

**ADDENDUM
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

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June 2014

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SUMMARY OF FINDINGS

This is an Addendum to an initial *Cultural Resources Sensitivity Assessment* (Byrd et al. 2009) for buried archaeological resources beneath Van Ness Avenue for the Bus Rapid Transit Project, San Francisco, California. The project will reconfigure the existing roadway cross-section to provide for dedicated bus lanes and transit platforms, while upgrading pedestrian safety and urban design features. The deepest, most extensive project impacts will occur during linear sewer relocation across almost the full length of the project area, stopping at Lombard Street on the north. The project requires compliance with Section 106 of the National Historic Preservation Act and the California Environmental Quality Act.

This addendum meets three primary objectives recommended during the initial study and requested by the State Historic Preservation Office—determine the potential for buried sites in areas through a detailed cut-and-fill reconstruction of the project area and focused documentary research; identify high sensitivity areas for potential presence/absence testing; and determine if project activities could impact high sensitive areas.

Research first identified the natural dune landscape of the project area and changes over time based on historical maps and soil surveys. Then, digitized elevation contours from an 1859 US Coast Survey map were used to create a three-dimensional digital elevation model of the project area topography as it was depicted in the mid-1800s. This was compared against a 33-foot (10-meter) digital elevation model of the region from 1999, identifying the relative degree of landscape change (i.e., cut or fill) within and around the project corridor. Historic-period maps were then used to identify recent use and occupations around and within the project area.

The corridor was divided into three parts based on amount of cut-and-fill and historic-period activities—southern (Area 1), central (Area 2), and northern (Area 3). Area 1 and most of Area 2 are covered in substantial amounts of fill, so the depth of project impacts (a maximum of 12 feet) would not reach pre-1859 levels, therefore avoiding any potential buried prehistoric resources. In addition, the most likely location for prehistoric habitation sites is a band ca. 750 meters (ca. 2,460 feet) wide extending along the Bay shoreline. Project construction, therefore, has a reasonable potential to impact prehistoric cultural resources only in the northern part of the project area (Area 3) where there is minimal fill.

Documentary research identified phases of commercial and residential development, raising of street levels, and instillation and upgrading of urban infrastructure along the project corridor. The only location identified as having a high likelihood for potentially significant historic-period remains to be impacted by project construction was the Laguna Survey tract within Area 3, a residential settlement dating from the early 1800s until the 1890s and laid out at an angle across the eventual Van Ness Avenue alignment. There is a high likelihood that intact domestic artifact deposits from the 1840s-1890s are extant in backyard areas and could be encountered by project construction at this location.

Subsurface testing, for both prehistoric and historic-period resources, within Area 3 is recommended immediately after the road surface has been removed, prior to construction. Field methods and research issues to identify National Register of Historic Places significance would be presented in an approved Treatment Plan. Initial backhoe/core testing would determine the presence and depth of the intact surface, and mechanical removal of fill coupled with hand-excavations would be undertaken to identify potential cultural deposits. Field and laboratory methods, findings, analyses, and interpretations would be documented in a mitigation report.

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1. INTRODUCTION

This Addendum presents an archival study that assesses the potential for intact, possibly significant archaeological remains preserved beneath Van Ness Avenue for the Bus Rapid Transit Project, San Francisco, California (Figures 1, 2, and 3). It focuses on the entire 2.25-mile- (3.6-kilometer-) long study area (Figure 1; Appendix A).

The San Francisco County Transportation Authority, in cooperation with the Federal Transit Administration and the San Francisco Municipal Transportation Agency, proposes to reconfigure the existing Van Ness Avenue roadway cross-section to provide for dedicated bus lanes and transit platforms, while upgrading pedestrian safety and urban design features. Left- and right-turn pocket locations would be adjusted to smooth traffic flow and reduce conflicts with transit. The project requires compliance with Section 106 of the National Historic Preservation Act (16 USC 470 et seq.) and the California Environmental Quality Act (CEQA; Public Resources Code Section 21000 et seq.), which mandate federal and California public agencies to consider the effects an undertaking may have on historic properties.

The initial *Cultural Resources Sensitivity Assessment* for buried prehistoric resources in the project area (Byrd et al. 2009:35) rated project segments as low to high sensitivity based on geomorphic setting, distance to water, and potential for soil erosion or burial. A detailed cut-and-fill reconstruction of the project area was recommended to refine the identification of high sensitivity areas for potential presence/absence testing. Assessment for historic-period archaeological sensitivity consisted solely of inspection of previously recorded resources and identification of the types of potentially significant resources that might be present in the project area based on similar urban sites and environments. Byrd et al. (2009:31) recommended the next steps to be taken for evaluating potential project impacts on historic-period resources:

Evaluating the potential for these occurrences relies on assessing the nature of prior occupations and the extent of subsurface disturbance during subsequent construction activities. Evaluations of specific locations can be made using documentary studies once project plans are finalized. [Byrd et al. 2009:31]

This document presents this focused research based on 30%-level preliminary engineering drawings. It addresses three archaeological issues necessary to identify the potential for the project to impact important historic or prehistoric archaeological remains in the station locations: (1) were there human groups living in the project area who could have left potentially significant remains?; (2) if such remains exist, were they likely to survive modern cut-and-fill activities along Van Ness Avenue?; and (3) if such remains survived, are they likely to be impacted by the proposed project?

STUDY AREA DESCRIPTION

Van Ness Avenue in the City and County of San Francisco, is a key north-south arterial, also designated as US 101, connecting freeway entrances and exits to the south with Lombard Street and the Golden Gate Bridge to the north. The general setting of the project corridor is urban and includes institutional and cultural centers, commercial enterprises, and residential uses. Van Ness Avenue is a conventional six-lane facility carrying a mix of cars, trucks, and bus transit, along with pedestrian and bicycle traffic. The proposed Bus Rapid Transit would be implemented along a 2.25-mile stretch of Van Ness Avenue (including a one-block portion of South Van Ness Avenue), from Mission Street on the south to Lombard Street on the north. The project features dedicated bus lanes, one northbound and one southbound, separated from regular traffic, and high-quality stations. Each station has an elevated



Figure 1. Project Vicinity.



Figure 2. Project Location.

platform, canopy for weather protection, passenger seating, vehicle arrival time information, landscaping, and other amenities. Platforms would be large enough to safely and comfortably accommodate waiting passengers, long enough to load two vehicles, and designed to provide Americans with Disabilities Act accessibility. Existing transit stops would be consolidated to reduce delays, and the overhead contact system and supporting poles/streetlights would be replaced from Mission Street in the south to North Point Street in the north. Project improvements would be confined largely within the right-of-way along Van Ness Avenue.

It was determined that the most significant impacts would be from relocation of the street sewer lines which, under the Locally Preferred Alternative, would occur for the length of project improvements between Mission and Lombard streets, and have extensive impacts to depths of 11.5 feet. While other impacts reach greater depths (e.g., support poles), their small diameters reduce their potential impact and preclude additional research/testing; this is also true for small, shallow-impact construction work (one to five feet; Table 1).

Table 1. Anticipated Construction Areas and Excavation Depths.

CONSTRUCTION ITEM	AREA	DEPTH (FEET)
Overhead Contact System Support Pole Replacement	3.0-foot-diameter excavation area, within sidewalk; located throughout project limits.	11.0
Overhead Contact System Conduit Trench	2.0-foot-wide trench, within sidewalk; located throughout project limits.	3.0
Sewer Pipeline Relocation	6.0-foot-wide trench, within street; replace or relocate within the Bus Rapid Transit lanes under Project Build Alternative 3 and the Locally Preferred Alternative; relocate outside of platform areas proposed under Project Build Alternative 4; replace with twin sewers over parking and outside lanes on Van Ness Avenue between Mission and Lombard streets under the Locally Preferred Alternative.	11.5
Traffic Signal Poles	3.0-foot-diameter excavation area; located at intersections throughout project limits.	16.0
Controller Cabinets	2.5-x-4.0-foot excavation area; located within the sidewalk at intersections throughout project limits.	3.0
Curb Bulbs and Sidewalk Reconstruction	Approximately 30 feet of full-width sidewalk disturbance area; located at intersections throughout project limits (varies by project alternative).	1.5
Pavement Rehabilitation	Curb-to-curb rehabilitation or resurfacing under each project alternative.	0.7
Pavement Reconstruction	Spot improvements as needed to travel lanes and parking lanes to remedy failed pavement areas.	1.5
New Pavement	22.0-foot-wide area within median throughout project limits, under Project Build Alternative 3 and at station locations under the Locally Preferred Alternative.	1.5
Station Platform	An 8.0- to 14.0-foot-wide by 150.0-foot-long area at platforms; platform locations vary by project alternative.	1.0
Station Canopy Foundation	2.5-foot-diameter excavation area at platforms; platform locations vary by project alternative.	5.0

Therefore, areas where significant direct impacts may occur along Van Ness Avenue are between Mission and Lombard Streets where replacement sewer lines are being installed (see Figure 3). As the exact routes of the sewer lines have not yet been finalized, the impact area is assumed to be the current width of Van Ness Avenue.

For our purposes, the project area has been divided into three sections based on cut-and-fill (see Chapter 2 and Figure 5) and historic research (see Chapter 3 and Appendices B and C):

- Area 1 extends south of Market Street to the southern end of the project area (0.16 miles). Potential remains of early prehistoric and historic-period occupations would be covered by the deep fill in this section. However, Van Ness Avenue did not extend here until the 1920s, so

remains associated with residential and commercial buildings built on top of the fill between 1870 and 1930 could be present.

- Area 2 covers much of the project length (1.47 miles) where Van Ness Avenue was developed along its present alignment in the mid- to late-nineteenth century, requiring substantial fill.
- Area 3 is the northern extent of the project area (0.62 miles) and includes the location of a settlement related to the historic Laguna Survey Tract (ca. 1800-1890). This area also incorporates potential Native American habitation areas due to its proximity to the Bay and the absence of fill in some areas.

2. RESEARCH ON PREHISTORIC ARCHAEOLOGICAL SENSITIVITY

It has become increasingly apparent that the present distribution, preservation, and visibility of the archaeological record have been strongly influenced by large-scale landscape changes throughout California. Recent geoarchaeological studies emphasize that these changes have produced a significant bias in the types of archaeological deposits that can be identified through traditional pedestrian survey, and underscore the correlation between buried archaeological deposits and the presence of now-buried land surfaces (Meyer 1996, 2000; Meyer and Dalldorf 2004; Meyer and Rosenthal 1997, 2008; Meyer et al. 2010; Rosenthal 2011; Rosenthal and Meyer 2004a, 2004b).

Relatively few sites pre-dating the Late Holocene (~4000 cal BP) have been found in the San Francisco Bay Area. Two factors undoubtedly have played a role in the dearth of evidence in the region prior to this: (1) occupation, at least initially, was low in density and as a result the material record is sparse and rarely preserved; and (2) much of the earlier archaeological record is buried by later alluvial deposition and urban development. As a result, very little is known regarding the nature of local and regional settlement and subsistence practices and the pace of culture change during the first several thousand years that Native Americans occupied the region. Because most of the buried sites identified in the Bay Area are more than 2,000 years old (some are more than 9,000 years old), it seems likely that much of the early archaeological record is buried and has yet to be discovered.

If the archaeological record has been structured by large-scale landscape changes, the problem of archaeological representativeness cannot be further clarified or resolved if the issue is not explicitly addressed. In this regard, the lack of geoarchaeological studies is an ongoing problem for researchers seeking to understand demographic and socioeconomic changes and site distribution patterns in the region (Meyer and Rosenthal 1997). Consequently, the discovery and analysis of previously unidentified (e.g., buried) archaeological sites are crucial for archaeological inquiry because without new or comparative data, many important questions regarding chronology, settlement, and subsistence cannot be properly confirmed, denied, or refined beyond our present understanding.

GEOLOGICAL HISTORY AND LANDSCAPE EVOLUTION

The San Francisco Bay Area has undergone a series of significant large-scale environmental changes since the late Pleistocene, when people may have first entered and inhabited the region. During the last glacial maximum, some 22,000 years ago, vast ice sheets covered the northern part of the continent, and the climate in central California was considerably cooler than at any time since. Worldwide sea levels were at least 328 feet (100 meters) lower than today, and the California coastline was located some 15 to 31 miles (25 to 50 kilometers) west of its current position (Atwater et al. 1977; Bard et al. 1996; Helley et al. 1979).

At that time, the combined runoff from the Sacramento and San Joaquin rivers merged to form the "California River" (Howard 1979), which passed through the Carquinez Straits and into the "Franciscan Valley" (Axelrod 1981), now occupied by San Francisco Bay. The smaller streams and rivers draining the South Bay also joined this massive drainage as it flowed west through the Golden Gate and across the continental shelf, where it eventually emptied into the Pacific Ocean near the modern-day Farallon Islands (Atwater et al. 1977; Axelrod 1981). Thus, instead of a "bay," there was a broad inland valley that supported grassland and riparian plant and animal communities.

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. For instance, between 13,500 and 11,000 cal BP¹, sea levels rose about 40 meters, at an astounding average rate of about 16 meters every 1,000 years (Bard et al. 1996). This dating coincides with the earliest known evidence for human occupation in the region. The sea continued to rise at an average rate of about 22.0 feet (6.7 meters) per 1,000 years between 11,000 and 9000 cal BP, submerging much of the western continental shelf.

As such, local drainages at the glacial maximum did not run directly into the Bay as they do today. Instead, a tributary of other South Bay streams and rivers flowed northward across a "pre-bay" valley before reaching the combined channel of the Sacramento and San Joaquin rivers near Angel Island. San Francisco Bay of recent times—the large estuary that includes San Pablo and Suisun bays and the Carquinez Strait—began to take shape with rising sea levels at the end of the Pleistocene.

During the Latest Pleistocene and Early Holocene (~15,000 to 9,000 years ago), there was a rapid and cumulative rise in sea level that totaled some 230 feet (~70 meters). This caused the Pacific shoreline to migrate eastward into the lower reaches of what is now San Francisco Bay. Between 7000 and 6000 cal BP, a dramatic decrease in worldwide sea level rise (Stanley and Warne 1994) allowed sedimentation to keep pace with inundation, which permitted the formation of extensive tidal-marsh deposits during the Middle Holocene (Atwater et al. 1979). As base levels rose, the lower reaches of 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 identified beneath the Bay (Atwater et al. 1977:Plate 1; Lee and Praszker 1969:60-63; Louderback 1951:90; Story et al. 1966; Treasher 1963:Figure 5).

During the late Holocene (>4,000 years ago), 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 Bay margins. Radiocarbon dates from Palo Alto Marsh and lower Colma Creek indicate that these deposits were generally formed during the past 2,000 years (Atwater et al. 1979:349; Price 1981).

Intense drought conditions during the late 1800s reduced vegetation cover and made the landscape susceptible to erosion (Burcham 1982:171), as did many of the activities associated with historic-era settlement and rapid population growth. In many places, thick deposits of artificial fill were placed around the margins of the Bay to reclaim marshes and wetlands for urban development (Lee and Praszker 1969; Witter et al. 2006).

NATURAL LANDSCAPE AND CHANGES IN THE PROJECT AREA

Historic-era maps indicate that the project area was originally situated within a large field of sand dunes that stretched across the entire 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.

At least two 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

¹ Note that all ages in this report refer to calibrated calendar years before present (cal BP), unless otherwise indicated (Stuiver and Reimer 1993).

1974:80), both dating to less than 2000 cal BP (Henn and Schenk 1970:6). Radiocarbon dates from archaeological sites buried in the dune field (e.g., CA-SFR-112, -113, and -114) indicate that human occupation occurred primarily between about 1100 and 1900 cal BP (Archeo-Tech 1990). 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 2001, 2004). Another period of dune stability occurred between about 600 and 200 cal BP, centered near 400 cal BP, which corresponds to evidence of renewed human occupation in the area (i.e., site CA-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 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), or whether it is 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).

POTENTIAL FOR BURIED ARCHAEOLOGICAL SITES

Before buried sites can be avoided, sampled, or otherwise “managed,” they must first be identified. 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, ensuring 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. This is particularly important for any projects that can suffer significant delays and incur unexpected costs if a buried site is discovered as part of the project-related activities.

Buried Site Sensitivity Factors

Archaeological deposits are not distributed randomly throughout the landscape, but tend to occur in specific geo-environmental settings (Foster and Sandlelin 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. Analysis of prehistoric sites in other parts of central California indicates the majority are located within 200 meters (656 feet) or less of a present or former water source (Rosenthal and Meyer 2004a). Thus, relatively young (e.g., late Holocene-age) depositional landforms (i.e., fans, floodplain, and sand dunes) located within 200 meters (656 feet) of a natural stream or water body are generally considered to have an elevated (i.e., high or very high) potential to contain buried sites.

Analysis of the locations 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 Bay margin. Based on this, station location Areas 1 and 2 and the north-end of Area 9 are the only places within the current project area that are located within a 750-meter perimeter of the Bay. 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 are expected to have a greater potential to contain buried sites than those portions

that are more than 750 meters from the Bay shore. 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.

Historical Cut and Fill of Van Ness Avenue

As virtually all of the prehistoric-era landscape lies somewhere beneath the streets, buildings, and homes of San Francisco, 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 resulting map was then used to create a three-dimensional digital elevation model of the topography as it was depicted in the mid-1800s. The extent of cutting and filling within the project area was determined by comparing the difference between mid-1800s elevations and present ground surface elevations, using a 10-meter digital elevation model of the region from 1999 (Gesch et al. 2002). The amount of vertical error was analyzed and the mean error and one-standard deviation were calculated for those that correspond with each major geologic unit mapped in the area by Witter et al. (2006). The resulting categories were used to create a map that shows the relative degree of landscape change within and around the project corridor (Table 2; Figure 4). Based on these categories, an area is considered to have a low degree of cut or fill if the difference between the mid-1800s and modern elevations is within one standard deviation of the mean error (per geologic unit), which is estimated to be the inherent error of the historical maps. Thus, the amount of landscape change is relative to each of the geologic units.

The greatest amount of cutting and filling are in areas of pre-Holocene deposits where more than 90 feet of cutting and more than 100 feet of filling occurred at some locations. In contrast, relatively little cutting or filling is recorded in some areas mapped as Artificial Cut/Fill Cutting, which accounts for more than one-half (~57%) of the area (Tables 3). Elsewhere, a moderate amount of fill is found in more than one-third (~36%) of the area as a whole. The greatest amount of fill is found in areas mapped as Artificial Cut/Fill and Beach/Dune Sand, though the overall percentage is small (4.5%). Moderate amounts of cutting are also found within some areas of the Beach/Dune Sand, but this amounts to only 2.4% of the total area (Table 3).

Within the project area, changes in surface elevations range from a minimum of 20 feet of cut in Area 3, to a maximum of more than 72 feet of fill in the southern portion of Area 2 (Figure 5). Specific segments with the least amount of change include the northern quarter of Area 2 and the northern half of Area 3. The greatest change is seen in the southern half of the project area (Area 1 and most of Area 2) where the mid-1800s surface is now covered by at least 25 to 70 feet of fill. In these areas, the deposits of artificial fill are thicker than the maximum expected 12-foot depth of the proposed earth disturbances for sewer realignment.

Exceptions are found in the northern quarter of Area 2 where the fill is as little as five to 10 feet thick, and in Area 3 where the fill ranges from near zero to a maximum of about 20 feet in thickness (see Figure 4). Given this, Area 3 is the only location where a potentially buried prehistoric deposit, located within 750 feet of the shoreline, might be impacted by project-related construction. As such, the need for additional prehistoric archaeological identification efforts would be limited to Area 3.

Table 2. Categories of Relative Landscape Change by Geologic Unit (in feet).

DEGREE OF CUT OR FILL	ARTIFICIAL CUT/FILL	BEACH/DUNE SAND	ESTUARINE DEPOSITS	WATER	PRE-HOLOCENE DEPOSITS	UNIDENTIFIED ALLUVIUM
Mean Error	13	18	17	0	10	2
Standard Error	13	23	7	10	50	12
High (Cut)	<-13	<-28	<3	<-20	<-90	<-22
Moderate (Cut)	0 to -13	-5 to -28	10 to 3	-10 to -20	-40 to -90	-10 to -22
Low	0 to 26	-5 to 41	10 to 24	-10 to 10	-40 to 60	-10 to 14
Moderate (Fill)	39 to 26	64 to 41	31 to 24	20 to 10	110 to 60	26 to 14
High (Fill)	>39	>64	>31	>20	>110	>26

Table 3. Extent of Historical Cutting or Filling within the Project Area.

DEGREE OF CUT OR FILL	ARTIFICIAL CUT/FILL		BEACH/DUNE SAND		PRE-HOLOCENE DEPOSITS		TOTAL		% OF TOTAL
	ft ²	m ²	ft ²	m ²	ft ²	m ²	ft ²	m ²	
High (Fill)	48,438	4,500	16,146	1,500	-	-	64,583	6,000	4.5
Moderate (Cut)	-	-	34,445	3,200	-	-	34,445	3,200	2.4
Low	117,327	10,900	500,522	46,500	198,056	18,400	815,904	75,800	57.1
Moderate (Fill)	165,764	15,400	347,674	32,300	-	-	513,439	47,700	35.9
Grand Total	331,528	30,800	898,787	83,500	198,056	18,400	1,428,371	132,700	100.0
% of Total		23.2		62.9		13.9		100.0	-

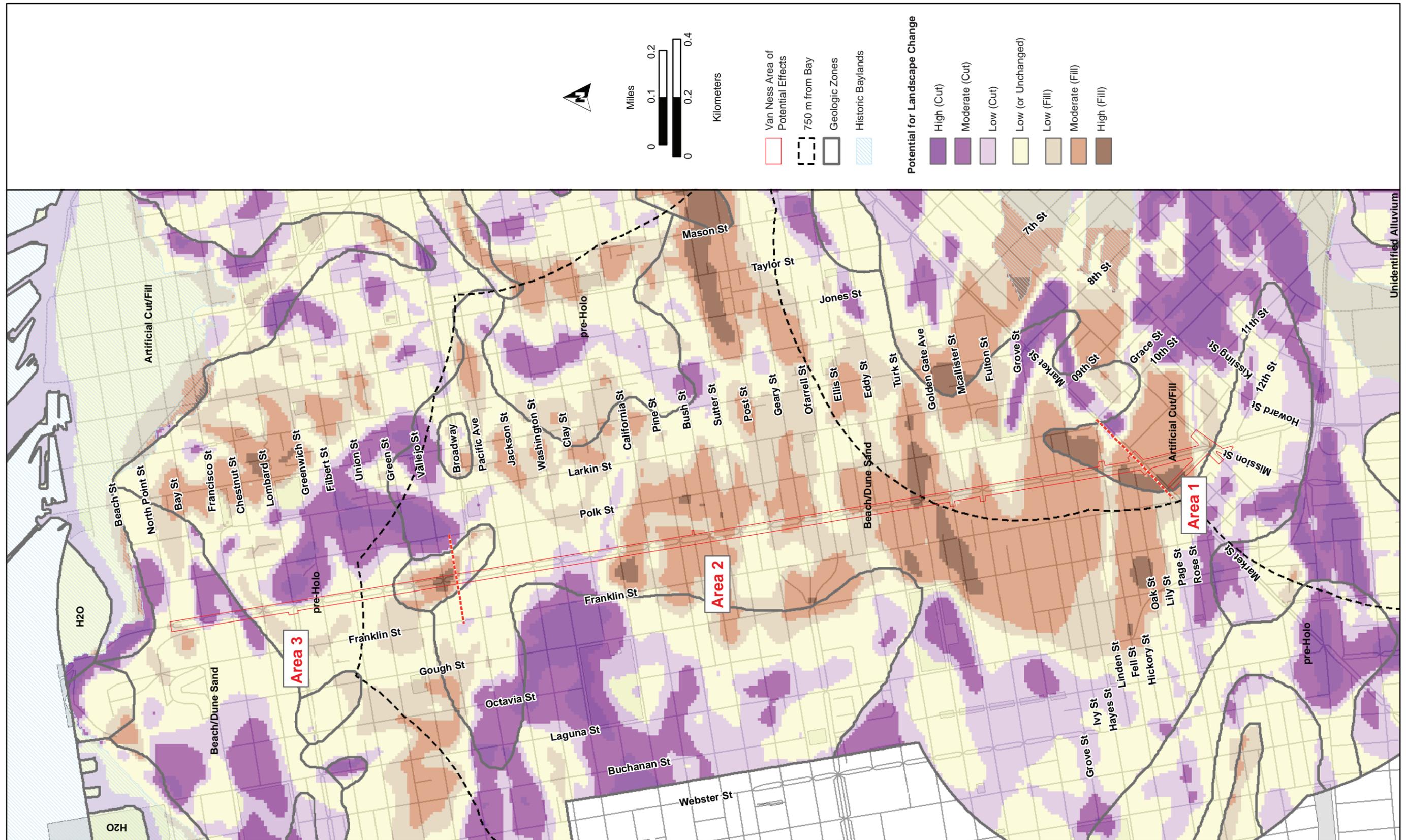


Figure 4. Cut-and-fill Sensitivity Map.

Streets Intersecting Van Ness Avenue

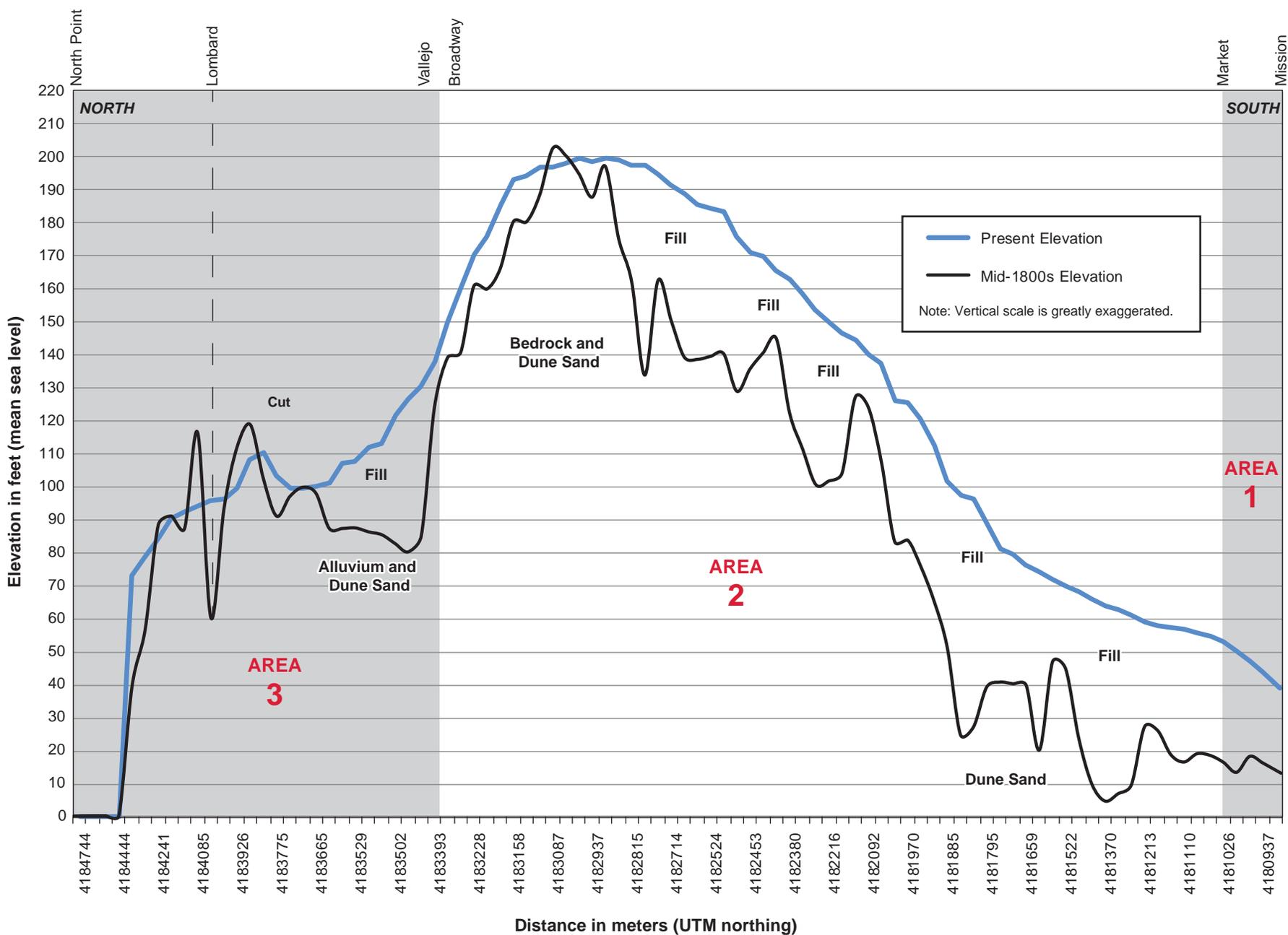


Figure 5. Surface Elevation Changes along Van Ness Avenue from Mid-1800s to 1890s and Present.

3. RESEARCH ON HISTORIC-PERIOD ARCHAEOLOGICAL SENSITIVITY

The initial historic-period resource sensitivity assessment for the project area (Byrd et al. 2009) used preliminary research (previously recorded resources and significant resources in similar urban environments) to identify potential historic-period site types likely to be present. These included remains of the Spanish and Mexican periods at the southern end of the project area, urban infrastructure including water and sewer lines and cable-car systems, building remains, and artifact deposits. More focused research is presented here, including early maps, utility work plans, archives, and public agency documentation, to describe the urban infrastructure and cut-and-fill activities and identify those areas most likely to contain intact historic remains.

