EXCAVATION MANAGEMENT PLAN REMOVAL ACTIONS IN WOLFE ROAD AND SEARS AREAS OF FORMER VALLCO MALL

DECEMBER 2020







EXCAVATION MANAGEMENT PLAN

REMOVAL ACTIONS IN WOLFE ROAD AND SEARS AREAS OF FORMER VALLCO MALL

10123 NORTH WOLFE ROAD CUPERTINO, CALIFORNIA

DECEMBER 2020

PREPARED FOR:

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1 INTRODUCTION

WSP USA Inc. (WSP) has prepared this Excavation Management Plan on behalf of Vallco Property Owner, LLC (VPO) for the two select areas at the former Vallco Mall located at 10123 North Wolfe Road in Cupertino, California (the Site) (Figure 1). The Site Areas are located in the portion of the former Vallco Mall on the west side of Wolfe Road. The first area is in the eastern parking lot adjacent to Wolfe Road and the former Bay Club Fitness Center, herein referred to as the Wolfe Road area. The second area is within the former Sears Automotive Center is referred to as such below. Both areas lie within areas of the Site for mass excavation in connection with the planned redevelopment of the Site.

The Site is anticipated to be used for commercial and residential buildings, subsurface and surface parking areas, and landscaping. In September 2018, the City of Cupertino (the City) approved a project for the Site that will include 2,402 residential units, up to 485,912 square feet of retail/entertainment uses, and 1,981,447 square feet of office uses. Approximately 10,500 parking spaces will be provided in both above-and below ground structures.

Planned development includes extensive subsurface parking that will require excavation of soil to a depth of 20 to 30 ftbelow ground surface (bgs) across much of the Site.

A single soil sample at the Site was found to contain polychlorinated biphenyls (PCBs) in the Wolfe Road Area based on a subsurface investigation conducted by Geosphere in 2016. The sample from a boring at one foot below ground surface (sample E5-1) contained PCBs at 0.523 mg/kg, above the residential screening level of 0.230 mg/kg (RSL) as established by the California Department of Toxic Substances Control (DTSC). Subsequent sampling in the Wolfe Road Area revealed additional soil samples containing PCBs including two soil samples with PCB concentrations over one mg/kg.

Appendix A contains a letter report prepared by WSP dated August 14, 2020 entitled "Investigation and Management of PCB Contaminated Soil, Former Vallco Mall, Cupertino, California ("Summary Report")" This Summary Report summarizes the investigations of the Wolfe Road Area and the Former Sears Automotive Area ("Sears Area") including analytical results and various figures depicting sample locations and proposed removal areas of PCB-contaminated soil.

The Santa Clara County Fire Department (SCCFD) required implementation of an approved closure plan for the former Sears Automotive Center as part of the redevelopment of the Site. Following demolition of the former Sears Automotive Center and removal of an oil-water separator and associated piping, three samples collected approximately 12 to 14 ft-bgs immediately beneath the separator and piping. Several of these samples yielded results that exceed the PCB RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs. Two samples collected at a depth of nine ft-bgs, immediately below each of two (HL-4 and HL-6) former hydraulic lift cylinders, exceeded the RSL for diesel total petroleum hydrocarbons (TPH-d).

Based on information available in the California Geotracker database, the depth to groundwater beneath the Site is approximately 80 to 90 feet bgs; therefore, groundwater will not be encountered during the Site redevelopment activities.

Consistent with the Summary Report (Appendix A), this Plan describes the general procedures to be followed during the removal of soils contaminated by PCBs in two Areas and a small area with TPH-d in the Sears Area. The Plan will serve as a guide for measures to be conducted by the Devcon (Contractor) and WSP during soil excavation in accordance with applicable environmental regulations. WSP will be responsible for oversight of the Contractor in the implementation of the Plan.

The following supplemental plans developed by WSP are included as Appendices to this Excavation Management Plan for submission to the city of Cupertino on behalf of the Valco Properties (VPO):

- Health and Safety Plan (HASP)
- Dust and Vapor Control Plan (DVCP)
- Sampling and Analysis Plan (SAP)

The Contractor was awarded the excavation work by VPO and has prepared a comprehensive Construction Management Plan for Vallco Shopping Center Shoring and Mass Excavation (Devcon CMP) for submission to the City of Cupertino and will be largely responsible for the preparation and implementation of various environmental aspects contained in this Plan and the noted supplemental Plans. The Contractor may supplement or modify the CMP details not addressed in the Appendices.

The Contractor has also prepared a Storm Water Pollution Prevention Plan (SWPPP) which is included as part of this submission.

The following sections summarize the contents of each Plan. These Plans will assist in the management of the remedial activities by identifying actions/requirements of WSP and the Contractor to perform during the remedial activities. Copies of these Plans will be retained on the Site during all remedial phases of the project.

1.1 HEALTH AND SAFETY PLAN

The Site HASP (Appendix B) was prepared in accordance with California Occupational Safety and Health Administration (Cal OSHA) standards for hazardous waste operations (Title 8 California Code of Regulations [CCR] Section 5192 and federal OSHA standards for hazardous waste operations (29 CFR 1910.120). The Site HASP appended to this Plan covers the work activities to be conducted by WSP personnel. WSP will be responsible for the health and safety of its own employees. The Contractor awarded this remedial work has included their own HASP in the Devcon CMP for use by its employees and subcontractors.

1.2 DUST AND VAPOR CONTROL PLAN

The Dust and Vapor Control Plan (Appendix C) specifies the measures to be taken to limit the generation of dust and identify potential vapor contaminants and address associated problems encountered during execution of the work. The Contractor will be responsible for implementing the dust controls on the project and specifically references measures involving Air Quality in Section 2 Air Quality in the Devcon CMP.

1.3 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

The SWPPP has been prepared by the Contractor (Appendix D) for specific control measures to be implemented by the Contractor. Because there is a reasonable potential for PCBs and petroleum hydrocarbons (limited to Sears Area) to be present, the SWPPP includes measures necessary to limit storm water impacts from the two Areas by eliminating storm water runoff from exposed soil and preventing accidental releases or spills of water and solids to the storm water system. The primary control, as necessary, will be on-site retention of storm water with potential treatment and disposal at a an appropriately licensed facility. Details of Contractor activities related to storm water are contained in the SWPPP and Section 5 Hydrology and Water Quality of the Devcon CMP.

Currently, construction SWPPPs are subject to the general permit requirements of SWRCB Order 2009-0009 DWQ, effective July 1, 2010. Many details are dependent on the Contractor's proposed activities. The Contractor is responsible for preparing and implementing the SWPPP and filing any required applications and submittals with the State Water Resources Control Board.

1.4 SAMPLING AND ANALYSIS PLAN

WSP prepared the Sampling and Analysis Plan (SAP) (Appendix E) for this project. The SAP describes the specifications and procedures for collecting the environmental samples for post-excavation confirmation that PCB concentrations remaining in soil have met the residential screening level of 0.230 mg/kg. WSP will be responsible for implementing the SAP.

1.5 PERMITS

The Contractor will be required to procure the necessary permits for this project which may include, but are not limited to, City of Cupertino grading/excavation (including shoring) and encroachment permits.

1.6 NOISE

The Contractor addresses Noise Control measures in Section 7 of the Devcon CMP.

2 REMOVAL ACTIVITIES

There are a number of documents that were prepared for the city of Cupertino and the Santa Clara County Fire Department that describe the history of environmental issues as well as investigations and plans associated with areas of environmental concern at the former Vallco Mall.

The following documents are contained within Exhibit D of the accompanying Devcon CMP:

- Environmental Site Management Plan (ESMP) revised August 2019 and prepared by WSP.
- Contained within the ESMP is Appendix A, Site Characterization Report (SCXR) revised August 2019 and prepared by WSP which includes the following:
- Appendix A of ESMP, Sears Closure Report for the Fuel Leak site Case Closure dated December 6, 1999 and prepared by Santa Clara Valley Water District
- Appendix C of ESMP, Analytical Soil Sampling and Testing Study dated October 25, 2016 and prepared by Geosphere Consultants, Inc.
- Appendix F of ESMP, GPR Survey Report dated February 11, 2019 and prepared by WSP
- Appendix H of ESMP, Sears Automotive Center Closure Plan dated March 26, 2019 and prepared by WSP
- Appendix I of ESMP, Closure Letter report- West Side of Mall dated December 11, 2018 and prepared by WSP.

The Investigation and Management of PCB Contaminated Soil Summary Report (Appendix A of this document) details of the plans to address the PCB contamination in the Wolfe Road Area and the Sears Area. It summarizes the background and previous remedial investigations conducted at the Site and the proposed soil remedial goals for the site cleanup of the contaminants of concern (COCs), PCBs and TPH-d.

The project is being conducted as the initial step to accommodate planned redevelopment of the property. As a result, excavation of soil containing elevated concentrations of COCs will be required before extensive excavation of the Site for redevelopment purposes. The Areas and approximate depths of excavation are summarized in Figures 3 and 8 from the Summary Report in Appendix A. WSP will document and oversee the Contractor's activities during excavation, transport, and disposal of excavated materials.

2.1 SITE PREPARATION

Site preparation activities include mobilization and site set up activities that are non-invasive and will not include the handling of impacted soil and material. These activities include setting up field offices (as necessary), constructing a decontamination pad (as necessary), installing fencing (as appropriate), preparing dust control measures, and other pre-excavation activities. Other requirements not specifically provided herein, but necessary for the successful conduct and completion of the work, will be provided by the Contractor.

2.2 EXCAVATION

The planned excavation will result in soil removed in two separate areas:

- Wolfe Road Area
- Former Sears Automotive Center (Sears) Area

The depth of initial excavation/soil removal will range from three feet bgs in the Wolfe Road Area to 20 feet bgs in the Sears Area. There may also be additional soil excavated if confirmation sampling reveals that additional soil removal is necessary. The groundwater elevation has been typically found to approximately 80-90 feet below ground surface and it is unlikely to be encountered during the excavation.

In the Wolfe Road Area, the initial activity will include the removal and disposal of the existing asphalt parking lot overlay. The asphalt portion of the cap will be removed and transported off-site for recycling. The aggregate base rock will be

removed and disposed off-site at a landfill site selected by the Contractor. Removal of the cover material may occur in stages, to minimize the potential for erosion, sedimentation, or dust. The asphalt cover material will be segregated, and the contaminated soil excavation will commence. The soil excavation will be performed, and the exact excavation will be directed by WSP. Soil will be placed in stockpiles and managed as described in Section 2.3.

Post-excavation soil samples will be collected from the bottom and sidewalls of the excavation to provide a record of the quality of the soil that remains in place. The post-excavation soil sampling is described in the Summary Report and Appendix C.

The sequencing of the excavation will be determined by the Contractor in consultation with WSP to maximize efficiency and logistics of stockpile management. In the Sears Area, PCBs are being targeted at several depths and the excavation of soils not impacted by PCBs will be segregated.

2.3 STOCKPILE MANAGEMENT

Stockpiling of excavated soil will generally be eliminated with direct loading of soil onto trucks.

If necessary, stockpile management procedures include ensuring that stockpiles are away from concentrated flows of storm water, drainage courses, and storm drain drop inlets. Stockpiles will be protected from storm water run-on using temporary perimeter sediment barriers such as berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale barriers. A recommended method is to first lay plastic sheeting down where the stockpile is to be located. Excavated soil is then placed in a ring on the plastic, leaving several feet of free plastic around the edges such that the plastic can be folded over the soil ring to create a plastic-encased berm. The rest of the excavated soil can then be placed inside of the soil berm.

Another plastic sheet is used to cover the stockpile such that dust and potential vapors do not escape, and water does not enter the stockpile. Additional stockpile management requirements are discussed in the Dust and Vapor Control Plan (Appendix B) and SWPPP (prepared by the Contractor and included as Appendix C in this transmittal).

Based on existing data, small isolated areas having concentrations of PCBs greater than 1 mg/kg will be segregated and placed into separate stockpiles (see Figures 2 and 8 in Appendix A for delineation of these areas). A one-day turnaround time for analytical data (or as soon as possible) will be requested for all confirmation soil samples from these isolated areas.

All soils assumed to exceed 1 mg/kg of PCBs based on previous *in situ* sampling will be disposed of as TSCA waste (assumed to be >50 mg/kg and disposed at the selected TSCA landfill in accordance with waste disposal requirements of CFR 761.761 (b)). Soils containing less than 1 mg/kg based on previous *in situ* sampling will be disposed of an appropriately licensed selected landfill.

Asphalt cap material or other construction/demolition debris is not reasonably expected to be RCRA/non-RCRA hazardous or TSCA wastes and may be sent to a commercial recycler or approved landfill.

2.4 TRANSPORTATION AND DISPOSAL

This task consists of transportation and disposal of each type of waste material to the selected treatment/disposal facility. All material from the excavation has been characterized in place for PCBs and petroleum hydrocarbons (Sears Area only) prior to excavation. The Contractor (Devcon) shall be responsible for the transportation and disposal of the soil and material removed from the Site. As part of this role, the Contractor shall designate one person to act as the Transportation and Disposal Coordinator (TDC) during execution of this phase of the work. The TDC shall coordinate the transportation and disposal requirements associated with this project. The material will be disposed off-site based on data gathered during previous sampling.

As trucks designated for TSCA or non-hazardous waste facilities arrive onsite, they will be directed to a lining scaffold station to receive the fitted bed liners prior to loading. Loading of solid waste will be performed with the excavator and or front-end loader. Drivers will be instructed to remain in their truck cab at all times while on-site. As trucks are loaded and exit the excavation area, they will be inspected to ensure that no soil or mud is on the truck tires and wet/dry decontaminated, if necessary. Tarps of loaded trucks will be rolled out and secured to cover the top of the truck bed. The Vehicle and Container Inspection Checklist will be completed by the truck inspector and maintained on site.

Appropriate placarding will be placed on all four sides of the container/vehicle in accordance with USDOT requirements. The trucks will then pass through the stabilized construction entrance/exit to remove excess dirt on tires.

The Contractor shall obtain approval from the disposal facilities using the existing database or, as necessary, coordinate additional characterization requirements with WSP to obtain approval before fieldwork begins.

2.4.1 TRANSPORTATION AND DISPOSAL COORDINATOR

The TDC shall serve as the single point of contact for transportation, disposal, and regulatory matters associated with waste management. The TDC shall be responsible for environmental compliance at the Site including, but not limited to:

- Determining proper shipping names,
- Identifying marking, labeling, and placard requirements,
- Completing appropriate waste profiles, hazardous waste manifests, and bills of lading for non-hazardous waste material, as necessary
- Obtaining disposal facility weigh slips
- Performing any other environmental documentation as required by local, state, and/or federal law

The TDC shall coordinate transportation and disposal activities with WSP's oversight representatives. The TDC will sign all transportation documentation on behalf of the generators.

2.4.2 LAWS AND REGULATIONS

The proposed work effort shall meet or exceed minimum requirements established by federal, state, and local laws and regulations, as applicable. These requirements are amended frequently, so the Contractor shall be responsible for complying with such amendments, as necessary.

2.4.3 TRANSPORTATION

The Contractor shall use manifests for transporting hazardous and PCB wastes as required by 40 CFR 263, 40 CFR 761, and any applicable state or local law or regulation. Transportation shall also comply with all applicable requirements in the Department of Transportation 49 CFR regulations. The Contractor shall provide WSP with the U. S. EPA identification numbers, names, locations, and telephone numbers of each proposed waste transporter along with the bid documents for this work. Only properly licensed transporters will be deemed acceptable for use. Alternate transporters may not be considered acceptable, depending on the justification for use. All non-hazardous waste shipments will be accompanied by a bill of lading that documents shipping information, including transporter and disposal facility names and locations.

A Waste Tracking Log will be developed and maintained to track each shipment of waste transported off site. The log will identify the waste type being transported, the date and time the material left the site, the facility, the truck identification number, the manifest or bill of lading (BOL) number accompanying the load and the recorded weight of each loaded truck.

A BOL will accompany each load and will be signed by WSP (as agent for VPO) before the material leaves the site; by the truck driver before leaving the site; and by a representative of disposal facility when the load is received. A copy of the signed Manifest or BOL will be retained by WSP. Upon arrival at the disposal facility, the BOL will be signed and a copy returned to the Contractor, complete with all applicable signatures as proof of delivery. The returned Manifest/BOL and Certificates of Disposal will be cross checked and matched with the original copy of the manifest already on file. The Waste Tracking Log will be used to track the volume of soil transported off site and the receipt of completed and signed manifest/bill of ladings.

REFERENCES

Analytical Soil Sampling and Testing Study dated October 25, 2016 and prepared by Geosphere Consultants, Inc.

Closure Letter report- West Side of Mall dated December 11, 2018 and prepared by WSP

Construction Management Plan for Vallco Shopping Center Shoring and Mass Excavation dated October 26, 2018 and prepared by Devcon Construction, Inc.

Environmental Site Management Plan (ESMP) revised August 2019 and prepared by WSP.

GPR Survey Report dated February 11, 2019 and prepared by WSP

Investigation and Management of PCB Contaminated Soil, Former Vallco Mall, Cupertino, California ("Summary Report")" dated August 14, 2020 and prepared by WSP

Regional Water Board, 2019 (San Francisco Bay Regional Water Quality Control Board). Environmental Screening Level (ESL) Workbook. January

Sears Automotive Center Closure Plan dated March 26, 2019 and prepared by WSP

Sears Closure Report for the Fuel Leak site Case Closure dated December 6, 1999 and prepared by Santa Clara Valley Water District

Site Characterization Report (SCXR) revised August 2019 and prepared by WSP

Stormwater Pollution Prevention Plan (SWPPP) revised April 14, 2020 and prepared by Sandis

ACRONYMS

1,1-DCA 1,1-dichloroethane

1,1-DCE 1,1-dichloroethene

1,2-DCE 1,2-dichloroethene

1,1,1-TCA 1,1,1-trichloroethane

bgs below ground surface

COE California-Olive-Emerson

COPC chemical of potential concern

DQO data quality objective

HVAC heating, ventilation, and air conditioning

PCE tetrachloroethene

PID Photoionization detector

SIM Selective ion monitoring

TCE trichloroethene

USEPA U.S. Environmental Protection Agency

VIMS vapor intrusion mitigation system

VOC volatile organic compound

WSP WSP USA Inc.

