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April 22, 2013

Karen Smith, LEED, AP
Senior Project Architect
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1245 Howard Street
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RE: Phase I Environmental Site Assessment
Muni Upper Yard, San Francisco, California 94112

Dear Ms. Smith:

LEE Incorporated (LEE) is submitting the attached *Phase I Environmental Site Assessment Report, Muni Upper Yard, San Francisco, California 94112.* As requested, we are attaching a PDF file and two (2) printed copies of the report.

Additionally, we are attaching pdf files of the three (3) Phase I ESA reports of the San Francisco Unified School District sites at 1950 Mission Street, 200 Middle Point Road, and 1101 Connecticut Street.

Please call me at 415-421-2758, if you have questions.
Thank you.

Sincerely,

LEE Incorporated

Ellen Lee, D.S.c., PLS, P. E.
Principal Engineer

Attachments: Phase I ESA Report, Muni Upper Yard

SAN FRANCISCO MUNICIPAL TRANSPORTATION AUTHORITY

PHASE I SITE ASSESSMENT REPORT

MUNI UPPER YARD
SAN FRANCISCO, CALIFORNIA 94112

Asian Neighborhood Design
1245 Howard Street
San Francisco, California 94103

April 2013

LEE Incorporated
Engineers • Surveyors • Construction Managers

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1.0 INTRODUCTION

On behalf of Asian Neighborhood Design (AND), LEE Incorporated (LEE) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the San Francisco Municipal Railway (Muni) Upper Yard in San Francisco, California 94112 (*subject property*). Muni is a division of the San Francisco Municipal Transportation Authority (SFMTA) that services the City and County of San Francisco (City). The attached **Figure 1** shows the general location of the City and *subject property*.

Providing technical assistance to the San Francisco Mayor's Office of Housing (SFMOH), AND is assessing the *subject property* as a potential acquisition for affordable housing. The *subject property* is currently owned by SFMTA. This Phase I ESA was performed as part of the due diligence for consideration of the *subject property* for acquisition by SFMOH.

1.1 Purpose

The Phase I ESA was performed in conformance with the scope and limitations of the American Society of Testing and Materials (ASTM) Standard Designation E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

1.2 Scope of Services

The scope of services was as follows:

- Visual reconnaissance of the *subject property* and vicinity to assess existing conditions, activities, and potential environmental concerns.

- Reviewing documents available from federal, state, and local agencies that pertain to the *subject property*.

- Reviewing documents provided by SFMOH and SFMTA, and interviewing SFMTA representatives familiar with the *subject property*.

- Reviewing historical aerial photographs, Sanborn® fire insurance maps, topographical maps, and other records to evaluate historical conditions and activities at the *subject property* and vicinity.

- Acquisition of a computerized review of federal and state agency databases including the National Priority List (NPL); Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); RCRA Treatment, Storage and Disposal (TSD) Facilities; California

Leaking Underground Storage Tanks (LUSTs); and registered underground and above-ground storage tanks (USTs/ASTs).

- Preparation of this report following ASTM E1527-05.

1.3 Limitations and Exceptions

This Phase I ESA does not guarantee, imply, or assert that all potential contaminant sources have been located because of the possible presence of an unlisted or unidentified contaminant occurrence. Even with the proper application of ASTM E1527-05 methodology, conditions may exist that could not be identified within the scope of the assessment, or which were not reasonably identifiable from the available information. Although the information obtained from the Phase I ESA is considered to be reliable, LEE does not warrant or guarantee that the information provided by these sources is accurate or complete.

This Phase I ESA did not include non-scope items in ASTM E1527-05, such as sampling and laboratory analyses of soil and other environmental media. Potential seismic hazard concerns, lead-based paint, aerially deposited lead, asbestos, radon, ecological, cultural and historical resources, industrial hygiene, health and safety, endangered species, high-voltage power lines, and mold and microorganism concerns are outside of the scope of work.

The findings presented in this report apply solely to conditions existing at the time the assessment was performed. The Phase I ESA was conducted for the purpose of evaluating the potential for contamination through limited research and investigative activities, and does not represent a conclusive or complete site characterization. This Phase I ESA does not provide any guarantees, certifications, or warranties that the project site is free from environmental contamination.

1.4 User Reliance

This Phase I ESA report is for the exclusive use of AND and SFMOH. LEE will distribute any information regarding this assessment and report only upon the request of AND and SFMOH. Use of this report by any other party shall be at such party's sole risk. This Phase I ESA is considered to be a privileged and confidential communication.

2.0 PROPERTY DESCRIPTION

2.1 Location and Current Use

The *subject property* corresponds to assessor parcel Lot 039, Block 6973 located to the southwest of the intersection of San Jose Avenue and Geneva Avenue in the Excelsior District of San Francisco. The attached **Figure 2** shows the location of the *subject property*. The Excelsior District is a mixed industrial and commercial neighborhood bound by U. S. Highway 280 (Highway 280) to the west and U. S. Highway 101 (Highway 101) to the east.

Appendix A presents copies of the assessor's parcel map (Block 6973) and a historical fire insurance map obtained from the San Francisco Planning Department (SFPD). According to assessor records, the parcel (Lot 039, Block 6973) comprises 30,750 square feet, and is currently owned by SFMTA.

The attached **Figure 3** is a site plan of the Muni Upper Yard and vicinity. The *subject property* is a paved parking lot enclosed by chain link fencing and currently used for car parking by SFMTA staff. There are no buildings or structures on the *subject property*.

2.2 Adjoining Sites

The following describes the adjoining sites to the *subject property*; refer to the attached **Figure 3**.

- West: The Bay Area Rapid Transit (BART) right-of-way (ROW) consists of a paved roadway referred to as the Kiss-&-Ride area designed for use by motorists to drop-off and pick-up BART and Muni riders and passengers at the Balboa Park BART Station. The Kiss-&-Ride has two lanes of traffic, one on the east side for cars entering from the San Jose Avenue, and one on the west side for cars entering from Geneva Avenue. Both sides have parking lanes. A narrow landscaped strip occurs along the west perimeter between the BART and Highway 280 ROWs.

  The south end of the Balboa Park BART Station is located where the Kiss-&-Ride area intersects Geneva Avenue, and includes access to the BART underground, an auxiliary storage building, and concrete paved area.

- South: Directly south of the access gate into the *subject property* is the intersection of BART's Kiss-&-Ride and San Jose Avenue, comprised of paved roadway and sidewalks. Railtracks from San Jose Avenue extend into the *subject property* via the access gate to the north end of the *subject property*. To the southwest, a landscaped area (lawn, bushes and trees) occurs along the BART ROW between San Jose Avenue and Highway 280.

The parcel at the south corner of San Jose Avenue vs. Niagara Avenue (2401 San Jose avenue) is occupied by a two (2)-story single-family residential dwelling, originally of one (1)-story construction in 1948, fronting San Jose Avenue with an adjoining L-shaped, concrete surfaced area fronting Niagara Avenue. The remainder of the block bound by San Jose Avenue, Niagara Avenue, Delano Avenue, and Shawnee Avenue is residential.