The following summary of documentary research by JRP Historical Consulting, LLC (JRP), provides a context for the potential historic archaeological remains, as well as a station-by-station summary of historic activities and events (Appendix B).

DOCUMENTARY RESEARCH METHODS

Secondary material used for this report encompasses a range of sources, from contemporary cultural resource reports and documentation to periodicals and general histories of the Bay Area and San Francisco.

Primary materials used in this report consist of contemporary newspapers and periodicals, municipal reports of the City of San Francisco, Sanborn Fire Insurance Maps, US Coast and Geodetic Surveys, historical photographs and bird's-eye view illustrations, water company records, California Supreme Court cases, maps recorded by the City and County of San Francisco, historic city directories, census records, and telephone and telegraph directories. Primary documentation has been critical in establishing the detailed history that focused on physical uses and changes to the Van Ness corridor during the historic period. The historic context identified the beginning of permanent, non-native development in the study area as about 1848-1849, and consequently, the site history begins about that time.

None of the archival material is consolidated in a centralized research location; however, much of it was collected from sources located in San Francisco, especially the San Francisco History Center at the San Francisco Public Library. Other important libraries and collections include the California State Archives, San Francisco Public Utilities Commission, California Room of the California State Library (Sacramento) and the Bancroft Library at the University of California, Berkeley. JRP contacted the San Francisco Department of Public Works and requested plans and profiles of work done along Van Ness Avenue but did not receive any materials. Repositories of archival material and sources of digitized historic documents that were particularly useful included:

- San Francisco Municipal Reports. Available online through the San Francisco Public Library, these reports include information about infrastructure and public works, such as street, sewer, and cistern construction.
- The San Francisco History Center. This collection is located at the San Francisco Public Library and includes an extensive photograph collection, city resident and business directories, city building and real estate transaction journals, property maps, Sanborn Fire Insurance Maps, and architectural journals, among many other resources. Some records of the predecessor to the city water department, the Spring Valley Water Company, are also available on microfilm in the center, including domestic water supply tapping records. *Please note: all photographs from this source are for reference purposes only — permission has not yet been obtained for their publication or reproduction.*

- California State Archives. California Supreme Court cases related to disputes between property owners and the City and County of San Francisco were collected as well as documents from the Department of Public Works, Division of Highways collection.
- San Francisco newspapers. Primarily the *San Francisco Chronicle*, *San Francisco Call*, and the *Alta California* provide detailed information about both the physical development and the surrounding social context of the Van Ness corridor. The newspapers were accessed online and on microfilm at the San Francisco Public Library, the California State Library in Sacramento, or the main library at UC Davis.
- Various photograph and manuscript collections available through the Online Archive of California, such as the California Historical Society, California State Library, and many other repositories. Collections of early San Francisco maps, drawings, and photographs that are accessible through Online Archive include the “Roy D. Graves Photograph Collection” (Bancroft) and “1906 San Francisco Earthquake and Fire Digital Collection,” which is a compilation of selected holdings, and many other sources. **Please note:** *all photographs from these sources are for reference purposes only—permission has not yet been obtained for their publication or reproduction.*
- California Historical Society, historic photograph collections. Selected items from the historical society library have been digitized and are available through the Online Archive. **Please note:** *all photographs from this source are for reference purposes only—permission has not yet been obtained for their publication or reproduction.*
- Maps and bird’s-eye view illustrations, digitized and available through the online David Rumsey Map Collection and the Library of Congress. The maps include US Coast and Geodetic Survey, US Geological Survey, and official city and county survey maps, as well as some panorama and oblique aerial photographs.

IDENTIFICATION OF POTENTIALLY ELIGIBLE RESOURCES

Urban sites typically contain abundant remains of human constructions, occupations, and demolitions. These remains are not equal in their potential to provide important information on the past.

Deposits of historic-period artifacts that satisfy criteria for association, integrity, materials, stratigraphy, and rarity (AIMS-R; Caltrans 2009) have a high potential for meeting National Register of Historic Places (National Register) Criterion D. These are most often found in the backyards of residences and commercial buildings in abandoned wells and privies and in excavated trash pits. Domestic refuse has the highest potential for providing information on populations for its abundance of personal items (clothing, cosmetics, indulgences, entertainment, and arms) and food-related artifacts (bone, shell, cooking and serving dishes, plates and cups, glasses and bottles, and storage items). Residences, therefore, have a higher likelihood for significant deposits than other historic locations. Also frequently identified as significant are remains associated with businesses involving food production and consumption such as restaurants, hotels, and saloons. Places where food is not prepared, such as churches, schools, government buildings, and warehouses, typically do not contain significant artifact deposits. Non-food related artifact deposits, however, can contain significant data such as those associated with hospitals supplying information on health practices, and facilities such as blacksmith and assay shops providing insights into early technologies.

Architectural remains of structures generally do not contain important data on the past (exceptions include adobe buildings of the Spanish and Mexican eras).

Area 1 and Southern Area 2

Area 1 and the southern extent of Area 2 flank Mission Street which approximates the Mexican-Period road leading southwest from the portside settlement of Yerba Buena to Mission San Francisco de Asis (Dolores; Figure 6). These areas are relatively close to the *casco* of Mission Dolores, a sprawling residential, industrial, and agricultural complex (1776-1836) which may have extended into this vicinity. The “Mission Plank Road” saw early development, and several buildings on the 1853 and 1857 US Coast Survey maps are noted within Area 1 and in the southern portion of Area 2 (Figures 7 and 8). By the early 1880s, when sidewalk improvements occurred, low-lying lands surrounding the southern Van Ness alignment had already been elevated by 250-260 feet of fill (see Figure 5). Any potential remains related to the Spanish, Mexican, or Early American periods are, therefore deeply buried, precluding impacts by the proposed project’s maximum depth of 12 feet.

Area 1, includes the project area south of Market Street. Here, above the fill discussed above, a commercial neighborhood developed between 1870 and 1930. Fronting Market Street by the 1890s were as many as eight two-story frame shops, including a restaurant and an upholsterer (Figure 9). On the southwest corner of the block was a complex of the private Holy Trinity Catholic School including a school house, six dwellings, two water towers, and several outbuildings. Artifact deposits related to urban residences and commercial enterprises can contain important data. However, by the 1870s, San Francisco had established municipal trash pickup and sewer lines, curtailing historic processes of backyard rubbish accumulation. It is therefore unlikely that significant artifact deposits are present relating to these neighborhoods. Potential remains from this historical occupation would not be eligible to the National Register.

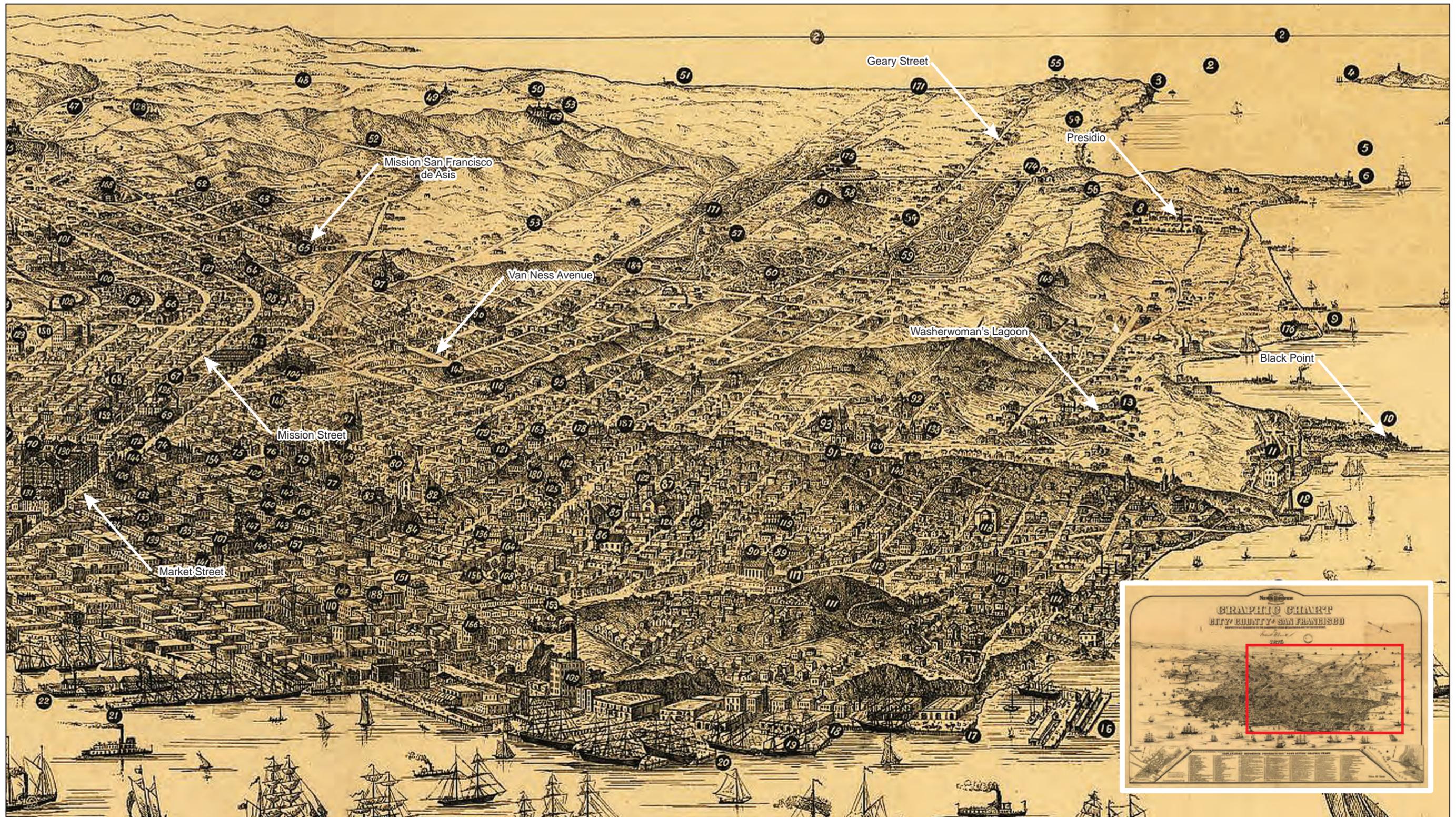
The frame commercial buildings of the 1880s were likely all wiped out by fire in 1906, and by 1913 the vicinity of Area 1 was dominated by the Symon Brothers Wrecking Yard, with a baseball field on the south (Figures 10 and 11). Remains of such salvage operations do not contain data which would meet AIMS-R criteria as materials represent several potential activities (structural, transportation, and manufacturing) and city-wide populations over a long time period. Archaeological remains of this business would not be eligible to the National Register.

Area 2

Except for the southernmost portion of Area 2 near Mission Street, discussed above, the alignment of Van Ness between Market and Broadway, overlain on the 1852 Coast Survey Map (Figure 7), does not appear to overlap or be in close proximity to any recorded structures. This alignment was formally adopted as part of the San Francisco street grid in 1855. Although the region was sparsely developed prior to this time and for several years afterward, much of the length of Van Ness between Market and Broadway was a clearly defined thoroughfare by 1869. It therefore appears unlikely that the Area 2 portion of the Van Ness alignment crossed residential back yards that may have been present before 1869. Continued development after 1870 along the surveyed route between Market and Broadway did not encroach into the street as it was a well-established thoroughfare by that time.

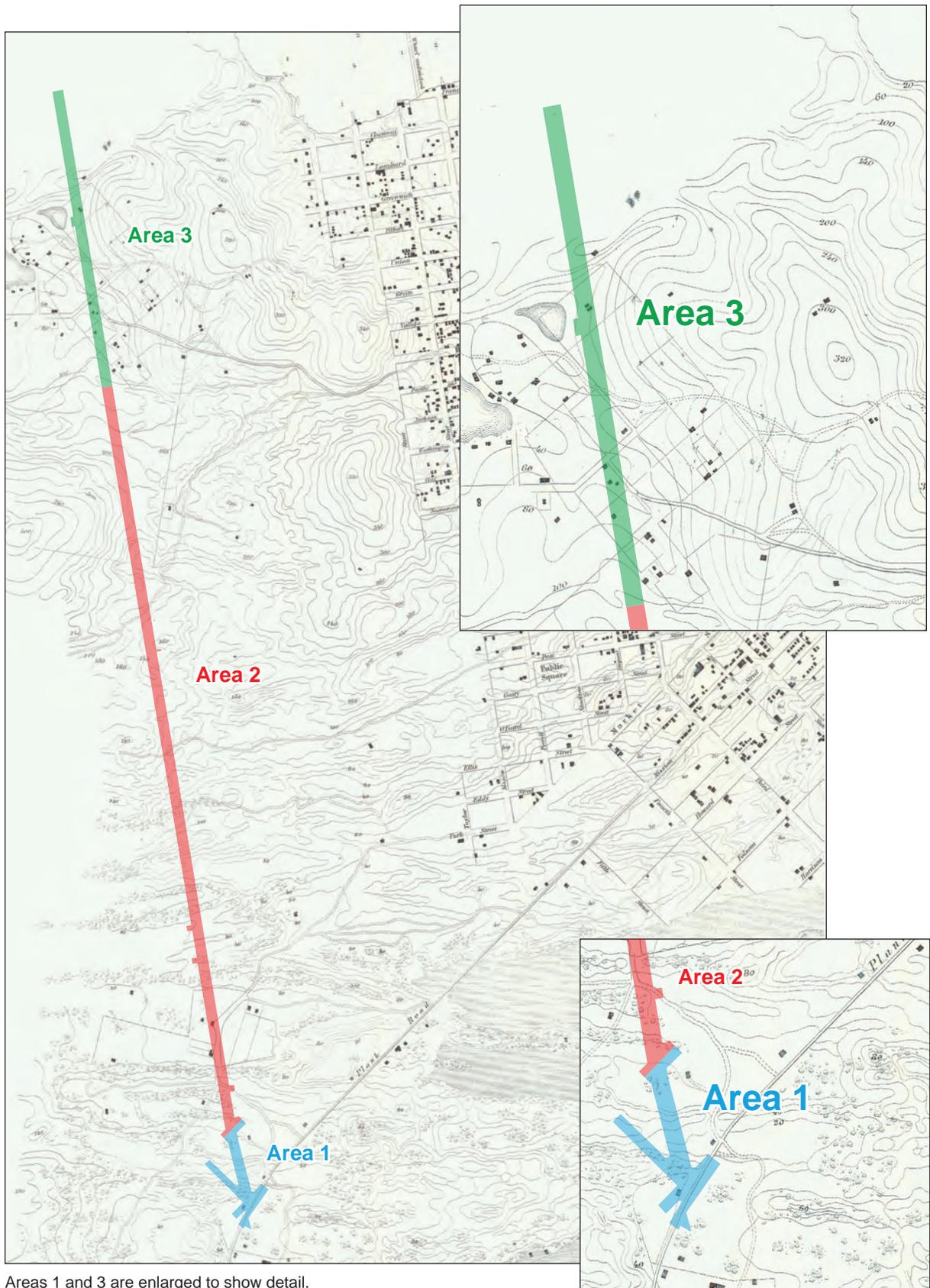
Area 3

Area 3 runs along the west side of the historic location of a freshwater pond known to have supported settlement during the Mexican Period and perhaps as early as the Spanish Period. In close proximity to the San Francisco Presidio, civilian populations had small farms; one of these is thought to have belonged to the family of the historical figure Juana Briones (Barbara L. Voss, personal communication, 2013). After the annexation of California by the Americans in 1847, the pond was referred to as “Washerwoman’s Lagoon.”



Source: Library of Congress.

Figure 6. Portion of Bird's-eye View of San Francisco in 1875 showing Topography of Van Ness Corridor and Historic Locations.



Areas 1 and 3 are enlarged to show detail.

Figure 7. Portion of 1852 US Coast Survey Map with Future Route of Van Ness Avenue and Sensitivity Areas Overlaid.

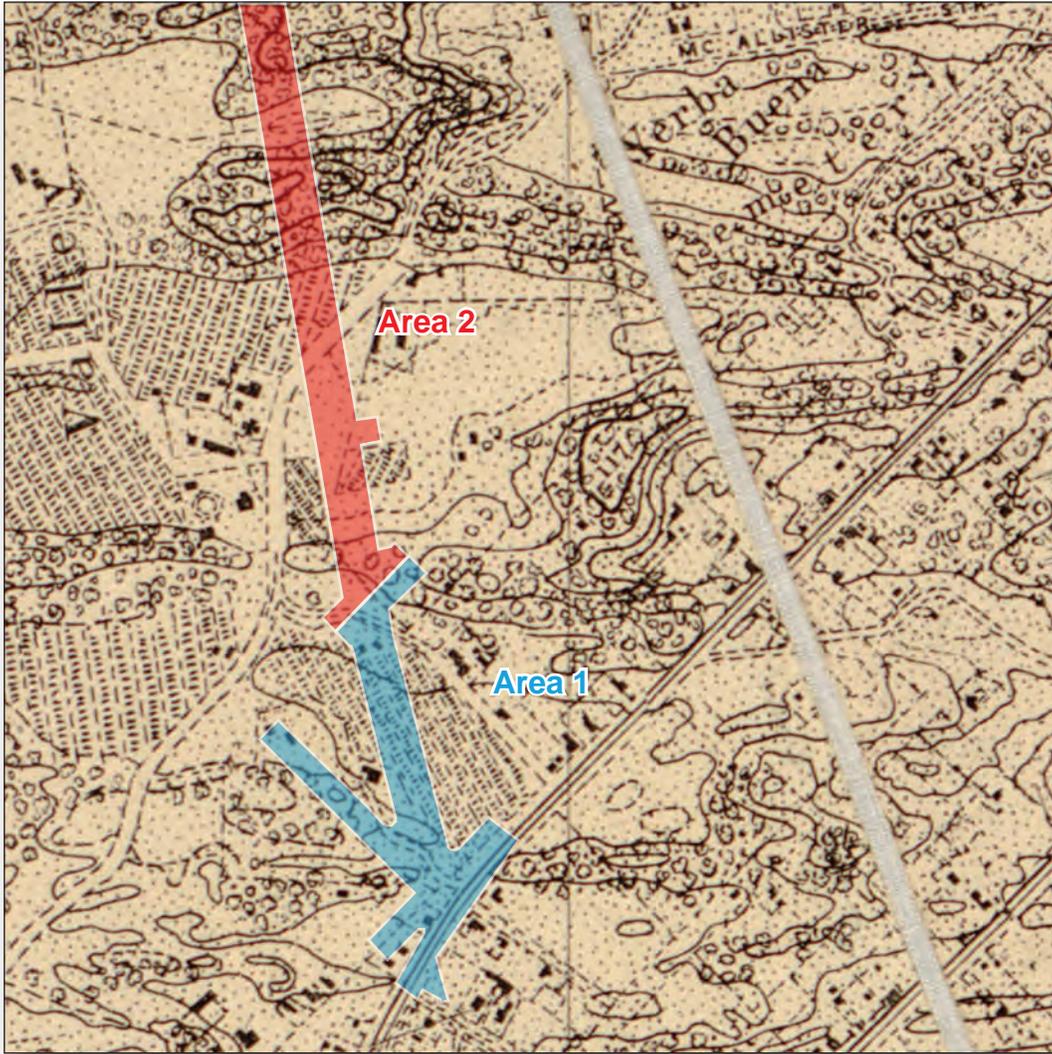


Figure 8. Portion of 1857 US Coast Survey Map showing Buildings Located within and adjacent to Areas 1 and 2.

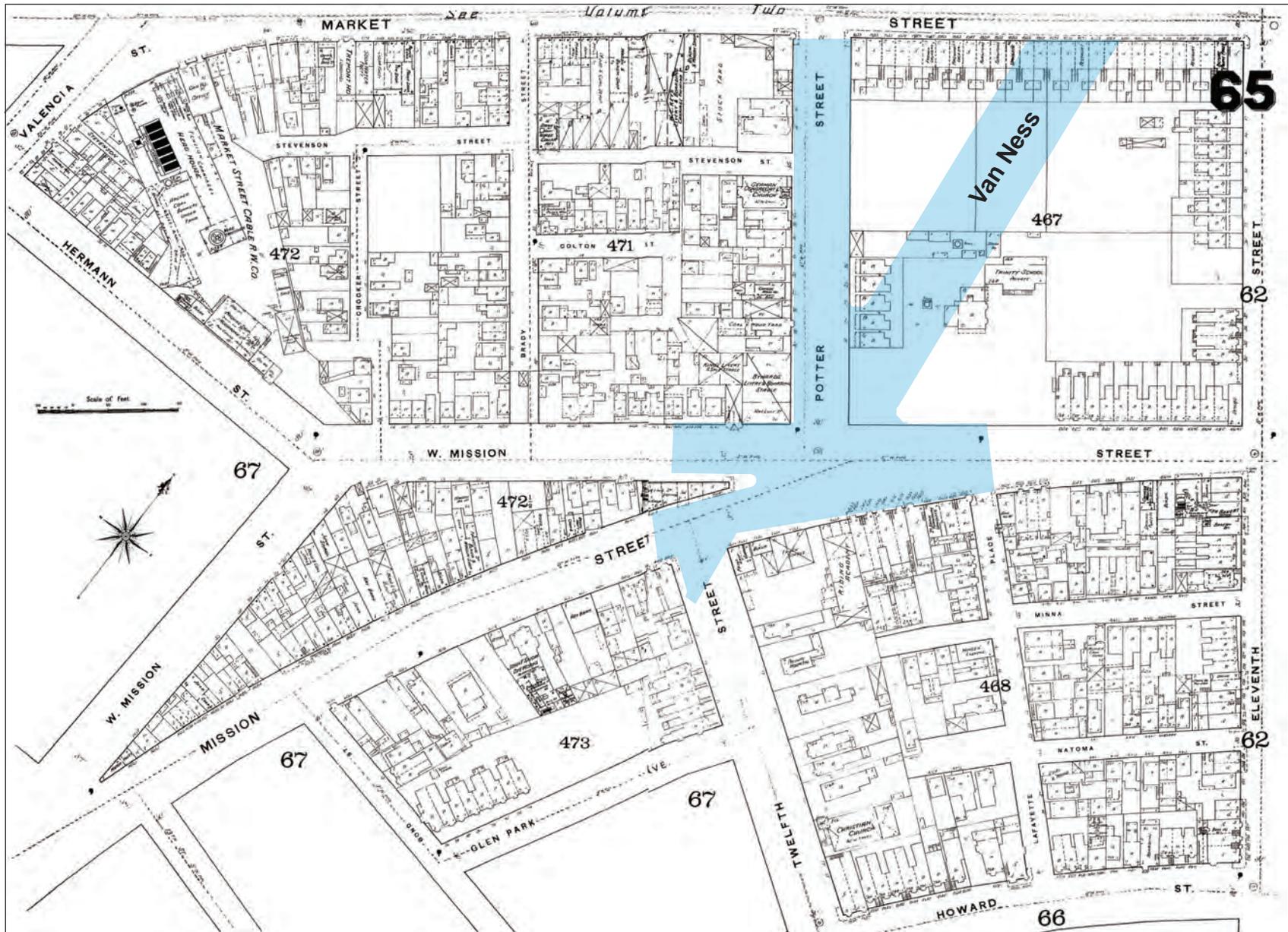


Figure 9. Portion of 1886-1893 Sanborn Fire Insurance Map showing the Footprint of Area 1 over a Row of Commercial Buildings.

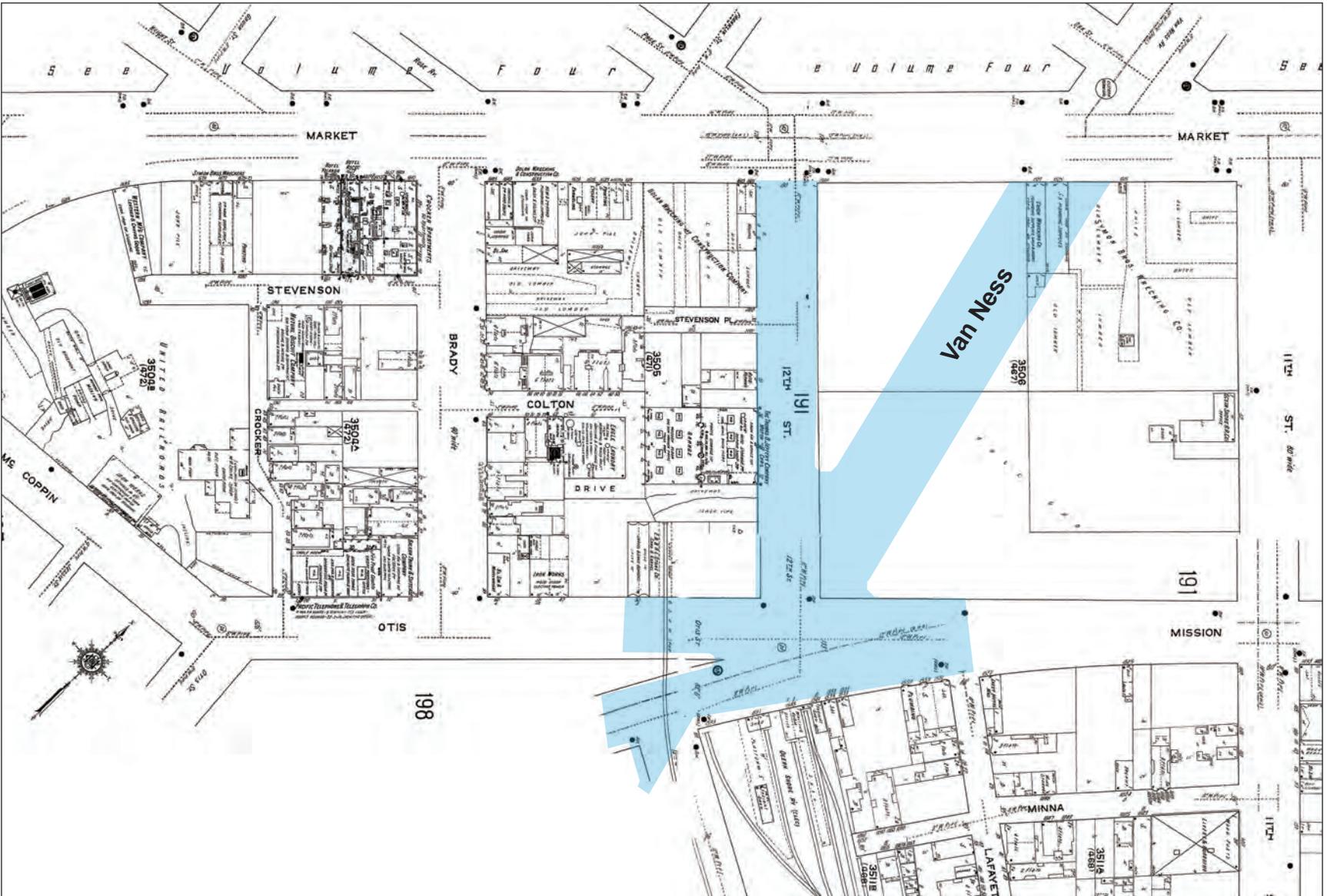


Figure 10. Portion of 1913-1915 Sanborn Fire Insurance Map showing the Footprint of Area 1 over Symons Brothers Wrecking Yard.



Source: Department of Public Works Photograph Collection, San Francisco Public Library.

Figure 11. Looking South in 1921 over Market Street showing the Proposed Alignment of the Van Ness Extension.

In 1848 this neighborhood was laid out into square lots, 100 *varas* on a side, recorded as the Laguna Survey (use of the Spanish measurement is perhaps indicative of the resident population). The orientation of the Laguna Survey grid matched that of the City south of Market Street, an alignment not followed by urban planners north of Market. The eventual path of Van Ness Avenue therefore bisected the tract diagonally (Figure 12). The area rapidly developed over the next few years with additional homes and businesses as a suburb to urban San Francisco (Figures 7 and 13). By 1857 over a dozen homes are depicted in the Laguna Survey, one of which lies in the northern part of Area 9 (Figure 14). As it was not until the 1890s that Van Ness was finally pushed north through this area, there is a high likelihood that intact artifact deposits from the early 1800s-1890s may be extant and encountered by project construction. This sensitive area lies between present-day Broadway and Chestnut streets. Artifact deposits related to the earliest phase of this settlement would certainly be eligible to the National Register, while those from later periods may also qualify based on their association with identified populations.

Urban Infrastructure in All Areas

Archaeological remains of urban infrastructure, including sewer and utility lines, cisterns, and mass-transit facilities, will occur within the upper fill levels in all proposed station locations along Van Ness Street. These remains do not appear to meet AIMS-R criteria for National Register eligibility.

A Historical Context and Archaeological Research Design for Townsite Properties in California (Caltrans 2009) presents relevant research issues pertaining to urban infrastructure development including documenting local vernacular solutions to urban problems, illicit activities, and living conditions. As the evolution of urban infrastructure is integral to studies of the historic-era development of cities, archaeological remains of undocumented or poorly documented facilities may provide important information on these past activities (Caltrans 2009:147-156).

