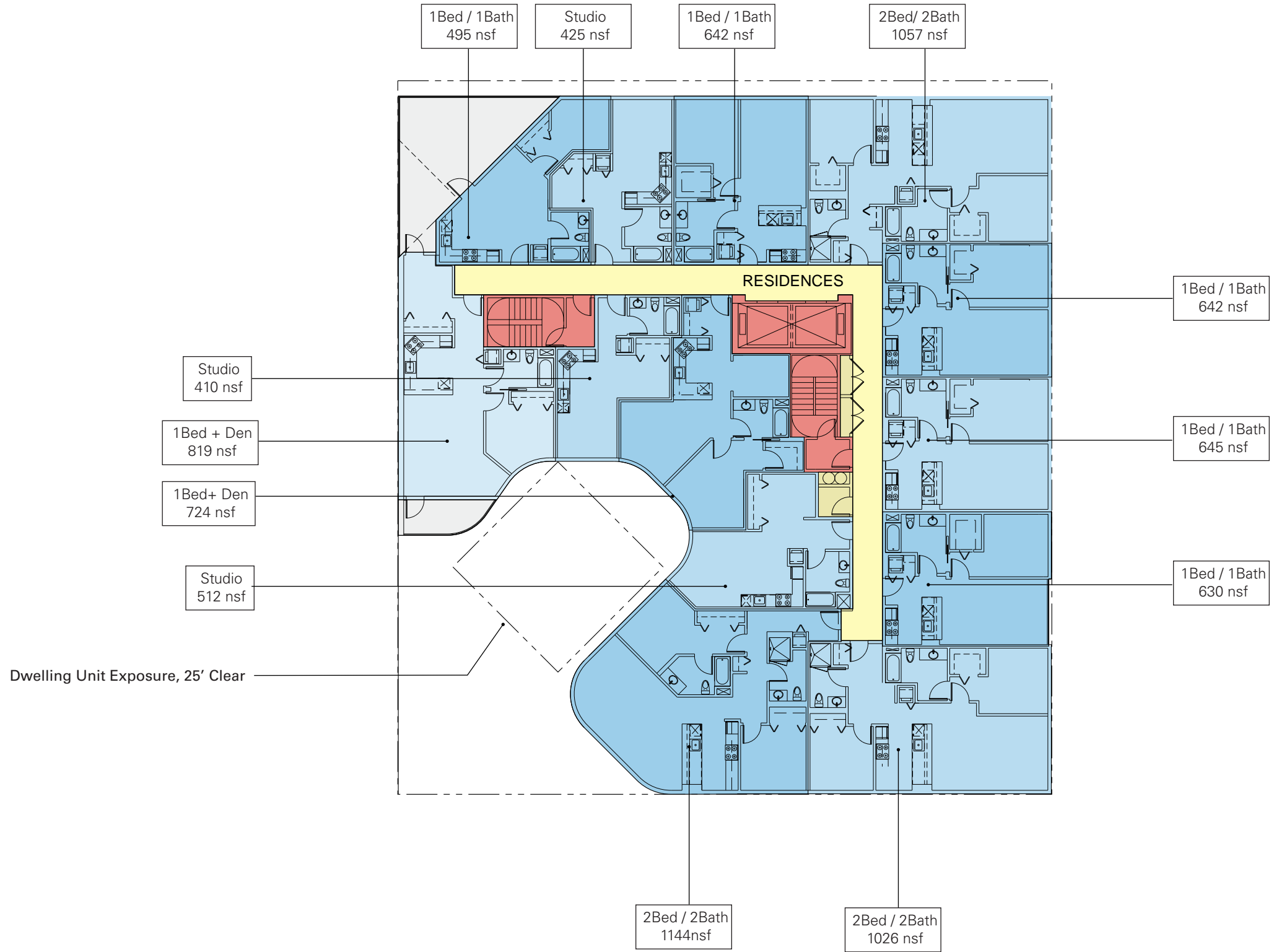


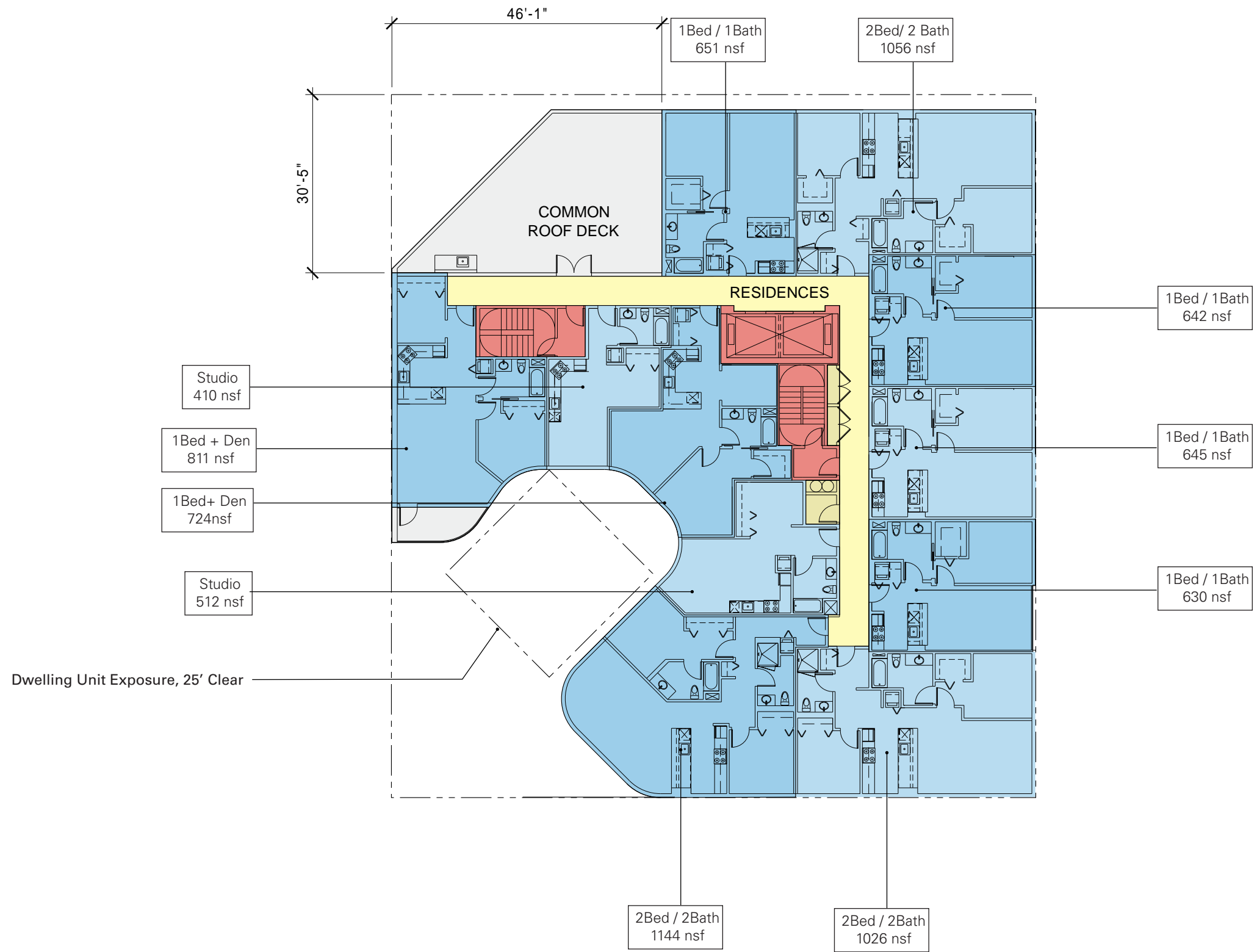




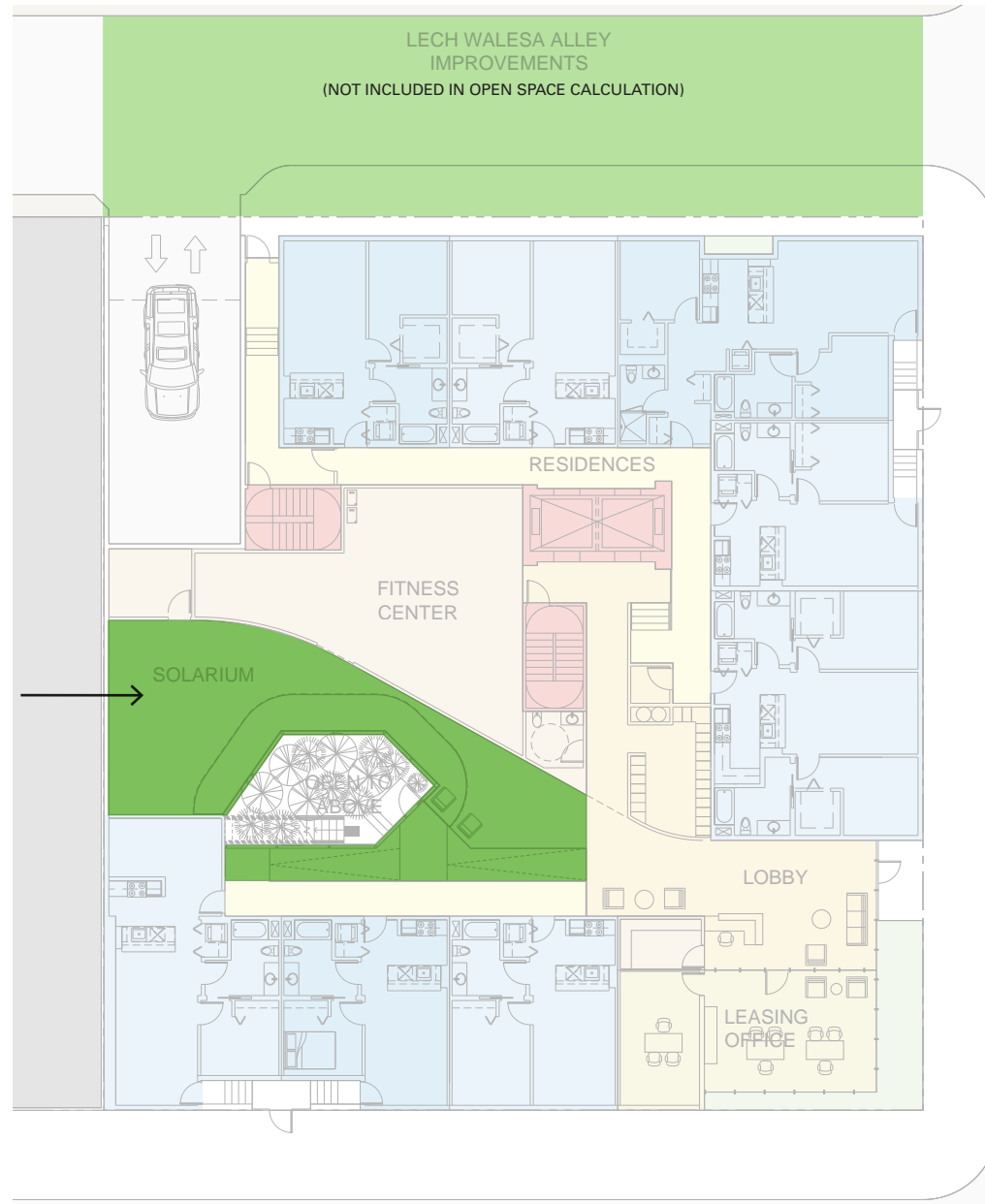








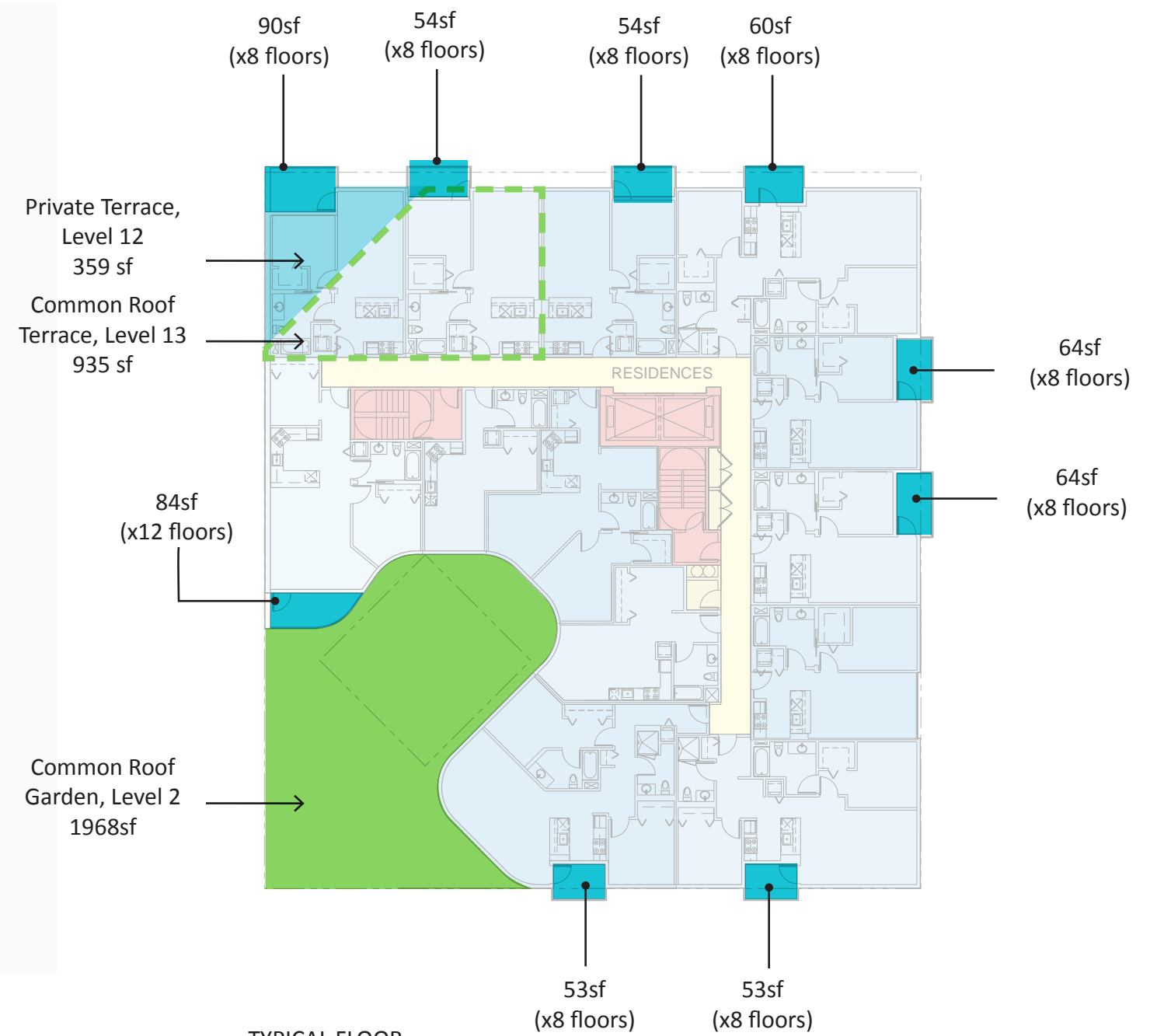




Solarium Area =1285 sf
 Skylight Area =390 sf
 Perimeter =245'
 Glazed =74'

GROUND FLOOR

Open space summary			
	sf/unit	units	sf
Common Open Space Required	48	162	7,776
Private Open Space Provided (balconies)	77		5,303
Remaining Common Open Space Required			2,473
Common Open Space Provided			
Roof terrace (level 12)			935
Solarium			1,285
Roof Garden (level 02)			1,968
Total Common Open Space Provided			4,188

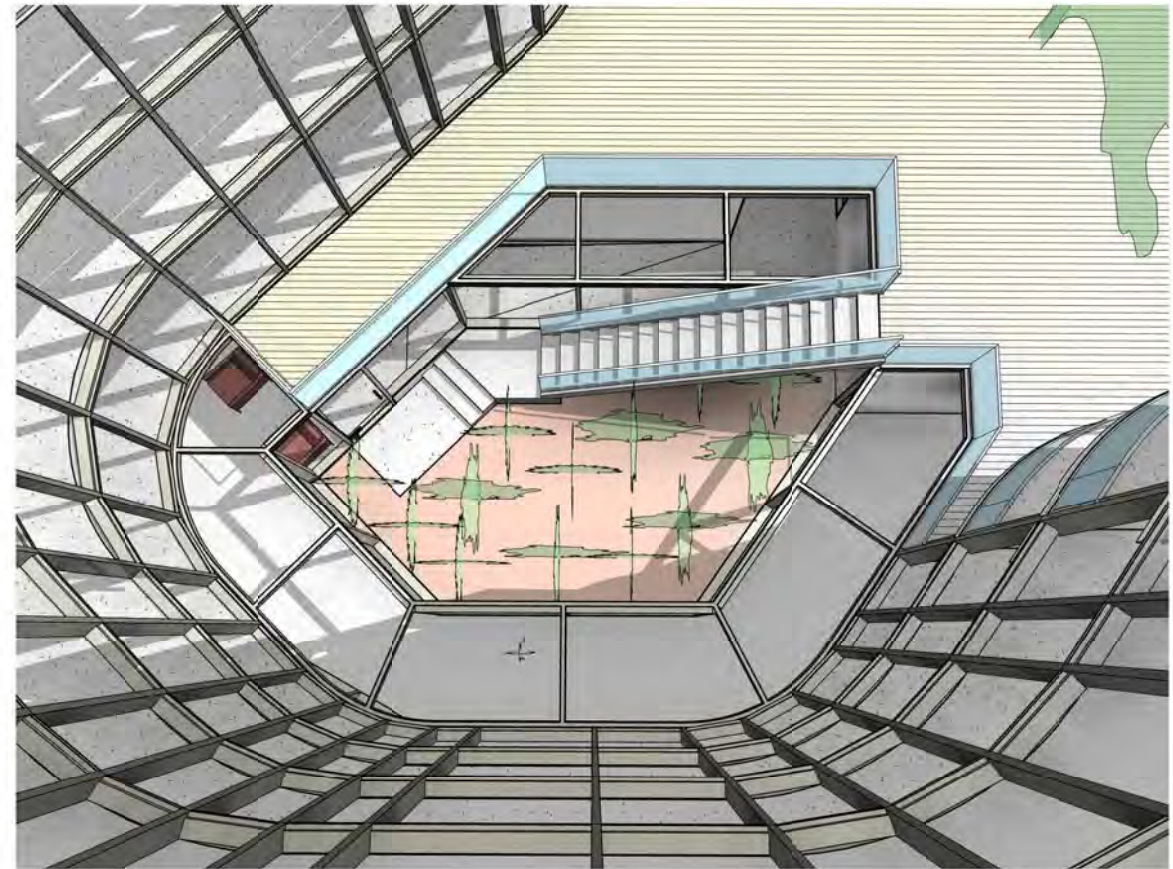
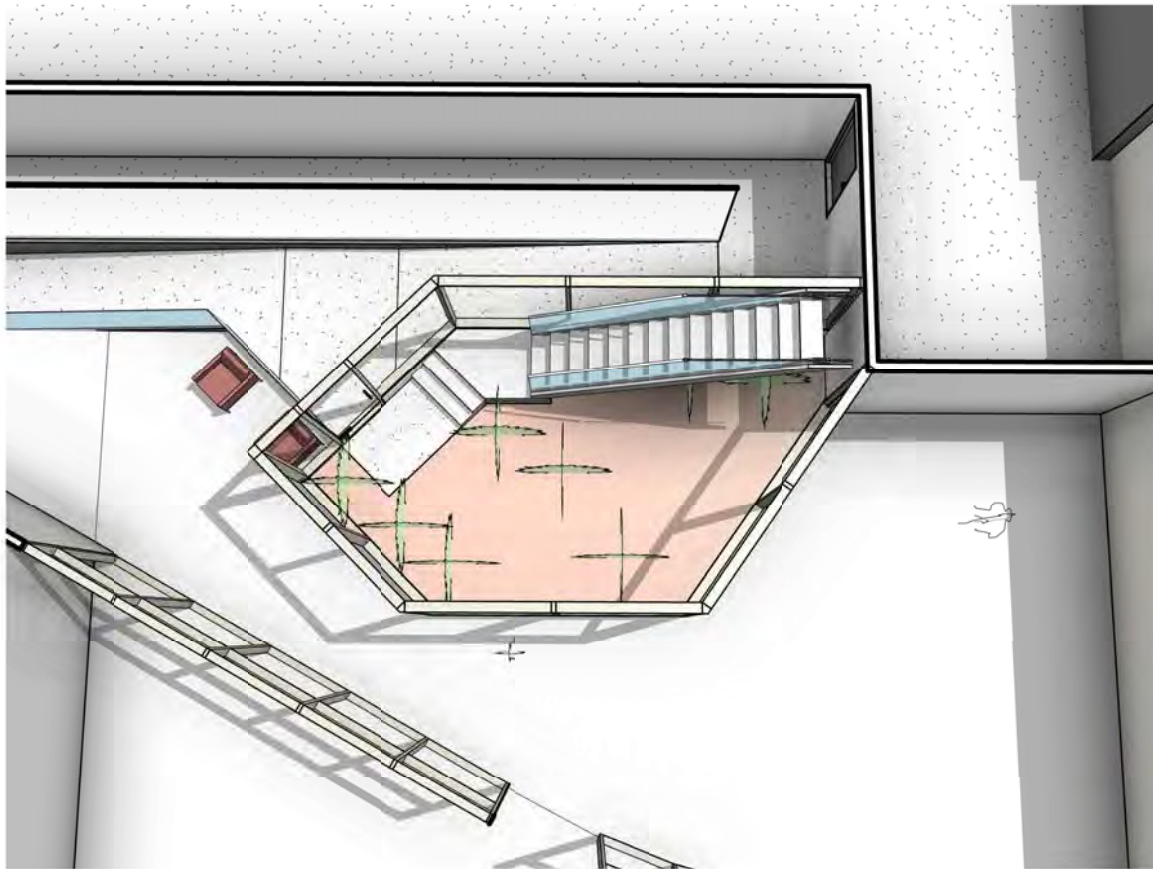


TYPICAL FLOOR

SUMMARY

 COMMON OPEN SPACE	4,188sf
 PRIVATE OPEN SPACE	5,303sf





**Attachment C: Far Western Anthropological Research Group, Inc.,
Archaeological Sensitivity Assessment for the 101
Polk Street Project, San Francisco, California, October
2013.**

**Archaeological Sensitivity Assessment
for the 101 Polk Street Project,
San Francisco, California**

By:

Dr. Brian F. Byrd

Jack Meyer, M.A.

Far Western Anthropological Research Group, Inc.

Heidi Koenig, M.A.

Dr. Rebecca Allen

ESA Cultural Resources



October 2013 FINAL

Prepared for:

Marc Babsin
Emerald Fund
523 Folsom Street, Suite 400
San Francisco, CA 94105

Under contract with:

Chris McMorris
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618



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1. INTRODUCTION

The report presents an archaeological sensitivity assessment for the 101 Polk Street Project, San Francisco, California. This study has been prepared by Far Western Anthropological Research Group, Inc. (Far Western) and Environmental Science Associates (ESA) under contract with JRP Historical Consulting, LLC (JRP) on behalf of the Emerald Fund.

The 101 Polk Street project site is located in downtown San Francisco on the northwest corner of Hayes Street and Polk Street (Figure 1). The project area covers 120 x 110 feet (13,200 square feet) and project plans entail removal of the existing surface parking lot and construction of a 13-story residential building above a one-story subterranean parking garage. The project includes federal funding from the US Department of Housing and Urban Development, and the involvement of federal funds requires compliance with: (1) Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800, revised 2006); and (2) the California Environmental Quality Act (Public Resources Code, Section 21000 et seq., revised 2010), which mandate federal and California public agencies to consider the effects of undertakings on historic properties.

This archaeological sensitivity study consists of five chapters. Chapter 2 provides a project description, while Chapter 3 discusses the archaeological sources that were consulted. Then Chapter 4 provides a prehistoric sensitivity assessment, while Chapter 5 provides a historic-era sensitivity assessment.

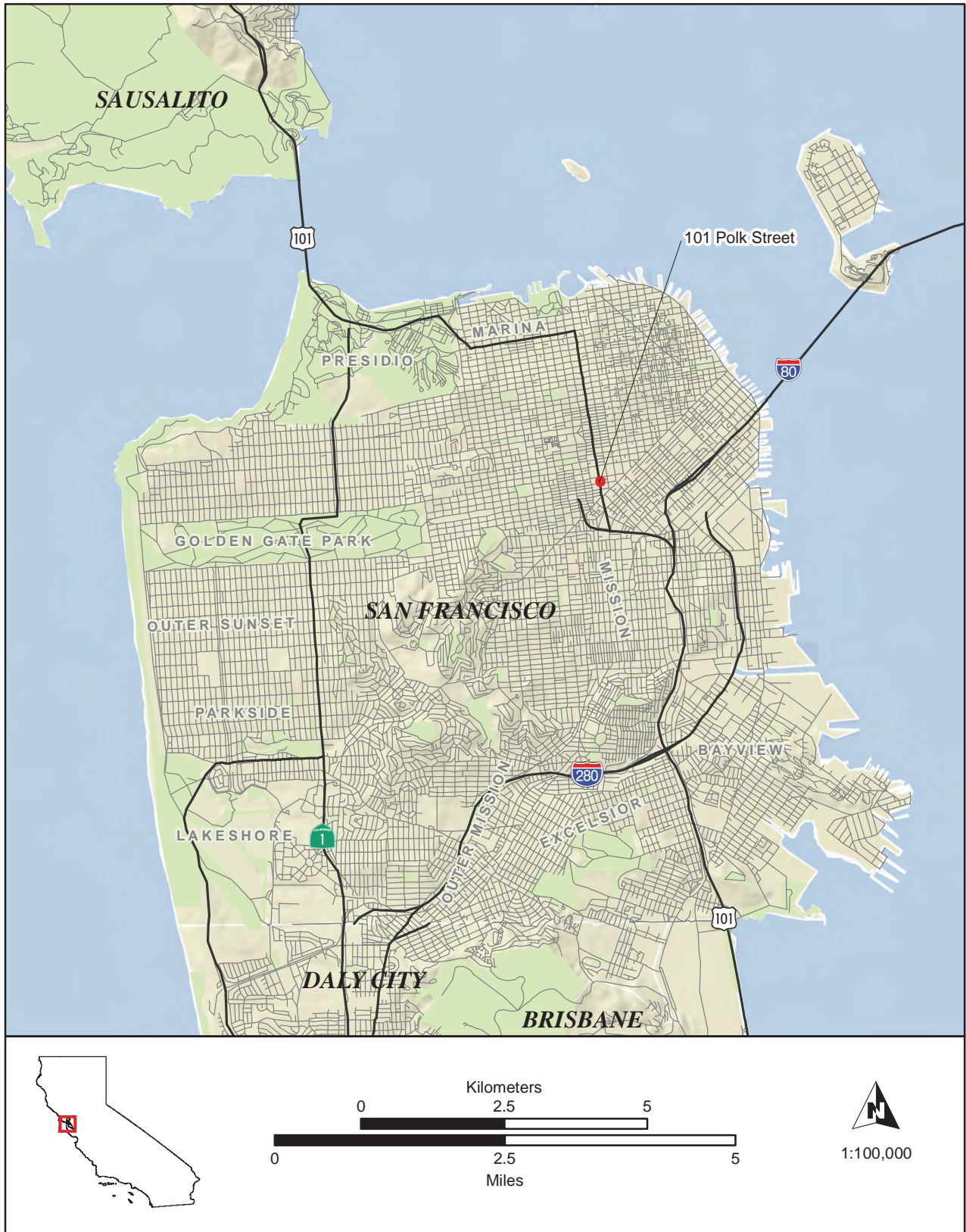


Figure 1. 101 Polk Street Project Location.