- East: San Jose Avenue extends along the east side of the *subject property*. San Jose Avenue is a major north-south arterial roadway stretching through several neighborhoods between the City's southern border and Noe Valley. The east corner area of San Jose Avenue vs. Niagara Avenue (2377 San Jose Avenue) has a concrete surfaced area that leads to underground parking of a two (2) story commercial building. The building was originally constructed as in 1947, remodeled in the early 1990s with the addition of a second floor, and is used for retail and studios (photo and artist studios, apartment locating service, glass products retail, neon/electric sign specialists, cleaning/maid services). Residential parcels occur to the southeast along Niagara Avenue.

  The Muni Geneva Railyard or Cameron Beach Yard (500 Geneva Avenue) is an active railyard and maintenance facility for Muni's historical streetcars and Light Rail Vehicles (LRVs). Major functions are maintenance, painting, and storage. The railyard was originally comprised of a large enclosed brick car barn and maintenance shops, including a machine shop, carpenter shop, and storage facilities. The original car barn and shops were demolished in the 1970s to accommodate the construction of new Muni maintenance facilities and offices, as well as an open-air streetcar parking yard. More recently, renovations to the yard were made to accommodate LRVs.

  Along San Jose Avenue to the southwest of Geneva Avenue, the Geneva Office Building and Power House at 2301 San Jose Avenue are currently vacant and in disuse due to seismic safety concerns. The two (2) adjoining buildings have been unoccupied since sustaining damage in the 1989 Loma Prieta Earthquake. Ownership of the buildings was transferred in 2004 to the San Francisco Recreation and Park Department.

  To the east of the Muni Geneva Railyard is a residential neighborhood, primarily consisting of single-family dwellings developed in the 1930s and 1940s.

- Northeast: The San Jose Avenue vs. Geneva Avenue consists of paved roadway and sidewalks. Geneva Avenue is an east-west arterial street that connects Balboa Park and Visitation Valley, stretching from Phelan Avenue to Bayshore Boulevard. The northeast corner of San Jose Avenue vs. Geneva Avenue is occupied by a one (1)-story commercial building built in 1962 with a paved parking area. The building is currently vacant and in disuse. A mix of low-scale commercial and residential uses occurs along San Jose Avenue to the northeast. Residential parcels dominate to the east and northeast in the block bound by Geneva Avenue, Delano Avenue, Seneca Avenue, and San Jose Avenue.

- North to Northwest: Geneva Avenue extends along the north side of the *subject property*. The Curtis E. Green Annex (425 Geneva Avenue) is a multi-story building fronting Geneva Avenue; the building houses administrative and dispatch functions for both Muni's fleet of LRVs and historical streetcars. Railtracks extend from Geneva Avenue to the Balboa Park BART Station. The adjoining Muni's Green Division Light Rail Facility (2200 San Jose Avenue) extends along San Jose Avenue between Geneva Avenue and Ocean Avenue. Green Division is a full-service facility for LRVs and includes railyards and maintenance and repair shops.

  The Balboa Park BART Station is one of the highest volume intermodal transfer stations within the BART/Muni system. The primary entrance to BART and Muni Metro is on the north side of Geneva Avenue. The north-bound on-ramp and traffic lanes of Highway 280 occur to the west of the Balboa Park BART Station and Muni Green facilities.

2.3 Historical City Directories

In February 2013, EDR researched city directories for the *subject property* and surrounding addresses. Business and telephone directories were reviewed at approximately five (5) year intervals for the years spanning 1910 through 2012. The information gathered was compiled by geocoding the latitude and longitude of the properties identified and gathering information about properties within 332 feet of the *subject* property. EDR's City Directory Abstract in **Appendix D** presents the city directory research results.

According to historical Sanborn® maps (**Appendix E**), in the early 1900s, the Muni Upper Yard was comprised of a set of contiguous residential parcels with addresses of 2306 to 2382 San Jose Avenue and 424 and 458 Geneva Avenue. EDR's City Directory Abstract found listings for these street addresses in historical directories dating from the 1900s to 1940s, published by R. L. Polk and Co. and H. S. Crocker Co. The listings consist of names of individuals, consistent with residential land use. No listings for the Muni Upper Yard were found in post-1940s historical directories (**Appendix D**).

For nearby sites, directories published by R. L. Polk and Co., H.S. Crocker Co., Pacific Bell, Pacific Telephone, Haines and Co., and Cole Information Services list the following:

- 425 Geneva Avenue: "Muni" and "City and County of San Francisco" for late 2000s;

- 2275 San Jose Avenue: "Café Express" in 2012, and various food establishments ("All Star Donut," "Varnis Donut Time," "Donut Time Restaurant") in the 1960s to 2010's.

- 2301 San Jose Avenue: "Market Street Railway Barns," and "Street Railway" in the 1930s and 1940s; and "City and County of San Francisco," "City Municipal Railway Car Barn," "SF Muni," and various City credit unions in the late 1940s to 1990s.

- 2377 San Jose Avenue: "Turko Persian Rug Company Plant" and Turko Persian Rug Company" are listed in the 1950s to 1970s. Names of individuals and studios ("BP Productions," "ARK Sign Glassware," "ARK Neon and Electric Sign Company," Koolkatz Productions," "Gallery X," "Incline Glass") are listed in the 1980s to 2010s.

Directories (early 1900s to 2010s) for mainly list names of individuals for nearby addresses along Geneva, Niagara, and San Jose Avenues, consistent with residential land use.

2.4 Geological Setting

San Francisco encompasses forty-nine (49) square-miles in the western part of the Coast Ranges along the central California coast. The city spreads across a peninsula bound by the Pacific Ocean on the west and San Francisco Bay on the north and east. The present topography is the result of erosion of Mesozoic Franciscan Complex rocks of varying hardness with deposits of windblown sand that locally mantle the bedrock exposures. Quaternary tectonism, marine and estuarine deposition, and artificial fill (man-made land) have also contributed to the development of the current topography of San Francisco.

The United States Geological Survey (USGS) has compiled the geological information available for San Francisco in a series of USGS 7.5-minute quadrangle topographic maps and reports. Based on these compilations, San Francisco is underlain by three (3) main geological formations that differ in age: older bedrock, Tertiary strata, and surficial deposits.

- The older bedrock consists of the Franciscan Complex of Cretaceous to Jurassic age. The Franciscan Complex is subdivided into lithological units that include sedimentary rocks at various stages of metamorphism, greenstone, serpentinite, gabbro and diabase, and various other metamorphic and sheared rocks.

- Tertiary rocks are prominent in the southwestern part of the City and represented by the Merced Formation of late Pliocene to Pleistocene age. The Merced Formation consists of sand, silt, and clay basin deposits that originated in a shallow marine and coastal non-marine depositional setting.

- The Colma Formation of Pleistocene age was deposited unconformably on the Merced Formation, notably in the northwestern and central part of the City. The Colma Formation consists of fine- to medium-grained sand with lesser beds of sandy silt, clay and gravel. Other Pleistocene and Holocene surficial deposits consist of rubbly slope debris and ravine fill, old beach deposits, dune deposits, alluvium, bay mud, recent beach deposits, undifferentiated sedimentary deposits, landslides, and artificial fill.

