Addendum No. 2

Maple Street Shelter

August 8, 2016

MAPLE STREET SHELTER
1580 Maple Street
Redwood City, CA
Project No. PC019

Issued on August 8, 2016

Bid Due Date: August 25, 2016

TO ALL PLAN HOLDERS:

The following Addendum No. 2 to the above referenced project shall be included in the project Plans and Specifications.

A. SOILS REPORT. attached :

Item 1: The attached Geotechnical Engineering Investigation, REVISED REPORT, dated July 19, 2016 and prepared by BAGG Engineers and supplemental Recommended Slab Support Letter with a schematically drawn fill profile, dated July 22, 2016 is provided for reference and is part of the Contract Documents.

B. HAZMAT REPORT, attached :

Item 1: The attached Pre- Renovation Hazardous Materials Survey, dated July 14, 2016, prepared by Vista Environmental Consulting is provided for reference and is a part of the Construction Documents. Abatement and disposal of suspect material is a part of this contract.

Questions regarding this project should be directed to Department of Public Works, 555 County Center, 5th Floor, Redwood City, California, 94063-1065 (Project Manager is Johnny Chiem, jchiem@smcgov.org, 650-599-1349)

Confirmation of Receipt

This form must be returned with your proposal or received by proposal due date

Addendum No. 2

MAPLE STREET SHELTER
1580 Maple Street
Redwood City, CA
Project No. PC019

Department of Public Works
555 County Center, 5th Floor
Redwood City, CA 94063

This is to confirm that **Addendum No. 2 issued on** _____ has been received and that all information contained in the addendum has been incorporated into the Contractor's proposal.

By Contractors:

_____
Company Name

_____
Authorized Signature

_____
Print Name

_____
Date

July 19, 2016
BAGG Job No. COUSM-16-04

County of San Mateo
Department of Public Works
Facilities Division
555 County Center, 5th Floor
Redwood City, CA 94063

ATTENTION: Doug Konig, Project Manager

REVISED REPORT
Geotechnical Engineering Investigation
Proposed Cabana and Pet Kennel
San Mateo County Maple Street Shelter
1580 Maple Street
Redwood City, California

Dear Mr. Konig:

Transmitted herewith is the report summarizing the results of our geotechnical engineering investigation for the proposed construction of a cabana and pet kennel within the open yard area at the Maple Street Shelter located at 1580 Maple Street in Redwood City, California. This report describes our investigative procedures, includes our conclusions pertaining to the results of our subsurface exploration and laboratory testing, which formed the basis of our conclusions and presents recommendations related to the geotechnical engineering aspects of the proposed project.

We thank you for the opportunity to perform these services. Please do not hesitate to contact us, should you have any questions or comments.

Very truly yours,
BAGG Engineers

REGISTERED PROFESSIONAL ENGINEER
ANTHONY NICHOLAS LUSICH
NO. 546
GEOTECHNICAL
STATE OF CALIFORNIA

Evan Wolf
Project Geologist

Anthony N. Lusich, PE. GE, F.ASCE
Supervising Engineer

www.baggengineers.com
phone: 650.852.9133 fax: 650.852.9138 info@baggengineers.com
138 Charcot Avenue, San Jose, California 95131

REVISED REPORT

Geotechnical Engineering Investigation
Proposed Cabana and Pet Kennel
San Mateo County Maple Street Shelter
1580 Maple Street
Redwood City, California

for

San Mateo County
Department of Public Works
Facilities Division

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 SITE AND PROJECT DESCRIPTION 2

3.0 PURPOSE 2

4.0 SCOPE OF SERVICES 3

5.0 FIELD EXPLORATION AND LABORATORY TESTING 4

6.0 GEOLOGY AND SEISMICITY 6
- 6.1 Regional Geology 6
- 6.2 Seismicity 7

7.0 SITE CONDITIONS 9
- 7.1 Surface Conditions 9
- 7.2 Subsurface Conditions 9
- 7.3 Fill Soils 9
- 7.4 Groundwater 10

8.0 GEOHAZARD EVALUATION 10
- 8.1 CBC 2013 Site Characterization 10
- 8.2 Liquefaction Potential ..... Error! Bookmark not defined.
- 8.2 Liquefaction Potential 11
- 8.3 Other Geologic Hazards 12
  - 8.3.1 Potential for Fault-Related Ground Surface Rupture 12
  - 8.3.2 Potential for Lateral Spreading 12
  - 8.3.3 Potential for Slope Instability 12
  - 8.3.4 Flooding Potential 13

9.0 DISCUSSION AND RECOMMENDATIONS 13
- 9.1 General 13
- 9.2 Site Grading 14

BvGG ENGINEERS

9.2.1 Subgrade Preparation 14
9.2.2 Criteria for Imported Fill 15
9.2.3 Underground Utilities 16
9.2.4 Earthwork and Trench Backfill Observation and Testing 16
9.2.5 Contractor's Responsibility 16
9.3 Foundations 16
9.4 Lateral Design 17
9.5 Settlements 17
9.6 Concrete Pads 18
9.7 Drainage Requirements 18
9.8 Soil Corrosivity Evaluation 18
9.9 Plan Review 19
9.10 Observation and Testing 20
10.0 CLOSURE 20

The following references and plates are attached and complete this report:

Plate 1	Vicinity Map
Plate 2A	Site Plan
Plate 2B	Site Development Plan
Plate 3	Regional Geology Map
Plate 4	Regional Fault Map
Plate 5	Unified Soil Classification System
Plate 6	Soil Terminology
Plate 7	Boring Log Notes
Plate 8	Key to Symbols
Plates 9A thru 10B	Boring Logs
Plate 11	Plasticity Data
Plate 12	Corrosivity Tests Summary

ASFE document titled “Important Information About Your Geotechnical Engineering Report”

REVISED REPORT

Geotechnical Engineering Investigation
Proposed Cabana and Pet Kennel
San Mateo County Maple Street Shelter
1580 Maple Street
Redwood City, California

for

San Mateo County
Department of Public Works
Facilities Division

1.0 INTRODUCTION

This report presents the results of our geotechnical engineering investigation performed to address the proposed construction of two non-habitable structures, a Cabana and a Pet Kennel, within the open yard area on the northern portion of the Maple Street Shelter located at 1580 Maple Street in Redwood City, California. The attached Plate 1, Vicinity Map, shows the general location of the site and Plate 2A, Site Plan, depicts the existing site layout, and the approximate locations of the two exploratory borings advanced by BAGG as part of this investigation. The attached Plate 2B, Site Development Plan, depicts the existing site layout and the footprint of the proposed site improvements as well as the approximate locations of the exploratory borings advanced by BAGG at the site.

For this investigation, we received the following drawings from CJW Architecture:

- Unsigned plan set, dated December 8, 2015, containing sheets: A-1.4, A-2.4, and A-2.5. The referenced sheets depict the proposed site layout, pet kennel plan, and cabana plan, respectively.

Reference is made to the geotechnical report titled " Geotechnical Engineering Investigation, San Mateo County, Maple Street Shelter Yard Surfacing, 1580 Maple Street, Redwood City, California" (Project No. COUSM-16-*01) prepared by this office and dated May 4, 2016.

The above referenced documents provided the basis for selecting the boring locations and provided information for the conclusions and recommendations presented in the following sections of this report. A summary of the laboratory tests, evaluations, and our recommendations for site preparation and support of the proposed structures and the associated site improvements are presented in the following sections of this report.

2.0 SITE AND PROJECT DESCRIPTION

The subject property consists of a relatively flat, rectangular-shaped parcel approximately ½ mile south of Bair Island and approximately 0.2 miles east of Redwood Creek at its undercrossing with U.S. Route 101. The subject property is situated within a relatively low lying area near the eastern terminus of Maple Street in Redwood City, San Mateo County, California. The subject property is bordered by Maple Street to the east, U.S. Route 101 to the south, and parking areas to the north and west. The subject property is currently developed with an operating shelter building consisting of an approximately 22,000 square foot, rectangular-shaped building on the eastern portion of the property, an approximately 16,000 square foot correctional facility on the southern portion of the property, and portable buildings associated with the correction facility on the central portion of the property. An approximately 12,000 square foot yard area, developed with a basketball court and landscape areas, exists on the northern portion of the property.

It is our understanding that the project will consist of the construction of two non-habitable structures, an approximately 430 square foot cabana and an approximately 670 square foot pet kennel, on the on the southwest and northern portions of the existing yard area, respectively.

3.0 PURPOSE

The purpose of our investigation was to establish the geotechnical characteristics of the subsurface soils at the locations of the proposed structures, and provide recommendations for the design of the structure foundations, preparation of the structure pads, and related drainage control measures. On this basis, our report addresses:

- Geologic site conditions and seismicity of the project site, including distance to the active faults in the region, and probability of a major earthquake on relevant faults,

- Seismic parameters for the site per the 2013 edition of the California Building Code,

- Specific soil conditions discovered by our borings, such as expansive, loose, saturated, collapsible, or soft surface and subsurface soils that may require special mitigation measures or impose restrictions on the project, including the thickness and consistency of any existing fill soils, and depth to groundwater if encountered,

- Criteria for site grading including preparation of the upper soils to receive the new improvements, placement of fills and backfills, and trench backfill requirements, including the suitability of the excavated soils from the site for use as fill and backfill material,

- Criteria for the support of the proposed structures, including allowable bearing values and lateral resistance for spread footing foundations

- Estimate of the total post-construction settlements and the related differential settlements for the new structures to be supported on the recommended foundation type,

- General provisions for the control of surface drainage in areas surrounding the proposed structures,

- Corrosivity of the site materials and recommendations for reducing the effect of soil corrosion on the below grade foundation elements and underground utilities,

4.0 SCOPE OF SERVICES

The scope of our services consisted of the following specific tasks:

1. Review the soils information from previous reports and investigations conducted by BAGG Engineers and others at the site regarding the subsurface conditions in the general area of the proposed structures including published geologic maps, state seismic hazard maps, etc.

2. Mark the planned boring locations in the field, coordinate the field exploration with the client representative, and notify Underground Service Alert (USA) at least 72 hours in advance.

3. Obtain a drilling permit from San Mateo County Department of Environmental Health.

4. Drill, log, and sample two (2) borings to depths of 20 feet below the existing ground surface using a portable drilling rig equipped with solid flight hollow augers. The subsurface investigation was conducted under the supervision of one of our geologists who also obtained disturbed bulk, Standard Penetration Test, and relatively undisturbed ring samples of the subsurface materials at 2- to 5-foot intervals for visual classification and laboratory testing. Measure the depth to groundwater encountered in the borings and backfill the borings with cement grout in accordance with San Mateo County Environmental Health protocol.

5. Perform a laboratory testing program on the collected soil samples to evaluate the engineering characteristics of the subsurface soils. Tests included Atterberg Limits, corrosion and moisture-density measurements, as judged appropriate.

6. Perform engineering analysis based on the results obtained from the above tasks and oriented towards the above-described purpose of the investigation.

7. Prepare a report containing the exploration and laboratory data, a vicinity map, a site plan, boring logs, and summarizing our findings, recommendations, opinions and conclusions

8. Prepared one electronic copy, and four hard copies of the final report containing the exploration and laboratory data, and summarizing our findings including a site plan, borings logs, laboratory test results, and our conclusions, and recommendations

5.0 FIELD EXPLORATION AND LABORATORY TESTING

Subsurface conditions at the site were explored on June 17, 2016 by drilling two borings to depths of 20 feet (designated as Borings B-1 and B-2) at the approximate locations shown on the attached Plate 2, Site Plan. The borings were advanced with a portable drilling rig equipped with solid flight augers and a rope and cathead attached to a 140-lb hammer. One of our geologists technically directed the exploration, maintained a continuous log of the borings, and obtained relatively undisturbed ring and Standard Penetration Test samples for laboratory testing and visual examination in accordance with the sampling method described on Plate 8, Key to Symbols.

The subsurface materials were visually classified in the field; the classifications were then checked by visual examination of samples in the laboratory. In addition to sample classification, the boring logs contain interpretation of where stratum changes or gradational changes occur between samples. The boring logs depict BAGG's interpretations of subsurface conditions only at the locations indicated on

Plate 2, Site Plan, and only on the dates noted on the logs. The boring logs are intended for use only in conjunction with this report, and only for the purposes outlined by this report.

The graphical representation of the materials encountered in the borings, and the results of laboratory tests, as well as explanatory/illustrative data, are attached as follows.

- Plate 5, Unified Soil Classification System, illustrates the general features of the soil classification system used on the boring logs.
- Plate 6, Soil Terminology, lists and describes the soil engineering terms used on the boring logs.
- Plate 7, Boring Log Notes, describes general and specific conditions that apply to the boring logs.
- Plate 8, Key to Symbols, describes various symbols used on the boring logs.
- Plates 9A thru 10B, Boring Logs, describe the subsurface materials encountered, show the depths and blow counts for the samples, and summarize the results of the strength tests, classification tests, and moisture-density data.
- Plate 11, Atterberg Limits, graphs and presents the Atterberg Limits test data performed to classify a selected soil sample obtained from the borings.
- Plate 12, Corrosivity Test Summary, presents the results of soil corrosivity tests on samples collected from the upper 4 feet of the site.

The moisture content and dry density of several undisturbed samples were measured to aid in correlating their engineering properties. Additionally, Atterberg Limits tests were performed on a clayey sample of the site materials to help define the expansion characteristics and aid in the soil classification. The results of our plasticity test, and moisture-density data are summarized on the boring logs, as well as the plates described above.

Additionally, one sample from the upper 4 feet of the site were sent to Cooper Testing Laboratory for corrosion analysis (see Plate 12).

6.0 GEOLOGY AND SEISMICITY

6.1 Regional Geology

A review of the "Geology of the Onshore Part of San Mateo County, California: Derived From the Digital Database Open-File 98-137" compiled by E.E. Brabb, R.W. Graymer, and D.L. Jones, 1998, indicates the surficial geology of the general site area consists of "Artificial fill (Historic)," described as:

> ***af*** - "Artificial fill (Historic): Loose to very well consolidated gravel, sand, silt, clay, rock fragments, organic matter, and man-made debris in various combinations. Thickness is variable and may exceed 30 m in places. Some is compacted and quite firm, but fill made before 1965 is nearly everywhere not compacted and consists simply of dumped materials."

The artificial fill materials in the vicinity of the site were placed above a geologic unit described as "Bay mud (Holocene)," described as:

> ***Qhbm*** - "Bay mud (Holocene): Water-saturated estuarine mud, predominantly gray, green and blue clay and silty clay underlying marshlands and tidal mud flats of San Francisco Bay, Pescadero, and Pacifica. The upper surface is covered with cordgrass (*Spartina* sp.) and pickleweed (*Salicornia* sp.). The mud also contains a few lenses of well-sorted, fine sand and silt, a few shelly layers (oysters), and peat. The mud interfingers with and grades into fine-grained deposits at the distal edge of Holocene fans, and was deposited during the post-Wisconsin rise in sea-level, about 12 ka to present (Imbrie and others, 1984). Mud varies in thickness from zero, at landward edge, to as much as 40 m near north County line."

According to a map depicting the "Thickness of Younger Bay Mud" compiled by James E Kahle and Harold B. Goldman, California Division of Mines and Geology, 1966. The thickness of the younger bay mud in the vicinity of the project site is less than 20 feet.

The Seismic Hazard Zone Report No. 111 for the Palo Alto 7.5-Minute Quadrangle, San Mateo and Santa Clara Counties, California (State of CA Department of Conservation), indicates the age of the surficial units in the site area range from Historic to Holocene.

Plate 3, Regional Geologic Map, shows the mapped regional geologic setting of the site and vicinity.

6.2 Seismicity

The site and the San Francisco Bay Area lie within the Coast Ranges geomorphic province, a series of discontinuous northwest trending mountain ranges, ridges, and intervening valleys characterized by complex folding and faulting. These faults are in a zone that extends eastward from off the Pacific Coast through the San Francisco Bay area to the western side of the Great Valley. This region has one of the highest rates of seismic moment release per square mile of any urban area in the United States. It is emerging from the stress shadow of the 1906 San Francisco Earthquake and future large earthquakes are considered a certainty.

Three of the northwest-trending major earthquake faults that comprise the San Andreas fault system and extend through the Bay Area include the San Andreas fault, the Hayward fault, and the Calaveras fault, respectively located approximately 7.9 km (4.9 miles) west-southwest, 22 km (13.7 miles) northeast, and 32.4 km (20.1 miles) east-northeast of the site. While the subject structure is not within any of an Alquist-Priolo Earthquake Fault Zones designated by the California Geological Survey, the San Andreas and Hayward faults are believed to be the principal seismic hazards in this area because of their activity rates and proximity to the site. The Working Group on California Earthquake Probabilities (2013) has estimated that the probability for a major earthquake (M_W 6.7 or greater) within 30 years on the nearby Peninsula section of the San Andreas fault is about 9 percent and about 33 percent for a similar earthquake located anywhere on the Northern San Andreas Fault. There is also a 32 percent chance a M_W 6.7 or greater will be located on the Hayward-Rodgers Creek fault. The Calaveras fault reportedly has a 25 percent probability of producing a magnitude 6.7 or greater earthquake within 30 years.

Other significant regional faults are of greater distance, or have lesser probabilities of a major earthquake in the next 30 years or so. Of particular importance are the San Gregorio and Monte Vista-Shannon faults, located approximately 20.9 km (13 miles) and 6.5 km (4 miles) west-southwest and southwest of the project site, respectively. The San Gregorio Fault reportedly has a 5.4 percent probability and the Monte Vista-Shannon fault reportedly has a 1.4 percent probability for a magnitude 6.7 or greater in 30 years. In addition, the Pilarcitos fault is mapped approximately 10.8 km (6.7 miles) southwest of the site. The Pilarcitos fault reportedly has a 0.5 percent probability for producing a magnitude 6.7 or greater in 30 years.

The predominant seismic hazard at this site will be from shaking caused by a large earthquake. ABAG (Association of Bay Area Governments) has published earthquake intensity maps that indicate the scenario earthquake listed for the entire San Andreas fault (1906-size earthquake) would produce a "violent" shaking intensity, and the Peninsula Segments of the San Andreas would produce a "very strong" shaking intensity at the site. The shaking resulting from a scenario earthquake on the Hayward fault will be "strong" in nature and the shaking resulting from a scenario earthquake on the Calaveras fault will be "moderate" to "strong" in nature. The shaking resulting from a scenario earthquake on the San Gregorio fault will be "very strong" in nature.

The distances to the major active faults from the project site and the estimated probability of a $M_W \geq 6.7$ within 30 years for each fault are listed on the following Table 1.

Table 1

Significant Earthquake Scenarios

Fault	Approximate Distance from Site (kilometers)[1]	Location with Respect to Site	Probability of $M_W \geq 6.7$ within 30 Years[2]
San Andreas (Entire)	7.9	W-SW	33%
San Andreas (Peninsula)	7.9	W-SW	9%
San Gregorio	20.9	W-SW	5.4%
Monte Vista-Shannon	6.5	SW	1.4%
Hayward	22	NE	32%
Calaveras	32.4	E-NE	25%

[1]USGS Fault files - Google Earth
[2]Working Group on California Earthquake Probabilities, 2014.

The attached Plate 4, Regional Fault Map, depicts the major active fault locations with respect to the subject site.

7.0 SITE CONDITIONS

7.1 Surface Conditions

The borings were drilled in landscaped areas on the western portion of the existing yard area on the northern portion of the subject property. The landscaped areas are vegetated with a variety of groundcover, shrubs and small to large trees. Pervasive roots and rootlets were encountered within the upper 5 feet of the borings.

7.2 Subsurface Conditions

The soil borings drilled at the site for this investigation encountered predominantly clay-rich earth materials to depths of approximately 15 feet below the existing ground surface. The upper 2½ to 3 feet of the clayey soils encountered consisted of fill materials described as dark gray to gray-brown, very stiff, dry to slightly moist clay with a high plasticity and varying percentages of sand, gravel and organic debris. Below depths of 2½ to 3 feet the native clayey soils are described as blue-gray to dark blue-gray, soft to stiff, moist to very moist, and have a high plasticity. Predominantly granular soils consisting of clayey sand, silty sand and well-graded sand with silt were encountered below depths of approximately 15 feet below the existing ground surface. An Atterberg Limits test conducted on a sample of the upper clayey soils indicate they are highly expansive.

For more information on the subsurface materials, we refer you to Plates 9A thru 10B, Boring Logs

7.3 Fill Soils

Fill soils were encountered to depths of approximately 2½ to 3 feet below the existing ground surface in the borings drilled for this investigation. Fill materials may exist in the vicinity of existing or former utility trenches, in areas occupied by previously demolished structures, and in areas where grading may have been carried out as a part of previous developments.

7.4 Groundwater

Groundwater was encountered in Borings B-1 and B-2 at depths of approximately 13½ feet and 15¾ feet below the ground surface, respectively. Upon completion of the borings, the depth to groundwater in Borings B-1 and B-2 was measured to be approximately 10 feet and 6½ feet, respectively. Groundwater was encountered during the field exploration performed for the referenced May 4, 2016 report at depths of approximately 2 feet below the ground surface. Water has been previously observed to be standing above the ground surface at approximately elevation 7.5 feet NAVD 88.

According to the Seismic Hazard Zone Report for the Palo Alto 7.5 Minute Quadrangle, San Mateo and Santa Clara Counties, California (California Department of Conservation Seismic Hazard Zone Report 111, dated 2006) the depth to the historically highest groundwater level recorded in the vicinity of the project site is less than 10 feet.

It should be noted that groundwater levels typically fluctuate due to variations in rainfall, temperature, and other factors not evident at the time of exploration. In particular, the groundwater elevation may vary due to storm conditions, flow in Redwood Creek, and King Tides in the San Francisco Bay to the east. Due to the interbedded and interfingering nature of alluvial sediments, it is also likely that fluctuations in the groundwater level and/or perched water conditions may occur across the site.