2. PROJECT DESCRIPTION

The project site consists of two adjacent parcels on the west side of Polk Street, between Lech Walesa Alley and Hayes Street (Figure 2). The project area is 120 x 110 feet in size covering approximately 13,200 square feet. There are no permanent structures on the property; a surface parking lot occupies both lots. The project sponsor proposes merging the two lots and constructing a 13-story-over-basement, 120-foot-tall residential building which would contain residential units above subgrade parking. The building total gross square-footage would be approximately 159,075 square feet. Residential use would occupy approximately 146,150 square feet of area, a leasing office would occupy approximately 500 square feet, and the parking garage would occupy approximately 12,075 square feet. The parking garage would contain 57 bicycle parking spaces, 62 vehicular parking spaces, and two off-street service-vehicle loading spaces accessible from Lech Walesa Street. The project would also include improvements to Lech Walesa Street.

The proposed development will consist of a 13-story building over one level of below-grade parking, the finished floor of which will be at elevation 31 feet (9.5 meters) above the San Francisco City Datum (about 15 feet [4.6 meters] below grade). Pits for stacker parking will be constructed in three of the four corners of the basement and will extend about 7 feet (2.1 meters) below the basement level. Excavations of 18 to 25 feet (5.5 to 7.6 meters) below these grades are expected to accommodate basement, pits, and foundations.

For the purposes of this archaeological sensitivity assessment, the horizontal extent of the Area of Potential Effects (APE) was defined as the full 13,200 square-foot (0.3 acre) area shown on Figure 2. In addition, the vertical extent of the APE varies across the project area, with a maximum depth below the ground surface of 25 feet (7.6 meters).



Figure 2. 101 Polk Street Project Map.

3. SOURCES CONSULTED

RECORDS SEARCH

An archaeological records search took place at the Northwest Information Center at Sonoma State University in Rohnert Park, California. The records search was carried out by Far Western staff member Kaely Colligan on October 10, 2013. The records search area included the project area and a one-quarter-mile (400-meter) buffer around it (Figure 3). The records search was negative as no archaeological sites have been previously recorded within the project area or the buffer around the project area. The records search did, however, document that a number of cultural resources projects have occurred within the records search area (Appendix A). These include archaeological surveys, record searches, and overviews.

ARCHIVAL INVESTIGATIONS

Working with materials provided by JRP, ESA staff reviewed primary (especially historical maps) and secondary source material to assess the sensitivity of the project area for historic-era resources. The historical data compiled in the site history and general context provide information in support of historic-era recommendations. Primary sources of information come from the San Francisco History Center at the San Francisco Public Library. Review of online sources of digitized historic-era documents is also useful to understanding past land uses.

Historical maps are particularly critical for understanding past land use, including (but not limited to): Sanborn Fire Insurance maps; US Coast and Geodetic surveys; plat maps; and other maps of San Francisco. Other relevant primary references include (but again, are not limited to): historic-era photographs and aerials; city directories; municipal reports; and limited review of contemporary newspapers.

The 1906 San Francisco earthquake and fire hampers research of the city's past. There was widespread destruction of governmental and private archival photographs, and maps. Still, sufficient information and archival resources remain to stitch together the project area's land use history.

As McIlroy and Praetzellis (1997) note, the kinds of significant historic-era archaeological sites investigated in San Francisco have been early Spanish and Mexican sites (particularly around the San Francisco Presidio and Mission Dolores); Gold Rush-era sites; sites associated with particular ethnic occupation (particularly Chinese, as well as Hispanic and African-American); buried and submerged ships; and ship-breaking yards. Mrozowski (2008:133) notes that the nineteenth century culminated in a "precipitous" increase in number and scale of urban communities, and San Francisco is typical of this trend. Common threads of archaeological investigations of these urban settings follow topics of land speculation, development, "boom-and-bust" economic cycles, concentration of wealth, and the effect of economic variability (and sometimes lack thereof) on various groups clustered within those settings. While commonalities are important, Mrozowski (2008:133, 135) acknowledges the importance of "local contexts" and the development of local identities and communities as well. Understanding the character of land use in urban areas is critical to understanding the development of the archaeological record.

NATIVE AMERICAN CONSULTATION

Far Western contacted the Native American Heritage Commission on October 7, 2013, and requested a search of their Sacred Lands files to determine if there were known cultural sites within or near



Figure 3. Records Search Area around 101 Polk Street.

the APE for the current project. On October 15, the Commission responded, stating that no Native American cultural resources were reported from the sacred lands file records search (Appendix B). A list of interested Native American groups and individuals was also requested, and a list of nine contacts was provided.

4. PREHISTORIC ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

This chapter consists of three sections. It includes sections on the prehistoric context, the evaluation of prehistoric archaeological resources, and a sensitivity assessment.

PREHISTORIC CONTEXT

This section consists of three parts. It includes discussions of the environmental setting, the prehistoric setting, and the ethnohistoric setting.

Environmental Setting

The project area lies within the San Francisco Bay region. Specifically, it lies along the Bay's edge at the northern end of the San Francisco peninsula. The surface geology of this area is highly varied with sand dunes are widespread in the northern-most portion. They are most extensive along the western ocean shoreline, and narrow to the east as they skirt Blue Mountain and the San Miguel Hills. The latter, which reach a maximum elevation of 925 feet (282 meters) above mean sea level at Mount Davidson, dominate the central portion of the northern peninsula. Alluvial deposits are wide-spread east and south of the San Miguel Hills, interspersed with bedrock outcrops, and freshwater marshes are present along major drainages. Of course, this modern urban landscape within the city of San Francisco, including where the Bay begins, bears almost no similarity to its pre-1850 natural setting.

San Francisco Bay is part of a large estuary that includes San Pablo and Suisun bays and the Carquinez Strait. The area's climate is typically Mediterranean, with cool, wet winters and warm, dry summers. Annual precipitation within the region varies widely from fewer than 380 millimeters (15 inches) to more than 1,800 millimeters (70 inches) per year. In the area in which the project area is situated rainfall is relatively low, averaging fewer than 500 millimeters (21 inches) annually. The region has warmer temperatures than more-northern coastal regions and is relatively frost-free. The majority of rainfall occurs December through March, decreasing from north to south. Along the immediate coast the climate is cool and without extreme fluctuations.

The region's pre-1850 natural setting was typified by estuaries, coastal marsh lands, coastal prairie, and willow groves. Various-sized water courses drained into the Bay, and in the northern San Francisco peninsula these included (from south to north) Yosemite, Islais, Precita, Mission, and Hayes creeks (Ramirez-Herrera et al. 2007). The area contained varied animal resources such as fish, shellfish, and terrestrial and marine mammals, as well as a range of plant resources. Historically, the project area environs falls along the interface of the northern seashore communities (typical of sandy dunes) and the coastal prairie-scrub mosaic to the north. The dominant vegetation along creek edges included yellow willow (*Salix lasiandra*), arroyo willow (*Salix lasiolepis*), broadleaf cattail (*Typha latifolia*), common tule (*Schoenoplectus acutus* var. *occidentalis*), and California bulrush (*Schoenoplectus californicus*). Pickleweed (*Salicornia pacifica*), Pacific cordgrass (*Spartina foliosa*), and salt grass (*Distichlis spicata*) are common species in coastal salt marshes. Native grasses along the coastal prairie include Pacific reed grass (*Calamagrostis nutkaensis*), Pacific hairgrass (*Deschampsia holciformis*), and California bentgrass (*Agrostis californica*). Anadromous fish were available in the creeks that drained into the Bay, and notable large terrestrial mammals included tule elk (*Cervus elaphus nannodes*), pronghorn (*Antilocapra americana*), and grizzly bear (*Ursus arctos*).

The Bay Area has undergone a series of significant large-scale environmental changes since the Late Pleistocene, when Native Americans may have first entered and inhabited the region (Meyer and Rosenthal 2007). These changes included rising sea levels, widespread sediment deposition, and corresponding

fluctuations in the distribution and availability of important natural resources. As a result, the archaeological record, and the potential for archaeological deposits in the project area environs, is better understood when viewed within the history of Bay Area environmental and landscape changes.

As the continental ice sheets began to melt some 16,000 years ago, the world's oceans rose rapidly, causing the Pacific shoreline to migrate eastward (Bard et al. 1996). There was a cumulative ~70-meter (230-foot) rise in sea level during the Latest Pleistocene and Early Holocene. As the waters rose, freshwater marshes began to form and sediments carried by the California River accumulated on the floor of the Franciscan Valley, marking the transition from valley to bay. Between 7000 and 6000 cal BP, there was a dramatic decrease in the rate of sea level rise worldwide (Stanley and Warne 1994). During this time, the sea inundated the Franciscan Valley at a more gradual rate of about 1.3 meters (4 feet) every 1,000 years, for a total of 8.0 meters (26 feet) over the past 6,000 years. This allowed sedimentation to keep pace with inundation, which permitted the formation of extensive tidal-marsh deposits during the Middle Holocene (7700-3800 cal BP; Atwater et al. 1979). As base levels rose, the lower reaches of the stream and river channels became choked with sediments that spilled onto the surface of existing fans and floodplains, forming large alluvial floodplains (Helley et al. 1979). As a result, bay and marsh deposits now cover many formerly stable Holocene-age land surfaces, such as those documented beneath Yerba Buena Cove (Lee and Praszker 1969:60-63), and the San Francisco-Oakland Bay Bridge (Atwater et al. 1977:Plate 1; Louderback 1951:90; Treasher 1963:Figure 5).

Several studies confirm that many of the Late Pleistocene and Early Holocene land surfaces located around the Bay were overlain by deposits of younger alluvium that are generally fewer than 6,000 years old (Borchardt 1992; Gmoser et al. 1999; Helley et al. 1979; McIlroy et al. 2001; Meyer 2000; Stewart et al. 2002). Stratigraphic and radiocarbon evidence indicates that the Holocene-age alluvial deposits average two to three meters (six to 10 feet) in thickness, with deposits exceeding 10 meters (33 feet) in a few areas. These older land surfaces usually exhibit well-developed buried soils (paleosols) that represent a significant stratigraphic boundary in the region. As a result, older archaeological sites located in and around the Bay were submerged by sea level rise and/or buried by sediment deposition.

During the Late Holocene (3800 cal BP onward), the Bay grew in size as marshlands expanded in response to higher sea levels and the decomposition, compaction, and subsidence of intertidal deposits. These processes resulted in the formation of large tidal mudflats and peat marshes, which further promoted the deposition of sediment around the margins of the Bay. Radiocarbon dates from Palo Alto Marsh in the South Bay indicate that these deposits were generally formed during the past 2,000 years (Atwater et al. 1979:349). Dates of 1665 and 1520 cal BP have been obtained from layers of organic clay from marsh deposits buried at depths of 6.1 to 6.5 meters (20 to 21 feet) along lower Colma Creek near San Bruno (Price 1981).

Isotopic analysis of shell suggests that salinity and discharge levels of the Bay have undergone substantial fluctuations over the past 6,000 years (Ingram and DePaolo 1993; Ingram et al. 1996; Wells 1995; Wells and Goman 1994). One of the most prominent examples concerns the large prehistoric oyster beds that flourished in southern San Francisco Bay. These appear to have disappeared between 1700 and 1850 cal BP due to a significant increase in salinity in the South Bay, presumably due to rapid climate change (Story et al. 1966).

Historically wind-blown sand dunes covered a large part of the northern San Francisco peninsula. This vast dune field stretched eastward across the entire peninsula from Ocean Beach to the margins of the Bay, making it one of the four most extensive dune complexes on the California coast (Cooper 1967:42).

In the 1860s Golden Gate Park was established within part of the dune field that was not stabilized by vegetation until the 1880s (Amundson and Tremback 1989:1798). These historical accounts illustrate the relatively mobile nature of these transient landforms, which are largely the result of variations in wind,

topography, vegetation, sediment supply, and sea level (Carter et al. 1990:4-5). The configuration of the San Francisco dunes indicates that they were formed by the prevailing westerly winds that transported loose sand from Ocean Beach across the nearly level and poorly vegetated topography to the east (Schlocker 1974:78-80). In their natural state, these dunes formed a series of transverse-ridges that were characterized by narrow, almost linear dune crests and wide inter-dune troughs. As Blake noted, the dunes are generally thicker on the eastern or leeward side of prominent bedrock hills and ridges on the peninsula, because they are better protected from the winds in these areas (Schlocker 1974:78-80).

Although the occurrence and extent of the dune fields in San Francisco are well-documented, the age and evolution of these dunes are only partly understood. In his study of dunes along the California, Oregon, and Washington coasts, Cooper (1967) identified two major episodes of dune formation during the Holocene, which he correlated with significant sea level changes. Cooper suggested that dunes on the east side of the San Francisco peninsula are older than the dunes on the west side, based on the observation that older dunes are generally located farther inland than younger dunes along the Pacific coast.

Recent geoarchaeological research on the northeast San Francisco peninsula has documented at least three periods of dune activity and deposition, interspersed with periods of stability and soil formation during the Late Pleistocene and Holocene. Radiocarbon dates on buried dune soils indicated that sand dunes in this area were deposited prior to 10,000 cal BP, around 2000 cal BP, and intermittently from 1000 cal BP up to the historic-era (McIlroy et al. 2001; Praetzellis et al. 2004). Radiocarbon dates of 2085 to 1155 cal BP from archaeological sites (CA-SFR-112 and -113) buried in the dunes within and near the project area demonstrate that the San Francisco dune complex was still actively forming during the latter part of the Late Holocene (Henn and Schenk 1970:6). It is also possible that some phases of dune activity are associated with widespread devegetation resulting from fires set either deliberately or accidentally as a result of increased human settlement during the last 2,000 years (Orme 1990:328).

More recent changes on the northern peninsula include the introduction of non-native plant species, which generally coincides with the arrival of the Spanish and later Euro-American settlers during the late 1700s and 1800s (West 1989). These vegetation changes have been documented in part by pollen studies at the Presidio in San Francisco (Reidy 2001) and at other locations in the Bay Area (Duncan 1992; Mudie and Byrne 1980; Russell 1983). During the late 1800s, intense drought and livestock grazing and other activities associated with historic-era settlement greatly reduced the protective cover of vegetation, which made the landscape particularly susceptible to erosion (Burcham 1957:171). Around this same time, huge amounts of sediment were deposited within the Bay, largely because of hydraulic-mining for gold in the Sierra Nevada (Gilbert 1917). Lasting evidence of these changes is found in estuarine deposits (Mudie and Byrne 1980) and along many stream channels, where the lowest terraces are often composed of historic-era sediments (Knudsen et al. 2000). Finally, thick deposits of artificial fill were placed around the margins of the Bay to reclaim the marshes and wetlands for human development (Lee and Praszker 1969), including the former Yerba Buena Cove east of the project area (Schlocker 1974:Plate 1). While some archaeological resources may have been partially or completely destroyed by historic-era development, others were obviously buried by artificial fill.

Prehistoric Setting

This section discusses the San Francisco Bay Area regional sequence, followed by a summary of the archaeological research in the northern portion of the San Francisco peninsula.

San Francisco Bay Region Sequence

The San Francisco Bay-Delta cultural sequence, often referred to as the Central California Taxonomic System, was defined largely on the basis of stylistic variation on artifacts through grave-goods

analysis from lower Sacramento Valley sites (Lillard et al. 1939). Subsequently, Beardsley (1948) incorporated the Bay Area's cultural sequence into the Central California Taxonomic System. Although three primary time segments—Early, Middle, and Late—remain, the timing and extent of each has changed greatly over the years (Bennyhoff and Hughes 1987; Fredrickson 1974; Heizer 1958).

Currently, Scheme D with its three periods and transitional periods in-between, is generally employed (Groza 2002; Milliken et al. 2007). This chronology, based largely on changes in well-dated shell bead types, is effectively a Late Holocene occupation sequence (post-3800 cal BP), although the onset of the Early Period is generally considered to have its origins in the Middle Holocene (Lightfoot 1997). Owing to the dearth of evidence of earlier occupation in the Bay Area, additional terms are generally lacking to refer to the Terminal Pleistocene through Middle Holocene archaeological record (although some researchers have opted to extend the label "Early Period" further and further back in time).

The following summary draws on insights gained from surrounding regions and recent overviews by Lightfoot (1997), Lightfoot and Luby (2002), Milliken et al. (2007), and Rosenthal and Meyer (2004b; Elsasser 1978; Fredrickson 1974; Gerow 1968; Hylkema 2002; Moratto 1984). It is organized by geologic time segments and includes sections on the Terminal Pleistocene (13,500-11,600 cal BP), Early Holocene (11,600-7700 cal BP), Middle Holocene (7700-3800 cal BP), and Late Holocene (3800 cal BP onward). The Late Holocene is further divided into periods using Milliken et al. (2007) Scheme D2 dating results.

Terminal Pleistocene (13,500-11,600 cal BP)

Currently there is considerable agreement that humans entered the New World via multiple migrations using both coastal and inland routes (Erlandson et al. 2007a). Most scholars view this as a post-glacial maximum process (after 21,000 cal BP), although some have argued for pre-glacial maximum incursions (Madsen 2004). The coastal route, referred to by Erlandson et al. (2007b) as "the Kelp highway," entailed travel by boat exploiting this corridor's highly productive marine resources.

The Terminal Pleistocene is largely contemporaneous with the Clovis and Folsom periods of the Great Plains and the Southwest and is generally considered to be represented by wide-ranging, mobile hunters and gatherers who periodically exploited large game (Haynes 2002). Throughout California Terminal Pleistocene occupation is infrequently encountered and poorly understood, and most often represented by isolated fluted points (Erlandson et al. 2007a; Rondeau et al. 2007).

No fluted points or archaeological deposits dated to the Terminal Pleistocene have been documented in the Bay Area. The Borax Lake site (LAK-36) situated near Clear Lake in the North Coast Ranges is the nearest locality with numerous fluted points (Meighan and Haynes 1970; Moratto 1984:82-85). Isolated fluted points have also been documented at Tracey Lake in the Delta (Heizer 1938), at NAP-131 and Hidden Valley north of the Bay (Dillon 2002:113), and at the Wolfsen mound (MER-215), a major Late Holocene site along the middle San Joaquin River (Peak and Weber 1978).

The absence of Terminal Pleistocene archaeological remains is undoubtedly the result of several factors most notably the likelihood that initial human populations were small, highly mobile, and traveled rapidly across the continent. Therefore their archeological signature on the landscape was generally faint and wide-spaced. For coastal areas, sea level rise, coastal erosion, and, localized subsidence have further reduced the likelihood of documenting initial occupation of the region.

Early Holocene (11,600-7700 cal BP)

In much of Central California, the Early Holocene occupation is indicative of semi-mobile hunter-gatherers exploiting a wide range of food resources from marine, lacustrine, and terrestrial contexts (Erlandson et al. 2007a; Jones et al. 2002; Meyer and Rosenthal 1995; Moratto 2002). Early Holocene

assemblages often include stemmed points, crescents, and steep-edged formed flake tools that share many attributes with contemporaneous material of the Mojave Desert (Rosenthal et al. 2007).

Early Holocene prehistoric material in the Bay Area has rarely been encountered in sites, resulting in few and poorly established archaeological patterns. Four dated Early Holocene sites have been documented in the general region including two sites at Los Vaqueros reservoir (CCO-696 and -637) in the East Bay, the Blood Alley site (SCL-178) in the Coyote Narrows of the Santa Clara Valley, and SCR-177 at Scott's Valley in the Santa Cruz Mountains (Cartier 1993; Hildebrandt 1983; Meyer and Rosenthal 1997). All were recovered from buried terrestrial contexts (Rosenthal and Meyer 2004a:30-32), while none have been documented in bay or coastal settings.

Diverse resource exploitation is indicated by the artifact and ecofact assemblages from these sites. They include handstones and millingslabs (but not mortars and pestles), large flaked cores and cobble tools, flake tools, well-made bifaces, and a single crescent. Trace amounts of marine shellfish have been recovered from some inland sites, while faunal assemblages include varied remains including deer, elk, rabbit, ground squirrel, coyote, and grizzly bear. Carbonized plant remains from CCO-696 were dominated by acorn and wild cucumber (*Marah* sp.), indicative of fall-winter occupation. Each Los Vaqueros site also included a single human burial. These Early Holocene deposits demonstrate that the general region was occupied throughout this time segment, but strong insight into the nature of early occupation trends will require much more data.

Middle Holocene (7700-3800 cal BP)

Comparatively, Middle Holocene occupations are much more ubiquitous than in earlier time segments. More than 30 Bay Area archaeological sites have produced radiocarbon dates indicating occupation during the Middle Holocene. Both surface and buried sites are present, including a number of substantial residential settlements. Notably the Middle Holocene includes a series of buried sites with diverse cultural assemblages and occasional burials, such as ALA-483 in the Livermore Valley, the Marsh Creek Site (CCO-18/548) in the northern Diablo Range, and MRN-17 on de Silva Island in Richardson Bay (Meyer 2005; Pohl 2003; Wiberg 1996). In addition, several isolated human burials have been found in buried contexts including several in the northern Santa Clara Valley (such as SCL-33, -484, -674, and -832) and on the San Francisco peninsula (SFR-28 and SMA-273).

Artifact assemblages are varied and include ground stone (some only with millingslabs and handstones, some with mortars and pestles, and some with both); side-notched dart points, cobble-based chopping, scraping, and pounding implements, and shell beads and ornaments (Fitzgerald 1993; Meyer and Rosenthal 1998). Notably, Type N grooved rectangular *Olivella* beads are present at the San Bruno Mountain Mound site (SMA-40) and at CCO-474/H along the eastern edge of San Pablo Bay (Clark 1998; Estes et al. 2002). These beads are well-dated to the Middle Holocene across a large region from the northwestern Great Basin to San Clemente Island and indicate the presence of an extensive regional interaction sphere (Byrd and Raab 2007:220-221; Vellanoweth 2001).

Resource exploitation began to shift toward a lacustrine and maritime focus with the expansion of San Francisco Bay's estuary, mud flats, and freshwater tidal marshes in the Middle Holocene. Shellfish exploitation included bay oyster (*Ostrea*) and mussel (*Mytilus*), while inland East Bay sites exploited freshwater shellfish (Meyer and Rosenthal 1998; Waechter 1993). Faunal remains reveal diverse, local niche-based exploitation strategies that included exploitation of seasonal waterfowl.

The presence of a diverse range of habitation sites, including the basal layers of some Bay margin shell mounds, suggests higher population levels, more complex adaptive strategies, and longer seasonal occupation than took place during the Early Holocene. Along with burial by alluviation, undoubtedly the earliest sites situated along the Bay margins have been inundated by subsequent sea level rise.

Late Holocene (3800-170 cal BP)

The Late Holocene is generally divided into the following five main time slices: Early (4500/3800-2450 cal BP); Early-Middle Transition (2450-2050 cal BP); Middle (2050-900 cal BP); Middle-Late Transition (900-700 cal BP); and Late (700-170 cal BP; Table 1). The Middle and Late periods have been further subdivided (into four and two subdivisions, respectively), based largely on the dating of specific types of shell beads. The abbreviations present under the Bead Horizon column in Table 1 are commonly used throughout the report to refer to time segments.

Table 1. Chronological Sequence for the San Francisco Bay Area.

AGE (CAL BP)	EXTENT (YEARS)	DATING SCHEME D2 (MILLIKEN ET AL. 2007)				CENTRAL BAY CULTURAL PATTERN ^b
		SHELL BEAD PERIOD	BEAD HORIZON	ARRAY OF DIAGNOSTIC <i>OLIVELLA</i> BEADS ^a	BEAD SYMBOLS	
400-170	230	Late-Phase 2	L2	Lipped	Class E	Augustine
700-400	300	Late-Phase 1	L1	Normal sequin Pendant Callus cupped End-ground	M1a M2 K1 B2	
900-700	200	Middle/Late Transition	MLT	Normal sequin Split drilled/Oval Split punched Split amorphous Tiny saucer Wide sequin (occasional)	M1a C2/3 Class D C7 G1 M1d	
1150-900	250	Middle-Terminal	M4	Normal narrow saddle Rectanguloid/ Oval saddle-smooth edges	F3a F2c/d	Upper Berkeley
1350-1150	200	Middle-Late	M3	Small narrow saddle Normal narrow saddle Irregular saucer (occasional)	F3b F3a G5	
1520-1350	170	Middle-Intermediate ^b	M2	Normal narrow saddle Rectanguloid/ Oval saddle-smooth edges Rectanguloid/ Oval saddle-chipped edges Full/Round saddle-chipped edges	F3a F2c/d F2c/d F2a/b	
2050-1520	500	Middle Early	M1	Saucer Split-drilled/oval Oval saddle	Class G 2/3 F1	
2450-2050	400	Early/Middle Transition	EMT	Split beveled (?)	C1	
>2450	1,500+	Early Period	E	Thick rectangle	Class L	Lower Berkeley

Notes: ^a Listed by relative predominance. ^b Fredrickson (1994).