Regional geologic information for the *subject property* vicinity is available in USGS Open File Report 98-354, *Preliminary Geologic Map of the San Francisco South 7.5' Quadrangle and Part of the Hunters Point 7.5' Quadrangle, San Francisco Bay Area, California: A Digital Database* (Bonilla, 1998). According to the geological compilation, the area encompassing the *subject property* is underlain by the Jurassic-Cretaceous Franciscan Complex and unconsolidated Quaternary sediments derived from the weathering and erosion of the Franciscan Complex. Outcrops of the Franciscan Complex occur west to southwest of the *subject property*, and include sandstone and shale, hard where fresh and intact, soft where weathered or sheared. Additionally, artificial fill occurs locally and has been described as containing clay, silt, sand, rock fragments, organic matter, and man−made debris.

2.5 Hydrological Setting

Based on the hydrological compilation of groundwater basins in the San Francisco Bay Area by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB, April 4, 1996), and the California Department of Water Resources (DWR, October 2003), the *subject property* lies in the southern portion of the Islais Groundwater Basin. The Islais Basin encompasses approximately 5,000 acres in San Francisco, and 600 acres in adjoining San Mateo County. The groundwater basin occurs in sedimentary deposits and is bound laterally by bedrock of the Franciscan Complex, except at the east end where it is open to the San Francisco Bay (Bay). The main water-bearing units are the Colma Formation up to 100 feet thick, and the overlying undifferentiated alluvium deposits up to 60 feet thick. In proximity to the Bay, the Basin contains artificial fill and deposits of bay mud.

According to RWQCB (April 4, 1996), the regional groundwater flow in the Basin is eastwards towards the Bay. Rainfall and leakage from underground water and sewer pipes provides significant groundwater recharge. Shallow groundwater quality tends to be reduced east of the Bayshore Freeway, in proximity to the Bay where the Basin contains significant artificial fill and is affected by the incursion of bay saltwater.

Groundwater flow for a particular site is best determined using site-specific well data. However, there are no groundwater monitoring wells or site-specific groundwater information available for the *subject property*. Groundwater conditions can be inferred from other sources of information, such as topographic maps, hydrological information, and well data from nearby sites. EDR has developed the AQUIFLOW Information System (**Appendix I**) to provide data on the general direction of groundwater flow in an area based on a review of groundwater reports submitted by environmental professionals to regulatory agencies. Based the topography and available groundwater data, the groundwater flow direction around the *subject property* is inferred to be northeast to east. However, the dewatering of the BART subway structure may influence groundwater depth and flow in the area. The Bay is located approximately six (6) miles to the east of the *subject property*.

3.0 SITE RECONNAISSANCE

On February 26, 2013, a LEE representative conducted a reconnaissance of the Muni Upper Yard to assess site usage and identify observable signs of environmental impairments and concern, if any. Between February and April 2013, LEE held discussions on the *subject property* with Ms. Karen Smith, Senior Project Architect for AND; Mr. Kevin Kitchingham, Project Manager for SFMOH; Mr. Jason Gallegos of SFMTA's Real Estate Division, and Ms. Carol Wolther, Muni Officer, SFMTA. User provided information including a site assessment questionnaire completed by Mr. Gallegos is presented in **Appendix B**.

3.1 Existing Conditions

The *subject property* adjoins the BART ROW at the Balboa Park Station to the southwest of the intersection of San Jose Avenue and Geneva Avenue. There are no buildings or structures on the parcel. **Figure 3** presents a plan view of the *subject property* and vicinity.

Enclosed by chain link fencing, the *subject property* is a paved yard used for parking of cars by SFMTA staff. The vehicle access gate is at the south end and there is a pedestrian access gate located at the north end of the *subject property*. Grade is above that of the surrounding streets and there is a concrete retaining wall that extends along the northeast perimeter fronting Geneva Avenue, and the east perimeter fronting San Jose Avenue. Embedded in the pavement, steel railtracks spur from the main railtracks on San Jose Avenue and extend into the *subject property* via the access gate to the north end of the *subject property*. Railcar blocks were noted at the north end of the railtracks. The *subject property* is no longer used for the storage of LRVs.

A photographic log of the *subject property* is presented in **Appendix E**.

3.2 Surface Drainage

Stormwater runoff is influenced by the slope of the pavement on the *subject property*. An asphalt and concrete berm extends around the perimeter of the parcel and directs stormwater runoff to a stormwater catch basin located at the northeast corner of *the subject property*. Along the west perimeter near the south end, there is a low spot with a gap in the perimeter concrete curb that allows stormwater runoff to drain off the property onto the adjoining BART's Kiss-&-Ride Area. Because of the impermeable nature of the pavement, stormwater that does not infiltrate cracks in the pavement flows by sheet flow into the on-site catch basin inlet and west perimeter gap, and enters the municipal sewer system that services Geneva Avenue and San Jose Avenue. The City's municipal system is a combined stormwater and sanitary sewer operated and maintained by the San Francisco Public Utilities Commission (SFPUC).

No areas of open ground and landscaping were noted on the *subject property*.

3.3 Surface Water Bodies

No surface water bodies (rivers, creeks, lakes) occur on or near the *subject property*. The nearest surface water body is the Bay, approximately six (6) miles to the east of the *subject property*.

3.4 Municipal Utilities

Review of underground utilities servicing the *subject property*, and the layout of utilities in the surrounding streets, was outside of the scope of work for this Phase I ESA. San Jose Avenue and Geneva Avenue contain municipal sewers, water and gas pipelines, and electrical and telecommunication utilities, with connections and laterals to service the surrounding properties. Water service in the Excelsior District is provided by SFPUC's water infrastructure system.

3.5 Wells

No evidence for the occurrence of water supply wells, dry wells, irrigation wells, injection wells, and monitoring wells was observed during the site reconnaissance.

3.6 Clarifiers, Sumps, and Industrial Discharge Sources

No evidence for the occurrence of clarifiers, sumps, and industrial discharge sources was observed during the site reconnaissance of the *subject property*.

3.7 Storage Tanks

No evidence was found for the occurrence of underground storage tanks (USTs) or above-ground storage tanks (ASTs), or associated dispensers and amenities, at the *subject property*.

3.8 Pits, Ponds, and Lagoons

No pits, ponds, or lagoons occur on or near the *subject property*.

3.9 Wetlands

The *subject property* is located in a well-established residential and commercial district of San Francisco. There are no wetlands on or around the *subject property*.

3.10 Pools of Liquid

No visible standing surface water or pools of liquid were observed during the site reconnaissance of the *subject property*.

3.11 Surface Staining

No surface staining indicative of a spill of petroleum hydrocarbons or chemical substances, or other unusual surface residues or deposits, was observed during the reconnaissance of the *subject property*.

3.12 Drums and Waste Refuse

The *subject property* was found to be free of trash and debris accumulations. No drums or other containers were observed during the site reconnaissance.

3.13 Radon

Radon is a naturally occurring colorless, odorless gas that is the by-product of the decay of radioactive materials present in bedrock and soil throughout the United States. The potential for naturally-occurring radon to occur is related to geological formations and can be evaluated by consulting the National Radon Database developed by the U. S. Environmental Protection Agency (EPA) in cooperation with the USGS. The EPA has prepared maps to assist federal, state and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three (3) radon zones, Zones 1, 2 and 3. Radon gas becomes a concern when it enters a building's indoor space through floor cracks, structural joints, or plumbing conduits.