8.0 GEOHAZARD EVALUATION

8.1 CBC 2013 Site Characterization

Based on the boring data, the site is a Class E (Soft Clay Soil) site, with an average N value in the top 100 feet less than 15 and an average undrained shear strength less than 1,000 pounds per square feet (psf).

Using the site coordinates of 37.4941° North Latitude and 122.2222° West Longitude, and the U.S. Seismic Design Maps by USGS (http://earthquake.usgs.gov/designmaps/us/application.php, Earthquake Hazards Program), earthquake ground motion parameters were computed in accordance with the 2013 California Building Code and are listed in the following table.

Table 2

Parameters for Seismic Design

2013 CBC Site Parameter	Value
Site Latitude	37.4941° N
Site Longitude	122.222° W
Site Class, ASCE 7-10 Standard	Class E, Soft Clay Soil
Risk Category	I/II/III
Mapped Spectral Acceleration for Short Periods S_s	1.615g
Mapped Spectral Acceleration for 1-second Period S_1	0.742g
Site Coefficient F_a	0.9
Site Coefficient F_v	2.4
Site-Modified Spectral Acceleration for short Periods S_{Ms}	1.453g
Site-Modified Spectral Acceleration for 1-second Period S_{M1}	1.781g
Design Spectral Acceleration for short Periods S_{Ds}	0.969g
Design Spectral Acceleration for 1-second Periods S_{D1}	1.187g

8.2 Liquefaction Potential

Soil liquefaction is a condition where saturated granular soils near the ground surface undergo a substantial loss of strength due to increased pore water pressure resulting from cyclic stress applications induced by earthquakes or other vibrations. In the process, the soil acquires mobility sufficient to permit both vertical and horizontal movements, if not confined. Soils most susceptible to liquefaction are loose, uniformly graded, fine-grained, sands, and loose silts with very low cohesion. It is generally acknowledged that the probability and consequences of liquefaction of soils at depths greater than approximately 50 feet below ground surface is generally very small. At the deeper depths, the greater overburden pressure and reduced level of shearing is usually sufficient to limit liquefaction.

Excessively loose granular soils were logged below depths of approximately 15½ and 14½ feet within Borings B-1 and B-2, respectively. In addition, groundwater was encountered at depths of approximately 13½ and 15½ in the borings drilled for this investigation. According to the Seismic Hazard Zone Report for the Palo Alto 7.5 Minute Quadrangle, San Mateo and Santa Clara Counties, California (California Department of Conservation Seismic Hazard Zone Report 111, dated 2006), the subject site lies within an area with historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation

as defined in Public Resources Code Section 2693(c) would be required. In addition, the Seismic Hazard Zone Report for the Palo Alto 7.5 Minute Quadrangle, San Mateo and Santa Clara Counties, California (California Department of Conservation Seismic Hazard Zone Report 111, dated 2006), indicates that the depth to the historically highest groundwater level recorded in the vicinity of the project site is less than 10 feet.

Due to the presence of loose to medium dense granular soils below the highest recorded groundwater table, it is our opinion that the potential of the site materials at the boring locations for seismically-induced liquefaction is considered high. Based on our understanding of current requirements, the proposed improvements are exempt from a requirement to analyze the liquefaction susceptibility of the site, because they are non-habitable structures. However, it should be noted that during a scenario seismic event, liquefaction related settlement may result in damage to the proposed structures.

8.3 Other Geologic Hazards

8.3.1 Potential for Fault-Related Ground Surface Rupture

The site is not situated within an Alquist-Priolo Earthquake Fault Zone as established by the CGS around faults that are considered active (CGS, 2000). In addition, no known active faults cross the site or its immediate area. Therefore, it is our opinion that the potential for fault-related ground surface rupture at the site is minimal.

8.3.2 Potential for Lateral Spreading

The site is located within an area that is subject to liquefaction. There are no open creek channels crossing or immediately bordering the site and there are no open slope faces within the site. Based on this information, it is our opinion that the potential for lateral spreading to occur within the site limits is very low to nil.

8.3.3 Potential for Slope Instability

The site area is essentially level, with gentle topographic relief. Therefore, the potential for slope instabilities to occur is considered nil.

8.3.4 Flooding Potential

According to the Federal Emergency Management Agency Flood Insurance Rate Map, Map number 06081C0301E, effective October 16, 2012, the site lies within an areas designated as "Zone X," indicating that the site lies outside the 0.2% annual chance floodplain. However, it is our opinion that flooding at the site may occur due to, among other phenomena, storm water, flows in Redwood Creek, King Tides, Tsunami, and earthquake related seiches.

9.0 DISCUSSION AND RECOMMENDATIONS

9.1 General

Based on the results of our subsurface exploration and the results of laboratory tests performed on the samples collected from the site, it is our opinion that the proposed project is feasible from a geotechnical engineering standpoint, provided the recommendations presented in this report are incorporated into the project design and construction. When the final project plans are available, they should be reviewed by this office prior to construction to confirm that the intent of our recommendations is reflected on the plans, and to confirm that our recommendations properly address the proposed project in its final form.

The two borings advanced in the vicinity of the proposed cabana and pet kennel documented clay-rich fill materials with a high plasticity to depths of approximately 2½ and 3 feet below the existing ground surface. The two borings drilled as part of this investigation also documented soft to stiff clayey soils with a high plasticity below the above mentioned fill materials. The boring data and laboratory test results indicate that the site materials generally have poor consistency. We therefore recommend supporting the proposed cabana and pet kennel on conventional mat slabs bearing on a minimum of 4 feet of imported granular fill materials as recommended in *Section 9.2.2. Criteria for Imported Fill* below, provided they are placed at 90% of the laboratory derived maximum dry density.

The site could experience very strong ground shaking from future earthquakes during the anticipated lifetime of the project. The intensity of the ground shaking will depend on the magnitude of the earthquake, distance to the epicenter, and the response characteristics of the on-site soils. While it is not possible to totally preclude damage to structures during major earthquakes, strict adherence to

good engineering design and construction practices will help reduce the risk of damage to the proposed improvements.

9.2 Site Grading

Detailed site grading plans were not available when this report was prepared, but it is our understanding that the site grading will consist of raising the ground surface to approximately 9 1/2 feet NAVD 88 and to place a surface that is relatively level and stable under static and unflooded conditions. Grading will generally consist of removal of the grass and concrete at the surface, and a portion of existing earth materials. These materials shall be exported from the site. Due to the soft condition of the underling material and the anticipated that load operations loads, the exposed subgrade need not be compacted prior to placing fill.

A geogrid material should be placed prior to placing fill. We recommend that clean crushed rock be used as fill.

9.2.1 Subgrade Preparation

The following procedures should be followed when preparing the improvement area.

- Strip and remove all bushes, vegetation, roots, organically contaminated topsoil, asphalt, concrete, abandoned underground utilities, and other debris from the site surface. Stockpile the stripping for disposal at an off-site location.
- Remove the existing earth materials to a minimum depth of 2 feet below the existing grade or the finished pad grade, whichever is deeper to a horizontal distance of 5 feet beyond the exterior foundation line. Due to the soft condition of the underling material and the anticipated that load operations loads, the exposed subgrade need not be compacted prior to placing fill.
- A geogrid material such as Tensar TriAx TX130S should be placed on the exposed subgrade prior to placing the crushed rock.
- Place 2 feet of 1-inch clean crushed rock as recommended in *Section 9.2.2 Criteria for Imported Fill* over the geogrid material. This material should be rolled from the crushed rock finished surface to a relatively firm condition.

- To aid in construction, non-expansive silty sand or clayey sand, with a plasticity index of 10 or less, may be used as compacted fill adjacent to and to the depth of structural concrete.

The geogrid material and the crushed rock should be approved by the Geotechnical Engineer before importing to the site. All aspects of site grading including clearing/stripping, demolition, pad preparation, and placement of fills or backfills should be performed under the observation of BAGG's field representatives.

It must be the Contractor's responsibility to select equipment and procedures that will accomplish the grading as described above. The Contractor's operations shall use light weight grading equipment that will not create a pumping or otherwise unstable condition. The Contractor must also organize his work in such a manner that one of our field representatives can observe and test the grading operations, including clearing, excavation, preparation of subgrades, placement of geogrids, as well as placement and compaction of fill and backfill.

9.2.2 Criteria for Imported Fill

Imported earth materials must consist of aggregate base material with the following requirements:

Table 3

Imported Aggregate Base Requirements

Sieve Size	Percent Passing
1 1/2"	100
1"	90-100
3/4"	30-60
1/2"	0-20
No. 4	0-5

The material must have a Plasticity Index less than 10, and must be approved by the Geotechnical Engineer before importing to the site.

Other imported soil should consist of silty sand or clayey sand with low corrosive potential and a Plasticity Index less than 10.

9.2.3 Underground Utilities

Temporary shoring should be provided to protect workers in excavations deeper than 5 feet, and all work associated with trenching and shoring must conform to the State of California, Division of Industrial Safety requirements.

Trench backfill materials and compaction should conform to the requirements of the applicable agency. We recommend the following as a minimum:

- The backfill material should be compacted by mechanical means to 90 percent for the full depth of the trenches.
- Backfill shall consist of compacted granular fill materials as recommended in *Section 9.2.2. Criteria for Imported Fill*.
- Trench jetting should not be allowed.

9.2.4 Earthwork and Trench Backfill Observation and Testing

All aspects of site grading including clearing/stripping, equipment pad preparation, and placement of fills or backfills should be performed under full-time observation and testing by the Geotechnical Engineer.

9.2.5 Contractor's Responsibility

It must be the Contractor's responsibility to select equipment and procedures that will accomplish the grading as described above. The Contractor must also organize his work in such a manner that the geotechnical engineer can observe and test the grading operations, including clearing, excavation, compaction of fill and backfill, and compaction of subgrades.

9.3 Foundations

Provided subgrade preparation is carried out as outlined under the Site Grading section of this report, conventional spread footing foundations and/or a concrete mat foundation will provide satisfactory

support to the new pet kennel. The allowable bearing values for designing the footings will be 1,000 psf for dead and 1,500 psf for total design loads. The latter value may further be increased by one-third for short-term wind or seismic loads. Footings designed in this manner should be a minimum of 12 inches deep (below the lowest adjacent grade). The minimum width requirements for continuous and isolated footings are 1 and 2 feet, respectively.

If a mat foundation is used for the support of the proposed cabana and pet kennel, the load acting on the foundation should be limited to a uniform pressure of 1,000 psf or less. The design of a mat foundation may require a subgrade modulus; for this project we recommend a modulus of subgrade reaction of 150 psi/in.

The bottom of footing excavations and mat foundation should be firm, clean, and free of any loose or yielding earth materials, as described above, and should be observed by this office to verify the suitability of the soils exposed. If non-expansive soil is not placed in the upper portion of the fill, we anticipate the side forms may be needed to place concrete below grade.

9.4 Lateral Design

Lateral resistance may be obtained from passive earth pressures acting on the sides of foundation members which have been poured in neat excavations. The allowable passive resistance to wind or seismic loads can be taken as an equivalent fluid pressure of 350 pounds per cubic foot (triangular) excluding the upper 6 inches which should be ignored, unless the foundation is laterally confined by a slab or AC pavement. A frictional coefficient of 0.40 may be used between the bottom of footings or mat and reworked soils or aggregate base near the ground surface. Friction may be used simultaneously and without reduction in conjunction with the passive resistance.

9.5 Settlements

We have estimated that the total post-construction settlement of the new pet kennel consisting of conventional spread footings or a mat will be in the range of ¼ to ½ inch with the differential settlement comprising approximately one-half of the total settlements.

9.6 Concrete Pads

The mat foundation subgrades should be prepared as described under the *9.2 Site Grading* and *9.2.1 Subgrade Preparation* sections of this report.

All concrete slabs should be appropriately reinforced with deformed bars. Experience suggests wire mesh contributes very little to the structural capacity of the slab, and more often than not, it ends up at the bottom of the slab rather than in the middle. The concrete slabs for the new cabana should be provided with a thickened edge, reinforced with deformed bars.

9.7 Drainage Requirements

Drainage measures to control and collect surface run-off should be considered an integral part of the proposed improvements.

9.8 Soil Corrosivity Evaluation

One sample of the subgrade soils from the upper 4 feet of the project site was tested for corrosion potential at Cooper Testing Labs. The results of chemical analyses, pH, and resistivity at 100% saturation are tabulated below and also attached on Plate 12, Corrosivity Test Summary.

Table 4
Corrosion Test Results

Analysis/Test	Results B-1 @ 3½'	Corrosivity Classification
Resistivity @ 100% saturation	430 Ohm-cm	Very Corrosive[1]
pH	7.8	Negligible
ORP (Redox)	515 mv	Moderately Corrosive[2]
Chloride	327 mg/kg	Negligible[3]
Sulfate	876 mg/kg	Moderately Corrosive[4]
Sulfide	Negative	Negligible
Moisture Content @ Test (%)	37.7	N.A.

[1] National Association of Corrosion Engineers (NACE) Corrosion Basics, Page 191.

[2] Standard Method 2580B.
[3] For metals encased in concrete, extrapolated from CTM 372.
[4] For metals encased in concrete, ACI-318, Building Code Requirements for Reinforced Concrete.

Electrical resistivity is one of the factors for the evaluation of the soil corrosivity. It is a measure of resistance to the flow of electrical current through the soil. Corrosion of buried metals is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (Direct Current or DC) from metal to soil. As the resistivity of the soil decreases, the corrosivity increases. Based on the corrosion test results, the soils at the site should be considered very corrosive with respect to ferrous metals. A pH value of 7.8 indicates the soil is slightly alkali.

According to ACI 318, a sulfate concentration of less than 150 mg/kg is generally considered non-corrosive, whereas a concentration of up to 1,500 mg/kg is considered moderately corrosive with respect to reinforced concrete. Therefore, with the detected sulfate concentration of 876 mg/kg, the upper soils at the site would be moderately corrosive to reinforced concrete where the potential sulfate attack should be a consideration in the concrete mix design. A water soluble chloride content of less than 500 mg/kg is generally considered non-corrosive to reinforced concrete which is the case with the sample tested.

Corrosive effects to concrete and masonry materials will be moderate, while the effects would be noticeable with metals in direct contact with the soil subgrade. To minimize the corrosive degradation of any steel, ductile iron, or copper pipes over time, we recommend that these types of pipes be coated or polyethylene sleeved, or provided other forms of cathodic protection. The soils can degrade copper pipes over a short period of time; therefore, copper pipes should not be in contact with soil.

Soil conditions are not the only factors that may cause corrosion; design and construction practice may also be primary causes for failure. The above is intended to be only a preliminary screening of the near-surface soils for corrosion as BAGG Engineers does not practice corrosion engineering. A review of plans and specifications for underground structures should be conducted by a qualified corrosion engineer prior to installation if a detailed evaluation is necessary.

9.9 Plan Review

It is recommended that the Geotechnical Engineer (BAGG Engineers) be retained to review the final grading and foundation plans for the new cabana and pet kennel and associated improvements. This review will be to assess general suitability of the earthwork and foundation recommendations contained in this report, and to verify the appropriate implementation of our recommendations into the project plans and specifications.

9.10 Observation and Testing

It is recommended that BAGG Engineers should be retained to provide observation and testing services during preparation of subgrades, and installation of foundations. This is to observe compliance with the design concept, specifications and recommendations, and will allow for design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

10.0 CLOSURE

This report has been prepared in accordance with generally-accepted engineering practices for the strict use of San Mateo County Department of Public Works, Facilities Division and other professionals associated with the specific project described in this report. The recommendations presented in this report are based on our understanding of the proposed construction as described herein, and upon soil conditions encountered in the two exploratory borings drilled for this investigation.

The conclusions and recommendations contained in this report are based on subsurface conditions revealed by widely-spaced borings. It is not uncommon for unanticipated conditions to be encountered during site grading and/or foundation installation, and it is not possible for all such variations to be found by a field exploration program appropriate for this type of project. The recommendations contained in this report are therefore contingent upon the review of the final foundation plans, and upon geotechnical observation and testing by this office of all pertinent aspects of construction, including demolition, placement of fills or backfills, subgrade preparation, and foundation installation.

Soil conditions and standards of practice change with time. Therefore, we should be consulted to update this report, if the construction does not commence within 18 months from the date that this report is submitted. Additionally, the recommendations of this report are only valid for the proposed development as described herein. If the proposed project is modified, our recommendations should be reviewed and approved or modified by this office in writing.

The following plates are attached and complete this report:

Plate 1	Vicinity Map
Plate 2A	Site Plan
Plate 2B	Site Development Plan
Plate 3	Regional Geology Map
Plate 4	Regional Fault Map
Plate 5	Unified Soil Classification System
Plate 6	Soil Terminology
Plate 7	Boring Log Notes
Plate 8	Key to Symbols
Plates 9A thru 10B	Boring Logs
Plate 11	Plasticity Data
Plate 12	Corrosivity Tests Summary

ASFE document titled “Important Information About Your Geotechnical Engineering Report”

Source: Google Maps

GEOTECHNICAL ENGINEERING INVESTIGATION
SAN MATEO COUNTY
MAPLE STREET SHELTER YARD IMPROVEMENTS
1580 MAPLE STREET
REDWOOD CITY, CALIFORNIA

VICINITY MAP

DATE:	JOB NUMBER:	PLATE
JULY 2016	COUSM-16-04	1

Base: Google Earth - Accessed on June 13, 2016

GEOTECHNICAL ENGINEERING INVESTIGATION
SAN MATEO COUNTY
MAPLE STREET SHELTER YARD IMPROVEMENTS
1580 MAPLE STREET
REDWOOD CITY, CALIFORNIA

BAGG ENGINEERS

SITE PLAN

JOB NUMBER:	SCALE:	DATE:	PLATE
COUSM-16-04	1" ≈ 40'	JULY 2016	2A

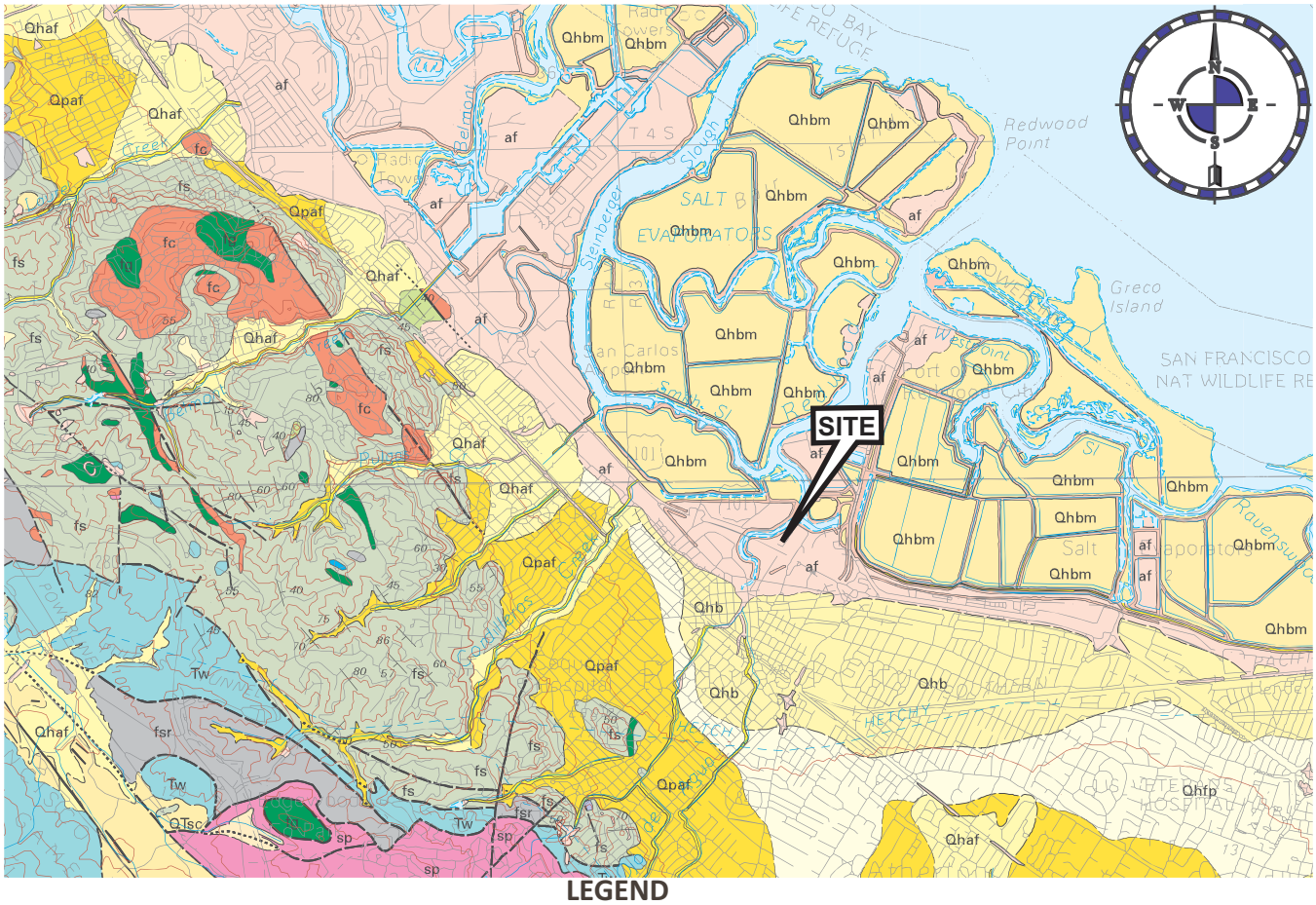
Base: Google Earth - Accessed on June 13, 2016

GEOTECHNICAL ENGINEERING INVESTIGATION
SAN MATEO COUNTY
MAPLE STREET SHELTER YARD IMPROVEMENTS
1580 MAPLE STREET
REDWOOD CITY, CALIFORNIA

BAGG ENGINEERS

SITE DEVELOPMENT PLAN

JOB NUMBER:	SCALE:	DATE:	PLATE
COUSM-16-04	1" ≈ 40'	JULY 2016	2B



LEGEND

af **Artificial fill (Historic) -** Loose to very well consolidated gravel, sand, silt, clay, rock fragments, organic matter, and man-made debris in various combinations. Thickness is variable and may exceed 30m in places. Some is compacted and quite firm, but fill made before 1965 is nearly everywhere not compacted and consists simply of dumped materials.

alf **Artificial levee fill (Historic)** - Man-made deposit of various materials and ages, forming artificial levees as much as 6.5 m high. Some are compacted and quite firm, but fills made before 1965 are almost everywhere not compacted and consist simply of dumped materials. The distribution of levee fill conforms to levees shown on the most recent U.S. Geological Survey 7.5-minute quadrangle maps.