The Late Holocene is very well-documented in the Bay Area with more than 200 dated sites, and this time period is dominated by complex hunter-gatherers (Milliken et al. 2007). The Early Period marks the establishment of a number of large shell mounds. Prominent sites along the Bay margins that have produced particularly early dates—including dates at the end of the Middle Holocene—include the University Village (SMA-77), the Ellis Landing site (CCO-295), the San Bruno Mountain mound (SMA 40), the Stege mound (CCO-298), the West Berkley Mound (ALA-307), and ALA-17 (Banks and Orlins 1981; Clark 1998; Gerow 1968; Jones and Darcangelo 2007; Wallace and Lathrop 1975).

Lightfoot (1997:138) states that the earliest shell mound artifact assemblages consisted of: stemmed and short, broad leaf projectile points; square-based knife blades; mortars (both unshaped and cylindrical), pestles (short and sturdy, cylindrical); crescentic stones; perforated charmstones; bones awls; polished ribs; notched and grooved net sinkers; rectangular and spire lopped *Olivella* beads; rectangular abalone (*Haliotis* sp.) beads and various pendant types; antler wedge; and stone bars or “pencils.”

Bay margin sites reveal a strong emphasis on marine shellfish (particularly bay mussel and oyster), marine fishes, and marine mammals. In contrast, interior sites emphasized freshwater fish and shellfish along with terrestrial mammals. Nuts and berries appear to have been particularly important plant resources.

Burials are common, tend to flexed, and the regular use of grave offerings, suggests well-developed mortuary practices. Artifacts recovered mostly from burial contexts suggest that an extensive trade network provided access to finely crafted implements made of obsidian originating east of the Sierra Nevada and from Napa County (Hughes and Milliken 2007). *Haliotis* (abalone) and *Olivella* (olive snail) beads and ornaments may also represent trade items.

The Middle Period appears to have witnessed greater settlement permanence—characterized either by sedentary or multiseason occupation. This time interval is considered to have been the heyday of mound building and correlated with greater social complexity and ritual elaboration (Lightfoot 1997; Lightfoot and Luby 2002). A series of changes in artifact types have been documented including barbless and single-barbed bone fishing spears, large mortars, ear spools, and varied forms of *Haliotis* and *Olivella* ornaments. Mortuary practices were often highly ritualized and some individuals, typically males, were buried with thousands of shell beads. Terrestrial resources appear to have been more heavily exploited than previously, based on food remains and isotopic analysis of human bone (Bartelink 2006). Shifts in resource emphasis included greater exploitation of deer, less reliance on oysters and greater exploitation of mussels, and an increase in acorn exploitation (Bickel 1978; Greengo 1951; Simons 1992; Wohlgemuth 2004).

The Late Period is the best-documented Late Holocene time segment, although some have suggested a decline in the number of settlements. Milliken et al. (2007:99) note that artifact assemblages at the end of this period included “clamshell disk beads, distinctive *Haliotis* pendants, flanged steatite pipes, chevron-etched bone whistles and tubes, elaborately finished stone “flower pot” mortars, and needle-sharp coiled basketry awls.” The bow and arrow also make its appearance in the Late Period. Archaeobotanical remains reveal heavy reliance on small seed exploitation, while the faunal evidence indicates a wide range of resources notably sea otters, rabbits and deer. Clams (*Macoma*) and horn snails (*Cerithedia*) also were increasingly important to the diet. Funerary rituals were strongly patterned, and included flexed interments and “killed” grave offerings, along with occasional cremations. Extensive trade relations also appear to have flourished with neighboring groups.

Investigations in the Northern San Francisco Peninsula

The first extensive study of the Bay Area’s prehistory consisted of an archaeological survey of shell mounds and middens by N. C. Nelson (1909). More than 425 sites were recorded along the margins of San

San Francisco Bay. Nelson's (1909) map contains fewer than 10 shell mounds in the northern San Francisco peninsula area—most south of Hunters and Candlestick points on the bay side, along with a few near Lands End on the northwest. Many more mounds were certainly present in the area, and Nelson (1910a) subsequently states that around 10 mounds were situated in the Hunters Point area. Additional shell mounds have been recorded in the region by others (e.g., Laston and Mezes 1858) and Nelson's (1909) original map also has been used to plot and number sequentially additional mounds in the area (e.g., Olmsted and Olmsted 1982:Map 2).

Early in the twentieth century, a series of Bay Area shell mounds was excavated, documenting their depths and composition (e.g., Gifford 1916; Nelson 1910b; Schenck 1926; Uhle 1907). The data that was generated formed the basis of subsequent cultural typologies and sequences for the region based on changes in artifacts, mortuary practices, and shellfish remains. Among these early excavations were Nelson's (1910a) excavations at SFR-7 (the Crocker/Bay Shore Mound) and Loud's (1912) fieldwork at SFR-6 (the Presidio Mound) on the northern San Francisco peninsula.

Very little work was then carried out in the northern San Francisco peninsula until the enactment of environmental laws and the emergence of cultural resource management in the mid-1970s. Since then a series of prehistoric sites have been investigated, most of which have been discovered during urban redevelopment projects and underlying the city of San Francisco. Currently, at least 20 prehistoric sites have been subjected to formal archaeological testing or data recovery excavations (Table 2). Excavated sites are mainly clustered between Yerba Buena Cove and Mission Bay (11 sites: SFR-28, -112, -113, -114, -135/H, -147, -148, -151/H, -154/H, -155 and -175). Other prehistoric sites in the general region include six near the northern end of the peninsula (SFR-6/26, -21, -29, -30, -31, and -129), two farther south along Islais Creek (SFR-17/H and -171), one immediately south of Candlestick Point (SFR-7), and one on Yerba Buena Island (SFR-4). The sites nearest the project area are SFR-17/H and -7 which lies more than 1.5 to the northwest and south, respectively.

The excavated sites are mainly shell middens (n=14), along with two shell mounds (SFR-6 and -7), and one isolated burial (SFR-28). They are typically situated within sand dunes, and some are well-buried by natural sediments as well as by historic-era fill. Although their full areal extent has not always been fully defined owing to their urban settings, each site is typically a single continuous midden. A notable exception is SFR-113 which is comprised of 11 small midden concentrations or loci.

These sites vary widely in size. Most are either small (less than 300 square meters [3,230 square feet], n=7), or medium-sized (between 1,500 and 5,500 square meters [16,150 and 59,000 square feet]; n=7), along with two large sites (at 11,400 and 19,000 square meters [122,700 and 204,500 square feet]). The latter include the Crocker/Bay Shore Mound (SFR-7) and SFR-113, where none of the 11 loci are larger than 150 square meters (1,600 square feet). Midden thickness also varies greatly between sites, ranging from thin lenses (one to two centimeters [0.4 to 0.8 inches]) at two loci of SFR-113 to thick (five meters [16 feet]) at SFR-7. Most middens fall into one of two size ranges: either 40 centimeters (1.3 feet) or less in thickness, or between 70 and 150 centimeters (2.3 and 4.9 feet) in thickness.

The amount of intact midden that has been excavated differs greatly between sites, ranging from as little as 0.4 cubic meters (14.1 cubic feet) at SFR-155 to 488 cubic meters (17,200 cubic feet) at SFR-7, and as a result insights into site structure are highly varied. More than 80 radiocarbon samples have been obtained from 13 of the excavated sites. With the exception of a Middle Holocene date from SFR-28 (a deeply buried isolated skeleton), all of the sites date to the Late Holocene. They include sites from the Early, Middle, and Late Period, although Early Period occupation is currently only documented on Yerba Buena Island. Large numbers of burials have been recovered from three sites: SFR-4 (mostly Early Period), SFR-7 (probably Middle Period), and SFR-114 (Middle Period). Despite the impact of historic-era and modern development, these sites generally contain well-preserved features, intra-midden stratigraphy, and diverse cultural

Table 2. Excavated Sites in the Northern San Francisco Peninsula.

TRINOMIAL (CA-SFR-)	LOCATION	CONTEXT	SITE ATTRIBUTES	HAND EXCAVATED (M ²)	INTACT MIDDEN HAND EXCAVATED (M ³)	FEATURES	¹⁴ C DATES	TIME SPAN (1 SIGMA, CAL BP)	CORRESPONDING PERIODS (SEE TABLE 1)	REFERENCE	NAME	SIZE (M ²)
4	Yerba Buena Island	On and buried within sand dunes	Shell midden, 120 cm maximum thickness	29.0	16.8 (plus 6.45 midden stained, 1.6 submidden)	31 burials, hearths, 1 pit	Y (27)	3500-500	Early, Middle-Early to Middle-Late, Middle/Late Transition, and Late Phase 1	Morgan and Dexter 2008	-	3,777
6/26	Presidio	North side of lagoon	Shell mound, ±75 cm deep	1.2	0.5	1 burial (SFR-26), isolated human remains	Y (3)	1310-560	Middle-Late to Late Phase 1	Jones and Stokes 2002; Loud 1912; Helger and Moratto 1973	Presidio Mound	2,076
7	Candlestick Cove	Adjacent to and partially inundated (1.5 m) by bay	Shell mound, 5.0 meters thick	208.0	488	28+ burials, 5 rock concentrations, 1 hearth, 3 ash concentrations	N	n/a	Middle and Late (?)	Nelson 1910a; McCrossin 1982; Rudo 1982; Banks 1981	Crocker/ Bay Shore Mound	11,400
17	Islais Creek	Along marsh adjacent to creek	Shell midden	2.0	0.5	1 burial	Y (3)	2350-790	Middle and Middle/Late Transition	Fitzgerald and Gmoser 1987; Van Buren and Love 2008	-	?
21	Near Point Lobos	Surface site in sand dunes	Shell midden, 150 cm maximum thickness	3.9	5.15	hearth	N	n/a	?	Holman et al. 1977	-	106
28	North side of Hayes Creek east of Mission Bay	In Bay Mud, overlain by sand dunes, 7.9 m below mean sea level	Isolated burial, female	n/a	n/a	1 burial	Y (1)	6270-4880	Middle Holocene	Henn et al. 1972	BART woman	na
29	Near Black Point	Within sand dunes, truncated by historic building	Shell midden, ±70 cm thick	2.0	1.2	Hearths	Y (1)	1555-1180	Middle-Intermediate to Middle-Late	Baker 1978	-	~2,000
30	Near Black Point	Buried 20 cm in sand dunes	Shell midden, 20-40 cm thick	6.0	1.5	Hearths	Y (1)	1170-930	Middle Terminal	Baker 1978	-	2,432
31	Near Black Point	Buried 30 cm in sand dunes	Shell midden, 50-70 cm thick	4.0	1.6	Hearth	N	n/a	?	Baker 1978	-	1,510
112	Southwest of Yerba Buena Cove	Buried by 2.3 m of dune sand	Shell midden/mound; northeast edge, 20-70 cm thick	15.8	8.02	Hearth remnants	Y (5)	1870-970	Middle-Early to Middle-Terminal	Pastron and Walsh 1988b	Stevenson site	148 ^a
113 (east)	North of Mission Bay	Buried by 1.3 m of dune sand. Loci sizes (m ²): L-1 142; L-2 118; L-3 30; L-4 24; L-5 88	Shell midden with 5 loci (thickness: L-1: 30-80 cm; L-2: 80 cm; L-3: 20 cm; L-4: 2 cm; L-5: 20 cm)	25.0	14.05 (est. L-1: 8.62, L-2: 4.8, L-3: 0.4, L-4: 0.03, L-5: 0.2	L-1: surface, hearth, pit; L-2 FAR concentration; L-3 hearth	Y (7)	2310-1625 (entire site)	Early/Middle Transition to Middle-Early	Pastron and Walsh 1988a	Market Street site	19,000 (total site)
113 (west)	North of Mission Bay	Buried by up to 1.5 m dune sand. Loci sizes (m ²): L-A 11; L-B 9; L-C 193; L-E 6; L-F 7	Shell midden with 6 loci varying in and depth (L-A: 10 cm; L-B thin; L-C: 20-30 cm; L-D: 7 cm; L-3: 25 cm)	6.0	~2.3 (L-A: 0.1; L-C: ~1.0, L-D 0.14; L-E: 0.055	L-C: house floor? (F2 lower lens), 4 pits/hearths (F 3-6)	Y (9)	2310-1625 (entire site)	Early/Middle Transition to Middle-Early	Pastron and Ambro 2005	Market Street site	19,000 (total site)
114	North of Mission Bay	Portions buried by up to 70 of dune sand; portions truncated by development	Shell midden, 1.1 m thick (upper 20-25 cm, main 80 cm, basal 5 cm)	94.0	76.0	11 burials, 17 hearths, surface	Y (10)	2002-796	Middle-Early to Middle/Late Transition	Archeo-Tec 1990; Hattori and Pastron (n.d.)	Yerba Buena site	1,577 ^a
129	Near north shore of peninsula	Buried 30-150 cm in sand dunes	Shell midden, up to 40 cm thick	54.0	25.7	None	Y (7)	628-304	Late Phase 1 to Late Phase 2	Clark 2001	Crissy Field site	5,592
135	Southwest of Yerba Buena Cove	Truncated by historic material and above sand dunes	Shell midden, 40-15 cm thick, truncated by historic-era occupation	9.0	1.58	None (isolated human remains)	N	n/a	?	Estes et al. 2001	-	303
147	North of Mission Bay	Truncated by historic-era material	Shell midden, maximum 40 cm thick	1.0	0.6	Surface (Feature 1)	Y (2)	2000-1920	Middle-Early	Pastron et al. 2004	-	70
148	West of Mission Bay	Overlain directly by historic-era material	Shell midden, 30 cm thick	18.0	~4.0	None	Y (5)	2300-1990	Early/Middle Transition	Crawford 2005	-	303
151/H	West of Yerba Buena Cove	Buried by 1.5 historic-era material and 2.0 meters of dune sand	Shell midden, 6 cm thick	None	None (found in geoprobe)	None	Y (1)	1950-2015	Middle-Early	Byrd et al. 2010:80	-	?
154/H	Northeast edge of Mission Bay	Surface site in sand dunes prior to historic-era occupation	Shell midden, 20-30 cm thick	7.9	~3.5	None	Y (2)	660-0	Late Phase 1 to Late Phase 2	Martin 2006	-	18 ^a
155	North of Mission Bay	Truncated by historic-era material	Shell midden, 10-50 cm thick	2.0	0.41	None	Y (3)	1720-1550	Middle-Early	Pastron et al. 2004	JSG-2	140 ^a
171	Islais Creek/marsh margin	Buried by 2.8 m historic-era fill	Shell midden, 30 cm thick	4.0	1.83	None	Y (3)	500-550	Late Phase 1	Byrd and Kajankoski 2011	Quint Street Site	600+
175	North of Mission Bay	Buried by up to 3.4 m historic-era fill	Shell midden, 40-100 cm thick	?	42.49	?	Y (4)	1080-1410	Middle- Intermediate-Terminal	Praetzellis 2011	Fourth Street Site	1,100

Notes: ^a Represents only portion exposed.

assemblages. Many also appear to represent relatively short-term and discrete occupation events. As such, there is considerable potential to unravel diachronic and spatial trends in prehistoric hunter-gatherer occupation within the region.

Ethnohistoric Setting

The project area falls within the aboriginal territory of the Ohlone, once referred to by the Spanish as *Costanos* (for “coastal people”). The aboriginal way of life for the Ohlone was disrupted by the influx of explorers and the establishment of missions by the Spanish in the late eighteenth century. Colonization and occupation of their land by Spanish, Mexicans, and then Anglo-Americans substantially reduced native populations, displaced them, and dramatically altered their traditional way of life. As a result the Ohlone are not well-known ethnographically (Milliken 1983, 1995:7-8). The most prominent summary statements have been prepared by Harrington (1942), Kroeber (1925), and Levy (1978).

Most of what we know about the Ohlone comes from early Spanish accounts—both explorers and mission staff—along with a few twentieth-century interviews by anthropologists who gathered information on remembered lifeways (Bean 1994). Recent interpretations of Ohlone lifeways, sometimes contradictory with earlier studies, are largely based on mission records research done by Milliken (1983, 1995, 2006).

Costanoan is a linguistic subfamily of the Penutian language stock. Miwok (such as that spoken by the Coast Miwok north of Golden Gate) is the closest related language. According to early linguists, there were eight branches of the Costanoan language, each associated with a geographic location and the tribelet(s) that inhabited the locality. Whether these were distinct languages (Levy 1978) or dialects (Milliken 1995:26) is uncertain. The Project area lies within the northern portion the *Ramaytush* linguistic territory.

At the time of Spanish contact, the Bay Area and the Coast Range valleys were dotted with native villages. Kroeber (1925:464) estimates an aboriginal population of 7,000 Ohlone, while Cook (1943) suggests it may have been 10,000. According to Levy (1978:485), there were approximately 1,400 Ohlone inhabiting the area of modern San Francisco and San Mateo counties and speaking *Ramaytush* in AD 1770.

Milliken (1995, 2006:Figure 5) considers the northern portion of the San Francisco peninsula (including the city of San Francisco) as the tribal/regional community area of the *Yelamu*, one of seven tribal areas on the San Francisco peninsula (north of San Francisco Creek). The *Yelamu* is estimated to have had a population of 160 and population density of one person per square kilometer (2.7 per square mile) at the time of contact (Milliken 1995:53, 2006:Figure 4).

For the Ohlone as a whole, the basic unit of political organization was a territory-holding group of one or more associated villages and smaller temporary encampments. Often referred to as a tribe or tribelet (Kroeber 1962), these groups were generally considered independent, multifamily, landholding groups. Each regional community was a largely autonomous polity numbering typically between 150 and 400 people falling under the jurisdiction of a headman and council of elders who served as advisors to the villagers (Levy 1978:487). Permanent villages were established near the coast and on river drainages, while temporary camps were located in prime resource-processing areas. Some tribes occupied a central village, while others had several villages within a few miles of each other. For the San Francisco city area, Milliken (1995:61-62) states:

The northern tip of the San Francisco Peninsula, which was within the *Yelamu* tribal territory, was the most desolate of the San Francisco Bay Region tribal landscapes. Much of the area was covered with windswept sand dunes and the scrubbiest of grasslands. Its creeks were small and it lacked extensive oak groves. The *Yelamu*, no more than 160 individuals, spent much of the year split into three semisedentary village groups. One group moved seasonally along Mission Creek, from Sitlintac on the Bay shore to Chutchui

two or three miles further inland. The second group moved between Amuctac and Tubsinte villages in the Visitation Valley area, and a third cluster of families live seasonally near the beach area, facing the sea and the Golden Gate (Petlenuc).

Prior to European contact, native people of the Bay Area were hunters, gatherers, and fisherfolk. Subsistence activities centered around the seasonal availability of gathered resources such as acorns, nuts, seeds, greens and bulbs; hunting deer, pronghorn, tule elk, smaller animals, sea mammals and waterfowl; fishing; and collecting shellfish (oysters, mussels, and abalone). The proliferation of shell middens throughout the Bay Area attests to the heavy reliance on marine food resources. Although they did not cultivate crops, the Ohlone practiced burning on an annual basis to ensure an abundance of seed-bearing annuals and forage for large game, and to facilitate the gathering of fall-ripening acorns (Crespí 1927; Levy 1978:491). Their only domesticate was the dog (Harrington 1942), which presumably served as a companion and camp protector, and may have played an important dietary role (a “walking larder”) when times were bad (Levy 1978:491).

The most common type of housing consisted of small hemispherical huts thatched with grasses and rushes (Kroeber 1925:219). Other types of village structures included sweathouses, dance enclosures or plazas, and assembly houses. A variety of stone tools were used, including knives, arrow and spear points, handstones and millingslabs, mortars and pestles, net sinkers, anchors, and pipes. Chert was obtained from local quarries, and obsidian was acquired in trade. Many perishable items were made from tule (e.g., canoes, mats, and baskets), plant fibers (e.g., cordage, nets, and baskets), and animal skins (sea otter, rabbit, and duck skin blankets). Pottery was not made. Mortars, both bedrock and portable variants, were important components of acorn processing technology. Tule balsas were used for transportation, fishing, and duck hunting. Shell beads were gaming and trading commodities as well as ornamental items. Trade relations with neighboring villages and groups were well established. According to Davis (1961:23), bows, arrows, basketry materials, paints, and feather blankets were procured from the east, while the Ohlone traded mussels, dried abalone, salt, and abalone shells to the neighboring Yokut groups and provided the Sierra Miwok with *Olivella* and abalone shell beads.

EVALUATING PREHISTORIC SITES

While historic-era properties may be found eligible for the National Register of Historic Places (National Register) under virtually any of the criteria discussed above, prehistoric archaeological sites are most often evaluated with respect to a demonstrated potential to yield information important to an understanding of prehistory (Criterion D of Section 106 of the National Historic Preservation Act). This requires consideration of research domains and topics identified as pertinent to local, regional, and theory-driven archaeology. Properties deemed unique and eligible for listing on the National Register should provide evidence that they retain information applicable to identified research domains. The first step in this process is generally the identification of pertinent research domains that might be addressed by data generated from archaeological sites within the project area. Archaeological sites for which it can be demonstrated that there is the potential to recover important information to address these research domains may be determined eligible for listing.

The following discusses outlines likely site types that may be encountered within the project property, then articulates a theoretical orientation, and finally lists a set of research issues relevant to assessing the potential of a site to be an eligible resource.

Predicted Prehistoric Property Types

One of the first steps in the evaluation process is to identify the likely types of properties that might be encountered in a project area. Archaeological results from nearby provide much of the basis for discerning the range of prehistoric property types that may be encountered within the project area. Potential property types, based on the material remains associated with individual sites, include middens, artifact and/or ecofact scatters, burial complexes, isolated artifacts or features, and re-deposited prehistoric material. Table 3 summarizes these site types and gives examples of the characteristics associated with each property type.

Middens are accumulations of anthropogenically enriched sediment that generally have stratigraphy; in other words discrete episodes of occupation, trash dumping, and other daily activities that can be distinguished within the midden. Middens often include features, such as hearths, pits, house floors, and burials. The presence of distinct strata and features are highly informative for a variety of archaeological research questions.

Table 3. Prehistoric Property Types and Characteristics.

PROPERTY TYPE	CHARACTERISTICS
Midden	Dark, friable or greasy sediment; midden constituents may include all or some of the following: shell, bone, macrobotanical remains, ash, charcoal, fire-cracked rock, artifacts (worked bone, worked shell, flaked stone and ground stone), features, house floors, and human burials
Artifact and/or Ecofact Scatter	Scatters of material culture, typically dominated by artifacts (such as flaked stone and ground stone) or ecofacts (such as shellfish or faunal material) and lacking midden
Burials	Deliberately interred burials, cremations, or human bone; mortuary offerings and items of personal adornments (such as beads and other ornaments) interred with burials
Isolated Find	One or a few artifacts or a single feature (such as a hearth or burial)
Re-deposited Prehistoric Material	Prehistoric remains (such as a midden) that have been removed from their original context and deposited elsewhere, typically by modern construction activities

Burials are often concentrated within a small portion of midden, effectively creating a cemetery area. Sometimes residential architecture is present within the main midden deposits; other times structures are situated near but outside the midden area. Non-residential architecture (such as meeting houses, dance floors, and sweat lodges) are typically set away from the main occupation area, and other features, such as roasting pits, are often clustered around the margins of the midden.

Middens are the most common sites documented on the northern San Francisco Peninsula, and most are referred to as shell middens owing to the high frequency of shellfish contained within them. Middens often vary greatly in size and thickness. The numbers of years that are represented by midden accumulation, the range of activities that were carried out, and the season of occupation can vary greatly between sites, and their elucidation requires problem-oriented research. The largest and thickest shell middens (such as SFR-114—more than 1,500 square meters [16,150 square feet] in area and up to 1.1 meters [3.6 feet] deep) generally were formed by long-term occupation over the course of decades, and undoubtedly entailed multiple seasons of occupation each year. Smaller middens (such as the 11 loci at SFR-

113—most of which are considerably less than 100 square meters [1,075 square feet] in area and no more than 20-30 centimeters [0.7 to 1.0 feet] thick) were formed by shorter-term activities that may represent less than a decade of occupation during only a few seasons each year.

Middens are effectively residential sites where people lived and carried out their daily activities. The largest sites, major residential settlements or villages, may well represent permanent or semi-permanent communities comprised of multiple-family units. It is anticipated that virtually the full range of non-perishable material culture should be represented at such sites, owing to the scale and duration of occupation. Smaller middens are generally considered short-term camps where community size may have been smaller (particularly if annual settlement organization consisted of a cycle of fusion and fission) or where specialized activities may have been carried out. Frequently, shorter-term camps were visited during a particular time of the year for the purpose of harvesting or acquiring a seasonally available resource (such as harvesting grasses or acorns, acquiring seasonal water fowl, etc.). It is predicted that a more limited range of artifacts, ecofacts, and structural features would be documented indicative of either a smaller residential group or a specialized/seasonal procurement activity. Both types of midden sites have high data potential: major residential sites owing to the wider range of activities that were carried out; short-term camp owing to their tighter chronological resolution and more restricted set of activities that provide unique insight into key aspects of the annual round.

Artifact and/or Ecofact Scatters

Artifact and ecofact scatters are generally the most common archaeological site type documented during archaeological surveys in undeveloped coastal areas. The absence of midden sediments is largely because occupation was of a very short duration (often including very specialized activities) but can also be effected by post-depositional processes. For example, an Early Holocene residential camp that was exposed on a land surface for thousands of years generally would have lost much if not all of its anthropogenic midden constituents, with only artifacts and ecofacts (shell and bone) preserved. In contrast, a short-term occupation midden buried rapidly by dune sand in the Late Holocene probably will retain a wider range of its characteristics. In short, artifact and ecofact scatters may have been created by a variety of cultural and natural formation processes that requires analysis to fully ascertain.

If artifact and ecofact scatters were formed by short-term occupation events (as is generally anticipated), then they should be comprised of a restricted range of artifact and ecofact classes. For example, lithic scatters may represent task-oriented camps where a limited range of activities (such as butchering, re-tooling, or tool manufacturing) were carried out. In contrast, small scatters of shell may represent limited activity locales where individuals may have briefly camped or where task groups on daily foraging ventures collecting shellfish and possibly other resources had stopped and consumed a small portion of their collected foods before returning to the base camp.