Based on information in the EDR Radius Map™ Report with Geocheck® (**Appendix I**) that indicates San Francisco is in Zone 2 with a corresponding predicted average indoor radon gas level of less than the EPA residential screening level of 4.0 picoCuries per liter (pCi/L), naturally-occurring radon is not considered to be a significant environmental concern for the *subject property*.

3.14 Polychlorinated Biphenyls, PCBs

The past use of polychlorinated biphenyls (PCBs) in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors was commonplace in the United States. PCBs in electrical and mechanical equipment are controlled by EPA Regulation 40 CFR, Part 761. Although a PCBs survey was not in the scope of work for this Phase I ESA, no transformers were noted on the *subject property*. There are not buildings or structures on the *subject property*.

3.15 Asbestos

In 1975, the EPA promulgated a three-stage ban to prohibit the future use of asbestos-containing material (ACM) in buildings. An asbestos inspection is required prior to any renovation or demolition that would impact suspect ACM. Asbestos can be found in certain pre-1975 drywall, plaster, flooring, glues and adhesives, wall and ceiling tiles, and insulation materials. The Occupational Safety and Health Administration (OSHA) requires certain untested materials to be presumed to contain asbestos for buildings constructed prior to 1981.

There are no buildings on the *subject property* to warrant an environmental concern with respect to building suspect ACM.

The available geological information indicates the area encompassing the *subject property* is underlain by the Franciscan Complex. Considering that serpentinite is a component of the Franciscan Complex in the City, there is the possibility that naturally occurring asbestos (NOA) may be encountered if deep borings or excavations were to be performed on the *subject property* so as to intercept and expose bedrock below the near-surface fill and unconsolidated sedimentary deposits. However, a present environmental asbestos exposure concern is not evident inasmuch as no outcrops of the Franciscan Complex occur on the *subject property*. The Franciscan Complex bedrock is buried and overlain by near-surface fill and unconsolidated sedimentary deposits.

3.16 Lead-Based Paint

In 1978, the Consumer Product Safety Commission banned the use of lead as an additive in paint. Lead-based paint (LBP) is common on structures built prior to 1978. Like asbestos, if the paint is in good condition with no chalking, chipping or peeling, it presents very little risk. LBP can create hazards during the demolition, renovation or remodeling of buildings and painted structures where lead dust may be generated. A LBP survey that includes the sampling and analysis of paint samples for lead is typically performed before demolition, renovation, or remodeling. Construction activities that disturb LBP would be subject to certain OSHA requirements pertaining to lead contained in 29 CFR 1910.1025 and 1926.62.

LBP is identified by the EPA as paint that contains more than 0.5 percent lead by dry weight. RCRA 40 CFR 261 requires the generator of construction demolition waste to characterize the wastes to determine if they are “hazardous wastes” with special disposal requirements. Lead is recognized by RCRA as having potential toxicity characteristics and subject to hazardous waste regulations.

LBP is not identified as an environmental concern inasmuch as there are no buildings or structures on the *subject property*.

3.17 Aerially Deposited Lead

Lead in soils near roadways attributed to the historical use of lead in gasoline is referred to as aerially deposited lead (ADL). Because the *subject property* is in an established residential area and Highway 280 to the west was constructed in the 1970s, ADL is not suspected to be a significant environmental concern at the *subject property*.

3.18 Traffic Stripes and Pavement Marking Materials

No significant traffic stripping or other types of pavement markings (paint, thermoplastic, tape) were observed during the site reconnaissance.

4.0 ENVIRONMENTAL DATABASE AND FILES REVIEW

Environmental Data Resources, Inc. (EDR) of Milford, Connecticut was contracted to scan electronically available agency and environmental databases following guidelines in ASTM E1527-05. The results of the database scan are discussed below.

4.1 Topographic Maps

According to the USGS San Francisco South 7.5-minute topographic quadrangle map (USGS, 1995), the *subject property* has a gentle east to northeast slope and surface elevation is approximately 224 feet above mean sea level.

The following describes conditions in the vicinity of the *subject property* as inferred from reviewing topographical maps provided in EDR's Historical Topographic Map Report in **Appendix F**:

- 1899: The San Mateo Quadrangle, 15 Minute Series, dated 1899 (Scale: 1:62,500) shows the area encompassing the *subject property* is to the west of San Jose Avenue and east of a railtrack corridor labeled "Monterey Line." The area appears to be rural with small black structures shown suggesting scattered dwellings or farm structures.

- 1947: The San Mateo Quadrangle, 15 Minute Series, dated 1947 (Scale: 1:50,000) shows the area encompassing the *subject property* lies between San Jose Avenue to the east, a railtrack corridor to the west, and Ocean Avenue to the north. No features or structures are shown in the area of the *subject property*. Urban development with a block and street pattern resembling currently existing is evident in the neighborhood of the *subject property*.

- 1950: The San Francisco South Quadrangle, 7.5 Minute Series, dated 1950 (Scale: 1:24,000) shows the street and block layout around the *subject property* resembles existing conditions. No structures are shown in the area of the *subject property*. The area of the *subject property* lies between the Southern Pacific Railroad corridor to the west, San Jose Avenue to the east, Geneva Avenue to the north, and Niagara Avenue to the south. At the time, Niagara Avenue continued west of the San Jose Avenue intersection. The topographic contours in the vicinity of the *subject property* suggest a gentle slope to the east to northeast.

- 1956: In the San Francisco South Quadrangle, 7.5 Minute Series, dated 1956 (Scale: 1:24,000), the area encompassing the *subject property* resembles conditions in 1950. However, railtrack spurs are shown extending from the Southern Pacific Railroad corridor to the adjoining area west of the *subject property*. Increased urbanization is evident in the neighborhood of the *subject property*.

- 1968: In the San Francisco South Quadrangle, 7.5 Minute Series, dated 1968 (Scale: 1:24,000), the area of the *subject property* lies between Highway 280 to the west, San Jose Avenue to the east, Geneva Avenue to the north, and the Niagara Avenue vs. San Jose Avenue intersection to the south. Niagara Avenue does not extend west of San Jose Avenue. The BART alignment is labeled as "Rapid Transit, Under Construction." A large structure labeled "RR Station" is noted in the area currently occupied by Muni's Green Division, north of Geneva Avenue and south of Ocean Avenue, between San Jose Avenue and Highway 280. The street and block layout in the neighborhood of the *subject property* resembles existing conditions.

- 1973: In the San Francisco South Quadrangle, 7.5 Minute Series, dated 1973 (Scale: 1:24,000), the street layout, topography, and features of the area of the *subject property* and vicinity resemble conditions in 1968. The BART alignment is labeled as "Rapid Transit."

- 1980: In the San Francisco South Quadrangle, 7.5 Minute Series, dated 1980 (Scale: 1:24,000), the street layout, topography, and features of the area of the *subject property* and vicinity resemble conditions in 1973. The structure (labeled "RR Station") in the area currently occupied by Muni's Green Division, north of Geneva Avenue and south of Ocean Avenue between San Jose Avenue and Highway 280, differs in pattern from that in 1973.