The historical summary presented in Appendix C concludes that because of the relatively late development of the “Western Addition,” which encompassed a large swath of the city west of Larkin Street, between Market Street and the Bay, including Van Ness Avenue, instillation of public utilities proceeded according to established practices and standards, with no indication of any distinguishing or innovative techniques. The instillation, renovation, and replacement of infrastructure in this area are also well documented (Figures 15 and 16).

The potential remains of cable cars, however, deserve a more focused discussion. This now iconic symbol of San Francisco debuted in August 1873, the invention of Andrew Smith Hallidie who adapted wire-cable technologies to solve problems with navigating the city’s steep grades. Expanding rapidly from the inaugural Clay Street Hill Railroad line, cable car routes blanketed the city by the 1890s, encompassing 53 miles of track and stretching west to Golden Gate Park and south to the Mission District, crossing the Van Ness Project Area at a minimum of 15 locations. One of these lines, the Presidio and Ferries Railroad, travelled along Union Street, within Area 3 which is otherwise sensitive for cultural resources (Figure 17). Electric cars were coming into their own at this same time, however. Following the 1906 earthquake, which caused extensive damage to the cable cars’ underground cable system, the electric streetcar became the preferred city conveyance. A move to close the last cable car lines in the 1940s was met with adamant public opposition, resulting in the eventual preservation and restoration of approximately five miles of line located in the Nob Hill, Chinatown, and North Beach sections of the City. These lines (including rails, cars, roundtables, and cables), along with the car barn at Washington and Mason, are included in the National Historic Landmark designation (1964).

Remains of historic-era cable car systems have been identified during cultural-resources monitoring operations on Van Ness Avenue (Pastron and Robichaud 2003)—Feature 1, part of the Ferries and Cliff House line at Van Ness and Sacramento Street; and Feature 2, part of the Sutter Street main line at Van Ness and

Sutter Street. Details of these findings were not documented, although the archaeologists indicated in a brief report that they thought the remains were potentially eligible to the National Register, but gave no justification.

Subsurface archaeological remains of cable car lines would most prominently include the underground conduit through which the wire cable ran. This u-shaped channel was constructed two to three feet below the rails and may have survived modern street improvements and grading (Figure 18). Less likely to survive are the surface rails and “slot” (the slanted, metal-lined opening through which the car’s “grip” traveled, clamped onto the wire cable). Once the lines were abandoned, these surface features would most likely have been removed with street maintenance, grading, or resurfacing.

The early cable channels were made of brick and have been encountered at various places in the City. John Becker, Engineer at San Francisco Municipal Transportation Authority, has noted that while they are always interested in seeing these historical remains, the channels themselves evidenced regular and predictable construction features and did not provide new information on early technologies (the current cable car system runs its cables through concrete channels). Mr. Becker also noted that discovery of remains of any of the large, wooden “turning wheels”—used to change cable directions—would be of great interest as little was known about these early features. He described their use in places where the route bent or angled. Crossings of the wide Van Ness Boulevard would have used a straight track, making it very unlikely that such wheels would have been located within the project area (John Becker, personal communication 2014).

Although the cable car’s history and the existing National Historic Landmark lines are certainly important in the town’s history, isolated archaeological remains of these facilities within the project area are unlikely to contain important new information as defined under Criterion D. These potential remains therefore do not appear to qualify as significant for the National Register of Historic Places.



Figure 12. Portion of 1852 Britton and Rey Map of San Francisco showing Laguna Survey Tract (a); Laguna Survey Tract superimposed on Modern Streetscape (b).



Source: C. E. Watkins, photographer. Roy D. Graves Photograph Collection.
Van Ness Avenue would eventually be extended to the north between
the two buildings shown at the far left.

Figure 13. Facing Laguna Survey and Washerwoman's Lagoon, circa 1852,
from the West Side of Russian Hill.



Figure 14. Portion of 1857 US Coast Survey Map showing Laguna Survey and Associated Lots and Buildings within Area 3.



Source: California Room, California State Library.
One year after the earthquake, by 1907, Van Ness was quickly rebuilt as a commercial center.

Figure 15. View North from Sutter Street, 1907.



Source: San Francisco History Center, San Francisco Public Library.

Figure 16. View Down Van Ness Avenue during Removal of Streetcar Tracks near Vallejo.

Map of San Francisco Cable Car lines at the Fullest Extent of Operation (1890s)

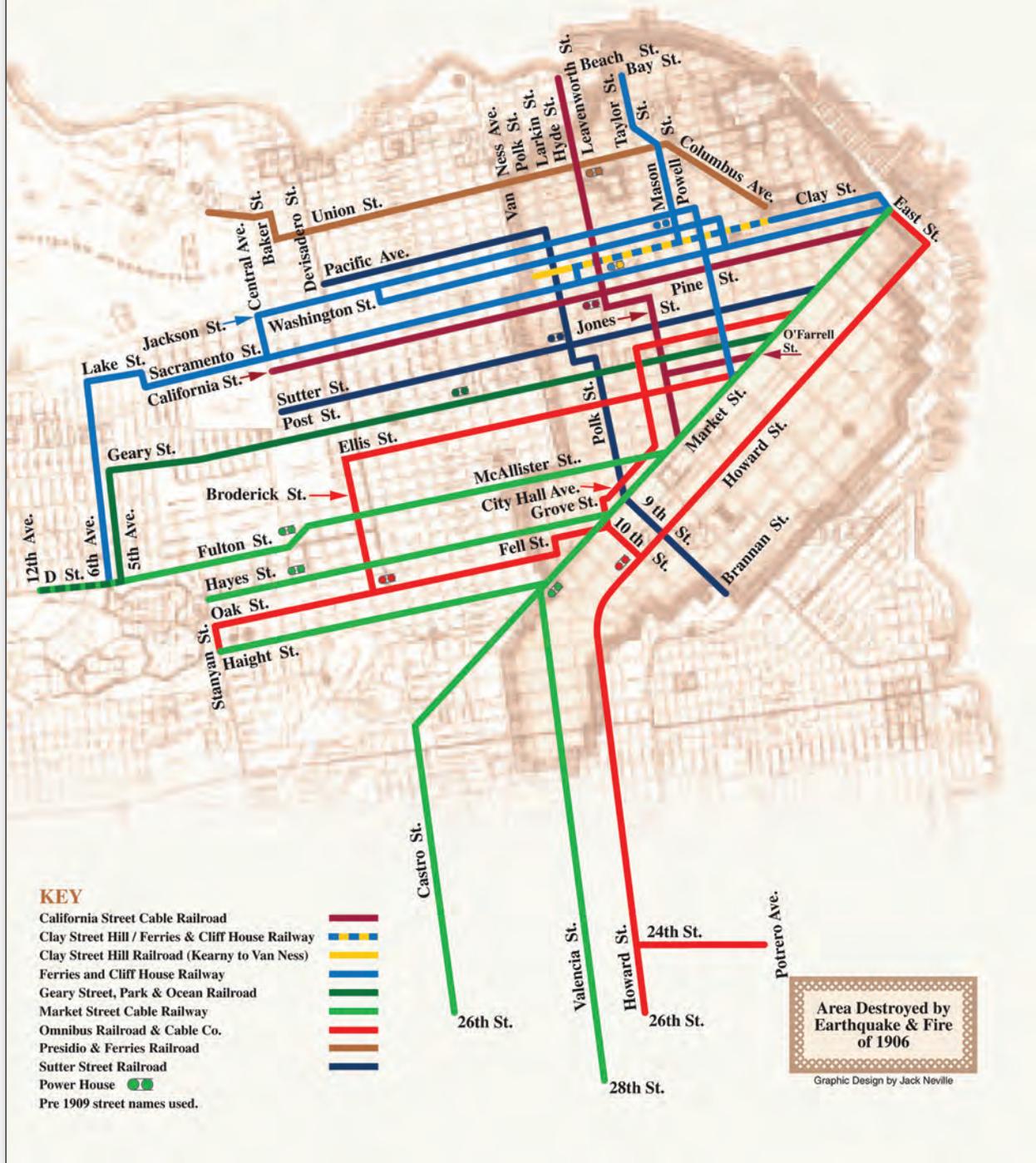
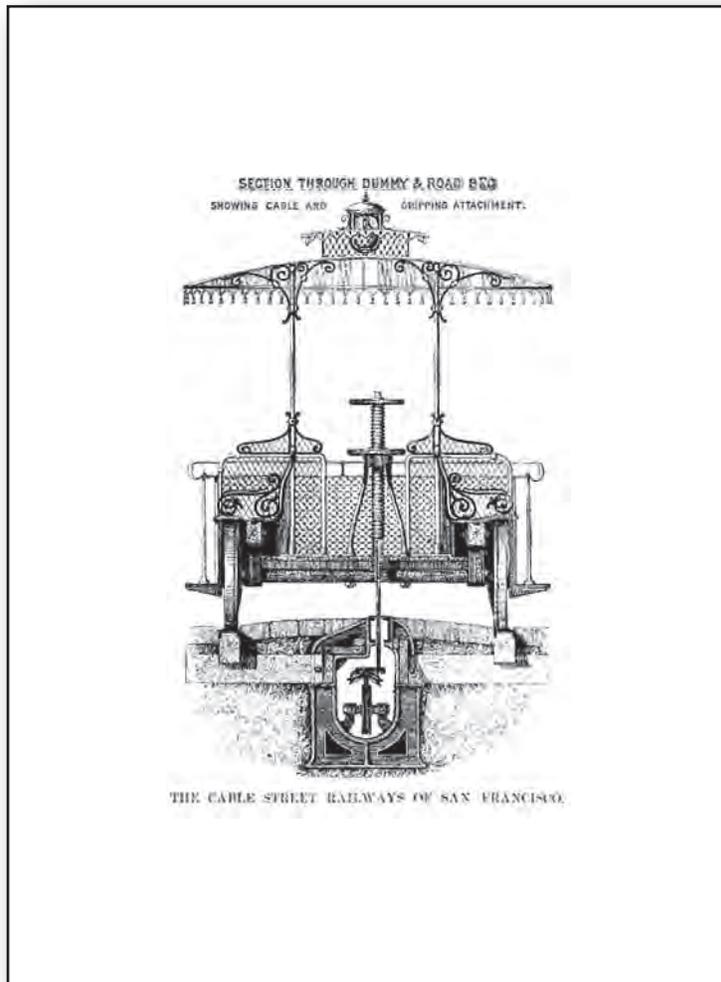


Figure 17. 1890s Cable Car Lines.



Scientific American Supplement, September 17, 1881.
(<http://www.cablecarmuseum.org/archive/Library/ScientAmer.htm>)

Figure 18. Section Drawing of a Cable Car and its Underground Cable Channel
from "The Wire Rope Street Railways of San Francisco, California" by A. S. Hallidie.

4. SENSITIVITY ASSESSMENT AND RECOMMENDATIONS

Here we present an assessment of archaeological sensitivity and potential significance of expected resources based on historic infrastructure, cut-and-fill activities, relevant research topics, and identified study areas along Van Ness Avenue (Table 4; see Figure 5). We make recommendations for further work based on our findings.

Table 4. Summary of Findings.

AREA	SENSITIVITY	NOTES
<i>PREHISTORIC</i>		
1	Low	Close to Bay shore but substantial fill
2	Low	Mostly far from Bay shore but substantial fill
3	High	Close to Bay shore; minimal fill
<i>HISTORIC-PERIOD</i>		
1	Low	Possible post-1870 settlement, prior to Van Ness Avenue, atop fill
2	None	Possible early settlement under fill or unoccupied
3	High	Laguna Survey Area

SENSITIVITY ASSESSMENT

Historic-era maps and digitized elevation contours were used to create a three-dimensional digital elevation model of the project area. The northern portion of Area 2 has fill as little as 5 to 10 feet thick. In Area 3, fill ranges from near zero to a maximum of about 35 feet in thickness, and as much as 20 vertical feet of hills were leveled. For the remainder of the corridor (Area 1 and most of Area 2), substantial fill at least 25 to 40 feet thick buffers historical levels from the maximum 12-foot depth of disturbance for the new sewer alignment.

Prehistoric Deposits

A sensitivity assessment of prehistoric resources also takes into account distance to the Bay shore. Analysis in Byrd et al. (2009) indicated that only the northern and southern ends of the project corridor had a moderate to high potential for buried resources based on their location—analysis of prehistoric site locations 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 Bay margin. Areas 1, and 3 are within that distance from the Bay margin; however, in conjunction with the current cut-and-fill model, Area 3 is the only location where potentially buried prehistoric deposits might also be impacted by project-related construction. There is a high likelihood that any identified sites would be National Register eligible as few prehistoric sites have been documented in this area and they would most likely be intact where fill has protected them from urban development.

Historic-Period Deposits

An assessment of historic-period sensitivity was based on detailed historic research (see Appendix C) and cut-and-fill activities. Deposits of historic-period artifacts that meet criteria for AIMS-R (Caltrans 2009) have a high potential for meeting National Register Criterion D.

During the 1870s, Area 1 and much of Area 2 were raised with 30-60 feet of fill, burying any potentially significant early deposits far below project construction activities. However, south of Market Street (Area 1), archaeological remains of commercial and residential activities dating between 1870 and

1930 are likely to be present above the fill layers, but are not likely to contain important information on the past. Although the ca. 1850 ground level may be encountered in the northern part of Area 2, no potentially important archaeological remains are anticipated to be present. Area 3 overlies an archaeologically sensitive settlement dating from the 1840s through the 1890s. The original 1850 ground level in this northern portion of Van Ness ranges from 40 feet below surface to cuts of 10 to 20 feet. It is likely that original ground surfaces will be reached during construction of the sewer lines at a depth of 12 feet and it is possible that sensitive archaeological remains may be present. Archaeological remains of urban infrastructure, including utility lines, sewer and water facilities, and cable and railway lines, are evaluated as not eligible to the National Register.

RECOMMENDATIONS

When evaluating the need for additional archaeological studies or fieldwork in an urban environment, the crucial questions are: (1) what is the potential for buried cultural resources within a project area?; (2) is there reason to think that proposed project activities could impact those resources?; and (3) what is the likelihood that the resources that will be impacted are significant? To address the first question, we constructed a detailed cut-and-fill model of the project area and undertook focused documentary research to identify high sensitivity areas for potential presence/absence testing (i.e., minimal cutting and filling; documentary evidence of historic-era occupation). To address the second question, we determined which portions of the project area could contain potentially significant remains lying within 12 feet of the modern surface (maximum proposed depth of construction impacts). The answer to the third question will be addressed during testing.

For both prehistoric and historic-era resources, one location, Area 3, is identified as containing potentially significant deposits that could be impacted by project construction. It is therefore recommended that pre-construction testing program be conducted within Area 3, focusing on the designated Areas of Direct Impact, to help insure that potentially buried archaeological resources are identified and are not adversely impacted during project construction. The steps required to complete Section 106 responsibilities are presented below.

Testing and Treatment Plan

- A Testing and Treatment Plan will be prepared that presents: (1) detailed, focused background research for potential historic resources; (2) contextual background data; (3) research issues that will assist with resource evaluations; (4) proposed field methods, including a compressed test/data recovery approach; (5) lab methods; and (6) documentation.
- Primary research for historic resources would include: (1) analysis of demographics of the Laguna Survey population throughout its occupation; (2) identification of ownership, buildings, and properties in the path of the Van Ness extension in 1890; and (3) details of Van Ness construction activities through this area. The results of this research will enable historical archaeologists to identify issues to be addressed in the Research Design and will also allow immediate field-evaluation of the potential significance of any archaeological materials that might be encountered during testing or construction activities.
- A phased approach to archaeological investigations is recommended whenever possible to include three steps: (1) resource identification; (2) test excavations and evaluation; and (3) data recovery. A compressed approach for this process is recommended given the urban setting and the likelihood that any identified resources will be intact and unique and therefore considered eligible for the National Register.

Identification

- Prior to construction but after removal of asphalt, we will examine subsurface deposits using a backhoe or coring device (e.g., GeoProbe), at least through the Holocene-age portion of the subsurface deposits, or up to 12 feet in depth based on construction impacts.
- Examined locations will focus on the designated Area of Direct Impacts within Area 3 (e.g., sewer replacement lines).
- If archaeological deposits are identified, additional exploration will determine their general nature and extent.
- If necessary, quick turn-around radiocarbon dating will be used to determine the age of the cultural deposit and/or buried soils that may occur above or below the deposit.
- If safe and adequate exploratory work cannot be conducted prior to construction, then archaeological monitoring and/or spot-checking may be the only archaeological identification option, even though it is the least preferred and often most costly alternative should a cultural deposit be identified during construction.
- Archaeological remains of cable car lines within the project area are unlikely to be significant to the National Register. However, because of the importance of cable car history to San Francisco, the San Francisco Planning Department has determined that remains of the cable car system potentially located within the project area may be important to local history due to their association with the existing National Historic Landmark cable car system and has requested that efforts be made to identify and record any cable car remains in the project area by undertaking the following:
 - Exploratory backhoe work within culturally sensitive Area 3 will include the Van Ness Avenue-Union Street intersection to determine if cable car remains from the Presidio & Ferries Railroad are present. If they are found, they will be photographed and their location documented with GPS.
 - For the remaining cable car lines that crossed Van Ness, a representative of the Cable Car Museum could potentially be present at key locations when construction takes place to oversee the recording of any remains.
 - The cultural resources contractor can organize training sessions or prepare a pamphlet for construction workers to address what cable car remains will look like, and procedures dealing with them.

Testing and Evaluation

- Evaluate identified resource constituents and features for National and California Register eligibility through test excavations.
- Determine resource attributes (e.g., size and thickness, integrity, range of artifact and ecofact classes), through mechanical and manual methods such as backhoe trenching, shovel excavations, hand augering, and column sampling.
- If clearly not eligible based on field observations, no further work would be needed. For those resources deemed eligible, based on their buried context, likely integrity, and ability to address relevant research issues, data recovery excavations would follow immediately.

Data Recovery

- If a resource is determined to be eligible and impacts cannot be avoided, then mitigation of those impacts must be undertaken to obtain sufficient data to fully characterize function and systemic context.
- Data recovery operations will be concentrated in areas where data potential is considered greatest (best preserved, highest artifact density, features, cultural stratigraphy).
- Testing and data recovery would likely occur during the same field session. However, since test-phase investigations would not have been completed (notably the laboratory analysis and comparative research phases), it is recommended that certain aspects of laboratory analysis move forward in a concurrent manner during the testing phase. With this information, the scale and focus of data recovery fieldwork can be better assessed.

Construction Monitoring

- This option is not considered a suitable alternative to archaeological field identification, testing, and data recovery efforts.
- It may be appropriate in cases where the field identification method (e.g., coring) was unable to recover a sufficient number or quantity of samples to clearly determine the presence or absence of cultural deposits, which sometimes occurs in places where trenching is not possible or feasible.
- Monitoring may be appropriate after an inadvertent discovery has been made and assessed.
- If cultural remains are encountered, the archaeological monitor must have the authority to temporarily halt or re-direct construction activities. It may be necessary to remove overlying non-cultural strata (using mechanical excavation techniques) to identify the nature and extent of the deposit, and to allow further controlled, manual excavation. Subsequent fieldwork would follow the protocol outlined for testing, evaluation, and data recovery.

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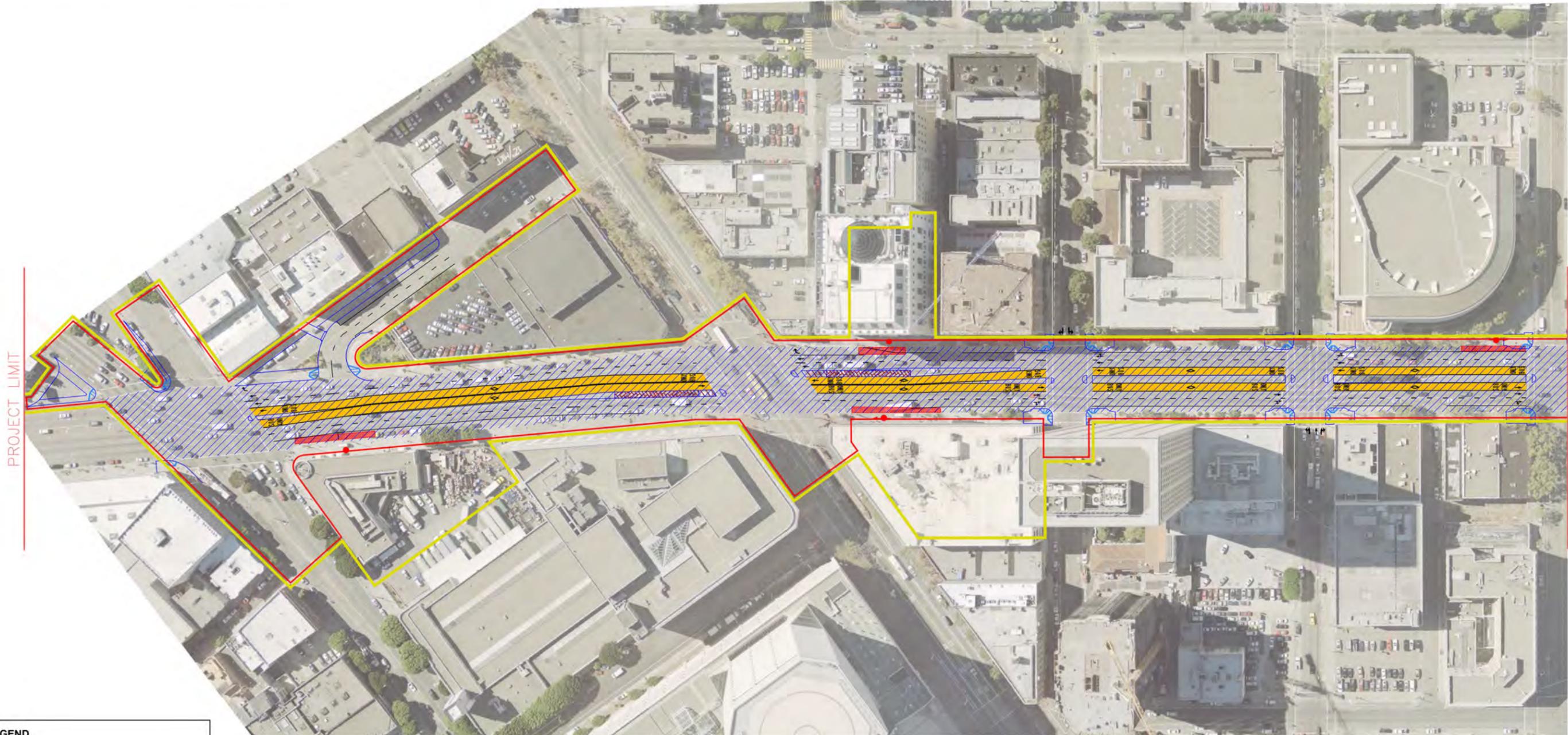
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PROJECT VERTICAL AREA OF POTENTIAL EFFECTS

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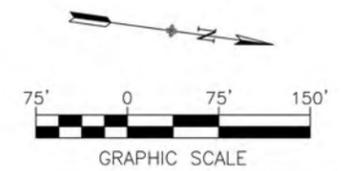


LEGEND	
EXISTING R/W	
ARCHITECTURAL APE	
ARCHAEOLOGICAL APE	
PROPERTY LINE	
PROJECT LIMITS	
POTENTIAL SIDEWALK PLATFORM LOCATION	

VERTICAL AREA OF POTENTIAL EFFECTS
(for detailed archival investigations regarding potential archaeological sites)



11.5 foot depth



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SHEET OF SHEETS
1 OF 6

Van Ness Avenue
Bus Rapid Transit Study

AREA OF POTENTIAL EFFECT

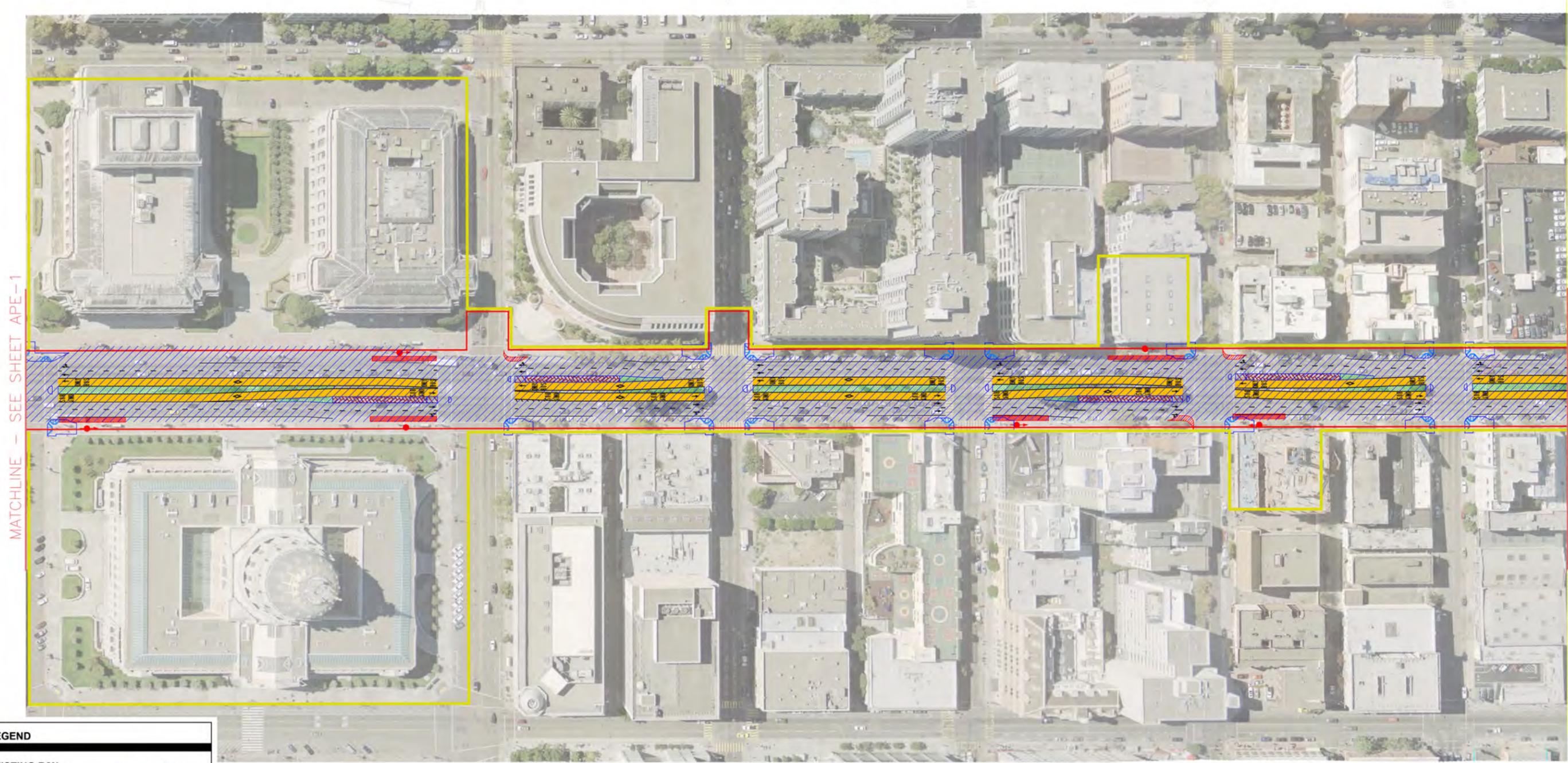
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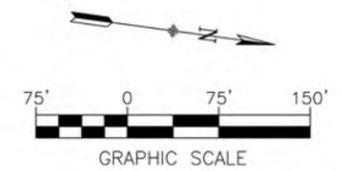
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LEGEND	
EXISTING R/W	
ARCHITECTURAL APE	
ARCHAEOLOGICAL APE	
PROPERTY LINE	
PROJECT LIMITS	
POTENTIAL SIDEWALK PLATFORM LOCATION	

VERTICAL AREA OF POTENTIAL EFFECTS
 (for detailed archival investigations regarding potential archaeological sites)

11.5 foot depth



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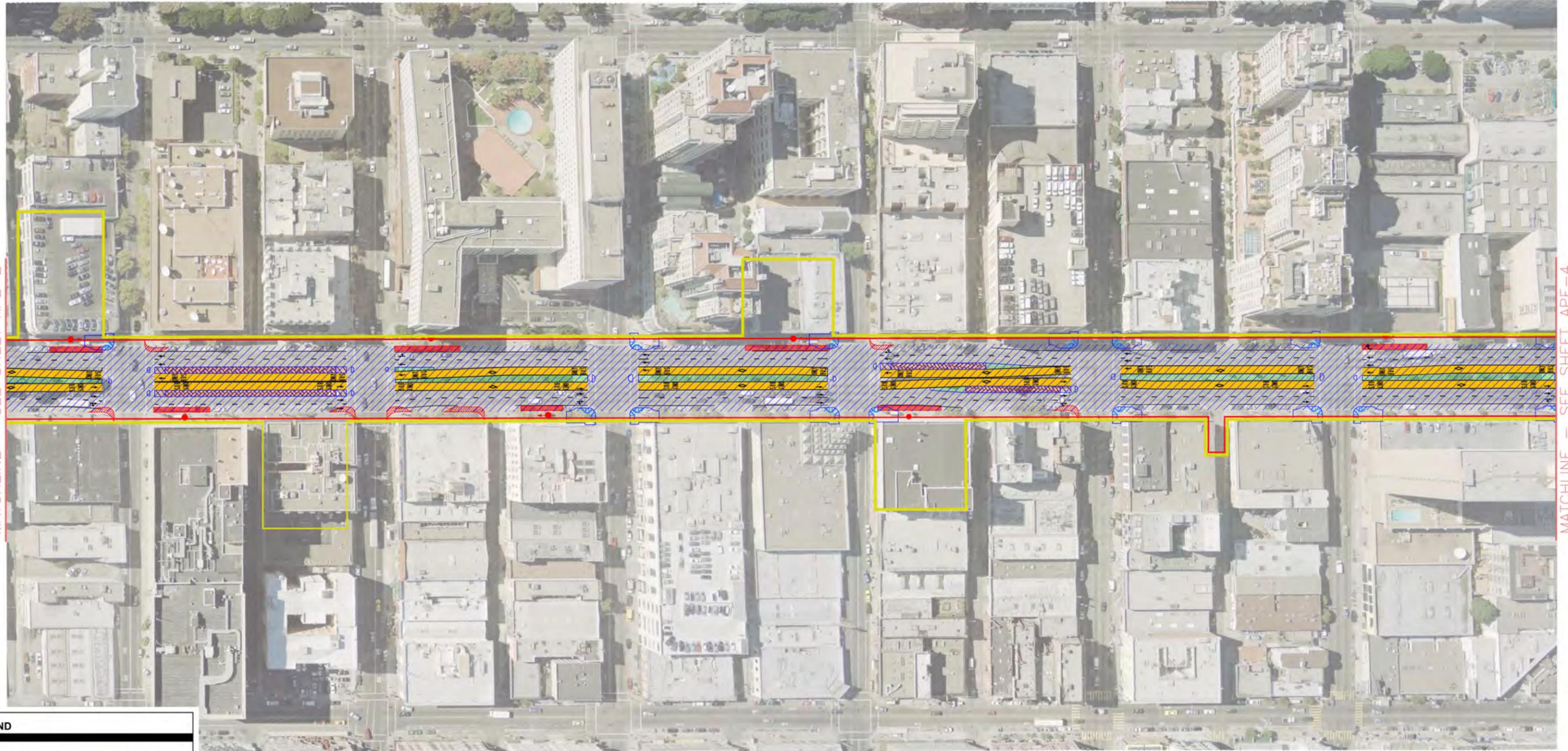
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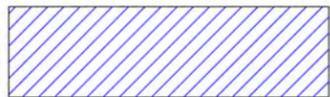
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2 OF 6		AREA OF POTENTIAL EFFECT	REV. NO.