APPENDIX

INVESTIGATION AND
MANAGEMENT OF PCB
CONTAMINATED SOIL
FORMER VALLCO MALL,
CUPERTINO,
CALIFORNIA





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August 14, 2020

Vallco Property Owner, LLC 965 Page Mill Road Palo Alto, CA 94304 Attn: Reed Moulds

Subject: Post Closure Report: Investigation and Management of PCB Contaminated Soil

Former Vallco Mall, 10101 North Wolfe Road, Cupertino, California

Dear Mr. Moulds,

Per the request of the Vallco Property Owner, LLC (VPO), WSP USA Inc. (WSP) provides this summary report documenting WSP's investigation of two select areas at the former Vallco mall located at 10101 North Wolfe Road in Cupertino, California (the Site) (Figure 1) and presenting an approach to the remediation and disposal of all impacted soils at the investigation areas. WSP investigated the two areas for polychlorinated biphenyls (PCBs), consistent with the Environmental Site Management Plan (WSP, August 2019) (ESMP). The first is an area in the eastern parking lot adjacent to Wolfe Road and the former Bay Club Fitness Center, herein referred to as the Wolfe Road area. The second area is within the former Sears Automotive Center and is referred to as such below.

BACKGROUND & INVESTIGATION APPROACH

WOLFE ROAD AREA

In September 2016, Vallco retained Geosphere to conduct a subsurface investigation to collect various discrete soil samples at the Site as part of an accompanying geotechnical investigation. Geosphere drilled a total of eight borings (E-1 through E-8) using a mobile direct push GeoProbe® DT-22. A single sample from Geosphere boring E-5 at one foot below ground surface (sample E5-1) contained PCBs at a concentration of 0.523 milligrams per kilogram (mg/kg), which is above the Environmental Screening Levels (ESLs) for residential human health risks (0.230 mg/kg) as established by the San Francisco Regional Water Quality Control Board (RWQCB), revision two, July 2019 and above the Regional Screening Levels (RSLs) for human health risks (0.230 mg/kg) as established by the Department of Toxic Substance Control (DTSC), revised April 2019. The detection of PCBs above the ESL/RSL was isolated to this single sample out of the 32 samples Geosphere collected across the former shopping mall area; however, in accordance with Section 3.3 of the ESMP, WSP performed step-out sampling for PCBs in the area of boring E-5 to delineate the lateral and vertical extent of PCB concentrations in that area. VPO provided the City of Cupertino with a workplan outlining the investigation approach in August 2019 (WSP, 2019a).

Pursuant to the workplan, WSP advanced soil borings to a depth of five feet below ground surface (ft-bgs) in a general grid fashion around boring E-5 (Figure 2). Initially, four soil borings were advanced in a square shape approximately 7.5 feet (ft) away from boring E-5 on each side, with one additional boring advanced adjacent to location E-5 (boring E5P-1) to confirm the original detection of PCBs. If there was a detection of PCBs above the ESL/RSL at the initial sampling location, additional step-out boring locations were advanced in five-foot increments outwards from perimeter borings. Eventually, a total of 29 additional step-out borings were advanced to fully delineate the lateral extent of PCB contamination.



The soil borings were advanced either by hand auger or by a direct push Geoprobe® Rig equipped with Macro Core® continuous core sample tooling. Soil samples were collected at depths of one, three, and five ft-bgs. Only soil samples collected at one and three ft-bgs were analyzed initially; five ft-bgs soil samples were archived and were only analyzed if there were detections of PCBs in the three ft-bgs samples, which occurred at only two of the 34 boring locations (E5P-N and E5P-W). Samples at three ft-bgs at ESP-N-3 had laboratory reporting limits for PCBs above the ESL/RSL and there were PCBs detected at ESP-W-3 (0.046 mg/kg) below the ESL/RSL Samples collected at 5 ft-bgs at these two locations did not detect PCBs. All soil samples were analyzed for PCBs by Environmental Protection Agency (EPA) method 8082 with 18 of the 29 step outs additionally undergoing the soxhlet extraction method preferred by the EPA.

FORMER SEARS AUTOMOTIVE CENTER

The Sears Automotive Center was constructed in 1970 on the southwest side of the Mall property and was later referenced as a closed Leaking Underground Storage Tank (LUST) site on the state Geotracker website. This designation was a result of the removal of six underground storage tanks (UST) in 1985 and dispenser island and product lines in 1994. The Santa Clara County Fire Department (SCCFD) required implementation of an approved closure plan for the demolition of the former Sears Automotive Center due to the presence of an oil-water separator, hydraulic lifts, petroleum fluid pipelines, battery storage area, and lead containing materials. A Closure Plan for the Former Sears Automotive Center was submitted to the SCCFD on March 25, 2019 and approved by the SCCFD by letter dated April 11, 2019 and included soil sampling under the oil-water separator, remnant piping and any other subsurface equipment for proper characterization and subsequent disposal.

Consistent with the Closure Plan, soil samples were collected beneath an oil-water separator, acid neutralization chamber, and 17 hydraulic lifts during building demolition in January through February 2020 to determine if these features had impacted surrounding soil. All soil samples collected were analyzed for the following list of compounds:

- Total petroleum hydrocarbons (TPH) as gasoline (TPH-g), TPH as diesel (TPH-D), and TPH as motor oil (TPH-MO) by EPA method 8015 (fuel scan)
- Hexane Extractable Materials (Oil and Grease) by EPA 1664
- Volatile Organic Compounds (VOCs), with chlorinated hydrocarbons (full scan) by EPA method 8260B
- PCB's by EPA method 8082A
- Cd, Cr, Pb, Ni, and Zn by EPA 6010B
- Semi Volatile Organic Compounds (SVOCs) including Polycyclic Aromatic Hydrocarbons (PAHs) by EPA method 8270

Samples collected from beneath the acid neutralization chamber and the base of 11 hydraulic lifts after their removal, all located on the basement level in the southern portion of the former Sears Automotive Center, did not contain any detections above the respective ESL/RSLs for any of the compounds included in the analysis listed above. After the removal of six hydraulic lift cylinders in the northern portion of the former Sears Automotive Center, samples were taken at three of the six cylinders (locations HL-1, HL-4, and HL-6 on Figure 4) at approximately nine ft-bgs, which is from the soils immediately beneath the base of three of these cylinders. After the removal of the oil-water separator and associated piping, three samples were taken approximately 12 to 14 ft-bgs which is immediately beneath the separator and piping. Several of these samples yielded results that exceed the PCB ESL/RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs. Two samples collected at a depth of nine ft-bgs, immediately below each of two (HL-4 and HL-6) of the three former hydraulic lift



cylinders, exceeded the RSL for TPH-D. Soil sample locations are shown on Figure 4 and analytical results performed for this sampling event as part of the Closure Plan are included as Table 1.

In response to the detections of PCBs above the ESL/RSL, 22 step-out borings were advanced in the northern portion of the Center to delineate the extent of PCB impacted soil and to sample under the remaining three former hydraulic lifts, HL-2, HL-3, and HL-5 (Figure 5). All step-out borings were advanced with a direct push Geoprobe® Rig equipped with Macro Core® continuous core sample tooling. The base of the hydraulic lift cylinders extended to nine ft-bgs and step-out borings for the lifts were advanced to 20 ft-bgs and samples were collected at depths of 9, 12, and 15 ft-bgs. The bottom of the oil-water separator was 12 ft-bgs and step-out borings for the separator were advanced to 25 ft-bgs and samples were collected at depths of 12, 16, and 20 ft-bgs. Additional samples were collected if staining or odor was noted, which only occurred in one boring (HL-6N5). All soil samples were analyzed for PCBs by EPA method 8082 with the soxhlet extraction method. Additionally, select soil sample depths were sampled for TPH-d and TPH-mo by EPA method 8015.

ANALYTICAL RESULTS

WOLFE ROAD AREA

Analytical results are summarized in Table 2 and are depicted on Figure 2. Total PCBs were found above the ESL/RSL of 0.230 mg/kg in a total of 14 of the 34 borings. The detections of total PCBs above the screening levels were isolated to samples collected from one ft-bgs. The PCB detections were primarily of aroclor-1254, which was the only aroclor that contained concentrations greater than the respective screening level. Aroclor-1260 was also detected in some of the one ft-bgs samples; no other aroclors were detected.

Of the borings that had exceedances of the screening levels, the PCB concentration of two boring locations (E5P-W and E5P-NW10) were just above the TSCA cleanup level of 1 mg/kg, with a maximum total PCB concentration of 1.046 mg/kg. In both borings, no singular aroclor was detected above 1 mg/kg, but rather the sum of the detected aroclors (aroclor-1254 and aroclor-1260) was just above 1 mg/kg.

FORMER SEARS AUTOMOTIVE CENTER

Analytical results are summarized in Table 3 (TPH results) and Table 4 (PCB results) and are depicted on Figures 6 and 7. Of the twenty-two step-out borings, only three discrete samples contained detectable concentrations of PCBs. As discussed above, soil samples taken at approximately nine ft-bgs, which is from immediately beneath each of three of the hydraulic cylinders and three samples taken approximately 12 to 14 feet bgs immediately beneath the oil-water separator contained PCBs exceeding the RSL of 0.230 mg/kg PCBs. Additionally, two of the three samples beneath the oil-water separator exceeded 1 mg/kg of PCBs at 14 feet, with a maximum concentration of 1.9 mg/kg; however, none of the step-out borings detected concentrations of PCBs above the ESL/RSL.

Additionally, only one step out boring discrete sample (OWPI-W5-20) detected TPH-d above the ESL; however, the detection was qualified by the laboratory as not exhibiting the standard chromatographic pattern for TPH-d.



REMEDIAL APPROACH; SOIL EXCAVATION AND DISPOSAL; EPA REGULATORY COMPLIANCE

Under the ESMP, VPO must notify the City if the planned additional sampling finds PCB levels in excess of residential screening levels, and a determination will be made "as to whether a regulatory agency should be contacted to determine if regulatory oversight is required, prior to issuance of a permit that allows soil disturbance in the area of boring E-5."

Given that each of the areas contained PCBs above 1 mg/kg and are located within the footprint of the planned development, excavation that will extend to a depth of five ft-bgs and up to 32 ft-bgs at the Wolfe Road and former Sears Automotive Center areas, respectively. The project team contacted EPA to identify an appropriate remedial approach that is consistent with TSCA. Steve Armann, EPA Region 9's PCB Program Coordinator, indicated that disposal of PCBs under 40 CFR 761.61(b) would be appropriate. Among other things, 40 CFR 761.61(b) requires soil containing PCBs above the TSCA threshold of 1 mg/kg to be disposed of as a TSCA waste at a TSCA landfill. Consistent with 40 CFR 761.61(a), confirmation base of excavation and sidewall sampling will be performed with sampling using grids with sample spacing every 1.5 meters (approximately five feet) to verify that soil with PCB concentrations greater than 1 mg/kg and 0.230 mg/kg are removed from the previously characterized areas. Specifically, the limits of excavation were determined by step-out sampling and the step-out samples will serve as confirmation samples for the excavation of PCBs impacted soil above 0.230 mg/kg. The areas that have been identified to contain PCBs above the ESL/RSL of 0.230 mg/kg but are less than the TSCA threshold limit of 1 mg/kg, will be disposed of according to waste acceptance standards for soils containing PCBs at a licensed landfill.

WOLFE ROAD AREA

Based on the approach noted above, WSP estimates that approximately 7 cubic yards of soil, which may contain concentrations of PCBs that equal or exceed 1 mg/kg, will need to be removed from the Wolfe Road area for disposal to a TSCA landfill pursuant to 40 CFR 761.61(b). This total proposed excavation area will be approximately 60 square feet and will extend to three ft-bgs. The PCB excavation area is depicted in context with the project excavation area on Figure 3.

The remaining area with PCBs detected above the ESL/RSL of 0.230 mg/kg at one ft-bgs is approximately 714 square feet. Excavation for removal of the PCB contaminated soils to three ft-bgs of this area would yield approximately 73 cubic yards of soil. An outline of the proposed excavation area is shown on Figures 2 and 3. As noted, confirmation sampling will utilize a grid of approximately 5 feet (1.5 meters) for base of excavation and sidewall samples on the walls of the completed excavation.

FORMER SEARS AUTOMOTIVE CENTER

Remediation of the former Sears Automotive Center will be performed with oversight/review from SCCFD under the approved Closure Plan. In the area beneath the former oil-water separator where samples exceeded 1 mg/kg of PCBs, WSP proposes to excavate and remove soils from beneath the separator over an area of a 10 feet by 20 feet rectangle at a depth from 12 feet to 20 feet (Figure 8) and arrange for proper disposal of all PCB impacted soils at a TSCA landfill (approximately 60 cubic yards), consistent with 40 CFR 761.61(b). In the area beneath the three hydraulic lift cylinders where soil samples exceeded the PCB ESL/RSL (but are below 1 mg/kg), WSP proposes to excavate and remove soils from beneath each hydraulic cylinder from nine feet to 12 feet bgs and segregate these excavated



soils for disposal according to waste acceptance standards for soils containing PCBs at an appropriately licensed landfill. The volume of soils to be excavated and segregated for excavation beneath the three former cylinders is estimated at nine cubic yards. Excavation profiles in the former Sears area are shown on Figure 8.

Confirmation sidewall sampling will be conducted with the previously noted five-foot sample grids.

Per Section 4, Reporting Requirements, of the ESMP, a closure implementation report will be generated with the closure of the former Sears Automotive center and submitted to the SCCFD, with a courtesy copy provided to the City. In addition, the soil sampling and removal of soils in the Wolfe Road area will be documented in a memorandum and provided to the City. If additional impacted soils are uncovered during mass excavation activities, the analysis and subsequent disposal of the impacted soil will also be documented in the ESMP completion report.

Sincerely,

Ruhard E. Freudenberge

Richard E. Freudenberger Managing Director, Regional

408.206.3504

REFERENCES

WSP. 2019. Environmental Site Management Plan, Former Vallco Shopping Mall, 10123 North Wolfe Road, Cupertino, California. August.

WSP. 2019a. Workplan for Former Vallco Mall, Delineation of Extent of PCB Impact to Soil. August 20.

FIGURES

Figure 1 – PCB Investigation Areas

Figure 2 – Wolfe Road PCB Investigation Area

Figure 3 – Wolfe Road PCB Excavation Area

Figure 4 – Sears Automotive Center Closure Sample Locations

Figure 5 – Sears Automotive Center PCB Investigation Area

Figure 6 – Hydraulic Lift Step-Out Borings

Figure 7 – Oil-Water Separator Step-Out Borings

Figure 8 – Excavation Profiles

TABLES

Table 1 – Summary of Sears Closure Soil Data

Table 2 – Wolfe Road PCB Data

Table 3 – Sears Center TPH Data

Table 4 – Sears Center PCB Data



TABLES

Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] mple Date	ESLs Residential	RSLs Residential	<u>H-1</u> 1/22/20	H-2 1/22/20		<u>H-3</u> 1/22/20		<u>H-4</u> 1/22/20)	<u>H-5</u> 1/22/20		<u>H-6</u> 1/22/20)	<u>H-7</u> 1/22/20	C
Purgeable Aromatics & Tota	al Petroleu	m Hydrocarbo	ns													
TPH-g	(mg/kg)	430		1 U	1 1	U	0.98 U	IJ	1	U	0.93 U	J	1	U	1	U
TPH-d	(mg/kg)	260		0.92 J	0.70	J	1.1	J	27	Y	2 U	J	3.5	Y	4.4	Y
TPH-mo	(mg/kg)	12,000		10 U	9.9 1	U	6.2	J	86		9.9 U	J	15		19	
Oil & Grease	(mg/kg)			500 U	500 1	U	500 U	IJ	500	U	500 U	J	500	U	500	U
SVOCs & PAHs [3]																
bis (2-Ethylhexyl)phthalate	(µg/kg)	3.9E+04	3.9E+04	340 U	340 I	U	20	J	27	J	340 U	J	340	U	17	J
VOCs [3]																
Acetone	(µg/kg)	6.1E+07		17 U	20 1	U	16 U	IJ	4.9	J	17 U	J	3.6	J	16	U
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
2-Butanone	$(\mu g/kg)$			8.3 U	10 1	U	8.2 U	IJ	8	U	8.3 U	J	9.2	U	8.1	U
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.2 U	5.1	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.3 U	10 1	U	8.2 U	IJ	8	U	8.3 U	J	0.7	J	8.1	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.2 U	5.1	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.2 U	5.1	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Metals																
Cadmium	(mg/kg)	78	71	0.24 J	0.25	J	0.34		0.37		0.35		0.33		0.30	
Chromium	(mg/kg)			55	47		52		55		51		54		57	
Lead	(mg/kg)	80	80	6.2	5.0		8.6		9.3		10		7.8		9.1	
Nickel	(mg/kg)	820	820	57	49		62		66		76		65		65	
Zinc	(mg/kg)	23,000	23,000	46	40		61		63		62		55		59	
PCBs [2]																
Aroclor-1254	(mg/kg)	0.230	0.240	0.012 U	0.012	U	0.058		0.061		0.012 U	J	0.012	U	0.021	