- 1993: In the San Francisco South Quadrangle, 7.5 Minute Series, dated 1993 (Scale: 1:24,000), the street layout, topography, and features resemble conditions in 1968. No structures are shown in the area of the *subject property*.

- 1995: In the San Francisco South Quadrangle, 7.5 Minute Series, dated 1995 (Scale: 1:24,000), the street layout, topography, and features of the *subject property* and vicinity resemble conditions in 1993.

4.2 Aerial Photographs

Historical aerial photographs with coverage of the *subject property* were purchased from EDR to assess historical conditions and operations. EDR provided eleven (11) aerial photos with coverage of the Muni Upper Yard. The photos are dated 1943, 1946, 1956, 1968, 1974, 1982, 1993, 1998, 2005, 2009, and 2010. The aerial photographs are presented in **Appendix G**. Google Maps provides a recent aerial photograph for comparison. The review of the aerial photos is presented in the attached **Table 1**.

4.3 Sanborn® Fire Insurance Maps

Sanborn® Fire Insurance (Sanborn®) Maps have been produced for approximately 12,000 cities and towns from 1867 to present. The maps contain useful information for assessing potential environmental impacts to a given site. The complete Sanborn® Library collection

was searched by EDR and historical maps having coverage of the *subject property* were identified. EDR provided six (6) maps dated 1999, 1991, 1975, 1972, 1950, and 1915 with coverage of the Muni Upper Yard. The EDR Sanborn® Map Report is presented in **Appendix H**. The review of the Sanborn® Maps is presented in the attached **Table 2**.

4.4 California Department of Water Resources

In February 2013, the California Department of Water Resources (DWR) was contacted to request a review of the DWR's well completion records. DWR responded that there were no well completion reports or well records for the Muni Upper Yard.

4.5 California Regional Water Quality Control Board

In March 2013, the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) was contacted to inquire on the availability of files for the *subject property*. The RWQCB responded that the agency had no files for the Muni Upper Yard.

4.6 California Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) maintains an electronic database (ENVIROSTOR) of environmental cases that are under the jurisdiction and oversight of DTSC. The database is accessible via the DTSC website at www.dtsc.ca.gov. The ENVIROSTOR database was researched in February 2013. No listings or records were found for the Muni Upper Yard.

4.7 Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) maintains files on air quality and permitting cases in the San Francisco Bay Area. In March 2013, the BAAQMD reviewed its records and responded that the agency had no files for the Muni Upper Yard.

4.8 San Francisco Department of Public Health

The San Francisco Department of Public Health (SFDPH) maintains public records on underground storage tanks, above-ground storage tanks, local oversight program cases, hazardous waste facilities, environmental permits, and industrial cleanup program cases in San Francisco County. This City agency administers the Local Oversight Program and the Hazardous Materials Unified Program.

SFDPH was contacted in February 2013 to inquire on the availability of files pertaining to the *subject property*. SFDPH reviewed its public records and reported there were no files for the Muni Upper Yard.

The 1986 Maher Ordinance, as amended, requires an investigation of hazardous materials in soil at certain construction sites as a prerequisite for any building permit in the City. The Maher Area encompasses the area of San Francisco bayward of a historical, pre-1906 earthquake high tide line. This land area of San Francisco was largely created by landfill material where past industrial land uses and debris fill associated with the 1906 earthquake and bay reclamation often left hazardous residue in local soils and groundwater. The Maher Ordinance was developed to protect workers and citizens from exposure to potential hazardous waste during project construction.

The *subject property* is not within the Maher Area and therefore not subject to the Maher Ordinance.

4.9 San Francisco Fire Department

San Francisco Fire Department (SFFD) maintains public records on fire hazards and permits. SFFD was contacted in March 2013 to inquire on the availability of files pertaining to the *subject property*. SFFD reviewed its public records and reported there were no files for the Muni Upper Yard.

4.10 Environmental Databases Scan

A Radius Map™ Report with Geocheck® was purchased from EDR, one that includes a scan of federal, state and local regulatory and environmental databases (**Appendix I**). The report is designed to meet the due diligence search requirements of EPA 40CFR Part 312 and ASTM E1527-05 for evaluating environmental risk associated with real estate.

The databases scanned by EDR for this Phase I ESA included the following among others:

Radius Search	Agency	Database	Type of Records
1 mile	EPA	RCRA CORRACTS	RCRA facilities undergoing corrective actions
	EPA	NPL	Sites designated for Superfund cleanup
	EPA	FUDS	Formerly Used Defense Sites where the US Army is actively working or will take cleanup action
	DTSC	ENVIROSTOR	Sites in DTSC's ENVIROSTOR database
	DTSC	RESPONSE	Response List Sites of permitted hazardous waste facilities and corrective action cleanups

Radius Search	Agency	Database	Type of Records
1 mile	DTSC	HIST Cal-Sites	Historical database contains known and potential hazardous substances listed sites
	DTSC	HWP	Sites in the list of permitted hazardous waste facilities and corrective action cleanups
1.0 mile	SWRCB	Notify 65	Listing of California Proposition 65 incidents
	EPA	ROD	Record of Decision mandates a permanent remedy at an NPL (Superfund) site.
	DHS	CA BOND EXP. PLAN	List of sites receiving funding from the Hazardous Substances Cleanup Bond Act.
0.5 mile	EPA	CERCLIS	Sites under review by the EPA
	EPA	US Brownfields	Sites in the federal listing of brownfield sites
	EPA	CERCL-NFRAP	Sites with no further remedial action planned
	EPA	Non-CORRACTS	Non-CORRACTS RCRA TSDFs
	SWRCB	LUST	Sites with LUSTs
	SWRCB	SLIC	Sites listed in SLIC
	SWRCB	CA FID UST	Listing of active and inactive UST locations
	SWRCB	HIST UST	Listings of historical UST sites
	SWRCB	HIST CORTESE	Historical release sites, Cortese database
	DTSC	VCP	Low threat level sites in DTSC database
0.25 mile	EPA	RCRA LQG	Large quantity hazardous waste generators
	EPA	RCRA SQG	Small quantity hazardous generators
	EPA	RCRA CESQG	Conditionally exempt SQGs
	EPA	RCRA NonGen	RCRAs not presently generating hazardous waste
	EPA	DRYCLEANERS	Sites in the EPA's dry cleaners list
	SWRCB	UST/AST	Sites with registered USTs and ASTs
	EDR	US Hist Auto Stat	Historical auto stations in EDR's proprietary list
	EDR	US Hist Cleaners	Historical cleaner sites EDR's proprietary list
	SWRCB	SWEEPS UST	Sites in the SWEEPS UST database

Notes:
AST = Aboveground storage tank
CA FID = California Facility Inventory Database
Cal = California
CERCLIS = Comprehensive Environmental Response
CESQG = Conditionally Exempt Small Quantity Generator
CORRACTS = Corrective Action Reports
DTSC = Department of Toxic Substances Control
EDR = Environmental Data Resources, Inc.
EPA = Environmental Protection Agency
LQG = Large Quantity Generator
LUST = Leaking Underground Storage Tank
NFRAP = No Further Remedial Action Planned
NPL = National Priorities List
RCRA = Resource Conservation and Recovery Act
SLIC = Spills, Leaks, Investigations and Cleanups
SMBRP = Site Mitigation and Brownfields Reuse Program
SQG = Small Quantity Generator
SWEEPS = Statewide Environmental Evaluation and Planning System
SWLF = Solid Waste Landfills
SWRCB = State Water Resources Control Board
TSDF = Treat, store or dispose facility
UST = Underground storage tank
VCP = Voluntary cleanup sites

The Muni Upper Yard was not listed in any of the databases search by EDR.