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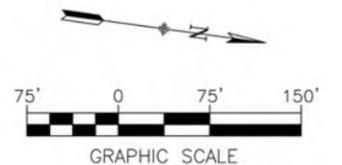


LEGEND	
EXISTING R/W	
ARCHITECTURAL APE	
ARCHAEOLOGICAL APE	
PROPERTY LINE	
PROJECT LIMITS	
POTENTIAL SIDEWALK PLATFORM LOCATION	

VERTICAL AREA OF POTENTIAL EFFECTS
(for detailed archival investigations regarding potential archaeological sites)



11.5 foot depth



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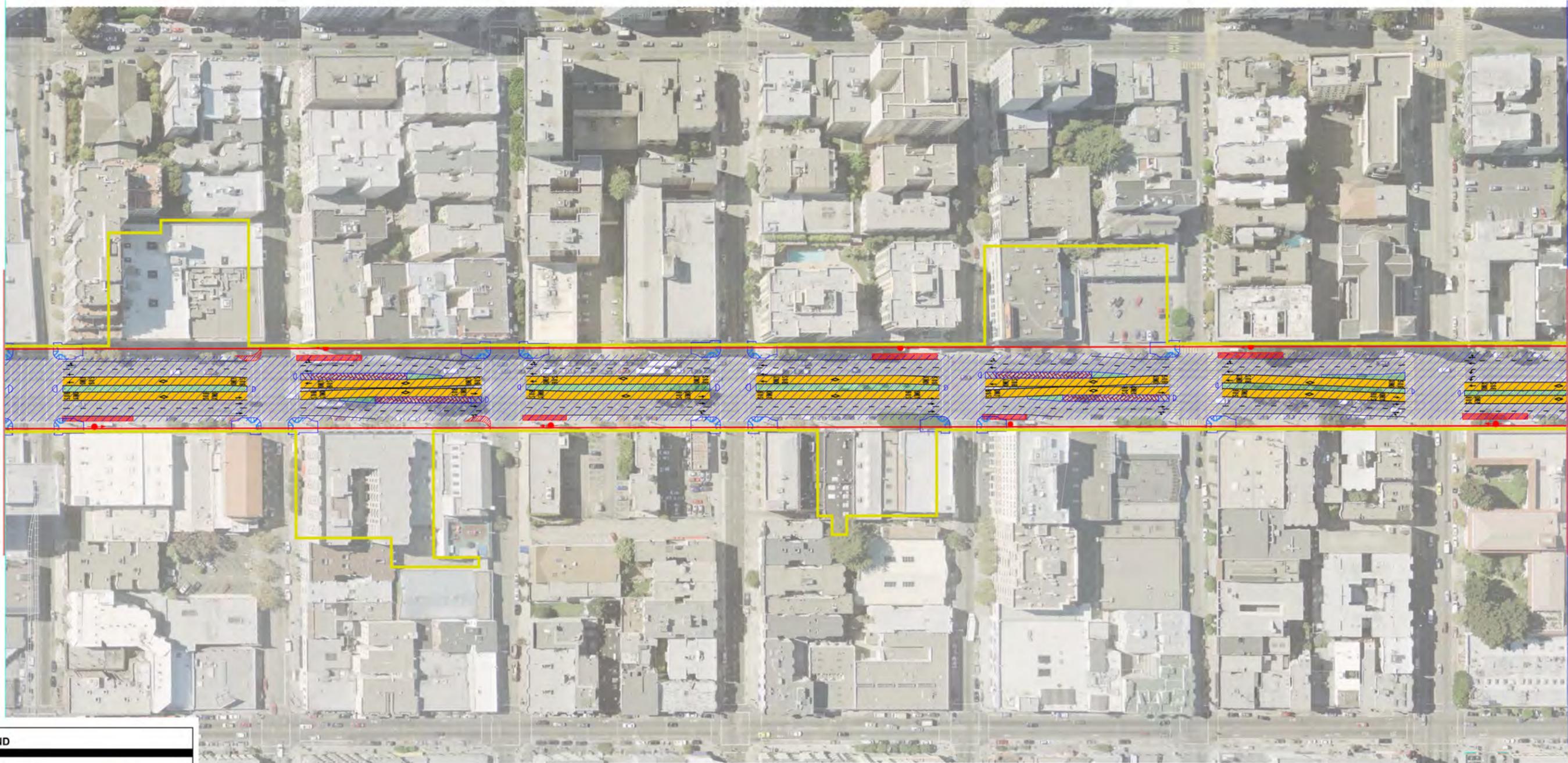
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SHEET OF SHEETS
3 OF 6

Van Ness Avenue Bus Rapid Transit Study
AREA OF POTENTIAL EFFECT

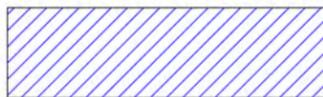
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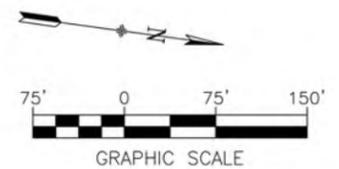


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ARCHAEOLOGICAL APE	
PROPERTY LINE	
PROJECT LIMITS	
POTENTIAL SIDEWALK PLATFORM LOCATION	

VERTICAL AREA OF POTENTIAL EFFECTS
(for detailed archival investigations regarding potential archaeological sites)



11.5 foot depth



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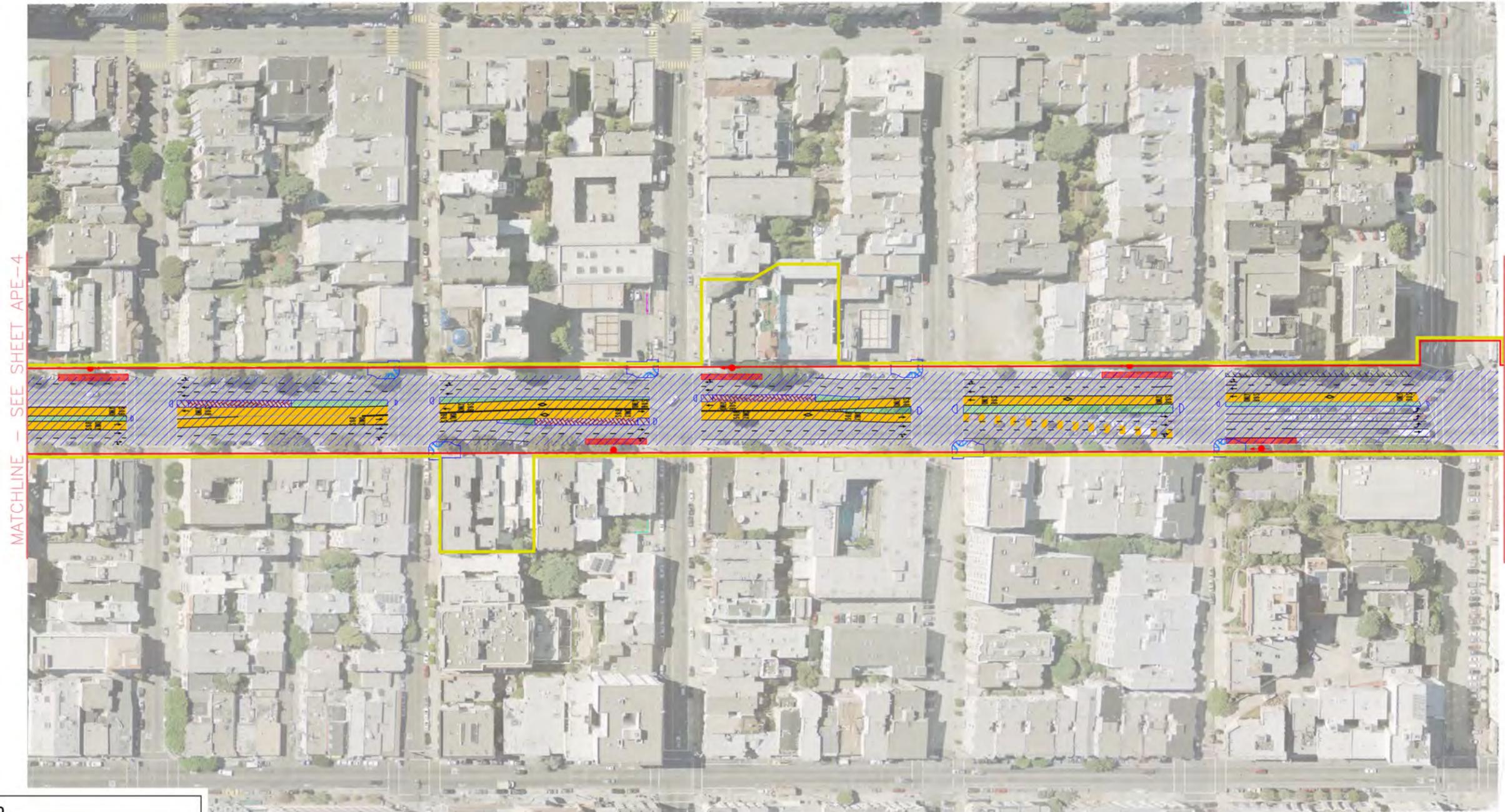
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SHEET OF SHEETS
4 OF 6

Van Ness Avenue
Bus Rapid Transit Study

AREA OF POTENTIAL EFFECT

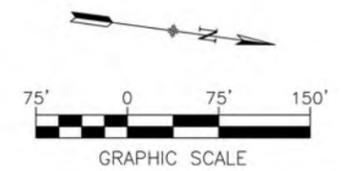
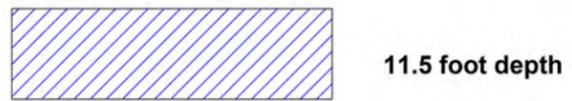
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ARCHAEOLOGICAL APE	
PROPERTY LINE	
PROJECT LIMITS	
POTENTIAL SIDEWALK PLATFORM LOCATION	

VERTICAL AREA OF POTENTIAL EFFECTS
(for detailed archival investigations regarding potential archaeological sites)



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SHEET OF SHEETS	5 OF 6

**Van Ness Avenue
Bus Rapid Transit Study**

AREA OF POTENTIAL EFFECT

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DRAWING NO. APE-5
FILE NO.
REV. NO.

APPENDIX A2

DESIGN PLANS FOR THE VAN NESS BUS RAPID TRANSIT PROJECT

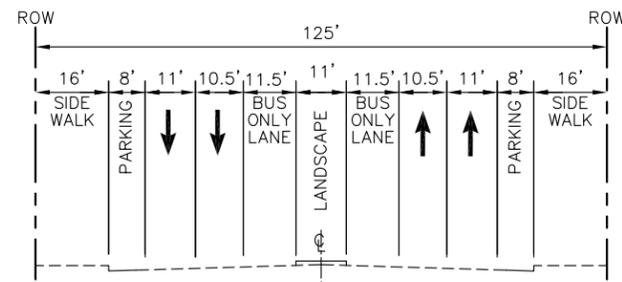
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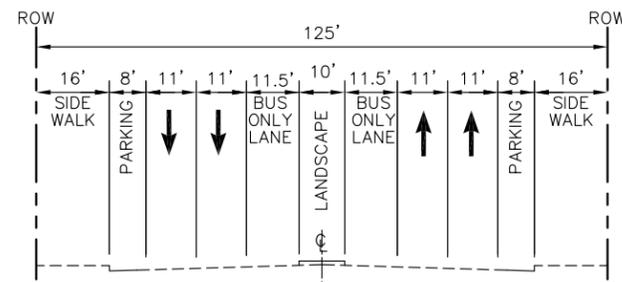
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San Francisco Transportation Authority
1455 Market Street, 22nd Floor
San Francisco, CA 94103

Prepared by:
PARSONS
50 Fremont Street, Suite 1500
San Francisco, CA 94105

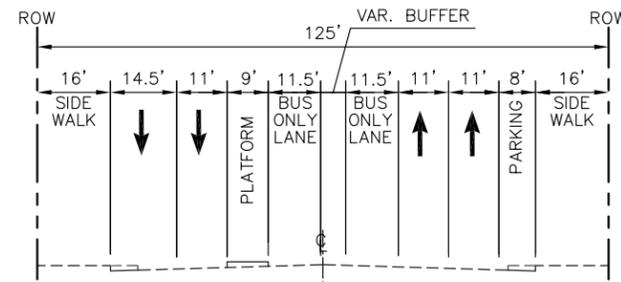
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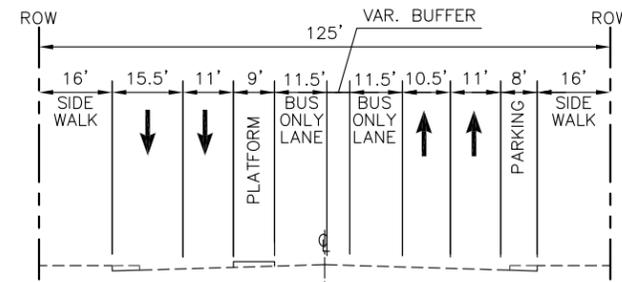
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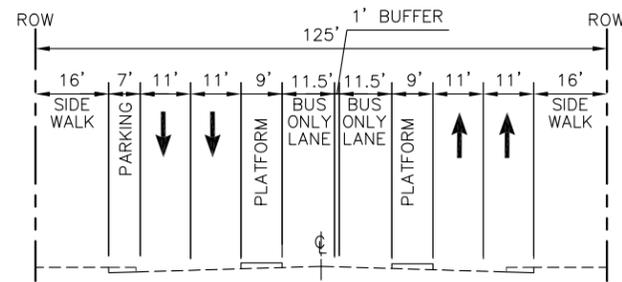
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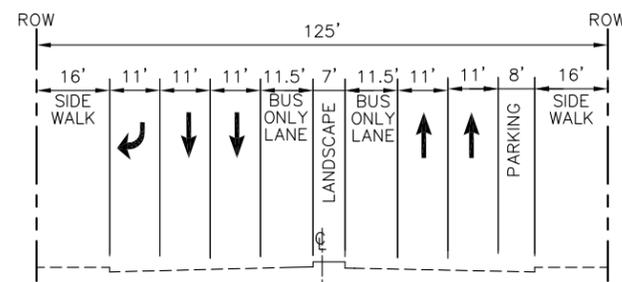
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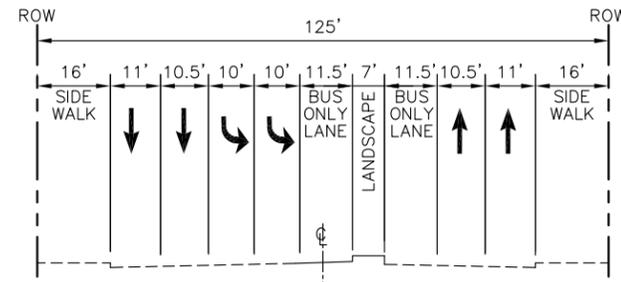
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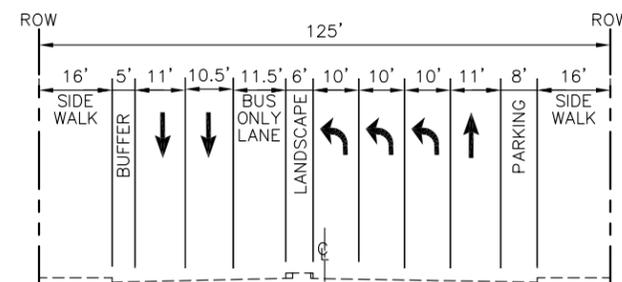
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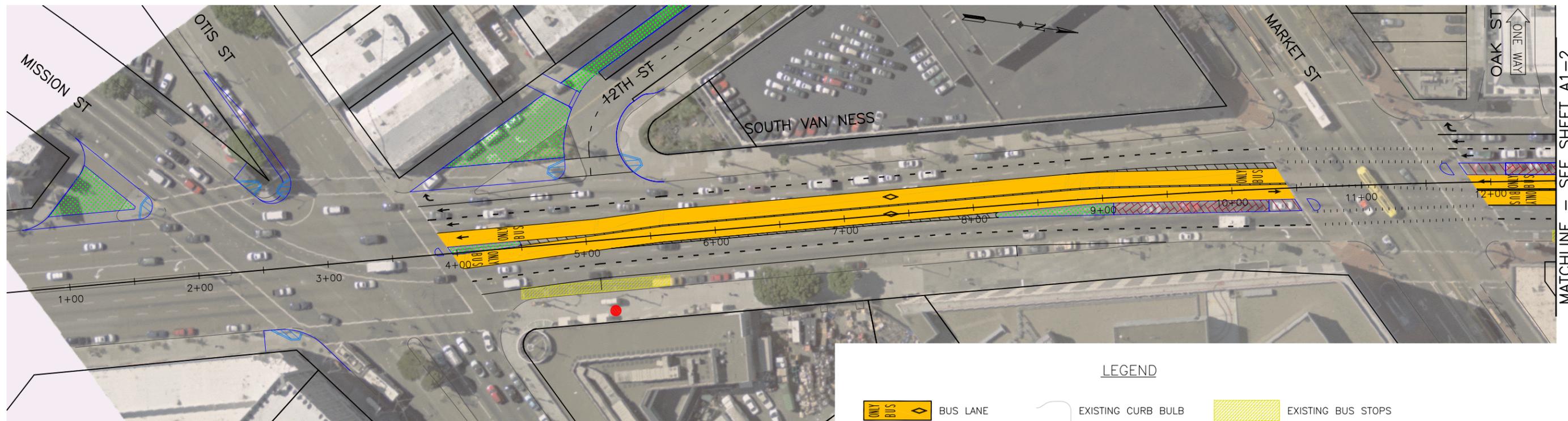
LPA SECTION 6



LPA SECTION 7



LPA SECTION 8



LEGEND

- BUS LANE
- PLATFORMS
- LANDSCAPING
- EXISTING CURB BULB
- NEW CURB BULB
- REMOVE EXISTING CURB BULB
- EXISTING BUS STOPS
- RELOCATED BUS STOPS (ARROW INDICATES DIRECTION OF NEAREST PROPOSED BUS STOP)
- STRIPED BUFFER

GRAPHIC SCALE: 0, 20, 40, 80

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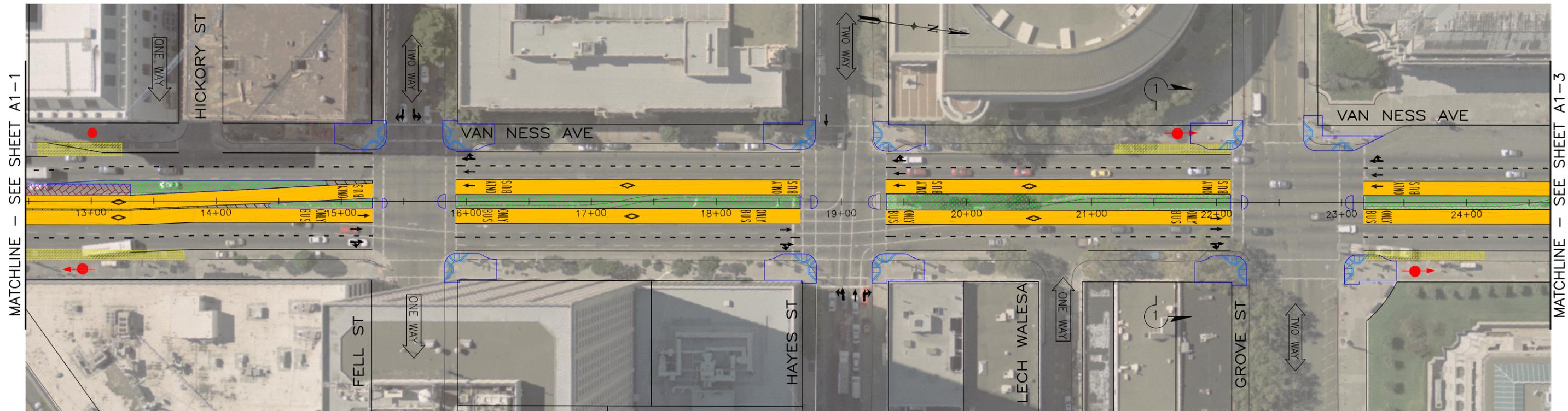
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CONTRACT NO.
DRAWING NO. A1-1
FILE NO.
REV. NO.

**Van Ness Avenue
Bus Rapid Transit Study**

LPA Alternative: Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns

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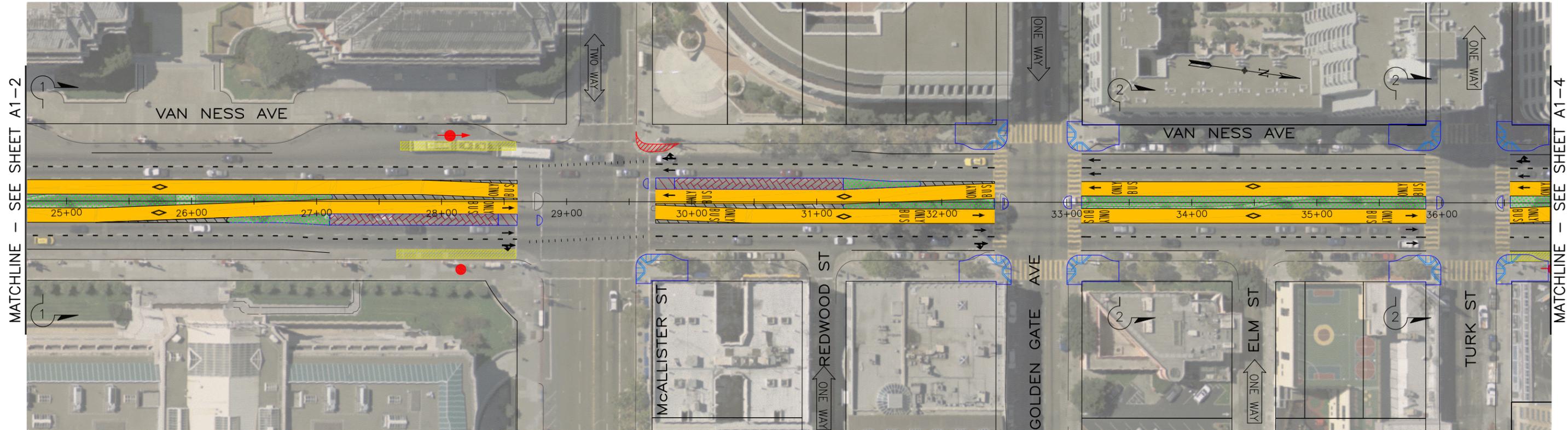
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LPA Alternative: Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns	

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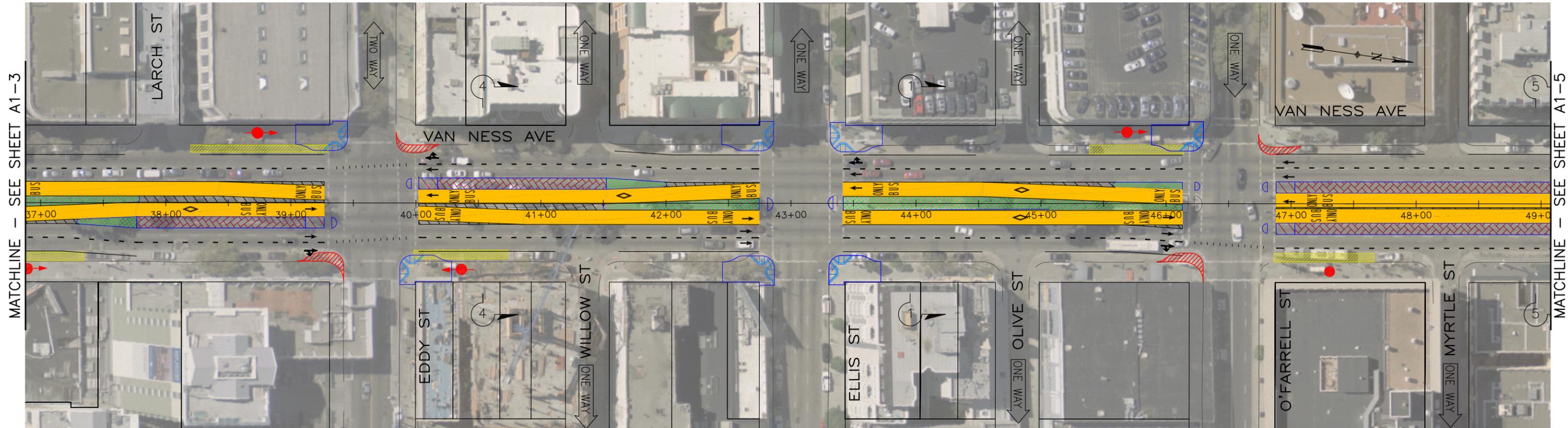
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**Van Ness Avenue
Bus Rapid Transit Study**

**LPA Alternative: Center Lane BRT with Right
Side Boarding/Single Median and Limited Left Turns**

CONTRACT NO.
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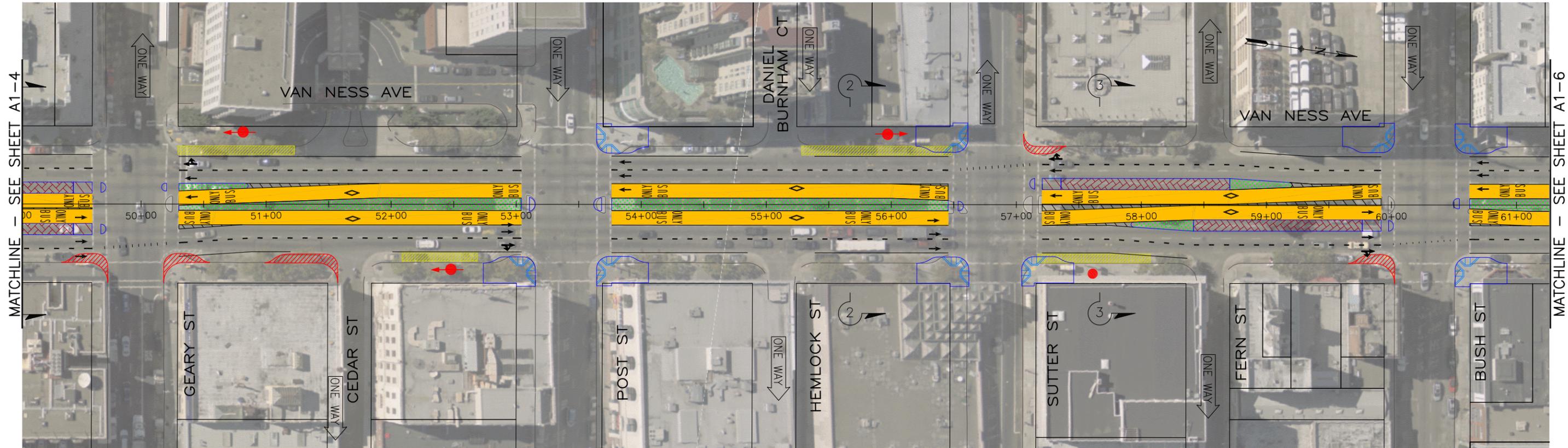
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Bus Rapid Transit Study**