Qhbm **Bay mud (Holocene)** – Water-saturated estuarine mud, predominantly gray, green and blue clay and silty clay underlying marshlands and tidal mud flats of San Francisco Bay, Pescadero, and Pacifica. The upper surface is covered with cordgrass (*Spartina* sp.) and pickleweed (*Salicornia* sp.). The mud also contains a few lenses of well-sorted, fine sand and silt, a few shelly layers (oysters), and peat. The mud interfingers with and grades into fine-grained deposits at the distal edge of Holocene fans, and was deposited during the post-Wisconsin rise in sea-level, about 12 ka to present (Imbrie and others, 1984). Mud varies in thickness from zero, at landward edge, to as much as 40 m near north county line.

Qhb **Basin deposits (Holocene)** – Very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to the bay mud (Qhbm). Also contains unconsolidated, locally organic, plastic silt and silty clay deposited in very flat valley floors.

Qhfp **Floodplain deposits (Holocene)** – Medium to dark gray, dense, sandy to silty clay. Lenses of coarser material (silt, sand, and pebbles) may be locally present. Flood plain deposits usually occur between levee deposits (Qhl) and basin deposits (Qhb).

Qhaf **Alluvial fan and fluvial deposits (Holocene)** – Alluvial fan deposits are brown or tan, medium dense to dense, gravelly sand or sandy gravel that generally grades upward to sandy or silty clay. Near the distal fan edges, the fluvial deposits are typically brown, never reddish, medium dense sand that fines upward to sandy or silty clay.

Qpaf **Alluvial fan and fluvial deposits (Pleistocene)** – Brown dense gravelly and clayey sand or clayey gravel that fines upward to sandy clay. These deposits display variable sorting and are located along most stream channels in the county. All Qpaf deposits can be related to modern stream courses. They are distinguished from younger alluvial fans and fluvial deposits by higher topographic position, greater degree of dissection, and stronger soil profile development. They are less permeable than Holocene deposits, and locally contain fresh water mollusks and extinct Pleistocene vertebrate fossils. They are overlain by Holocene deposits on lower parts of the alluvial plain, and incised by channels that are partly filled with Holocene alluvium on higher parts of the alluvial plain. Maximum thickness is unknown but at least 50 m.

Reference: *Geology of the Onshore Part of San Mateo County, California*: Derived From the Digital Database Open-File 98-137, by E.E. Brabb, R.W. Graymer, and D.L. Jones, 1998.

GEOTECHNICAL ENGINEERING INVESTIGATION
SAN MATEO COUNTY
MAPLE STREET SHELTER YARD IMPROVEMENTS
1580 MAPLE STREET
REDWOOD CITY, CALIFORNIA

REGIONAL GEOLOGY MAP

DATE:	JOB NUMBER:	PLATE
JULY 2016	COUSM-16-04	3

BvGG ENGINEERS

GEOTECHNICAL ENGINEERING INVESTIGATION
SAN MATEO COUNTY
MAPLE STREET SHELTER YARD IMPROVEMENTS
1580 MAPLE STREET
REDWOOD CITY, CALIFORNIA

REGIONAL FAULT MAP

DATE:	JOB NUMBER:	PLATE
JULY 2016	COUSM-16-04	4

BAGG ENGINEERS

COARSE-GRAINED SOILS

LESS THAN 50% FINES*

GROUP SYMBOLS	ILLUSTRATIVE GROUP NAMES	MAJOR DIVISIONS
GW	Well graded gravel Well graded gravel with sand	**GRAVELS** More than half of coarse fraction is larger than No. 4 sieve size
GP	Poorly graded gravel Poorly graded gravel with sand	
GM	Silty gravel Silty gravel with sand	
GC	Clayey gravel Clayey gravel with sand	
SW	Well graded sand Well graded sand with gravel	**SANDS** More than half of coarse fraction is smaller than No. 4 sieve size
SP	Poorly graded sand Poorly graded sand with gravel	
SM	Silty sand Silty sand with gravel	
SC	Clayey sand Clayey sand with gravel	

NOTE: Coarse-grained soils receive dual symbols if:
(1) their fines are CL-ML (e.g. SC-SM or GC-GM) or
(2) they contain 5-12% fines (e.g. SW-SM, GP-GC, etc.)

FINE-GRAINED SOILS

MORE THAN 50% FINES*

GROUP SYMBOLS	ILLUSTRATIVE GROUP NAMES	MAJOR DIVISIONS
CL	Lean clay Sandy lean clay with gravel	**SILTS AND CLAYS** liquid limit less than 50
ML	Silt Sandy silt with gravel	
OL	Organic clay Sandy organic clay with gravel	
CH	Fat clay Sandy fat clay with gravel	**SILTS AND CLAYS** liquid limit more than 50
MH	Elastic silt Sandy elastic silt with gravel	
OH	Organic clay Sandy organic clay with gravel	
PT	Peat Highly organic silt	**HIGHLY ORGANIC SOIL**

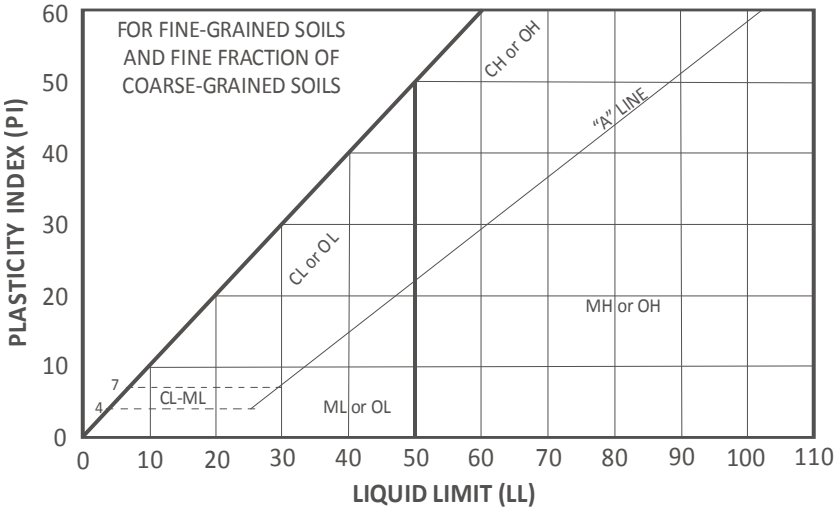
NOTE: Fine-grained soils receive dual symbols if their limits in the hatched zone on the Plasticity Chart(L-M)

SOIL SIZES

COMPONENT	SIZE RANGE
BOULDERS	ABOVE 12 in.
COBBLES	3 in. to 12 in.
GRAVEL	No. 4 to 3 in.
Coarse	¾ in to 3 in.
Fine	No. 4 to ¾ in.
SAND	No. 200 to No.4
Coarse	No. 10 to No. 4
Medium	No. 40 to No. 10
Fine	No. 200 to No. 40
*FINES:	BELOW No. 200

NOTE: Classification is based on the portion of a sample that passes the 3-inch sieve.

PLASTICITY CHART



Reference: ASTM D 2487-06, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

GENERAL NOTES: The tables list 30 out of a possible 110 Group Names, all of which are assigned to unique proportions of constituent soils. Flow charts in ASTM D 2487-06 aid assignment of the Group Names. Some general rules for fine grained soils are: less than 15% sand or gravel is not mentioned; 15% to 25% sand or gravel is termed "with sand" or "with gravel", and 30% to 49% sand or gravel is termed "sandy" or "gravelly". Some general rules for coarse-grained soils are: uniformly-graded or gap-graded soils are "Poorly" graded (SP or GP); 15% or more sand or gravel is termed "with sand" or "with gravel", 15% to 25% clay and silt is termed clayey and silty and any cobbles or boulders are termed "with cobbles" or "with boulders".

UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL TYPES (Ref 1)

Boulders: particles of rock that will not pass a 12-inch screen.

Cobbles: particles of rock that will pass a 12-inch screen, but not a 3-inch sieve.

Gravel: particles of rock that will pass a 3-inch sieve, but not a #4 sieve.

Sand: particles of rock that will pass a #4 sieve, but not a #200 sieve.

Silt: soil that will pass a #200 sieve, that is non-plastic or very slightly plastic, and that exhibits little or no strength when dry.

Clay: soil that will pass a #200 sieve, that can be made to exhibit plasticity (putty-like properties) within a range of water contents, and that exhibits considerable strength when dry.

MOISTURE AND DENSITY

Moisture Condition: an observational term; dry, moist, wet, or saturated.

Moisture Content: the weight of water in a sample divided by the weight of dry soil in the soil sample, expressed as a percentage.

Dry Density: the pounds of dry soil in a cubic foot of soil.

DESCRIPTORS OF CONSISTENCY (Ref 3)

Liquid Limit: the water content at which a soil that will pass a #40 sieve is on the boundary between exhibiting liquid and plastic characteristics. The consistency feels like soft butter.

Plastic Limit: the water content at which a soil that will pass a #40 sieve is on the boundary between exhibiting plastic and semi-solid characteristics. The consistency feels like stiff putty.

Plasticity Index: the difference between the liquid limit and the plastic limit, i.e. the range in water contents over which the soil is in a plastic state.

MEASURES OF CONSISTENCY OF COHESIVE SOILS (CLAYS) (Ref's 2 & 3)

Very Soft	N=0-1*	C=0-250 psf	Squeezes between fingers
Soft	N=2-4	C=250-500 psf	Easily molded by finger pressure
Medium Stiff	N=5-8	C=500-1000 psf	Molded by strong finger pressure
Stiff	N=9-15	C=1000-2000 psf	Dented by strong finger pressure
Very stiff	N=16-30	C=2000-4000 psf	Dented slightly by finger pressure
Hard	N>30	C>4000 psf	Dented slightly by a pencil point

***N**=blows per foot in the Standard Penetration Test. In cohesive soils, with the 3-inch-diameter ring sampler, 140-pound weight, divide the blow count by 1.2 to get N (Ref 4).

MEASURES OF RELATIVE DENSITY OF GRANULAR SOILS (GRAVELS, SANDS, AND SILTS) (Ref's 2 & 3)

Very Loose	N=0-4**	RD=0-30	Easily push a ½-inch reinforcing rod by hand
Loose	N=5-10	RD=30-50	Push a ½-inch reinforcing rod by hand
Medium Dense	N=11-30	RD=50-70	Easily drive a ½-inch reinforcing rod
Dense	N=31-50	RD=70-90	Drive a ½-inch reinforcing rod 1 foot
Very Dense	N>50	RD=90-100	Drive a ½-inch reinforcing rod a few inches

****N**=Blows per foot in the Standard Penetration Test. In granular soils, with the 3-inch-diameter ring sampler, 140-pound weight, divide the blow count by 2 to get N (Ref 4).

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Ref 1: ASTM Designation: D 2487-06, **Standard Classification of Soils for Engineering Purposes** (Unified Soil Classification System).

Ref 2: Terzaghi, Karl, and Peck, Ralph B., **Soil Mechanics in Engineering Practice,** John Wiley & Sons, New York, 2nd Ed., 1967, pp. 30, 341, and 347.

Ref 3: Sowers, George F., **Introductory Soil Mechanics and Foundations: Geotechnical Engineering,** Macmillan Publishing Company, New York, 4th Ed., 1979, pp. 80, 81, and 312.

Ref 4: Lowe, John III, and Zaccheo, Phillip F., **Subsurface Explorations and Sampling,** Chapter 1 in "Foundation Engineering Handbook," Hsai-Yang Fang, Editor, Van Nostrand Reinhold Company, New York, 2nd Ed, 1991, p. 39.

SOIL TERMINOLOGY

GENERAL NOTES FOR BORING LOGS:

The boring logs are intended for use only in conjunction with the text, and for only the purposes the text outlines for our services. The Plate "Soil Terminology" defines common terms used on the boring logs.

The plate "Unified Soil Classification System," illustrates the method used to classify the soils. The soils were visually classified in the field; the classifications were modified by visual examination of samples in the laboratory, supported, where indicated on the logs, by tests of liquid limit, plasticity index, and/or gradation. In addition to the interpretations for sample classification, there are interpretations of where stratum changes occur between samples, where gradational changes substantively occur, and where minor changes within a stratum are significant enough to log.

There may be variations in subsurface conditions between borings. Soil characteristics change with variations in moisture content, with exchange of ions, with loosening and densifying, and for other reasons. Groundwater levels change with seasons, with pumping, from leaks, and for other reasons. Thus boring logs depict interpretations of subsurface conditions only at the locations indicated, and only on the date(s) noted.

SPECIAL FIELD NOTES FOR THIS REPORT:

1. The borings were drilled on June 17, 2016, with a portable "minuteman" drilling rig using solid flight augers. The borings were sealed with cement grout immediately after the last soil sample was collected.

2. The boring locations were approximately located by using a tape measure and/or pacing from known points on the site, as shown on Plate 2, Site Plan.

3. The soils' Group Names [e.g. SANDY LEAN CLAY] and Group Symbols [e.g. (CL)] were determined or estimated per ASTM D 2487-06, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System, see Plate 5). Other soil engineering terms used on the boring log are defined on Plate 6, Soil Terminology.

4. The "Blow Count" Column on the boring logs indicates the number of blows required to drive the sampler below the bottom of the boring, and the blow counts are given for each 6 inches of sampler penetration. The samples from the boring were driven with a 140-pound hammer.

5. Groundwater was encountered in the borings drilled for this investigation as indicated in the boring logs.

KEY TO SYMBOLS

Symbol	Description
Strata symbols	
	Sandy fat clay
	High plasticity (fat) clay
	Sandy high plasticity (fat) clay
	Clayey sand
	Silty sand
	Well graded sand with silt and gravel
Misc. Symbols	
	Water level at completion of boring
	Boring continues
	Water first encountered during drilling
Soil Samplers	
	Modified California Sampler: 2.375" ID by 3" OD, split-barrel sampler driven w/ 140-pound hammer falling 30 inches
	No recovery
	Standard Penetration Test: 1 3/8" ID by 2" OD, split-spoon sampler driven with 140-pound hammer falling 30" (ASTM D 1586-99)

Symbol	Description
Line Types	
_____	Denotes a sudden, or well identified strata change
_ _ _	Denotes a gradual, or poorly identified strata change
Laboratory Data	
bgs	Below the ground surface
LL	Liquid Limit (ASTM D4318).
PI	Plasticity Index (ASTM D4318).
Corrosion	Corrosion tests including: 100% Saturated Resistivity (ASTM G57) pH (ASTM G51) Chloride (ASTM D4327) Sulfate (ASTM D4327) Redox Potential (ASTM G200)

BORING LOG

Boring No. B-1
Page 1 of 2

JOB NAME: San Mateo County Maple St. Shelter
CLIENT: San Mateo County
LOCATION: 1580 Maple Street, Redwood City, CA
DRILLER: Access Soil Drilling, Inc.
DRILL METHOD: Minuteman-3½" Soild Flight Augers

JOB NO.: COUSM-16-04
DATE DRILLED: 6/17/2016
ELEVATION: 9± feet
LOGGED BY: EW
CHECKED BY:

Type of Strength Test	Test Surcharge Pressure, psf	Test Water Content, %	Shear Strength, psf	In-Situ Water Content, %	In-Situ Dry Unit Weight, pcf	Depth, ft.	Soil Symbols, Samplers and Blow Counts	USCS	Description	Remarks
						0				
							19 13 8	CH	FAT CLAY WITH SAND: dark gray to gray brown, very stiff, dry to slightly moist, well graded sand, trace fine gravel, trace organics ...Concrete fragment	Fill
						2				
							7 7 9	CH	FAT CLAY : Blue-gray with yellow-brown and red-brown mottling, stiff, moist (Bay Mud)	Native
				37.7	81.4					Corrosion Package
						4	10 9 7			
				56.1	65.1				...thin organic-rich layer	
				107.8	38.8				...very moist	
						6				
						8	2 4 7		...dark blue-gray, stiff, moist	
				29.6	90.1					
						10				
						12				

BORING LOG

Boring No. B-1
Page 2 of 2

JOB NAME: San Mateo County Maple St. Shelter

JOB NO.: COUSM-16-04

Type of Strength Test	Test Surcharge Pressure, psf	Test Water Content, %	Shear Strength, psf	In-Situ Water Content, %	In-Situ Dry Unit Weight, pcf	Depth, ft.	Soil Symbols, Samplers and Blow Counts	USCS	Description	Remarks
						14	4 4 5	CH	SANDY FAT CLAY : Olive-gray, medium stiff, very moist, fine sand, trace medium to coarse sand	
						16	4 3 8	SC	CLAYEY SAND: Olive-gray, very moist, fine sand	
						18	1 1 4	SM	SILTY SAND: Olive-gray, loose to medium dense, wet, fine sand (poorly graded), contains very thin beds of clayey sand ...loose, fine sand, trace medium to coarse sand, trace fine gravel	
						20		SW-SM	WELL GRADED SAND WITH SILT: Olive-gray to gray, wet, fine to medium sand, few coarse sand	
						22			The boring was terminated at approximately 20 feet bgs. Groundwater was initially encountered at approximately 13½ feet bgs and rose to 10 feet bgs upon completion of the boring. Immediately after the last sample was retrieved, the borehole was backfilled with neat cement grout.	
						24				
						26				

BORING LOG

Boring No. B-2
Page 1 of 2

JOB NAME: San Mateo County Maple St. Shelter
CLIENT: San Mateo County
LOCATION: 1580 Maple Street, Redwood City, CA
DRILLER: Access Soil Drilling, Inc.
DRILL METHOD: Minuteman-3.5" Solid Flight Augers

JOB NO.: COUSM-16-04
DATE DRILLED: 6/17/2016
ELEVATION: 9± feet
LOGGED BY: EW
CHECKED BY:

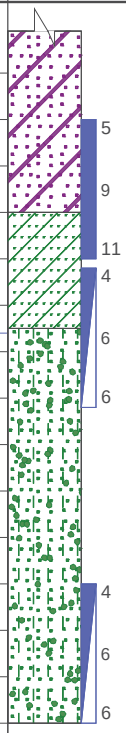
Type of Strength Test	Test Surcharge Pressure, psf	Test Water Content, %	Shear Strength, psf	In-Situ Water Content, %	In-Situ Dry Unit Weight, pcf	Depth, ft.	Soil Symbols, Samplers and Blow Counts	USCS	Description	Remarks
						0		CH	FAT CLAY WITH SAND : Dark gray to gray brown, very stiff, dry to slightly moist, fine sand, trace medium to coarse sand, trace rootlets and organic debris	Fill
				21.8	94.3	2	11, 9, 12			PI=39 LL=63
								CH	FAT CLAY: Blue-gray with yellow-brown and orange-brown oxidation, stiff, moist, trace rootlets and organic debris	Native
				22.1	89.8	4	8, 9, 9			
						6				
							2, 1, 1		...Dark blue-gray, soft, very moist, trace organics	
				94.6	43.3	8				
						10	3, 5, 7		...Blue-gray, stiff, moist, trace sand	
				30.3	88.7					
				27.4	95.2	12				