In general, the older the site, the more likely it is to be an artifact or ecofact scatter rather than a midden. As such, this is the most likely site type to be encountered in association with Middle Holocene or earlier buried land surfaces. Owing to their character (a thin scatter of material on a surface), they are more difficult to identify during deep discovery efforts than midden sites.

Burial Complexes/Cemeteries

Intentional burial grounds are well-documented from the Middle Holocene onward in central California. Most are typically found within major residential sites. Although burials may occur widely distributed throughout middens (and sometimes under the house floors), they are often situated in specially designated areas. Occasionally, burial complexes are documented largely in isolation or adjacent to major residential sites (such as the Early Period burials in the sand dunes adjacent to the SFR-4 midden). Data

gleaned from burials can provide a wide range of invaluable information regarding genetic relationships, health, diet, conflict, and social organization. For example, mortuary remains can provide unique insight into social status, intra-group affiliation, and disparities in wealth. They also have tremendous significance to modern Native Americans.

Isolated Finds

Isolates are typically one or a few artifacts found on ancient land surfaces without association with other aspects of human behavior. Isolated features, such as a hearth or a burial (e.g., the BART skeleton, SFR-28), may also occur. Although isolates were created by past human behavior, they generally provide only a limited range of information, and often can be dated only imprecisely. Sometimes, however, an isolate may be diagnostic of a particular time period (such as a Clovis dart point) or contain material that can be radiocarbon-dated (such as charcoal from an isolated hearth). Generally, their discovery and recovery exhausts their data potential. As such, isolate are not eligible resources.

Re-deposited Prehistoric Material

Re-deposited prehistoric material is often encountered in urban settings where the original landscape has been greatly modified by construction activities. Natural processes, such as erosion, can also re-deposit cultural material into a new geological context. Generally, prehistoric material that has been re-deposited has lost all integrity and association and hence is not able to contribute significantly to regional research issues. There are, however, exceptions to this general rule—most often if a short-term occupation site or an isolated burial was re-deposited. Such sites may still retain some valuable information, but analysis would be required to confirm that the material is from a limited temporal span.

Research Orientation

In recent years, prehistoric archaeological research has moved away from the application of rigid hypothetico-deductive frameworks that tend to posit a limited set of explicit questions and test implications (Salmon 1993; Watson 1990). This is due to the recognition that research moves forward through a complex interplay between inductive and deductive steps filtered through the paradigmatic biases of individual scholars' research orientations (Clark 1993). Instead, research designs are generally presented in prose form and aimed at clearly linking important research problems within the context of broad research themes with material correlates of the archaeological record.

Scholars have also increasingly recognized that the discipline of archaeology embraces multiple theoretical approaches (Wylie 2002). For example, Hegmon (2003) has distinguished four major theoretical orientations employed in recent years by North American archaeologists: behavioral archaeology—the relationship between behavior and material culture (Schiffer 1999); Darwinian archaeology—applying Darwinian theory to the archaeological record (O'Brien and Lyman 2000); human behavioral ecology—using evolutionary ecology to explain human actions (Kelly 2000; Winterhalder and Smith 2000); and processual-plus—the melding of post-processual concepts (with its interest in individuals, agency, gender, and symbolic meaning) into the processual approach (e.g., Duke 1995; Gamble et al. 2001; Otterbein 2000).

Each of these theoretical orientations has proponents within a single North American region. In the California-Great Basin area, one of the heartlands of prehistoric hunter-gatherers, a human behavioral ecology approach is increasingly employed. There also appears to be a trend, particularly in central California, to emphasize historical contingency in explaining the past (e.g., Jones et al. 2008). This approach stresses the importance of sequential events in a local area, and in some contexts, such as the San Francisco Bay Area, this has the potential to reinforce a long-held emphasis on culture history and particularism. Such

an approach is largely devoid of theoretical orientation and lacks the goals of middle-range theory with its emphasis on identifying broader patterns of the human condition.

Diversity in theoretical orientation is healthy, as it facilitates multiple perspectives on key research issues, and should be embraced. Archaeology is diminished if research and debate are constrained within a single theoretical orientation; in fact, interpretive debates regarding events and patterns in prehistory are most vibrant when they derive from alternative theoretical perspectives. In the end, “inference to the best explanation” is the rational reasoning that most archaeologists employ to generate hypotheses and explanations of the past (Fogelin 2007:609-610). This practical strategy for explanation examines both the breadth and diversity of evidence, and encompasses causal and contrastive explanations. As Fogelin (2007:618-620) outlines, successful explanations include the following traits: empirical breadth, generality, refutability, conservatism, modesty, simplicity, and multiplicity of foils. This is the approach that is embraced here, where the compelling power of an explanation is appreciated regardless of the theoretical approach from which it originates.

Methodological Considerations

Important methodological considerations underpinning this work revolve around an awareness of the dynamic nature of hunter-gatherer land use and the implications of these patterns for site formation processes. As is often noted, any given location could have served as a residential base during part of the year, a resource collecting camp during another, and a processing locale during still a third. When hundreds of years are added to the equation, it becomes even more difficult to unravel the remains of potentially disparate land-use patterns. The easiest way to learn about hunter-gatherers from their archaeological remains is by isolating spatially discrete and chronologically restricted deposits, or “components.” This approach minimizes the effort of trying to sort out badly mixed or jumbled accumulations and also avoids building assemblages and interpreting prehistoric behavior based on intermixed cultural remains throughout a site area.

Components are made up of temporally related aggregates of artifacts, features, and other residues representing the material remains produced during a specific time span of residence or other use at a specific location, ideally found associated with a definable horizontal/vertical fraction of a site or landform. Component chronological assignments are most reliable when based on several independent lines of evidence, including bead or ornament seriation, point types, regional comparison (“cross-dating”), obsidian hydration, and ¹⁴C dating. However, integrity is relative and more often defined by analytical utility. Operationally, one can expect considerable variability in temporal resolution. Components are more or less chronologically resolved, with some heavily mixed and strictly inferential, and others stratigraphically well segregated. Some components represent very brief spans of occupation while others were accumulated over hundreds of years of similar activity.

This methodological approach is characterized by recognition that the component is first a geomorphic phenomenon, and second, an inferential archaeological unit. The methodology involves the deployment of both field and lab resources in a feedback system aimed at isolating and defining individual temporal phenomena. This includes detailed examination of site stratigraphy from a geological perspective (Waters 1992) and this can often benefit from the use of micro-morphology—the study of undisturbed soils and sediments at a microscopic scale (e.g., Goldberg and Byrd 1999). From the standpoint of the development of sampling strategy, initial site investigations should seek to document general chrono-stratigraphic structure and spatial patterning, define the range of components available, and establish the horizontal and vertical distribution of the archaeological deposits.

Research Issues

Important archaeological research issues in central California, and the San Francisco Bay Area in particular, can be placed into eight major research domains: (1) chronology and dating; (2) settlement and setting from a geoarchaeological perspective; (3) changes in diet and health; (4) sociospatial structure of Bay Area settlement; (5) Bay Area sedentism—causal factors and trajectory; (6) emergence of sociopolitical complexity; (7) reconstructing regional interaction spheres; and (8) population movement and its implications. These research issues and their associated date requirements are explored in other reports, such as the Transit Center District Plan ARDTP (Byrd et al. 2010:92-128), and that discussion is not repeated here. These research issues focus on the broad-scale evolution of adaptive strategies and associated sociopolitical developments. They were chosen because they reflect the nature and direction of current research concerns on a broader scale, particularly those with linkage to data that may exist within the project area. Notably, a well-dated site component provides the basis for addressing all subsequent research issues. In addition, many research issues cross-cut these larger research domains. Since no known prehistoric archaeological sites exist on the property, the eight research domains articulated above all have equal priority prior to site discovery.

SENSITIVITY ASSESSMENT

Geologic Setting and Landscape Changes

Historic-era maps indicate that the project area was originally situated within a large field of sand dunes that stretched across the northern San Francisco peninsula from Ocean Beach eastward to the Bay margins, making it one of the four most extensive dune complexes on the California coast (Cooper 1967:42). The dunes were formed by the prevailing westerly winds that transported loose sand eastward across the nearly level and poorly vegetated topography (Schlocker 1974:78-80). In their natural state, these dunes formed a series of transverse-ridges, characterized by narrow, almost linear dune crests and wide interdune troughs. The nature of the dunes and the processes responsible for their formation was described by W. P. Blake who observed that:

The progress of such [sand] hills is not uniform and constant, for, under certain circumstances, they remain stationary for long periods. Whenever the vegetation is removed, or a cutting is made, and the wind is allowed to act upon the surface, or to strike a hill in a new direction, the motion of the sand is rapid, and a large hill is soon carried away and piles up in a protected place, where the sand remains, secure from further violent action. [1857:160-161]

In the 1860s, Golden Gate Park was established within an active part of this dune field that was not stabilized by vegetation until the 1880s (Amundson and Tremback 1989:1798). These accounts illustrate the relatively mobile nature of these transient landforms, which are largely the result of variations in wind, topography, vegetation, sediment supply, and sea level (Carter et al. 1990:4-5). Thus, the San Francisco dunes were formed by the prevailing westerly winds that transported loose sand across the nearly level and poorly vegetated topography to the east (Schlocker 1974:78-80).

Although the extent of the dune fields is well-documented in San Francisco, the age and evolutionary sequence of these dunes are only partly understood. For example, the most recent Quaternary geology map of the area has the dunes ranging from Pleistocene to Holocene in age (Witter et al. 2006). However, at least two major phases of development are indicated in the San Francisco dunes by “two sections of dune sand separated by bay mud and clay” in the Market Street area east of the Civic Center (Schlocker 1974:80), both dating to less than 2000 cal BP (note cal BP refers to the corrected calendric age of a

radiocarbon-dated sample). These same dunes were above a human skeleton discovered during excavation of the BART tunnel, known as site SFR-28, that dates to more than 5,500 cal BP.

Radiocarbon dates from archaeological sites (e.g., SFR-112, -113, and -114) buried in the dune field (Pastron 1990; Pastron and Walsh 1988a, 1988b) demonstrate that the dunes were still actively forming during the latter part of the late Holocene (less than 2,000 years ago; Henn and Schenk 1970:6). While the reasons for these changes are uncertain, some phases of dune activity may have been triggered by widespread devegetation caused by fires set deliberately or accidentally by prehistoric inhabitants.

When these dates are compared with dates from other sites and terrestrial deposits buried within the San Francisco dune field, it appears that most are associated with a period of dune stability that prevailed roughly between about 2200 and 900 cal BP. This was followed by a cycle of dune instability that resulted in the eastward migration of dunes across much of the downtown area and into the adjoining tidal wetlands of the Bay between about 900 and 600 cal BP (Meyer 2003, 2004). Another period of dune stability occurred between about 600 and 200 cal BP, centered near 400 cal BP that corresponds with evidence of renewed human occupation in the area (i.e., site SFR-154/H).

While the reasons for these changes are uncertain, some phases of dune activity may have been triggered by widespread devegetation caused by fires set deliberately or accidentally by prehistoric inhabitants. It is not clear if the lack of prehistoric sites dating between 900 and 600 cal BP are: (1) related to environmental changes (e.g., landscape instability) associated with drought conditions during the Medieval Climatic Anomaly (between about 1,000 and 700 years ago); (2) part of a larger pattern of cultural change that affected much of region during that time (i.e., Middle to Late Period Transition, around 700 years ago); or (3) possibly some measure of both.

Rapid urban development of the downtown district during the past 150 years lead to extensive cutting and filling, drastically altered the natural landscape and transforming it into the cityscape of today. Many city streets were initially constructed through the dunes by removing the higher dune ridges, and using the sand to fill the low-lying swales and troughs between ridges. However, the actual extent of historic-era cutting and filling in the study area is not known.

Buried Site Sensitivity Analysis

The potential for buried archaeological sites is a practical problem for resource managers who must make a reasonable effort to identify archaeological deposits in a three-dimensional project area to ensure that potentially important resources are not affected by project activities. Early detection of buried archaeological deposits also avoids the potential for costly delays that may occur when unknown resources are discovered after project-related earth moving activities have begun and late discovery protocols are necessary.

Before buried sites can be avoided, sampled, or otherwise “managed,” they must first be identified. Most buried sites are not found by conventional pedestrian surface surveys because they typically lack visible or obtrusive features that would indicate their presence to an observer in the field (Bettis 1992:120). Thus, locating sites that may be buried by natural deposition can be one of the most difficult issues faced by archaeologists and cultural resource managers. This problem is further compounded in regions like the San Francisco Bay Area where archaeological sites may have been submerged by sea level rise or covered by urban development (i.e., artificial deposits).

To help insure that project schedules (critical path) and budgets are not inadvertently affected by late archaeological discoveries, a buried site sensitivity study was conducted to determine if buried sites are likely to be located in the project area. Since the project is located in an urban setting, surface survey has little likelihood of identifying prehistoric sites on what was original ground surface. Nor would surface survey identify prehistoric sites that have been buried by natural deposition. Therefore, the following

geoarchaeological identification effort is a proactive approach to identifying as soon as possible whether prehistoric sites are present within proposed project area.

Buried Site Sensitivity Factors

This section provides a rationale for estimating the potential for buried archaeological resources in the project area. Simply stated, there is generally an inverse relationship between landform age and the potential for buried archaeological deposits. For example, archaeological deposits cannot be buried within landforms that developed prior to human colonization of North America (Rosenthal and Meyer 2004). Therefore, as a first step, landforms with the potential to contain buried sites must be distinguished from those that are too old to contain them, allowing older portions of the landscape to be confidently excluded from further consideration. While this basic distinction addresses the potential for buried sites, the relative probability of locating a buried site depends largely on a more fine-grained distinction between the ages of different Holocene landforms.

Archaeological deposits are not distributed randomly throughout the landscape, but tend to occur in specific geo-environmental settings (Foster and Sandelein 2005:4; Hansen et al. 2004:5; Pilgram 1987; Rosenthal and Meyer 2004a). It is well known, for instance, that prehistoric occupation is most often associated with level or nearly level landforms that occur near perennial streams, especially near confluences (Pilgram 1987:44-47), and near bodies of water such as lakes, bays, estuaries, and oceans, where plant and animal populations are generally more diverse and concentrated.

Literally hundreds of prehistoric sites have been found around the present and former margins of San Francisco Bay, many which contain numerous residential features and evidence of a strong reliance on marsh-related plant and animal resources. The majority of these sites occur within 200 meters (656 feet) or less of the former bay or marsh shoreline, at elevations of about 50 feet (15.2 meters) or less above present-day sea level, with most, but not all, located near a known source of fresh water (Nelson 1909, 1910b).

Analysis of known prehistoric sites on the northern San Francisco peninsula indicates that all are located within about 750 meters (2,460 feet) or less from the former historic-era margin of the Bay, with more than one-half located within 375 meters (1,230 feet) or less. Further, since the sand dunes that cover much of the peninsula are generally less than 2,000 years old, those that lie within 750 meters of the former Bay generally have an elevated potential to contain buried sites than those portions that are more than 750 meters from the shore of the Bay. Within highly urbanized areas like San Francisco, however, the burial or destruction of prehistoric sites is determined by many man-made factors, such as artificial cutting and filling of the landscape.

The following factors were used to assess the potential for buried sites in the study area: (1) archaeological sites on the San Francisco Peninsula tend to be located less than 750 meters (2,460 feet) from the former Bay shore; (2) archaeological deposits from later time periods are more common because the density of human populations increased over time; and (3) the longer a landform remained at the surface, the greater the probability that any one spot on that landform was occupied.

Buried Site Assessment

This section summarizes the estimated buried site potential of the Project Area based on the age and distribution of surface deposits as modified by the type and position of historic-era channels. To determine the age and extent of landforms within and surrounding the project area we relied on recent landform age mapping in the southwestern Bay Area by Meyer (2013) that was created through a combination of digital soil surveys by the National Resources Conservation Service and Quaternary geology maps of the nine-county San Francisco Bay Area (Knudsen et al. 2000; Witter et al. 2006), which was then

refined through the compilation and analysis of several thousand radiocarbon dates from the region. This mapping indicates that the project area is situated on a sand dune that was deposited sometime around 2000 cal BP or sometime after about 900 cal BP), and thus has the potential to overlie older prehistoric sites. Furthermore, given that the historic-era surface is now covered by artificial fill it is possible that prehistoric sites may lie directly below the fill deposits.

This assessment indicates that project area has high potential to contain buried sites. This is due primarily to the youthful age of the sand dunes below the artificial fill, and its location within 375 to 750 meters of a former arm of Mission Bay (Figure 4). While this addresses the horizontal aspect of archaeological sensitivity, it does not address the vertical aspect, as discussed below.

Historical Cut-and-Fill Analysis

Because virtually all the prehistoric-era landscapes lie beneath the streets, buildings, and parking lots in the downtown area, the nature and extent of artificial cutting and filling during the historic-era must also be addressed to properly estimate the potential for buried prehistoric archaeological sites. To do this, we digitized the elevation contours depicted on one of the best maps of the area (US Coast Survey 1859). The outer edges and prominent topographic features of this digital map were compared with those on several later historical maps, and “rubber sheeted” to compensate for map distortions and rectify the vertical and horizontal coordinates to improve the overall accuracy of the map.

The analysis of these datasets suggest the historical ground surface is covered (i.e., filled) by 39 to 47 feet (11.9 to 14.3 meters) of fill sand, with an average of about 45 feet overall (13.7 meters). This analysis is graphically displayed in Figure 5. It is presumed that much of this sand was derived from the ridgetops of dunes that were located nearby.

Conclusion and Recommendation

Since the project-related earth disturbances are to extent to a maximum depth of about 25 feet (7.6 meters) below the existing ground surface (Treadwell & Rollo 2011), it appears that these activities will not reach or penetrate the former historical ground surface, which lies about 14.6 to 23.5 feet (4.4 to 7.1 meters) below the maximum depth these impacts. Based on these findings, it appears that the proposed undertaking has little, if any, potential to adversely affect a prehistoric archaeological deposit. For these reasons, no further prehistoric archaeological study, identification, or monitoring efforts are recommended for the project as it is currently defined and proposed.

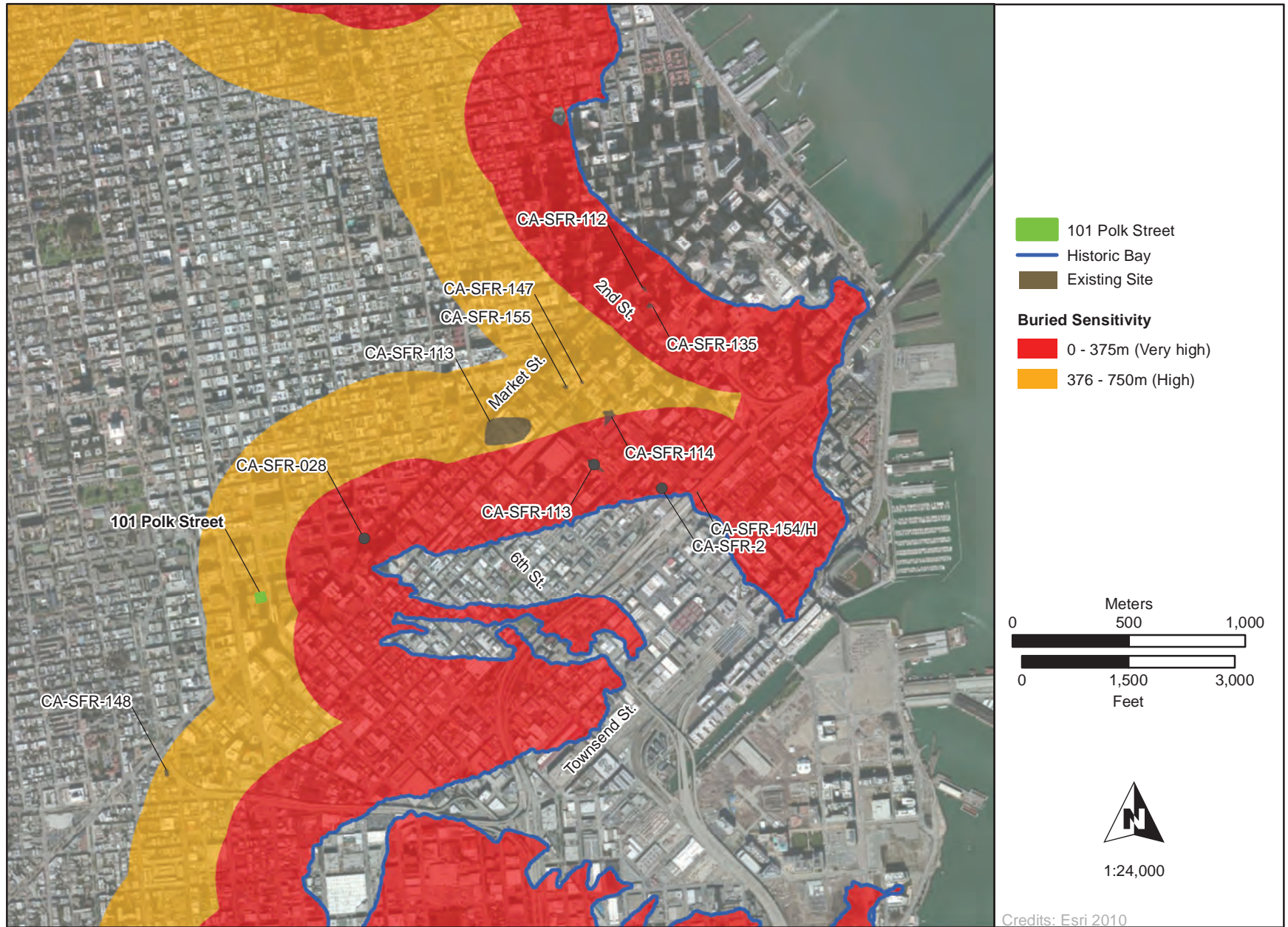


Figure 4. Prehistoric Buried Site Sensitivity Assessment for 101 Polk Street Area.

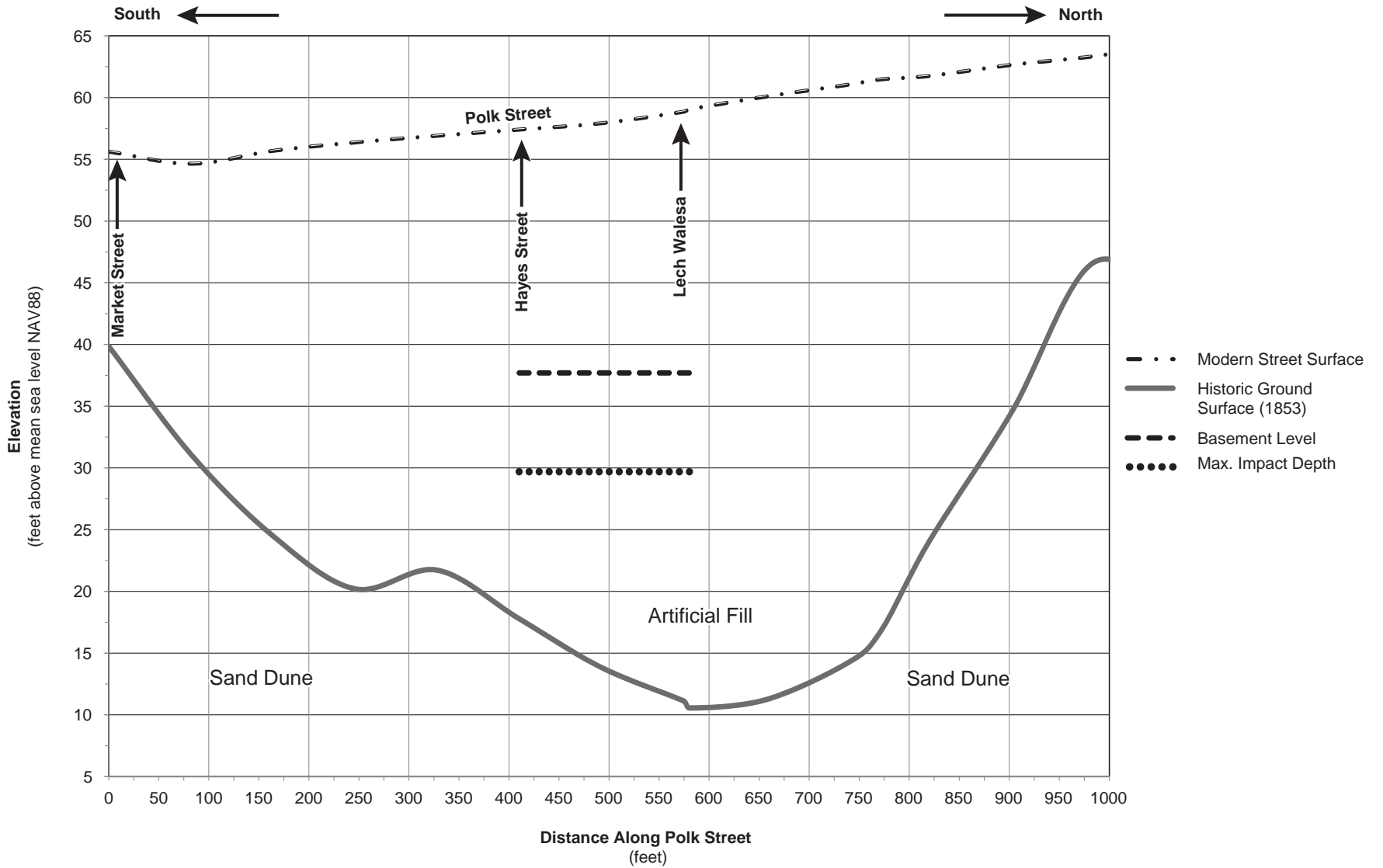


Figure 5. Cross Section showing Modern and Historic-era Elevations Compared to Depth of Project Impacts.

5. HISTORIC-ERA ARCHAEOLOGICAL SENSITIVITY ASESMENT

This chapter presents a historic-era sensitivity assessment for the project area. Initially, site chronology and land use is discussed, and then predicted property types are summarized. The chapter concludes with a sensitivity assessment.

SITE CHRONOLOGY OF LAND USE

This discussion is based around relevant historic maps that include the project area. The three Sanborn maps referred to below are provided in Appendix C.