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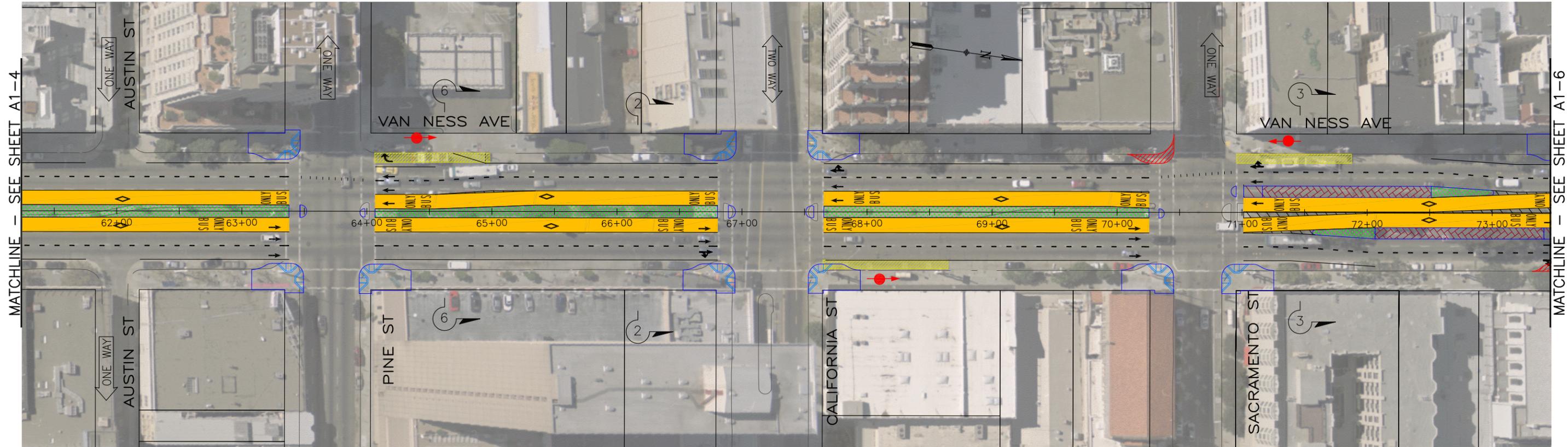
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LPA Alternative: Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns	

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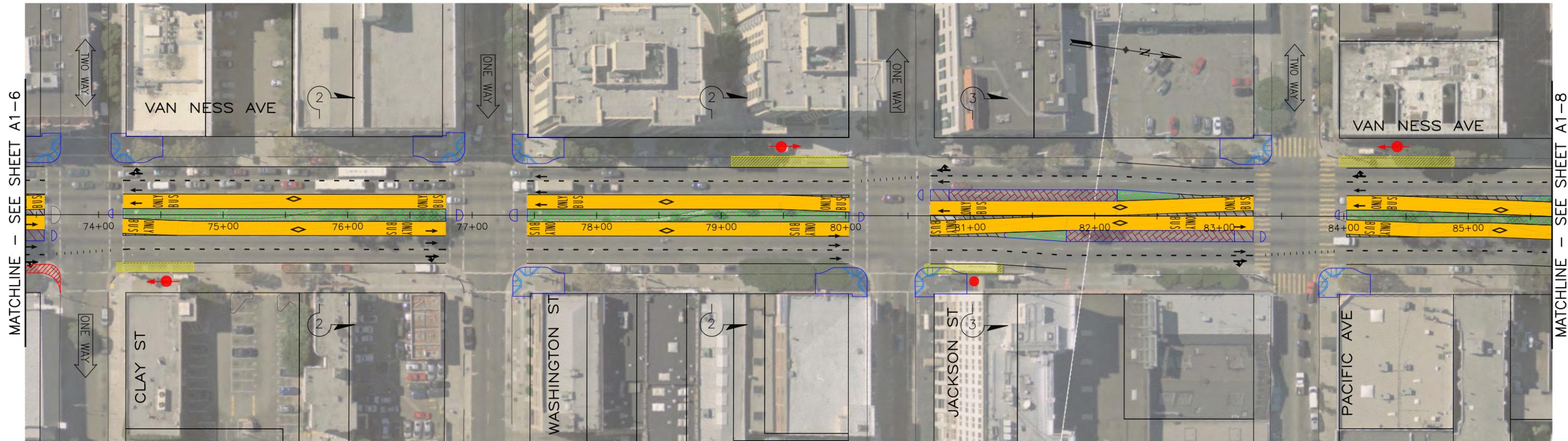
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**Van Ness Avenue
Bus Rapid Transit Study**

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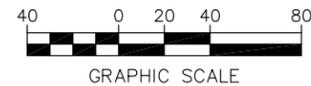
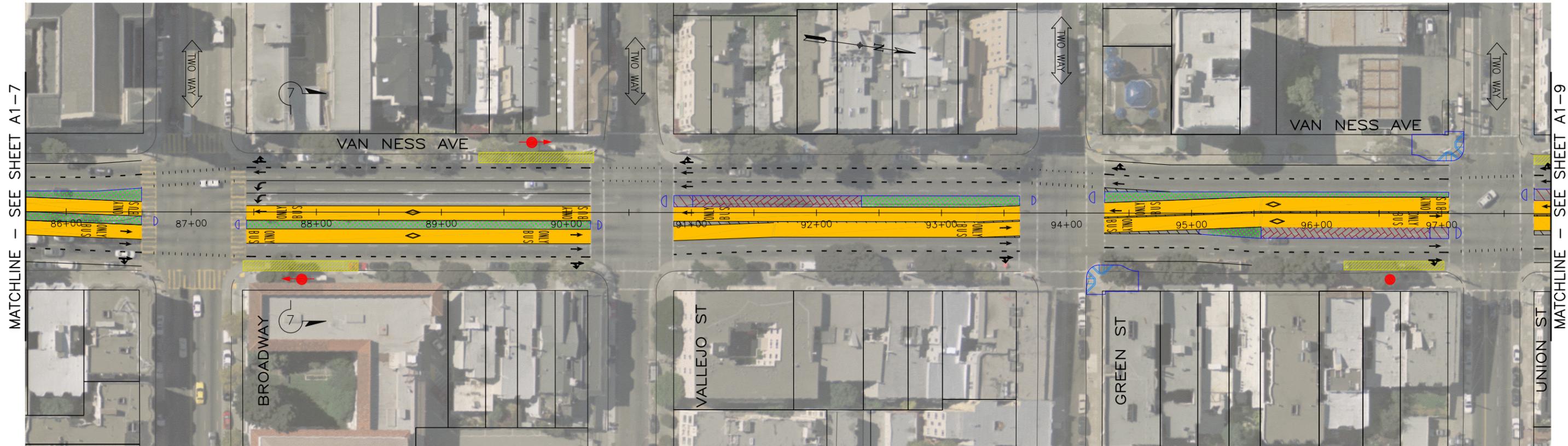
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CHECKED: KF	DATE: 03/13	DEP. DIRECTOR AND CITY TRAFFIC ENGINEER:	

Van Ness Avenue Bus Rapid Transit Study		CONTRACT NO.
LPA Alternative: Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns		DRAWING NO. A1-7
		REV. NO.

DESIGNED: TJW	DATE: 03/13	APPROVED:	SCALE: 1"=80'
DRAWN: TJW	DATE: 03/13	SECTION ENGINEER:	SHEET OF SHEETS 7 OF 9
CHECKED: KF	DATE: 03/13	DEP. DIRECTOR AND CITY TRAFFIC ENGINEER:	

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REFERENCE INFORMATION & FILE NO. OF SURVEYS SUPERCEDES STR-5458.2 REV "4"
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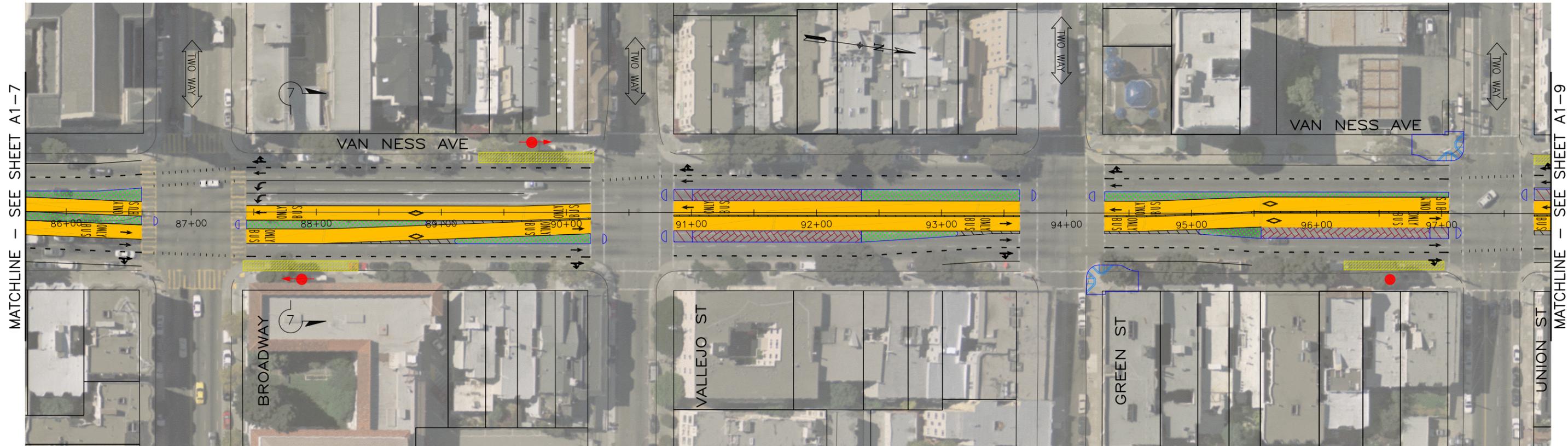
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SCALE: 1"=80'
SHEET OF SHEETS: 8 OF 9

Van Ness Avenue
Bus Rapid Transit Study
LPA Alternative: Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns

CONTRACT NO.
DRAWING NO. A1-8
FILE NO.
REV. NO.

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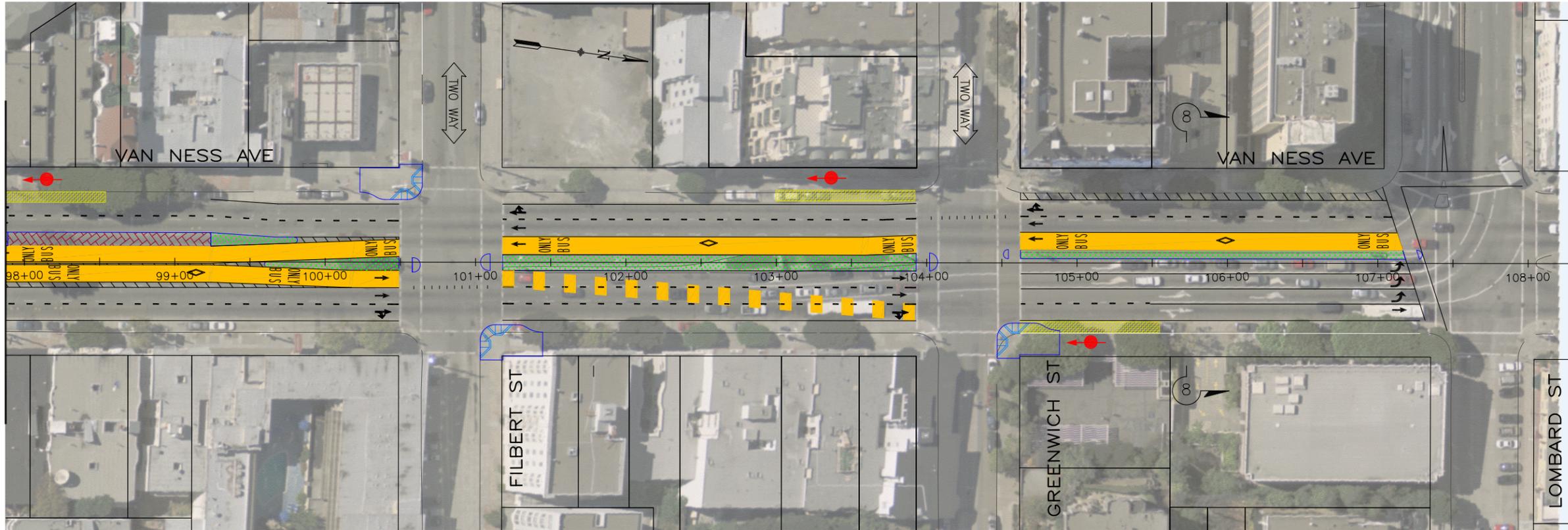
SCALE: 1"=80'
SHEET OF SHEETS: 8 OF 9

Van Ness Avenue
Bus Rapid Transit Study
LPA Alternative: Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns

CONTRACT NO.
DRAWING NO. A1-8B
FILE NO.
REV. NO.

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MATCHLINE - SEE SHEET A1-8



NO.	DATE	DESCRIPTION	BY	APP.
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				

REFERENCE INFORMATION & FILE NO. OF SURVEYS
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CHECKED: KF	DATE: 03/13	DEP. DIRECTOR AND CITY TRAFFIC ENGINEER DATE:

SCALE: 1"=80'
SHEET OF SHEETS: 9 OF 9

**Van Ness Avenue
Bus Rapid Transit Study**

LPA Alternative: Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns

CONTRACT NO.
DRAWING NO. A1-9
FILE NO.
REV. NO.

APPENDIX B

**CHRONOLOGY OF PROJECT AREA HISTORIES
BY JRP HISTORICAL CONSULTING, LLC**

**APPENDIX B – CHRONOLOGY
ORGANIZED BY AREAS OF POTENTIAL EFFECTS**

Detailed Archival Investigations Regarding Potential Archaeological Sites
with General Van Ness Chronology Below

AREA 1

SOUTH OF MARKET TO SOUTH OF FELL

- **1852:** Coast Survey mapping indicates a single structure just south of this area in what would become Van Ness.
- **1857:** Coast Survey mapping indicates the presence of one building
- **1883-1884:** Sidewalk constructed or reconstructed on Van Ness between Market and Fell (275') (San Francisco Muni Report 119)
- **1891-1892:** Artificial Stone and Bituminous Rock sidewalks installed on Oak between Van Ness and Franklin in 40' and 97' sections (San Francisco Muni Report 306, 307)
- **1893-1894:** Grade established at the crossing of Oak and Van Ness at 44 (San Francisco Muni Report 852)
- **1894-1895:** Fell between Polk and Van Ness accepted as a street in May 1889 and paved in Basalt and Fell between Van Ness and Franklin accepted as a street December 1886 and paved in Basalt; Hickory Avenue from Van Ness to Franklin accepted as a street in March 1891 and paved in Bitumen; Market from Van Ness to Page was accepted as a street in November 1869 and paved in basalt; The crossing of Van Ness and Fell accepted in March 1890 and paved in bitumen (San Francisco Muni Report 117, 129, 140, 208)
- **1897:** Grade of crossing of Van Ness and Market is 44 (Faust Pocket Guide 99)
- **1898-1899:** Market paved in bitumen between Sixth and Van Ness (San Francisco Muni Report 488)
- **1900:** Grade established at the crossing of Oak and Van Ness at 44; Grade established at the crossing of Fell and Van Ness at 46 (Official Street Grades 311)
- **1909:** Grade established at the crossing of Van Ness and the Westerly curb line of, at Market , northwesterly curb line, of 43; Grade established at the crossing of Van Ness and Oak at 44 (Official City Grades 299)
- **1909-1910:** Contract for laying cast-iron mains, conduits and appurtenances in the district bounded by Powell, Market, Van Ness, the Bay; Contract for laying cast-iron mains, conduits and appurtenances in the district bounded by Van Ness, Market, Divisadero, and Pacific; Van Ness between Market to Hayes 1,680 sq.' asphalt paved (San Francisco Muni Report 527, 724)
- **1910-1911:** Market opposite the termination of Van Ness constructed a reinforced concrete fire cistern; Market between Van Ness and Franklin 2,011 sq.' of artificial stone sidewalk constructed; Market between Van Ness and Ferry 654 sq.' asphalt paved (San Francisco Muni Report 804, 937, 1048)

- **1911-1912:** Oak between Franklin and Van Ness 6,944 sq.' asphalt paving; Oak between Franklin and Van Ness grading, curbsetting, etc.; Van Ness and Market North 26,181 sq.' asphalt paving; Van Ness and Market North 6,325 sq.' asphalt paving; Market between Van Ness and Franklin 567 sq.' sidewalk constructed; Market and Van Ness Fire Alarm Box 86 in Service June 30, 1912 (San Francisco Muni Report 981, 982, 986, 988, 1016, 593)
- **1914-1915:** Van Ness between Market and Exposition has been resurfaced and lighting system installed; Van Ness from Market to Bay has been improved (San Francisco Muni Report 322, 375)
- **1916-1917:** Section "A" of the Church Street Line runs from Van Ness to Market to 16th and Church and was completed on June 28, 1916 (San Francisco Muni Report 848)

AREA 2

SOUTH OF MCALLISTER TO GOLDEN GATE

- **1852:** Coast Survey mapping does not indicate presence of any buildings
- **1857:** Coast Survey mapping does not indicate presence of any buildings
- **1869:** Coast Survey mapping indicates that Van Ness has started to take shape as a thoroughfare between Market Street and Broadway. There are no buildings present.
- **1887-1888:** Crosswalks installed at crossing of Van Ness and McAllister (San Francisco Muni Report 387)
- **1891-1892:** Crossing of Van Ness and McAllister paved with bitumen; Bitumen on Tyler (Golden Gate) between Polk and Van Ness repaired with bitumen; Ash between Van Ness and Franklin accepted as a street and consisted of 384' of Bitumen paving; Locust Avenue (Redwood Avenue) between Van Ness and Polk accepted as a street and consisted of 412' of Bitumen paving; Granite curbs installed on Ash between Van Ness and Franklin (245') and Locust between Van Ness and Polk (768'); Artificial stone and bituminous rock sidewalks installed on Ash between Van Ness and Franklin (768') (San Francisco Muni Report 268, 271, 278, 279, 292, 301)
- **1892-1893:** Locust Avenue (Redwood Avenue) between Van Ness and Franklin accepted as a street and consisted of 384' of Bitumen paving (San Francisco Municipal Report 184)
- **1893-1894:** Grade established at the crossing of Fulton and Van Ness at 54; Grade established at Golden Gate and Van Ness at 69; Grade established at the crossing of McAlister and Van Ness at 58; Artificial stone and bituminous rock sidewalks installed on Locus between Van Ness and Polk (411') (San Francisco Muni Report 793, 794, 836, 494)
- **1894-1895:** Ash from Van Ness to Franklin accepted as a street and paved in Bitumen; Grove from Polk to Van Ness was accepted as a street in November 1890 and paved in basalt and Grove from Van Ness to Franklin was accepted as a street in March 1890 and paved in Bitumen; Locust from Polk to Van Ness was accepted as a street in March 1892 and paved in bitumen and Locust between Van ness and Franklin was accepted as a street in September 1892 and paved in bitumen; McAlister between Polk and Van Ness was accepted as a street in December 1884 and paved in basalt and McAlister from Van Ness to Franklin was accepted as a street in October 1877 and paved in basalt; The crossing of Tyler (Changed to Golden Gate) and Van Ness was accepted in July 1879 and paved in bitumen; The crossing of Van Ness and Grove accepted in June 1885 and paved in macadam; Ash from Polk to Van Ness accepted a street and consisted of 384' of Bitumen paving; Ash between Polk and Van Ness paved in 384' bituminous rock; Ash between Polk and Van Ness installed 580.6' of granite curb (San Francisco Muni Report 99, 126, 138, 141, 206, 208, 155, 183, 187)

- **1895-1896:** Crossing of Golden Gate and Van Ness paved; Van Ness between McAllister and Golden Gate paved in bitumen; Van Ness and Golden Gate 81' concrete foundation and bituminous rock pavement; Ash between Van Ness and Polk 207' of artificial stone sidewalk constructed; Van Ness between Golden Gate and Turk accepted as a street and paved in 275' of bituminous rock (San Francisco Muni Report 379, 386, 404, 465, 432)
- **1897:** Grade of crossing of Van Ness and Ash is 56; Grade of crossing of Van Ness and McAllister is 58; Grade of crossing of Van Ness and Locust (Redwood) is 61; Grade of crossing of Van Ness and Golden Gate is 64 (Faust Pocket Guide 99)
- **1900:** Grade established at the crossing of Van Ness and Fulton at 54; Grade established at the crossing of Van Ness and McAllister at 58; Grade established at the crossing of Van Ness and Golden Gate at 64 (Official Street Grades 311)
- **1909:** Grade established at the crossing of Van Ness and McAllister at 58; Grade established at the crossing of Van Ness and Golden Gate at 69 (Official City Grades 299)
- **1909-1910:** Van Ness between Fulton and McAllister sewer repair/reconstruction; Van Ness and Eddy sewer repair/reconstruction (San Francisco Muni Report 711)
- **1910-1911:** Van Ness between McAllister and Turk 1,518 sq.' paved; Golden Gate and Van Ness Fire Alarm Box 88 in Service June 30, 1912 (San Francisco Muni Report 1047, 593)

TURK TO ELLIS

- **1852:** Coast Survey mapping does not indicate presence of any buildings
- **1857:** Coast Survey mapping does not indicate presence of any buildings
- **1869:** Coast Survey mapping indicates that Van Ness has started to take shape as a thoroughfare between Market Street and Broadway. There are no buildings present.
- **1873-1874:** Cement pipe sewer laid on Eddy from Van Ness to Franklin (San Francisco Muni Report 166)
- **1887-1888:** Eddy paved between Van Ness and Polk (San Francisco Muni Report 387)
- **1893-1894:** Grade established at the crossing of Eddy and Van Ness at 100; Grade established at the crossing of Ellis and Van Ness at 116; Grade established at Turk and Van Ness at 76 (San Francisco Muni Report 772, 777, 905)
- **1894-1895:** Ellis from Polk to Van Ness accepted as a street in November 1883 and paved in Basalt and Ellis Street from Van Ness to Franklin accepted as a street May 1890 and paved in Basalt; Turk from Polk to Van Ness was accepted as a street in October 1879 and paved in basalt and Turk from Van Ness to Franklin was accepted as a street in May 1889 and paved in basalt; The crossing of Turk and Van Ness was accepted in June 1892 and paved in bitumen; The crossing of Van Ness and Eddy accepted and paved in 125' of bitumen; Willow from Polk to Van Ness accepted as a street and paved in 384' of bitumen; Willow between Polk and Van Ness installed 570.6' of granite curbs (San Francisco Muni Report 105, 167, 205, 160, 159, 186)
- **1895-1896:** Eddy between Van Ness and Franklin accepted as a street and paved in 412' of bitumen; Van Ness between Eddy and Ellis 275' of 12" ironstone pipe sewers laid (San Francisco Muni Report 428, 442)
- **1897:** Grade of crossing of Van Ness and Turk is 76; Grade of crossing of Van Ness and Laurel is 88; Grade of crossing of Van Ness and Eddy is 100; Grade of crossing of Van Ness and Willow is 108; Grade of crossing of Van Ness and Ellis is 116 (Faust Pocket Guide 99)

- **1900:** Grade of crossing of Van Ness and Turk is 76; Grade of crossing of Van Ness and Eddy is 100; Grade of crossing of Van Ness and Ellis is 116 (Official Street Grades 311)
- **1907-1908:** Eddy between Polk and Van Ness 700 sq.' of street repaired with basalt blocks and cobbles (San Francisco Muni Report 759)
- **1909:** Grade established at the crossing of Van Ness and Turk at 76; Grade established at the crossing of Van Ness and Eddy at 100; Grade established at the crossing of Van Ness and Ellis at 116 (Official City Grades 299)
- **1909-1910:** Eddy-Van Ness Fire Alarm Box 655 in Service June 30, 1910; Bush-Van Ness Fire Alarm Box 656 in Service June 30, 1910 (San Francisco Muni Report 1025)
- **1911-1912:** Eddy-Van Ness Fire Alarm Box 655 in Service June 30, 1912 (San Francisco Muni Report 597)
- **1912-1913:** Eddy between Polk and Van Ness 900 sq.' basalt paving; Eddy between Larkin and Van Ness grading, curbsetting, and concreting; Turk from Polk to Van Ness 13,747 sq.' of asphalt paving (San Francisco Muni Report 591, 596, 598)
- **1913-1914:** Van Ness between Turk and O'Farrell, and between Pacific and Vallejo, crushed rock added to asphalt before rolling (San Francisco Muni Report 388-389)

SOUTH OF O'FARRELL TO NORTH OF GEARY

- **1852:** Coast Survey mapping does not indicate presence of any buildings
- **1857:** Coast Survey mapping does not indicate presence of any buildings
- **1869:** Coast Survey mapping indicates that Van Ness has started to take shape as a thoroughfare between Market Street and Broadway. There are no buildings present.
- **1883-1884:** Curbing installed on Geary (770') between Van Ness and Polk; Iron stone pipe sewers installed on O'Farrell between Polk and Van Ness (San Francisco Muni Report 115, 118)
- **1891-1892:** 16" Iron-stone pipe sewers installed on Green between Polk and Van Ness (384') (San Francisco Municipal Report 316)
- **1893-1894:** Grade established at Geary and Van Ness at 140; Grade established at O'Farrell and Van Ness 130 (San Francisco Muni Report 795, 854)
- **1894-1895:** Geary from Polk to Van Ness accepted as a street February 1885 and paved in basalt and Geary from Van Ness to Franklin accepted as a street in February 1890 and paved in basalt; Myrtle from Polk to Van Ness was accepted as a street in October 1894 and paved in bitumen and Myrtle from Van Ness to Franklin was accepted as a street in January 1891 and paved in bitumen; O'Farrell from Polk to Van Ness accepted as a street in August 1884 and paved in basalt; The crossing of Van Ness and O'Farrell accepted in July 1880 and paved in Macadam and the crossing of Van Ness and Geary accepted in April 1881 and paved in macadam; Union from Polk to Van Ness accepted as a street and paved in 384' of basalt; Van Ness from Geary to Post accepted as a street and paved in 275' of bitumen; Van Ness from Pacific to Broadway accepted as a street and paved in 265' of bitumen; Van Ness from Turk to Eddy accepted as a street and paved in 275' of bitumen (San Francisco Muni Report 124, 145, 148, 208, 159)
- **1897:** Grade of crossing of Van Ness and O'Farrell is 130; Grade of crossing of Van Ness and Myrtle is 135; Grade of crossing of Van Ness and Geary is 140 (Faust Pocket Guide 99)
- **1900:** Grade established at the crossing of Van Ness and O'Farrell at 130; Grade established at the crossing of Van Ness and Geary at 140 (Official Street Grades 311)

- **1909:** Grade established at the crossing of Van Ness and O'Farrell at 130; Grade established at the crossing of Van Ness and Geary at 140 (Official City Grades 299)
- **1909-1910:** O'Farrell-Van Ness Fire Alarm Box 177 in Service June 30, 1910 (San Francisco Muni Report 1022)
- **1910-1911:** Geary between Van Ness and Taylor 3,598 sq.' of artificial stone sidewalks constructed; Geary between Polk and Van Ness sewer repair/reconstruction; Geary between Franklin and Van Ness sewer repair/reconstruction (San Francisco Muni Report 938, 1026, 1028)
- **1911-1912:** Geary between Polk and Van Ness 4,450 sq.' basalt paving; Geary between Polk and Van Ness 750 sq.' basalt paving; Geary between Powell and Van Ness and vicinity 4,861 sq.' basalt paving; Geary between Mason and Van Ness 14,011 sq.' sidewalks constructed; O'Farrell and Van Ness Fire Alarm Box 177 in service June 30, 1912 (San Francisco Muni Report 984, 987, 993, 594)
- **1912-13:** O'Farrell between Polk and Van Ness grading and concreting; Geary between Van Ness and Franklin 8,200 sq.' of basalt paving; Geary between Van Ness and Franklin grading, curbsetting, and concreting; Geary between Van Ness and Franklin 360 sq.' of basalt paving (San Francisco Muni Report 583, 602, 603, 607)
- **1913-1914:** Geary between Market to Van Ness an asphalt pavement was laid for the entire width of the roadway, excepting the header blocks on either side of the rails on the municipal railroad and the 26" basalt gutters. This pavement was laid on a standard 6" cement concrete foundation and consisted of a 2" asphaltic binder course and a 1 ½" asphaltic wearing surface. (San Francisco Muni Report 402)