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Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] .mple Date	ESLs Residential	RSLs Residential	<u>H-8</u> 1/22/20	<u>H</u>	. <u>9</u> 2/20	H-10 1/22/2		H-11 1/22/20	0	H-P-12 1/22/20	_	<u>AN-1</u> 1/22/20		<u>AN-2</u> 1/22/20	
Purgeable Aromatics & Tota	al Petroleu	m Hydrocarbo	ns													
TPH-g	(mg/kg)	430		1.1 U	1	.1 U	1.1	U	1.1	U	1	U	0.96	U	0.96	U
TPH-d	(mg/kg)	260		2 U	9	2 Y	7.9	Y	2.2	Y	3.2	Y	2.8	Y	3.2	Y
TPH-mo	(mg/kg)	12,000		10 U		9	39		10	U	6.0	J	3.1	J	3.9	J
Oil & Grease	(mg/kg)			500 U	5	0 U	500	U	500	U	500	U	500	U	500	U
SVOCs & PAHs [3]																
bis (2-Ethylhexyl)phthalate	$(\mu g/kg)$	3.9E+04	3.9E+04	330 U	5,90	0	96	J	330	U	340	U	330	U	330	U
VOCs [3]																
Acetone	$(\mu g/kg)$	6.1E+07		18 U	•	.6 U	3.7	J	16	U	17	U	19	U	19	U
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.4 U		4 U	4	U	4.1	U	4.2	U	4.8	U	4.8	U
2-Butanone	$(\mu g/kg)$			8.8 U		8 U	8	U	8.2	U	8.4	U	9.6	U	9.6	U
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.4 U		4 U	4	U	4.1	U	4.2	U	4.8	U	4.8	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.8 U		8 U	8	U	8.2	U	8.4	U	9.6	U	9.6	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.4 U		4 U	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.4 U		4 U	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.4 U	•	4 U	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Metals																
Cadmium	(mg/kg)	78	71	0.29	0.3	9	0.30		0.31		0.34		0.32		1.8	
Chromium	(mg/kg)			52	4	9	55		56		54		78		97	
Lead	(mg/kg)	80	80	7.7	1	0	8.3		7.2		9.4		7.5		7.6	
Nickel	(mg/kg)	820	820	71	7	6	65		70		70		88		86	
Zinc	(mg/kg)	23,000	23,000	55	7	3	58		53		69		57		69	
PCBs [2]																
Aroclor-1254	(mg/kg)	0.230	0.240	0.012 U	0.0	2 U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U

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Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] mple Date	ESLs Residential	RSLs Residential	OWS- 2/7/20		OWS-2/7/20		OWP-2/7/20		HL-1 2/7/20		<u>HL-4</u> 2/7/20		<u>HL-6</u> 2/7/20	
Purgeable Aromatics & Tota	al Petroleu	ım Hydrocarbo	ons												
TPH-g	(mg/kg)	430		0.16	JY	0.98	U	1	U	0.93	U	0.3	JY	1	U
TPH-d	(mg/kg)	260		92	Y	36	Y	21	Y	7.9	Y	990	Y	330	Y
TPH-mo	(mg/kg)	12,000		290		120		90		7.8		3,200		470	
Oil & Grease	(mg/kg)			500	U	500	U	500	U	500	U	2,000		500	U
SVOCs & PAHs [3]															
bis (2-Ethylhexyl)phthalate	$(\mu g/kg)$	3.9E+04	3.9E+04	30	J	330	U	330	U	340	U	3,400		74	J
VOCs [3]															
Acetone	(µg/kg)	6.1E+07		17	U	17	U	19	U	3.2	J	1,000	U	26	
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.3	U	4.4	U	4.7	U	3.9	U	48		3.6	U
2-Butanone	$(\mu g/kg)$			8.6	U	8.7	U	9.5	U	1.8	J	16		6.1	J
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.3	U	4.4	U	4.7	U	3.9	U	11		3.6	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.6	U	8.7	U	9.5	U	7.8	U	12		7.2	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.3	U	4.4	U	4.7	U	3.9	U	8.1		3.6	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.3	U	4.4	U	4.7	U	3.9	U	41		3.6	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.3	U	4.4	U	4.7	U	3.9	U	4.4		3.6	U
Metals															
Cadmium	(mg/kg)	78	71	0.32		0.3		0.41		0.46		0.32		0.27	
Chromium	(mg/kg)			80		57		84		93		86		89	
Lead	(mg/kg)	80	80	7.9		8.2		8.7		7.8		7.7		6.9	
Nickel	(mg/kg)	820	820	80		63		67		96		86		86	
Zinc	(mg/kg)	23,000	23,000	62		58		55		59		59		55	
PCBs [2]															
Aroclor-1254	(mg/kg)	0.230	0.240	1.9		1.2		0.93		0.75		0.64		0.62	

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Sears Closure - Summary of Detected Results Former Vallco Mall 10123 North Wolfe Road, Cupertino, CA

Notes:

mg/kg = milligram per kilogram

μg/kg = microgram per kilogram

U = not detected above the method detection limit; reporting limit shown

J = concentration detected between the method detection limit and the reporting limit and is considered an estimate

Y = sample exhibits chromatographic pattern which does not resemble standard

-- = not available

SVOCs = Semi-volatile organic compounds

PAHs = Polycyclic aromatic hydrocarbons

VOCs = Volatile organic compounds

PCBs = Polychlorinated biphenyl

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019 (revision 2). Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

- [1] = Bold values indicate a detection above the reporting limit. Shaded values indicate an exceedance of the screening levels.
- [2] = Samples H-1 through H-11, including sample H-P-12 were collect beneath hydraulic lifts that extended in to the basement level on January 22, 2020. Samples AN-1 and AN-2 were collected beneath/ around the former acid neutralization chamber on January 22, 2020. Samples OW-1, OW-3, and OWP-1 were collect beneath/ around the former oil-water seperator on February 7, 2020. Samples HG-1 through HG-3 were collected beneath hydraulic lifts at ground level, in the northern portion of the building on February 7, 2020.
- [3] = Only analytes detected over the reporting limit in at least one sample are shown.

WSP

Table 2

Wolfe Rd PCB Summay Table
Former Vallco Mall

10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	<u>l</u>	Aroclor-123	32	Aroclor-124	<u> 12</u>	Aroclor-124	18	Aroclor-125	54	Aroclor-120	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
E5-1 [3]	9/6/2016	0.034	U	0.043	U	0.042	U	0.034	U	0.034	U	0.523		0.034	U	0.523
E5-2 [3]	9/6/2016	0.0066	U	0.0084	U	0.0083	U	0.0066	U	0.0066	U	0.0079	U	0.0066	U	ND
E5-3 [3]	9/6/2016	0.0066	U	0.0084	U	0.0083	U	0.0066	U	0.0066	U	0.0079	U	0.0066	U	ND
E5P-1	10/4/2019	0.032	U	0.065	U	0.032	U	0.032	U	0.032	U	0.75		0.13		0.88
E5P-3	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-N-1	10/4/2019	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.83		0.11		0.94
E5P-N-3	10/4/2019	660	U	1,300	U	660	U	660	U	660	U	660	U	660	U	ND
E5P-N-5 [5]	10/4/2019	0.034	U	0.067	U	0.034	U	0.034	U	0.034	U	0.034	U	0.034	U	ND
E5P-S-1	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.043		0.0078	J	0.0508
E5P-S-3	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-E-1	10/4/2019	0.034	U	0.068	U	0.034	U	0.034	U	0.034	U	0.15		0.027	J	0.177
E5P-E-3	10/4/2019	0.02	U	0.04	U	0.02	U	0.02	U	0.02	U	0.02	U	0.015	J	0.015 J
E5P-W-1	10/4/2019	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.92		0.14		1.06
E5P-W-3	10/4/2019	0.02	U	0.041	U	0.02	U	0.02	U	0.02	U	0.02	U	0.023		0.023
E5P-W-5 [5]	10/4/2019	0.033	U	0.065	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
E5P-NN5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.24		0.044		0.284
E5P-NN5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NN10-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.38		0.06		0.44
E5P-NN10-3	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NE5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.19		0.042		0.232
E5P-NE5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.008	J	0.008 J
E5P-NE10-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.15		0.037		0.187
E5P-NE10-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.010	J	10 J
E5P-NW5-1	10/30/2019	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.75		0.091		0.841
E5P-NW5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NW10-1	10/30/2019	0.013	U	0.026	U	0.013	U	0.013	U	0.013	U	0.95		0.096		1.046
E5P-NW10-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-WW5-1	10/30/2019	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.67		0.082	**	0.752
E5P-WW5-3	10/30/2019	0.012	U U	0.024	U	0.012	U	0.012	U	0.012	U	0.012 0.18	U	0.012 0.028	U	ND 0.208
E5P-WW10-1 E5P-WW10-3	10/30/2019 10/30/2019	0.013	U	0.027	U	0.013 0.012	U	0.013 0.012	U	0.013 0.012	U	0.012	U	0.028	U	0.208 ND
E5P-W W 10-5	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	0.631
E5P-WS5-3	10/30/2019	0.033	U	0.000	U	0.033	U	0.033	U	0.033	U	0.012	U	0.001	U	0.031 ND
E5P-WS10-1	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	В	0.012	-	0.559
E5P-WS10-3	10/31/2019	0.013	U	0.024	U	0.013	U	0.013	U	0.013	U	0.012	U	0.012	U	ND

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Table 2

Wolfe Rd PCB Summay Table
Former Vallco Mall

10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-1221	<u>l</u>	Aroclor-123	32	Aroclor-124	12	Aroclor-12	18	Aroclor-125	54	Aroclor-120	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
SO-E1-1	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.025		0.0066	U	0.025
SO-E1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-E2-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.12		0.033	U	0.12
SO-E2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-N1-1	2/14/2020	0.034	U	0.067	U	0.034	U	0.034	U	0.034	U	0.28		0.034	U	0.28
SO-N1-3	2/14/2020	0.0048	U	0.0097	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-N2-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.014	J	0.033	U	0.014 J
SO-N2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NE1-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.26		0.01	U	0.26
SO-NE1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NE2-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.0089	J	0.01	U	0.0089 J
SO-NE2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW1-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.16		0.01	U	0.16
SO-NW1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW2-1	2/14/2020	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
SO-NW2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW3-1	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.012		0.0066	U	0.012
SO-NW3-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.038		0.0067	U	0.038
SO-S1-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.022		0.017	U	0.022
SO-S1-3	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	ND
SO-S2-1	2/14/2020	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	ND
SO-S2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-SW1-1	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.015		0.0048	U	0.015
SO-SW1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-SW2-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.27		0.017	U	0.27
SO-SW2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND

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Wolfe Rd PCB Summay Table Former Vallco Mall 10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	1	Aroclor-123	32	Aroclor-12	12	Aroclor-124	18	Aroclor-125	<u>54</u>	Aroclor-126	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
SO-SW3-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	ND
SO-SW3-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-SW4-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
SO-SW4-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-W1-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.21		0.0067	U	0.21
SO-W1-3	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.0066	U	0.0066	U	ND
SO-W2-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0071		0.0067	U	0.0071
SO-W2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-W3-1	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0059		0.0048	U	0.0059
SO-W3-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-W4-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0065	J	0.0067	U	0.0065 J
SO-W4-3	2/14/2020	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
ESLs Residential (n	ng/kg)															0.230
RSLs Residential (ng/kg)	4		0.200		0.170		0.230		0.230		0.240		0.240		0.230

Notes:

mg/kg = millograms per kilogram

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019. Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

U = compound was not detected at a concentration greater than the reporting limit shown

J

= compound was detected at a concentration less than the laboratory reporting limit, but greater than the method detection limit

B = analyte detected in the associated method blank and in the sample

-- = not applicable or not available

- [1] Bold results indicate the concentration is greater than the reporting limit; results in red font indicate exceedance of screening levels. Gray gradient indicates increased depth within soil boring
- [2] For samples with E5P identifier, sample nomenclature is as follows: "sample location direction from original boring sample depth". For samples with SO identifier, sample nomenclature is as follows: "sample type (SO=step-out boring) - relative direction-sample depth". All samples were collected by WSP excluding those qualified by note 3.
- [3] Samples collected by Geosphere consultants, inc. on September 6, 2016. Sample E5-1 was collected at a depth of 1 foot below ground surface (ft-bgs), sample E5-2 was collected at 5 ft-bgs, and sample E5-3 was collected at 10 ft-bgs.
- [4] The PCB-sum is the sum of any detected aroclor listed above method dection limit.
- [5] Sample analyzed out-side of hold time; however, the laboratory has advised the data should be respresentative as the new analytical method update has extended the hold time to 1 year but California has not yet adopted the hold time.

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Table 3
Sears Center Investigation Area - TPH Data

Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	TPH-d		TPH-mo	
Sample ID [1][2]	(mg/kg)		(mg/kg)	
HL-1	7.9	Y	7.8	
HL-1N5-9	1.2	Y	4.7	J
HL-2-10	0.39	J	5	U
HL-2-12	1	U	5	U
HL-2N5-9	0.4	J	5	U
HL-2W5-9	0.46	J	5	U
HL-3-10	1	U	5	U
HL-3-12	0.31	J	5	U
HL-3N5-9	0.35	J	5	U
HL-3W5-10	0.45	J	5	U
HL-4	990	Y	3200	
HL-4N5-9	1.1	Y	2.8	J
HL-5-9	1	U	5	U
HL-5-12	0.38	J	5	U
HL-5N5-9	1	U	5	U
HL-5E5-9	0.45	J	5	U
HL-6	330	Y	470	
HL-6N5-4	64	Y	290	
HL-6N5-9	200	Y	1100	
HL-6E5-9	1	U	5	U
OWS-1	92	Y	290	
OWS-O-12	0.99	U	5	U
OWS-O-16	0.38	J	1.7	J
OWS-O-20	0.33	J	5	U
OWS-1N5-12	0.44	J	5	U
OWS-1N5-16	1	U	5	U
OWS-1N5-20	0.94	J	4.1	J
OWS-1S5-12	1.5	Y	5.6	
OWS-1S5-16	1.7	Y	2.5	J
OWS-1S5-20	1.4	Y	3.3	J
OWS-2	36	Y	120	
OWS-2N5-12	0.33	J	5	U
OWS-2N5-16	0.39	J	5	U
OWS-2N5-20	0.51	J	5	U
OWS-2S5-12	0.49	J	5	U
OWS-2S5-16	0.89	J	2.2	J
OWS-2S5-20	0.77	J	5	U

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Sears Center Investigation Area - TPH Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	TPH-d		TPH-mo	0
Sample ID [1][2]	(mg/kg)		(mg/kg))
OWP-1	21	Y	90	
OWP-1N5-12	1	U	5	U
OWP-1N5-16	0.46	J	5	U
OWP-1N5-20	0.54	J	5	U
OWP-1S5-12	1	U	1.7	J
OWP-1S5-16	0.54	J	1.8	J
OWP-1S5-20	0.52	J	1.9	J
OWP-1E5-12	1	U	5	U
OWP-1E5-16	0.99	U	5	U
OWP-1E5-20	1	U	5	U
OWPI-W5-12	0.34	J	5	U
OWPI-W5-16	1	U	5	U
OWPI-W5-20	1200	Y	3600	
Residential ESL	260		12,000	
Residential RSL			-	

Notes:

mg/kg = milligram per kilogram

J = concentration detected between the method detection limit and the reporting limit and is considered an estimate

Y = sample exhibits chromatographic pattern which does not resemble standard

-- = not available

TPH = total petroleum hydrocarbons (TPH) as diesel (TPH-d) and as motor oil (TPH-mo)

- ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019 (revision 2). Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.
- RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.
 - [1] = Bold values indicate a detection above the reporting limit. Shaded values indicate an exceedance of the screening levels.
 - [2] = Sample nomenclature is sample area (HL = hydraulic lift; OWS = oil-water seperator; OWP = oil-water seperator pipe)- relative direction sample depth (in feet below ground surface). Bold sample ID's were collected in Feburary 2020. All other samples were collected in April 2020 in an effort to delineate TPH-d,mo concentrations in soil in the area.