BORING LOG

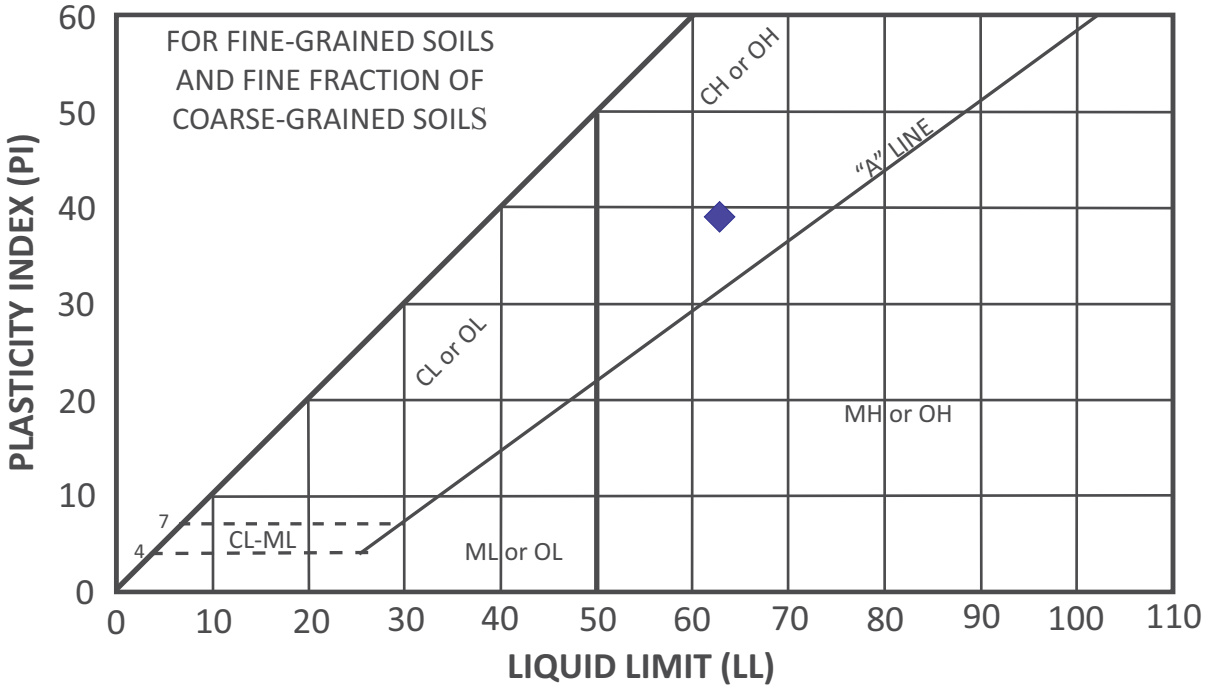
Boring No. B-2
Page 2 of 2

JOB NAME: San Mateo County Maple St. Shelter

JOB NO.: COUSM-16-04

Type of Strength Test	Test Surcharge Pressure, psf	Test Water Content, %	Shear Strength, psf	In-Situ Water Content, %	In-Situ Dry Unit Weight, pcf	Depth, ft.	Soil Symbols, Samplers and Blow Counts	USCS	Description	Remarks
						14		CH	SANDY FAT CLAY: Olive-gray and blue-gray, stiff, very moist, fine sand, trace medium to coarse sand	
								SC	CLAYEY SAND: olive-gray and blue-gray, loose to medium dense, very moist, fine sand, few medium sand, trace coarse sand and fine gravel	
						16		SW-SM	WELL GRADED SAND WITH SILT: Olive-gray, medium dense, wet, fine to medium sand, few coarse sand, trace fine gravel	
						18				
						20			The boring was terminated at approximately 20 feet bgs. Groundwater was initially encountered at approximately $15\frac{3}{4}$ feet bgs and rose to $6\frac{1}{2}$ feet bgs upon completion of the boring. Immediately after the last sample was retrieved, the borehole was backfilled with neat cement grout.	
						22				
						24				
						26				

PLASTICITY CHART



SYMBOL	SAMPLE SOURCE	DEPTH (FEET)	NATURAL WATER CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	SOIL DESCRIPTION
◆	Boring B-2	2	21.8	63	23	39	Gray-Brown Sandy Fat Clay

GEOTECHNICAL ENGINEERING INVESTIGATION
SAN MATEO COUNTY
MAPLE STREET SHELTER YARD IMPROVEMENTS
1580 MAPLE STREET
REDWOOD CITY, CALIFORNIA

PLASTICITY DATA

DATE:	JOB NUMBER:	PLATE
JULY 2016	COUSM-16-04	11

BAGG ENGINEERS

Corrosivity Tests Summary

CTL # 011-755 Date: 6/28/2016 Tested By: PJ Checked: PJ

Client: BAGG Project: Maple Street Shelter Proj. No: cousm-16-04

Remarks:

Sample Location or ID			Resistivity @ 15.5 °C (Ohm-cm)			Chloride	Sulfate		pH	ORP (Redox)		Sulfide	Moisture	Soil Visual Description
			As Rec.	Min	Sat.	mg/kg	mg/kg	%		E_H (mv)	At Test	Qualitative by Lead	At Test %	
						Dry Wt.	Dry Wt.	Dry Wt.						
Boring	Sample, No.	Depth, ft.	ASTM G57	Cal 643	ASTM G57	ASTM D4327	ASTM D4327	ASTM D4327	ASTM G51	ASTM G200	Temp °C	Acetate Paper	ASTM D2216	
B-1	2	3.5	-	-	430	327	876	0.0876	7.8	515	22	Negative	37.7	Gray CLAY w/ Sand

GEOTECHNICAL ENGINEERING INVESTIGATION
SAN MATEO COUNTY
MAPLE STREET SHELTER YARD IMPROVEMENTS
1580 MAPLE STREET
REDWOOD CITY, CALIFORNIA

CORROSIVITY TEST SUMMARY

DATE	JOB NUMBER	PLATE
JULY 2016	COUSM-16-04	12

July 22, 2016
BAGG Job No. COUSM-16-04

County of San Mateo
Department of Public Works
Facilities Division
555 County Center, 5th Floor
Redwood City, CA 94063

ATTENTION: Doug Konig, Project Manager

RECOMMENDED SLAB SUPPORT
Proposed Cabana and Pet Kennel
San Mateo County Maple Street Shelter
1580 Maple Street
Redwood City, California

Dear Mr. Konig:

As requested, I have prepared a schematic that details the installation of the proposed slab, the geogrid, recommended rock, non-expansive soil, and geo-fabric. The geo-fabric should be non-woven material, Tencate Mirafi N160 or approved equal.

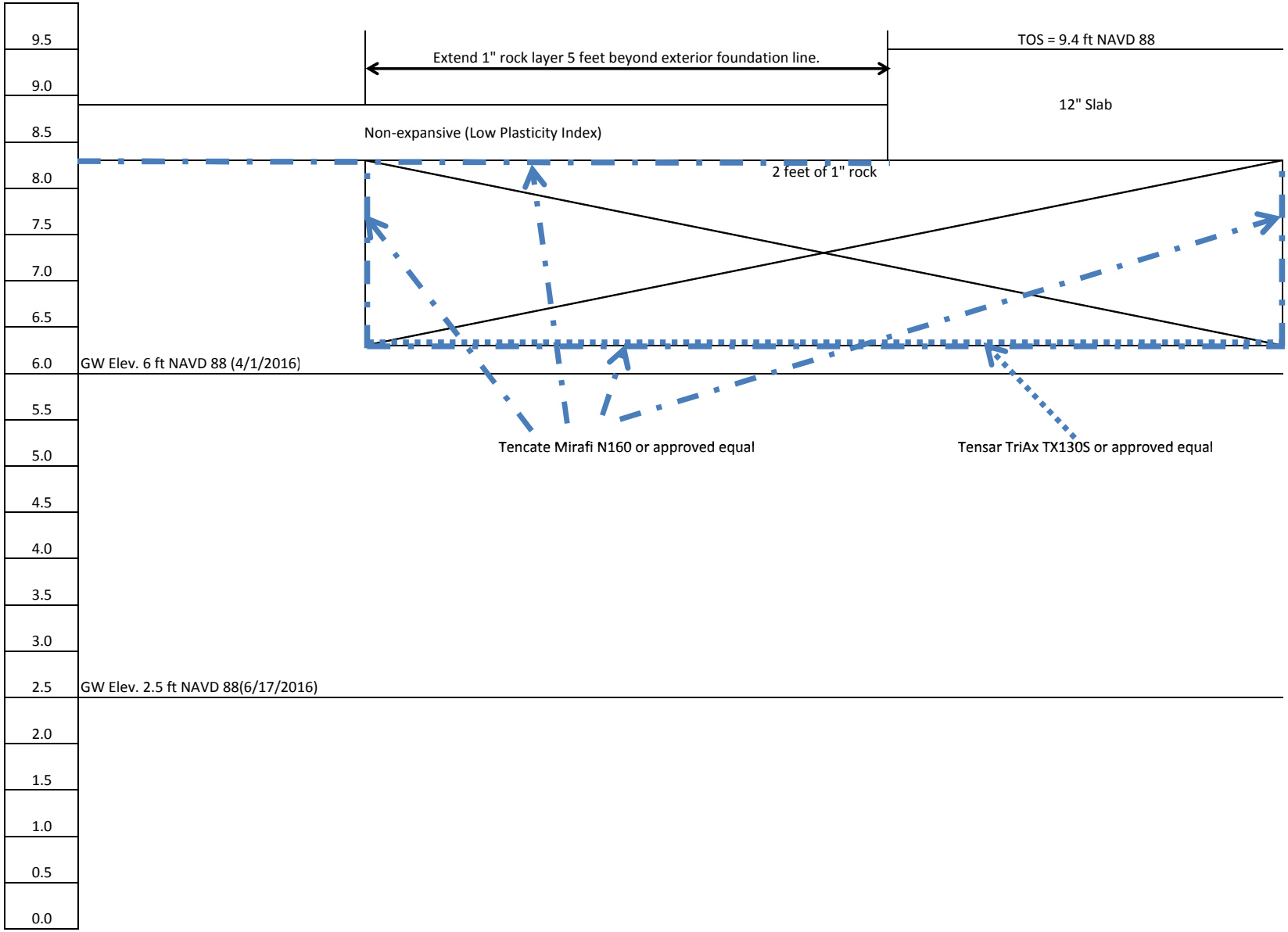
The geo-grid material should be placed over the geo-fabric material.

These opinions, conclusions and recommendations are subject to the limitations presented in our report for the project dated July 19, 2016.

We thank you for the opportunity to perform these services. Please do not hesitate to contact us, should you have any questions or comments.

Very truly yours,
BAGG Engineers

Anthony N. Lusich, PE. GE, F.ASCE
Supervisorial Engineer


9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Extend 1" rock layer 5 feet beyond exterior foundation line.
TOS = 9.4 ft NAVD 88
12" Slab
Non-expansive (Low Plasticity Index)
2 feet of 1" rock
GW Elev. 6 ft NAVD 88 (4/1/2016)
Tencate Mirafi N160 or approved equal
Tensar TriAx TX130S or approved equal
GW Elev. 2.5 ft NAVD 88(6/17/2016)

VISTA ENVIRONMENTAL CONSULTING

Pre-Renovation Hazardous Materials Survey
LifeMoves Shelter
1580 Maple Street, Redwood City, California

Prepared for:

Department of Public Works
555 County Center, 5th Floor
Redwood City, CA 94063

Prepared By:
Vista Environmental Consulting
2984 Teagarden Street
San Leandro, CA 94577

July 14, 2016
Project No. 161101003

TABLE OF CONTENTS

EXECUTIVE SUMMARY

PAGE

1. INTRODUCTION 1
2. METHODOLOGY 1
3. RESULTS 5
4. RECOMMENDATIONS 11
5. LIMITATIONS & EXCLUSIONS 15

APPENDICES

A. BUILDING DATA

Hazardous Materials Summary
Asbestos Sampling Inventory
Sample and Asbestos-Containing Materials Locations Drawings
Asbestos Analytical Reports
Lead XRF Sequential Reports
Photo Documentation

EXECUTIVE SUMMARY

Vista Environmental Consulting (Vista) performed a pre-renovation hazardous materials survey at the LifeMoves Maple Street Shelter located at 1580 Maple Street, Redwood City, California. The survey was performed to identify and sample accessible suspect asbestos-containing materials, to identify representative building components for the presence of lead-containing surface coatings/lead-based paints (LCSC/LBP), and to visually identify universal waste (UW) materials, polychlorinated biphenyls (PCBs) containing devices, devices which contain ozone depleting chemicals, and other hazardous materials. Vista performed the hazardous materials survey on June 24 and 27, 2016.

The results of the survey indicate that the following hazardous materials may be in the path of construction areas:

Asbestos

MATERIAL	DESCRIPTION	LOCATION	ESTIMATED QUANTITY
Wallboard/Joint Compound	White/White	Throughout	42,149 SF
Texture Coat	White, Medium	Kitchen 17, Janitor 16, Supply 15, Storage 15-A, Laundry 14, Corridor 3, Storage 13, Hobby Room19 , Dining Room 18, Bedroom, Visitor Restroom 21, Visitor Coats 22, Inmate Restroom 23, Men Transitional Housing 25, Kitchen 33, Corridor 24-A, Corridor 24-B, Corridor 24-C, Toilet Men 38-M, Shower Men 36-M, Toilet Women 38-W, Shower Women 36-M, Emergency Office 34, Laundry 39, Program Conference 1-B, Office 4	26,155 SF
Vinyl Floor Tile/Mastic	9"x9" Tan, White Streaks/Black (Under Carpet)	Throught, Except (Kitchen 17, Janitor 16, Supply 15, Storage 15-A, Laundry 14, Corridor 3, Storage 13,Vistor Restroom 21, Visitor Coats 22, Inmate Restroom 23, Kitchen 33, Corridor 24-A, Corridor 24-B, Corridor 24-C, Toilet Men 38-M, Shower Men 36-M, Toilet Women 38-W, Shower Women 36-M, Emergency Office 34, Laundry 39, Program Conference 1-B, Office 4, Lounge 30, Dining Hall) ,	9,222 SF

MATERIAL	DESCRIPTION	LOCATION	ESTIMATED QUANTITY
Mastic	Dark Brown, Wall Panel	Dinning Room 15, Bedroom, Locker Dining Room 18, Hobby Room 19, Corridor 24-A, Corridor 24-B, Corridor 24-C, Men Transitional Housing 25, Men Transitional Housing 27, Women Transitional Housing 28, Women Transitional Housing 29, Lounge 30, Women Emergency Housing31, Men Emergency Housing 32-A	3, 511SF
Mastic/Grout	Tan/White, 4" Tan Ceramic Wall	Visitor Restroom 21, Inmate Restroom23, Toilet Men 38-M, Shower Men 36-M, Toilet Women 38-W, Shower Women 36-M	288 SF
Dampener	Gray, 2' x 1' Vent opening Attic Fire Wall	Attic	10SF
Window Panel	Gray, Cement Panels Between Metal	Program Conference 1B, Exterior, Storefront	176 SF

Lead-Based Paint and Materials

Room	Component	Substrate	Color	Condition	Pb	Units
Roof	Pipe	Metal	White	Intact	80.6	mg/cm^2
Roof	Pipe	Metal	White	Intact	75.7	mg/cm^2
Inmate Restroom	Wall	Ceramic	Yellow	Intact	7.1	mg/cm^2
Inmate Restroom	Wall	Ceramic	Yellow	Intact	7.5	mg/cm^2
Inmate Restroom	Sink	Ceramic	White	Intact	2.1	mg/cm^2
Common Area	Drain	Metal	Gold	Intact	14	mg/cm^2
Women's Restroom	Wall	Ceramic	Yellow	Intact	7.6	mg/cm^2
Women's Restroom	Stall	Metal	Brown	Intact	2.8	mg/cm^2
Women's Restroom	Floor Drain	Metal	Gray	Intact	3.1	mg/cm^2
Men's Restroom	Wall	Ceramic	Yellow	Intact	6.6	mg/cm^2
Men's Restroom	Urinal	Ceramic	White	Intact	1.3	mg/cm^2
Outside	Floor	Asphalt	Yellow	Intact	4.2	mg/cm^2

All remaining tested materials had lead concentrations in excess of the level for compliance with trigger activities, as defined in 8 CCR 1532.1.

Devices with Potential Hazardous Materials

MATERIAL	CONTAMINANT	ESTIMATED QUANTITY
Other Non-Incandescent Lamps	Universal Waste	654
Batteries (Back-up)	Universal Waste	17

MATERIAL	CONTAMINANT	ESTIMATED QUANTITY
Thermostat Triggers (Mercury)	Universal Waste	1
Metal Halide/ Sodium	Universal Waste	13
Light Fixture Ballasts	Polychlorinated Biphenyls	334
HVAC	Ozone Depleting Chemicals	9
Fridge/Water Coolers	Ozone Depleting Chemicals	14
Ozone Gas Generator	Ozone Depleting Chemicals	1
Smoke Detectors	Low-Level Radiation	36
Exit Signs	Low-Level Radiation	18
Roof Vents	Lead	21

The Hazardous Materials Summary, Asbestos Sampling Inventory, Sample and Asbestos-Containing Materials Location Drawings, Asbestos Analytical Reports, Lead XRF Sequential Reports, and Photo Documentation can be found in *Appendix A – Building Data.*

The documents found in the appendices are not stand-alone documents and should not be separated from this report. Quantities and locations listed in the tables are order of magnitude estimates and are not to be used for bidding purposes. It is the sole responsibility of the contractor to verify quantities and locations of hazardous materials in the path of construction through site visits and contractual bid set documents, including, but not limited to all specifications, drawings, and addenda. Any discrepancies between the contractual bid set documentation and site visits must be submitted in writing to the Owner or Owner's representative, prior to bidding.

BAAQMD classifications are based upon the material's condition at the time of the survey or as rendered as a result of standard manual removal/demolition techniques. The use of "mechanical means", non-standard or other aggressive removal/demolition techniques may result in a different classification.

All asbestos (>0.1%) disturbance and/or removal operations must be conducted by a Cal/OSHA registered and State licensed asbestos removal contractor. All disturbance and/or abatement operations should be under the direction of a California Certified Asbestos Consultant.

Should the removal of identified regulated asbestos-containing materials (RACM) involve at least 100 square feet or 100 linear feet per project site, per year, then notification to the Bay Area Air Quality Management District (BAAQMD) and Cal/OSHA must be accomplished prior to the initiation of such activities.

All activities involving potential and identified lead-containing surfaces should be conducted in accordance with California Health & Safety Code sections 17920.10 and 10525, 10525.7, Title 8, California Code of Regulations (CCR), Section 1532.1.

In addition, all removal activities involving identified lead-based paints (LBP) must be conducted in accordance with Title 17, CCR, Division 1, Chapter 8, Sections 35001 through 36100, which prescribes the use of California Department of Public Health (CDPH) certified workers, work practices, and other requirements.

Written notification to Cal/OSHA must be accomplished should LBP activities involve equal to or more than 100 square feet or 100 linear feet of removal in accordance with the requirements of 8 CCR 1532.1.

Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 8 CCR 1537 Welding, Cutting, and Heating of Coated Metals, which require surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application, or 8 CCR 1536 Ventilation Requirements for Welding, Brazing, and Cutting.

All potential and identified Universal Waste materials (UW) impacted by the work should be removed and recycled or disposed of in accordance with the UW guidelines established by the DTSC, as stated in 22 CCR Sections 66261.9 and 66273.1 thru 66273.90.

All ballasts must be visually inspected prior to disposal to determine if they contain PCB's. Those ballasts marked No PCB's or PCB Free can be considered as such and should be treated as UW - electronic waste. All PCB-containing devices, including, but not limited to ballasts should be removed or have the oils removed and properly handled, collected, stored, transported and recycled or disposed of by an approved recycling or disposal facility in accordance with the requirements of Title 22 CCR 67426.1.

Devices containing ozone depleting chemicals, petroleum or other chemicals, should be collected, waste characterized, disposed or recycled according to California rules and regulations.

Should materials similar to those identified in this report, or if other forms of suspect hazardous materials are encountered, contractors should be instructed to immediately cease work activities which may initiate an exposure episode, and notify the appropriate management personnel.

Report prepared for the Company by:

Christopher R. Burns
Senior Project Manager
CAC #92-0224
LRCIA #663

1.0 INTRODUCTION

Vista Environmental Consulting (Vista) performed a pre-renovation hazardous materials survey at the LifeMoves Maple Street Shelter located at 1580 Maple Street, Redwood City, California for the County of San Mateo.

The purpose of this survey was to identify hazardous building materials so they could be removed; waste characterized, and properly disposed of prior to being impacted by renovation activities. The data provided in this report can assist all parties involved in this project make informed decisions regarding regulatory compliance and the health and safety of their employees. This survey included the following:

- Visible and accessible suspect asbestos-containing materials (ACM) were assessed and sampled to determine asbestos content.
- Representative painted and coated building components were assessed and categorized based upon standard selective demolition practices and sampled for lead content which can be used in preliminary waste stream characterization estimates and for worker protection.
- Visible and accessible materials commonly found in buildings which can potentially have hazardous properties that are regulated were assessed, but not sampled. These materials include, but are not limited to:
    - Universal Waste (UW) materials, such as non-incandescent lamps, batteries, mercury-containing devices, and electronic waste; Batteries include, but are not limited to those found in exit signs, emergency lights, fire alarm systems, and back-up power systems.
    - Polychlorinated biphenyls (PCBs) containing devices such as lamp ballasts, wet-type transformers, and hydraulic systems;
    - Devices which may contain ozone depleting chemicals, such as Heating, Ventilation and Air Conditioning (HVAC) systems, refrigerators, freezers, fire suppression systems and water coolers/fountains.

2.0 METHODOLOGY

Vista performed the hazardous materials survey on June 24 and 27, 2016. The asbestos survey was conducted by Christopher Elliott a State of California Division of Occupational Safety and Health (Cal/OSHA) Certified Asbestos Consultant (CAC #16-5606). The lead screening survey was conducted by Christopher Elliott, who has a Lead-Related Construction Certificate as an

Inspector/Assessor (LRCIA #18373) issued by the State of California Department of Public Health (CDPH). Christopher Troyer, a Cal/OSHA Certified Site Surveillance Technician (CSST #13-5037) and CDPH Sampling Technician (#26444) assisted on the survey.

The survey was not intrusive in nature, and did not include access of areas and sampling of materials which would have required demolition or large scale destructive testing. Roof sampling was performed using 3" stainless steel cores down to the first hard substrate. Vista's intent was to perform a thorough survey and made a good faith effort to access all building materials down to the structural components and/or interstitial spaces. Vista made every effort to access these areas, however because non-destructive techniques had to be employed since staff were still occupying the buildings, not all interstitial spaces could be accessed. Energized mechanical equipment was deemed inaccessible at the time of this survey.

Quantities and locations are based upon areas that were accessed. Materials similar to those in this report may be present in areas which were not accessed.

Different types of fire doors were checked as part of this survey, however not all doors were checked, and/or sampled. Vista recommends that all doors are checked prior to demolition for suspect asbestos-containing materials not addressed in this report.