SOUTH OF SUTTER TO NORTH OF BUSH

- **1852:** Coast Survey mapping does not indicate presence of any buildings
- **1857:** Coast Survey mapping does not indicate presence of any buildings
- **1869:** Coast Survey mapping indicates that Van Ness has started to take shape as a thoroughfare between Market Street and Broadway. There are no buildings present.
- **1883-1884:** Curbing installed on Bush (770') between Van Ness and Franklin; Sutter macadamized (385') between Van Ness and Franklin; Sidewalks constructed or reconstructed (770') on Bush between Van Ness and Franklin (San Francisco Muni Report 115, 117, 119).
- **1891-1892:** Artificial stone sidewalks installed on North side of Bush between Van Ness and Polk; Sewer constructed on Austin between Polk and Van Ness; Austin between Polk and Van Ness accepted as a street and consisted of 384' of Bitumen paving; Granite curbs installed on Austin between Van Ness and Franklin (769') (San Francisco Muni Report 268, 268, 278, 293)
- **1892-1893:** Paved with bitumen rock Austin between Polk and Van Ness (384') (San Francisco Muni Report 183)
- **1893-1894:** Grade established at the crossing of Bush and Van Ness at 170; Grade established at Sutter and Van Ness at 162 (San Francisco Muni Report 742, 896)
- **1894-1895:** : Austin between Van Ness and Franklin accepted as a street and paved in Bitumen; Bush between Polk and Van Ness accepted as a street on September 13, 1880 in Basalt pavement; Sutter from Polk to Van ness was accepted as a street in November 1872 and paved in basalt and Sutter from Van Ness to Franklin was accepted as a street in June 1890 and paved in bitumen; The crossing to Bush and Van Ness accepted in March 1881 and paved in Macadam (San Francisco Muni Report 100, 106, 165, 180)

- **1895-1896:** Van Ness between Sutter and Post paved with 275' of bituminous rock on macadam foundation; Crossing of Sutter and Van Ness paved with bituminous rock on macadam foundation; Van Ness between Sutter and Bush, including the crossing of Fern, paved with bituminous rock on macadam foundation; Van Ness between Sutter and Bush paved with 275' of bitumen (San Francisco Muni Report 437, 393, 394, 437)
- **1897:** Grade of crossing of Van Ness and Sutter is 162; Grade of crossing of Van Ness and Fern is 166; 1897: Grade of crossing of Van Ness and Bush is 170 (Faust Pocket Guide 99)
- **1900:** Grade established at the crossing of Van Ness and Sutter at 162; Grade established at the crossing of Van Ness and Bush at 170 (Official Street Grades 311)
- **1901-1902:** Van Ness between north line of Pine to south line of Bush repaved bitumen on cobbles (San Francisco Muni Report 350)
- **1908-09:** Sutter between Van Ness and Sansome repaved (San Francisco Muni Report 599)
- **1909:** Grade established at the crossing of Van Ness and Sutter at 162; Grade established at the crossing of Van Ness and Bush at 170 (Official City Grades 299)
- **1909-1910:** Bush between Larkin and Van Ness grading and curbssetting (San Francisco Muni Report 727)
- **1910-1911:** Van Ness between Sutter and Bush 4,339 sq.' paved; Van Ness between Post to Sutter 1,749 sq.' asphalt paving; Van Ness and Fern grading and curbssetting (San Francisco Muni report 1040, 1048, 1067)
- **1911-1912:** Sutter between Polk and Van Ness 250 sq.' basalt paving; Sutter and Van Ness grading, curbssetting, etc.; Sutter between Van Ness and Polk 100 sq.' sidewalk constructed; Bush-Van Ness Fire Alarm Box in service June 30, 1912 (San Francisco Muni Report 932, 983, 1014, 597)
- **1924:** Oct. 22: New stop signals for night use for pedestrian safety at boulevard crossings tested at Van Ness and Bush; signal supplied by CSAA, mounted upon familiar iron pipe standard; "A red light on top of the signal directs attention to it and a white lamp concealed under a hood illuminates the yellow diamond shaped sign bearing the words "Stop," and directly underneath, "Boulevard." (San Francisco Chronicle 10/22/24)

SOUTH OF SACRAMENTO TO NORTH OF CLAY

- **1852:** Coast Survey mapping does not indicate presence of any buildings
- **1857:** Coast Survey mapping does not indicate presence of any buildings
- **1869:** Coast Survey mapping indicates that Van Ness has started to take shape as a thoroughfare between Market Street and Broadway. There are no buildings present.
- **1881-1882:** Street improvements made on Van Ness between Sacramento and California - Van Ness macadamized and curbs installed from California to Sacramento; Crossing at Sacramento and Van Ness macadamized and rock gutterways installed; Plank sidewalks installed along Van Ness from California to Sacramento; crosswalk installed at crossing of Sacramento and Van Ness; cement pipe sewer with one manhole on Van Ness installed between Sacramento and California; Artificial Stone and Bituminous rock sidewalks installed on California between Van Ness and Polk in 303' (San Francisco Muni Report 115, 216, 307).
- **1887-1888:** Sacramento paved between Van Ness and Polk (San Francisco Muni Report 387)
- **1891-1892:** Clay between Van Ness and Polk accepted as a street and consisted of 412' of Bitumen paving; Sacramento between Van Ness and Franklin paved in 384' of bituminous rock;

- Granite curb installed on Sacramento between Van Ness and Franklin (240') and Clay between Polk and Van Ness (768'); Artificial Stone and Bituminous rock sidewalks installed on Sacramento between Van Ness and Polk in 324', 355', 30' sections (San Francisco Muni Report 278, 290, 294, 301, 303, 305)
- **1893-1894:** Grade established at the crossing of California and Van Ness at 180; Grade established at the crossing of Clay and Van Ness at 190; Grade established at Sacramento and Van Ness at 180 (San Francisco Muni Report 746, 873)
 - **1894-1895:** California between Polk and Van Ness accepted as a street December 1892 and California between Van Ness and Franklin accepted as a street June 1891; Clay between Van Ness and Franklin accepted as a street May 1888 and paved in Basalt; The crossing of California and Van Ness was accepted in June 1892 and paved in bitumen; The crossing of Clay and Van Ness was accepted in September 1882 and paved in macadam; The crossing of Sacramento and Van Ness was accepted in June 1882 and paved in macadam (San Francisco Muni Report 107, 110, 181, 182, 201)
 - **1895-1896:** Van Ness between Clay and Sacramento paved in 275' of bitumen; Van Ness between Washington and Clay paved in 275' of bitumen; Crossing of Clay and Van Ness paved; North half of crossing of Sacramento and Van Ness paved (San Francisco Muni Report 436, 379)
 - **1897:** Grade of crossing of Van Ness and Sacramento is 180; Grade of crossing of Van Ness and Clay is 190 (Faust Pocket Guide 99)
 - **1900:** Grade established at the crossing of Van Ness and Sacramento at 180; Grade established at the crossing of Van Ness and Clay at 190 (Official Street Grades 311)
 - **1909:** Grade established at the crossing of Van Ness and Sacramento at 180; Grade established at the crossing of Van Ness and Clay at 190 (Official City Grades 299)
 - **1909-1910:** Van Ness between California to Jackson 8,496 sq.' asphalt repaired; Van Ness north of Sacramento 878 sq.' asphalt paved; Van Ness between Sacramento and California 607 sq.' asphalt paved (San Francisco Muni Report 719, 731)
 - **1910-1911:** Sacramento between Van Ness and Franklin 375 sq.' artificial stone constructed; Clay between Van Ness and Larkin 2,627 sq.' paved (San Francisco Muni Report 943, 1040)
 - **1911-1912:** Clay between Van Ness and Polk grading, curbsetting, etc.; Clay between Polk and Van Ness 100 sq.' sidewalk constructed; Sacramento between Van Ness and Franklin repairs made to sidewalk (San Francisco Muni Report 988, 1016, 1018)
 - **1912-1913:** Sacramento between Van Ness and Franklin 8,935 sq.' asphalt paving (San Francisco Muni Report 594)

SOUTH OF JACKSON TO NORTH OF PACIFIC

- **1852:** Coast Survey mapping does not indicate presence of any buildings
- **1857:** Coast Survey mapping does not indicate presence of any buildings
- **1869:** Coast Survey mapping indicates that Van Ness has started to take shape as a thoroughfare between Market Street and Broadway. There are no buildings present.
- **1887-1888:** Jackson paved between Van Ness and Polk (San Francisco Muni Report 387)
- **1891-1892:** Pacific paved with basalt blocks between Van Ness and Polk; Jackson between Van Ness and Franklin accepted as a street and consisted of 412' of Bitumen paving and Pacific between Van Ness and Polk accepted as a street and consisted of 384' of Bitumen paving;

- Granite curbs installed on Pacific between Polk and Van Ness; 16" Iron-Stone pipe sewer installed on Jackson from Franklin to Van Ness (384') (San Francisco Muni Report 267, 279, , 292, 316)
- **1893-1894:** Broadway from Van Ness to Franklin accepted as a street and paved in 384' of bitumen; Grade established at the crossing of Jackson and Van Ness at 180; Grade established at Pacific and Van Ness at 106 (San Francisco Muni Report 470, 814, 856)
 - **1894-1895:** Jackson from Polk to Van Ness was accepted as a street in October 1887 and paved in basalt and Jackson from Van Ness to Franklin was accepted as a street in October 1891 and paved in bitumen; Pacific from Polk to Van Ness was accepted as a street in March 1892 and paved in basalt and Pacific from Van Ness to Franklin was accepted as a street June 1889 and paved in basalt; Washington from Polk to Van Ness accepted as a street June 1890 and paved in Bitumen and Washington from Van Ness to Franklin accepted as a street August 1890 and paved in bitumen; Broadway from Van Ness to Polk accepted as a street and paved in 384' of Bitumen. (San Francisco Muni Report 132, 149, 174, 155)
 - **1895-1896:** Van Ness from Pacific to Jackson paved; Crossing of Van Ness and Pacific paved in 125' of bitumen; Van Ness between Jackson and Washington paved in 275' of bitumen; Crossing of Van Ness and Jackson paved; Crossing of Washington and Van Ness paved in 125' of bitumen; Crossing of Van Ness and Broadway paved with bituminous rock; Van Ness between Golden Gate and McAllister paved in 275' of bitumen; Northerly half of the crossing of Van Ness and Jackson paved in 125' of bitumen; Crossing of Van Ness and Clay paved in 125' of bitumen; Northerly half of the crossing of Van Ness and Sacramento paved in 125' of bitumen, (San Francisco Muni Report 379, 437, 412, 436, 437)
 - **1897:** Grade of crossing of Van Ness and Jackson is 180; Grade of crossing of Van Ness and Pacific is 166 (Faust Pocket Guide 99)
 - **1907-1908:** Pacific between Polk and Van Ness repaired 1,050 sq.' of street with basalt blocks and cobbles (San Francisco Muni Report 756)
 - **1900:** Grade established at the crossing of Van Ness and Jackson at 180; Grade established at the crossing of Van Ness and Pacific at 166 (Official Street Grades 311)
 - **1909:** Grade established at the crossing of Van Ness and Jackson at 180; Grade established at the crossing of Van Ness and Pacific at 166 (Official City Grades 299)
 - **1909-1910:** Jackson between Van Ness and Franklin sewer repair/reconstruction; Jackson between Polk to Van Ness 4,187 sq.' paved in asphalt; Jackson between Polk and Van Ness grading and curbsetting; Pacific between Van Ness and Gough 6,436 sq.' asphalt paved (San Francisco Muni Report 712, 728, 730, 736)
 - **1912-1913:** Jackson between Van Ness to Webster 3,723 sq.' asphalt paving; Pacific between Van Ness and Franklin curbsetting; Pacific between Van Ness and Franklin 12,143 sq.' asphalt paving; Pacific between Franklin and Van Ness 7,775 sq.' concreting; Pacific Street between Van Ness and Franklin 12,143' reconstructed from basalt to asphalt (San Francisco Muni Report 594, 608, 610, 612, 630)
 - **1913-1914:** Van Ness between Turk and O'Farrell, and between Pacific and Vallejo, crushed rock added to asphalt before rolling (San Francisco Muni Report 388-389)

AREA 3

SOUTH OF VALLEJO TO SOUTH OF GREEN

- **1852:** Coast Survey mapping indicates four buildings present along Van Ness alignment between current Vallejo and Green streets. These were historically located in Lot 9 of the Laguna Survey
- **1857:** Coast Survey mapping indicates the presence of two buildings
- **1869:** Coast Survey mapping shows that Van Ness is not opened through Laguna Survey. There are no buildings present.
- **1889-1894:** San Francisco began extending Van Ness Avenue through Laguna Survey which began with grading (San Francisco Call 26 Jan. 1894).
- **1891-1892:** Van Ness from Vallejo to Bay (except between Greenwich and Filbert), located within the Laguna Survey, are now open public streets and can be improved under the provisions of the Street Law; Artificial and Bituminous Sidewalks installed on the northwest corner of Van Ness and Vallejo (150') (San Francisco Muni Report 260, 305)
- **1893-1894:** Grade established at the crossing of Green and Van Ness at 105; Grade established at Vallejo and Van Ness at 120; Broadway between Van Ness and Franklin accepted as a street and paved in 384' of bitumen; Green between Van Ness to Franklin accepted as a street and paved in 384' of Basalt; Van Ness between Vallejo and Green accepted as a street and paved in 275' of Bitumen; Crossing at Van Ness and Green paved in basalt (125'); Granite curbs installed on Van Ness between Vallejo and Green (275'), on Green between Van Ness and Franklin (284'), and on Broadway between Van Ness and Franklin (384') (San Francisco Muni Report 799; 912, 470, 471, 478, 479)
- **1894-1895:** Vallejo from Polk to Van Ness accepted as a street in February 1886 and paved in basalt and Vallejo from Van Ness to Franklin accepted as a street in March 1886 and paved in basalt; Van Ness from Broadway to Vallejo accepted as a street and paved in 275' of bitumen; Crossing of Van Ness and Green accepted and paved in 125' of basalt; Van Ness on the corner of Broadway installed 22' of artificial stone sidewalks (San Francisco Muni Report 171, 159, 160, 195)
- **1897:** City directory, Margaret Evans (owner of portion of Laguna Survey, Lot 9), widow, residence at 2313 Van Ness.
- **1897:** Grade of crossing of Van Ness and Vallejo is 120; Grade of crossing of Van Ness and Green is 90 (Faust Pocket Guide 99)
- **1900:** Grade established at the crossing of Van Ness and Vallejo at 120; Grade established at the crossing of Van Ness and Green at 105 (Official Street Grades 311)
- **1909:** Grade established at the crossing of Van Ness and Vallejo at 120; Grade established at the crossing of Van Ness and Green at 105 (Official City Grades 299)
- **1909-1910:** Vallejo-Van Ness Fire Alarm Box 168 in Service June 30, 1910 (San Francisco Muni Report 1022)
- **1910-1911:** Van Ness between Broadway and Vallejo 1,375 sq.' of artificial stone sidewalk constructed; Van Ness between Vallejo and Filbert 2,430 sq.' of artificial stone sidewalk constructed; Vallejo between Van Ness and Franklin 680 sq' of basalt paving (San Francisco Muni Report 937, 938, 1057)
- **1911-1912:** Vallejo and Van Ness Fire Alarm Box 168 in service June 30, 1920 (San Francisco Muni Report 594)

- **1912-1913:** Vallejo between Franklin and Van Ness 8,303 sq.' asphalt paving; Vallejo between Van Ness and Franklin 8,800 ft of concrete; Crossing of Turk and Van Ness paved with 2,370 s.' of asphalt; Vallejo between Polk and Van Ness 8,640 sq.' basalt paving (San Francisco Muni Report 594, 596, 598, 619)
- **1913-1914:** Van Ness between Turk and O'Farrell, and between Pacific and Vallejo, crushed rock added to asphalt before rolling (San Francisco Muni Report 388-389)

NORTH OF GREEN TO SOUTH OF FILBERT

- **1852:** Coast Survey mapping indicates one building present along Van Ness alignment at intersection with current Filbert Street. This building was historically located in Lot 5 or 6 of Laguna Survey [REFER TO GRAPHIC]
- **1857:** Coast Survey mapping indicates the presence of one building at the north end of the Sensitivity Area. The form of the building's outline strongly suggests it was a residence.
- **1869:** Coast Survey mapping shows that Van Ness is not opened through Laguna Survey. There is one building present at the north end of the Sensitivity Area and one building immediately adjacent to the south end of the Sensitivity Area.
- **1889-1894:** San Francisco began extending Van Ness Avenue through Laguna Survey which began with grading (San Francisco Call 26 Jan. 1894).
- **1891-1892:** Van Ness between Union and Green located within the Laguna Survey, are now open public streets and can be improved under the provisions of the Street Law (San Francisco Muni Report 260)
- **1893-1894:** Grade established at the crossing of Green and Van Ness at 105; Grades established at Filbert and Van Ness at 87, Union and Van Ness at 90, and Green and Van Ness at 105; Crossing at Van Ness and Green paved in basalt (125'); A 16" Iron-stone pipe sewer installed at the crossing of Filbert and Van Ness (125'), A 12" Iron-stone pipe sewer installed on Van Ness between Filbert and Greenwich (275'), and a 16" Iron-stone pipe sewer installed on Van Ness between Union and Filbert (275') (San Francisco Muni Report 799, 920, 478, 481, 482)
- **1894-1895:** Green between Van Ness and Franklin accepted as a street November 1893 and paved in Basalt; Union from Polk to Van Ness was accepted as street in June 1895 and paved in 384' of basalt; Union between Polk and Van Ness was paved in 380' of basalt block; Union between Polk and Van Ness installed 768' of granite curbs; Filbert between Van Ness and Polk installed 384' of 14" ironstone pipe sewers; (San Francisco Muni Report 126, 159, 161, 165, 167)
- **1895-1896:** Union between Van Ness and Franklin was paved in 412.6' of basalt block; Van Ness at Union 76' artificial stone sidewalks laid (San Francisco Muni Report 435, 465)
- **1897:** Grade of crossing of Van Ness and Green is 90; Grade of crossing of Van Ness and Union is 80; Grade of crossing of Van Ness and Filbert is 87 (Faust Pocket Guide 99)
- **1900:** Grade established at the crossing of Van Ness and Union at 90; Grade established at the crossing of Van Ness and Filbert at 87 (Official Street Grades 311, 312)
- **1909:** Grade established at the crossing of Van Ness and Union at 90; Grade established at the crossing of Van Ness and Filbert at 87 (Official City Grades 299)
- **1910-1911:** Union between Van Ness and Franklin sewer repair/reconstruction (San Francisco Muni report 1027)
- **1911-1912:** Van Ness and Union 5,375 sq.' asphalt paving (San Francisco Muni Report 988)

- **1912-1913:** Union between Franklin and Van Ness 2,925 sq.' of basalt paving (San Francisco Muni Report 623)
- **1914-1915:** Union between Van Ness and Sutter has been newly repaved or reconstructed (San Francisco Muni Report 322)

GENERAL VAN NESS CHRONOLOGY

- **c1848:** Laguna Survey surveyed by Jasper O'Farrell
- **1849-1850:** Portions of Van Ness surveyed by S.H. Marlette – known as Marlette Street (James Miller Guinn, History of California, v. 2, pg. 1214; 1852 Britton & Rey)
- **1855:** Van Ness Ordinance approved, authored by James Van Ness (mayor of San Francisco 1856), “confirmed title to the actual possessors on January 1, 1855, of property west of Larkin street.
- **1856:** Van Ness included in map associated with Van Ness Ordinance – surveyed to 125' wide
- **1859-1860:** Superintendent of Streets requests that area west of Larkin and southwest of Johnson be graded because it is filling up with residences and businesses; important for drainage – pools of standing, stagnant water gathering; when graded, sewers can be established. (San Francisco Muni. Report, pg. 146)
- **1889:** Board of Supervisors plans to extend Van Ness Avenue north from Vallejo Street to the Bay through the Laguna Survey (1890-91 Muni Report, 204-205)
- **1891-1892:** Names of streets, places and alleys to be painted on the gas lamps throughout the city and county at street crossings, main and subdivision street intersections, and at the intersections of places and alleys with the main streets...(1891-92 Muni Report, pg. 354)
- **1894:** Last impediments removed in Van Ness Avenue between Filbert and Greenwich – extension of Van Ness Avenue through Laguna Survey will be completed (San Francisco Call 26 Jan 1894)
- **1897:** Width of Van Ness is 125' and the width of the sidewalks is 22' (Faust Pocket Guide 99)
- **1897-1898:** “Electric lights being erected on poles...on Van Ness Avenue from Market street to Broadway...with the exception of Market street and Van Ness avenue, the other streets are to be lighted by means of electric arc lights suspended to span wires from the center of each street.” (1897-98 Muni Report, pg. 252)
- **1898-1899:** Adoption of iron ornamental poles to be erected on Van Ness Avenue, between Market and Vallejo streets upon which electric lights are to be placed. (p 508-9). Sewerage plans being prepared for areas including Van Ness (pgs. 597-601). Van Ness is 125' wide (San Francisco Muni Report 738).
- **1914-1915:** Bureau of Engineering made arrangements to light Van Ness from Market St. to Bay St., benefiting the Panama-Pacific Exposition; street is 125 feet between property lines, 81 feet between curb lines; heavy traffic. “Under the old system of lighting it was dangerous after dark for pedestrians to attempt to cross the street or to stand in the street in order to board a car. This old lighting consisted of three triple top gas lamps per block from Market Street to Vallejo Street and one arc lamp per block from Vallejo Street north. The gas lamps gave a candle power not exceeding 500 per block.” (375). Construction of the Muni RW required trolley poles on Van Ness; Bureau of Engineering designed poles to serve as electroliers as well as trolley poles. “In connection with the conduit which was installed for the propulsion current cables, a line of electric light conduit was installed and connected to the trolley poles.” PG&E installed the system except for the lamp bracket, “for which a cheap temporary unsightly pipe bracket was

substituted, without the approval of this office.”“The lights are so arranged that all lamps burn until eleven o’clock when the lights on alternate poles are extinguished.” (375-376)

- **1914, Aug. 15:** Van Ness Avenue line of the Municipal railway system commenced operations. (pg. 952)
Van Ness is 81’ between curb lines (375)
Five hundred 250 candle power lamps, located two to the pole and 16 to the block, giving 4,000 candle power per block (San Francisco Muni Report 376) (San Francisco Muni Report)
- **1914, Mar. 19:** bids received for construction of Van Ness Avenue and Chestnut Street extensions to the municipal street railway system. (San Francisco Examiner, 3/19/1914)
- **1914, Apr. 7:** Work began yesterday on Van Ness avenue railway line from Market St. to Exposition grounds; this is first work done under bond issue of \$3.5 million voted last August; also announced that the plans for extension of the Van Ness avenue line south of Market along Eleventh to Division would be open for bids in May. (San Francisco Examiner 4/7/14)
- **1915, Jun. 12:** appropriation made at request of Board of Works for opening Van Ness at the last block near the beach and make possible to construct a driveway down to the beach and along the shore to the city’s high pressure station at Black Point.(San Francisco Examiner 6/12/15)
- **1928, Sep. 22:** “Garden Club Urges Trees be Planted on Van Ness: Women Appear Before Supervisors Advocating Project.” San Francisco Garden Club wants Board to leave squares unpaved in the sidewalks when it repaves in order to plant plane trees which the women state have roots that grow in a ball and don’t interfere with sewer systems. They also want the trees already planted on the large vacant lot at the Civic Center saved and used in beautifying some part of the city. (San Francisco Chronicle 9/22/28)
- **1933, Sep. 22:** Proposal before the Board of Supervisors to widen Van Ness Avenue 12 feet to comply with Federal road aid regulations; plan would cut 6 feet from each side of the 22-foot sidewalks from Market to North Point streets, banning of diagonal parking, and parking of automobiles on the sidewalks proper. (San Francisco Chronicle 9/22/33)
- **1936, Sep. 24:** Work began yesterday to widen Van Ness avenue by cutting 6 feet from each sidewalk between Market and Fell; cost being defrayed by the city and WPA. (San Francisco Chronicle 9/24/36)
- **1936/1937:** Trolley poles moved, repainted, new light fixtures with brackets added. Poles moved to accommodate narrowing of sidewalks from 22 feet to 16 feet. Adjacent property owners were required to adjust basement walls accordingly. See San Francisco PUC file, WPA project reports & modern correspondence).
- **1952, Aug. 21:** Major track removal and repaving on Van Ness from Market to North Point will begin Monday; estimated to take 6 months; removal of “H” car line rails, repaving from gutter to gutter, and construction of a 14-foot concrete center dividing strip. (San Francisco Chronicle 8/21/1952)
- **1952, Oct. 17:** City officials reconsidering plans to construct center islands on Van Ness at intersections of Vallejo and Greenwich; complaints received about blocking of east-west traffic; work on islands suspended in mean time. (San Francisco Chronicle 10/17/52)
- **1953, Aug. 11:** First of 54 red eucalyptus trees slated for Van Ness planted on Aug. 10 in center island near Bay Street intersection. (San Francisco Chronicle 8/11/53)

APPENDIX C
HISTORIC CONTEXT

APPENDIX C – HISTORIC CONTEXT

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The historical development of Van Ness Avenue parallels San Francisco's growth from a Gold Rush boom town to one of the west's major metropolitan areas. Initially outside the bounds of the city survey, the avenue developed over time into a hub of both residential and commercial activity, and has been shaped by advances in transportation technology as the primacy of horse-drawn transportation ceded to private cable cars, the Municipal Railway, and ultimately the automobile. Van Ness Avenue reflects the urban expansion of San Francisco and has continuously been redefined by San Francisco's shifting social, physical, and demographic patterns, serving as one of the city's primary corridors, as well as the route of US Highway 101 through San Francisco.

Van Ness Avenue developed at different rates along its route, with the lower southern reaches developing as a grand city boulevard decades before the northern portion. The midsection of the alignment (Areas 2), generally between Market and Vallejo, developed the most during the mid- to late-nineteenth century, from a dirt roadway on the outskirts of town into a main artery of the booming young city. The northern reaches of Van Ness, just south of Fort Mason, particularly between Vallejo and Chestnut streets (Areas 3), took the longest to develop as part of the Van Ness corridor because of a land survey and settlement that predated the survey of Van Ness Avenue. Because Van Ness was not extended through this area until the 1890s, there were built environment resources present along the current alignment of Van Ness until that time. The southernmost end of the avenue (Area 1) between Market and Mission was not extended through the block bounded on the east and west by 11th and 12th until the 1920s. Prior to that time, this portion of Van Ness also contained built environment resources along its current route.

CREATION AND EARLY DEVELOPMENT OF VAN NESS AVENUE 1848-1906

In the era prior to Euro-American settlement, sand dunes and chaparral dominated what would become the Van Ness corridor and the area known as San Francisco's "Western Addition." The first survey that covered any portion of land containing modern Van Ness was done by Jasper O'Farrell in 1848. He surveyed a tract of land known as the "Laguna Survey" for its proximity to a small body of fresh water, Washerwoman's Lagoon, southwest of Black Point, also known as San Jose Point, before the point became the site of Fort Mason. Anticipating the future extension of the then distant City of San Francisco, O'Farrell laid out 24 100-vara lots in his survey oriented to the axis of Market Street. When William Eddy re-surveyed San Francisco in 1849, the streets north of Market were actually laid out running north-south rather than oriented to Market Street, leaving the Laguna Survey lots at odds with Eddy's street grid. For many years, however, the Laguna Survey lots were not yet reached by streets or development of the expanding city (Figure 1; Eddy 1849; *San Francisco Chronicle* May 8, 1889:8).

When Britton and Rey published their 1852 map of San Francisco based on the latest surveys, extensions, and division of wards, S.H. Marlette, civil engineer and surveyor, had surveyed a portion of the Western Addition. The Western Addition encompassed a large swath of the city west of the Larkin Street, between Market Street and the Bay, and was surveyed in sections beginning in 1849 after the publication of Eddy's official map of the city. In 1849 Marlette surveyed the portion of the city west of Larkin and north of the Laguna Survey at the behest of property owner Hervey Sparks (Figure 2). This survey established a street, at the time named Marlette Street, along what would become Van Ness between Lot 20 of the Laguna Survey and the Bay. At this early date, the map-makers anticipated the city's streets projecting through the Laguna Survey and showed them criss-crossing the survey, even though there were no immediate plans to open these portions of the streets (*Daily Alta California* December 25, 1850; *Daily Alta California* February 14, 1853).



Figure 1: Official Map of San Francisco (1849). Note location and alignment of the Laguna Survey and the future route of Van Ness Avenue.

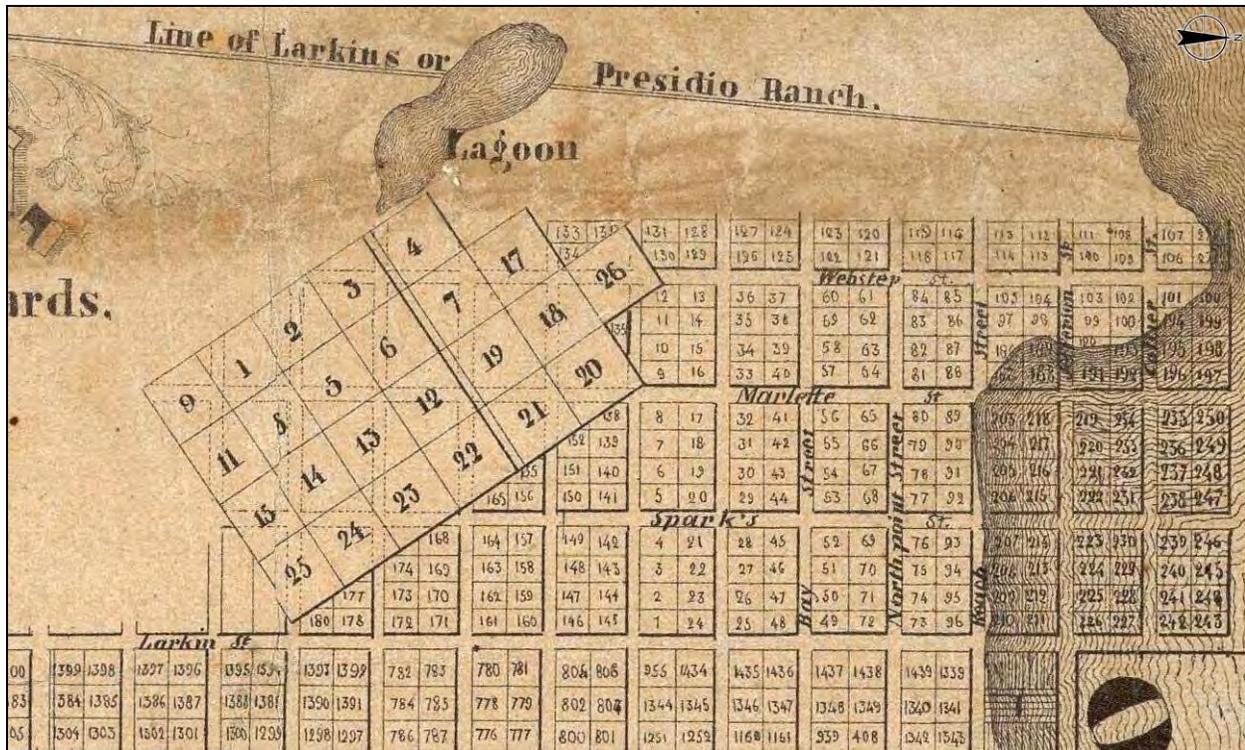


Figure 2: Britton and Rey Map of San Francisco (1852). Note Marlette Street on current alignment of Van Ness Avenue and streets projected through Laguna Survey.