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Sears Center Investigation Area - PCB Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	<u>16</u>	Aroclor-122	1	Aroclor-123	32	Aroclor-124	12	Aroclor-12	18	Aroclor-125	<u> 54</u>	Aroclor-126	<u>50</u>	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
HL-1	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.75		0.067	U	0.75
HL-1N5-9	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-1N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-1N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2-10	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2-15	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2N5-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2W5-9	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2W5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2W5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3-10	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-3-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3W5-10	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3W5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.64		0.067	U	0.64
HL-4N5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND

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Sears Center Investigation Area - PCB Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	16	Aroclor-122	1	Aroclor-12	32	Aroclor-124	12	Aroclor-124	18	Aroclor-125	54	Aroclor-120	50	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
HL-5E5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5E5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5E5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6	0.066	U	0.13	U	0.066	U	0.066	U	0.066	U	0.62		0.066	U	0.62
HL-6N5-4	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0018	J	0.0048	U	0.0018 J
OWS-O-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-O-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-O-20	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
OWS-1	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	1.9		0.067	U	1.9
OWS-1N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1N5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1N5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1S5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.01		0.0048	U	0.01
OWS-1S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	1.2		0.067	U	1.2
OWS-2N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2N5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2N5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2S5-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
OWS-2S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0066		0.0048	U	0.0066
OWS-2S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1	0.066	U	0.13	U	0.066	U	0.066	U	0.066	U	0.93		0.066	U	0.93
OWP-1N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1N5-16	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1N5-20	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND

WSP Page 2 of 3

Table 4

Sears Center Investigation Area - PCB Data Former Vallco Mall

10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	<u> 16</u>	Aroclor-122	1	Aroclor-123	32	Aroclor-124	12	Aroclor-12	18	Aroclor-125	<u>54</u>	Aroclor-120	<u>50</u>	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
OWP-1S5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-20	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.061		0.0048	U	0.061
ESLs Residential (mg/kg)															0.230
RS Ls Residential (mg/kg)	4		0.200		0.170		0.230		0.230		0.240		0.240		0.230

Notes:

mg/kg = millogram per kilogram

PCB = polychlorinated biphenyl

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019. Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

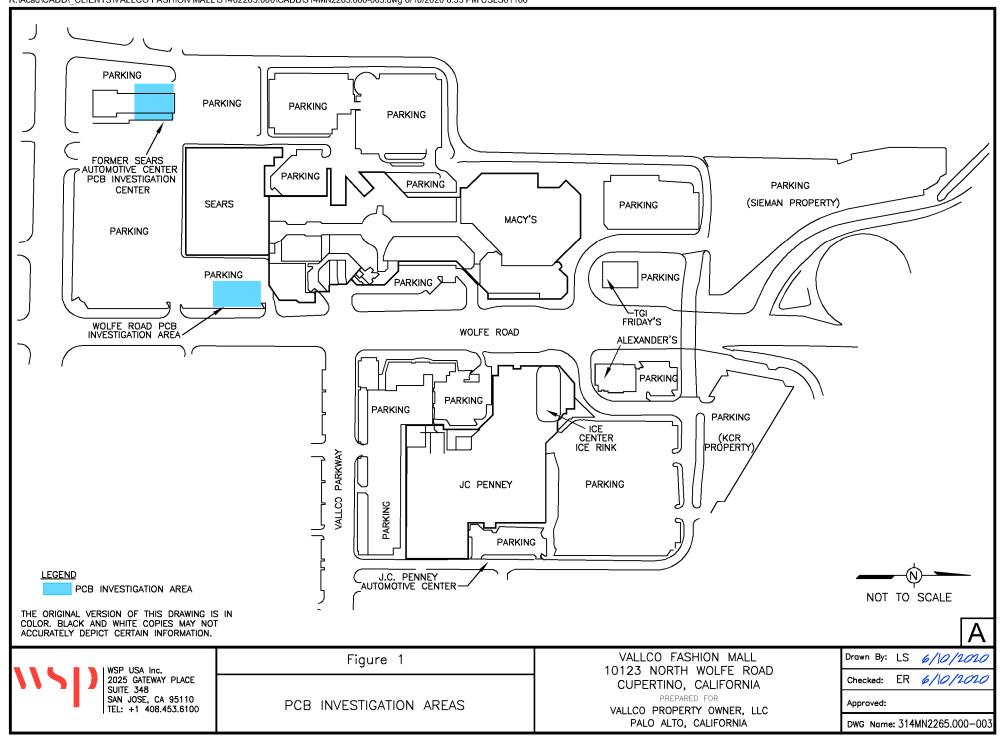
RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

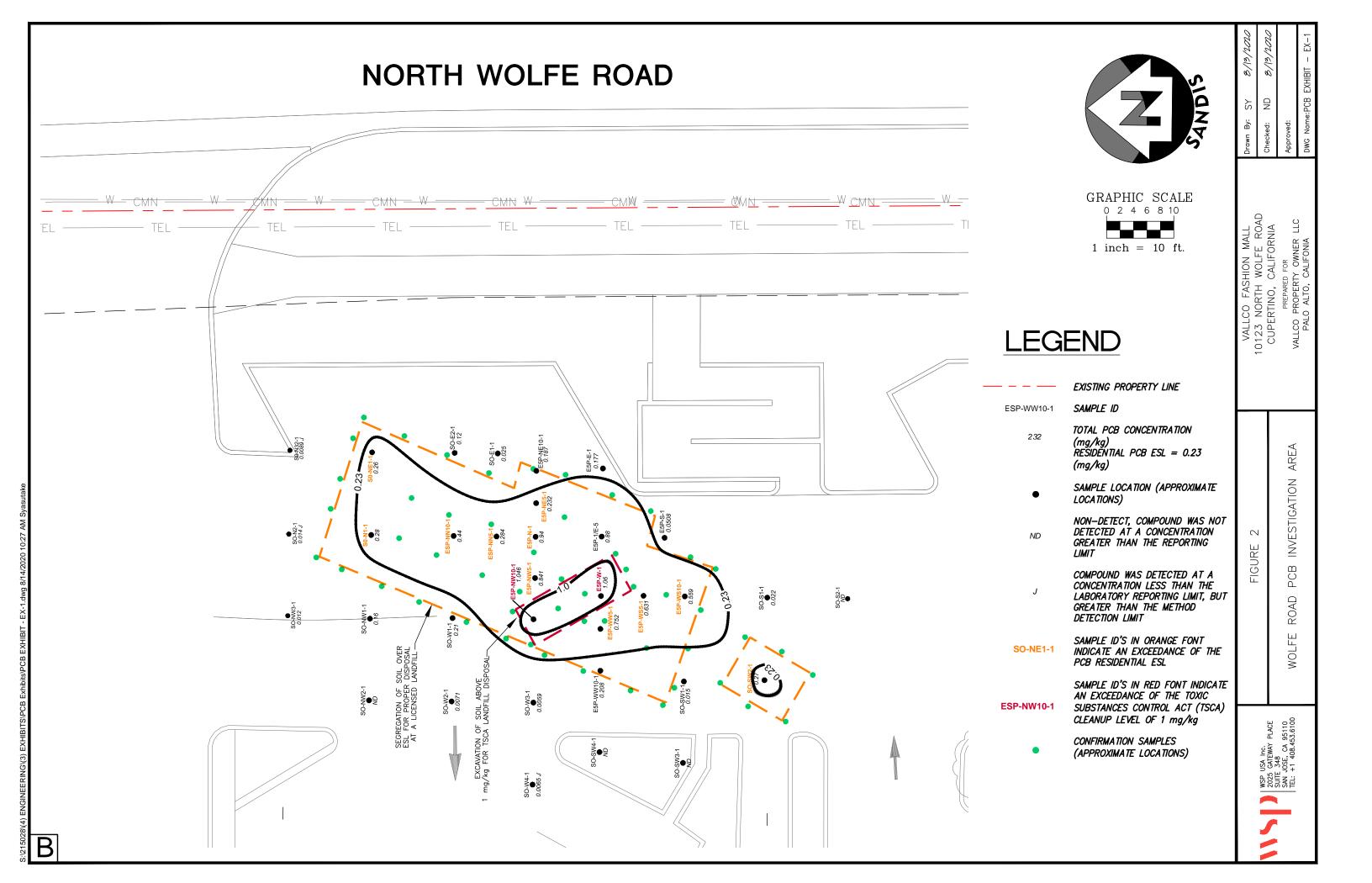
- U = compound was not detected at a concentration greater than the reporting limit shown
- J = compound was detected at a concentration less than the laboratory reporting limit, but greater than the method detection limit
- -- = not applicable or not available
- [1] Bold results indicate the concentration is greater than the reporting limit; results in red font indicate exceedance of screening levels. Gray gradient indicates increased depth within soil boring
- [2] Sample nomenclature is sample area (HL = hydraulic lift; OWS = oil-water seperator; OWP = oil-water seperator pipe)- relative direction sample depth (in feet below ground surface). Bold sample ID's were collected in February 2020. All other samples were collected in April 2020 in an effort to delineate PCB concentrations in soil in the area.
- [3] The PCB-sum is the sum of any detected aroclor listed above method dection limit.

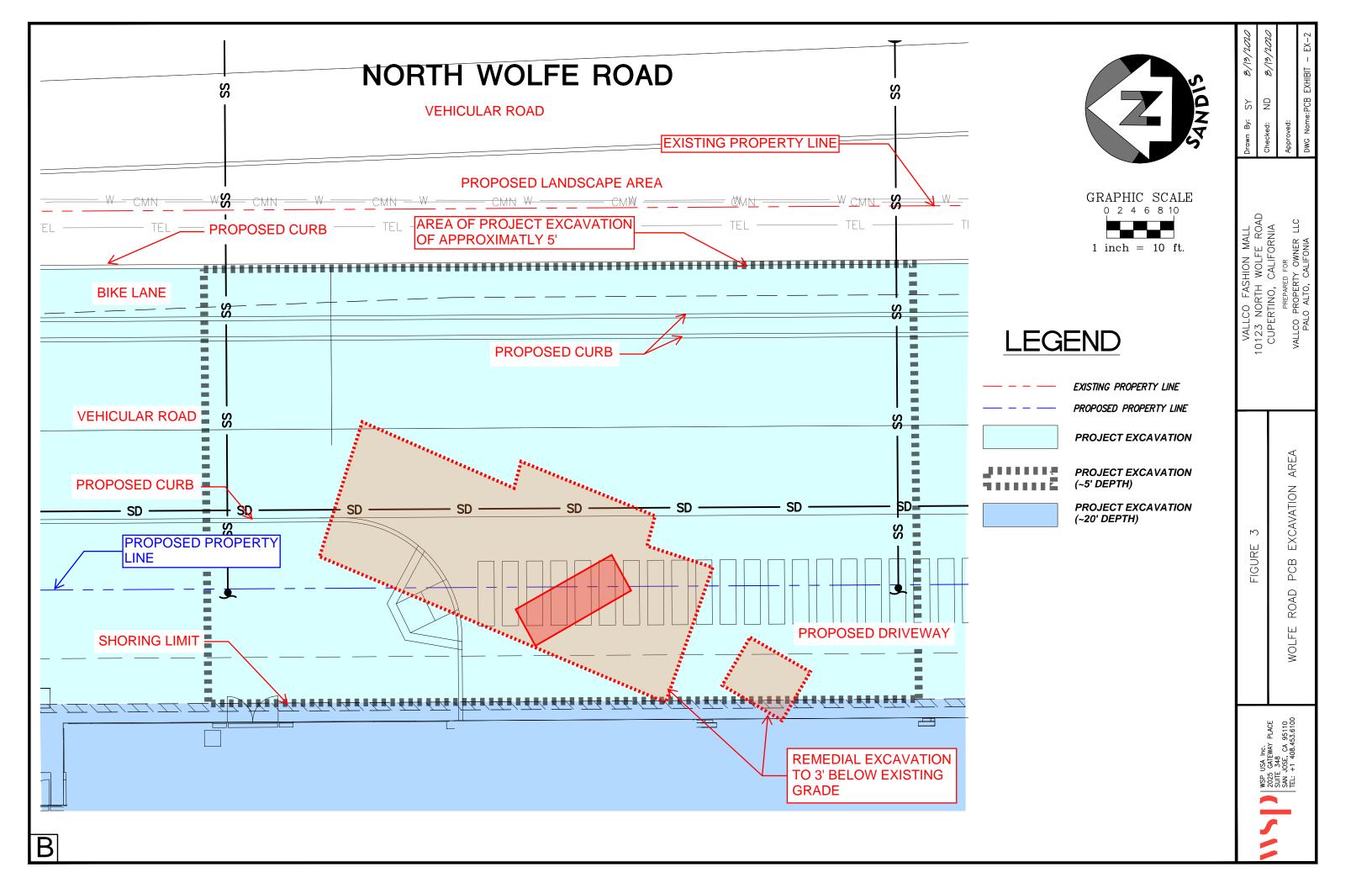
WSP Page 3 of 3



FIGURES







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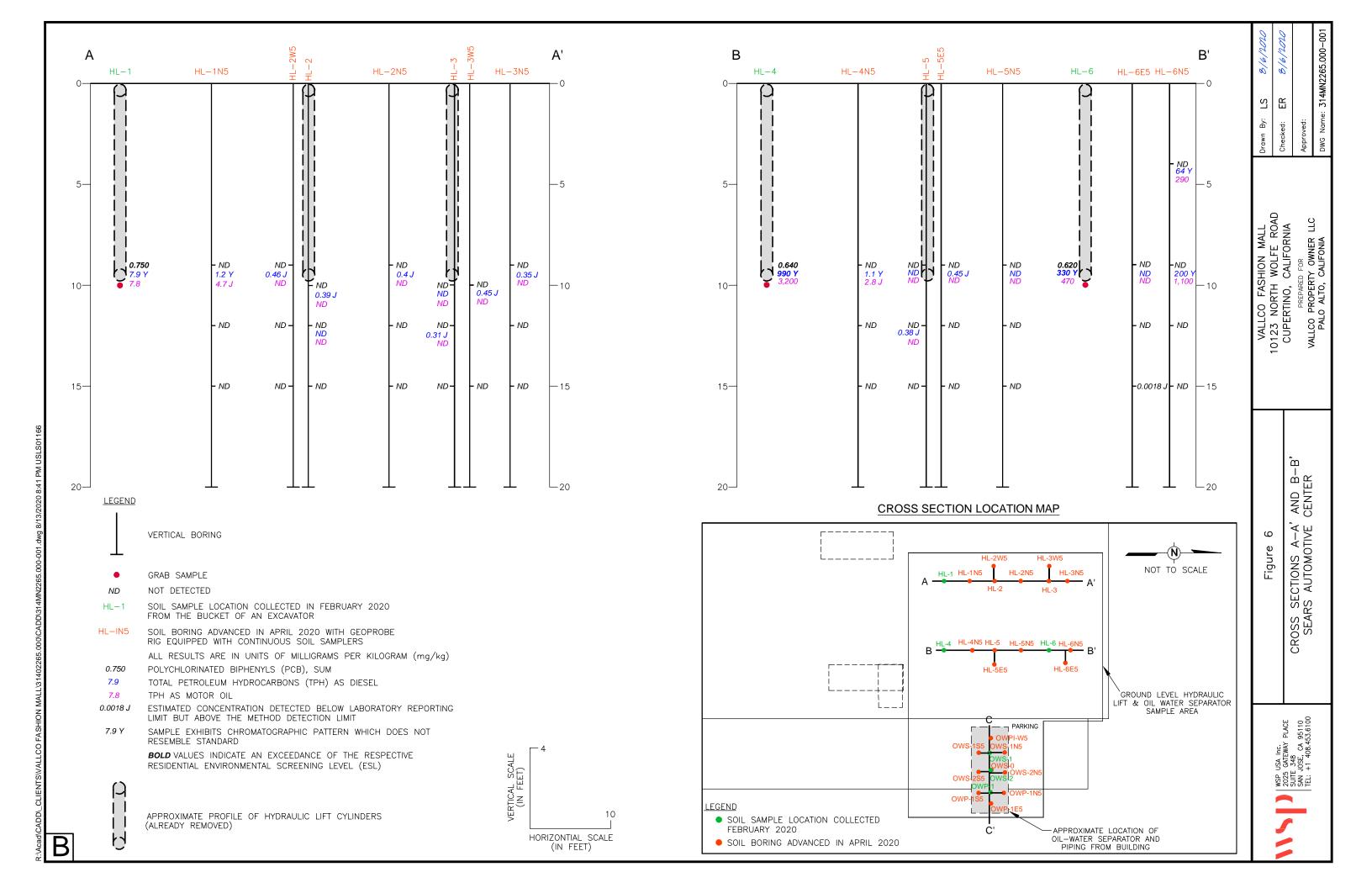
SAMPLING LOCATIONS -SEARS AUTOMOTIVE CENTER 10123 NORTH WOLFE ROAD CUPERTINO, CALIFORNIA PREPARED FOR

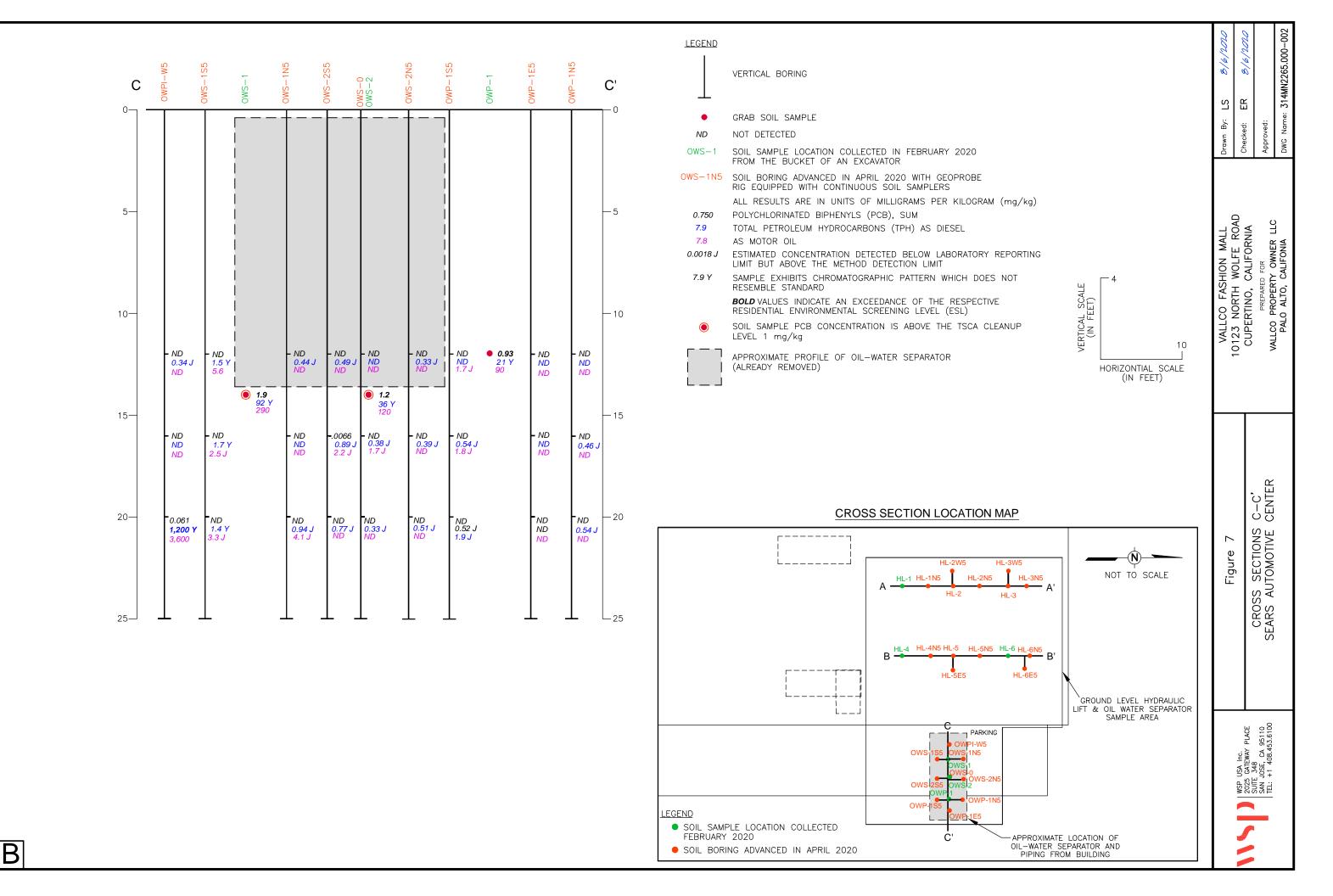
VALLCO PROPERTY OWNER LLC PALO ALTO, CALIFORNIA