The following summarizes the listings identified within a maximum one (1) mile radius of the target site, the Muni Upper Yard (**Appendix I**):

Subject property listed in databases searched by EDR?	Yes ☐	No ☒
Sites within a 1/4-mile radius of the target site listed in databases searched by EDR?	Yes ☒ 13	No ☐
National Priority List (NPL) sites within 1-mile radius of the target site?	Yes ☐	No ☒
Comprehensive Environmental Response, Compensation And Liability Information System (CERCLIS) sites within 1/2-mile radius of target site?	Yes ☐	No ☒
CERCLIS No Further Remedial Action Planned (NFRAP) sites within 1/2-mile radius of target site?	Yes ☐	No ☒

Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS) within 1-mile radius of target site?	Yes ☐	No ☒
RCRA Non-CORRACTS within 1/2-mile radius of target site?	Yes ☐	No ☒
RCRA Large Quantity Generator (LQG) within 1/4-mile radius of target site?	Yes ☒ 1	No ☐
RCRA Small Quantity Generator (SQG) within 1/4-mile radius of target site?	Yes ☒ 1	No ☐
RCRA Non-Generators sites within 1/4-mile radius of target site?	Yes ☐	No ☒
DTSC's Historical California Sites (HIST Cal-Sites) within 1-mile radius of target site?	Yes ☐	No ☒
State Facility Inventory Database (FID) sites within 1/4 mile radius of target site?	Yes ☒ 1	No ☐
Formerly Used Defense Sites (FUDS) within 1-mile radius of target site?	Yes ☐	No ☒
Local land records, land use restrictions DEED sites within 1/2-mile radius of target site?	Yes ☐	No ☒
Integrated Waste Management Board (IWMB)'s Solid Waste Information System Solid Waste Facility (SWF)/ Landfill Facilities (LF), 1/2-mile radius of target site?	Yes ☒ 1	No ☐
Federal Brownfield Sites (US BROWNFIEDLS) within 1/2-mile radius of target site?	Yes ☐	No ☒
DTSC RESPONSE listed sites within 1-mile radius of target site?	Yes ☐	No ☒
DTSC ENVIROSTOR listed sites within 1-mile radius of target site?	Yes ☐	No ☒

DTSC Voluntary Cleanup (VCP) sites within 1/2-mile radius of target site?	Yes ☐	No ☒
Underground Storage Tank (UST) sites within 1/4-mile radius of target site?	Yes ☒ 3	No ☐
State Water Resources Control Board (SWRCB)'s Leaking Underground Storage Tank (LUST) sites within 1/2-mile radius of target site?	Yes ☒ 25	No ☐
SWRCB's Spills, Leaks, Investigations and Cleanups (SLIC) sites within 1/2-mile radius of target site?	Yes ☐	No ☒
Sites with registered USTs listed in HIST UST within 1/4-mile radius of target site?	Yes ☒ 4	No ☐
Sites in the Notify Proposition 65 list within 1-mile radius of target site?	Yes ☒ 1	No ☐
State's historical Cortese (HIST CORTESE) hazardous waste/substance sites within 1/2-mile radius of target site?	Yes ☒ 14	No ☐
Cortese listed sites designated by the SWRCB, IWMB, and DTSC within 1/2-mile radius of target site?	Yes ☐	No ☒
State Cleaner Facilities (DRY CLEANERS) within 1/4-mile radius of target site?	Yes ☐	No ☒
Statewide Environmental Evaluation and Planning System (SWEEPS) UST sites within 1/4-mile radius of target site?	Yes ☒ 1	No ☐
EDR Proprietary Manufactured Gas Plants (MGPs) within 1-mile radius of target site?	Yes ☐	No ☒
EDR potential historical auto station sites within 1/4-mile radius of target site?	Yes ☒ 5	No ☐
EDR potential dry cleaner site within 1/4-mile radius of target site?	Yes ☒ 6	No ☐
Orphan sites identified in the EDR database scan?	Yes ☒ 164	No ☐

4.11 Assessment of Database Listings

To assess the significance to the *subject property*, the sites identified in the EDR's Radius Map™ Report with Geocheck® were evaluated by reviewing site details provided by EDR and other sources, such as EPA Region 9's website at www.epa.gov/aboutepa/region9, SWRCB's Geotracker database at www.geotracker.swrcb.ca.gov, and DTSC's ENVIROSTOR database via www.dtsc.ca.gov.

The listings identified in EDRs Radius Map™ with Geocheck® were discounted as posing a significant environmental concern to the *subject property* for the following reasons:

- Many of the listings are for tracking of hazardous materials or waste at commercial sites located in the radius search area. RCRA-SQG, RCRA-LQG, HAZNET, and Notify 65 are databases that contain information on sites that generate, transport, store, treat, and/or dispose of hazardous materials, or in the past, generated, transported, stored, treated and/or disposed of hazardous materials. Listings include petroleum hydrocarbon and other release and remediation cases, as well as facilities engaged in operations (e.g. retail service stations) that use or generate petroleum hydrocarbons. Most listings are along San Jose Avenue, Mission Street, Alemany Boulevard, and Ocean Avenue, more than ¼ mile northeast to southeast and at lower topographic surface elevation, and hydraulically downgradient to cross-gradient of the *subject property*. Those listings located northwest to southwest of the *subject property* are relatively distant where groundwater conditions are unlikely to pose an environmental threat to the *subject property*.

- Petroleum hydrocarbon and other release sites typically associated with USTs (LUST, HIST CORTESE, SWEEPS UST, CA FID UST, HIST UST, HIST Cal, EDR US Hist Auto Stat, and EDR US Hist Cleaners), located northeast to southeast of the *subject property* are topographically at lower elevation and relatively downgradient to cross-gradient of the *subject property*. The nearest sites are (i) the Muni Geneva facility at 2301 San Jose Avenue/500 Geneva Avenue, approximately 1,700 feet to the east and relatively downgradient of the *subject property*; and (ii) the former Turko Persian Rug Co. at 2377 San Jose Avenue, approximately 250 feet southwest and cross-gradient of the *subject property*. Given the distance and groundwater flow regime, releases from these sites are unlikely to have adversely impacted the *subject property*.

- The remaining petroleum hydrocarbon and other release sites (LUST, HIST CORTESE, SWEEPS UST, CA FID UST, HIST UST, EDR US Hist Auto Stat, and EDR US Hist Cleaners), located west, northwest and southwest of the *subject property* are relatively distant from the *subject property*. Given the distance and groundwater flow conditions, releases from these sites are considered unlikely to have adversely impacted the *subject property*.

- The City and College of San Francisco at 50 Phelan Avenue listing of a solid waste disposal site (SWF/LB) closed in February 1970. This site is approximately 1/2 mile to the northwest of the *subject property*, too distant to be of significance.