A map of the city published in 1854 showed that the city's surveyed areas continued Marlette's layout south of the Laguna Survey to Market Street, and to the west, well beyond the western boundaries of Laguna Survey. Marlette Street appeared on the 1854 map as a continuously surveyed street from Market north to the Bay (Bridgens 1854).

U.S. Coast Survey mapping published in 1853 based on surveys completed in February 1852 shows how distant the Laguna Survey and future line of Van Ness Avenue was from the nucleus of the city's commercial and residential core. Despite the distance, however, settlement was present in the Laguna Survey and around the banks of Washerwoman's Lagoon by that time. Between the lagoon on the north and the Mission plank road (Mission Boulevard) on the south, there were a small number of buildings scattered across the hills and valleys (Figure 3). A few unimproved dirt roads also traversed this sparsely settled area and intersected with the future alignment of Van Ness Avenue. From the north, one road rounded the north end of Washerwoman's Lagoon and took a southeasterly route through the Laguna Survey and continued eastward toward Union Street. The Presidio Road approached the Laguna Survey from the west and connected with a road running southeasterly around the natural contours of the terrain before connecting with Broadway. Another road extended in a generally east-west alignment from Sutter Street. On the south end of the Van Ness alignment, a road took a curvilinear path from the Mission plank road north and then east toward Turk Street (US Coast Survey 1853).

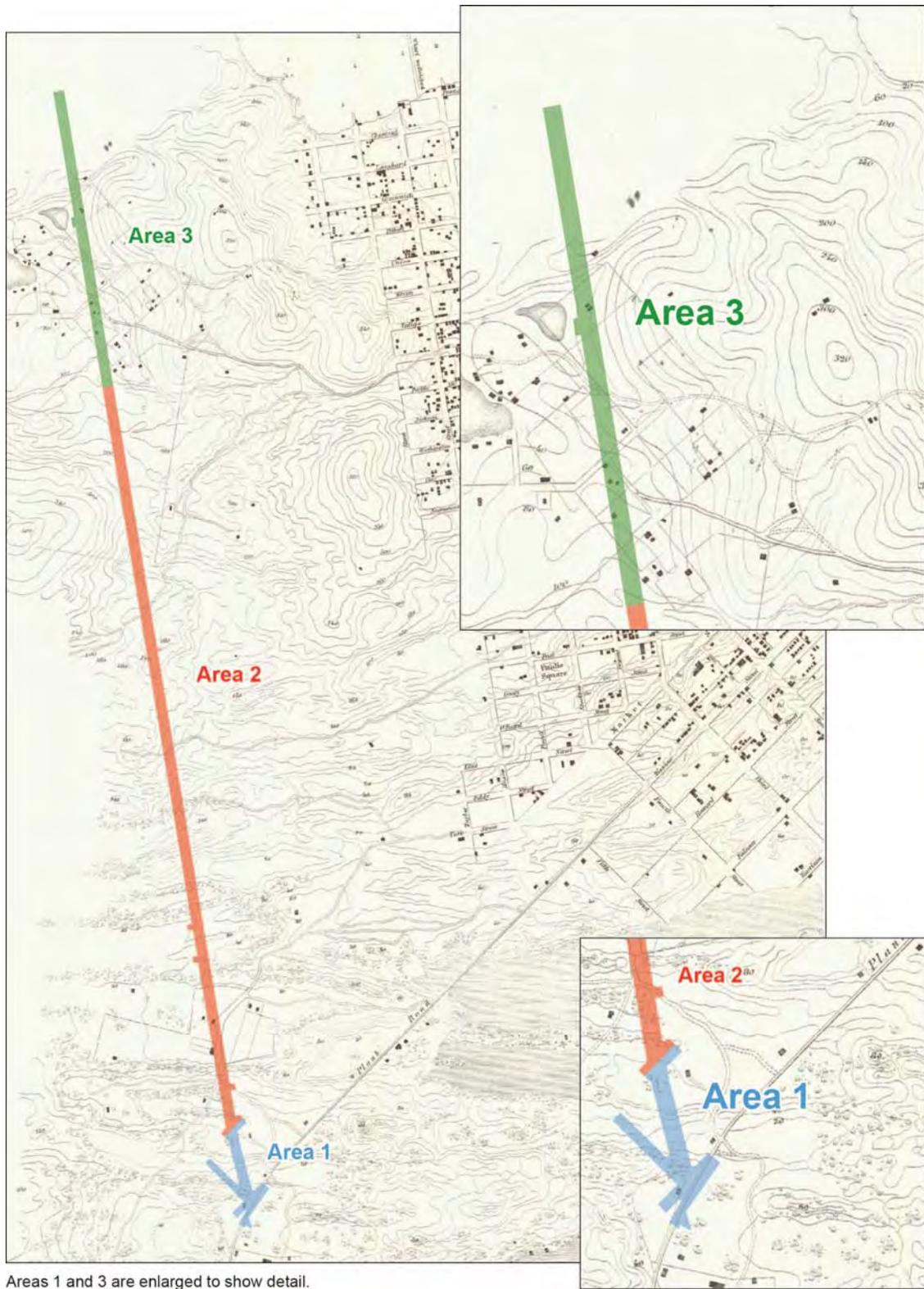


Figure 3: US Coast Survey map, surveyed 1852 with future route of Van Ness Avenue and sensitivity areas overlaid. Note dots indicating presence of buildings in Areas 1 and 3.

Accounts of early San Francisco settlement note that two prominent pioneer San Franciscans, James Van Ness and Colonel Thomas Hayes, had residences on the outskirts of town in the two blocks bounded by modern Van Ness, Franklin, Grove and Fell (the southern part of Area 2). James Van Ness arrived in San Francisco in 1851 and quickly became involved in local politics, serving on the Board of Alderman, and serving as mayor after his election in 1855. His house was located in the block between Grove and Hayes (S. J. Clarke Publishing Company 1913:183). Colonel Thomas Hayes arrived in San Francisco sometime in 1849 and also quickly became engaged in politics, serving as an assistant alderman and serving two terms as county clerk. He owned a large tract of land in Hayes Valley and lived at the mouth of the valley in the block bounded by Van Ness, Franklin, Hayes, and Fell. The Colonel was said to have a beautiful garden covering a block of ground around his home. His property was divided and sold at auction in 1859 (Purdy 1912:43).

Although both of these residences were said to be near the current alignment of Van Ness, Coast Survey mapping does not show any buildings associated with these properties directly in the path of the modern avenue. There is one building that was present in 1852 at the south end of modern Van Ness that falls within Area 1—it is located between the current alignment of Market and the Mission plank road (see Figure 3). What appears to be a private drive extends to the building, suggesting that it was a private residence. Research has not revealed the identity of the owner or occupant of that building.

Despite its distance from the rest of the young city, the area around Washerwoman’s Lagoon and the Laguna Survey (Area 3) developed into a modest settlement by the early 1850s and remained somewhat removed from the booming city for most of the remainder of the nineteenth century. An early account of the lagoon area, published in 1851 described it this way:

On the margin of a pretty little laguna between the city of San Francisco and the military post at the Presidio, is a settlement of some two or three hundred people, whose place of residence has been designated as Washerwoman’s Bay...at the base of the hill are a number of gardens, green with their rich vegetable products, and through which a water-course is running...shirts, pillow-cases, sheets and unmentionables, that are hung there to dry, from the various laundries that surround the laguna....Women of every clime and color are kneeling down upon the bank engaged in the pious work of washing, beneath the shade of their drying clothes. Men are pounding clothes in barrels, and hundreds are busy in the various departments of cleaning clothes. ...At the laguna are also a number of laundries upon a large scale, the principal of which was established and is owned by Mr. Easton....Washerwoman’s Bay is growing to be quite a village. A church has already been built there, in which service is performed weekly, and a daily school is kept. It is a quiet, pleasant little spot, and a walk or ride out there will repay for the trouble (*Daily Alta California* February 14, 1851).

Early inhabitants of the Laguna Survey settlement appear to have been a mixture of San Francisco’s successful Gold Rush capitalists and laborers who worked in the various industries located near the banks of Washerwoman’s Lagoon. Like so many other men who came to San Francisco during the Gold Rush, E.W. Burr, one of the earliest and largest property owners in the survey, travelled to California without his family, and arrived in mid-1850. After setting up a successful market, he brought his wife and five children to California and in 1852 built a house for the family on Lot 12 of the Laguna Survey. An 1853 advertisement for a house for sale on Lot 14 of the survey (Lot 14 is not in the path of Van Ness) noted that it was adjacent to the “splendid brick mansion of EW Burr.” Burr served a term as mayor of San Francisco from 1856-1859. A survey of Lot 12 done in 1870 shows the residence just east of the line of Van Ness (not yet open in this area) between Greenwich and Filbert and outhouses, stables, and a barn in the path of Van Ness (Figure 4, also see the vicinity of Area 3, Figure 3). The 1860 US Census shows that Burr’s neighbors were laborers, retired merchants, and gardeners. Vegetable crops and ornamental gardens were both grown in the Laguna Survey and early real estate advertisements extolled the potential of the land for such

purposes (Bureau of the Census 1860; Burr-Allyne 1893-2013; *San Francisco Chronicle* May 8, 1889; San Francisco Recorder October 20, 1870:Book G, Page 3).

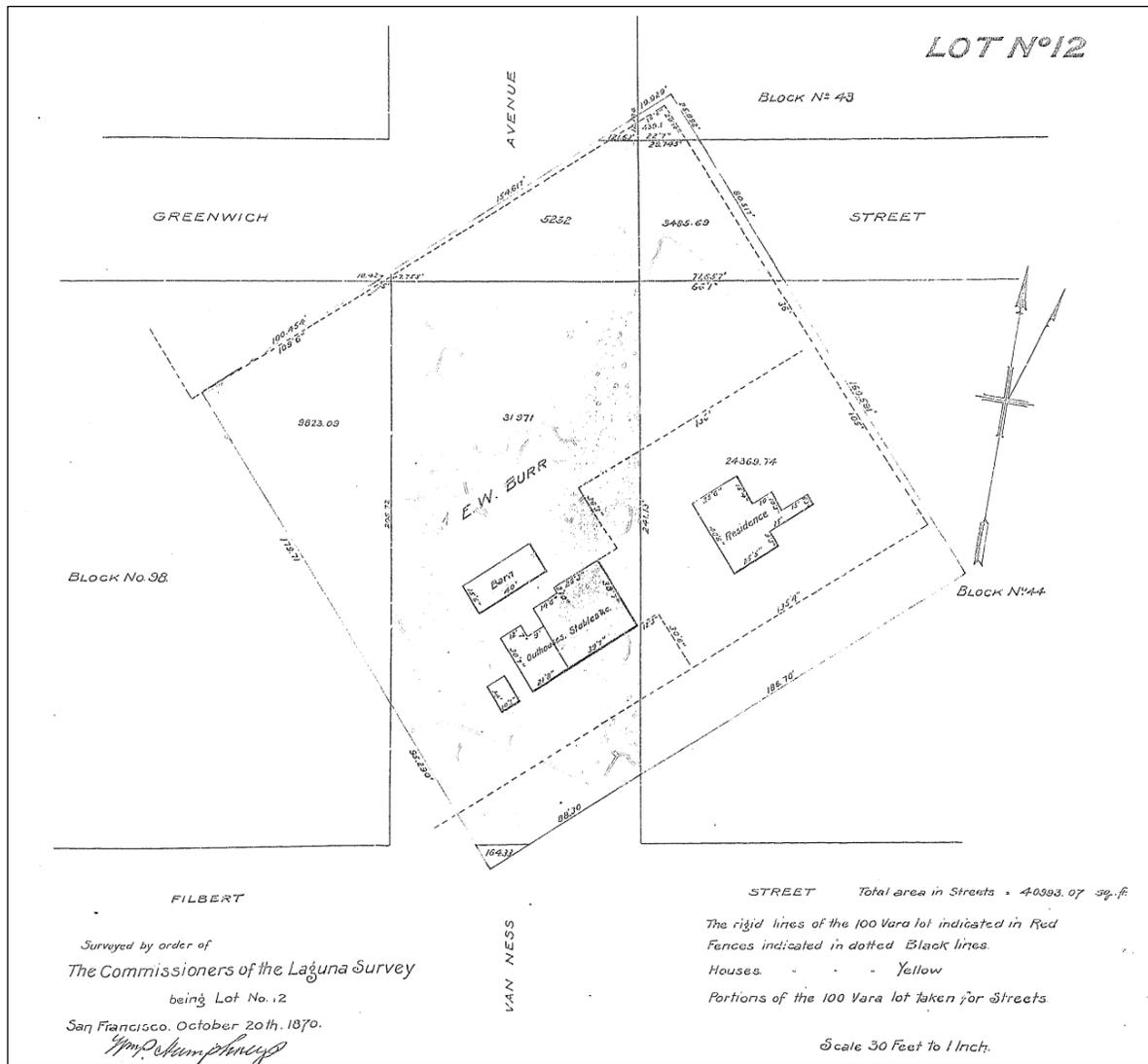


Figure 4: Survey of EW Burr property (1870). Note buildings present in the path of future Van Ness Avenue (San Francisco Recorder October 20, 1870:Book G, Page 3).

This idyllic scene, separated from the clamor of the burgeoning city, was the appearance of the settlement around the lagoon and the Laguna Survey through the 1850s and probably into the 1860s. A photograph taken about 1858 from the western slope of Russian Hill shows the residential, agricultural, and industrial development of the area, as well as the Presidio Road leading at a diagonal from the upper left side of the view (Figure 5). Van Ness Avenue was only a “paper” road at this time, but would eventually extend from the middle of the left side (south) of the photograph, northward through the middle ground of the view. The U.S. Coast Survey of 1857 confirms that settlement had grown modestly in the intervening years since 1852, as seen by the increased number of buildings in the Laguna Survey in the upper reaches of the study area (Figure 6).

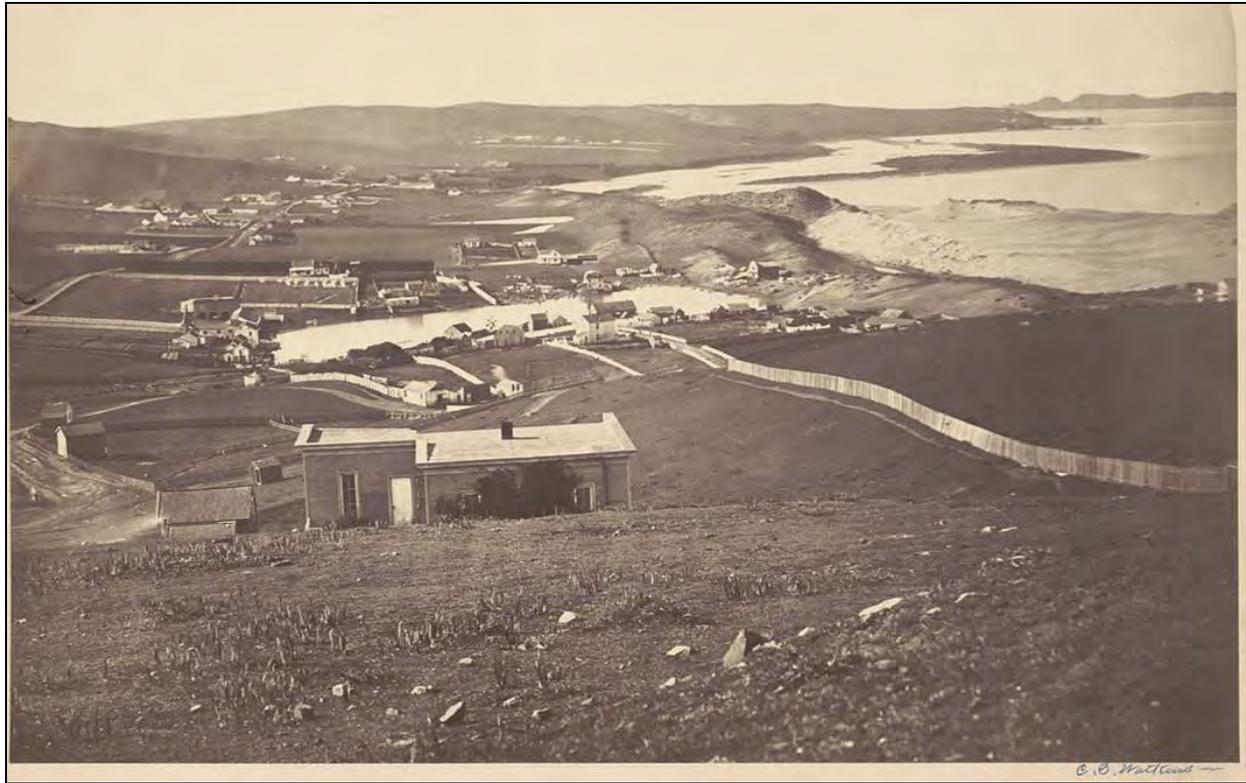


Figure 5: Circa 1858 C.E. Watkins, Photographer. Facing Laguna Survey and Washerwoman’s Lagoon from the west side of Russian Hill. Van Ness would eventually be extended to the north between the two buildings shown at the far left. (Roy D. Graves Photograph Collection c.1858).

The bucolic nature of the Laguna Survey area began to change as the population of San Francisco crept northward. The area immediately east of the Washerwoman’s Lagoon became more densely populated, bringing a particularly dismal sewage problem that fouled the waters of the lagoon to such an extent that the city drained it permanently in the late 1870s. The local news reported that the problem of horrible stench was created by a combination of factors consisting of the types of endeavors on the shores of the lagoon (a glue factory, tannery, and steam laundry), its use as place for “drowning purposes” for stray and feral cats, and most importantly, its use as the receptacle for the sewage of the city’s Twelfth Ward consisting of approximately 20,000 people by the late 1870s (*San Francisco Chronicle* January 10, 1877).

The settlement also faced dramatic change as the city pushed north and west from its original core along the Western Addition surveyed streets that were at odds with the lots of the Laguna Survey. Most early residents of the Laguna Survey had obtained land by grants from alcaldes Hyde, Leavenworth, and Hawes, but title did not officially transfer to them until passage of the Van Ness Ordinance. The first city-sponsored survey of the Western Addition was conducted in conjunction with the Van Ness Ordinance passed by the Board of Supervisors in 1855 and ratified by the state legislature in 1858. The Van Ness Ordinance, authored by James Van Ness, settled land claims outside the city bounds – west of Larkin Street and southwest of Johnson Street – by stipulating that San Francisco relinquish claims to the land to persons who had been in actual possession of the land between January and June 1855. The ordinance reserved to the city some land for public purposes and to that end another resolution was passed in September 1855 calling for a commission to prepare a plan of streets, squares, and public building lots within the portion of the city referred to by the ordinance. The map, known as the Van Ness Map, was prepared, passed by



Figure 6: Coast Survey (1857) with future route of Van Ness Avenue and Sensitivity Areas overlaid.

ordinance No. 846 in October 1856, and declared the plan of the city (Phelan 1905:200-202). In the plan and map, Van Ness Avenue was envisioned as a new commercial hub, and laid out as a north-south counterpart to the commercial corridor of Market Street. The avenue was thus surveyed to a width of 125 feet, nearly twice the width of other streets in the city. This scale was accomplished by taking nearly 29 feet from the block extending eastward from Polk Street and nearly 28 feet from the western block front from Franklin Street (San Francisco Planning Department c.1989).

Despite early hopes for commercial prominence, development of newly surveyed Van Ness Avenue was initially slow. The northern extent of the avenue did not exist, in fact it remained entirely unestablished through the Laguna Survey well into the 1890s, and the midsection remained little more than a dirt track running through undeveloped swaths of the city during the 1860s (US Coast Survey 1869). In the 1860s the avenue fell under the gaze of noted landscape architect Frederick Law Olmsted, who had been commissioned by the San Francisco Board of Supervisors to develop a major urban park that would lend the burgeoning city of San Francisco the same stature as eastern cities such as New York with its Central Park. Rather than a large park, Olmsted envisioned a greenbelt that would center upon Van Ness Avenue, extending roughly from Duboce Park to Aquatic Park (east of Fort Mason) through the protected valley, with small naturalistic developments and enclaves along the way. The plan was rejected by city officials, who sought a more traditional park setting in the manner of Central Park; a desire which ultimately was expressed by the design of William Hammond Hall and John McLaren (San Francisco Board of Supervisors 1868:560-564; Issel and Cherny 1986:102-116).

Even after San Francisco's population began to skyrocket in the 1860s and 1870s, there was little demand for land so isolated from the city's downtown (Bloomfield 1978:15). The area's underdeveloped infrastructure may have contributed to the slow pace of settlement along Van Ness: it was not until the early 1870s that portions of Van Ness were macadamized (aggregate layers of small stones with a cementing binder) or in some cases graded, and planking of sidewalks and corners only existed in isolated pockets (San Francisco Board of Supervisors 1872-1873:586, 589, 595). In general, street improvements occurred in segments, with grading, macadamizing, and sidewalk planking undertaken on a largely block-by-block basis. By 1872-1873, Van Ness was graded between Sutter and Post streets, Geary and Turk streets, and California and Pine streets. It was macadamized at the crossing with Fulton Street, at the crossing of McAllister Street, and at the crossing of Tyler Street. Because Van Ness was so far removed from the core of early San Francisco, by the time utilities were installed along Van Ness, they were done so according to established practices and standards; there is no indication in the historical record of any innovative techniques (Sanborn Map & Publishing Company 1886, 1893).

As the population of San Francisco soared from a mere 35,000 in 1852, to nearly 300,000 in 1890, a pressing need for additional housing drove residential demand into the Western Addition, including Van Ness Avenue, and the Board of Supervisors began pressuring property owners in the Laguna Survey to cooperate with the opening of Van Ness through the area. Speculative builders constructed middle and upper class residences along Van Ness south of Laguna Survey, primarily of wood frame construction with prominent bays, cornices, and elaborate molded detailing in the popular Italianate and Queen Anne style. As the core of the city became increasingly urban, the corresponding sanitation and social concerns led many to seek housing at a remove from the central city, and Van Ness Avenue and its environs became increasingly populated. Although Van Ness itself did not have a dedicated cable car line in the nineteenth century, many lines traversed the area, both from east-to-west and north-to-south along portions of Polk Street, parallel and one block east of Van Ness (Bloomfield 1978:17; San Francisco Planning Department c.1989). San Francisco's Board of Supervisors first planned to extend streets through the Laguna Survey in 1870 after the state legislature passed an act providing for opening of streets through the survey. A commission was appointed to value the land and three maps were recorded with the county, each showing one of the parcels in the survey (see Figure 4 for an example of one of these maps). The legislature repealed

the act the following year and no action was taken on the matter again until another legislative act was passed in 1889. In July of that year, motivated by the desperate need for more sewage facilities in this portion of the city and general access to the northwestern portion of the city, the Board of Supervisors adopted a resolution declaring its intention to open streets through Laguna Survey (San Francisco Board of Supervisors 1890-1891:204-205). Because the survey was sited at angles to the projected streets, opening them meant the city had to acquire a significant amount of land from owners in the survey. Most property owners did not object to the extension of streets because they believed it would benefit their property and increase its value. Conflict did arise, however, over the appraisal and valuation of property, with at least two cases making their way to the State Supreme Court to be settled.

E. W. Burr remained the largest property holder in the survey and he contested the amount the city offered him for his holdings. Another parcel – a portion of Lot 9 – had been the subject of a convoluted probate case for a number of years and was also settled by the court (Figure 7). In 1894, after Burr's case was settled in the State Supreme Court, the city removed the final impediments along the Van Ness route between Greenwich and Filbert. The local newspaper described the impediments as "shanties" and as "houses;" however, they were almost certainly the outbuildings behind the Burr residence. Once the buildings were removed, the city planned to grade and open the avenue to the Bay. The avenue was already graded between Greenwich Street and Black Point except at one small ravine which was gradually being filled in. Once the impediments were cleared, contractors got to work grading the street but faced delays when heavy winds "drifted sand by hundreds of loads on work already done." To prevent a repeat of this problem, the land was covered with clay after the street was graded to prevent contractors from having to do the work again. Work on opening Van Ness was nearing completion by June 1894 (*San Francisco Call* January 26, 1894; *San Francisco Call* June 15, 1894; Supreme Court of the State of California March 30, 1893; Supreme Court of the State of California March 9, 1892).

By the mid-1880s, Van Ness was a wide avenue south of Laguna Survey and had evolved into a bastion for many of San Francisco's wealthiest whose large homes typically occupied several lots on a block. A series of photographs taken in 1887, entitled *Artistic Homes of California*, depicts several grand mansions, all exuberantly designed in a variety of picturesque styles with French Second Empire, Italianate, and Exotic Eclectic styling. Although most residences, from flats to mansions, were wood frame, the largest were of stone construction. Perhaps the most grand was the Claus Spreckels Mansion at the corner of Van Ness and Clay Street (outside of, but adjacent to Area 3), home to the founder of the Spreckels Sugar Company (Figure 8; San Francisco History Center n.d.). The four-story stone residence exhibited Romanesque and Chateausque stylings and was noted at the time as one of the most costly private residences ever built in the city (*San Francisco Chronicle* January 2, 1898). Built by prominent San Francisco architects the Reid Brothers, the building's mansard roof, projecting bays, and smooth, light-toned stone massing held an imposing presence along Van Ness and represented the extraordinary wealth of the young city (Roy D. Graves Photograph Collection n.d.).

Although the avenue was home to many of the city's elite, a striking number of diverse uses flanked the corridor, particularly along the northern blocks. The Fort Mason military reservation was located at the northern terminus of the avenue, formerly Black Point, on the west side of Van Ness, while the Fontana Company Canned Fruit Warehouse, the Pioneer Woolen Factory, and the Spring Valley Water Company's Black Point Pumping House stood on the east side at its northern terminus. In the closing years of the nineteenth century, a large greenhouse occupied nearly the entire block between Lombard Street and Chestnut Street along the avenue (all north of the study area for this project).

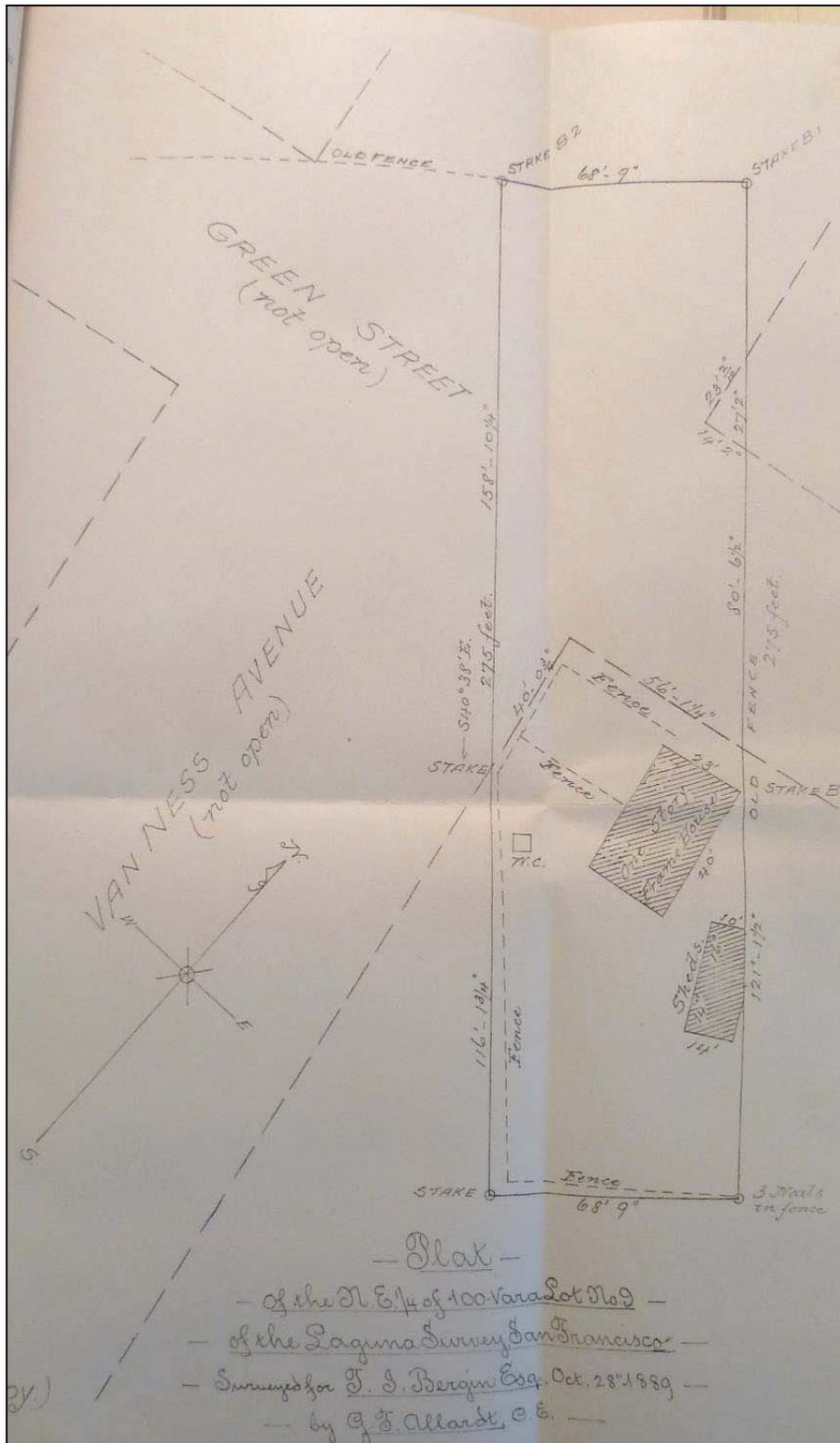


Figure 7: Exhibit accompanying case Bergin v. Haight showing intersection of Green Street and Van Ness Avenue as surveyed in October 1889. Note old fence line crossing Van Ness above Green Street.