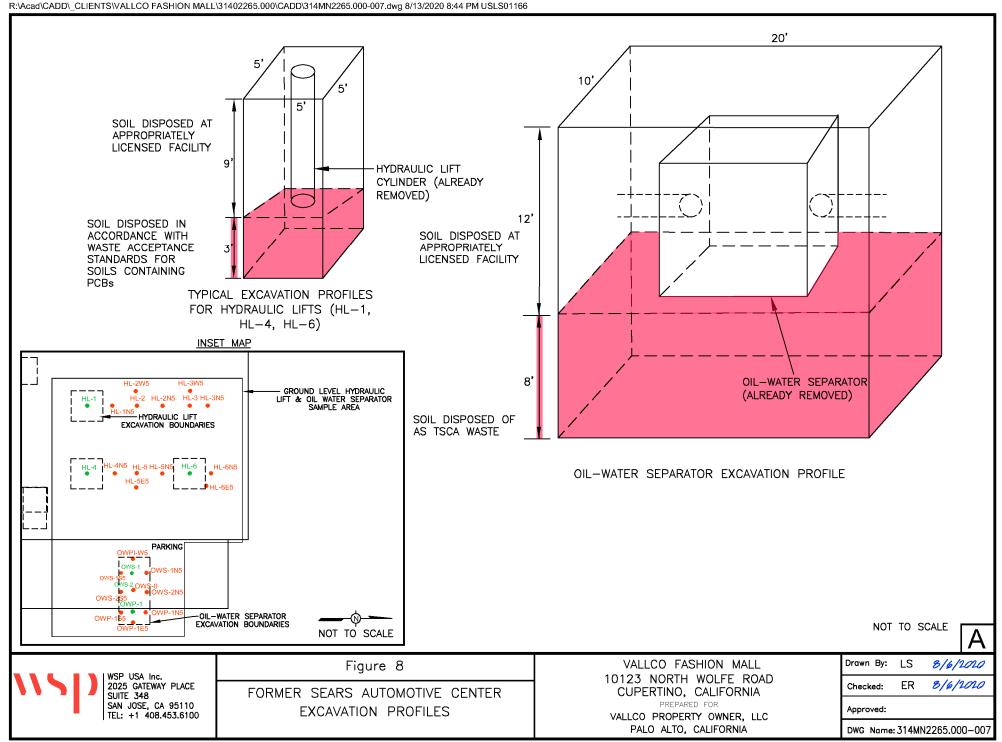
ER 6/10/2020 Checked:

Approved:

DWG Name: 314MN2265.000-005







APPENDIX

B HEALTH AND SAFETY PLAN

VPO

HEALTH AND SAFETY PLAN FORMER VALLCO MALL RE-DEVELOPMENT

DECEMBER 2020







HEALTH AND SAFETY PLAN

FORMER VALLCO MALL REDEVELOPMENT

10123 NORTH WOLFE ROAD CUPERTINO, CALIFORNIA

DECEMBER 2020

PREPARED FOR:

SHPDM, LLC 965 PAGE MILL ROAD PALO ALTO, CA 94304

PREPARED BY:

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1 INTRODUCTION

WSP USA Inc. (WSP) has prepared this Health and Safety Plan (HASP) on behalf of Vallco Property Owner, LLC (VPO) for the two select areas at the former Vallco Mall located at 10123 North Wolfe Road in Cupertino, California (the Site) (Figure 1). The Site Areas are located in the portion of the former Vallco Mall on the west side of Wolfe Road. The first area is in the eastern parking lot adjacent to Wolfe Road and the former Bay Club Fitness Center, herein referred to as the Wolfe Road area. The second area is within the former Sears Automotive Center is referred to as such below. These areas are within the planned redevelopment of the Site.

The Site is anticipated to be used for commercial and residential buildings, subsurface and surface parking areas, and landscaping. In September 2018, the City of Cupertino (the City) approved a project for the Site that will include 2,402 residential units, up to 485,912 square feet of retail/entertainment uses, and 1,981,447 square feet of office uses. Approximately 10,500 parking spaces will be provided in both above-and below ground structures.

Relevant to this investigation, planned development includes extensive subsurface parking that will require excavation of soil to a depth of 20 to 30 ft-below ground surface (bgs) across much of the Site

A single soil sample at the Site was found to contain polychlorinated biphenyls (PCBs) in the Wolfe Road area based on a subsurface investigation conducted by Geosphere in 2016. The sample from a boring at one foot below ground surface (sample E5-1) contained PCBs at 523 μ g/kg, above the residential screening level of 230 μ g/kg (RSL) as established by the California Department of Toxic Substances Control (DTSC). The Santa Clara County Fire Department (SCCFD) required implementation of an approved closure plan for the former Sears Automotive Center as part of the redevelopment of the Site. Following demolition of the former Sears Automotive Center and removal of an oil-water separator and associated piping, three samples collected approximately 12 to 14 ft-bgs immediately beneath the separator and piping. Several of these samples yielded results that exceed the PCB RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs. Two samples collected at a depth of nine ft-bgs, immediately below each of two (HL-4 and HL-6) former hydraulic lift cylinders, exceeded the RSL for diesel total petroleum hydrocarbons (TPH-d).

Based on information available in the California Geotracker database, the depth to groundwater beneath the Site is approximately 80 to 90 feet below ground surface (bgs); therefore, groundwater will not be encountered during the Site redevelopment activities.

The Excavation Management Plan describes the general procedures to be followed during the soil removal of soils contaminated by PCBs and a small area with TPH-d in the Sears Area. The Plan will serve as a guide for measures to be conducted by the selected contractor and WSP during soil excavation in accordance with applicable environmental regulations. WSP will be responsible for oversight of the contractor in the implementation of the Plan.

During the development of the HASP, consideration was given to current safety standards as defined by the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety and Health (NIOSH) and the California Division of Occupational Safety and Health (Cal/OSHA). The HASP conforms to the requirements of current applicable health and safety laws and regulations, including OSHA 29 CFR 1910.120 et seq. and 8 CCR 5192, Hazardous Waste Operations and Emergency Response.

A copy of this HASP will be onsite at all times during remediation activities in a location where it is accessible to all WSP personnel. The Contractor(s) awarded this remedial work will be required to prepare its own HASP for use by its employees and subcontractors. DTSC will review and comment on all contractor's HASPs before field activities commence.

1.1 SITE DESCRIPTION

The Site is located at 10123 North Wolfe Road in Cupertino, California (Figure 1). The Site is owned by VPO and is approximately 50 acres that is occupied by the mostly vacant Vallco Shopping Mall (the Mall). The former shopping Mall with 1,115,000 square feet of floor space was constructed between 1974 and 1979 and renovated in 1988 and 2006. The Mall had approximately 110 tenant spaces and was anchored by Macy's, Sears, and J.C. Penney.

The former Sears Automotive Center was constructed at the property in 1970 on the southwest side of the Mall property. Four gasoline and two motor oil underground storage tanks (USTs) were removed from the Sears Automotive Center site in 1985. Dispenser islands and product lines were removed from the site in 1994. Seven borings were installed and sampling was conducted in soil and groundwater in 1999 to assess hydrocarbon concentrations at the site. Concentrations of ethylbenzene, total xylenes, and lead were reported below regulatory action levels and the site was granted case closure on December 6, 1999, with the Santa Clara Valley Water District (SCVWD) concluding that any residual contamination in the subsurface relating to the former USTs is minimal.

1.2 CHEMICALS OF POTENTIAL CONCERN

Chemicals of potential concern detected in soil samples collected at the Site Areas are PCBs and TPH-d. PCBs are the chemicals detected most frequently and in the highest concentrations in soil samples. TPH-d was only detected at low levels in two soil samples

The basic elements of the soil removal action include installation of shoring, soil excavation, dewatering, post-excavation soil sampling, soil disposal, and preparation of the excavation bottom for subsequent structure construction, as described below:

- The upper approximately three (3) feet of soil and materials will be excavated in the Wolfe Road. The upper 20 feet of soil will be excavated in the Sears Area.
- Post-excavation soil sampling of the base of the excavation will be performed at the completion of the excavation activities. Due to the presence of the shoring, soil samples will not be collected from the excavation sidewalls. The soil sample data will be used to determine additional excavation requirements.
- Excavated soil will be transported offsite for disposal at appropriately permitted disposal facilities based on the concentrations of PCBs in the soil.

1.3 OBJECTIVE

The purpose of this HASP is to provide a detailed description of the hazards and risks associated with the proposed removal activities and the health and safety practices and procedures to be employed at the Site. In addition, this HASP also describes the health effects and standards for known constituents at the Site.

This HASP will only provide health and safety procedures for WSP employees for the tasks explained in detail herein. Any changes to the known or potential risks, monitoring procedures, or protection levels that are necessary to ensure the health and safety of WSP employees will be documented in an addendum to this HASP. Remediation contractors will be required to develop their own health and safety plans before conducting work on the site. This plan provides information on the objectives, project organization and specific procedures that will be required for all activities conducted during the remediation and redevelopment activities. The following topics are addressed in the proceeding sections:

- key site personnel
- planned site activities
- risk evaluation
- personal protective equipment and uses
- monitoring and sampling techniques
- site control measures
- emergency response procedures
- standard operating procedures at the site
- medical surveillance and training requirements

2 KEY HEALTH AND SAFETY PERSONNEL

WSP, on behalf of VPO, will oversee the excavation, sampling and soil removal activities at the two Site Areas at the former Vallco Mall. Other personnel potentially onsite during the removal activities will include representatives from Sand Hill Property Company, the City of Cupertino, (City), the City's consultant, Baseline, and VPO's Contractor, Devcon Construction Inc. (Devcon). WSP will not be responsible for the direction of, or the health and safety of any non-WSP personnel onsite. Any WSP subcontractors will be responsible for developing their own HASP that meets or exceeds the requirements contained herein.

Any contractor working in the excavation would be required to be 40-hour OSHA HAZWOPER-trained and use appropriate engineering controls and PPE.

2.1 KEY PERSONNEL

2.1.1 PROJECT DIRECTOR

Elena Robertson, Rick Freudenberger

All WSP activities will be carried out under the overall direction of the project director. The project director's responsibilities include, but are not limited to, overall project coordination and implementation and review of all project reports. Ms. Robertson has the authority to commit the firm's resources to accomplish the project objectives. She has ultimate responsibility for WSP and the excavation contractor's implementation of the Excavation Management Plan.

The Project Director will also be a designated competent person onsite while excavation activities are progressing.

2.1.2 SITE SAFETY OFFICER AND FIELD SITE SAFETY OFFICER

Elena Robertson, Bailey Sam

Ms. Robertson will be the designated Site Safety Officer (SSO) for the soil excavation project. In the absence of the SSO during field activities, a member of the onsite project team (Bailey Sam) will be designated as the Field Site Safety Officer (FSSO). The SSO or FSSO will be responsible for observing field activities for compliance with this HASP and maintaining the onsite documentation of WSP employees' medical clearances and emergency medical treatment programs. Additionally, the SSO or FSSO will assist in onsite emergencies, if any and modify the health and safety protocols or terminate field work when unsafe work conditions exist. The SSO or FSSO will familiarize personnel with health and safety protocols and observe that field personnel wear appropriate personal protective equipment. Data from direct reading instruments, hazards evaluation, and any occurrence of site injury or illness will be recorded by the SSO or FSSO. Decontamination procedures will also be monitored by the SSO or FSSO.

If unsafe conditions are encountered, if illness or injury occurs, or if the level of protection needs to be changed, the SSO or FSSO will consult in a timely manner with the Project Director, and/or other authorized individuals.

3 PLANNED SITE ACTIVITIES

WSP will conduct oversight of the excavation activities at the two Site Areas within the former Vallco Mall Site to ensure that contaminated soil is properly transported to the appropriate disposal facility. The basic elements of the removal actions covered in this HASP include soil excavation and disposal, and post-excavation soil sampling. WSP will not be responsible for the direction of, or the health and safety of any non-WSP personnel onsite.

3.1 EXCAVATION AND CONSTRUCTION OVERSIGHT

Construction of the structure will require excavation within the limits of the property to a depth of approximately 3 feet bgs in the Wolfe Road Area and 20 feet bgs in the Sears Area. The materials likely to be removed include the following:

- the asphalt and soil cover,
- contaminated soil and debris,

3.1.1 CONSTRUCTION OVERSIGHT AND SCREENING

WSP will conduct oversight and screening of the excavation to ensure that contaminated soil is properly transported to the appropriate disposal facility. These duties will include continuously monitoring the breathing space of WSP personnel within and surrounding the excavation and calibrating and using a photoionization detector (PID).

3.1.2 SOIL STOCKPILING, SAMPLING AND DISPOSAL

Stockpiles of excavated soil may be created and designated for disposal. WSP will coordinate with the removal contractor to temporarily stockpile soil in designated areas.

Samples will be collected in accordance with WSP Standard Operating Procedures (SOPs). For the purposes of this excavation and disposal process, it will be assumed that all material equals or exceeds 50 milligrams per kilogram (mg/kg) concentration of PCBs. Based on sample results, the soil will be disposed of at one of the following appropriately permitted land disposal facilities:

- RCRA Subtitle D landfill (cap materials and miscellaneous non-hazardous debris only)
- TSCA-approved Chemical Waste Landfill permitted to accept up to over 50 mg/kg of total PCBs
- RCRA -approved Chemical Waste facility permitted to accept up to 50 mg/kg of total PCBs with

The removal contractor will act as the Transportation and Disposal Coordinator (TDC). The TDC shall serve as the single point of contact responsible for proper transportation, disposal, and regulatory matters associated with waste management. Characterization methods are described in the RDIP Sampling and Analysis Plan (SAP).

3.1.3 EXCAVATION SHORING AND WORKING MAT INSTALLATION

Shoring may be installed along the perimeter of the proposed excavation in the Sears Areato act as a structural soil retaining system during soil removal.

After excavation of the soil to the target depth, post excavation sampling will be completed as described in Section 3.3 below. The excavation contractor will provide a California licensed professional engineer to oversee and approve any shoring operations.

3.2 DEWATERING OPERATIONS

3.2.1 DEWATERING AND SAMPLE COLLECTION

In the unlikely event that storm water accumulates in excavations, it will be removed per the Site's Storm Water Pollution and Prevention Plan (SWPPP)

3.3 POST-EXCAVATION SAMPLING

As excavation of soil is completed to the target depth in each portion of the Site, soil samples will be collected with a trowel from the floor of the excavation to document chemical concentrations in accessible in-situ soil. The soil sample data will be used to trigger additional excavation requirements. Soil samples will be collected as described in the Sampling and Analysis Plan (SAP).

Depending on how safely the sampling location can be accessed, soil samples from the bottom of the excavation will be collected in two possible ways. If WSP personnel can safely access the bottom of the excavation, a small trowel will be used to scoop up enough soil to fill the sample containers. If the sample location is inaccessible, the sample will be collected by filling containers with soil brought to the surface using the excavator bucket. Details of the sampling procedure are included in the SAP.

4 HAZARD ASSESSMENT

Sections 4.1 through 4.2 below list the physical and chemical hazards associated with each task that WSP will be responsible for performing onsite. Detailed information about each type of physical and chemical hazard is provided in Sections 4.3 and 4.4.

4.1 TASK 1: EXCAVATION OVERSIGHT

WSP personnel responsible for excavation oversight could be presented with the following physical and chemical hazards. Further details are provided in proceeding sections for each of the listed hazards.

Physical Hazards:

- Slipping, tripping, and falling hazards
- Hazards presented by working with and near heavy equipment
- Working within and near excavations
- Hazards presented by hand tools (e.g., steam cleaning spray wands)
- Overhead hazards
- Heat stress
- Cold exposure
- Noise

Chemical Hazards:

- Direct contact with COCs in soil, soil gas or storm water
- Inhalation of dusts
- Inhalation of organic chemical vapors

4.2 TASK 2: POST-EXCAVATION SAMPLING

The following list presents the physical and chemical hazards inherent to the post-excavation sampling process:

Physical Hazards:

- Slipping, tripping, and falling hazards
- Hazards presented by working with and near heavy equipment
- Working within and near excavations
- Overhead hazards
- Noise

Chemical Hazards:

- Direct contact with COCs in soil and soil gas Inhalation of dusts
- Inhalation of organic chemical vapors

4.3 DETAILED DESCRIPTIONS OF PHYSICAL HAZARDS

4.3.1 SLIPPING, TRIPPING, AND FALLING HAZARDS

Uneven, wet, or slick surfaces present an increased risk of injury. The key to preventing injuries due to these hazards is to recognize and correct situations where insecure footing or trip hazards exist.

4.3.2 HEAVY EQUIPMENT

Field personnel should be cognizant of potential physical hazards associated with use of heavy equipment, train traffic, and electrical equipment during field operations. Working with, or being near, heavy equipment such as excavators, cranes, dozers, trucks, and backhoes presents a risk of injury due to being struck or crushed by moving machine parts, and excessive noise. Heavy equipment shall contain the original manufacturer's machine guarding and safety apparatus such as shrouds, guards, backup warnings, emergency kill switches, mufflers, and spark arresters. Site workers must be aware of the location of working heavy equipment. Machine operators must be made aware of the presence of all workers nearby before beginning operation. Other appropriate precautions include the following:

- Use of ANSI-approved hardhats, safety glasses or goggles, and steel-toe boots will be required at all times onsite.
- Loose clothing that may catch in moving parts will not be worn.
- Hearing protection will be worn if a preliminary noise survey or past experience indicates that maximum noise levels will exceed 85 decibels at any time during site operations.
- Use of brightly colored clothing, such as orange vests with applied reflective tape.