1859 USGS Coast Survey Map

Streets have not yet been extended into the project vicinity; the area is sparsely developed with small houses, agricultural fields, and wooded areas. There does not appear to have been any buildings on the specific project parcel.

1869 USGS Coast Survey Map

By 1869 streets in the project vicinity have been plotted and buildings have been constructed throughout the area. There does not appear to have been any buildings on the specific project parcel.

1886-1893 Sanborn Map

Buildings in the project area consist of a Children's Day Home accessed from 110 Hayes Street, residential flats at 103-109 Polk Street, and residential flats over stores at 100-108 Hayes Street. The Children's Day Home is three-stories with a small two-story and one-story addition in the rear. There is also a one-story shed along the Ivy Street alleyway. The residential flats are both two stories and have street-facing bay windows. All the buildings are brick construction.

The Children's Day Home (also called the Sacred Heart Day Home) was founded in 1878 at 525 Post Street. A larger building was constructed at 110 Hayes Street in 1880. The home provided shelter and care for children of widows and working women from a few weeks old to seven years. All was free of charge and run by the Sisters of the Holy Family (Jennes 1894).

A photo of the building is shown at: <http://www.flickr.com/photos/holyfamilysisters/5762017675/>.

1899-1900 Sanborn Map

The project area is comprised the same buildings as shown on the 1886 Sanborn map, including the Children's Day Home (Catholic School), residential flats at 103-109 Polk Street, and residential flats over commercial (saloon, restaurant, and store) at 100-108 Hayes Street. Planting strips are shown between the flats and mixed-use building on Polk Street. Other uses on the block and west of the project area include residential flats, detached dwellings, a laundry, and residential over commercial (mostly stores) towards the corner of Hayes Street and Van Ness Avenue.

1913-1950 Sanborn Map

All of the buildings shown on the 1899-1900 Sanborn map were destroyed by fire following the 1906 earthquake. By 1950 the majority of the project area is shown as surface auto parking, with a gas station and repair garage located at the corner of Polk and Hayes streets (101 Polk Street). An outdoor auto

washing operation is located toward the western edge of the project area. Immediately west of the project area is a furniture repair and upholstery shop (130 Hayes Street), an auto body and paint shop (140 Hayes Street), and an auto/motorcycle garage and service building (150-160 Hayes Street). Located at the far western end of the block are auto sales and service uses (214 Van Ness Avenue) and a 28-unit apartment building (200 Van Ness Avenue).

Present Conditions

By 1968, there was a gas station on the site. Construction and demolition of the gas station likely disturbed evidence of the previous occupation, as further detailed below in the assessment of archaeological sensitivity. There are currently no permanent structures on the property. Both lots are occupied by a surface parking lot.

PREDICTING HISTORIC-ERA ARCHAEOLOGICAL PROPERTY TYPES

Available documentary evidence suggests that permanent non-native development of the project area began around 1859. Prior to 1859 the project area was not subdivided and appears to have been sparsely developed with small agricultural holdings. Beginning in about 1880 the project area was built up with residential buildings with commercial stores below and the prominent Children’s Day School (Sacred Heart Day School). Several newspaper articles expound the importance of this institution.

These land uses—commercial, residential, and institutional—may have left their mark on the archaeological record. The project area history and land-use characterization provided here can be used to predict archaeological “property types” that may survive in the area.

Property types are artificial constructs that may be associated with more than one time frame or research theme. The Secretary of the Interior (National Park Service 1983) defines property types as “a grouping of individual properties based on shared physical or associative characteristics. Property types link the ideas incorporated in the theoretical historic context with actual historic properties that illustrate those ideas.” The usefulness of a property type with regard to relevant research themes determines the legal importance of that resource. Assessments of integrity, land-use history, and comparison with other known similar property types are also useful to determining the importance of specific property types.

Table 4 summarizes the property types that could be found in the project area, gives examples of the kinds of archaeological features associated with each property type, and associates them with known periods of historical occupation and land use. Based on the historical context, the occupation of the project area can be roughly divided into four periods/themes: 1880-1906 residential; 1880-1906 commercial; 1880-1906 institutional; post-1906 commercial (auto).

ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

Archaeology undertaken for various projects in an urban environment has demonstrated that historic-era archaeological features often survive within several feet of the modern ground surface and can be covered or capped by modern development. These features include pits, privies, wells, and sheet refuse associated with buildings shown on early Sanborn and other maps. Urban archaeological experience has also shown that pits and privies are most often located near the back of house lots, while wells tend to be closer to the rear of the building and can sometimes be located within the footprint of the house itself, typically at a rear or side addition. In San Francisco, historic-era archaeological features generally tend to be located within the first four feet below the current ground surface. Historic-period archaeological resources that could be located in the project area include features related to the Sacred Heart Day Home and the

adjacent businesses and residences such as artifact-filled wells and privies, sheet refuse, and structural remains such as foundations as outlined in Table 4.

Recent geotechnical analysis provided by Treadwell & Rollo (2011) indicate that the upper 10-14 feet in the project area consists of artificially placed fill. The fill consists of loose to medium dense sandy fill, with some silt and clay. Coring measured the presence of groundwater at approximately 16 feet below the existing ground surface. This ground disturbance may be related to the installation of tanks for the gas station constructed on the project parcel sometime in the 1910s. Aerials show the gas station at the project parcel until at least 1968. The depth of this fill is sufficient to indicate that evidence of past historic land use is no longer present.

Based on the recent geotechnical results there appears to be a low sensitivity for historic-era archaeological resources to be still present within the 101 Polk Street project area. No additional historic-era archaeological work is necessary. In the event that a historic-period archaeological resource is uncovered during project implementation, standard conditions apply.

Table 4. Predicted Historic Property Types based on Known Historic-era Land Uses.

FEATURE TYPE	ASSOCIATED LAND USE
<i>ARCHITECTURE</i>	
Foundations (including brick alignments, slabs, piers, stone)	1880-1906 Residential
Builder's trenches	1880-1906 Commercial
Walls (brick, either <i>in situ</i> or collapsed)	1880-1906 Institutional
<i>REFUSE FEATURES</i>	
Discrete hollow-filled features (privies, wells)	1880-1906 Residential
	1880-1906 Commercial
	1880-1906 Institutional
<i>SHEET REFUSE</i>	
Massive sheet refuse (a discrete large area of refuse, may represent one or a series of events)	1880-1906 Residential
	1880-1906 Commercial
	1880-1906 Institutional

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APPENDIX A

**LIST OF CULTURAL RESOURCES PROJECTS WITHIN
THE RECORDS SEARCH AREA AROUND THE PROJECT**

Northwest Information Center Report Listing

S-number	Year	Author(s)	Title	Affiliation
S-003181	1970	Winfield G. Henn and Robert E. Schenk	An Archaeological Analysis of Skeletal Material Excavated from the Civic Center Station of BART	Adan E. Treganza Anthropology Museum, San Francisco State College
S-003192	1970	Ralph A. Mead	Main Post Office, United States Post Office and Court House (National Register of Historic Places - Nomination Form)	
S-003217	1976	Michael R. Corbett	San Francisco Civic Center (National Register of Historic Places - Nomination Form)	
S-005367	1972	Winfield Henn, Tom Jackson, and Julius Schlocker	Buried Human Bones at the 'BART' Site, San Francisco (from: California Geology, September 1972)	University of Oregon, San Francisco State University, U.S. Geological Survey
S-007194	1985	C. Kristina Roper, Adrian Praetzellis, and David A. Fredrickson	Results of Archival Research for the Proposed California State Building, Corner of Golden Gate Avenue and Larkin Street, San Francisco, California.	Cultural Resources Facility, Sonoma State University
S-014840	1991	Allen G. Pastron	Archival Cultural Resources Evaluation of the Proposed Main Library Development Project and Two Affiliated Parcels in the Civic Center Plaza Area, San Francisco	Archeo-Tec
S-017513	1974	Archaeological Consulting and Research Services	Report of the Archaeological Reconnaissance of the Site of the Proposed California State Compensation Fund Building, San Francisco County, California	Archaeological Consulting and Research Services
S-017576	1975	Stephen A. Dietz	An archaeological and historical survey of the proposed San Francisco Performing Arts Center (letter report)	Archaeological Consulting and Research Services
S-021757	1999	Page & Turnbull, Inc.	Documentation of the Old Main Library, San Francisco, California	Page & Turnbull, Inc.
S-021758	1998	Jim Killoran, H. Gitelman, R. Passmore, E. Sano, M. Paez, and Page & Turnbull, Inc	Historic Structure Report, Old Main Library, San Francisco: California Asian Art Museum, Chong-Moon Lee Center for Asian Art Culture	Page & Turnbull, Inc.
S-022046	1997	Mark R. Hale	Technical Report, Archaeological Monitoring Services, State of California, San Francisco Civic Center Complex	Dames & Moore
S-022493	1998	Grace H. Ziesing, Roger Olmsted, Adrian Praetzellis, Mary Praetzellis, Jack McIlroy, Jack Meyer, Elaine-Maryse Solari, Greg White, and Susan Alvarez	The San Francisco Central Freeway Replacement Project: Archaeological Research Design and Treatment Plan, 04-SF-101 PM 4.7/5.1, in the City and County of San Francisco, California, EA No. 04-0211-291000	Anthropological Studies Center, Sonoma State University
S-023220	2000	Lorna Billat	Proposed Cellular Facility (Nextel Site Number: CA-2210C- "SF-11) in San Francisco, California (letter report)	Earth Touch LLC
S-024031	2001	Lorna Billat	Nextel Communications Evaluation of Nextel Site Number CA-2118C - "Sf-30" , in San Francisco, California (letter report)	Earth Touch LLC
S-024563	2001	Carolyn Losee	Records Search and Site Visit for Sprint PCS "Colton Piano" Site No. SF36XC659E, 512 Van Ness Ave., San Francisco: Positive Results (letter report)	Archaeological Resource Technology
S-025047	2001	Jan M. Hupman and David Chavez	Archaeological Resources Investigations for the Mid-Market Redevelopment Plan Project, San Francisco, California	David Chavez and Associates
S-026899	2003	Allen G. Pastron and L. Dale Beevers	Archaeological Research Design / Treatment Plan For the Trinity Plaza Apartments Project, City and County of San Francisco, CA	Archeo-Tec
S-028200	2003	Allen G. Pastron and Rhonda Robichaud	Van Ness Avenue Pedestrian Safety Improvements Project: Phase II, City and County of San Francisco, California: Archaeological Monitoring / Data Recovery Program	Archeo-Tec
S-028210	2003	Diana Painter	The Corinthian Apartments (Colton Piano Building) (letter report)	Painter Preservation & Planning

Northwest Information Center Report Listing

S-number	Year	Author(s)	Title	Affiliation
S-029045	2003	Carolyn Losee	Sprint Project No. SF33XC559E (Colton Piano), 512 Van Ness Avenue, San Francisco City and County, California.	Archaeological Resources Technology
S-030158	2004	Allen G. Pastron and Allison Vanderslice	The San Francisco Conservatory of Music at 70 Oak Street, City and County of San Francisco, California: Pre-Construction Archaeological Testing Program.	Archeo-Tec Inc.
S-030264	2005	Allen G Pastron and Stephanie Selover	State Compensation Insurance Fund Project, Located at 55 Ninth Street, City and County of San Francisco, California: Preconstruction Archaeological Testing Program.	Archeo-Tec
S-032607	1997	Michael R. Corbett, Denise Bradley, and William Kostura	Draft Third Street Light Rail Project, San Francisco, California, Historic Architectural Survey Report	Dames & Moore
S-032856	2000	Hisashi B. Sugaya	Historic Property Survey Report and Finding of Effect, Civic Center/UN Plaza/Mid-Market Improvements, San Francisco, California	Carey & Co.
S-034051	2007	Allen G. Pastron, Michelle Touton, Emily Wick, and Kaki McLachlan	Final Archaeological Report: Argenta Condominiums, One Polk Street	Archeo-Tec
S-034407	2007	M. Bridget Maley	Historic Property Survey Report for the Van Ness Avenue Streetscape Improvement Project, Federal ID# DEM05L-5934 (134)	Architectural Resources Group
S-035402	2008	Allen Pastron	Executive Summary of Findings of the Monitoring Program within the Borders of the 231 Franklin Street Project, City and County of San Francisco, CA.	Archeo-Tec Consulting Archaeologists
S-036663	2009	Brian Byrd, Phil Kaijankoski, and Julia Costello	Archaeological and Native American Cultural Resources Sensitivity Assessment for the Van Ness Avenue Bus Rapid Transit Project, San Francisco, California, 04-SF-101, PM T4.42L/6.71, EA 3A270	Far Western Anthropological Research Group, Inc.
S-037046	2009	Julia Mates	Historical Resources Evaluation for Auxiliary Water Supply System, City and County of San Francisco	Tetra Tech, Inc.
S-037272	2010	Lorna Billat	Collocation ("CO") Submission Packet, FCC Form 621, Fox Plaza, SF-23284E	Earth Touch, Inc.
S-038050	2011	Dean Martorana	Verizon Cellular communications Tower Site -- SF Market & 8th 10 United Nations Plaza (APN: 0351-050) San Francisco, CA 94102	URS Corporation
S-039318	2011	Allen Pastron, Kale Bruner, and Tiffany Cain	Report on Findings of the Archaeological Pre-Construction Testing Program at the Tenth and Market Street Project, City and County of San Francisco, California	Archeo-Tec
S-039319	2011	Allen G. Pastron	Executive Summary of Findings for the Mary Helen Rogers Senior Community Project (Parcel C of the Western Addition A-2 Project), City and County of San Francisco, California (letter report)	Archeo-Tec
S-039320	2011	Allen G. Pastron	Monitoring Report for the Mary Helen Rogers Senior Community Project (Parcel C of the Western Addition A-2 Project), City and County of San Francisco, California (letter report)	Archeo-Tec
S-039321	2004	Allen G. Pastron	Archaeological Research and Design and Treatment Plan: The Western Addition A-2 Redevelopment Project City and County of San Francisco, California	Archeo-Tec
S-039326	2012	Allen G. Pastron	Executive Summary of Findings for Program of Pre-construction Archaeological Testing and Construction Monitoring at the 1190 Mission Street Building, Phase 2 of the Trinity Place Project, City and County of San Francisco, California (letter report)	Archeo-Tec

Northwest Information Center Report Listing

S-number	Year	Author(s)	Title	Affiliation
S-039426	2010	Allen G. Pastron	Final Report for the Program of Archaeological Monitoring of Ground-Disturbing Activities at the 121-131 Ninth Street Project, Located at the Intersection of Ninth and Minna Streets, City and County of San Francisco, California (letter report)	Archeo-Tec
S-039622	2012	Archeo-Tec	Final Archaeological Resources Report for the 10th and Market Street Project, City and County of San Francisco, California	Archeo-Tec
S-040612	2012	David R. Cohen and Kathleen A. Crawford	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC, Candidate SFO3282A (SF282 Chase Hotel), 1278 Market Street, San Francisco, San Francisco County, California (Letter Report)	Michael Brandman Associates

APPENDIX B

NATIVE AMERICAN CONSULTATION

Kaely Colligan

From: Kaely Colligan
Sent: Monday, October 07, 2013 9:38 AM
To: 'nahc@pacbell.net'
Subject: Tribal Consultation List Request
Attachments: Tribal Consultation List Request 101 Polk.pdf; NAHC.pdf

Good Morning,
Attached is a Tribal Consultation List Request and associated map. Please let me know if you need anything else!

Kaely R. Colligan

Staff Archaeologist – Assistant Editor *Journal of California and Great Basin Anthropology*- Far Western Anthropological Research Group, Inc.
☎ 530-756-3941 (office) 📠 530-756-0811 (fax)



- California Native Americans*
- Cultural Resources*
- Strategic Plan*
- Commissioners*
- Federal Laws and Codes*
- State Laws and Codes*
- Local Ordinances and Codes*
- Additional Information*
-
- Return to CNAHC Home Page*

LOCAL GOVERNMENT TRIBAL CONSULTATION LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION
 915 CAPITOL MALL, ROOM 364
 SACRAMENTO, CA 95814
 (916) 653-4082
 (916) 657-5390 - Fax

Project Title: 101 Polk Street

Local Government/Lead Agency: Far Western Anthropological Research Group

Contact Person: Brian Byrd

Street Address: 2727 Del Rio Place

City: Davis **Zip:** 95618

Phone: 530-756-3941 **Fax:** 530-756-0811

Specific Area Subject to Proposed Action

County: San Francisco

City/Community: San Francisco

Local Action Type:

- General Plan
 General Plan Element
 General Plan Amendment
 Specific Plan
 Specific Plan Amendment
 Pre-planning Outreach Activity

Project Description:

The project site consists of two adjacent parcels on the west side of Polk Street, between Lech Walesa Alley and Hayes Street. There are no permanent structures on the property; a surface parking lot occupies both lots. The proposed project will remove the existing surface parking lot and construct a 14-story, 120-foot tall residential building with 163 rental dwelling units above a one-story subterranean parking garage. The project would require 16-18' of excavation bgs throughout the entire site.



Sacred Lands File Search and Native American Contacts List Request

Information Below is Required for a Sacred Lands File Search

USGS Quadrangle Name San Francisco North

Township T2S Range R5W Section(s) _____

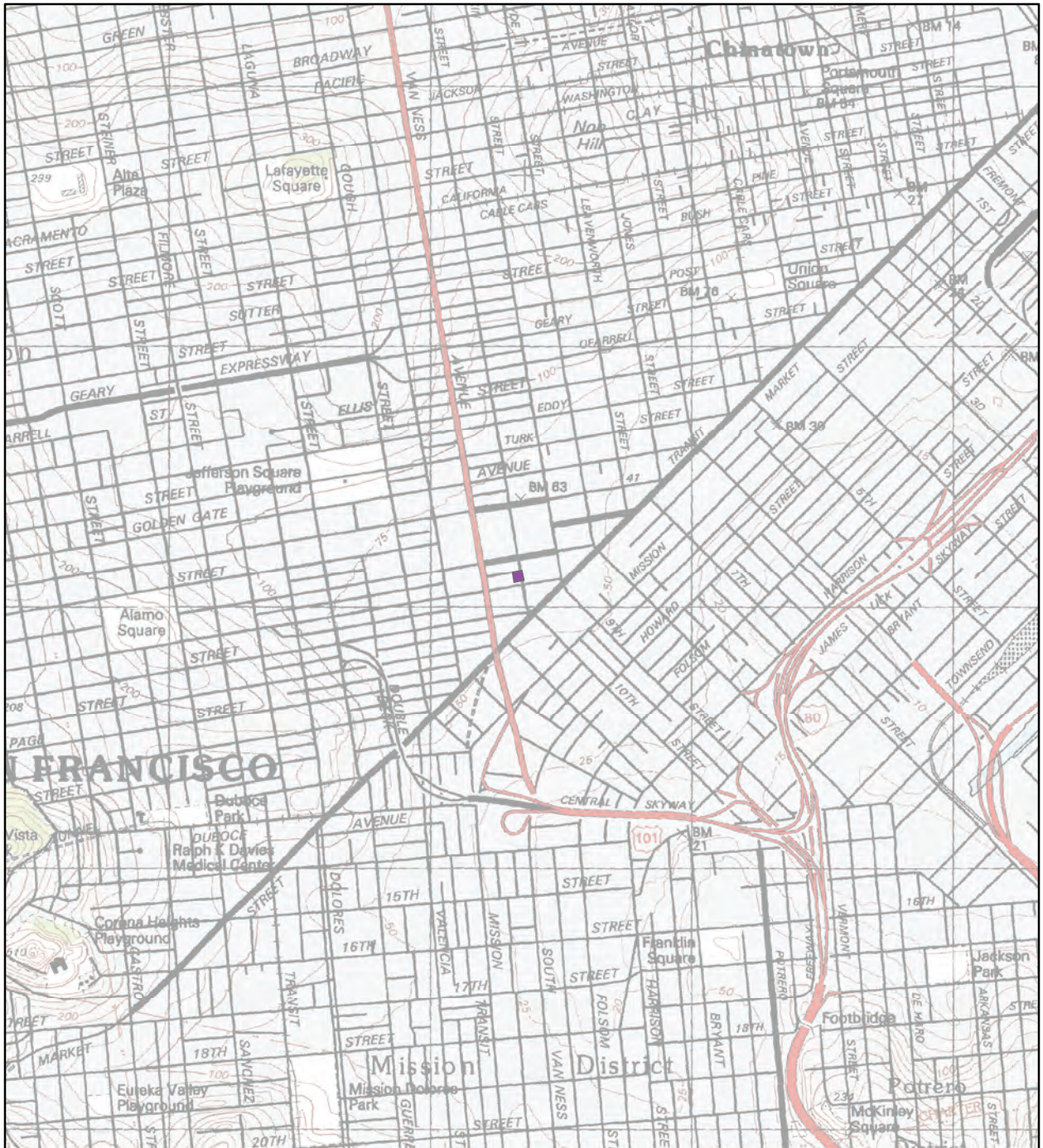
M B&M

NAHC Use Only

Date Received: _____

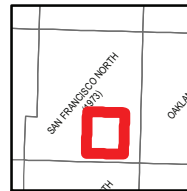
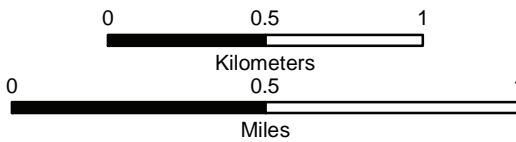
Date Completed _____

Native American Tribal Consultation lists are only applicable for consulting with California Native American tribes per Government Code Section 65352.3.



Portion of San Francisco North USGS 7.5' Quadrangle
 T2S R5W, M B&M
 San Francisco County, California

 101 Polk Street



STATE OF CALIFORNIA

Edmund Brown, Jr. Governor

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
Fax 916-373-5471



October 14, 2013

Brian Byrd
Far Western Anthropological Research Group
2727 Del Rio Place
Davis, CA 95618

Sent Via Fax: 530.756.0811
of Pages: 2

RE: 101 Polk Street Street project, Specific Plan, San Francisco County

Dear Mr. Byrd:

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places. Attached is a consultation list of tribes with traditional lands or cultural places located within the requested General Plan boundaries.

As a part of consultation, the NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed action.

A record search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area. Local governments should be aware, however, that records maintained by the NAHC and CHRIS are not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a cultural place.

If you receive notification of change of addresses and phone numbers from Tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at (916) 373-3710.

Sincerely,

A handwritten signature in black ink, appearing to read "Debbie Pilas-Treadway".
Debbie Pilas-Treadway
Environmental Specialist III

**Native American Contacts
San Francisco County
October 10, 2013**

Jakki Kehl
720 North 2nd Street
Patterson, CA 95363
(209) 892-1060

Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024
ams@indiancanyon.org
831-637-4238

Ohlone/Costanoan

Linda G. Yamane
1585 Mira Mar Ave
Seaside, CA 93955
rumsien123@yahoo.com
831-394-5915

Ohlone/Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
PO Box 360791
Milpitas, CA 95036
muvekma@muvekma.org
408-205-9714
510-581-5194

Ohlone / Costanoan

Amah/Mutsun Tribal Band
Irene Zwiertein, Chairperson
789 Canada Road
Woodside, CA 94062
irennezwiertein@gmail.com
(650) 851-7747 - Home
650-400-4806 cell preferred
(650) 851-7489 - Fax

Ohlone/Costanoan

The Ohlone Indian Tribe
Andrew Galvan
PO Box 3152
Fremont, CA 94539
chochenyo@AOL.com
(510) 882-0527 - Cell
(510) 687-9393 - Fax

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Amah/Mutsun Tribal Band
Jean-Marie Feyling
19350 Hunter Court
Redding, CA 96003
jmfgmc@sbcglobal.net
530-243-1633

Ohlone/Costanoan

Trina Marine Ruano Family
Ramona Garibay, Representative
30940 Watkins Street
Union City, CA 94587
510-972-0645-home
soaprootmo@msn.com

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
240 E, 1st Street
Pomona, CA 91766
rumsen@aol.com
(909) 524-8041 Cell
909-629-6081