- Many of the petroleum hydrocarbon and other releases sites with associated soil or groundwater impact, are distant from the *subject property*, and are either closed/mitigated cases or had releases limited to their property boundaries. No release sites were identified where the plume of impacted soil or groundwater extends to the vicinity of the *subject property*.

Orphan Sites

"Orphan sites" are sites that were not plotted with confidence by EDR, but were identified as located within or near the radius search area. EDR will not map a site that has inaccurate or incomplete address information. LEE reviewed available street address information, SWRCB's Geotracker database, and other sources of information to identify the location and environmental status of orphan sites. The evaluation indicated the orphan sites are not near the *subject property*, and do not pose an environmental concern for reasons discussed in Section 4.11.

Except for five (5) listings, the orphan sites correspond to multiple UST listings in the Presidio of San Francisco, a municipal park and former military base located at the north tip of the San Francisco Peninsula. Now part of the Golden Gate National Recreational Area, the Presidio is approximately 6.3 miles to the northwest, too distant to adversely impact the *subject property*.

Besides the Presidio, the following five (5) orphan sites were identified (**Appendix I**):

The Bay View Green Waste Mgt. Co. (SWF/LF) refers to a solid waste handling facility in the Bayview Hunters Point District, approximately 6.6 miles east of the *subject property*. SF Pier 98 India Basin (SWF/LF) is on bayfill along the India Basin waterfront, approximately 6.2 miles east-northeast of the *subject property*. Both these sites are too distant to represent a concern for the *subject property*.

Too distant to be of significance, Pacific Bell-R1-009 (SWEEPS UST, CHMIRS) received case closure in December 1996 and is approximately 1.5 miles to the northeast of the *subject property*; SFIA United Airlines Maintenance (SLIC) at the San Francisco International Airport is approximately 6.25 miles southeast of the *subject property*; and T&E Forty Avenue Cleaners (EDR US Hist Cleaners) is approximately 2.8 miles north-northeast of the *subject property*.

5.0 FINDINGS AND CONCLUSIONS

LEE performed a Phase I ESA of the Muni Upper Yard in general conformance with the scope and limitations of ASTM E1527-05.

5.1 Site Description and History

The Muni Upper Yard adjoins the BART ROW to the southwest of the intersection of San Jose Avenue and Geneva Avenue. Based on information gathered during the performance of the Phase I ESA, the *subject property* was comprised of residential parcels from the early 1900s to late 1940s. In the late 1940s, the residential dwellings were removed and the property was redeveloped by Muni into a paved bus storage yard. With the expansion of Muni metro railcar service and the development of LRVs in the 1970s, the *subject property* was used for the storage of LRVs and other railcars, as well as for SFMTA staff car parking. Storage of railcars was phased out in the late 2000s, and the *subject property* began to be used exclusively for SFMTA staff car parking.

5.2 Recognized Environmental Conditions

Recognized Environmental Conditions (RECs) are defined by ASTM E1527-05 as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the site or into the ground, groundwater, or surface water of the site.”

No RECs were identified in connection with the Muni Upper Yard.

5.3 Historical Recognized Environmental Conditions

A Historical Recognized Environmental Condition (HREC) is defined by ASTM E1527-05 as "an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a REC currently."

No HRECs were identified in connection with the Muni Upper Yard.

5.4 Business Environmental Risk

Business Environmental Risk (BER) is defined by ASTM E1527-05 as “a risk that can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope

considerations." BERs may affect liabilities and financial obligations, health and safety concerns, and the value and marketability of a property.

The following BER is recognized with respect to the Muni Upper Yard. Up to the late 1960s when construction began on BART and Highway 280, a railyard and railcar paint facility where railcars were painted, varnished and washed occupied the adjoining area to the west of the *subject property*. Although no records of environmental releases were found in the Phase I ESA, given the proximity and upgradient to cross-gradient location relative to the *subject property*, there is the potential that hazardous chemical products associated with historical off-site railcar painting, varnishing and washing operations may have impacted subsurface soil and groundwater resources. Any existing subsurface contaminants, however, currently pose a low human risk inasmuch as the *subject property* is paved and used as a parking lot.

5.5 De Minimis Environmental Conditions

De Minimis environmental conditions are defined by ASTM E1527-05 as environmental conditions that "generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

No De Minimis conditions were identified in connection with the Muni Upper Yard.

6.0 RECOMMENDATIONS

The following recommendation is made to address the BER identified in Section 5.4. A limited Phase II Investigation of three (3) exploratory borings is recommended to evaluate the potential of subsurface impact by hazardous chemical products associated with historical railcar painting operations formerly centered on the adjoining parcel to the west of the *subject property*. Potential contaminants of concern associated the historical off-site railcar painting operations include petroleum hydrocarbons, volatile organic compounds, and metals.

7.0 REFERENCES

America Society for Testing and Materials (ASTM, November 205): *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E1527-05.*

Bonilla, M. G. (1998): *Preliminary Geologic Map of the San Francisco South 7.5' Quadrangle and Part of the Hunters Point 7.5' Quadrangle, San Francisco Bay Area, California: A Digital Database*, United States Geological Survey Open File Report 98-354.

California Department of Water Resources (CDWR, October 2003): *California's Groundwater*, Bulletin 118, updated October 2003.

Regional Water Quality Control Board, San Francisco Bay (RWQCB, April 4, 1996): *San Francisco and Northern San Mateo County Pilot Beneficial Use Designation Project, Part I: Draft Staff Report*, prepared by the Groundwater Committee, San Francisco Bay Regional Water Quality Control Board.

Regional Water Quality Control Board, San Francisco Bay (RWQCB, January 18, 2007): *San Francisco Bay (Region 2) Water Quality Control Plan (Basin Plan)*, incorporating all amendments approved by the Office of Administrative Law as of January 18, 2007.

United States Geological Survey (USGS, 1995): *San Francisco South Quadrangle, California, California 7.5-Minute Series (Topographic)*, scale 1:24,000, updated 1995.

8.0 SIGNATURE PAGE

All engineering information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by the following professionals:

04/22/13

Ellen Lee — Date
Professional Engineer, PE C20864

04/22/13

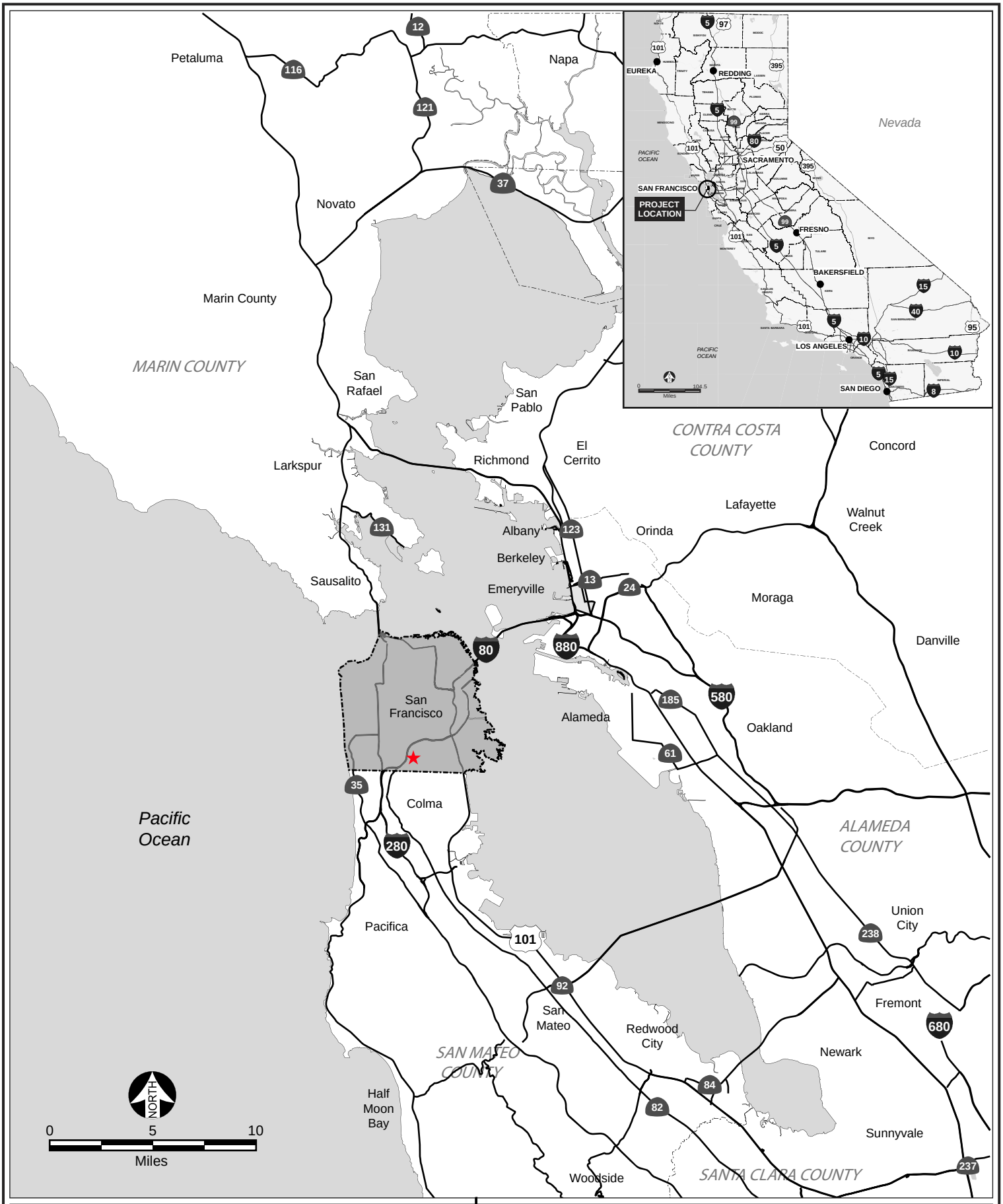
Paul Studemeister — Date
California Certified Engineering Geologist, CEG 1746

FIGURES

1. City and County of San Francisco Regional Map

2. Site Location Map

3. Muni Upper Yard and Vicinity



LEE Incorporated
San Francisco, California
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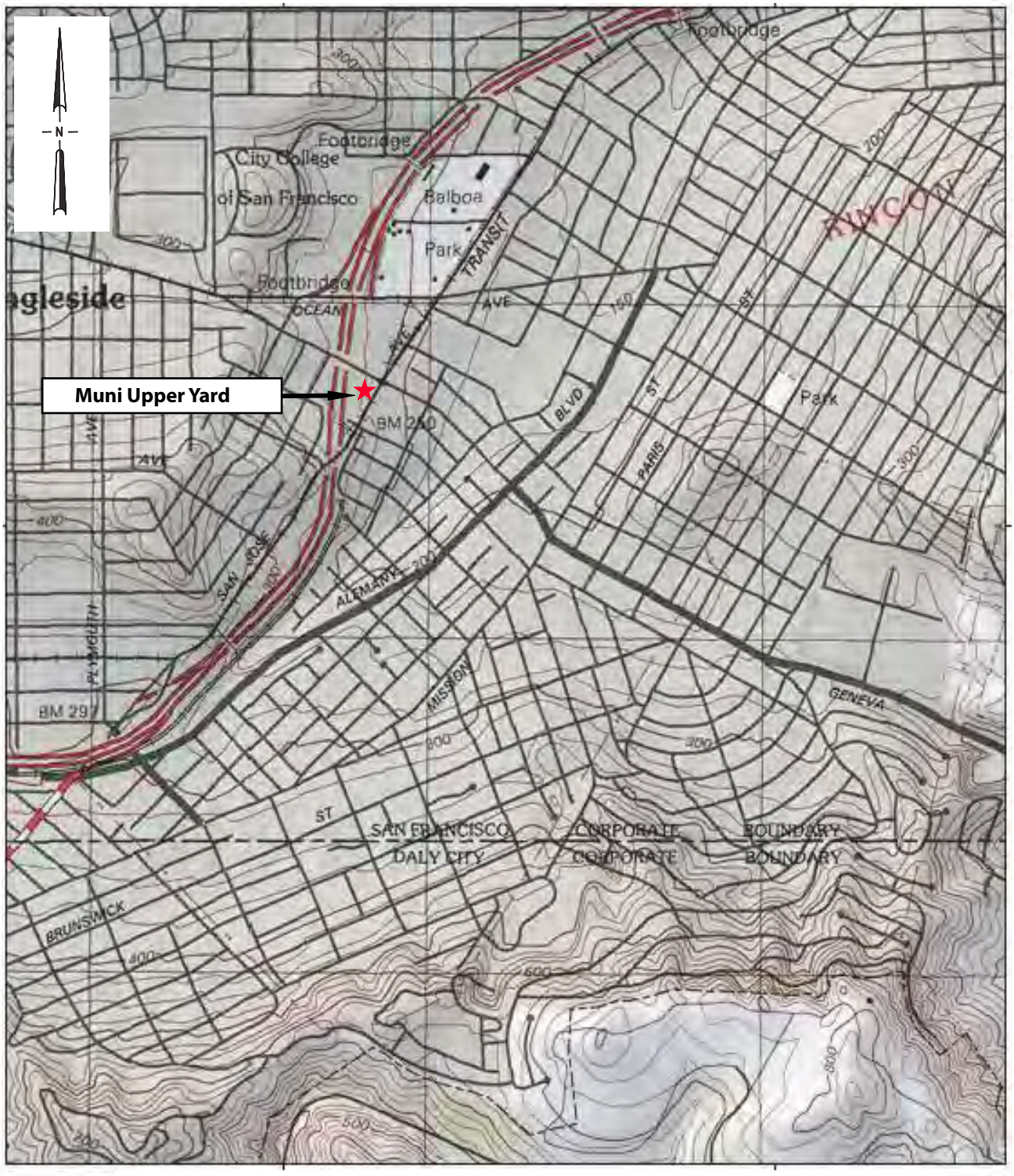
★ Subject Property Location
Muni Upper Yard,
San Francisco, Califonira 94112

Figure 1.
City and County of San Francisco Regional Map



Basemap:R 7.5-minute USGS topographic map of San Francisco South, California Quadrangle dated 1995, Scale: 1:24,000

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★ Subject Property Location

Figure 2.
Site Location Map
Muni Upper Yard
San Francisco, California 94112