4.3.3 OVERHEAD HAZARDS

Overhead hazards will be encountered when working near heavy equipment. Working near heavy equipment such as cranes, excavators, dozers, and backhoes presents a risk of injury due to being struck by falling objects or moving pieces of machinery. Site workers must be aware at all times of the location of working heavy equipment. Machine operators must be made aware of the presence of all workers nearby before beginning operation.

4.3.4 EXCAVATION

Although underground utilities are not expected to be present within the Site, as a precaution prior to initiating excavation, a qualified underground utility locator will be retained to identify the locations of underground utilities at the Site. Underground Service Alert will be notified at least 48 hours prior to initiating excavation.

Working within or near unsupported excavations presents hazards of engulfment within the excavation due to the collapse of sidewalls and falling into the excavation. No WSP personnel will be allowed to enter in an excavation greater than 4 feet deep unless the excavation sidewalls are properly stabilized with shoring or sloping. Excavations will be sloped, shored, and marked in accordance with OSHA regulations. Health and safety requirements for excavations that can be classified as a confined space must conform to applicable OSHA regulations on confined space operations. No attempt will be made by WSP personnel to enter any type of permit-required confined space. The Project Director will act as a competent person and will evaluate onsite hazards associated with the excavation, shoring and sloped side wall.

4.3.5 CONFINED SPACE ENTRY

Confined spaces and confined space entry are not anticipated as part of this project. However, if confined space conditions are identified, then a Confined Space Entry Plan will be prepared for the work activities in accordance with applicable laws and regulations. No WSP employee may conduct permit required confined space entries. No attempt will be made by WSP personnel to enter any type of confined space.

4.3.6 HEAT STRESS

Part of the soil excavation work is anticipated to be performed during summer months. Average high temperatures during this time of year are typically mild (approximately 60°F to 75°F). If unusual temperature conditions occur, heat stress or, less likely, heat stroke could occur. Preventative measures should include the following:

- Drinking of non-alcoholic fluids will be encouraged but will be done away from work areas and outside of any designated exclusion zones
- Workers will be encouraged to take rest periods in the shade when heat and/or humidity is high
- Suitable acclimation periods will be provided for workers to gradually establish their resistance to heat stress

Personnel exhibiting symptoms of heat stress (nausea, cramps, dizziness, clammy skin) will be removed from the work area, cooled, fluids will be administered, and the personnel will be observed. Personnel exhibiting symptoms of heat stroke (hot dry skin, mental confusion, unconsciousness) will be immediately cooled and taken to the hospital.

4.3.7 NOISE

Regulations require that hearing protection be used when noise levels exceed 85 decibels (dBA) averaged over an 8-hour work day. Sources of noise that may exceed 85 dBA during the work at the Site include the following:

- Working around internal combustion engines (e.g., steam wand) and
- Working near heavy equipment.

Hearing protection will be worn when any activities are performed that produce noise loud enough to make conversation difficult without raising the voice at a distance of 3 feet. Foam insert ear plugs or protective ear muffs capable of providing a 25-dBA noise reduction rating is considered minimum protection.

4.3.8 FLOODING

Because the Storm Water Pollution Prevention Plan (SWPPP) will prescribe that all storm water be contained on site, there is some potential for these waters to collect in the deeper parts of the site, possibly resulting in standing water. It is not anticipated that WSP employees will enter the deeper parts of the site except to sample; however, sampling personnel should remain aware of the volume of stored water, if any, and weather conditions.

4.4 DETAILED DESCRIPTIONS OF CHEMICAL HAZARDS

Various subsurface investigations have been performed by different consultants at the Site since the early 1980s. Soil samples collected from the Site Areas included detections of low levels of PCBs, and TPH-d.

4.4.1 CHEMICALS DETECTED IN SOIL

Chemicals detected in soil samples collected from the ground surface at the Site to the proposed excavation bottom include TPH-d and PCBs.

PCBs detected at the Site appear to consist primarily of the Aroclor 1254 compound.

4.4.2 POTENTIAL EXPOSURE ROUTES AND CONTROLS

Field personnel could potentially be exposed to these chemicals at the Site by direct contact with soil through inhalation of dusts, or through inhalation of organic chemical vapors. Field personnel will minimize potential chemical hazards by (1) avoiding direct contact with soil, (2) performing air monitoring to avoid inhalation exposures, and (3) avoiding generation of

and ingestion or inhalation of dust. PCBs are generally encountered at relatively low levels in soil samples collected from the Site, are non-volatile and are likely to be associated with soil particles. Therefore, reducing the generation of dust and controlling fugitive dust during the earthmoving activities will be particularly important to reduce the potential exposure of onsite workers to PCBs.

Safe work practices, including restriction of eating, drinking, or smoking to certain times and places will be enforced during excavation activities at the Site. No smoking will be allowed at the Site.

5 PROTECTIVE ACTIONS

Based on the chemical and physical hazards assessed in Section 4, engineering controls and/or personal protective equipment (PPE) will be available to WSP field personnel to ensure that all predictable hazards are controlled below the most stringent health and safety limits (e.g., PELs, TLVs, and/or RELs). Engineering controls will be implemented as necessary by the project director and maintained onsite or readily available. Constant monitoring will be conducted to ensure that engineering controls continue to reduce potential exposure to chemical and physical hazards to WSP personnel. Should engineering controls prove unable to reduce potential chemical and physical hazards below acceptable levels, PPE will be assigned for each field task. The selection and use of PPE will be according to the hazard assessments described in Section 4, hazards that become apparent in the field, and the requirements of the WSP PPE Program.

The WSP PPE Program was prepared to provide information regarding personnel training; hazard assessments; PPE selection; PPE use, effectiveness, maintenance, replacement, and storage; PPE limitations; and PPE disposal. The program complies with the requirements of the OSHA standard (29 CFR 1910 Subpart I) and the California Code of Regulations (8 CCR 5192(g). At a minimum, WSP employees will don Level D Modified protection for ALL field activities at the Site. Level D Modified PPE to be used will include:

- ANSI-approved hard hat
- Chemical resistant nitrile gloves (for sampling and screening activities)
- Work (i.e., leather palm) gloves (for maneuvering materials or equipment around the site)
- Safety toed boots
- Reflective safety vest
- ANSI-approved safety glasses (for excavation and construction activities)
- Disposable hearing protection (for high-noise activities)

The level of protection employed may be upgraded, as deemed necessary, based on air quality monitoring and any other conditions identified during the work. Note that WSP does not permit employees to work in conditions requiring Level B protection. If air monitoring indicates the need to upgrade to Level B protection (i.e. if vinyl chloride is detected), WSP personnel will cease operations and the oversight work will be conducted by a subcontractor with the appropriate personal protection.

If non-routine field activities are initiated, the level of protection will be specified in an activity-specific health and safety addenda.

NO CHANGES TO THE SPECIFIED LEVEL OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SITE HEALTH AND SAFETY OFFICER AND THE PROJECT DIRECTOR.

5.1 TASK 1: EXCAVATION OVERSIGHT

When WSP personnel are conducting excavation oversight, all of the Level D PPE listed at the beginning of Section 5 should be donned.

Due to the nature of the excavation work and potential for chemical exposure routes, each of the monitoring procedures described in detail in Section 5.3 will be conducted to include potential organic vapor.

5.2 TASK 2: POST-EXCAVATION SAMPLING

WSP personnel will conduct post-excavation sampling while donning Level D PPE including: hard hat, nitrile gloves, safety toed boots, work clothes, safety vest, safety glasses and hearing protection.

Each of the monitoring procedures described in Section 5.3 should be considered while conducting post-excavation sampling.

5.3 DETAILED INFORMATION REGARDING MONITORING PROCEDURES

Monitoring of organic vapors will be conducted using a PID with the capability to detect concentrations in parts per billion (ppb). All readings will be recorded in field logs. All direct-reading instruments will be calibrated daily according to the manufacturer's specifications.

5.3.1 ORGANIC VAPORS

Concentrations of organic vapor will be monitored in the breathing space of WSP personnel using a 10.6 electron-volt PID with the capability to detect concentrations in parts per billion (ppb). Real-time monitoring for organic vapors in the breathing zone of onsite workers will be conducted continuously during work that will likely generate airborne vapors. The monitoring will be conducted by the SSO or FSSO. The following tasks require organic vapor monitoring as described in the Dust and Vapor Control Plan:

- Task 1: Excavation Oversight
- Task 2: Post-Excavation Sampling

5.3.2 AIRBORNE PARTICULATES

Dust control measures are addressed in the Site's Dust and Vapor Control Plan.

5.3.3 NOISE

Field personnel will initially monitor noise levels associated with equipment and machinery with a direct reading portable noise level monitor unless based on experience, it is known that hearing protection is not necessary. The following tasks might require noise level monitoring:

- Task 1: Excavation Oversight
- Task 2: Post-Excavation Sampling

Readings will be taken within the normal worker hearing zone. If maximum noise levels exceed 85 decibels at any time during site operations, hearing protection will be worn.

6 SITE CONTROLS AND DECONTAMINATION

6.1 SITE SECURITY

During any planned soil excavation, a fence around the entire perimeter of excavation will be locked overnight and anytime project personnel are not at the Site. The fence will be posted with placards or markings to restrict entrance to only authorized personnel. In addition, warning signs will be posted on the fence to provide notification regarding the presence of chemicals regulated under California's Proposition 65. The following wording will be included on the warning signs:

WARNING

This area contains chemicals known to the State of California to cause cancer and reproductive harm.

Any stockpiles of excavated soil will be located in a secured area. The stockpiles will be placed on plastic and will be securely covered with plastic.

6.2 SITE CONTROL

The Site will be controlled to reduce the possibility of (1) unauthorized entry and unintended contact with contaminants and (2) removal of contaminants by personnel or equipment leaving the Site. The possibility of exposure to or offsite transportation of COCs will be reduced by:

- Excluding unauthorized personnel by establishing site security procedures;
- Establishing work zones within the Site;
- Establishing access control points to regulate access to work zones;
- Minimizing the number of personnel and equipment onsite, consistent with effective and efficient operations;
- Sampling in a manner to reduce the exposure of personnel, contamination of equipment, and to reduce the potential for airborne and surface water runoff dispersion; and
- Implementing decontamination procedures.

Work zones will be established onsite as follows:

- Exclusion/Work Zone: All excavation areas and a buffer area of at least 20 feet surrounding the excavation will be considered an exclusion/work zone where all employees will don appropriate PPE and atmospheric monitoring will be conducted to determine worker exposure. The area will be separated from the rest of the site by caution tape, temporary fencing, or other demarcations to ensure that all site personnel are aware of areas requiring safety training and PPE. As the work progresses, the exclusion/work zone will be moved and marked as appropriate.
- Contamination Reduction Zone: All decontamination procedures will be conducted within the contamination reduction zone (CRZ), which will be a designated area attached to the exclusion/work zone that leads to a support zone. As with the exclusion/work zone, the CRZ will be moved to ensure that the movement of drums, containers, and contaminated equipment is minimized and that no contamination enters the support zone.
- Support Zone: All areas of the site not demarcated as an exclusion/work zone or a CRZ will be considered a support
 zone. The support zones change as work progresses. Barriers and/or signs will demarcate the edges of the
 exclusion/work zones will be clearly marked.

Access to the Site will be through walk-through or drive-through gates. All personnel and vehicles leaving the Site will pass through the gates. Cars will be parked in a designated parking area outside the excavation fence during the day. Project personnel and visitors must report to the Field Office trailer and log-in prior to entering any other portion of the Site. Project personnel will don the necessary PPE before entering the excavation area.

6.3 DECONTAMINATION PROCEDURES

Contact by Site workers with COCs can be minimized through good work practices. At the completion of the work task, all personnel will enter the decontamination area through the contaminant reduction zone for general (Level D Modified) decontamination. At the conclusion of each day or work shift, disposable gloves will be removed and disposed of in onsite containers.

7 EMERGENCY RESPONSE PLAN

Hazard recognition is an essential part of the Emergency Response Plan. Initiation of the contingency plan relies on the employee's ability to recognize an emergency or potential for an emergency. The following is a list of events that will immediately initiate emergency response procedures:

- Explosion
- Fire
- Release of organic vapors or particulates above the action levels
- Personal injury
- Failure or expected failure of run-on/run-off control measures
- Natural occurrences (i.e., lightning, tornado, high winds, etc.)
- Spills of hazardous materials

7.1 EMERGENCY COMMUNICATIONS

Emergency communication systems will be developed by the onsite employers and will be internally consistent. The onsite communication system will include the following four methods.

7.1.1 VERBAL COMMUNICATION

Verbal communication will be the primary method of emergency communication between onsite personnel, distance and noise levels permitting.

7.1.2 HAND SIGNALS

- Hands clasped on wrists will indicate personnel to stop work and exit Exclusion Zone.
- Hands on throat indicates inability to breathe.
- Hands on top of head will indicate that the personnel is in need of assistance
- Thumbs up indicates OK.
- Thumbs down indicates not OK.

7.1.3 AIR HORN/VEHICLE HORN

As appropriate, air horns will be carried by personnel entering any established Exclusion Zone and stationed in the Support Zone. If air horns fail or are lost, vehicle horns may be used as a substitute. Air horns will be the primary alarm system and used in the following manner:

One long blast: Evacuate Exclusion Zone by nearest exit. Proceed to assembly area located at the decontamination station.

Two short blasts: Localized problem. Avoid area, move to Decontamination Reduction Zone for further instruction.

Four short blasts: All clear, resume work.

7.1.4 TELEPHONES

Telephones are used for routine communication and to notify offsite agencies of incidents and request assistance. Emergency telephone numbers are identified below in Section 7.3.

EMERGENCY PROCEDURES 7.2

When an event recognized as an emergency occurs, the alarm system (see Section 7.1.3 above) will be used to notify personnel. As soon as the alarm system is activated, the SSO or FSSO will be notified. If the SSO or FSSO is not available, the task manager or appropriate field personnel will assume these responsibilities.

The SSO or FSSO will take into account the following information:

- Nature of emergency
- Wind direction
- Location of personnel
- Monitoring results
- Emergency equipment available
- Offsite population

Based on this information, the SSO or FSSO will direct appropriate emergency action and agency notification. After the emergency has been controlled and the Site is considered safe to re-enter, the SSO or FSSO will direct remedial action to restore the Site to full operating condition.

The SSO or FSSO will investigate the nature and cause of the incident so that work procedures can be modified to minimize the likelihood of the incident's recurrence. All incidents must be reported in a timely, appropriate manner. An incident is any unplanned event resulting in injury, damage, loss of assets, adverse publicity, or which requires notification of a regulatory agency, regardless of severity. All personnel should report an incident to the SSO or FSSO. The SSO or FSSO will report to the project manager. Each incident will be investigated, and a written report should be received by the project manager and the regional safety supervisor within five days of the incident.

If work zones are established, the Exclusion Zone will have several emergency exits which will allow safe egress in multiple directions from any point onsite. The exit selection will be based on the emergency location, type of emergency, and wind direction. Upon hearing the evacuation signal or otherwise being notified of an evacuation, employees will immediately travel to the assembly area located at the decontamination station.

Employees will follow a route that avoids locations downwind from the emergency. If emergency exits are used, employees will proceed to the assembly area by the quickest route possible, staying close to the perimeter of the Exclusion Zone. When the assembly area is reached, employees will immediately check in with the SSO or FSSO. The Site will remain evacuated until the all clear signal has been given.

EMERGENCY INFORMATION AND TELEPHONE NUMBERS

EMERGENCY RESPONSE	CONTACT NAME	CONTACT INFO
Ambulance Company (non-emergency)	Royal Ambulance	1191 N 5th St, San Jose, CA 95112 Tel: 911 or 877-995-6161
Hospital/Emergency Room (open 24 hours)	Kaiser Permanente Santa Clara Medical Center	700 Lawrence Expy, Santa Clara, CA 95051 Tel: 911 or 408-851-1000

Local Police Department	Sunnyvale Police Department	700 All America Way, Sunnyvale, CA 94086 Tel: 911 or 408-730-7100
Local Fire Department	Cupertino Fire Department	20215 Stevens Creek Blvd, Cupertino, CA 95014 Tel: 911 or 408-299-3144
State Poison Control Center (24 hours)	California Poison Control System - UCSF School of Pharmacy	3333 California St Ste 420, San Francisco CA 94143 Tel: 800-222-1222 (main line) or 415-345-0820 (admin calls only)

7.4 DIRECTIONS TO THE NEAREST HOSPITAL

- 1 Continue to Vallco Pkwy, heading SOUTH 131 ft
- 2 Turn LEFT toward PERIMETER ROAD 0.1 mi
- 3 Turn RIGHT onto PERIMETER ROAD 194 mi
- 4 Turn RIGHT at the first cross street onto Vallco Pkwy -0.1 mi
- 5 Use the right 2 lanes to turn RIGHT onto N. WOLFE ROAD 0.8 mi
- 6 Turn RIGHT onto E. HOMESTEAD ROAD -1.0 mi
- 7 Turn RIGHT onto Lawrence Expy 0.2 mi
- 8 Turn RIGHT at LEHIGH DRIVE 259 ft
- 9 Turn RIGHT 95 ft
- **10** Turn LEFT 0.1 mi
- 11 The hospital will be on the RIGHT at 700 Lawrence Expy

Total Estimated Time: 9 minutes **Total Estimated Distance:** 2.5 miles

7.5 EMERGENCY MEDICAL TREATMENT PROCEDURES

In an emergency, the primary concern is to prevent the loss of life or severe injury to site personnel. If immediate medical treatment is required, decontamination will be delayed until the condition of the victim has stabilized. If decontamination can be performed without interfering with first aid or if a worker has been contaminated with an extremely toxic or corrosive material that could cause severe injury, decontamination will be performed immediately. If an emergency caused by a heat-related illness develops, protective clothing will be removed from the victim as soon as possible to reduce heat stress.