Ohlone/Costanoan

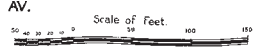
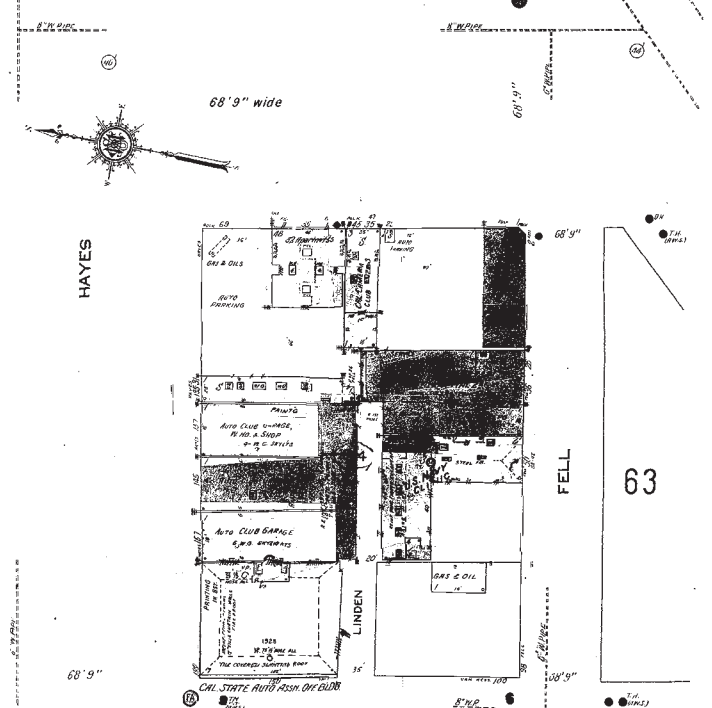
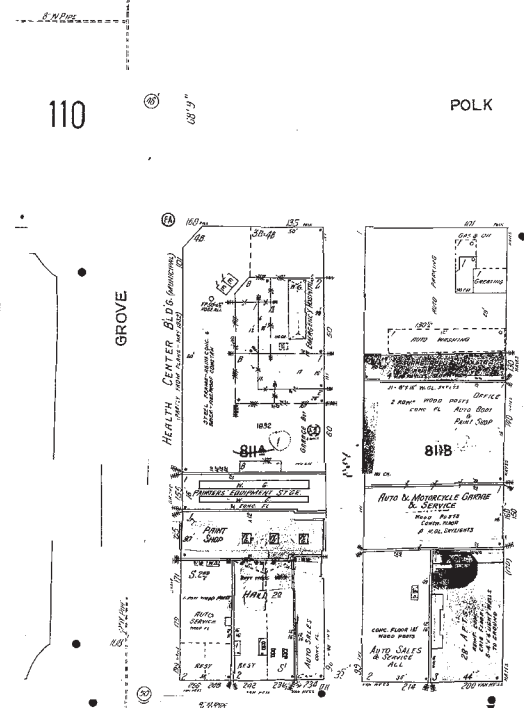
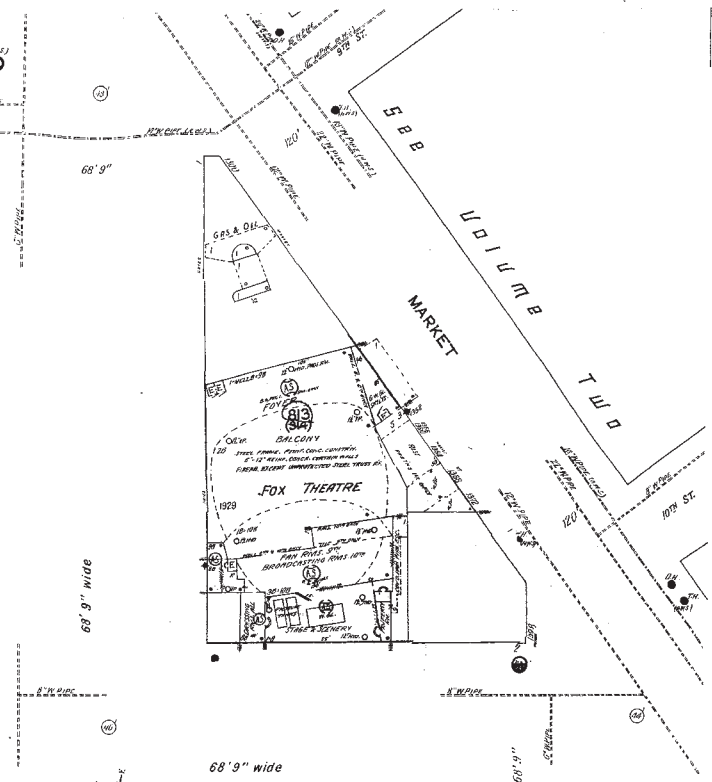
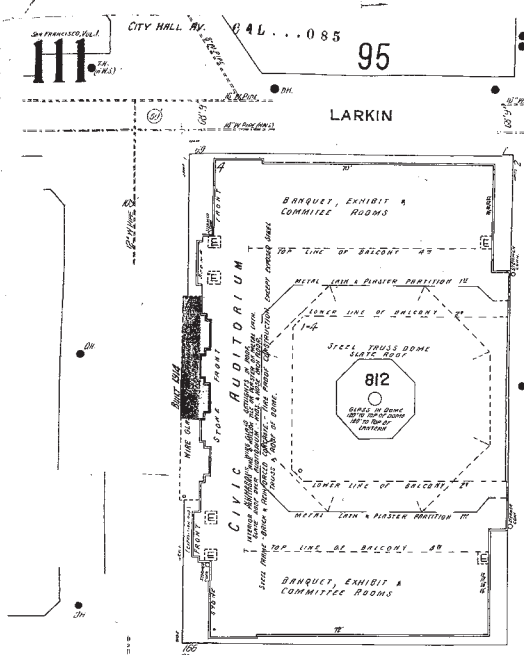
This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

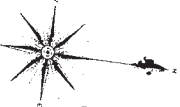
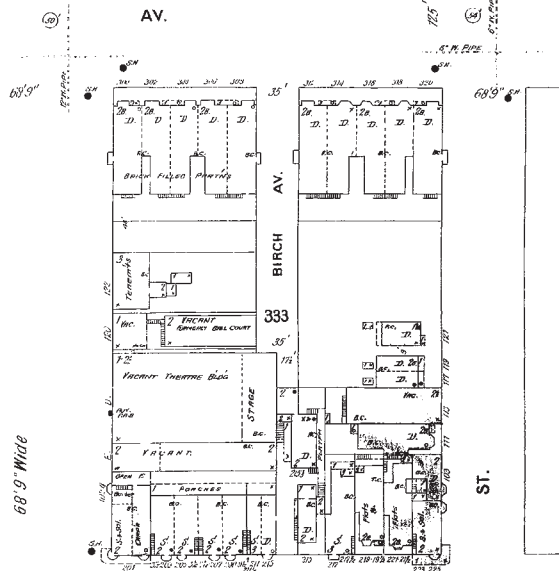
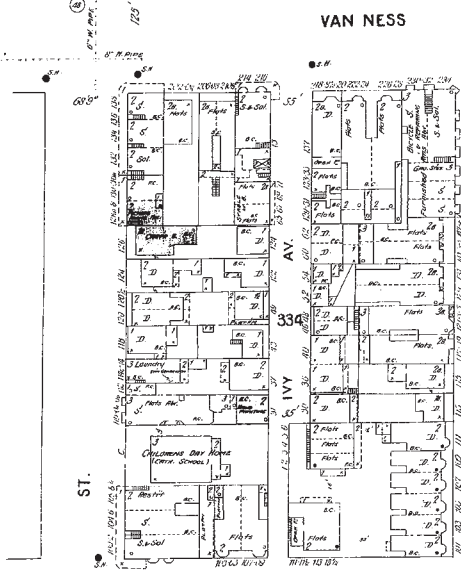
This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed 1751 Carroll Street project, San Francisco County

APPENDIX C

SANBORN MAPS OF THE PROJECT AREA



1886-1893 Sanborn Map

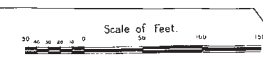
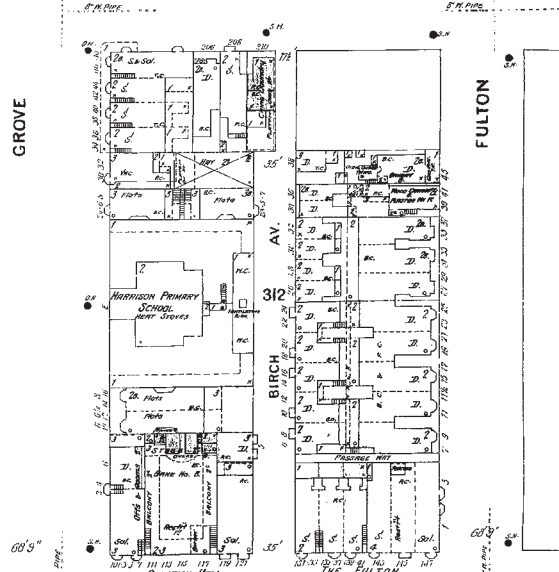
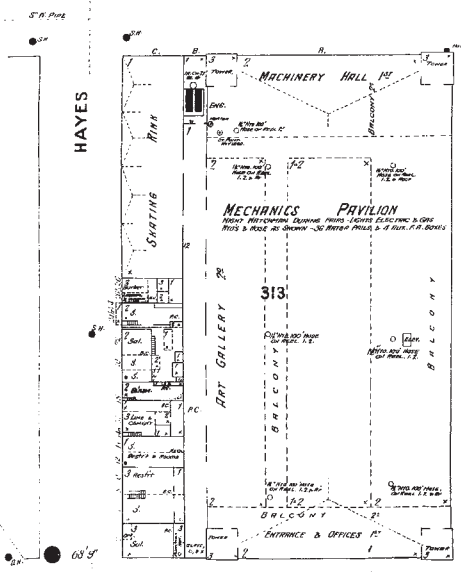


95

POLK

68'9" Wide

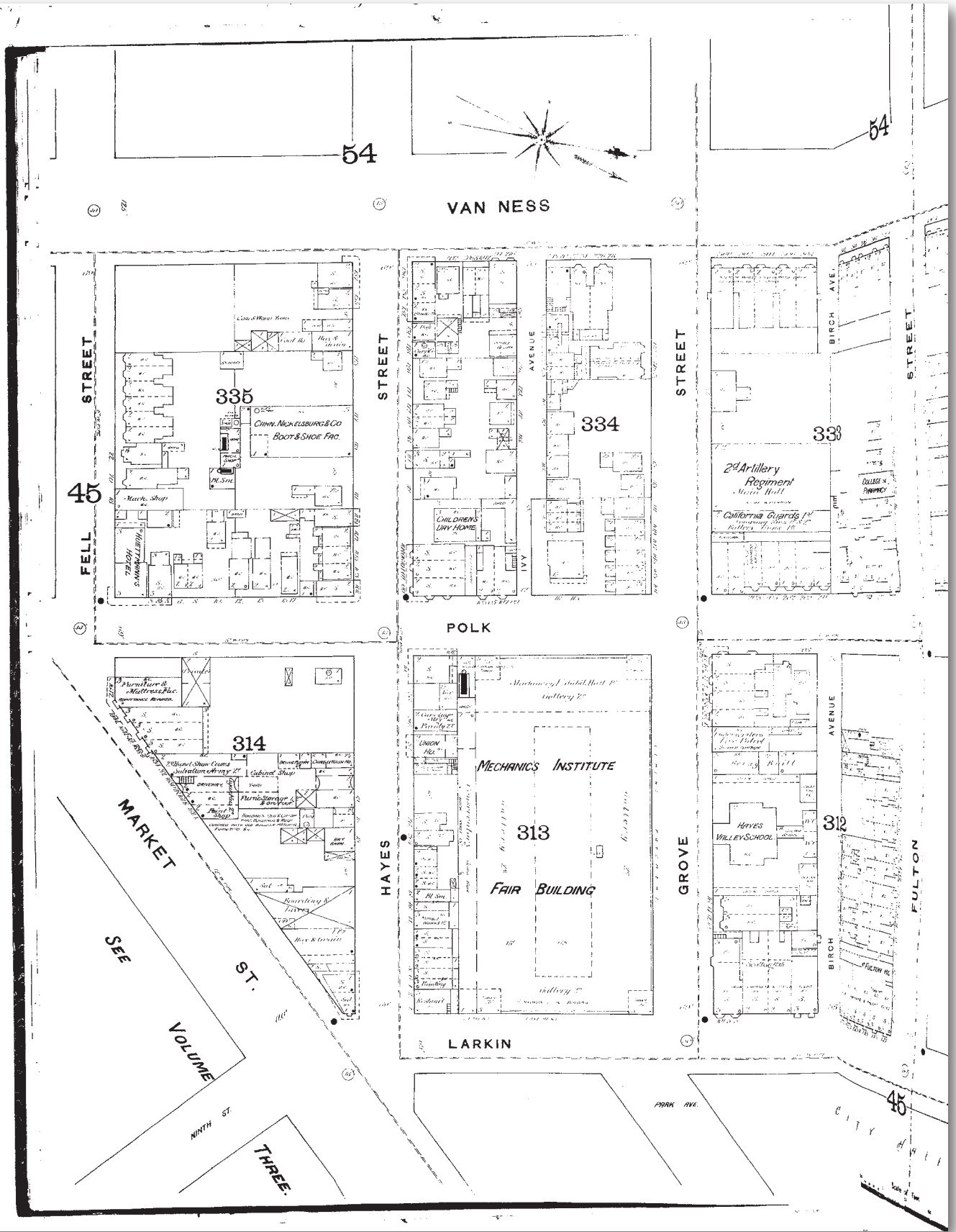
97



94

CITY HALL AV.

CITY HALL BLOCK



1913-1950 Sanborn Map



Revised 309 & Conditional Use Submittal
101 Polk Street, San Francisco

Emerald Fund, Inc.

Revised 309 & Conditional Use Submittal

Sheet List:

- 2 Area Summary / Drawing Index
- 3 Plot Plan
- 4 Site Photos
- 5 -6 Landscape Plans
- 7-13 Floor Plans
- 14 Open Space Diagram
- 15-18 Sections & Elevations
- 19-21 Perspectives
- 22-23 Contextual Precedents
- 24-28 Addendum

Residential Apartments		units/ flr.	2 Bedroom	1 Bedroom + Den	1 Bedroom	Large Studio	Small Studio	Residential NSF	Residential GSF	Market Rate GSF (Attrib. to FAR)	Mechanical Space	Parking	Retail (Leasing Office)	Loading Spaces	Circulation	GSF	
FFL Elevation (ft)	Flr.																
Average sf			1035sf	767sf	622sf	512SF	411SF										
135.00	15	Roof															
120.00	14	MECH/OPEN SPACE									2,703					2,703	
111.00	13		5		5		1	7,977	9,300	9,300						9,300	
102.00	12		5		6		2	8,892	10,190	10,190						10,190	
93.00	11		5		7		1	9,391	10,665	10,665						10,665	
84.00	10		5		7		1	9,258	10,540	10,540						10,540	
75.00	09		5		7		1	9,391	10,665	10,665						10,665	
66.00	08		5		7		1	9,258	10,540	10,540						10,540	
57.00	07		5		7		1	9,391	10,665	10,665						10,665	
48.00	06		5		7		1	9,258	10,540	9,003						10,540	
39.00	05		5		7		1	9,391	10,665	8,654						10,665	
30.00	04		5		7		1	9,258	10,540	8,351						10,540	
21.00	03		5		7		1	9,391	10,815	7,568						10,815	
12.00	02		4		8		1	9,299	10,815	8,149						10,815	
3.00	01		3		5		0	5,936	8,260	4,472		783	0		3,387	12,430	
-14.00	B1		0		0		0					11,294		320	1,509	13,123	
			162	62	0	87	0	13	116,091	134,200	118,761	2,703	12,077	0	320	4,896	154,196
				38%	0%	54%	0%	8%									

Notes:

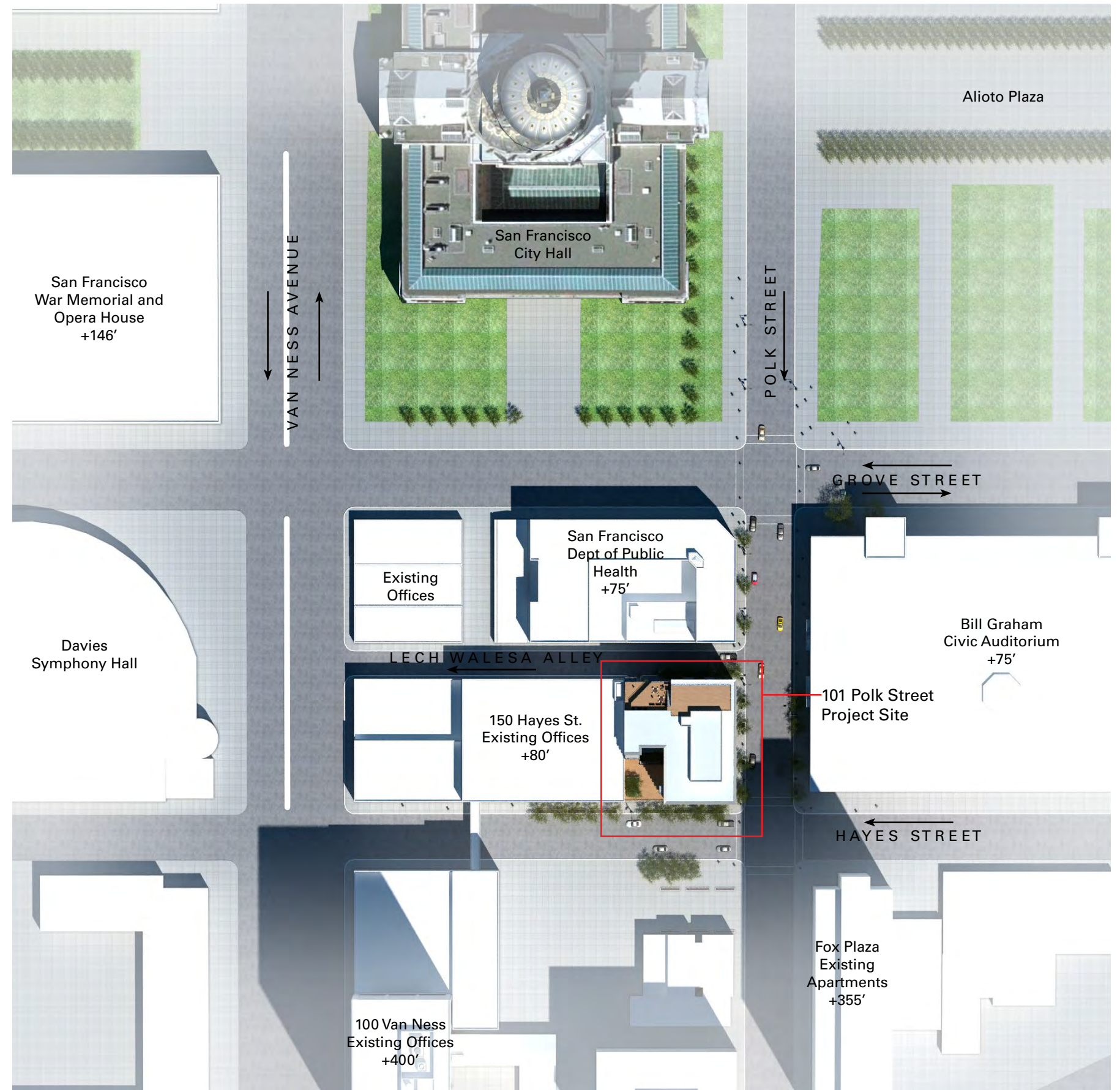
1. Parking @ 0.30 stalls/unit 51 stalls (using puzzler)
2. Site Area: 13,200 gsf
- 3a. FAR Limit: 6-9
- 3b. FAR Limit at 9:1 118,800 sf
- 3c. Total Residential Gross sf 134,200 sf
- 3d. BMR net sf excluded 13,356 sf
- 3e. BMR load excluded 2,083 sf
- 3f. Gross SF Mkt Rate Area 118,761 sf
- 3g. FAR Mkt Rate 9.00
4. Average Unit Size 717 sf
5. Project Load Factor 0.87 residential NSF/GSF
6. Bicycle Parking 53 Required 62 Provided
7. Car Share Parking 1 Required 1 Provided

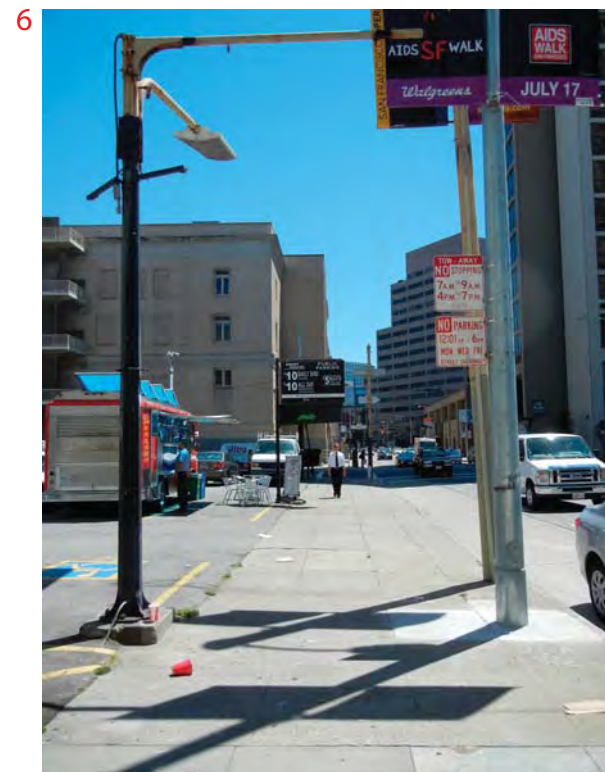
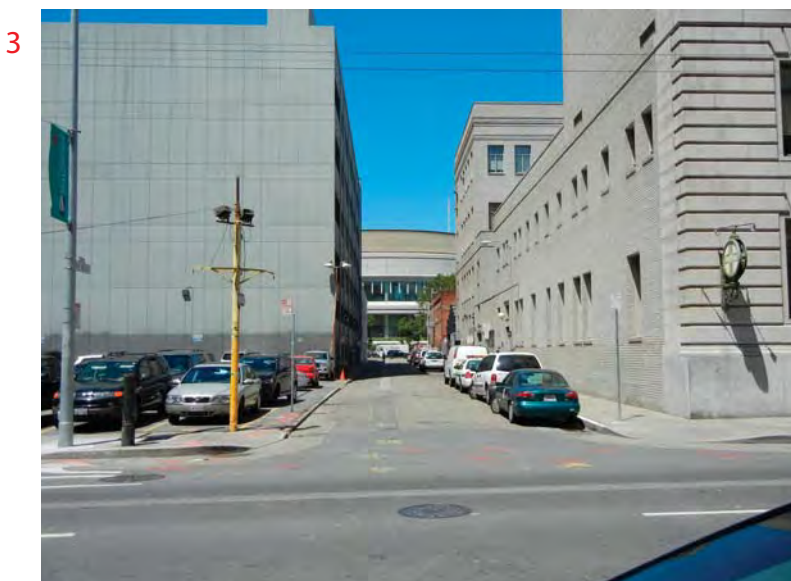
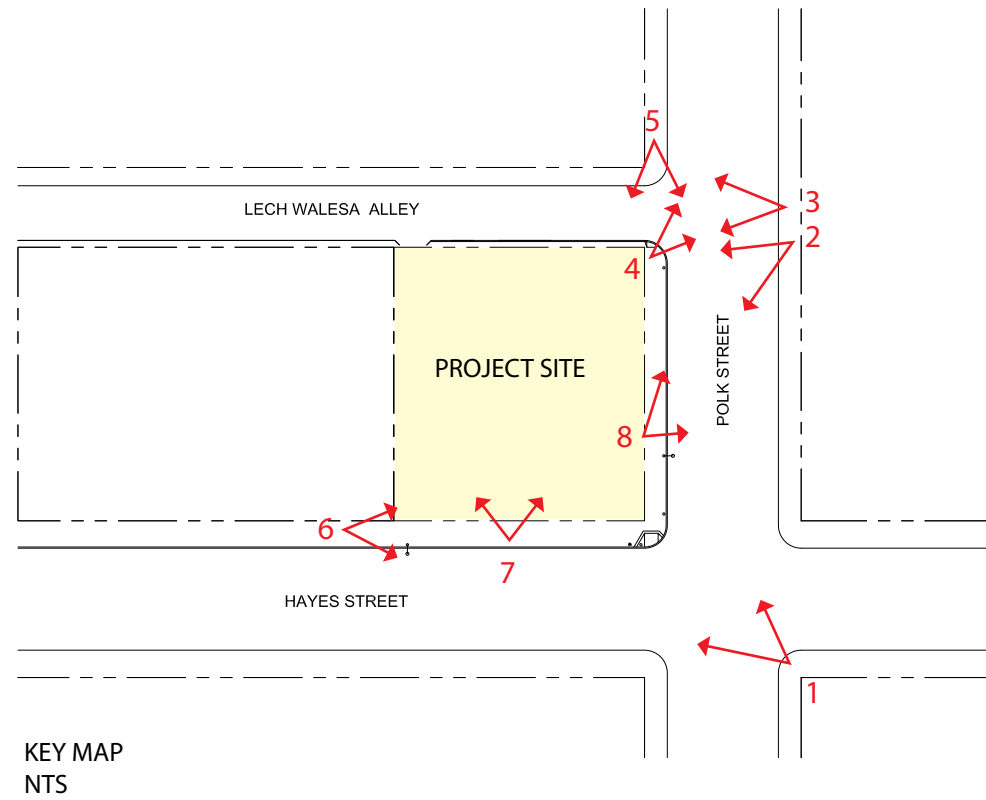
BMR Summary - 12%

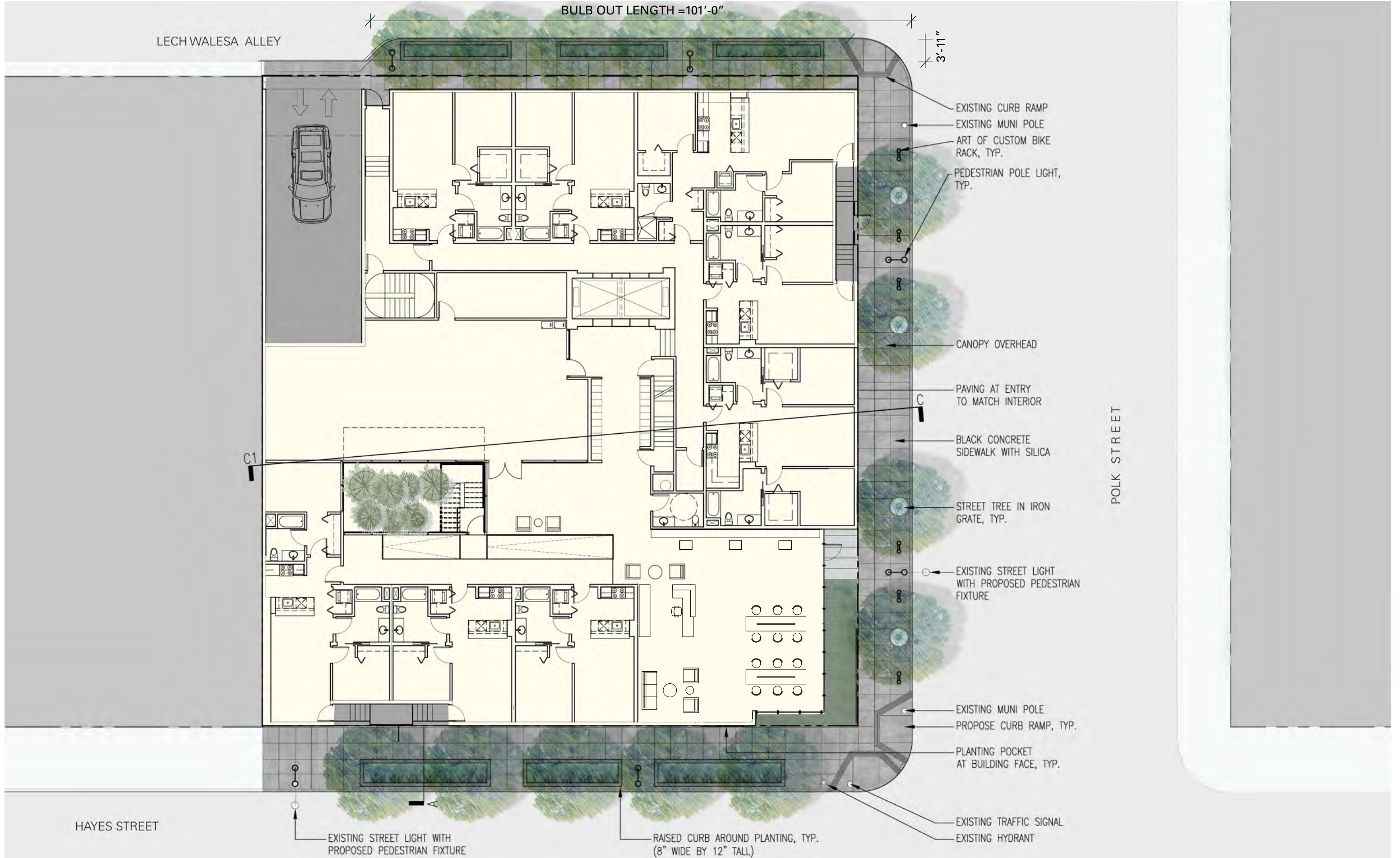
Unit Type	Unit Count	Avg Sq Ft	Total Sq Ft
Studio	2	455	910
1 Bed	10	597	5,971
2 Bed	7	925	6,475
Total	19	703	13,356

Open Space Summary			
	sf/unit	units	sf
Private Open Space Provided (balconies)		80	5,552
Common Open Space Required	48	82	3,936
Common Open Space Provided:			
Level 02 Outer court terrace			1,510
Level 13 Terrace			915
Level 14 Roof Terrace			1,575
Total Common Open Space Provided			4,000









LECH WALES A ALLEY

BULB OUT LENGTH = 101'-0"

3'-11"

- EXISTING CURB RAMP
- EXISTING MUNI POLE
- ART OF CUSTOM BIKE RACK, TYP.
- PEDESTRIAN POLE LIGHT, TYP.