Sub-surface areas were not included as part of this survey, hence no excavation was conducted to discover buried asbestos utility piping concealed below the surface. The project site was not assessed for the presence of Naturally Occurring Asbestos in the soil.

2.1 *Asbestos*

The asbestos survey was performed generally in accordance with the AHERA protocol (40 CFR Part 763, Subpart E). Visual identification was performed by assessing visible and accessible structural, architectural, and mechanical components for the presence of suspect ACM at the Project Site.

This limited ACM survey was conducted in the following manner:

- Suspect ACM was categorized into homogeneous materials. A homogeneous material is defined as being a surfacing material, thermal system insulation, or miscellaneous

material which is uniform in color and texture. It may also be additionally subcategorized using the date of installation, when available.

- A sampling scheme was developed based upon the location and quantity of the suspect homogeneous ACM. A rough order of magnitude estimate of each suspect homogenous ACM was calculated and recorded for future reference. A sampling scheme, including a specific number of samples per suspect homogeneous ACM, was calculated prior to sampling.
- Sampling guidelines established by the United States Environmental Protection Agency (USEPA) were utilized for sampling each suspected homogeneous ACM. Methods described in Appendix K of 8 California Code of Regulation (CCR) 1529 were utilized in the collection of each suspect homogeneous ACM sample.
- Trained California asbestos certified personnel, using appropriate sampling tools and leak-tight closable bags, collected building materials that were suspected to contain ACM.
- Each suspect ACM sample was collected and sealed in its container and appropriately labeled with a unique sample identification number and recorded on an asbestos bulk sampling log. Each log contains a chain-of-custody to assure the proper transition of the samples from Vista to the analytical laboratory.
- Sampling tools were decontaminated, by using a clean wet cloth, between the collection of each suspect sample to prevent the possibility of cross contamination of subsequent suspect ACM samples.

Suspect ACM samples were delivered, under proper chain-of-custody protocol, to Forensic Analytical Laboratories in Hayward, California. Forensic Analytical Laboratories is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) and the California Environmental Laboratory Accreditation Program (Cal-ELAP). The samples were submitted for analysis by Polarized Light Microscopy (PLM) utilizing dispersion staining techniques in accordance with the EPA's "Method for the Determination of Asbestos in Bulk Building Materials" U.S. EPA/600/R-93/116, Visual Area Estimate, dated July 1993 and adopted by the NVLAP as Test Method Code 18/A01.

Samples of wallboard/joint compound were further analyzed by 400-point bulk asbestos point count utilizing National Emission Standards for Hazardous Air Pollutants (NESHAP) Final Rule, 40 CFR, Part 61 methodology.

2.2 *Lead*

Vista's lead construction screening survey used an X-Ray Fluorescence (XRF) direct read spectrum analyzer device to take readings of representative painted and coated surfaces for evaluation of lead levels for worker health and safety and preliminary waste characterization prior to construction activities. The device was a NITON Corporation XRF Spectrum Analyzer, Model XLp- 300 A. This device is a solid-state detector optimized for lead L-shell and K-shell X-ray detection and uses a 40 mCi 109Cd (1,480 Mbq) isotope for an excitation source.

This survey was a limited screening of paint for the purpose of characterizing the lead content in paint and coatings likely to be disturbed during work activities. For this purpose, XRF analysis was used to screen for lead levels and provides results that are generally representative of typical conditions but are not inclusive of all painted/coated surfaces present at the Project Site. This survey was not a surface by surface inspection as outlined in the U.S. Department of Housing and Urban Development (HUD) Guidelines For the Evaluation and Control of Lead-Based Paint Hazards in Housing pursuant to Title X of the Housing and Community Development Act of 1992. This analytical data can be helpful in evaluation of lead-related environmental risks in general, but cannot be used to calculate worker exposures and is not a substitute for employee exposure monitoring or waste stream sampling.

Lead-Based Paint (LBP) is defined by CDPH as any paint containing lead levels exceeding 0.5 wt % (or 5000 parts per million) via paint chip sampling or 1.0 milligrams per centimeter squared (mg/cm^2) or greater via X-Ray Fluorescence (XRF) direct read instrument sampling. Cal/OSHA rules apply to "any detectable concentration of lead" without a specified detection level.

2.3 *Devices with Potential Hazardous Materials*

Devices with potential hazardous materials were visually identified during the survey walk through and their quantities were estimated and recorded. No attempt was made to disassemble devices or sample suspect materials within the devices. For example, fluorescent light fixtures must be presumed to contain Universal Waste lamps and ballasts which contain PCB oil or are electronic waste, pending removal and disassembly of each unit to determine explicit product specific information that proves otherwise.

3.0 RESULTS

Asbestos

The results of the bulk samples collected for asbestos, and analyzed by PLM Methodology, indicate that detectable concentrations of asbestos are present in the following materials:

HOMO. ID	MATERIAL	DESCRIPTION	LOCATION	CAL/OSHA CLASS	BAAQMD CATEGORY
I	Wallboard/Joint Compound	White/White	Throughout	Class II	NA (Composite < 1% by Point Count, Wallboard = ND, Joint Compound = 2%)
L	Texture Coat	White, Medium	Kitchens, Supply, Laundry, Storage, Corridors, Dining Room, Visitor RR, Visitor Coats, Inmate RR, Program Conference 1B, Emergency Office, Men & Women Toilets	Class II	Friable (RACM when Removed)
W	Vinyl Floor Tile/Mastic	9"x9" Tan, White Streaks/Black (Under Carpet)	Storage, Conference 10, Hobby Room, Day Room, Dining Room, Staff 7, Secretary, Office 5, Transitional Housing Office, Men #2 Transitional Housing, Men & Women Emergency Housing, Women #4 Transitional Housing	Class II	Category I - Non-Friable
X	Mastic	Dark Brown, Wall Panel	Hobby Room, Men #2 Transitional Housing, Corridor 24, Toilet Women, Men & Women Emergency Housing, Women #4 Transitional Housing	Class II	Category I - Non-Friable
Y	Mastic/Grout	Tan/White, 4" Tan Ceramic Wall	Visitor RR 21, Inmate RR 23,	Class II	Category I - Non-Friable
NN	Dampener	Attic	Attic	Class II	Friable (RACM when Removed)
J3	Window Panel	Gray, Cement Panels Between Metal	Windows of Program Conference 1B and Storefront	Class II	Category II - Non-Friable

BAAQMD classifications are based upon the material's condition at the time of the survey or as rendered as a result of standard manual removal/demolition techniques. The use of "mechanical

means", non-standard or other aggressive removal/demolition techniques may result in a different classification.

The results of the bulk samples collected for asbestos, and analyzed by PLM, indicate that detectable concentrations of asbestos ***are not present*** in the following tested materials:

Headquarters Fire Station

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
A	Roof	White, Asphalt	2
B	Roof	Black, Tar & Gravel	2
C	Mechanical Curb	White, Asphalt	2
D	Parapet/Mechanical Curb	Black, Asphalt	2
E	Mastic	Gray/Black	2
F	Paint	Silver, Mechanical Curb Skylight	2
G	Mastic	White/Black, Mechanical Curb Edges	2
H	Sealant	Gray, HVAC	2
J	Paint/Skimcoat	White/White	7
K	Paint	Gray, Floor	2
M	Basecove/Mastic	6" Brown/Tan	2
N	Mastic	Yellow, Wall Panel	2
O	Basecove/Mastic	6" Blue/White	2
P	Vinyl Floor Tile/Mastic	12"x12" White, Beige Streaks/Black & Yellow	1
Q	Ceiling Tile/Mastic	12"x12" White Pinhole Fissure/Brown	3
R	Vinyl Floor Tile/Mastic	12"x12" Beige, Tan Streaks/Yellow	1

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
S	Vinyl Floor Tile/Mastic	12"x12" White, Off-White Streaks/Yellow	1
T	Vinyl Floor Tile/Mastic	12"x12" White/Black	1
U	Mastic	Brown, Carpet 2'x2' Gray Green	1
V	Basecove/Mastic	4" Blue/Brown	1
Z	Vinyl Floor Tile/Mastic	12"x12" White, Gray, Beige Streaks/Yellow	1
AA	Vinyl Floor Tile/Mastic	12"x12" Gray, White Streaks/Yellow	1
BB	Wallpaper	Tan, Fine Texture Pattern	1
CC	Mastic	Yellow, Green Carpet	1
DD	Basecove/Mastic	4" Red/Brown, White	1
EE	Vinyl Floor Tile/Mastic	2'x2' Stone/Yellow	1
FF	Mastic/Levelling Compound	Black, Residual	2
GG	Texture Coat	White, Small	5
HH	Vinyl Floor Tile/Mastic	12"x12" Blue/Black, Yellow	1
II	Vinyl Sheet Flooring/Mastic	White, Stone Pattern/Tan, Gray	1
JJ	Plaster	White, Ceiling	5
KK	Basecove/Mastic	6" Gray/Tan	1
LL	Basecove/Mastic	6" Black/White	1
MM	Mastic/Levelling Compound	Yellow/White, Tan Carpet	1
OO	Vinyl Floor Tile/Mastic	Wood Grain/Black	1
PP	Vinyl Floor Tile/Mastic	12"x12" Gray/Black	1
QQ	Vinyl Floor Tile/Mastic	12"x12" Green/Black	1

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
RR	Grout/Mortar	White/Gray	1
SS	Mastic	Tan Mirror	1
TT	Paint/Stucco/Vapor Barrier	White/Gray/Black	2
UU	Paint/Concrete	White/Gray	2
VV	Paint	Brown, Beige Wood	1
WW	Roofing	Tan, 3-Tab Asphalt	1
XX	Mastic	Black, Gray	2
YY	Sidewalk, Patio	Gray, Concrete	2
ZZ	Foundation	Gray, Concrete	2
A3	Insulation	Brown, Paper, Metal Fire Door	1
B3	Sealant	White, Black, Exterior Concrete Columns	2
C3	Window Putty	Gray, Exterior Windows	2
D3	Sealant	White, Gray Store Front	2
E3	Sealant	Black, Bu Shelter	1
F3	Sealant	White, Wall Flashing	1
G3	Concrete Foundation	Gray, Bus Platform	1
H3	Wall Panel	Beige, White	2
I3	Insulation	Brown, Wood Door	1
K3	Fire Sealant	Red	1
L3	Roof	Tan, 3-Tab Asphalt, Shed 1	1
M3	Paint	Beige, Wood, Shed 1	1

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
N3	Roof	Black, 3-Tab Asphalt, Shed 2	1
O3	Sealant	White, HVAC Duct, Attic	2
P3	Flex Joint	Black, HVAC, Attic	1
Q3	Insulation	White, Elbow, Attic	3
R3	Insulation	White, Blown-in Insulation, Attic	1
S3	Insulation	4" OD White/Yellow	1
T3	Paint	Beige, Wood, Shed 2	1

Lead

For purposes of this survey, and in accordance with Title 8 CCR, Section 1532.1 (8 CCR 1532.1) and Title 17 of the California Code of Regulations, Section 35001 et. seq. the bulk paint chip sample or XRF direct read instrument results were interpreted as follows:

1. Lead-based paints (LBP) are present when bulk paint chip samples revealed a lead concentration of ≥5,000 milligrams per kilogram (mg/kg) or parts per million (ppm), 0.5% by weight (wt%) or ≥1.0 milligrams per centimeter squared (mg/cm²) via XRF direct read instrument sampling.
2. Lead-containing paints are present when bulk paint chip samples revealed a lead concentration of <5,000 mg/kg or 0.5 wt% down to the analytical detection limit of the analysis, or <1.0 milligrams per centimeter squared (mg/cm²) via XRF direct read instrument sampling down to the detection limit of the device.
3. "No lead detected" was determined when bulk paint chip samples did not reveal a lead concentration above the analytical detection limit of the laboratory or direct read instrument sampling device.

The bulk paint chip results or XRF direct read instrument results for this survey indicated that the following building components and respective surface coatings have lead concentrations defining them as LBP, in accordance with Title 17 of the California Code of Regulations, Section 35001 et. seq.:

Room	Component	Substrate	Color	Condition	Pb	Units
Roof	Pipe	Metal	White	Intact	80.6	mg/cm^2
Roof	Pipe	Metal	White	Intact	75.7	mg/cm^2
Inmate Restroom	Wall	Ceramic	Yellow	Intact	7.1	mg/cm^2
Inmate Restroom	Wall	Ceramic	Yellow	Intact	7.5	mg/cm^2
Inmate Restroom	Sink	Ceramic	White	Intact	2.1	mg/cm^2
Common Area	Drain	Metal	Gold	Intact	14	mg/cm^2
Women's Restroom	Wall	Ceramic	Yellow	Intact	7.6	mg/cm^2
Women's Restroom	Stall	Metal	Brown	Intact	2.8	mg/cm^2
Women's Restroom	Floor Drain	Metal	Gray	Intact	3.1	mg/cm^2
Men's Restroom	Wall	Ceramic	Yellow	Intact	6.6	mg/cm^2
Men's Restroom	Urinal	Ceramic	White	Intact	1.3	mg/cm^2
Outside	Floor	Asphalt	Yellow	Intact	4.2	mg/cm^2

All remaining tested materials had lead concentrations in excess of the level for compliance with trigger activities, as defined in 8 CCR 1532.1.

Devices with Potential Hazardous Materials

Devices with potential hazardous materials were identified at the Project Site. They are as follows:

MATERIAL	CONTAMINANT	ESTIMATED QUANTITY
Other Non-Incandescent Lamps	Universal Waste	654
Batteries (Back-up)	Universal Waste	17
Thermostat Triggers (Mercury)	Universal Waste	1
Light Fixture Ballasts	Polychlorinated Biphenyls	334
HVAC	Ozone Depleting Chemicals	6
Halon in Fire Suppressant System	Ozone Depleting Chemicals	13
Fridge/Water Coolers	Ozone Depleting Chemicals	14
Ozone Gas Generator	Ozone Depleting Chemicals	1
Smoke Detectors	Low-Level Radiation	36
Exit Signs	Low-Level Radiation	18
Roof Vents	Lead	21

The Hazardous Materials Summary, Asbestos Sampling Inventory, Sample and Asbestos-Containing Materials Location Drawings, Asbestos Analytical Reports, and the Lead XRF Sequential Reports, and Photo Documentation can be found in *Appendix A – Building Data.*

The documents found in the appendices are not stand-alone documents and should not be separated from this report. Quantities and locations listed in the tables are order of magnitude estimates and are not to be used for bidding purposes. It is the sole responsibility of the contractor to verify quantities and locations of hazardous materials in the path of construction through site visits and contractual bid set documents, including, but not limited to all specifications, drawings, and addenda. Any discrepancies between the contractual bid set documentation and site visits must be submitted in writing to the Owner or Owner's representative, prior to bidding.

BAAQMD classifications are based upon the material's condition at the time of the survey or as rendered as a result of standard manual removal/demolition techniques. The use of "mechanical means", non-standard or other aggressive removal/demolition techniques may result in a different classification.

4.0 RECOMMENDATIONS

4.1 *Asbestos*

Work performed during any activities that disturb the asbestos-containing materials identified in this report must be done in compliance with the most recent edition of all applicable federal, state, and local regulations, standards, and codes governing abatement, transport, and disposal of asbestos-containing materials. These include, but are not limited to, the following:

- CCR, Title 8, Chapter 3.2, Subchapter 2, Article 2.5 - Registration Asbestos-Related Work Sections 341.6 through 341.14
- CCR, Title 8, Section 1529 - Asbestos in the Construction Industry
- BAAQMD Regulation 11, Hazardous Pollutants, Rule 2, Asbestos Demolition, Renovation and Manufacturing
- 40 CFR Part 763 - Subpart E, Asbestos Containing Materials in Schools (AHERA)

Materials encountered in the building that are not part of this report must be properly sampled for the content of asbestos or assumed to be asbestos containing prior to any disturbance.

Prior to activities which will disturb identified or assumed asbestos, a Cal/OSHA registered and California licensed asbestos contractor must be utilized for abatement of asbestos that will be impacted. Vista recommends that all abatement operations be conducted under the direction of a California Certified Asbestos Consultant.

4.2 *Lead*

At present there is no state or federal regulation requiring mandatory lead removal or abatement prior to disturbance of building materials with identified lead paint or coatings. However, there are applicable Cal/OSHA worker protection and training requirements, Cal/EPA waste disposal requirements, CDPH requirements for public and residential buildings, and SB 460 lead hazard regulations that apply to lead-related construction activities, abatement activities and their associated wastes. The following is a brief discussion and summary of applicable regulatory requirements:

♦ **Cal/OSHA:** Title 8, California Code of Regulation (CCR), Section 1532.1 (8 CCR 1532.1) governs occupational exposure to lead. This regulation requires that prior to initiation of certain activities, referred to as "trigger tasks", workers must be trained, medically evaluated, and properly fitted with respiratory protection, and protective clothing until statistically reliable personal eight-hour time weighted average (TWA) results indicate lead exposure levels below the Personal Exposure Limit (PEL) for each unique task which disturbs lead-based and lead-containing coatings. This process is known as a Negative Exposure Assessment or NEA.

If the result of the exposure assessment is above the Action Level (AL) additional monitoring is required and if the result is above the PEL additional exposure monitoring, worker protection (including respirator protection and PPE), training and medical requirements apply. However even where the NEA criteria is met, certain hazard communication training and work practice controls still apply where lead is disturbed. "Trigger tasks" are tasks that are assumed to exceed the PEL pending an exposure assessment and they encompass the majority of construction activities that disturb surface coatings. Examples of "trigger" tasks range from manual paint scraping as a lower expected exposure up to hot work and abrasive blasting as the highest expected exposures, and include any non-listed task that the employer determines may potentially expose employees to lead levels above the AL.

"OSHA does not consider any method that relies solely on the analysis of bulk materials or surface content of lead (or other toxic material) to be acceptable for safely predicting employee exposure to airborne contaminates. Without air monitoring results or without the benefit of historical or objective data (including air sampling which clearly demonstrates that the employee can not be exposed above the action level during any process, operation, or activity) the analysis of bulk or surface samples can not be used to determine employee exposure."- OSHA Standard Interpretation May 8, 2000.

OSHA states that these rules apply to "any detectable concentration of lead" without a specified detection level. Due to the Consumer Product Safety Commission currently allowing paint to contain up to 90 parts per million (ppm) or 0.009 wt% of lead, the variation of lead content due to aging and weathering, and the variation of detection limits associated with analysis of bulk materials, such as paint chips and surface content analysis via XRF, it is recommended that all painted or coated surfaces be treated as potentially containing lead. Positive analytical results by either method can be used to indicate that detectable lead is present but negative results cannot be interpreted as conclusively demonstrating the absence of lead.

Analytical data from analysis of bulk materials or surface content of lead can be helpful in evaluation of lead-related environmental risks in general but cannot be used to calculate worker exposures and are not a substitute for employee exposure monitoring. As a result of the above, any employee that works around potential lead-based or lead-containing coatings must have HAZCOM training and personal exposure air monitoring is additionally required for employees that disturb such coatings. Significant additional certification, notification, and work practices are required for materials found to be lead-based.

Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 29 CFR 1926.354 and 8 CCR 1537. These regulations require surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application.

♦ **Cal/EPA** through the Division of Toxic Substance Control (DTSC) regulates disposal of lead hazardous waste (22 CCR Division 4.5, Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes). DTSC has issued guidance indicating that architectural debris with intact lead paint is normally expected to be handled as general construction waste. However, waste stream segregation and analysis is still required for all lead painted or coated

debris regardless if the paint or coating is intact on a building component or not. The resulting wastes may be hazardous under California and federal RCRA standards for lead and therefore require proper handling, packaging, labeling, and transportation under a proper manifest to a permitted hazardous waste storage, treatment and disposal facility.

♦ **CDPH**: The Department of Public Health (CDPH) has specific requirements (Title 17 Sections 35001 thru 36100 et. al.) for hazard assessment and work in public or residential structures in regards to lead-based paint. These regulations require special certifications, work practices, and notification for such activities.

♦ **Senate Bill 460 (SB 460)**: An act to amend Section 1941.1 of the Civil Code, and to amend Sections 17961, 17980, and 124130 of, and to add Sections 17920.10, 105251, 105252, 105253, 105254, 105255, 105256, and 105257 to, the Health and Safety Code, relating to lead abatement. This bill allows for fines and criminal penalties to be levied on any person who is found to have performed lead abatement without containment or created a measurable "lead hazard" based upon current CDPH standards. A "lead hazard" means deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure.

Vista recommends that all parties that come into contact with paint and dust that has detectable lead content follow all applicable federal, state and local regulations relating to employee health and safety and proper disposal of generated wastes.

4.3 *Devices with Potential Hazardous Materials*

All potential and identified Universal Waste materials (UW) impacted by the work should be removed and recycled or disposed of in accordance with the UW guidelines established by the DTSC, as stated in 22 CCR Sections 66261.9 and 66273.1 thru 66273.90.

Vista's limited visual survey indicated that light fixtures with ballasts that may contain PCB oil are present. However, due to the limited nature of the random spot checks, Vista recommends that all ballasts be visually inspected prior to disposal to determine if they contain PCB's. Those ballasts marked No PCB's or PCB Free can be considered as such as should be treated as UW - electronic waste.

All PCB-containing devices, including, but not limited to ballasts and transformers should be removed or have the oils removed and properly handled, collected, stored, transported and recycled or disposed of by an approved recycling or disposal facility in accordance with the requirements of Title 22 CCR 67426.1.

Devices containing ozone depleting chemicals, petroleum or other chemicals, should be collected, waste characterized, disposed or recycled according to California rules and regulations.

If the underground storage tanks still exist, the closure of them requires following all local rules and regulations for obtaining permits, performing soil sampling and obtaining closure certification on the tank system.