The standard emergency procedures in outlined in the following sections will be used by onsite personnel. The SSO shall be notified of any onsite emergencies and be responsible for ensuring that the appropriate procedures are followed. These procedures shall be rehearsed regularly as part of the overall program for the site.

7.5.1 MINOR INJURIES

If the injury or illness is minor, full decontamination should be completed and first aid administered before the injured is transported to the designated emergency hospital location.

7.5.2 MAJOR INJURIES

If the patient's condition is serious, call 911 for ambulance and paramedic support. At least partial decontamination should be completed. (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket). First aid should be administered while awaiting an ambulance or paramedics. The choice of hospital shall be made by the ambulance personnel. If an injury takes place within in the excavation and is such that the person cannot be moved, the paramedics will need to be notified to provide additional support for reaching the patient.

Any person being transported to a clinic or hospital for treatment should take with them information of the chemical or chemicals they have been exposed to at the site.

7.6 MEDICAL EMERGENCIES

Four medical emergencies have been identified as requiring implementation of emergency procedures. These emergencies are cardio-pulmonary emergencies, physical injuries, heat-related injuries, cold-related injuries, and chemical exposures.

7.6.1 CARDIO-PULMONARY EMERGENCIES

Cardio-pulmonary emergencies are life-threatening situations requiring immediate response of trained individuals to prevent death. At no time will these emergencies be considered less than life-threatening. These emergencies include heart attack, cardiac arrest, or respiratory arrest. Response and emergency treatment will be rendered without regard to protective equipment or decontamination procedures. As a precaution, and if necessary, a representative from the site will accompany the worker to the hospital in order to advise on matters of decontamination.

7.6.2 PHYSICAL INJURIES

Physical injuries can range from minor sprains, to internal injuries, to an open compound fracture. Depending on the severity of the injury, treatment may be delayed for decontamination procedures to be performed. The level of decontamination will be directly related to the seriousness of the injury and will be determined by the SSO or FSSO.

The outside garments can be removed (depending on the weather) if they do not cause delays, interfere with treatment, or aggravate the injury. Respiratory masks and chemically-resistant clothing should be removed from the injured person. If the outer contaminated garments cannot be safely removed, the individual should be wrapped in blankets to help prevent contaminating the inside of the ambulance or medical personnel. Outside garments are then removed at the medical facility. One exception would be if it is known that the individual has been contaminated with an extremely toxic or corrosive material which could also cause severe injury of loss or life.

If an employee working in a contaminated area is physically injured, appropriate first aid procedures will be followed. Depending on the severity of the injury, emergency medical response may be sought. If the employee can be moved, he/she will be taken to the edge of the work area (on a stretcher, if needed) where contaminated clothing will be removed, additional emergency first aid will be administered, and transportation to a local emergency medical facility will be arranged.

7.6.3 CHEMICAL EXPOSURE

Exposure to chemicals can be divided into two categories:

- injuries from direct contact, such as acid burns or inhalation of toxic chemicals
- potential injury due to gross contamination on clothing or equipment

For the inhaled contaminant, treatment can only be provided by qualified physicians. If the contaminant is on the skin or in the eyes, immediate measures must be taken to counteract the substance's effect. First aid treatment usually is flooding the affected area with water; however, for a select few chemicals, water may cause more severe problems.

When protective clothing is grossly contaminated, the constituents may be transferred to treatment personnel or the wearer and cause injuries. Unless severe medical problems have occurred simultaneously with splashes, the protective clothing should be washed off as rapidly as possible and carefully removed. Portable eye washes will be available to provide a means of flushing and washing such contamination.

If the injury to the worker results from a chemical splash or uncontrolled release, the following first aid procedures are to be instituted:

- Eye Exposure If contaminated solids or liquids get into the eyes, wash eyes immediately at the emergency eyewash station using large amounts of water and lifting the lower and upper lids occasionally. Obtain medical attention immediately. Contact lenses will not be worn when working onsite.
- Skin Exposure If contaminated solids or liquids get on the skin, promptly wash the contaminated skin using soap
 or mild detergent and water. Obtain medical attention immediately when exposed to concentrated solids or liquids.
- Breathing If a person breathes in large amounts of contaminants, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration immediately. Keep the affected person warm and at rest. Obtain medical attention as soon as possible.
- Swallowing When contaminated solids or liquids have been swallowed and the person is conscious, attempt to obtain information from the person to aid in identifying the substance swallowed. Contact the poison control center immediately. Under their direction, one or two glasses of milk or water may be administered to dilute the swallowed material. The poison control center may direct responder to induce vomiting. Do not induce vomiting if: the person is unconscious or semiconscious, or convulsing; if a strong corrosive has been swallowed or if a petroleum product has been swallowed. Vomiting is best induced by administering 1 tablespoon of Syrup of Ipecac. Transport the person to the hospital and monitor the airway constantly.

7.7 FIRE/EXPLOSION

On notification of a fire or explosion onsite, the designated emergency signal of a series of three extended horn blasts shall be sounded and all site personnel will move to the designated meeting location. The fire department shall be alerted and all personnel moved to a safe distance from the emergency area.

Fire extinguishers will be present at the site. If a small, localized fire breaks out, chemical fire extinguishers will be used to bring the occurrence under control. If necessary and feasible, a fire blanket, soil, or other inert materials will be placed on the burning area to extinguish the flames and minimize the potential for spreading. If appropriate, local fire-fighting authorities will be contacted for notification and assistance.

If an uncontrolled fire develops releasing potentially toxic gases, onsite personnel and the public in the immediate vicinity will be evacuated. Only personnel trained in fire-fighting and outfitted with proper protective equipment will be allowed in the immediate fire area. The SSO or FSSO will alert local fire-fighting companies.

7.8 PERSONAL PROTECTIVE EQUIPMENT FAILURE

If any site worker experiences a failure or alteration of protective equipment that affects the protection factor that person and his/her buddy shall immediately leave the work area. Re-entry shall not be permitted until the equipment has been repaired or replaced.

7.9 OTHER EQUIPMENT FAILURE

If any other equipment onsite fails to operate properly, the SSO or FSSO shall be notified to determine the effect of this failure on continuing operations onsite. If the failure affects worker safety or prevents completion of the activity, all personnel shall evacuate the work area until the situation is evaluated and appropriate actions taken.

In all situations when an emergency results in the evacuation of a work area, personnel shall not re-enter the area until the following conditions have been met:

- the conditions resulting in the emergency have been corrected
- the hazards have been reassessed
- the HASP has been reviewed
- site personnel have been briefed on any changes in the HASP

7.10 NOTIFICATION OF NEARBY BUSINESSES

Although an emergency requiring notification of nearby businesses and residents is not anticipated, prior to initiating the soil excavation activities, efforts will be made to notify these businesses and residents regarding the planned activities.

As part of that courtesy notification, efforts will be made to obtain emergency contact information such as the emergency contact person's name and telephone numbers. The list of emergency contacts in the nearby buildings will be retained onsite, and a copy retained with an offsite project manager, so that in the unlikely event of a more significant emergency during excavation at the Site, the nearby businesses can be notified quickly and in the pre-selected manner.

7.11 WSP STANDARD OPERATING PROCEDURES FOR FIELD WORK

- 1 Whenever possible, use the buddy system
- 2 Conduct a pre-entry briefing before beginning site activities each day and record in field book
- 3 Practice contamination avoidance. Never sit down or kneel, never lay equipment on the ground, avoid obvious sources of contamination such as puddles, and avoid unnecessary contact with onsite objects
- 4 Do not eat, drink, or use tobacco products outside the designated support zone
- 5 Whenever possible, do not use contact lenses while onsite
- 6 Thoroughly wash hands and face before eating, drinking, etc.
- 7 Keep copies of the health and safety plan available in the support zone
- 8 In the event PPE is ripped or torn, stop work and remove and replace PPE as soon as possible
- 9 In the event of direct skin contact, immediately wash the affected area with soap and water
- 10 Ensure that all subcontractors have a site specific HASP that is maintained onsite
- 11 Report all accidents, injuries, and environmental releases as required by WSP Environmental Global Directives 3 and 4

7.12 EMERGENCY SUPPLIES

Onsite emergency equipment will include equipment used during operations (heavy equipment) and reserved items stored at the decontamination/assembly area and at strategic areas onsite. The following is a partial list of emergency equipment that will be available onsite during the soil excavation activities.

- Portable emergency eye wash
- Tarps/space blankets to reduce contamination potential while transporting injured personnel to medical facilities.
- Twenty-pound ABC fire extinguishers
- First aid supplies
- Absorbent spill control
- Extra batteries for radios, monitoring equipment, etc.

All personnel will have a thorough understanding of the Emergency Response Plan before starting work. It will be reviewed periodically and updated as needed to keep it current with new or changing site conditions or information.

7.13 SANITATION AND ILLUMINATION

Portable sanitation and potable water supplies will be provided for the use of onsite workers during the soil excavation activities. These facilities will be serviced at least weekly.

No eating, drinking, smoking or gum chewing will be allowed in restricted areas.

Activities will primarily take place during daylight hours. Because natural illumination (approximately 50- to 200-foot candles) will be sufficient to meet the 5-foot candle requirement for general site areas, no additional illumination will be required.

8 TRAINING AND MEDICAL MONITORING REQUIREMENTS

8.1 TRAINING REQUIREMENTS

Personnel participating in field activities during soil excavation at the Site will have completed training as required by the WSP Environment Health and Safety Program. As required by the program, all WSP employees who may be exposed to hazardous materials will receive 40 hours of initial training and 8 hours of refresher training annually. The training program complies with the requirements of the Hazardous Waste Operations and Emergency Response (HAZWOPER) sections of the OSHA standard (29 CFR 1910.120) and the California Code of Regulations (8 CCR 5192(e). At a minimum, the training program includes:

- site safety plan development and interpretation
- safe work practices
- nature of anticipated hazards (physical and chemical)
- emergency and self-rescue procedures
- safe use of field equipment
- hazardous materials handling, storage, and transportation
- employees' rights and responsibilities
- personnel protective clothing and equipment use, care, and limitations
- site surveillance
- instruments used to measure organic vapor concentrations, explosivity, and radioactivity and other site conditions.

Additionally, daily pre-entry briefings will provide site-specific exposure hazards expected before ANY work begins. All onsite personnel will be required to provide evidence of current training. including certifications for all WSP onsite personnel including valid HAZWOPER refresher, First Aid/CPR, and Respirator Fit Test information. Prior to each day of work, a meeting will be held at the Site to familiarize personnel with health and safety issues, protective equipment, emergency information and supplies, and to discuss special topics.

8.2 MEDICAL MONITORING

In accordance with the applicable requirements of 29 CFR 1910.120, all personnel participating in field activities are included in WSP's medical monitoring program. The program includes a baseline physical examination, pulmonary function test, and blood and urine tests. Annual follow up examinations are included. The medical clearance, including potential respirator use, for onsite employees must be current.

9 SIGNATURES

All site personnel \underline{MUST} sign this page to acknowledge the requirements of this HASP.

NAME	SIGNATURE
Project Managar Paviou/Sign off:	

APPENDIX

DUST AND VAPOR CONTROL PLAN (DVCP)

DUST AND VAPOR CONTROL PLAN

REMOVAL ACTIONS IN WOLFE ROAD AND SEARS AREAS OF FORMER VALLCO MALL

December 2020







DUST AND VAPOR CONTROL PLAN

REMOVAL ACTIONS IN WOLFE ROAD AND SEARS AREAS OF FORMER VALLCO MALL

10123 NORTH WOLFE ROAD CUPERTINO, CALIFORNIA

DECEMBER 2020

PREPARED FOR:

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APPENDIX

APPENDIX A- INVESTIGATION AND MANAGEMENT OF PCB CONTAMINATED SOIL, FORMER VALLCO MALL, CUPERTINO, CALIFORNIA, AUGUST 14, 2020

1 INTRODUCTION

WSP USA Inc. (WSP) has prepared this Dust and Vapor Control Plan (DVCP) on behalf of Vallco Property Owner, LLC (VPO) for the two select areas at the former Vallco Mall located at 10123 North Wolfe Road in Cupertino, California (the Site) (Figure 1 in Appendix A). The Site Areas are located in the portion of the former Vallco Mall on the west side of Wolfe Road. The first area is in the eastern parking lot adjacent to Wolfe Road and the former Bay Club Fitness Center, herein referred to as the Wolfe Road area. The second area is within the former Sears Automotive Center is referred to as such below. These areas are within the planned redevelopment of the Site.

Appendix A contains a letter report prepared by WSP dated August 14, 2020 entitled "Investigation and Management of PCB Contaminated Soil, Former Vallco Mall, Cupertino, California ("Summary Report")" This Summary Report summarizes the investigations of the Wolfe Road Area and the Former Sears Automotive Area ("Sears Area") including analytical results and various figures depicting sample locations and proposed removal areas of PCB-contaminated soil.

This Plan describes the dust and vapor control procedures to be followed during the soil removal of soils contaminated by PCBs and a small area with TPH-d in the Sears Area. The DVCP will serve as a guide for measures to be conducted by the selected contractor and WSP during soil excavation in accordance with applicable environmental regulations. WSP will be responsible for oversight of the contractor in the implementation of the DVCP.

1.1 SITE DESCRIPTION AND BACKGROUND

The Site is located at 10123 North Wolfe Road in Cupertino, California (Figure 1 in Appendix A). The Site is owned by VPO and is approximately 50 acres that is occupied by the mostly vacant Vallco Shopping Mall (the Mall). The former shopping Mall with 1,115,000 square feet of floor space was constructed between 1974 and 1979 and renovated in 1988 and 2006. The Mall had approximately 110 tenant spaces and was anchored by Macy's, Sears, and J.C. Penney.

The former Sears Automotive Center was constructed at the property in 1970 on the southwest side of the Mall property. Four gasoline and two motor oil underground storage tanks (USTs) were removed from the Sears Automotive Center site in 1985. Dispenser islands and product lines were removed from the site in 1994. Seven borings were advanced and sampling was conducted in soil and groundwater in 1999 to assess hydrocarbon concentrations at the site. Concentrations of ethylbenzene, total xylenes, and lead were reported below regulatory action levels and the site was granted case closure on December 6, 1999, with the Santa Clara Valley Water District (SCVWD) concluding that any residual contamination in the subsurface relating to the former USTs is minimal.

The Santa Clara County Fire Department (SCCFD) required implementation of an approved closure plan for the former Sears Automotive Center as part of the redevelopment of the Site. Following demolition of the former Sears Automotive Center and removal of an oil-water separator and associated piping, three samples collected approximately 12 to 14 ft-bgs immediately beneath the separator and piping. Several of these samples yielded results that exceed the PCB RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs. Two samples collected at a depth of nine ft-bgs, immediately below each of two (HL-4 and HL-6) former hydraulic lift cylinders, exceeded the RSL for diesel total petroleum hydrocarbons (TPH-d).

A single soil sample at the Site was found to contain polychlorinated biphenyls (PCBs) in the Wolfe Road area based on a subsurface investigation conducted by Geosphere in 2016. The sample from a boring at one foot below ground surface (bgs) (sample E5-1) contained PCBs at 0.523 mg/kg, above the residential screening level of 0.230 mg/kg (RSL) as established by the California Department of Toxic Substances Control (DTSC). Subsequent sampling was performed to characterize the Wolfe Road Area and PCBs up to 1.046 mg/kg were detected in soil from a depth of 1 foot below ground surface.

1.2 CHEMICALS OF CONCERN

Figures 2 and 4 in Appendix A present the locations of previous samples collected in the Wolfe Road Area and the Sears Area, respectively. Figures 3 and 8 in Appendix depict the proposed excavations for the removal activities in the Wolfe Road

Area and the Sears Area, respectively. PCBs are the chemicals detected most frequently and in the highest concentrations in soil samples from both Areas. Other constituents detected in soil samples in the Sears Area include TPH-d

The PCBs detected in soil samples as well as the TPH-d detected in soil are considered COCs at the Site.

1.3 REDEVELOPMENT PLAN AND EXCAVATION ACTIVITIES

The proposed redevelopment at the Site includes the construction of a parking structure along with commercial and/or residential units. The redevelopment process will involve excavation in the Wolfe Road Area to approximately five feet bgs and excavation and potential shoring of the soil to approximately 30 feet bgs over the Sears Area. While some of the soil contains PCBs and petroleum hydrocarbons, available data indicate that the soil to be excavated contains less than or equal to a maximum of 1.9 mg/kg of PCBs and is without other chemical contamination.

The basic elements of the soil removal action include soil excavation, post-excavation soil sampling and offsite disposal of soil.

For excavation activities,

- The upper approximately three feet of soil and materials will be excavated in the Wolfe Road Area; the upper approximately 20 feet of soil will be excavated in a portion of the Sears Area;
- Post-excavation soil sampling of the base and sidewalls of the excavation will be performed at the completion of the excavation activities as described in the Sampling and Analysis Plan (SAP); and
- Excavated soil will be transported offsite for disposal at appropriately permitted disposal facilities based on the concentrations of PCBs in the soil.

1.4 OBJECTIVE

Dust, as discussed herein, refers to airborne particulates that are associated with or result from the removal activities. Of particular concern is dust associated with (1) mechanical actions of soil excavation, grading, transport vehicle loading, and vehicle movement, and (2) ambient wind traversing excavations or stockpiles of debris and excavated soil. Dust may include non-hazardous airborne material and airborne chemicals of potential concern.