Figure 8: "Claus Spreckels Mansion on Van Ness Avenue between Clay and Sacramento Streets," n.d., but after 1915. Van Ness Avenue was a popular location for the mansions of the city's elite. (San Francisco History Center n.d.)

Civic and public buildings occupied the middle stretches of Van Ness, transitioning from the residential blocks in the north to the busier central city. Saint Mary's Cathedral filled the corner at O'Farrell Street. Saint Ignatius Church and College stood at Grove Street, established by Jesuits who had arrived in California to minister to gold miners. The Mercantile Library filled the entire block between Golden Gate and Elm avenues. The extreme southern portion of the avenue, which terminated at Market Street until the 1920s, was also home to an array of functions. By the 1890s a row of businesses that included shirt-maker, a sausage and cured meats store, bakery, cigar shop, jeweler, restaurant, barber, tailor, and confectioner fronted Market Street between 11th and 12th streets. Some of these buildings, all of which burned in 1906, were located in the path of the future Van Ness Avenue extension (Langley 1893; Sanborn 1899 Vol. 1, 1899 Vol. 3).

By the turn of the twentieth century Van Ness Avenue stood at far remove from the blowing dunes of the 1850s surveys. With the avenue extended from Market Street on the south to the Bay on the north, the highest echelon of residential wealth bracketed at either end with churches, schools, and industry; the avenue was one of the city's most prominent. San Francisco had expanded up and around the avenue, absorbing vast tracts of land and promoting urban expansion through infrastructural improvement and corresponding speculation. Much of this urban expansion was driven by the private sector, with private horse car and cable car interests servicing adjacent streets, private residential developers constructing the flats, and the city's wealthiest building urban enclaves. Civic-sponsored improvements largely focused upon grading, paving, cisterns, sewers, and gas lamps, all occurring in a largely piecemeal manner. San Francisco Municipal Reports and Proceedings of the Board of Supervisors from the time period contain little

reference to the avenue outside of basic infrastructural accounting. The sole exception was an 1896 ordinance by the San Francisco Board of Supervisors declaring Van Ness Avenue to be an official city “Boulevard.” The Board passed the ordinance after the avenue was opened to the Bay in response to a petition from the Van Ness Avenue Improvement Club, and the measure largely served to forbid heavy traffic upon the avenue. Although the Club also sought civic-sponsored trees, shrubs, and plantings in the median and along the sidewalks, historical photographs of the avenue and municipal records indicate that the planting did not occur (*San Francisco Chronicle* March 10, 1896, March 13, 1896). Thus, while the original wide survey of the avenue and the “Boulevard” declaration expressed a continued civic desire for a distinct thoroughfare, the development of the corridor largely occurred within the chaotic context of the late-nineteenth century with little or no holistic civic design intent.

THE EARTHQUAKE OF 1906: FROM FIRE BREAK TO COMMERCIAL HUB

The substantial width of Van Ness Avenue proved significant both during and after the 1906 earthquake. Within fifteen minutes of the shocks, scores of fires caused by lanterns, boilers, gas mains, electrical wires, and damaged chimneys broke out across the city. On Van Ness Avenue, a 30-inch gas main running under the street burst, reportedly sending bituminous pavement flying high into the air. Although the scope and ferocity of the conflagration across the city was unprecedented, San Francisco’s Fire Chief, Dennis Sullivan, had laid the foundation for establishing Van Ness Avenue as a fire line even before the earthquake. In the wake of Baltimore’s disastrous 1904 fire, the Chief had planned to use the wide expanse of Van Ness Avenue or Market Street as firebreaks in the event of a citywide outbreak. Although Sullivan was mortally injured during the quake, his vision ultimately came to fruition. Because Market Street was consumed by fires on both sides, Van Ness remained the most viable alternative as a fire line for firefighters (Tobriner 2006:136-138).

Volunteers, city firefighters, and troops under the leadership of General Frederick Funston took a consolidated stand along Van Ness Avenue. The fire primarily burned up to the east side of the avenue, with only the lower portions near Market in flames on both sides. To prevent the fire from spreading, undamaged buildings along the east side were blasted by the army, reducing mansions to smoldering piles (Figure 9). The desperate measures proved effective, and the fire was stopped on April 20, having jumped the width of Van Ness Avenue in only isolated areas.

Although much of the avenue lay in ruins, in comparison to the ravaged Market Street corridor Van Ness emerged from the four day inferno relatively intact. The western side of Van Ness and both sides of the northern portion of the thoroughfare near present-day Fort Mason and the Aquatic Park remained untouched by the fire. San Francisco landmark, St. Brigid’s Catholic Church, standing at the intersection of Van Ness and Broadway, survived the disaster virtually unscathed, with only a small scattering of debris falling from the building during the quake. In places, the street itself sustained more damage than the adjacent buildings. Figure 10 shows damage to Van Ness Avenue at Vallejo Street (Area 3; Sanborn 1899 Volume 3:262; San Francisco History Center 1906; Tobriner 2006:142-146).

Thus, while some portions of Van Ness were consumed, much of it escaped severe damage and was immediately seen as a good location for new residential and commercial development as the city sought to rebuild. The area was the center of a speculative boom in the weeks and months following the disaster, as businesses sought temporary quarters and commercial interests sought profits from a frenzy of leasing activity (*San Francisco Chronicle* March 27, 1909). Between 1906 and 1909, a striking number of residents and businesses moved to Van Ness Avenue and, along with Fillmore Street to the west, Van Ness became San Francisco’s premier commercial and economic hub, supplanting the devastated areas of downtown (Figure 11). Only weeks after the earthquake, the *San Francisco Chronicle* noted that Van Ness was, “now a livelier avenue than ever before in its history,” and extolled the rapid construction of



Figure 9: "Effects of the Earthquake on Van Ness Avenue," 1906. Parts of Van Ness were devastated by the quake and subsequent fire, particularly the southern reaches of the street. (San Francisco History Center 1906)



Figure 10: Earthquake Damage Along Van Ness Avenue at Vallejo Street (Area 3), 1906. While there was much damage along the avenue, a number of buildings remained structurally sound. (San Francisco History Center 1906)

numerous temporary buildings and requisition of damaged mansions for commerce. Even at this early date, a slew of the city's preeminent commercial establishments were opening doors on Van Ness, including the famed Emporium Department store, as well as City of Paris, and the White House. Rather than building new quarters, many of the stores occupied abandoned mansions, with the City of Paris filling the Hobart Mansion, a commodious Queen Anne located on the prominent corner of Van Ness and Washington Street (Roy D. Graves Photograph Collection 1906; *San Francisco Chronicle* May 6, 1906).

In addition to a burgeoning retail trade, Van Ness also became a central entertainment venue for the dislocated city. The Van Ness Theater was erected at Van Ness and Grove in 1907 and was one of the city's most prized entertainment venues until its demolition in 1910 (*San Francisco Chronicle* August 27, 1910). Other more prosaic uses also clambered to the area, including Eddie Graney's blacksmith shop and Samuel's Lace House, both of whom rapidly established quarters following the earthquake (*San Francisco Chronicle* May 3, 1906). In addition to the commercial influx, numerous refugee shacks for those made homeless by the disaster sprouted along Van Ness and its surrounding streets, often causing consternation amongst surrounding property owners (San Francisco Board of Supervisors 1907:454).



Figure 11: "One Year After. Van Ness North from Sutter Street" (Area 2), 1907. Van Ness Avenue was quickly reshaped by commerce in the years following the disaster. (California State Library 1907)

Notable infrastructure improvements accompanied the wave of commercial and new residential settlement along the avenue. The intensive reconstruction following the earthquake highlighted the need for uniform paving, which had only existed in isolated pockets and was a mixture of cobble, stone, and macadam prior to the earthquake. This varied paving material was damaged by the earthquake, and observers noted that parts of the avenue were, "cut up like a country road, the dust being very deep and horses having to strain to pull loads over it" (*San Francisco Chronicle* May 3, 1906). Asphalt paving occurred in segments, with portions paved by an assortment of contractors on a block-by-block basis. By 1911 paving Van Ness was largely complete. During the same period, contractors also completed installation of reinforced concrete underground cisterns along Van Ness for fire protection, located at the intersections of Golden Gate Avenue, Washington Street, Octavia Street, Laguna Street, and Market Street. Other

improvements in the 1910s included the extension of underground sewer lines and telephone conduit up the avenue, as the increased business and residential population required these increasingly standard metropolitan amenities (San Francisco Board of Supervisors 1910-1911:821, 1911-1912:984, 990). Although Van Ness Avenue was a locus of redevelopment and infrastructural improvement, the changes done on the avenue mirrored developments occurring all over the city, as officials oversaw a massive rebuilding campaign that included the extension of grading, paving and sidewalk work, street lights, rail lines, sewers, and telephone conduits.

The emergence of Van Ness Avenue as a central economic and social hub after the earthquake and fire was short-lived. Much of the commercial development along the avenue was considered a temporary expedient, and as conditions in the traditional business and retail core of the city improved, many businesses flooded back to newly constructed or repaired quarters. The illustrious City of Paris, with its silk finery and French wines, departed from the Hobart mansion in 1909, returning to its repaired Union Square Beaux Arts building. The local press commented on the exodus, noting that “although for a time it was believed the retail district would remain permanently in the Western Addition,” the force of the “Downtown Movement” proved too great (*San Francisco Chronicle* October 17, 1909). In several short years, the identity of Van Ness Avenue had been dramatically uprooted and changed again, leaving a broad avenue in flux. “What Van Ness may become in the future can probably not be imagined,” wrote *the San Francisco Chronicle* echoing a widespread sentiment, “it has been deserted by retail trade and will not regain any of it in the near future” (*San Francisco Chronicle* April 30, 1909).

FORWARD SAN FRANCISCO: CONNECTING THE SAN FRANCISCO CIVIC CENTER AND PANAMA-PACIFIC INTERNATIONAL EXPOSITION

In the autumn of 1911, “Sunny Jim” Rolph swept the San Francisco mayoral election with the campaign slogan “Forward San Francisco.” A noted businessman and Vice-President of the Panama-Pacific International Exposition Company, Rolph promoted a number of major infrastructural developments including the water system, Municipal Railway, bridges, tunnels, and major civic construction. Foremost in this array of improvements was a new Civic Center and City Hall, as well as a venue for a world’s fair—The Panama-Pacific Exposition. The projects were located in two large tracts of prime land, one near the southern base of Van Ness and the other near its northern terminus, and were at the center of major urban redevelopment schemes that would occupy San Francisco for a large part of the decade. As the corridor that connected the two, Van Ness became a vital link that served to physically, and aesthetically, connect the two major civic undertakings.

City leaders had contemplated massive civic expansion within the area surrounding City Hall even before the destruction wrought by the earthquake. In 1904, the Society for the Improvement and Adornment of San Francisco invited prominent landscape architect Daniel H. Burnham to draw sweeping plans for the city. Embedded in this plan was a design for an expanded Civic Center that would be a monumental focal point surrounded by radiating boulevards extending across the city. Although these grandiose plans were approved by the San Francisco Board of Supervisors before the earthquake, in the aftermath of the disaster the lofty ambitions of the Burnham Plan fell before the immediate necessity of rebuilding. With city leaders, merchants, and citizens focused upon the basic infrastructure of redevelopment, the drive for beautification underpinning the massive Burnham scheme eroded (Issel and Cherny 1986:110).

Despite the dismissal of the Burnham Plan, the need for a new City Hall remained, and by the time of Mayor Rolph’s election, redevelopment of City Hall and the Civic Center was at the forefront of municipal affairs. The city solicited proposals for development and received sixty proposals in 1912. The winning plan was that of architect B.J.S. Cahill, who had long served as an architectural advisor to the city,

and advocated redevelopment on the same site as the old City Hall rather than the Market Street location proposed by Burnham. The Mayor formed an advisory commission composed of John Galen Howard, Frederick W. Meyer, and John Reid, Jr., and voters approved an \$8.8 million bond in 1912. The final design consisted of a central plaza bounded by City Hall to the west, the State Building to the north, the Public Library and Opera House to the east, and the Exposition Auditorium to the south. Additionally, corner lots between the buildings were designed to contain secondary civic functions including a Health Building, a Fire and Police Building, and a Power House. Narrow portions of land fronting the complex were reserved for arcades and peristyles (US Department of the Interior October 10, 1978).

With only three years remaining until the Panama-Pacific Exposition, construction of the new Civic Center was rushed toward completion. Mass excitement over construction of the Panama Canal and the celebratory honor of hosting the Panama-Pacific Exposition spurred development, as leaders and citizens sought a grand civic identity to match the monumental design of the exposition (Richards 1991:194-195; US Department of the Interior October 10, 1978). Despite the urgency generated by the pressure of hosting such an extravaganza, however, much of the construction was incomplete at the time of the Exposition, and the Civic Center was dotted with wood signs depicting where the buildings were to be. Only the Exposition Auditorium, Power House, and Central Plaza were completed by opening day. Ultimately, the creation of the Civic Center would take more than twenty years. City Hall was completed in 1916—a decade after the original’s destruction. In 1922, the city acquired and began development of the War Memorial complex, but another decade passed before the War Memorial Opera House and Veteran’s Building were finished. Some thirty years after the 1906 disaster, the War Memorial Court—located on what had been Fulton Street—was completed according to landscape architect Thomas Church’s vision (Architectural Resources Group March 2007:7).

Construction of the Panama Pacific International Exposition at the northern end of Van Ness Avenue was far more rapid. The Exposition filled 635 acres, extending from Van Ness Avenue to the Presidio. With a five-acre reproduction of the Panama Canal, a “central city” filled with exhibition palaces, lush landscaping and verdant grottos, drill fields, livestock exhibits, amusement concessions, and unparalleled electrical illumination, the Exposition proved a dizzying design feat that was accomplished to acclaim in only six years.

The Exposition was largely built in the ephemeral plaster manner of world’s fairs, and was dismantled soon after closing. The massive amounts of fill that created the site from the Bay, however, largely formed the present-day Marina District (Lau and Lieber 2004:34, 50). Only a few structures remained after the closing, with ultimately only the Palace of Fine Arts and a few street alignments serving as the only surviving reminders of the Exposition. The infrastructure needed to move people to the site also proved an important legacy of the event, particularly along Van Ness Avenue. As the corridor that connected much of the visiting and local population of the city to the exposition as well as the most prominent linkage between the permanent City Beautiful edifices of the Civic Center and the transient beauty of the Panama-Pacific, Van Ness Avenue played a prominent role. The city pushed to complete the second line of its new Municipal Railway up the avenue in time to carry throngs of visitors to and from the site.

The drive for municipal rail fortuitously coincided with the planning of the Exposition. The motivations behind city-sponsored rail service stemmed from a broader demand for progressive civic reform, efficiency, and urban consolidation. Prior to the city’s foray into rail service, San Francisco was served by ten private companies, with cable cars criss-crossing the city. In the social and political climate steeped in the Progressive Movement of the early twentieth century, this complicated network of for-profit ventures was derided as corrupt and regressive. The first Municipal Railway line was completed on Geary Street in 1912 to great fanfare. A crowd of 50,000 gathered to commemorate the opening as Mayor Rolph

proclaimed that the line was, “but the nucleus of a mighty system of streetcar lines which [would] someday encompass the entire city” (Perles 1981:27).

The next phase of the new system was the track installed along the length of Van Ness from the Civic Center to the Exposition grounds. Although several of the early, private cable car lines ran in the vicinity of the street, none traversed its length, and this transportation void presented a major threat to the success of the Exposition. In a 1913 report, City Engineer M. M. O’Shaughnessy predicted that during days of maximum attendance it would be necessary to transport up to 60,000 people per hour on rail, a staggering number that far outstripped the city’s capacity. Work began on the Van Ness track April 6, 1914, and was finished in less than five months, with the tracks and electrical work completed by August 15. In return for their haste, the city granted the contractors, The Mahoney Brothers, a bonus of \$15,000 (James Rolph Papers 1911-1930; Perles 1981:38). The track was flanked by 259 trolley poles to support the overhead wires that powered the cars. The columns of the poles were composed of reinforced concrete, with a slender, tapered square form, a decorative finial, and cast iron footings with a modest foliated design and square base. The poles were initially erected without attached streetlights, but the city ultimately found the resources to install light fixtures and by the time of the Exposition’s opening, pairs of electric streetlights were hung on each trolley pole, making Van Ness Avenue the “best lit thoroughfare in the city” (*San Francisco Chronicle* February 20, 1915).

The substantial infrastructural improvements advanced by the mandate of the Exposition were lucrative for the business community and merchants of Van Ness, as well as for the general economic recovery of the city. Further, the overflowing crowds of people travelling to and from the Exposition and the accompanying festivities and parades brought attention and business to the avenue itself. The Van Ness Avenue Improvement Association, successor to the Van Ness Avenue Improvement Club, was an ardent supporter of the railroad extension because its members saw it as vital to ensure they benefitted from the Exposition. Unlike the aesthetic aims of the nineteenth-century club, who primarily sought boulevard status and civic-sponsored greenery, the twentieth-century association was focused upon stimulating business activity and opening and improving streets, sewers, railways, and gas mains. This increasingly pragmatic philosophy reflects Van Ness’s transition from an upper-class residential corridor to an increasingly busy commercial thoroughfare. Seeking, “factories, foundries, workshops, warehouses, banks, and stores of all kinds,” the civic leaders of the Van Ness Avenue Improvement Association utilized the excitement over the Exposition as a means to highlight the avenue’s dynamic business potential (Van Ness Avenue Improvement Association December 1912:3-4). Thus, even while the avenue connected the palaces of the Exposition with the as-yet incomplete civic palaces of government, it was increasingly becoming less of a city beautiful boulevard and more of a busy and diverse business and transportation corridor.

THE AGE OF THE AUTOMOBILE: AUTO ROW AND THE RISE OF AUTO CULTURE ALONG VAN NESS AVENUE

Following the exodus of post-earthquake retail establishments and during the frenzied planning of the Exposition, another transition was also rapidly shaping Van Ness Avenue. The mixed-use character of the avenue persisted, with residences predominating in the upper reaches, and commercial and industrial institutions dominating its middle and lower reaches. But increasingly, the avenue came to be defined by a burgeoning sector in both the economy and psyche of America—the automobile. The nascent auto industry and its array of support sectors, including sales, repair, and manufacturing, found an ideal home in the spaces left by the vacating retail sector along Van Ness. Close to the urban core, yet endowed with more land and more moderate lot and rent prices, the Van Ness corridor quickly became one of the west’s largest Auto Rows. The industry first appeared in the vicinity of Market Street, but scores of auto-related businesses traveled steadily north, flanking the broad Van Ness Avenue from Market to the San Francisco

Bay. By 1920, grand showrooms, such as the Paige Motor Company Building, accompanied scores of more modest salesrooms, garages, and repair shops.

As the popularity and ubiquity of the automobile grew, new requirements and pressures also altered the roadway of Van Ness itself. It was one of the busiest roads in the city, with scores of pedestrians, cars, and a rail line, and was soon at the center of growing concerns over transportation safety and standardization. Gruesome accidents involving car wrecks, pedestrian fatalities, and street car injuries regularly filled newspapers, and authorities increasingly sought standardized traffic signaling mechanisms and speed enforcement. In 1915, the city began experimenting with small multi-colored lanterns at the street corner. By 1921, painted white curbing, motorcycle police, and red lights at some intersections were simultaneously implemented to curtail growing numbers of traffic hazards and accidents (*San Francisco Chronicle* January 21, 1915, March 21, 1921).

When the long-awaited span of the Golden Gate Bridge united San Francisco with the Marin headlands to the north, Van Ness' central arterial identity was sealed. Previously, travelers on the Sausalito Ferry had used the avenue to reach the ferry slips west of Fort Mason; however, construction of the bridge, and the Bay Bridge before it, ushered in the modern era of connectivity in the previously geographically isolated northern peninsula. As a component of Highway 101, Van Ness Avenue and Lombard Street became integral auto corridors that supported the growth of local and regional commercial, commuter, and recreational travel.

Aware of the surge of traffic that would accompany the bridge completion, the San Francisco Department of Public Works, in conjunction with the Works Progress Administration, widened the roadway in 1936, shaving six feet off of the broad sidewalks on both sides of Van Ness. To accomplish the widening, all of the trolley poles were moved back from the roadway, a process which required seven of the adjacent property owners to relinquish basements under the original sidewalks and to build new basement walls under the new narrower sidewalks (San Francisco Public Utilities Commission December 29, 1936). Accompanying the widening, the San Francisco Public Utilities Commission relighted the poles, affixing a single tear-drop luminaire to each following the move in 1936. The uniform lighting standards replaced the small electric lights from the Exposition era, which had largely been considered a temporary expedient for the occasion, and many of which had already been taken out of service.

In addition to the changes along Van Ness, the area south of Market (Area 1) was reconfigured in the years before the completion of the bridge, with the South Van Ness extension connecting Van Ness to the southern portion of the city. Transportation planners had long criticized the abrupt termination of Van Ness at Market, stating that the "blind" street caused a central bottleneck. Carved from existing city blocks to cross Mission and overlay southbound Howard, the "Van Ness Avenue Extension" was completed in the early 1930s; a vital connection between the Peninsula and the North Bay eventually opened by the bridge several years later (Arnold 1913; San Francisco Public Utilities Commission October 1936).

Thus, with the widened traffic lanes, modernized lighting fixtures, and increased through-traffic generated by the bridge, Van Ness Avenue continued to evolve as a city boulevard. Speaking to the Board of Supervisors in 1936, Mayor Angelo Rossi praised the changes, stating that they, "convert[ed] the historic San Francisco boulevard into a thoroughfare second only to Market Street in importance, property values and beauty" (*San Francisco Chronicle* December 7, 1915; San Francisco Public Utilities Commission 1936:555, 604-605). This evaluation represented yet another recasting of Van Ness Avenue, from a staid residential boulevard, to a local commercial corridor, and ultimately to a busy segment of a growing network of city and state roads connecting the Bay area to the state and region beyond.

This recasting posed significant transportation planning dilemmas throughout the mid-twentieth century. As both a prominent city thoroughfare and a portion of the preeminent north-south Route 101, Van Ness Avenue became central in highway development conflicts between citizens and transportation

planners. Beginning in 1940, the state embarked upon ambitious highway development plans in the Bay Area, most notably with the massive expansion and modernization of the Bayshore Highway in the South Bay. Route 101 was transformed into a modern freeway system along the Peninsula, and the urban portion of the road in San Francisco increasingly came to be viewed as a congested chink in the new system. In 1952, initial construction on the Central Freeway was promoted by the California Division of Highways (now Caltrans) as a rational solution to the bottleneck created by the path of Route 101 through the city. The freeway was planned to extend from the Bayshore Freeway to the approach to the Golden Gate Bridge, cutting a swath through the city and resting largely on elevated piers. In 1955, slightly under a mile of the route was constructed, from Thirteenth Street to Mission Street. In 1959 the second unit was opened, from Mission to Turk Street, several blocks west of the Civic Center (*California Highways and Public Works*, March-April 1955:1-7, 20-21).



Figure 12: 1921. Preparing block south of Market Street for Van Ness Avenue Extension (Area 1).
“Looking SE from Masonic Temple and Oak (Line of Pro Van Ness Av. Ext).”
(San Francisco History Center 1921)

Accompanying the explosion in post-war highway planning was a disinvestment and disavowal of the city’s streetcar system. Across the city, rail lines were converted for use by motor buses. The coaches ran on electric wires, which were often strung on the original trolley poles. The H Line, running up Van Ness since the 1915 Exposition, was abandoned in March 1950, replaced by motor coach service. The tracks were quickly removed, with a median replacing the rail and the buses strung to the original concrete poles (Figure 13; Perles 1981:180).



Figure 13: “Track Removal on Van Ness Avenue at Vallejo Street” (Area 3), 1952. Tracks were removed across the city (and the country in general), as urban centers moved away from municipal street rail to buses and passenger vehicles (San Francisco History Center 1952).

As the state poured millions of dollars into highway modernization, including construction on the Central Freeway and its sister roadway the Embarcadero Freeway, simmering citizen protest over road construction in San Francisco exploded into a full-scale “Freeway Revolt.” Local anger at the seeming indifference of transportation planners to the condensed architectural fabric of the city left the San Francisco Board of Supervisors torn between appeasing the local constituency and realizing statewide transportation goals. Mirroring other urban protests such as that against the Robert Moses-led freeway plans in New York City, San Franciscans railed against neighborhood destruction caused by rampant road construction. Ultimately successful, the furor led to a 1959 vote in which the Board of Supervisors unanimously voted to terminate construction on most freeways throughout the city. Work on both the Central Freeway and the Embarcadero Freeway halted, and the massive corridors remained incomplete stubs that fell far short of their intended terminus. As a result of this controversy, the congested urban corridor of Van Ness Avenue retained the mantle of US Route 101. In contrast to the 1955 depictions of a freeway connecting US Route 101 to the Golden Gate Bridge, Caltrans reports in 1961 were strikingly modest, stating that, “construction and design activities, except for landscaping and minor projects, are confined at present.” The yearly report noted instead that, “bids were opened for resurfacing Van Ness Avenue,” and once again it was San Francisco’s answer to Route 101 (*California Highways and Public Works* May-June 1961:1-9; Bean 1968:529; Giuliano and Hanson 2004:400).

Paradoxically, as highway construction transformed much of California and millions of automobiles filled the multi-lane roads, the fortunes of Auto Row fell into decline. The freeways, ribboning from the urban core to the sprawling periphery, allowed rampant population dispersal and commercial

interconnectivity. An auto showroom on Van Ness Avenue, with high rent and land values, and compressed space, often proved no match for the cheap rents, convenient parking, and proximity of surrounding suburban dealers.

Further, as the romance and mystique of the automobile ceded to a comfortable familiarity and utilitarian ubiquity, the palaces of the earlier era seemed increasingly anachronistic and outdated. By the 1950s, and escalating through the 1960s and 1970s, auto dealers left Van Ness Avenue. Old showrooms stood vacant or were filled with bakeries, restaurants, laundromats, movie theaters, and even gymnasiums. Although some prominent dealers remained, with several sales rooms remaining today, the cohesive strip of diverse architectural palaces eroded and Van Ness Avenue once again assumed a new urban character. A targeted plan developed by the San Francisco Planning Department in the late 1980s acknowledged the transitional challenges facing the avenue, citing the need for an increased mixed-use and residential character as well as the necessity of creative adaptation of many of the distinctive auto showrooms along the avenue. The plan also encouraged the planting of trees and greenery along the street and in the median, an echo of the boulevard plans of the late nineteenth century (San Francisco Planning Department c.1989).

Thus from the 1848 survey of Laguna Survey, to the 1856 survey of Van Ness as a future boulevard, to today's mixed-use avenue, a number of distinctive epochs have shaped Van Ness Avenue: settlement removed from the Gold Rush boom near Washerwoman's Lagoon, residential settlement accompanying the nineteenth century San Francisco population boom, the profound impact of the dislocation of the 1906 earthquake and the ensuing commercial rush, the infrastructural mandate and progressive City Beautiful aims of the Panama-Pacific Exposition and Civic Center, and the rise and hegemony of both the automobile and the modern highway in city and regional life. Throughout these periods the avenue has served as a constantly evolving corridor, altered successively to suit the urban aims and motivations of the period. The avenue bears layers from each period, with several pre-earthquake residences in its upper portions, trolley poles from the Exposition era, prominent showrooms, as well as modern residential high-rises. These layers indicate a successive reconceptualization of the corridor that has allowed it to remain a viable and dynamic component of San Francisco's street system.

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