All personnel who perform hazardous materials work must be trained and qualified to do so. They must also follow the most current OSHA regulations including 29 CFR 1910.120 and 8 CCR 5192, Hazardous Waste Operations and Emergency Response, as well as other applicable federal, state and local laws and regulations.

5.0 LIMITATIONS & EXCLUSIONS

The following areas were not accessible for sampling during the survey field work:

- Add-On Storage Adjacent Supply 15
- Add-On Storage Adjacent Supply 13
- Staff Toilet 12
- Generator & Generator Shed
- Water Heaters 35
- Shed #2

Quantities and locations are based upon areas that were accessed. Materials similar those in this report may be present in areas which were not accessed. Because of this, Vista recommends including line item pricing, allowances, and/or additive/deductive wording to bid sheets for unforeseen conditions.

All material quantities reported herein are rough order of magnitude estimates and should not be used for bidding purposes. All contractors are responsible for accurately determining quantities and locations of materials identified in this report.

The survey performed was limited to representative rooms/areas, was not intrusive in nature, and did not include access of areas and sampling of materials which would have required demolition or large scale destructive testing. Roof sampling was performed using 3" stainless steel cores down to the first hard substrate. Vista made a good faith effort based on accepted industry standards to access all areas in order to assess their potential for having hazardous materials, however additional materials such as vinyl floor tile or mastics may be under carpeting or other floor finishes and fixtures, piping and elbows may be inside wall or ceiling voids, and additional layers of roofing may be under the first layer of hard substrate. Vista made every effort to access these areas, however because non-destructive techniques had to be employed since staff were still using the buildings, not all interstitial spaces could be accessed.

Respectfully Submitted,
Vista Environmental Consulting

Reviewed and Approved

Christopher R. Burns
Senior Project Manager
CAC #92-0224
LRCIA #663

Charles R. Bove
Principal
CAC #92-0160

APPENDIX A - BUILDING DATA

LIFEMOVES SHELTER
1580 MAPLE STREET, REDWOOD CITY, CA
HAZARDOUS MATERIALS SUMMARY

Asbestos

HOMO. ID	MATERIAL	DESCRIPTION	LOCATION	CAL/OSHA CLASS	BAAQMD CATEGORY	ESTIMATED QUANTITY
I	Wallboard/Joint Compound	White/White	Throughout	Class II	NA (Composite < 1% by Point Count, Wallboard = ND, Joint Compound = 2%)	42,149 SF
L	Texture Coat	White, Medium	Kitchens, Supply, Laundry, Storage, Corridors, Dining Room, Visitor RR, Visitor Coats, Inmate RR, Program Conference 1B, Emergency Office, Men & Women Toilets	Class II	Friable (RACM when Removed)	26,155 SF
W	Vinyl Floor Tile/Mastic	9"x9" Tan, White Streaks/Black (Under Carpet)	Storage, Conference 10, Hobby Room, Day Room, Dining Room, Staff 7, Secretary, Office 5, Transitional Housing Office, Men #2 Transitional Housing, Men & Women Emergency Housing, Women #4 Transitional Housing	Class II	Category I - Non-Friable	9,222 SF
X	Mastic	Dark Brown, Wall Panel	Hobby Room, Men #2 Transitional Housing, Corridor 24, Toilet Women, Men & Women Emergency Housing, Women #4 Transitional Housing	Class II	Category I - Non-Friable	3, 511SF

LIFEMOVES SHELTER
1580 MAPLE STREET, REDWOOD CITY, CA
HAZARDOUS MATERIALS SUMMARY

HOMO. ID	MATERIAL	DESCRIPTION	LOCATION	CAL/OSHA CLASS	BAAQMD CATEGORY	ESTIMATED QUANTITY
Y	Mastic/Grout	Tan/White, 4" Tan Ceramic Wall	Visitor RR 21, Inmate RR 23,	Class II	Category I - Non-Friable	288 SF
NN	Dampener	Attic	Attic	Class II	Friable (RACM when Removed)	10SF
J3	Window Panel	Gray, Cement Panels Between Metal	Windows of Program Conference 1B and Storefront	Class II	Category II - Non-Friable	176 SF

Lead-Based Paint and Materials

Room	Component	Substrate	Color	Condition	Pb	Units
Roof	Pipe	Metal	White	Intact	80.6	mg/cm^2
Roof	Pipe	Metal	White	Intact	75.7	mg/cm^2
Inmate Restroom	Wall	Ceramic	Yellow	Intact	7.1	mg/cm^2
Inmate Restroom	Wall	Ceramic	Yellow	Intact	7.5	mg/cm^2
Inmate Restroom	Sink	Ceramic	White	Intact	2.1	mg/cm^2
Common Area	Drain	Metal	Gold	Intact	14	mg/cm^2
Women's Restroom	Wall	Ceramic	Yellow	Intact	7.6	mg/cm^2
Women's Restroom	Stall	Metal	Brown	Intact	2.8	mg/cm^2
Women's Restroom	Floor Drain	Metal	Gray	Intact	3.1	mg/cm^2
Men's Restroom	Wall	Ceramic	Yellow	Intact	6.6	mg/cm^2
Men's Restroom	Urinal	Ceramic	White	Intact	1.3	mg/cm^2
Outside	Floor	Asphalt	Yellow	Intact	4.2	mg/cm^2

All remaining tested materials had lead concentrations in excess of the level for compliance with trigger activities, as defined in 8 CCR 1532.1.

Other Hazardous Materials

MATERIAL	CONTAMINANT	ESTIMATED QUANTITY
Other Non-Incandescent Lamps	Universal Waste	654

LIFEMOVES SHELTER
1580 MAPLE STREET, REDWOOD CITY, CA
HAZARDOUS MATERIALS SUMMARY

MATERIAL	CONTAMINANT	ESTIMATED QUANTITY
Batteries (Back-up)	Universal Waste	17
Thermostat Triggers (Mercury)	Universal Waste	1
Metal Halide/ Sodium	Universal Waste	13
Light Fixture Ballasts	Polychlorinated Biphenyls	334
HVAC	Ozone Depleting Chemicals	9
Fridge/Water Coolers	Ozone Depleting Chemicals	14
Ozone Gas Generator	Ozone Depleting Chemicals	1
Smoke Detectors	Low-Level Radiation	36
Exit Signs	Low-Level Radiation	18
Roof Vents	Lead	21

LIFEMOVES SHELTER
1580 MAPLE STREET, REDWOOD CITY, CA
ASBESTOS SAMPLING INVENTORY

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
A	Roof Field	White, Built-up	3
A	Roof	White, Asphalt	2
B	Roof	Black, Tar & Gravel	2
C	Mechanical Curb	White, Asphalt	2
D	Parapet/Mechanical Curb	Black, Asphalt	2
E	Mastic	Gray/Black	2
F	Paint	Silver, Mechanical Curb Skylight	2
G	Mastic	White/Black, Mechanical Curb Edges	2
H	Sealant	Gray, HVAC	2
I	Wallboard/Joint Compound	White/White	3
J	Paint/Skimcoat	White/White	7
K	Paint	Gray, Floor	2
L	Texture Coat	White, Medium	7
M	Basecove/Mastic	6" Brown/Tan	2
N	Mastic	Yellow, Wall Panel	2
O	Basecove/Mastic	6" Blue/White	2
P	Vinyl Floor Tile/Mastic	12"x12" White, Beige Streaks/Black & Yellow	1
Q	Ceiling Tile/Mastic	12"x12" White Pinhole Fissure/Brown	3
R	Vinyl Floor Tile/Mastic	12"x12" Beige, Tan Streaks/Yellow	1
S	Vinyl Floor Tile/Mastic	12"x12" White, Off-White Streaks/Yellow	1
T	Vinyl Floor Tile/Mastic	12"x12" White/Black	1

LIFEMOVES SHELTER
1580 MAPLE STREET, REDWOOD CITY, CA
ASBESTOS SAMPLING INVENTORY

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
U	Mastic	Brown, Carpet 2'x2' Gray Green	1
V	Basecove/Mastic	4" Blue/Brown	1
W	Vinyl Floor Tile/Mastic	9"x9" Tan, White Streaks/Black (Under Carpet & Vinyl Floor Tile)	3
X	Mastic	Dark Brown, Wall Panel	2
Y	Mastic/Grout	Tan/White, 4" Tan Ceramic Wall	2
Z	Vinyl Floor Tile/Mastic	12"x12" White, Gray, Beige Streaks/Yellow	1
AA	Vinyl Floor Tile/Mastic	12"x12" Gray, White Streaks/Yellow	1
BB	Wallpaper	Tan, Fine Texture Pattern	1
CC	Mastic	Yellow, Green Carpet	1
DD	Basecove/Mastic	4" Red/Brown, White	1
EE	Vinyl Floor Tile/Mastic	2'x2' Stone/Yellow	1
FF	Mastic/Levelling Compound	Black, Residual	2
GG	Texture Coat	White, Small	5
HH	Vinyl Floor Tile/Mastic	12"x12" Blue/Black, Yellow	1
II	Vinyl Sheet Flooring/Mastic	White, Stone Pattern/Tan, Gray	1
JJ	Plaster	White, Ceiling	5
KK	Basecove/Mastic	6" Gray/Tan	1
LL	Basecove/Mastic	6" Black/White	1
MM	Mastic/Levelling Compound	Yellow/White, Tan Carpet	1
NN	Dampener	Attic	Assumed
OO	Vinyl Floor Tile/Mastic	Wood Grain/Black	1

VISTA ENVIRONMENTAL CONSULTING

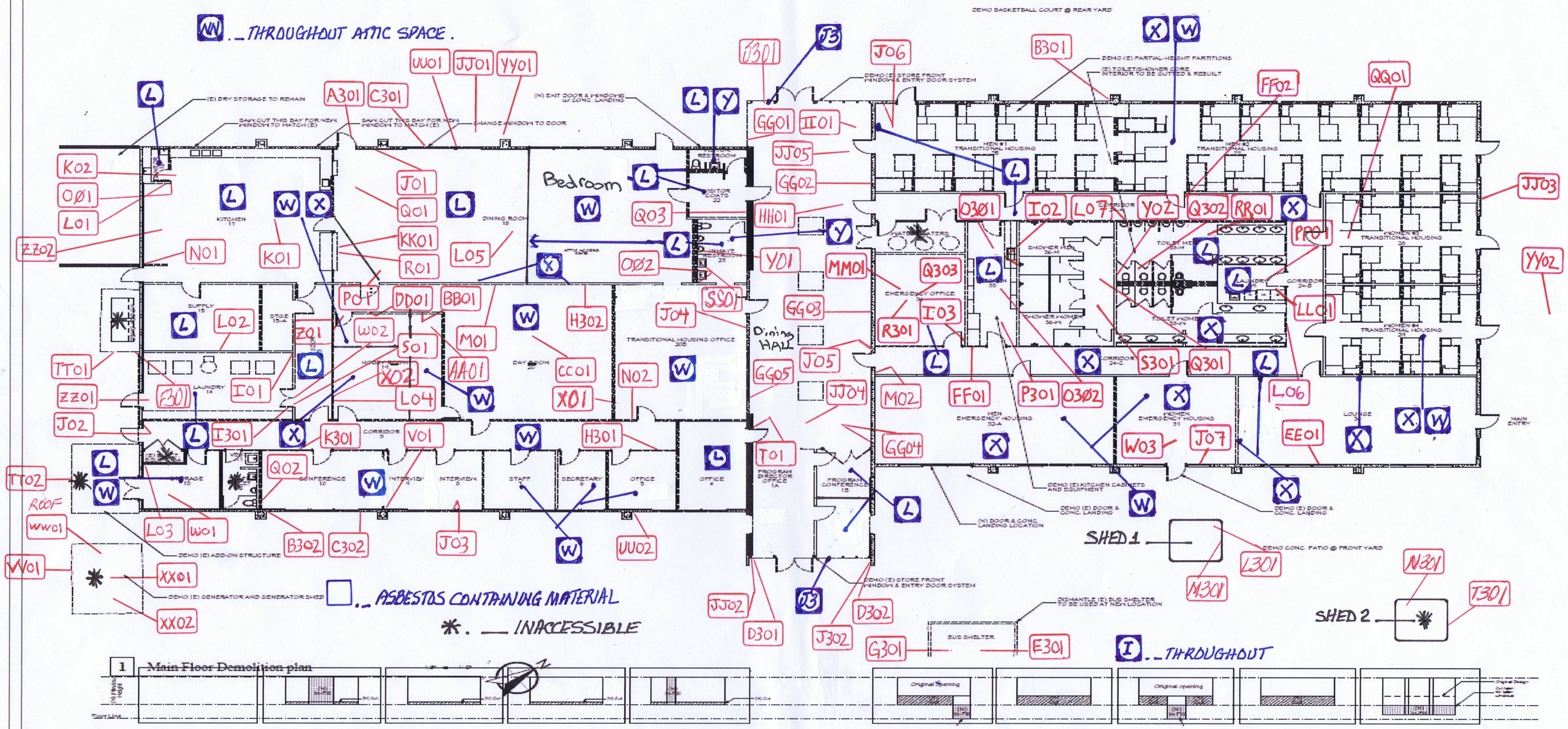
LIFEMOVES SHELTER
1580 MAPLE STREET, REDWOOD CITY, CA
ASBESTOS SAMPLING INVENTORY

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
PP	Vinyl Floor Tile/Mastic	12"x12" Gray/Black	1
QQ	Vinyl Floor Tile/Mastic	12"x12" Green/Black	1
RR	Grout/Mortar	White/Gray	1
SS	Mastic	Tan Mirror	1
TT	Paint/Stucco/Vapor Barrier	White/Gray/Black	2
UU	Paint/Concrete	White/Gray	2
VV	Paint	Brown, Beige Wood	1
WW	Roofing	Tan, 3-Tab Asphalt	1
XX	Mastic	Black, Gray	2
YY	Sidewalk, Patio	Gray, Concrete	2
ZZ	Foundation	Gray, Concrete	2
A3	Insulation	Brown, Paper, Metal Fire Door	1
B3	Sealant	White, Black, Exterior Concrete Columns	2
C3	Window Putty	Gray, Exterior Windows	2
D3	Sealant	White, Gray Store Front	2
E3	Sealant	Black, Bu Shelter	1
F3	Sealant	White, Wall Flashing	1
G3	Concrete Foundation	Gray, Bus Platform	1
H3	Wall Panel	Beige, White	2
I3	Insulation	Brown, Wood Door	1
J3	Window Panel	Gray, Cement Panels Between Metal	2

LIFEMOVES SHELTER
1580 MAPLE STREET, REDWOOD CITY, CA
ASBESTOS SAMPLING INVENTORY

HOMOGENEOUS ID	MATERIAL	DESCRIPTION	# OF SAMPLES
K3	Fire Sealant	Red	1
L3	Roof	Tan, 3-Tab Asphalt, Shed 1	1
M3	Paint	Beige, Wood, Shed 1	1
N3	Roof	Black, 3-Tab Asphalt, Shed 2	1
O3	Sealant	White, HVAC Duct, Attic	2
P3	Flex Joint	Black, HVAC, Attic	1
Q3	Insulation	White, Elbow, Attic	3
R3	Insulation	White, Blown-in Insulation, Attic	1
S3	Insulation	4" OD White/Yellow	1
T3	Paint	Beige, Wood, Shed 2	1

(MATERIAL AND SAMPLE LOCATION)



VISTA ENVIRONMENTAL CONSULTING www.vista-env.com 2984 TEAGARDEN STREET SAN LEANDRO, CA 94577 510-346-8860		PROJECT TITLE 1580 Maple Street Redwood City, CA	SHEET TITLE Sample Location Chart	SCALE: DRAWN BY: CHECKED BY: PROJECT No. DATE: DRAWING No.	FIGURE

N

VISTA ENVIRONMENTAL CONSULTING www.vista-env.com 2984 TEAGARDEN STREET SAN LEANDRO, CA 94577 510-346-8860		PROJECT TITLE 1580 Maple Street, Redwood City , CA	SHEET TITLE Roof Sample Location Chart	SCALE: DRAWN BY: CHECKED BY: PROJECT No. DATE:' DRAWING No.	FIGURE

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Vista Environmental Consultants
Project Manager
2984 Teagarden St.

San Leandro, CA 94577

Client ID: L1161
Report Number: B223845
Date Received: 06/28/16
Date Analyzed: 06/30/16
Date Printed: 06/30/16
First Reported: 06/30/16

Job ID/Site: 161101003 - County of San Mateo, Maple Street Shelter

Date(s) Collected: 06/27/2016

FALI Job ID: L1161
Total Samples Submitted: 125
Total Samples Analyzed: 124

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-A01	11779880						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							
MSS-A02	11779881						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							
MSS-B01	11779882						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-B02	11779883						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							
MSS-C01	11779884						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							
MSS-C02	11779885						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							
MSS-D01	11779886						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-D02	11779887						
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (55 %) Fibrous Glass (10 %)							
Comment: Bulk complex sample.							
MSS-E01	11779888						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (10 %) Fibrous Glass (Trace) Synthetic (Trace)							
MSS-E02	11779889						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (10 %) Fibrous Glass (Trace) Synthetic (Trace)							
MSS-F01	11779890						
Layer: Silver Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (2 %) Synthetic (Trace)							
MSS-F02	11779891						
Layer: Silver Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (2 %) Synthetic (Trace)							
MSS-G01	11779892						
Layer: White Mastic			**ND**				
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (10 %) Fibrous Glass (2 %) Synthetic (5 %)							
MSS-G02	11779893						
Layer: White Mastic			**ND**				
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (10 %) Fibrous Glass (2 %) Synthetic (5 %)							
MSS-H01	11779894						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
MSS-H02	11779895						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-I01	11779896						
Layer: White Drywall			**ND**				
Layer: White Joint Compound		Chrysotile	**2 %**				
Layer: White Tape			**ND**				
Layer: Off-White Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (Trace)**					
MSS-I02	11779897						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (Trace)**					
MSS-I03	11779898						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: White Tape			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (Trace)**					
MSS-J01	11779899						
Layer: White Skimcoat			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-J02	11779900						
Layer: White Skimcoat			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-J03	11779901						
Layer: White Skimcoat			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-J04	11779902						
Layer: White Skimcoat			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845
Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-J05	11779903						
Layer: White Skimcoat			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-J06	11779904						
Layer: White Skimcoat			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-J07	11779905						
Layer: White Skimcoat			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-K01	11779906						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-K02	11779907						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-L01	11779908						
Layer: White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
MSS-L02	11779909						
Layer: White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
MSS-L03	11779910						
Layer: White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (2 %)		**Asbestos (2%)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-L04	11779911						
Layer: White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (2%)**					
Cellulose (Trace) Synthetic (2 %)							
MSS-L05	11779912						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace) Synthetic (2 %)							
MSS-L06	11779913						
Layer: White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (2%)**					
Cellulose (Trace) Synthetic (2 %)							
MSS-L07	11779914						
Layer: White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (2%)**					
Cellulose (Trace) Synthetic (2 %)							
MSS-M01	11779915						
Layer: Brown Non-Fibrous Material			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
MSS-M02	11779916						
Layer: Brown Non-Fibrous Material			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
MSS-N01	11779917						
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace) Synthetic (Trace)							
MSS-N02	11779918						
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace) Synthetic (Trace)							