CANOPY OVERHEAD

PAVING AT ENTRY TO MATCH INTERIOR

BLACK CONCRETE SIDEWALK WITH SILICA

STREET TREE IN IRON GRATE, TYP.

EXISTING STREET LIGHT WITH PROPOSED PEDESTRIAN FIXTURE

EXISTING MUNI POLE
PROPOSE CURB RAMP, TYP.

PLANTING POCKET AT BUILDING FACE, TYP.

EXISTING TRAFFIC SIGNAL
EXISTING HYDRANT

EXISTING STREET LIGHT WITH PROPOSED PEDESTRIAN FIXTURE

RAISED CURB AROUND PLANTING, TYP. (8" WIDE BY 12" TALL)

POLK STREET

HAYES STREET

Ground Floor Landscape
101 Polk Street, San Francisco
 Emerald Fund, Inc.

04.25.2013

2013005.000

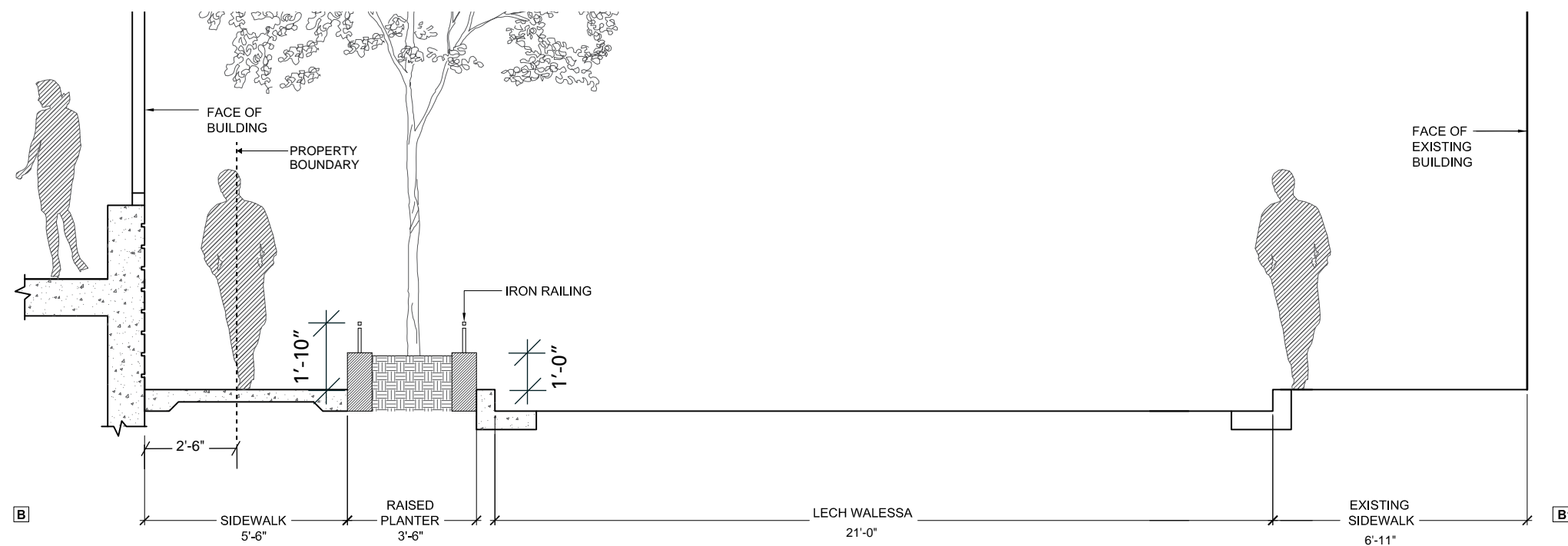


© 2013 Solomon Cordwell Buenz



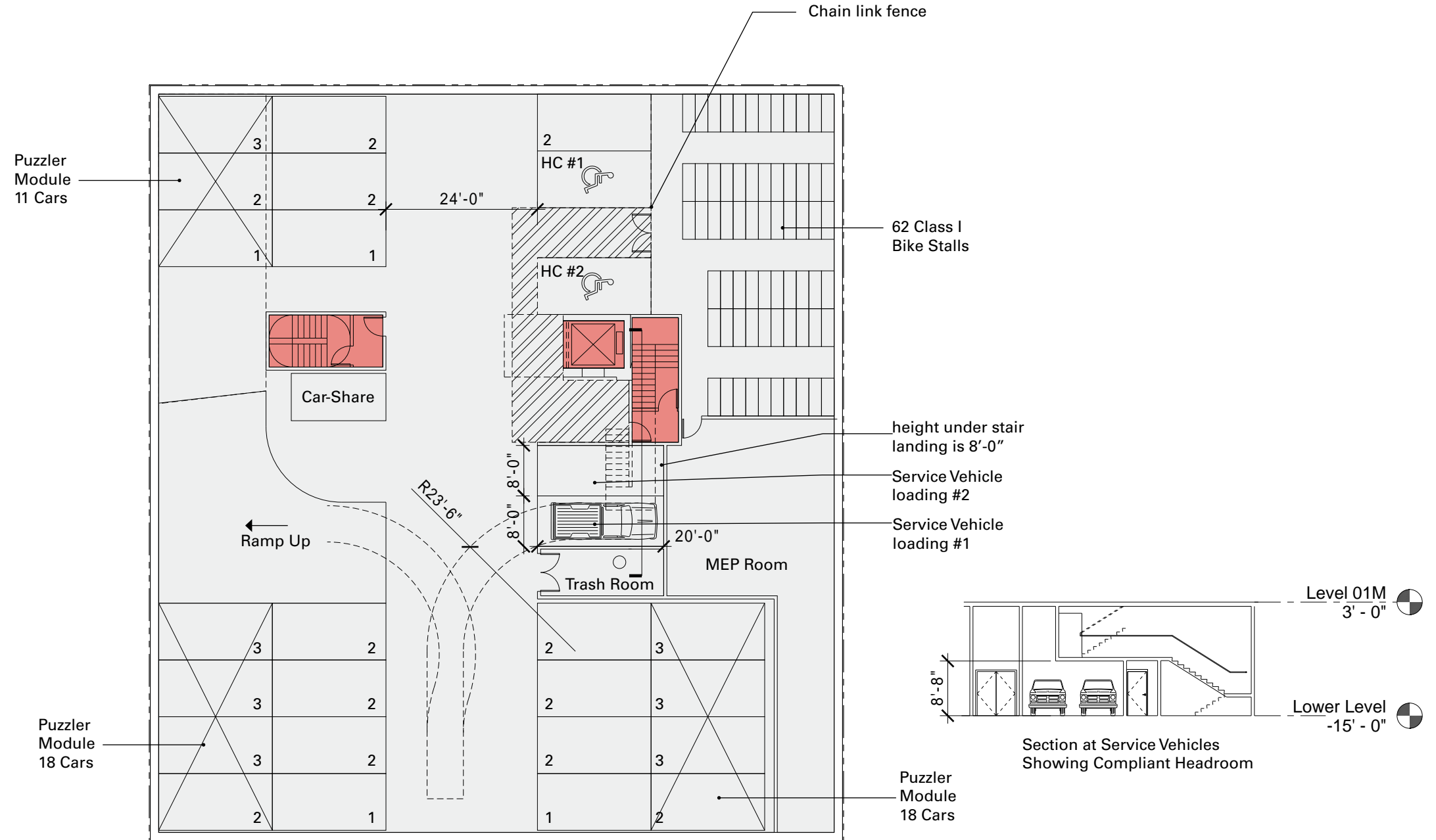


SCALE: 3/32" = 1'-0"



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

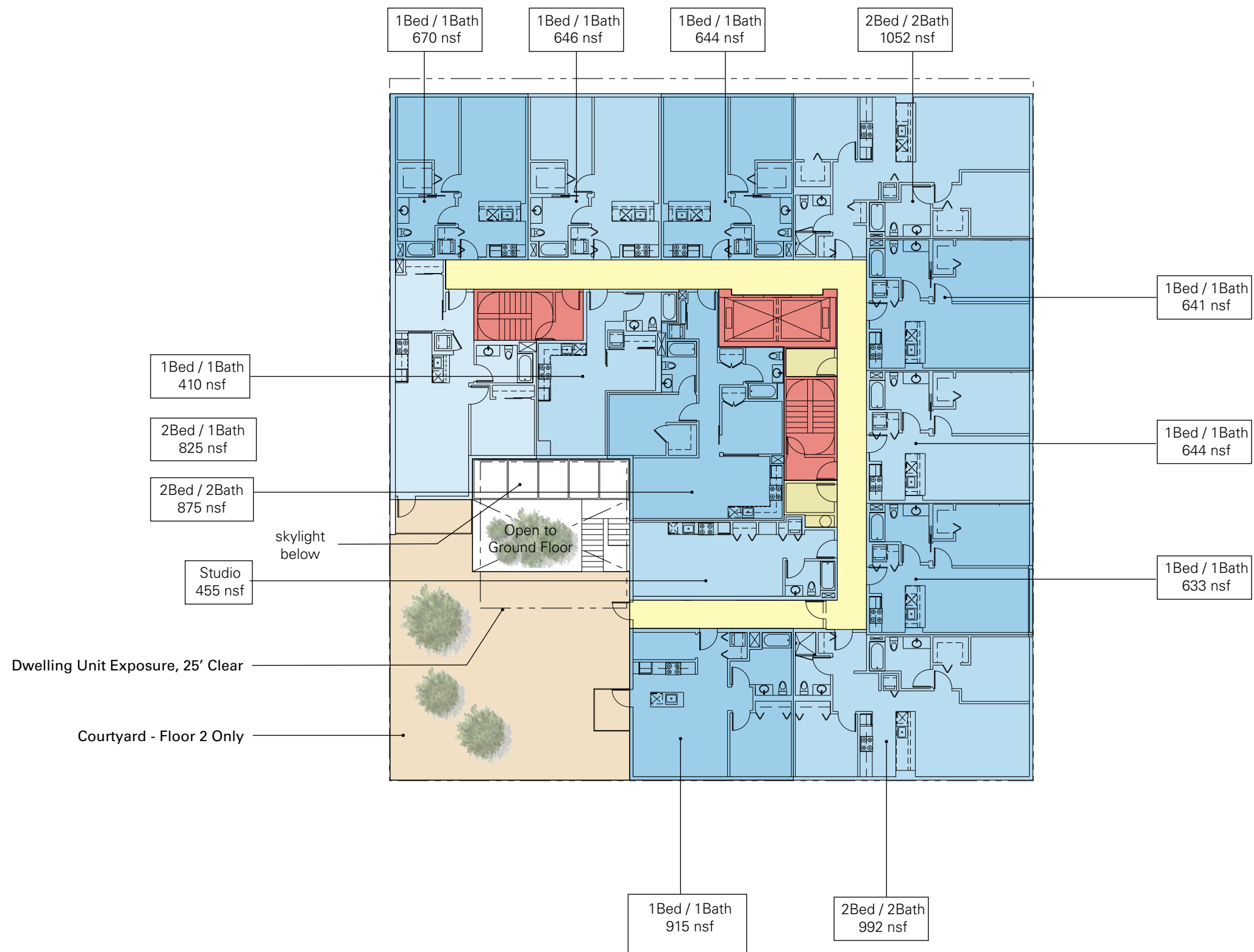


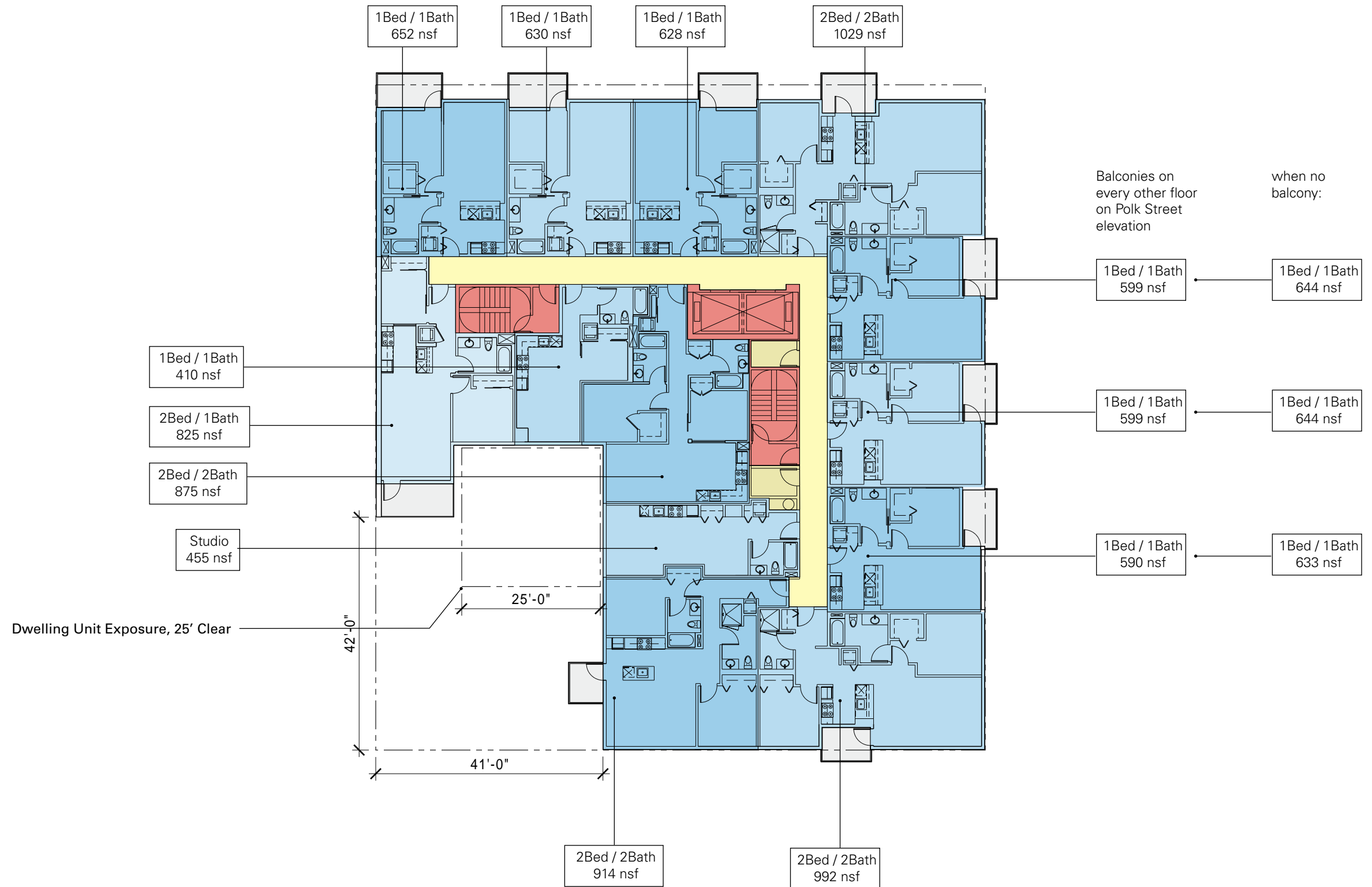


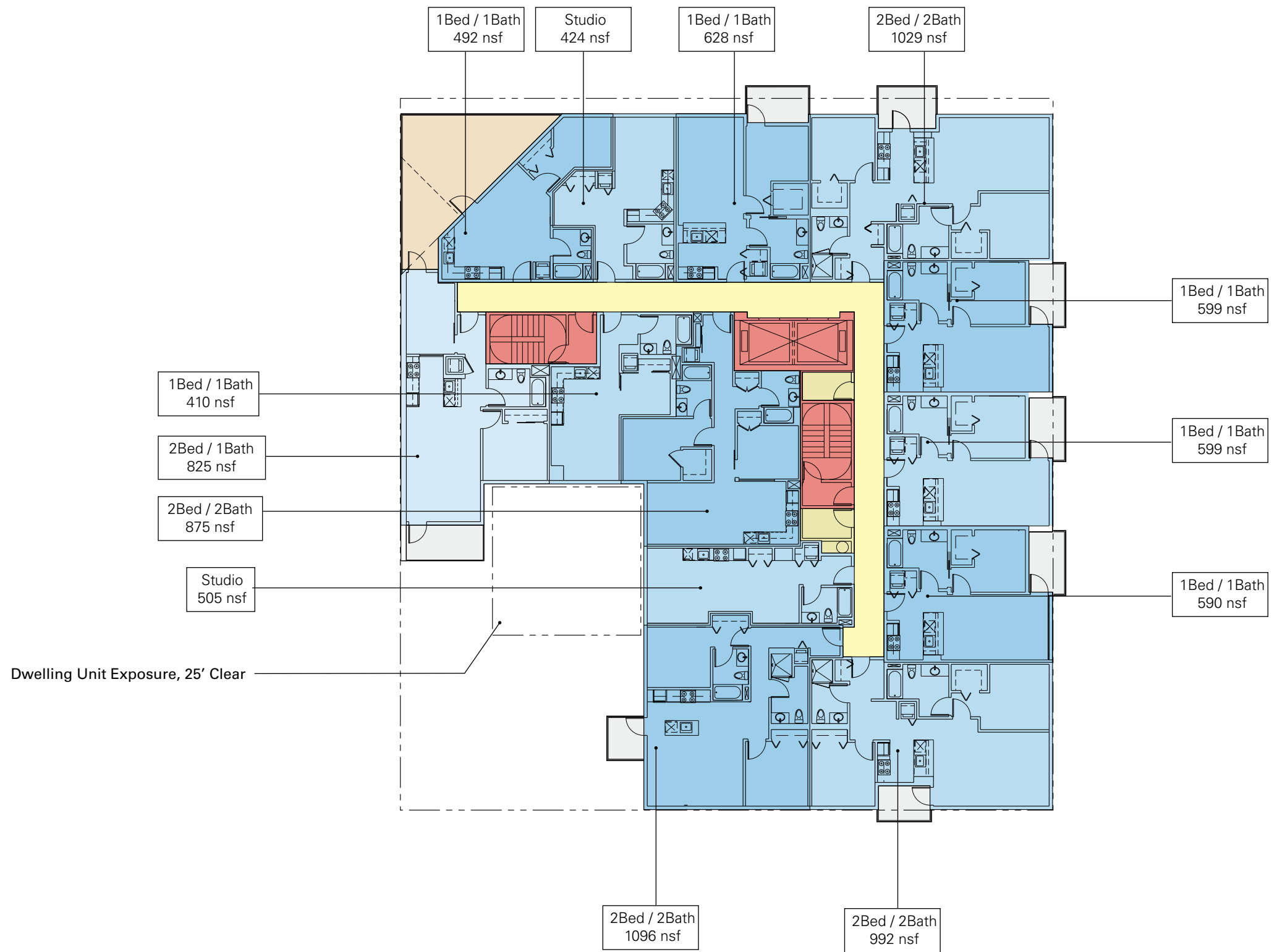
Parking for 51 Cars,
2 Service Vehicles & 1 Car Share
-15'-0" (14' Clear Headroom)

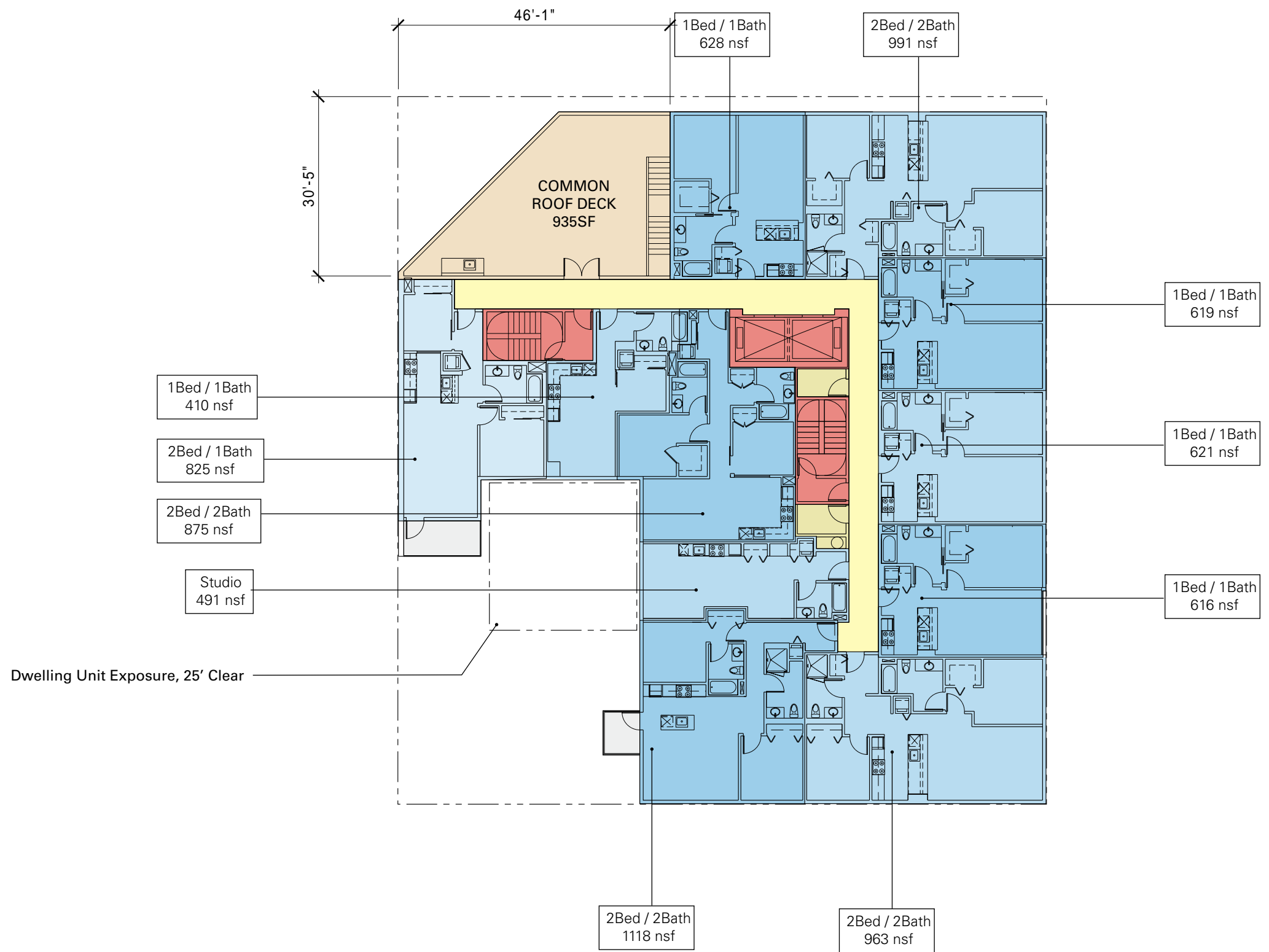


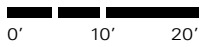
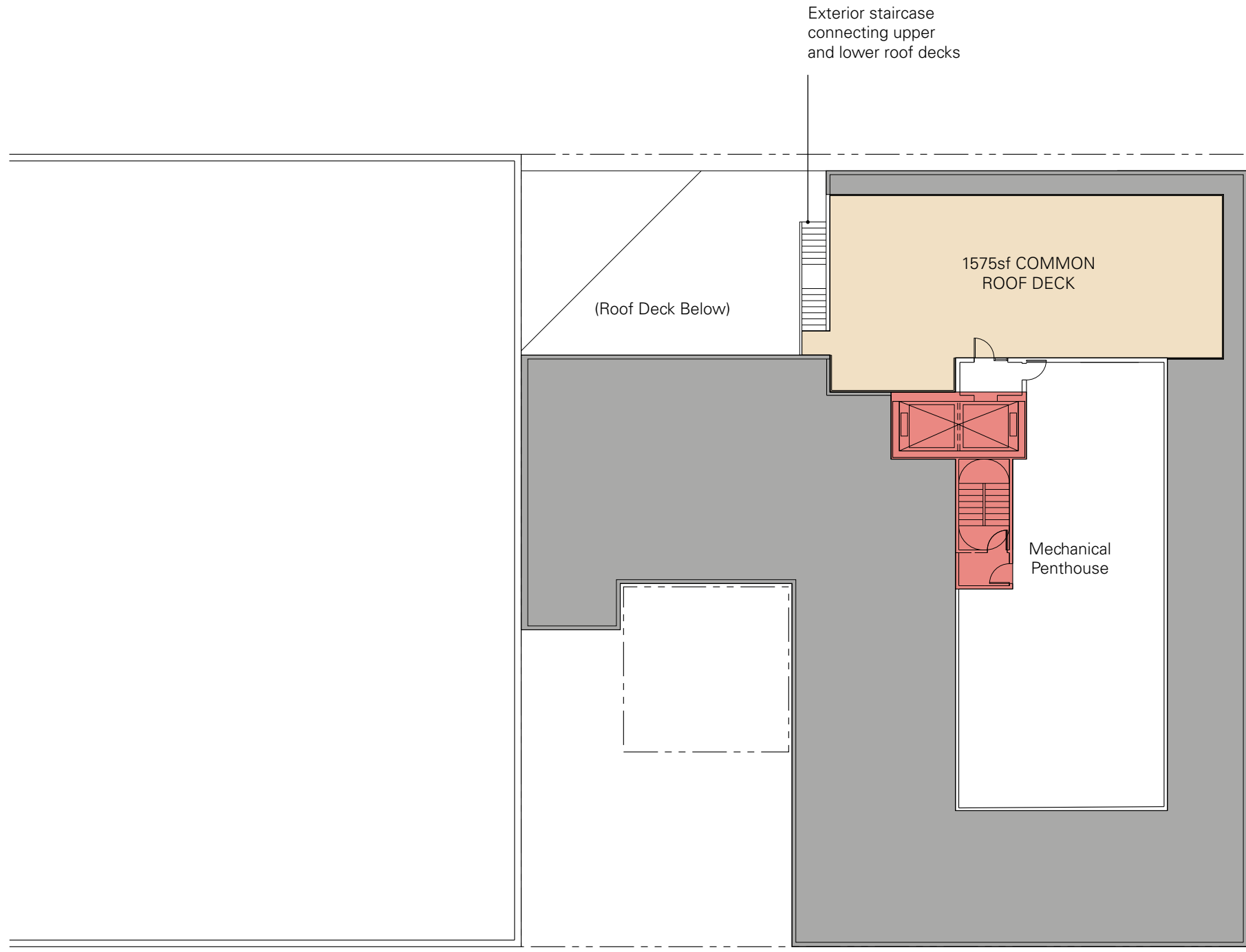