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-O01	11779919						
Layer: Blue Non-Fibrous Material			**ND**				
Layer: White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-O02	11779920						
Layer: Blue Non-Fibrous Material			**ND**				
Layer: White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-P01	11779921						
Layer: White Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-Q01	11779922						
Layer: Brown Mastic			**ND**				
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
MSS-Q02	11779923						
Layer: Brown Mastic			**ND**				
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
MSS-Q03	11779924						
Layer: Brown Mastic			**ND**				
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
MSS-R01	11779925						
Layer: Beige Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-S01	11779926						
Layer: Beige Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-T01	11779927						
Layer: Black Mastic			**ND**				
Layer: White Tile			**ND**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-U01	11779928						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
MSS-V01	11779929						
Layer: Blue Non-Fibrous Material			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-W01	11779930						
Layer: Tan Mastic			**ND**				
Layer: Brown Tile		Chrysotile	**5 %**				
Layer: Black Mastic		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
MSS-W02	11779931						
Layer: Beige Non-Fibrous Material			**ND**				
Layer: Brown Tile		Chrysotile	**5 %**				
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
MSS-W03	11779932						
Layer: Tan Tile		Chrysotile	**5 %**				
Layer: Black Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
MSS-X01	11779933						
Layer: Tan Fibrous Material			**ND**				
Layer: Off-White Non-Fibrous Material		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: Black Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (65 %)		**Asbestos (Trace)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-X02	11779934						
Layer: Tan Semi-Fibrous Material			**ND**				
Layer: Black Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (Trace)**					
MSS-Y01	11779935						
Layer: White Non-Fibrous Material			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Tan Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
MSS-Y02	11779936						
Layer: Brown Fibrous Material			**ND**				
Layer: Off-White Non-Fibrous Material			**ND**				
Layer: Tan Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (75 %)		**Asbestos (Trace)**					
MSS-Z01	11779937						
Layer: Off-White Mastic			**ND**				
Layer: Off-White Tile			**ND**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-AA01	11779938						
Layer: Grey Tile			**ND**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-BB01	11779939						
Layer: Off-White Semi-Fibrous Material			**ND**				
Layer: Off-White Mastic			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (50 %) Synthetic (10 %)		**Asbestos (ND)**					
MSS-CC01	11779940						
Comment: Sample not analyzed due to prior positive result in series.							
MSS-DD01	11779941						
Layer: Brown Non-Fibrous Material			**ND**				
Layer: Off-White Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-EE01	11779942						
Layer: Grey Tile			**ND**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-FF01	11779943						
Layer: Yellow Mastic			**ND**				
Layer: Tan Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Synthetic (2 %)		**Asbestos (ND)**					
MSS-FF02	11779944						
Layer: Black Carpet			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Synthetic (85 %)		**Asbestos (ND)**					
MSS-GG01	11779945						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
MSS-GG02	11779946						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
MSS-GG03	11779947						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
MSS-GG04	11779948						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-GG05	11779949						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
MSS-HH01	11779950						
Layer: Blue Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
MSS-II01	11779951						
Layer: Tan Tile			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					
MSS-JJ01	11779952						
Layer: Off-White Plaster			**ND**				
Layer: Grey Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-JJ02	11779953						
Layer: Off-White Plaster			**ND**				
Layer: Grey Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-JJ03	11779954						
Layer: Off-White Plaster			**ND**				
Layer: Grey Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-JJ04	11779955						
Layer: Off-White Plaster			**ND**				
Layer: Grey Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-JJ05	11779956						
Layer: Off-White Plaster			**ND**				
Layer: Grey Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-KK01	11779957						
Layer: Grey Non-Fibrous Material			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-LL01	11779958						
Layer: Black Non-Fibrous Material			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-MM01	11779959						
Layer: Off-White Non-Fibrous Material			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-OO01	11779960						
Layer: Black Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-PP01	11779961						
Layer: Grey Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-QQ01	11779962						
Layer: Blue Green Tile			**ND**				
Layer: Yellow Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-RR01	11779963						
Layer: Grey Grout			**ND**				
Layer: White Mortar			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-SS01	11779964						
Layer: Yellow Mastic			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-TT01	11779965						
Layer: Black Semi-Fibrous Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
MSS-TT02	11779966						
Layer: Black Semi-Fibrous Material			**ND**				
Layer: Yellow Mastic			**ND**				
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
MSS-UU01	11779967						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-UU02	11779968						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-VV01	11779969						
Layer: Tan Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-WW01	11779970						
Layer: White Stones			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: Cellulose (55 %) Fibrous Glass (10 %)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-XX01	11779971						
Layer: Black Mastic			**ND**				
Layer: Grey Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %)		**Asbestos (ND)**					
MSS-XX02	11779972						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %)		**Asbestos (ND)**					
MSS-YY01	11779973						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
MSS-YY02	11779974						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
MSS-ZZ01	11779975						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
MSS-ZZ02	11779976						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
MSS-A301	11779977						
Layer: Brown Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (85 %)		**Asbestos (ND)**					
MSS-B301	11779978						
Layer: Black Semi-Fibrous Tar			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (65 %)		**Asbestos (ND)**					
MSS-B302	11779979						
Layer: Black Semi-Fibrous Tar			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (65 %)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-C301	11779980						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-C302	11779981						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-D301	11779982						
Layer: Grey Non-Fibrous Material			**ND**				
Layer: Off-White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					
MSS-D302	11779983						
Layer: Grey Non-Fibrous Material			**ND**				
Layer: Off-White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					
MSS-E301	11779984						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-F301	11779985						
Layer: White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
MSS-G301	11779986						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					
MSS-H301	11779987						
Layer: White Drywall			**ND**				
Layer: Beige Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
MSS-H302	11779988						
Layer: White Drywall			**ND**				
Layer: Beige Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-I301	11779989						
Layer: Brown Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %)		**Asbestos (ND)**					
MSS-J301	11779990						
Layer: Grey Semi-Fibrous Material		Chrysotile	**15 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (15%)**					
MSS-J302	11779991						
Layer: Grey Semi-Fibrous Material		Chrysotile	**15 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (15%)**					
MSS-K301	11779992						
Layer: Red Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
MSS-L301	11779993						
Layer: Stones			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Stones			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (20 %) Comment: Bulk complex sample.		**Asbestos (ND)**					
MSS-M301	11779994						
Layer: Tan Wood			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
MSS-N301	11779995						
Layer: Stones			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Stones			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Layer: Black Tar			**ND**				
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (20 %) Comment: Bulk complex sample.		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
MSS-0301	11779996						
Layer: Off-White Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Synthetic (2 %)		**Asbestos (ND)**					
MSS-0302	11779997						
Layer: Off-White Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Synthetic (2 %)		**Asbestos (ND)**					
MSS-P301	11779998						
Layer: Black Semi-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Synthetic (15 %)		**Asbestos (ND)**					
MSS-Q301	11779999						
Layer: Grey Semi-Fibrous Material			**ND**				
Layer: Tan Woven Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (15 %)		**Asbestos (ND)**					
MSS-Q302	11780000						
Layer: Grey Semi-Fibrous Material			**ND**				
Layer: Tan Woven Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (15 %)		**Asbestos (ND)**					
MSS-Q303	11780001						
Layer: Grey Semi-Fibrous Material			**ND**				
Layer: Tan Woven Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (15 %)		**Asbestos (ND)**					
MSS-R301	11780002						
Layer: Off-White Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (95 %)		**Asbestos (ND)**					
MSS-S301	11780003						
Layer: Yellow Fibrous Material			**ND**				
Layer: Black Tar			**ND**				
Layer: Silver Foil			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (90 %)		**Asbestos (ND)**					
MSS-T301	11780004						
Layer: Tan Wood			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (50 %)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B223845

Client Name: Vista Environmental Consultants **Date Printed:** 06/30/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	A	01	ROOF	WHITE, ASPHALT		
MSS	A	02	↓	↓		
MSS	B	01	ROOF	BLACK, TAR + GRAVEL		
MSS	B	02	↓	↓		
MSS	C	01	MECHANICAL CURB	WHITE, ASPHALT		
MSS	C	02	↓	↓		
MSS	D	01	PARAPET/ MECHANICAL CURB	BLACK, ASPHALT		
MSS	D	02	↓	↓		
MSS	E	01	MASTIC	GRAY/BLACK		
MSS	E	02	↓	↓		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS: *PER CHRIS E., 2 DAY TAT OK! (SH) 6/28/16*

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Troyer	6/28/16
2.		S. Hollister	RECEIVED JUN 28 2016 @ 12:30
3.			

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	F	01	PAINT	SILVER, MECH. CURB	SKYLIGHT	
MSS	F	02	↓	↓		
MSS	G	01	MASTIC	WHITE/BLACK MECH. CURB EDGES		
MSS	G	02	↓	↓		
MSS	H	01	SEALANT	GRAY, HVAC		
MSS	H	02	↓	↓		
MSS	I	01	WB/JC	WHITE/WHITE		
MSS	I	02	↓	↓		
MSS	I	03	↓	↓		
MSS	J	01	PAINT/ SKIMCOAT	WHITE/WHITE		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Troyer	06/28/16
2.		S. Hollister	RECEIVED JUN 28 2016 @ 12:30
3.			

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	J	02	↓	↓		
MSS	J	03				
MSS	J	04				
MSS	J	05				
MSS	J	06				
MSS	J	07	↓	↓		
MSS	K	01	PAINT	GRAY, FLOOR		
MSS	K	02	↓	↓		
MSS	L	01	TEXTURE COAT	WHITE, MEDIUM		
MSS	L	02	↓	↓		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Troyer	06/28/16
2.		S. Hollister	
3.			

RECEIVED JUN 28 2016

PAGE 3 OF 13

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	L	03				
MSS	L	04				
MSS	L	05				
MSS	L	06				
MSS	L	07				
MSS	M	01	BASECOVE/ MASTIC	6" BROWN/ TAN		
MSS	M	02	↓	↓		
MSS	N	01	MASTIC	YELLOW, WALL PANEL		
MSS	N	02	↓	↓		
MSS	O	01	BASECOVE/ MASTIC	6" BLUE/ WHITE		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Tryer	06/28/16
2.			
3.			

RECEIVED JUN 28 2016 1230

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	O	02	↓	↓		
MSS	P	01	VFT/MASTIC	12"x12" WHITE, BEIGE STREAKS/BLACK, YELLOW		
MSS	Q	01	ACT/MASTIC	12"x12" WHITE, PINHOLE FISSURE/BROWN		
MSS	Q	02	↓	↓		
MSS	Q	03	↓	↓		
MSS	R	01	VFT/MASTIC	12"x12" BEIGE, TAN STREAKS/YELLOW		
MSS	S	01	VFT/MASTIC	12"x12" WHITE, OFF WHITE STREAKS/YELLOW		
MSS	T	01	VFT/MASTIC	12"x12" WHITE/BLACK		
MSS	U	01	MASTIC	BROWN, CARPET		
MSS	V	01	BASECOVE/MASTIC	4" BLUE/BROWN		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

1. _____ TRANSFER SIGNATURE — Chris Tryer PRINTED NAME — 06/28/16 DATE/TIME
2. _____ TRANSFER SIGNATURE — S. Hollister PRINTED NAME — _____ DATE/TIME
3. _____ TRANSFER SIGNATURE — _____ PRINTED NAME — _____ DATE/TIME

RECEIVED JUN 28 2016

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo DATE: 06/27/16

LOCATION: Maple Street Shelter PROJECT NUMBER: 161101003

SAMPLED BY: CE CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	W	01	VFT/MASTIC	9"x9" TAN, [illegible]/BLACK		
MSS	W	02	↓	↓		
MSS	W	03	↓	↓		
MSS	X	01	MASTIC	DARK BROWN, WALL PANEL		
MSS	X	02	↓	↓		
MSS	Y	01	MASTIC/ GROUT	TAN/WHITE 4" CERAMIC WALL RR		
MSS	Y	02	↓	↓		
MSS	Z	01	VFT/MASTIC	12"x12" WHITE, GRAY, BEIGE STREAKS/YELLOW		
MSS	AA	01	VFT/MASTIC	12"x12" GRAY, WHITE STREAKS/YELLOW		
MSS	BB	01	WALL PAPER	TAN, LINE TEXTURE PATTERN		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS: _____

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.	[signature]	Chris Tyger	06/28/16
2.	[signature]	S. Hollister	
3.			

RECEIVED JUN 28 2016

PAGE 6 OF 13

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST No: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	CC	01	MASTIC	YELLOW, GREEN CARPET		
MSS	DD	01	BASECOVE/ MASTIC	4" RED/BROWN, WHITE		
MSS	EE	01	VFT/MASTIC	2'x2' STONE/ YELLOW		
MSS	FF	01	MASTIC/ LEVELING	BLACK, residual		
MSS	FF	02	↓	↓		
MSS	GG	01	TEXTURE COAT	WHITE, SMALL		
MSS	GG	02	↓	↓		
MSS	GG	03	↓	↓		
MSS	GG	04	↓	↓		
MSS	GG	05	↓	↓		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Troyer	06/28/16
2.		S. Hollister	
3.			

RECEIVED JUN 28 2016

PAGE 7 OF 13

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	HH	01	VFT/MASTIC	12"x12" BLUE/ BLACK, YELLOW		
MSS	II	01	VSF/MASTIC	BLUE/TAN, GRAY		
MSS	JJ	01	PLASTER	WHITE, CEILING		
MSS	JJ	02	↓	↓		
MSS	JJ	03	↓	↓		
MSS	JJ	04	↓	↓		
MSS	JJ	05	↓	↓		
MSS	KK	01	BASECOVE/ MASTIC	6" GRAY/TAN		
MSS	LL	01	BASECOVE/ MASTIC	6" BLACK/ WHITE		
MSS	MM	01	MASTIC/ LEVELING	YELLOW/WHITE		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE / TIME
1.		Chris Troyer	06/28/16
2.		S. Hollister	
3.			

RECEIVED JUN 29 2016

VISTA ENVIRONMENTAL CONSULTING

ASBESTOS BULK SAMPLE LOG

2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577

OFFICE 510.346.8860
FAX 888.653.8889

CLIENT: County of San Mateo

DATE: 06/27/16

LOCATION: Maple Street Shelter

PROJECT NUMBER: 161101003

SAMPLED BY: CE

CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	OO	01	VSF/MASTIC	WOOD GRAIN/ BLACK		
MSS	PP	01	VFT/MASTIC	12"x12" GRAY/BLACK		
MSS	QQ	01	VFT/MASTIC	12"x12" GREEN/BLACK		
MSS	RR	01	GROUT/ MORTAR	WHITE/GRAY		
MSS	SS	01	MASTIC	TAN, MIRROR		
MSS	TT	01	PAINT/STUCCO/ VAPOR BARRIER	WHITE/GRAY/ BLACK		
MSS	TT	02	↓	↓		
MSS	UU	01	PAINT/ CONCRETE	WHITE/GRAY		
MSS	UU	02	↓	↓		
MSS	VV	01	PAINT	BROWN, BEIGE WOOD		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Troyer	06/28/16
2.		S. Hollister	
3.			

RECEIVED JUN 28 2016

PAGE 9 OF 13

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	WW	01	ROOF	TAN, 3 TAB ASPHALT		
MSS	XX	01	MASTIC	BLACK + GRAY		
MSS	XX	02	↓	↓		
MSS	YY	01	CONCRETE	GRAY, SIDEWALK, PATIO		
MSS	YY	02	↓	↓		
MSS	ZZ	01	CONCRETE	GRAY, FOUNDATION		
MSS	ZZ	02	↓	↓		
MSS	A3	01	INSULATION	BROWN, PAPER FIRE DOOR		
MSS	B3	01	SEALANT	WHITE, BLACK		
MSS	B3	02	↓	↓		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

1. _____ TRANSFER SIGNATURE — Chris Troyer PRINTED NAME — 06/28/16 DATE/TIME
2. _____ TRANSFER SIGNATURE — S. Hollister PRINTED NAME — _____ DATE/TIME
3. _____ TRANSFER SIGNATURE — _____ PRINTED NAME — _____ DATE/TIME

RECEIVED JUN 29 2016 AM

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	C3	01	WINDOW PUTTY	GRAY, EXTERIOR		
MSS	C3	02	↓	↓		
MSS	D3	01	SEALANT	WHITE, GRAY		
MSS	D3	02	↓	↓		
MSS	E3	01	SEALANT	BLACK, BUS SHELTER		
MSS	F3	01	SEALANT	WHITE, WALL FLASHING		
MSS	G3	01	CONCRETE	GRAY, BUS PLATFORM FOUNDATION		
MSS	H3	01	WALL PANEL	BEIGE, WHITE		
MSS	H3	02	↓	↓		
MSS	I3	01	INSULATION	BROWN, WOOD DOOR		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

1. _____ TRANSFER SIGNATURE — Chris Troyer PRINTED NAME — 06/28/16 DATE/TIME
2. _____ TRANSFER SIGNATURE — S. Hollister PRINTED NAME — _____ DATE/TIME
3. _____ TRANSFER SIGNATURE — _____ PRINTED NAME — _____ DATE/TIME

RECEIVED JUN 28 2016 RV

VISTA ENVIRONMENTAL CONSULTING
2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

ASBESTOS BULK SAMPLE LOG

CLIENT: County of San Mateo
DATE: 06/27/16
LOCATION: Maple Street Shelter
PROJECT NUMBER: 161101003
SAMPLED BY: CE
CAC OR SST NO: 16-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	J3	01	WINDOW PANEL	GRAY, CEMENT PANELS		
MSS	J3	02	↓	↓		
MSS	K3	01	SEALANT	RED, FIRE STOP		
MSS	L3	01	ROOF	TAN, 3 TAB ASPHALT		
MSS	M3	01	PAINT	BEIGE, WOOD		
MSS	N3	01	ROOF	BLACK, 3 TAB ASPHALT		
MSS	03	01	SEALANT	WHITE, HVAC DUCT		
MSS	03	02	↓	↓		
MSS	P3	01	FLEX JOINT	BLACK, HVAC		
MSS	Q3	01	INSULATION	WHITE, ELBOWS		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS:

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Troyer	06/28/16
2.		S. Hollister	
3.			

RECEIVED JUN 28 2016

PAGE 12 OF 13

VISTA ENVIRONMENTAL CONSULTING

ASBESTOS BULK SAMPLE LOG

2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577

OFFICE 510.346.8860
FAX 888.653.8889

CLIENT: County of San Mateo

DATE: 06/27/16

LOCATION: Maple Street Shelter

PROJECT NUMBER: 161101003

SAMPLED BY: CE

CAC OR SST NO: K0-5602

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MSS	Q3	02	↓	↓		
MSS	Q3	03	↓	↓		
MSS	R3	01	INSULATION	WHITE, BLOWN IN		
MSS	S3	01	INSULATION	WHITE, YELLOW 4" OD		
MSS	T3	01	PAINT	BEIGE, WOOD		
			125	SAMPLES		

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR 48 HR 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS: _____

CHAIN OF CUSTODY:

	TRANSFER SIGNATURE	PRINTED NAME	DATE/TIME
1.		Chris Troyer	06/28/16
2.		S. Hollister	
3.			

RECEIVED
JUN 28 2016

PAGE 13 OF 13

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
1	SHUTTER_CAL						6.92	cps
2	CALIBRATE					Positive	1.1	mg / cm ^2
3	CALIBRATE					Positive	1.1	mg / cm ^2
4	CALIBRATE					Positive	1.2	mg / cm ^2
5	CALIBRATE					Positive	1.1	mg / cm ^2
6	ROOF	FLASHING	METAL	BEIGE	INTACT	Negative	0	mg / cm ^2
7	ROOF	DRAIN	METAL	GRAY	INTACT	Negative	0.5	mg / cm ^2
8	ROOF	HVAC	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
9	ROOF	HVAC	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
10	ROOF	SKY LIGHT	ASPHALT	SILVER	INTACT	Negative	0	mg / cm ^2
11	ROOF	ROOFING	ASPHALT	WHITE	INTACT	Negative	0	mg / cm ^2
12	ROOF	PIPE	METAL	WHITE	INTACT	Positive	80.6	mg / cm ^2
13	ROOF	PIPE	METAL	WHITE	INTACT	Positive	75.7	mg / cm ^2
14	ROOF	PIPE VENT	METAL	WHITE	INTACT	Negative	0.02	mg / cm ^2
15	ROOF	HVAC	METAL	GREEN	INTACT	Negative	0	mg / cm ^2
16	OUTSIDE	WALL	STUCCO	BEIGE	INTACT	Negative	0.01	mg / cm ^2
17	OUTSIDE	WALL	CONCRETE	BEIGE	INTACT	Negative	0	mg / cm ^2
18	OUTSIDE	DOOR	METAL	BEIGE	INTACT	Negative	0	mg / cm ^2
19	OUTSIDE	DOOR FRAME	METAL	PINK	INTACT	Negative	0.11	mg / cm ^2
20	OUTSIDE	DOOR FRAME	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
21	OUTSIDE	DOOR	WOOD	BEIGE	INTACT	Negative	0	mg / cm ^2
22	OUTSIDE	WINDOW CASING	METAL	PINK	INTACT	Negative	0.18	mg / cm ^2
23	OUTSIDE	WINDOW FRAME	METAL	PINK	INTACT	Negative	0.07	mg / cm ^2
24	OUTSIDE	PIPE DRAIN	METAL	BEIGE	INTACT	Negative	0.01	mg / cm ^2
25	OUTSIDE	FENCE	PLASTIC	GREEN	INTACT	Negative	0.8	mg / cm ^2
27	OUTSIDE	OVERHANG	STUCCO	BEIGE	INTACT	Negative	0.05	mg / cm ^2
28	OUTSIDE	FASCIA	STUCCO	PINK	INTACT	Negative	0.03	mg / cm ^2
29	OUTSIDE	FLASHING	METAL	PINK	INTACT	Negative	0	mg / cm ^2
30	OUTSIDE	WALL	STUCCO	BEIGE	INTACT	Negative	0	mg / cm ^2
31	OUTSIDE	WALL	CONCRETE	BEIGE	INTACT	Negative	0	mg / cm ^2

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
32	OUTSIDE	COLUMN	CONCRETE	BEIGE	INTACT	Negative	0	mg / cm ^2
33	OUTSIDE	CONDUIT	METAL	BEIGE	INTACT	Negative	0	mg / cm ^2
34	OUTSIDE	WINDOW CASING	METAL	PINK	INTACT	Negative	0.1	mg / cm ^2
35	OUTSIDE	COLUMN	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
36	OUTSIDE	BEAM	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
37	OUTSIDE	BEAM	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
38	OUTSIDE	FASCIA	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
39	OUTSIDE	OVERHANG	PLASTIC	BEIGE	INTACT	Negative	0	mg / cm ^2
40	OUTSIDE	RAILING	METAL	BLACK	INTACT	Negative	0	mg / cm ^2
41	OUTSIDE	BENCH	WOOD	GREEN	DETERIORATED	Negative	0	mg / cm ^2
42	OUTSIDE	BENCH	METAL	PINK	INTACT	Negative	0	mg / cm ^2
43	OUTSIDE	RAILING	METAL	BLUE	INTACT	Negative	0	mg / cm ^2
44	OUTSIDE	BENCH	WOOD	GRAY	INTACT	Negative	0.01	mg / cm ^2
45	OUTSIDE	WALL PANEL	METAL	WHITE	INTACT	Negative	0.13	mg / cm ^2
46	OUTSIDE	DOOR	METAL	BEIGE	INTACT	Negative	0	mg / cm ^2
47	OUTSIDE	DOOR FRAME	METAL	BEIGE	INTACT	Negative	0	mg / cm ^2
48	OUTSIDE	DOOR FRAME	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
49	OUTSIDE	FENCE	WOOD	VARNISH	INTACT	Negative	0	mg / cm ^2
50	OUTSIDE	WALL	WOOD	BEIGE	INTACT	Negative	0	mg / cm ^2
51	OUTSIDE	DOOR	WOOD	BEIGE	INTACT	Negative	0	mg / cm ^2
52	OUTSIDE	COLUMN	METAL	PINK	INTACT	Negative	0	mg / cm ^2
53	OUTSIDE	WALL	CONCRETE	BEIGE	INTACT	Negative	0.01	mg / cm ^2
54	OUTSIDE	DOOR	METAL	BEIGE	INTACT	Negative	0.26	mg / cm ^2
55	OUTSIDE	DOOR FRAME	METAL	PINK	INTACT	Negative	0.08	mg / cm ^2
56	OUTSIDE	CONDUIT	METAL	BEIGE	INTACT	Negative	0.01	mg / cm ^2
57	OUTSIDE	WINDOW SILL	CONCRETE	BEIGE	INTACT	Negative	0.01	mg / cm ^2
58	OUTSIDE	DOOR	METAL	BLUE	INTACT	Negative	0.02	mg / cm ^2
59	OUTSIDE	DOOR	METAL	GREEN	INTACT	Negative	0.14	mg / cm ^2
60	OUTSIDE	WALL	CONCRETE	BEIGE	INTACT	Negative	0	mg / cm ^2
61	OUTSIDE	WALL	STUCCO	BEIGE	INTACT	Negative	0	mg / cm ^2