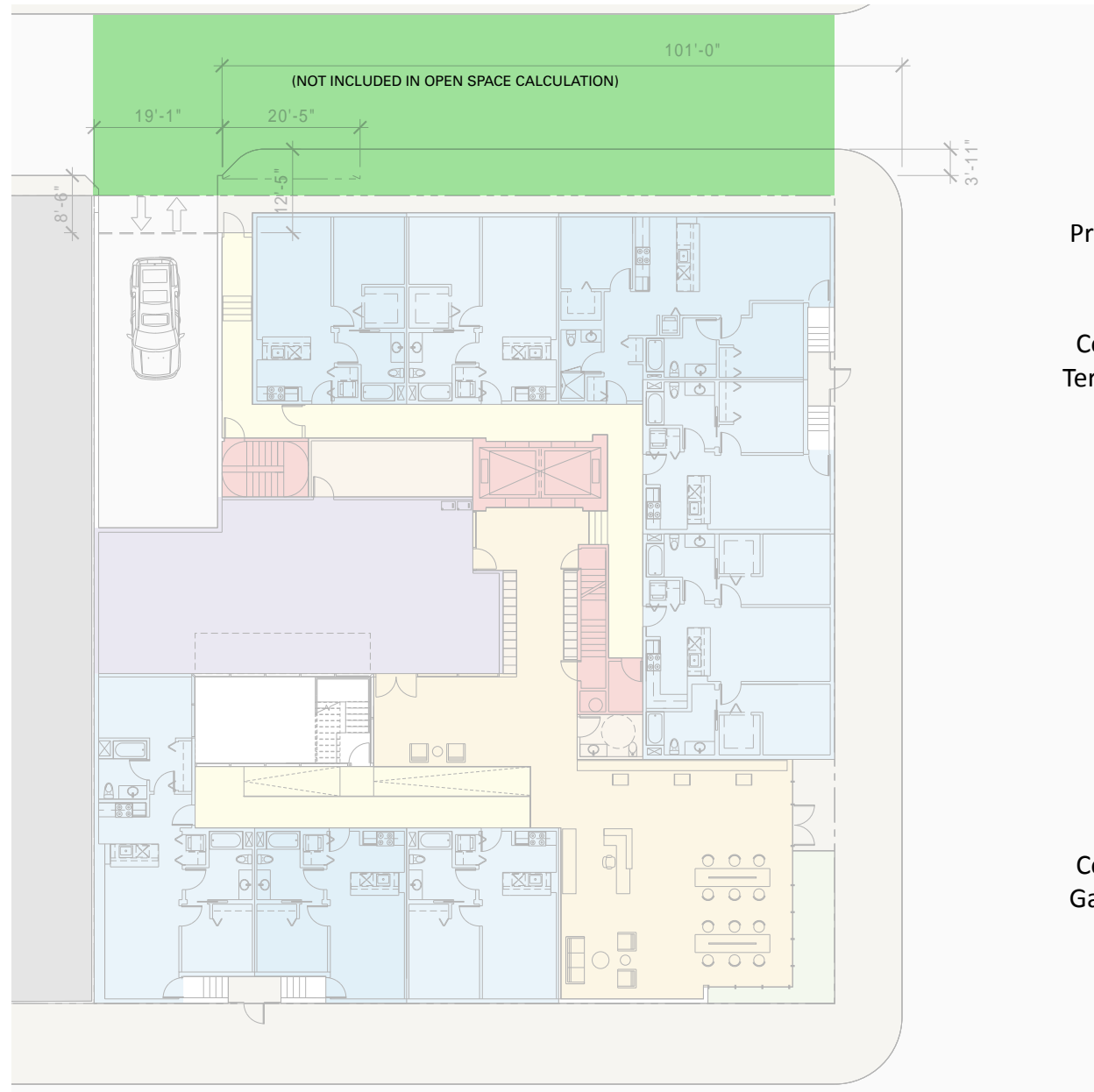






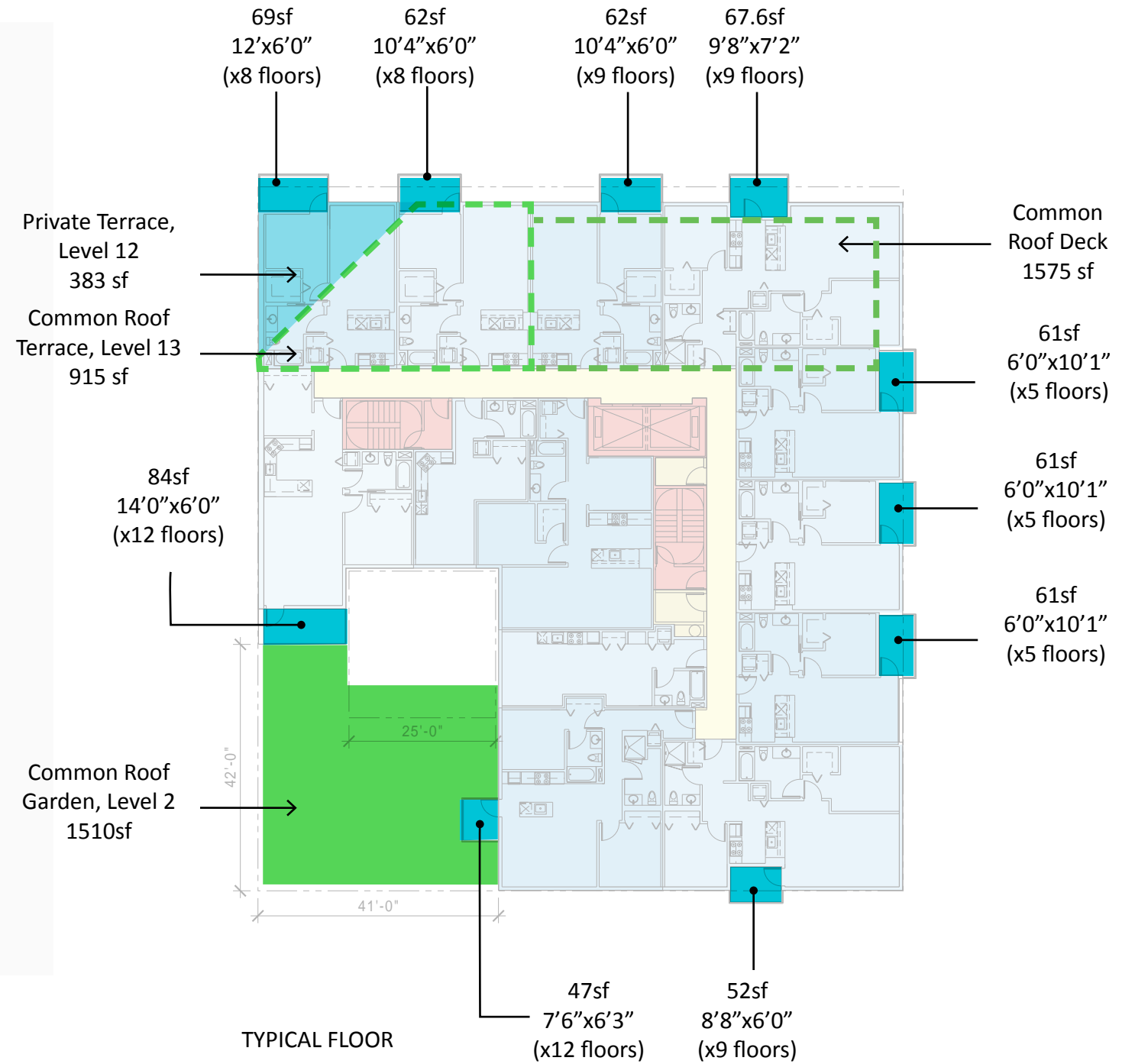






GROUND FLOOR

Open Space Summary			
	sf/unit	units	sf
Private Open Space Provided (balconies)		80	5,552
Common Open Space Required	48	82	3,936
Common Open Space Provided:			
Level 02 Outer court terrace			1,510
Level 13 Terrace			915
Level 14 Roof Terrace			1,575
Total Common Open Space Provided			4,000

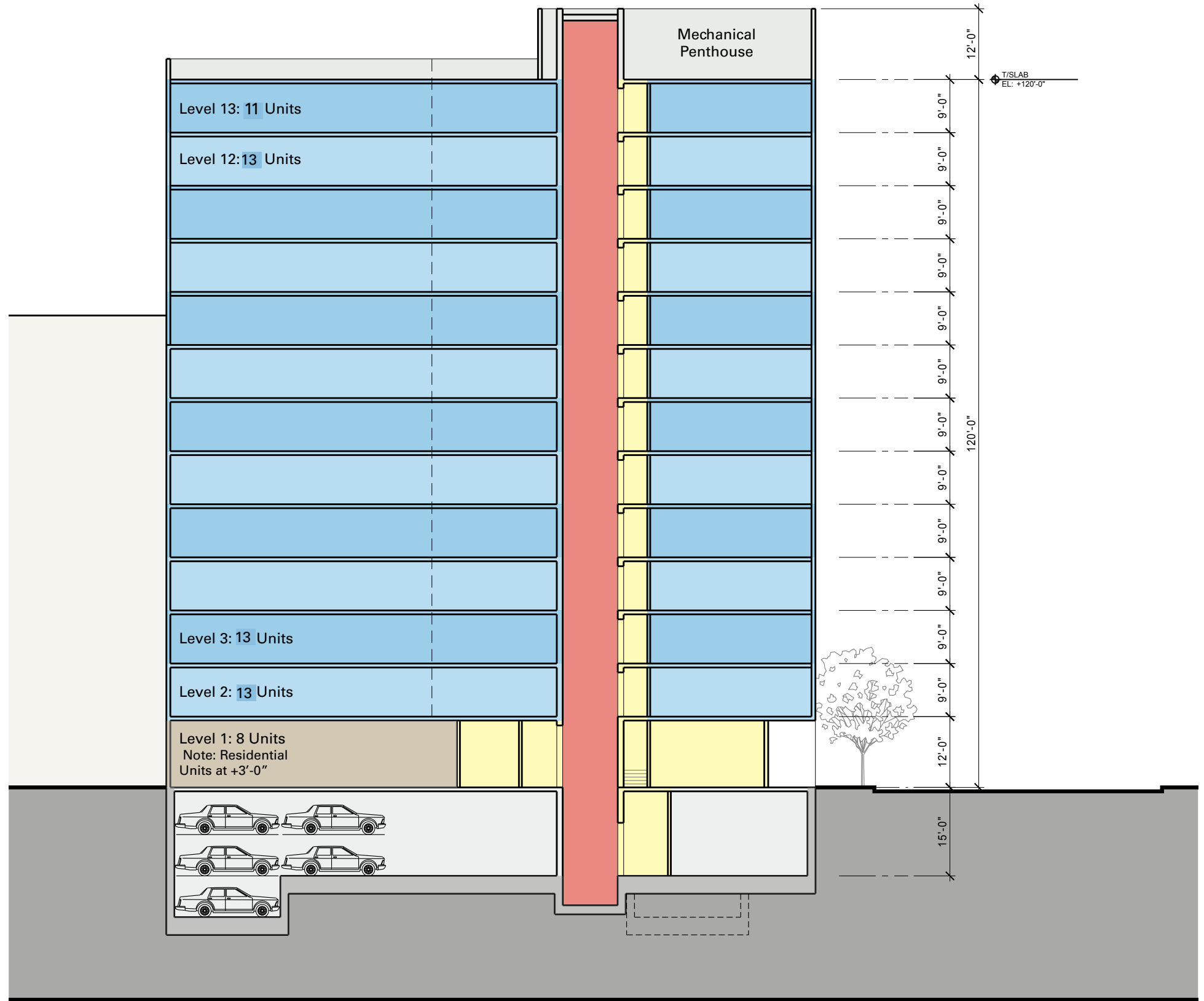


TYPICAL FLOOR

SUMMARY

 COMMON OPEN SPACE	4,000sf
 PRIVATE OPEN SPACE	5,552sf







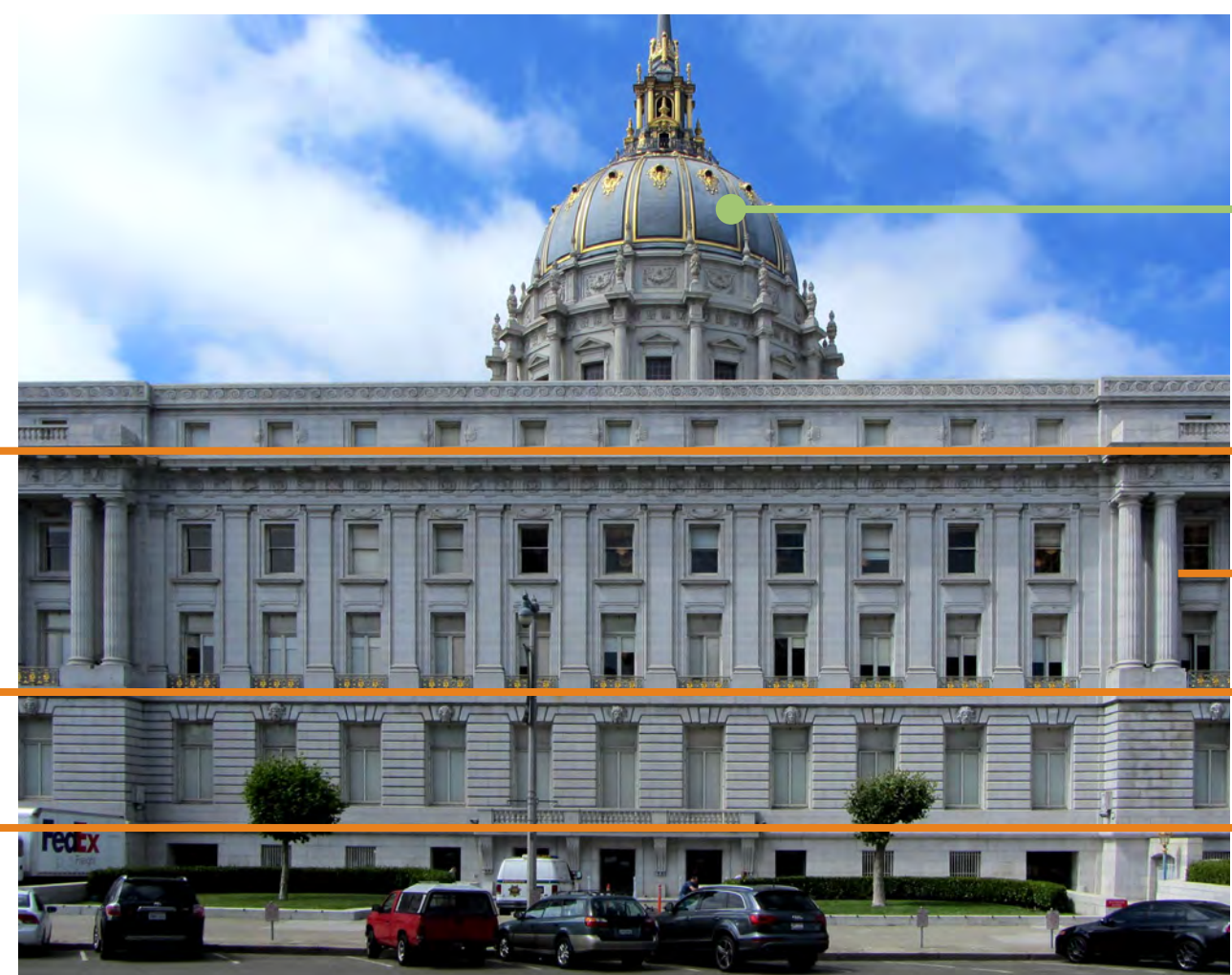












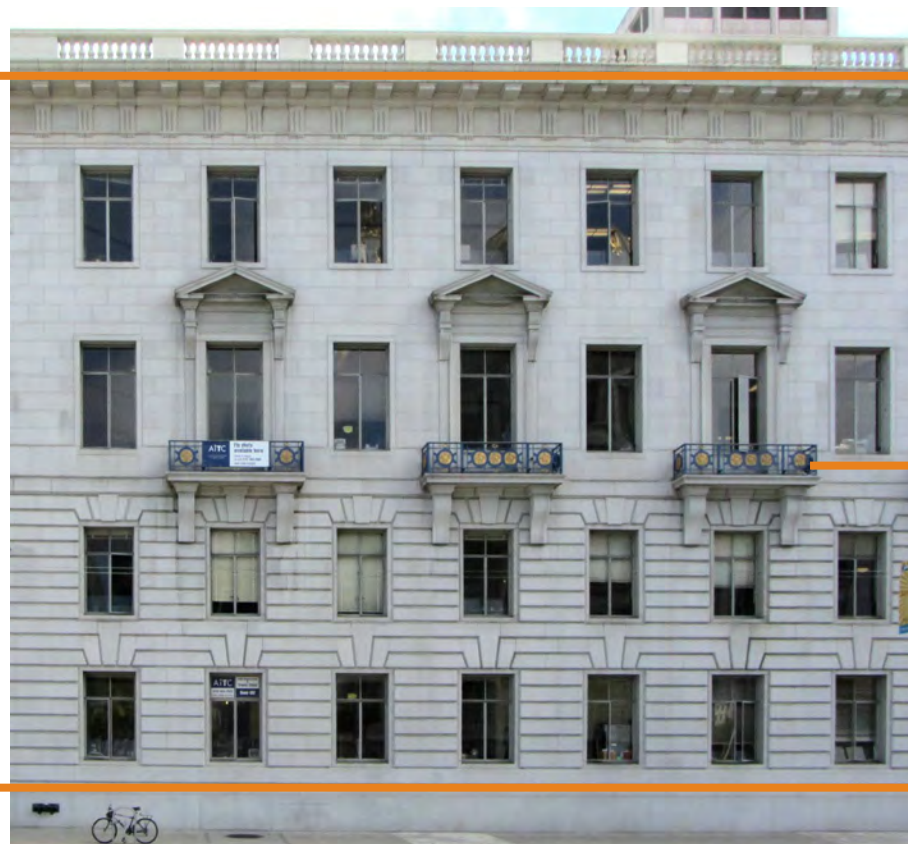
Metal Accents

Strong Cornice Line

2 Story Facade Rhythm

Top of Base Defined by Change of Materials

Subtle Change of Material Scale within the Base



Strong Cornice Line

Individual Balconies with Metalwork

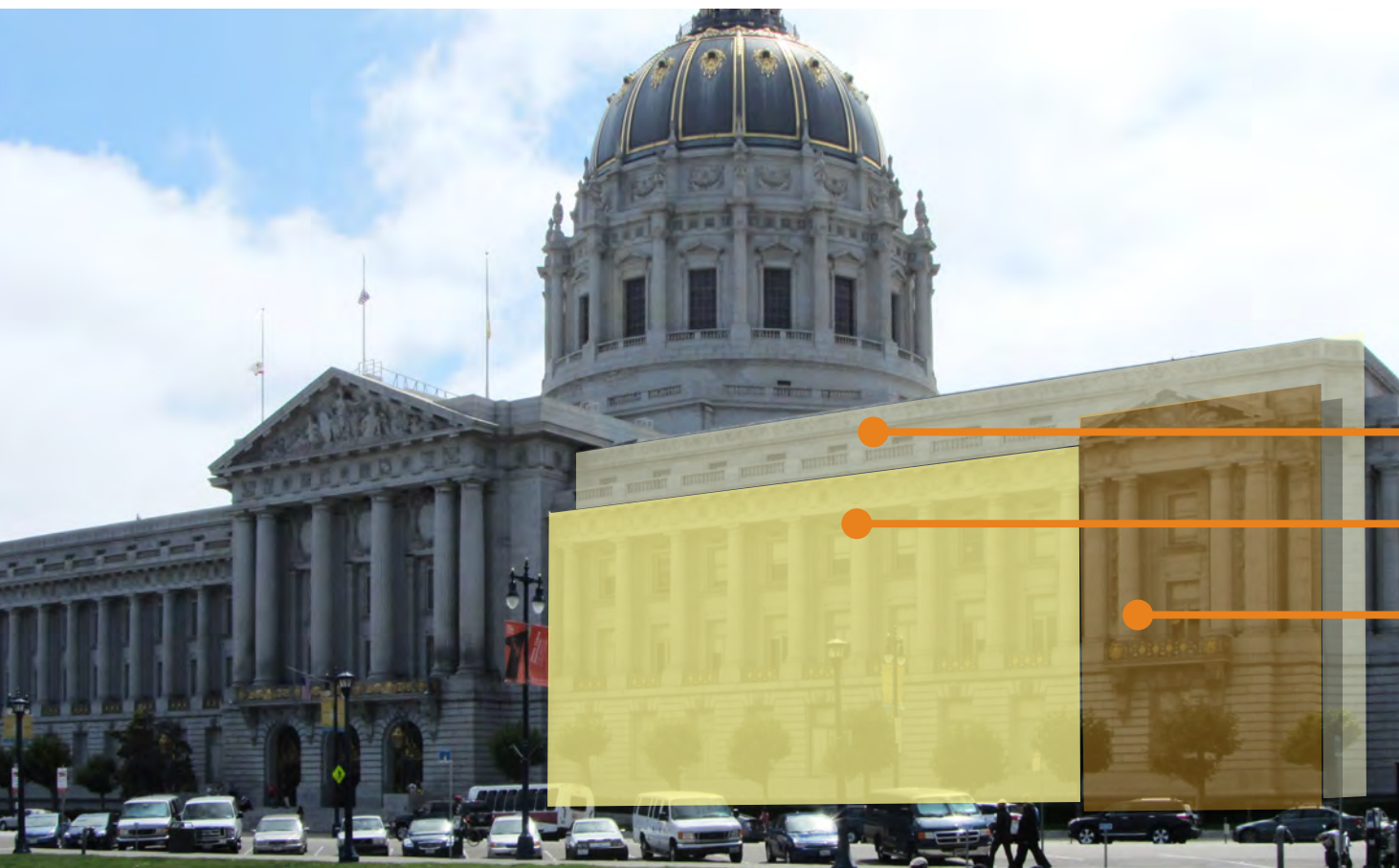
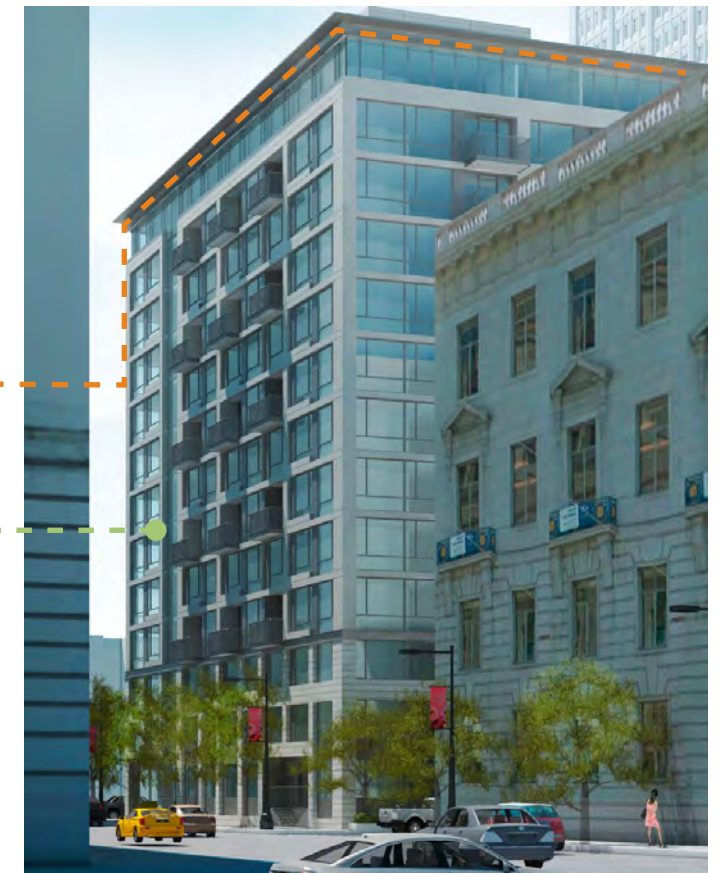
Subtle Change of Material Scale within the Base





Cornice Line Continues Around the Building

Metal Accents



Attic Story

Building Mass Grouping Breaks Down Building Scale

Solid Corners