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
62	OUTSIDE	COLUMN	CONCRETE	BEIGE	INTACT	Negative	0	mg / cm ^2
63	OUTSIDE	WINDOW FRAME	METAL	PINK	INTACT	Negative	0.16	mg / cm ^2
64	OUTSIDE	STORAGE	WOOD	BEIGE	INTACT	Negative	0	mg / cm ^2
65	OUTSIDE	WALL PANEL	METAL	WHITE	INTACT	Negative	0.08	mg / cm ^2
66	CALIBRATE					Positive	1	mg / cm ^2
67	CALIBRATE					Positive	1	mg / cm ^2
68	CALIBRATE					Positive	1.2	mg / cm ^2
69	KITCHEN	WALL	VINYL	WHITE	INTACT	Negative	0	mg / cm ^2
70	KITCHEN	WINDOW FRAME	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
71	KITCHEN	DOOR FRAME	METAL	WHITE	DETERIORATED	Negative	0	mg / cm ^2
72	KITCHEN	DOOR FRAME	WOOD	WHITE	DETERIORATED	Negative	0	mg / cm ^2
73	KITCHEN	WALL	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
74	KITCHEN	WALL	DRYWALL	WHITE	INTACT	Negative	0.06	mg / cm ^2
75	KITCHEN	SINK	CERAMIC	WHITE	INTACT	Negative	0.1	mg / cm ^2
76	KITCHEN	VENT	METAL	WHITE	INTACT	Negative	0.04	mg / cm ^2
77	KITCHEN	WINDOW FRAME	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
78	KITCHEN	CEILING	DRYWALL	WHITE	INTACT	Negative	0.02	mg / cm ^2
79	KITCHEN	TRIM	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
80	KITCHEN	WALL	DRYWALL	WHITE	INTACT	Negative	0.02	mg / cm ^2
81	DINING ROOM	WALL	DRYWALL	TAN	INTACT	Negative	0.04	mg / cm ^2
82	DINING ROOM	WALL	CONCRETE	TAN	INTACT	Negative	0	mg / cm ^2
83	DINING ROOM	WINDOW FRAME	METAL	TAN	INTACT	Negative	0	mg / cm ^2
84	DINING ROOM	WALL	WOOD	TAN	INTACT	Negative	0	mg / cm ^2
85	DINING ROOM	WALL PANEL	WOOD	TAN	INTACT	Negative	0	mg / cm ^2
86	DINING ROOM	DOOR FRAME	WOOD	TAN	INTACT	Negative	0.01	mg / cm ^2
87	DINING ROOM	CEILING TILE	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
88	DINING ROOM	DOOR	METAL	BLACK	INTACT	Negative	0	mg / cm ^2
89	SUPPLY	WALL	DRYWALL	WHITE	INTACT	Negative	0.01	mg / cm ^2
90	SUPPLY	FLOOR	CONCRETE	GRAY	INTACT	Negative	0	mg / cm ^2
91	SUPPLY	WALL	CONCRETE	WHITE	INTACT	Negative	0	mg / cm ^2

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
92	SUPPLY	CEILING	DRYWALL	WHITE	INTACT	Negative	0	mg / cm ^2
93	SUPPLY	WALL	DRYWALL	YELLOW	INTACT	Negative	0.01	mg / cm ^2
94	SUPPLY	REFRIDGERATOR	METAL	SILVER	INTACT	Negative	-0.14	mg / cm ^2
95	HOBBY ROOM	WALL PANEL	WOOD	TAN	INTACT	Negative	0	mg / cm ^2
96	HOBBY ROOM	WALL	DRYWALL	TAN	INTACT	Negative	0.04	mg / cm ^2
97	HOBBY ROOM	DOOR	WOOD	VARNISH	INTACT	Negative	0	mg / cm ^2
98	HOBBY ROOM	CEILING TILE	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
99	DINING ROOM	FLOOR	VINYL	WHITE	INTACT	Negative	0	mg / cm ^2
100	DAY ROOM	FLOOR	DRYWALL	WHITE	INTACT	Negative	0	mg / cm ^2
101	TH OFFICE	DOOR	WOOD	VARNISH	INTACT	Negative	0	mg / cm ^2
102	TH OFFICE	CONDUIT	METAL	GRAY	INTACT	Negative	0	mg / cm ^2
103	TH OFFICE	WALL	DRYWALL	WHITE	INTACT	Negative	0	mg / cm ^2
104	TH OFFICE	WALL	CONCRETE	WHITE	INTACT	Negative	0.02	mg / cm ^2
105	TH OFFICE	DOOR FRAME	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
106	TH OFFICE	DOOR	METAL	WHITE	INTACT	Negative	0.01	mg / cm ^2
109	TH OFFICE	WINDOW FRAME	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
110	TH OFFICE	VENT	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
111	BEDROOM	WINDOW FRAME	METAL	WHITE	INTACT	Negative	0.01	mg / cm ^2
112	INMATE RESTROOM	WALL	CERAMIC	YELLOW	INTACT	Positive	7.1	mg / cm ^2
113	INMATE RESTROOM	WALL	CERAMIC	YELLOW	INTACT	Positive	7.5	mg / cm ^2
114	INMATE RESTROOM	SINK	CERAMIC	WHITE	INTACT	Positive	2.1	mg / cm ^2
115	INMATE RESTROOM	TOILET	CERAMIC	WHITE	INTACT	Negative	0.13	mg / cm ^2
116	INMATE RESTROOM	STALL	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
117	HALLWAY	WALL	DRYWALL	BLUE	INTACT	Negative	0	mg / cm ^2
118	HALLWAY	WALL	DRYWALL	YELLOW	INTACT	Negative	0	mg / cm ^2
119	OFFICE 4	WALL	DRYWALL	BLUE, DARK	INTACT	Negative	0.3	mg / cm ^2
120	SECRETARY 6	WALL	DRYWALL	BLUE, DARK	INTACT	Negative	0	mg / cm ^2
121	STAFF	WALL	DRYWALL	BLUE, LIGHT	INTACT	Negative	0.01	mg / cm ^2
122	STAFF	WINDOW FRAME	METAL	BLUE, LIGHT	INTACT	Negative	0.01	mg / cm ^2
123	STAFF	WALL	CONCRETE	BLUE, LIGHT	INTACT	Negative	0.03	mg / cm ^2

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
124	STORAGE	BASEBOARD	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
125	HALLWAY	TRIM	WOOD	VARNISH	INTACT	Negative	0	mg / cm ^2
126	LOUNGE	FLOOR	VINYL	BROWN	INTACT	Negative	0.01	mg / cm ^2
127	LOUNGE	WALL	DRYWALL	ORANGE	INTACT	Negative	0.02	mg / cm ^2
128	LOUNGE	WALL PANEL	WOOD	ORANGE	INTACT	Negative	0	mg / cm ^2
129	CORRIDOOR	WALL PANEL	WOOD	GREEN	INTACT	Negative	0	mg / cm ^2
130	CORRIDOOR	WALL PANEL	WOOD	GREEN	INTACT	Negative	0	mg / cm ^2
131	CORRIDOOR	WALL	DRYWALL	WHITE	INTACT	Negative	0.01	mg / cm ^2
132	CORRIDOOR	WALL	CONCRETE	WHITE	INTACT	Negative	0.02	mg / cm ^2
133	CORRIDOOR	DOOR FRAME	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
134	COMMON AREA	FLOOR	VINYL	BLUE	INTACT	Negative	0	mg / cm ^2
135	COMMON AREA	FLOOR	VINYL	BEIGE	INTACT	Negative	0.02	mg / cm ^2
136	COMMON AREA	DRAIN	METAL	GOLD	INTACT	Positive	14	mg / cm ^2
137	COMMON AREA	CABINET	WOOD	GREEN	INTACT	Negative	0	mg / cm ^2
138	COMMON AREA	HVAC DUCT	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
139	COMMON AREA	CEILING	PLASTER	WHITE	INTACT	Negative	0	mg / cm ^2
140	COMMON AREA	PIPE	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
141	EMERGENCY OFFICE	WALL	DRYWALL	BROWN	INTACT	Negative	-0.35	mg / cm ^2
142	EMERGENCY OFFICE	DOOR FRAME	METAL	BROWN	INTACT	Negative	0.07	mg / cm ^2
143	EMERGENCY OFFICE	CONDUIT	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
144	EMERGENCY OFFICE	DOOR	WOOD	VARNISH	INTACT	Negative	0	mg / cm ^2
145	PANTRY	SHELF	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
146	PANTRY	CABINET	WOOD	RED	INTACT	Negative	0	mg / cm ^2
147	PANTRY	COUNTER	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
148	WOMENS RESTROOM	FLOOR	CERAMIC	BROWN	INTACT	Negative	0	mg / cm ^2
149	WOMENS RESTROOM	WALL	CERAMIC	YELLOW	INTACT	Positive	7.6	mg / cm ^2
150	WOMENS RESTROOM	COUNTER	CERAMIC	TAN	INTACT	Negative	0	mg / cm ^2
151	WOMENS RESTROOM	WALL	DRYWALL	PINK	INTACT	Negative	0	mg / cm ^2
152	WOMENS RESTROOM	STALL	METAL	BROWN	INTACT	Positive	2.8	mg / cm ^2
153	WOMENS RESTROOM	FLOOR	CONCRETE	GREEN	INTACT	Negative	0	mg / cm ^2

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
154	WOMENS RESTROOM	FLOOR DRAIN	METAL	GRAY	INTACT	Positive	3.1	mg / cm ^2
155	WOMENS RESTROOM	SINK	CERAMIC	WHITE	INTACT	Negative	0	mg / cm ^2
156	WOMENS RESTROOM	TOILET	CERAMIC	WHITE	INTACT	Negative	0.01	mg / cm ^2
157	LAUNDRY.	WALL	DRYWALL	BEIGE	INTACT	Negative	0	mg / cm ^2
158	LAUNDRY.	FLOOR	VINYL	GRAY	INTACT	Negative	0	mg / cm ^2
159	LAUNDRY.	FLOOR	VINYL	GREEN	INTACT	Negative	0	mg / cm ^2
160	LAUNDRY.	DOOR	METAL	GRAY	INTACT	Negative	0.03	mg / cm ^2
161	LAUNDRY.	DOOR FRAME	METAL	GRAY	INTACT	Negative	0	mg / cm ^2
162	MENS RESTROOM	FLOOR	CERAMIC	BROWN	INTACT	Negative	0	mg / cm ^2
163	MENS RESTROOM	COUNTER	CERAMIC	TAN	INTACT	Negative	0	mg / cm ^2
164	MENS RESTROOM	WALL	CERAMIC	YELLOW	INTACT	Positive	6.6	mg / cm ^2
165	MENS RESTROOM	FLOOR	CONCRETE	GREEN	INTACT	Negative	0	mg / cm ^2
166	MENS RESTROOM	WALL	CERAMIC	WHITE	INTACT	Negative	0.04	mg / cm ^2
167	MENS RESTROOM	URINAL	CERAMIC	WHITE	INTACT	Positive	1.3	mg / cm ^2
168	MENS RESTROOM	STALL	METAL	BROWN	INTACT	Negative	0	mg / cm ^2
169	MENS RESTROOM	LOCKERS	METAL	BROWN	INTACT	Negative	0.09	mg / cm ^2
170	HALLWAY	LOCKERS	METAL	BROWN	INTACT	Negative	0.05	mg / cm ^2
171	MENS HOUSING	WALL	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
172	MENS HOUSING	FRAME	WOOD	GREEN	INTACT	Negative	0	mg / cm ^2
173	MENS HOUSING	DOOR FRAME	METAL	GREEN	INTACT	Negative	-0.04	mg / cm ^2
174	MENS HOUSING	WALL	WOOD	BROWN	INTACT	Negative	0.01	mg / cm ^2
175	MENS HOUSING	DOOR FRAME	WOOD	RED	INTACT	Negative	0	mg / cm ^2
176	MENS HOUSING	DOOR	METAL	RED	INTACT	Negative	0	mg / cm ^2
177	MENS HOUSING	DOOR FRAME	METAL	RED	INTACT	Negative	0	mg / cm ^2
178	MENS HOUSING	WALL	DRYWALL	GREEN	INTACT	Negative	0.01	mg / cm ^2
179	MENS HOUSING	WALL PANEL	DRYWALL	GREEN	INTACT	Negative	0.01	mg / cm ^2
180	MENS HOUSING	WALL PANEL	WOOD	GREEN	INTACT	Negative	0	mg / cm ^2
181	MENS HOUSING	LOCKERS	METAL	BROWN	INTACT	Negative	0	mg / cm ^2
182	MENS HOUSING	DOOR FRAME	METAL	BLUE	INTACT	Negative	0	mg / cm ^2
183	MENS HOUSING	DOOR FRAME	WOOD	BLUE	INTACT	Negative	0	mg / cm ^2

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
184	MENS HOUSING	DOOR	METAL	WHITE	INTACT	Negative	0	mg / cm ^2
185	MENS HOUSING	WALL	DRYWALL	PINK	INTACT	Negative	-0.41	mg / cm ^2
186	MENS HOUSING	WALL	CONCRETE	PINK	INTACT	Negative	0.03	mg / cm ^2
187	MENS HOUSING	DOOR	METAL	BLUE	INTACT	Negative	0	mg / cm ^2
188	MENS HOUSING	DOOR FRAME	METAL	BLUE	INTACT	Negative	0	mg / cm ^2
189	MENS HOUSING	DOOR FRAME	WOOD	BLUE	INTACT	Negative	0	mg / cm ^2
190	WOMENS HOUSING	LOCKERS	METAL	BLUE, LIGHT	INTACT	Negative	0	mg / cm ^2
191	WOMENS HOUSING	WALL	WOOD	PURPLE	INTACT	Negative	0	mg / cm ^2
192	WOMENS HOUSING	FRAME	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
193	WOMENS HOUSING	WALL	DRYWALL	PURPLE	INTACT	Negative	0	mg / cm ^2
194	WOMENS HOUSING	WALL PANEL	WOOD	PURPLE	INTACT	Negative	0.03	mg / cm ^2
195	WOMENS HOUSING	DOOR FRAME	METAL	WHITE	INTACT	Negative	-0.31	mg / cm ^2
196	WOMENS HOUSING	WALL	WOOD	BLUE, LIGHT	INTACT	Negative	0	mg / cm ^2
197	WOMENS HOUSING	WALL	DRYWALL	BLUE, LIGHT	INTACT	Negative	0	mg / cm ^2
198	WOMENS HOUSING	WALL PANEL	WOOD	BLUE, LIGHT	INTACT	Negative	0	mg / cm ^2
199	PROGRAM DIRECTOR OFFICE	WALL	DRYWALL	BROWN	INTACT	Negative	0	mg / cm ^2
200	PROGRAM DIRECTOR OFFICE	WALL	CONCRETE	BROWN	INTACT	Negative	0.09	mg / cm ^2
201	CONFERENCE ROOM	WALL	DRYWALL	YELLOW	INTACT	Negative	-0.12	mg / cm ^2
202	CONFERENCE ROOM	WALL	DRYWALL	ORANGE	INTACT	Negative	0	mg / cm ^2
203	CONFERENCE ROOM	WALL	DRYWALL	BLUE, LIGHT	INTACT	Negative	0	mg / cm ^2
204	CONFERENCE ROOM	WALL	WOOD	BLUE, LIGHT	INTACT	Negative	0	mg / cm ^2
205	CALIBRATE					Positive	1	mg / cm ^2
206	CALIBRATE					Positive	1	mg / cm ^2
207	CALIBRATE					Positive	1.1	mg / cm ^2
208	SHUTTER_CAL						5.6	cps
209	CALIBRATE					Positive	1	mg / cm ^2
210	CALIBRATE					Positive	1	mg / cm ^2
211	CALIBRATE					Positive	1.1	mg / cm ^2
212	GENERATOR BLDG	WALL	WOOD	BEIGE	INTACT	Negative	0	mg / cm ^2
213	GENERATOR BLDG	DOOR	METAL	BEIGE	INTACT	Negative	0	mg / cm ^2

LifeMoves - Maple Street Shelter
1580 Maple St., Redwood City
XRF Sequential Report

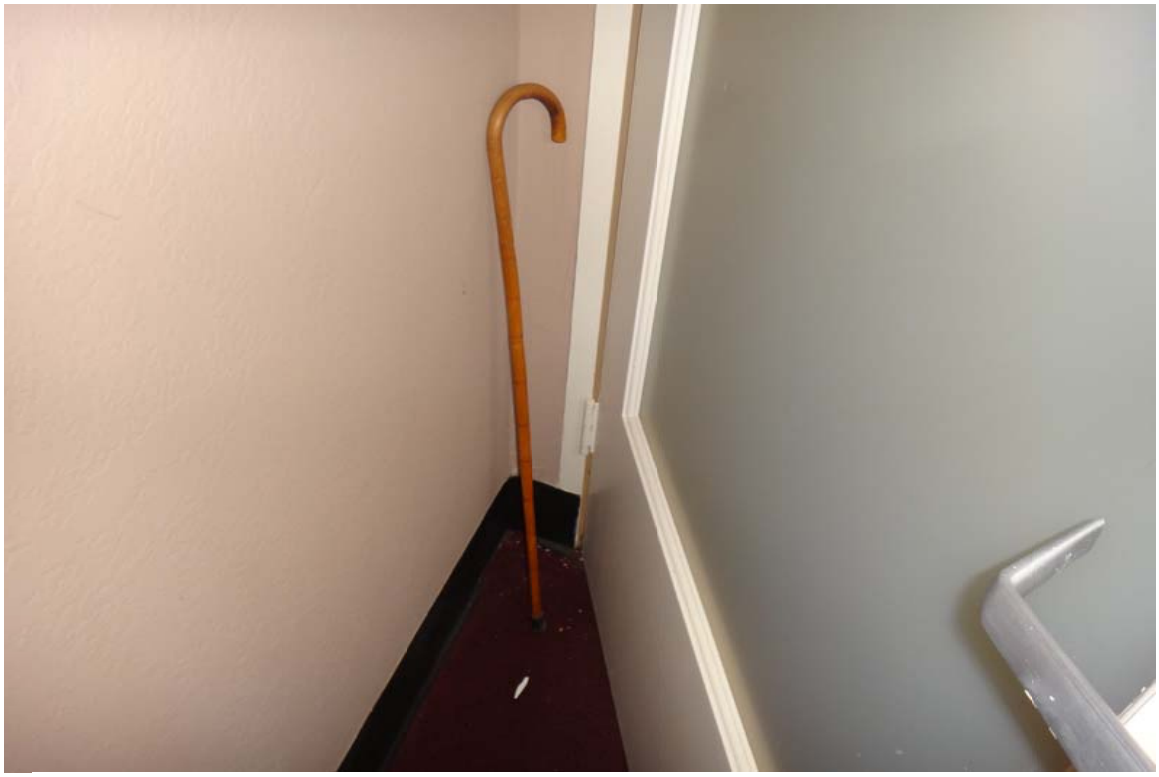
Reading No	ROOM	COMPONENT	SUBSTRATE	COLOR	CONDITION	Results	PbC	Units
214	GENERATOR BLDG	DOOR FRAME	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
215	GENERATOR BLDG	VENT	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
216	GENERATOR BLDG	OVERHANG	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
217	GENERATOR BLDG	FASCIA	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
218	GENERATOR BLDG	EAVE	WOOD	PINK	INTACT	Negative	0	mg / cm ^2
219	OUTSIDE	HAND RAIL	METAL	BLACK	DETERIORATED	Negative	0.01	mg / cm ^2
220	OUTSIDE	FENCE	WOOD	GREEN	INTACT	Negative	0	mg / cm ^2
221	OUTSIDE	FLOOR	CONCRETE	RED	INTACT	Negative	0	mg / cm ^2
222	OUTSIDE	FLOOR	CONCRETE	YELLOW	INTACT	Negative	0.01	mg / cm ^2
223	OUTSIDE	FLOOR	ASPHALT	YELLOW	INTACT	Positive	4.2	mg / cm ^2
224	OUTSIDE	FENCE	WOOD	RED	INTACT	Negative	0	mg / cm ^2
225	SHED	WALL	WOOD	BEIGE	INTACT	Negative	0	mg / cm ^2
226	SHED	TRIM	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
227	SHED	DOOR FRAME	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
228	SHED	DOOR	WOOD	WHITE	INTACT	Negative	0	mg / cm ^2
229	CALIBRATE					Positive	1	mg / cm ^2
230	CALIBRATE					Positive	1.1	mg / cm ^2
231	CALIBRATE					Positive	1.1	mg / cm ^2
232	CALIBRATE					Positive	1.2	mg / cm ^2

LIFEMOVES SHELTER
1580 Maple Street, Redwood City, CA

9"x9" Vinyl Floor Tile/Mastic

Wall Panel Mastic

Mastic/Grout



Texture Coat

Window Panel

Wallboard/Joint Compound