Vapor, as discussed herein, includes airborne mist, fumes, or volatilized compounds that are associated with or result from the removal activities. Of particular concern is vapor potentially associated with (1) soil excavation and transport, (2) transport vehicle loading activities, (3) decontamination activities, and (4) ambient wind traversing work areas and excavations.

This Dust and Vapor Control Plan (DVCP) covers requirements for dust and vapor control during removal activities at the Site. Dust and vapor control activities will primarily be associated with soil excavation and transport vehicle loading operations; however, dust and vapor control shall cover all operations, throughout the duration of the soil excavation project. The Contractor covers similar air quality protection measures in Section 2, Air Quality of the Devcon Construction Management Plan (CMP).

This DVCP addresses the specific methods and activities that the selected excavation contractor will use for dust and vapor control while performing the removal activities onsite. WSP will be responsible for the oversight of these activities. Although the total maximum VOC concentrations in soil to be excavated do not exceed any screening levels, per the ESMP, this Plan was made consistent with applicable requirements of the Bay Area Air Quality Management District's Regulation 8, Rule 40, Aeration of Contaminated Soil and Removal of Underground Storage Tanks (BAAQMD 2005).

2 ONSITE DUST CONTROL

The soil to be excavated contains PCBs and could potentially contain VOCs from TPH compounds. As necessary to mitigate the potential fugitive emissions of dust particles including these compounds and based on present conditions of Approval 12 (Dust Control), it is assumed that exposed soil surfaces will be kept moist using water spray or other dust suppressant. Water spray will be applied to Areas actively being excavated and to soil being placed into stockpiles (as necessary) and loaded into trucks for offsite transportation. Available data from soil borings advanced at the Site indicate that almost all of the soil below is wet or moist. These subsurface conditions are likely to reduce the magnitude of the potential fugitive dust emissions during soil excavation and handling and reduce the need for application of moisture or other dust control measures.

2.1 WORK PRACTICES

Although the excavated soil is expected to be moist or wet, and less likely to result in dust emissions, it is prudent to plan for differing conditions, including potential drying of exposed soil surfaces. Additional potential control measures to reduce dust emissions are described below and are similar to measures presented in Section 2 of the Devcon CMP.

2.1.1 LIMIT VEHICLE SPEED

Soil removal equipment will be operating within the excavation footprint. Vehicles will be transporting soil from the excavation to either a small stockpile or directly to trucks for loading and off hauling. The speed of any vehicle carrying soil, equipment, or personnel on the Site or around the vicinity will be limited to 15 mph to minimize the generation of dust.

To the extent practicable, motorized equipment shall be selected and operated in a manner which minimizes dust generation. This may include the use of rubber-tired vehicles on paved surfaces.

2.1.2 MAINTAIN PAVED SURFACES

Paved surfaces within and adjacent to the Site will be vacuumed or swept to remove accumulated soil and dust. The Sears Site Area is bare ground with adjacent roadways surfaced with asphalt, and as the excavation of the Site proceeds, soil and dust could potentially accumulate on this asphalt surface. The Wolfe Road Area is currently covered with asphalt which will be removed when excavation activities begin.

2.1.3 VEHICLE LOADING

During transport vehicle loading, excavated soil shall be deposited in the transport vehicle using the minimum practicable drop heights (less than 10 feet). The transport vehicle's windows will be closed during the loading activities. Once a truck is loaded with soil, a tarp will be used immediately to cover the soil and remain during transport.

2.1.4 DECONTAMINATION

Any equipment used during onsite activities including but not limited to excavators, bulldozers, and any vehicles that enter the Site will be decontaminated prior to leaving the Site. The decontamination process will entail the physical and mechanical removal of dust, soil, and debris. Brushes and, if needed, high-pressure washers will be used to remove visible contamination from equipment and transportation vehicles. As necessary, contaminated clothing will be discarded in the decontamination facility by personnel leaving the Site. The tire treads and track cleats from equipment leaving the Site will be decontaminated to remove any visible soil or debris.

2.2 PHYSICAL BARRIERS

Physical barriers may be used to limit the migration of dust from the Site. If visible emissions cannot be adequately controlled through water spray, an additional wind barrier could be placed around the existing Site Areas to limit wind-generated airborne particulates. Soil and debris stockpiles (if established) will be provided with weighted plastic covers to reduce dust generation.

2.3 APPLICATION OF MOISTURE OR DUST SUPPRESSANTS

Misting and spraying water will be conducted during soil excavation and transport loading operations. Misting and spraying water will be performed for exposed excavations, exposed soil surfaces, soil stockpiles, or other dust generation sites, at the frequency necessary to minimize dust generation. Watering requirements may be limited given the existing moist condition of soil at the Site. It is assumed that water obtained for dust control purposes will be municipally-supplied or otherwise free of COCs and will be approved for onsite use prior to initial application. In addition, commercially available dust suppressants and sealants may be applied to dust generating surfaces to control dust emissions.

2.4 STOCKPILE MANAGEMENT

Excavated soil is then placed in a ring on the plastic, leaving several feet of free plastic around the edges such that the plastic can be folded over the soil ring to create a plastic-encased berm. If runoff from the pile and berm may exit the perimeter containment, the bermed soil must be uncontaminated. The rest of the excavated soil will then be placed inside of the soil berm. Another plastic sheet will be used to cover the stockpile such that dust and vapors do not escape and water does not enter the stockpile. If there will be more than one hour of inactivity at a stockpile, per Section 2.2, it must be covered.

2.5 PERSONAL PROTECTIVE EQUIPMENT

Proper personal protective equipment (PPE) will be used by onsite personnel to reduce exposure to dust and COCs adhered to the dust particles. At a minimum, Level D Modified protection will be required for excavation activities at the Site.

- Safety toed boots
- Safety goggles or a face shield should be used when a foreseeable splash hazard exists

3 ONSITE VAPOR CONTROL

During the excavation activities at the Site, monitoring of organic vapor levels in the air will be performed. If necessary, control measures to reduce organic vapor concentrations in the air will be utilized.

3.1 WORK PRACTICES

Excavation activities may contribute to odor and vapor emissions. Low levels of VOCs (below health screening levels) were detected in the former Sears Automotive Center area. Therefore, mitigation measures to minimize vapor emissions and associated hazards are described in the following sections.

At a minimum, the applicable requirements of BAAQMD Regulation 8 Rule 40 will be followed during excavation and management of onsite soils. Contaminated soil, as defined in Regulation 8 Rule 40 (total VOCs greater than 50 ppm), has not been detected at the Site. Applicable requirements could include advance notification to BAAQMD regarding the soil excavation activities. Work practices include limiting emissions of VOCs by promptly and thoroughly covering inactive (greater than one hour) soil stockpiles, applying water spray or vapor suppressants to working surfaces, applying water spray or vapor suppressants to active soil stockpiles and evaluating aggregate VOC emissions and covering exposed surfaces during periods of inactivity. Stockpile areas shall not exceed 6,000 square feet.

3.1.1 MAINTAIN PAVED SURFACES

It is anticipated that organic vapors will not originate from paved surfaces in the absence of any deposited or spilled soil excavated from the Site that contains elevate levels of VOCs. Therefore, the dust prevention measures described in Section 2.1.3 of this DVCP should be sufficient to control potential sources of organic vapors associated with paved surfaces.

3.1.2 DECONTAMINATION

To the extent that equipment or personnel working at the Site are identified as secondary sources of organic vapors (e.g., soil on equipment or protective clothing), the decontamination procedures summarized in Section 2.1.4 will reduce organic vapors.

3.2 VAPOR SUPPRESSANTS AND FOAM

Application of vapor suppressants and foam may be considered for use during soil excavation, soil backfill and compaction, and transport loading operations (per monitoring outlined in Section 4 of this Plan). Application of suppressants and foam may be performed for exposed soil surfaces, soil stockpiles, debris stockpiles, or other vapor generation sites, at the frequency necessary to prevent vapor concentrations from exceeding action limits. Suppressants shall be at least as effective as water alone, be free of hazardous materials and petroleum hydrocarbons, and are subject to approval by WSP prior to use on the Site.

3.3 PERSONAL PROTECTIVE EQUIPMENT

The project Health and Safety Plan (Appendix A) discusses personal protective equipment. For consistency purposes, the information will not be reiterated here.

4 AIR MONITORING ACTIVITIES

Within the work zone, air monitoring will be conducted for the purpose of measuring dust and organic vapors. The air monitoring will be conducted (a) prior to mobilization to the Site in order to characterize background conditions, and (b) during the early stages of soil excavation to either confirm the effectiveness of dust/vapor control measures or to identify the need for more stringent measures. If air monitoring results do not meet regulatory agency requirements or protective action levels, more stringent dust/vapor control measures will be implemented. Dust monitoring will include visual assessment by the Environmental Professional for visible dust. If visible dust is observed, dust control measures will be increased.

4.1 MONITORING FOR ORGANIC VAPORS

During excavation of the soil in the Sears Area, vapor monitoring will be performed using a photo ionization detector (PID) to provide real time measurements of VOC concentrations in the breathing zone of workers. The PID readings will also be used to establish, as necessary, data for upgrading PPE.

Real time air monitoring of vapors in air will be conducted using a PID outfitted with a 10.6 electron Volt (eV) lamp and calibrated with 100 ppmv isobutylene gas. The PID should be used to monitor vapors within the workers breathing zone and at the perimeter of the Area excavation. Work will be temporarily halted if readings exceed 5 ppmv (as read on the PID) above previously established background conditions. If warranted, additional monitoring and/or measures will be implemented. Should the soil be considered "potentially contaminated with volatile chemicals," and work will be halted pending procedures identified in Section 5.

5 CONTINGENCY MEASURES

WSP and the selected excavation contractor will implement the dust and vapor control measures described in Sections 2 and 3 of this DVCP. Although not anticipated, it is possible that these measures may not sufficiently control fugitive dust and/or vapor emissions. The Contractor will maintain equipment and materials onsite to immediately respond to incidents requiring more extensive dust and/or vapor control.

If (1) air monitoring, observations or measurements made by WSP personnel, onsite workers or regulatory agencies; or (2) complaints from the public indicate that more stringent dust/vapor or odor control measures are required, the following will be performed:

- 1 Increase the dosage of dust/vapor or odor controls.
- 2 Increase the frequency of dust/vapor or odor controls.
- 3 Modify the composition or type of suppressants and foam.

If further dust/vapor control measures are needed, one of the following measures may be required:

- 4 Suspension of certain operations (anticipated only during abnormally high wind conditions or if highly odorous soils are encountered during excavation).
- 5 Enclosure of transport vehicle loading operations.

Typically, dust/vapor control methods which result in ponded water will not be employed. Methods which result in runoff, especially runoff to storm drains, will not be employed. In addition, contamination of underlying or surface soils, surface erosion, or a material increase in the weight of excavated soil will be prohibited.

REFERENCES

Analytical Soil Sampling and Testing Study dated October 25, 2016 and prepared by Geosphere Consultants, Inc.

Bay Area Air Quality Management District (BAAQMD) 2005. Bay Area Air Quality Management District Rules and Regulations, Regulation 8, Organic Compounds – Rule 40, Aeration of Contaminated Soil and Removal of Underground Storage Tanks. 15 July 2005.

Closure Letter report- West Side of Mall dated December 11, 2018 and prepared by WSP

Construction Management Plan for Vallco Shopping Center Shoring and Mass Excavation dated October 26, 2018 and prepared by Devcon Construction, Inc.

Environmental Site Management Plan (ESMP) revised August 2019 and prepared by WSP.

GPR Survey Report dated February 11, 2019 and prepared by WSP

Investigation and Management of PCB Contaminated Soil, Former Vallco Mall, Cupertino, California ("Summary Report")" dated August 14, 2020 and prepared by WSP

Sears Automotive Center Closure Plan dated March 26, 2019 and prepared by WSP

Sears Closure Report for the Fuel Leak site Case Closure dated December 6, 1999 and prepared by Santa Clara Valley Water District

Site Characterization Report (SCXR) revised August 2019 and prepared by WSP

Stormwater Pollution Prevention Plan (SWPPP) revised April 14, 2020 and prepared by Sandis

ACRONYMS

1,1-DCA 1,1-dichloroethane

1,1-DCE 1,1-dichloroethene

1,2-DCE 1,2-dichloroethene

1,1,1-TCA 1,1,1-trichloroethane

bgs below ground surface

COE California-Olive-Emerson

COPC chemical of potential concern

DQO data quality objective

HVAC heating, ventilation, and air conditioning

PCE tetrachloroethene

PID Photoionization detector

SIM Selective ion monitoring

TCE trichloroethene

USEPA U.S. Environmental Protection Agency

VIMS vapor intrusion mitigation system

VOC volatile organic compound

WSP WSP USA Inc.

APPENDIX

A INVESTIGATION AND
MANAGEMENT OF PCB
CONTAMINATED SOIL
FORMER VALLCO
MALL, CUPERTINO,
CALIFORNIA





Tel.:+1 408 453-6100 Fax: +1 408 453-0496

August 14, 2020

Vallco Property Owner, LLC 965 Page Mill Road Palo Alto, CA 94304 Attn: Reed Moulds

Subject: Post Closure Report: Investigation and Management of PCB Contaminated Soil

Former Vallco Mall, 10101 North Wolfe Road, Cupertino, California

Dear Mr. Moulds,

Per the request of the Vallco Property Owner, LLC (VPO), WSP USA Inc. (WSP) provides this summary report documenting WSP's investigation of two select areas at the former Vallco mall located at 10101 North Wolfe Road in Cupertino, California (the Site) (Figure 1) and presenting an approach to the remediation and disposal of all impacted soils at the investigation areas. WSP investigated the two areas for polychlorinated biphenyls (PCBs), consistent with the Environmental Site Management Plan (WSP, August 2019) (ESMP). The first is an area in the eastern parking lot adjacent to Wolfe Road and the former Bay Club Fitness Center, herein referred to as the Wolfe Road area. The second area is within the former Sears Automotive Center and is referred to as such below.

BACKGROUND & INVESTIGATION APPROACH

WOLFE ROAD AREA

In September 2016, Vallco retained Geosphere to conduct a subsurface investigation to collect various discrete soil samples at the Site as part of an accompanying geotechnical investigation. Geosphere drilled a total of eight borings (E-1 through E-8) using a mobile direct push GeoProbe® DT-22. A single sample from Geosphere boring E-5 at one foot below ground surface (sample E5-1) contained PCBs at a concentration of 0.523 milligrams per kilogram (mg/kg), which is above the Environmental Screening Levels (ESLs) for residential human health risks (0.230 mg/kg) as established by the San Francisco Regional Water Quality Control Board (RWQCB), revision two, July 2019 and above the Regional Screening Levels (RSLs) for human health risks (0.230 mg/kg) as established by the Department of Toxic Substance Control (DTSC), revised April 2019. The detection of PCBs above the ESL/RSL was isolated to this single sample out of the 32 samples Geosphere collected across the former shopping mall area; however, in accordance with Section 3.3 of the ESMP, WSP performed step-out sampling for PCBs in the area of boring E-5 to delineate the lateral and vertical extent of PCB concentrations in that area. VPO provided the City of Cupertino with a workplan outlining the investigation approach in August 2019 (WSP, 2019a).

Pursuant to the workplan, WSP advanced soil borings to a depth of five feet below ground surface (ft-bgs) in a general grid fashion around boring E-5 (Figure 2). Initially, four soil borings were advanced in a square shape approximately 7.5 feet (ft) away from boring E-5 on each side, with one additional boring advanced adjacent to location E-5 (boring E5P-1) to confirm the original detection of PCBs. If there was a detection of PCBs above the ESL/RSL at the initial sampling location, additional step-out boring locations were advanced in five-foot increments outwards from perimeter borings. Eventually, a total of 29 additional step-out borings were advanced to fully delineate the lateral extent of PCB contamination.



The soil borings were advanced either by hand auger or by a direct push Geoprobe® Rig equipped with Macro Core® continuous core sample tooling. Soil samples were collected at depths of one, three, and five ft-bgs. Only soil samples collected at one and three ft-bgs were analyzed initially; five ft-bgs soil samples were archived and were only analyzed if there were detections of PCBs in the three ft-bgs samples, which occurred at only two of the 34 boring locations (E5P-N and E5P-W). Samples at three ft-bgs at ESP-N-3 had laboratory reporting limits for PCBs above the ESL/RSL and there were PCBs detected at ESP-W-3 (0.046 mg/kg) below the ESL/RSL Samples collected at 5 ft-bgs at these two locations did not detect PCBs. All soil samples were analyzed for PCBs by Environmental Protection Agency (EPA) method 8082 with 18 of the 29 step outs additionally undergoing the soxhlet extraction method preferred by the EPA.

FORMER SEARS AUTOMOTIVE CENTER

The Sears Automotive Center was constructed in 1970 on the southwest side of the Mall property and was later referenced as a closed Leaking Underground Storage Tank (LUST) site on the state Geotracker website. This designation was a result of the removal of six underground storage tanks (UST) in 1985 and dispenser island and product lines in 1994. The Santa Clara County Fire Department (SCCFD) required implementation of an approved closure plan for the demolition of the former Sears Automotive Center due to the presence of an oil-water separator, hydraulic lifts, petroleum fluid pipelines, battery storage area, and lead containing materials. A Closure Plan for the Former Sears Automotive Center was submitted to the SCCFD on March 25, 2019 and approved by the SCCFD by letter dated April 11, 2019 and included soil sampling under the oil-water separator, remnant piping and any other subsurface equipment for proper characterization and subsequent disposal.

Consistent with the Closure Plan, soil samples were collected beneath an oil-water separator, acid neutralization chamber, and 17 hydraulic lifts during building demolition in January through February 2020 to determine if these features had impacted surrounding soil. All soil samples collected were analyzed for the following list of compounds:

- Total petroleum hydrocarbons (TPH) as gasoline (TPH-g), TPH as diesel (TPH-D), and TPH as motor oil (TPH-MO) by EPA method 8015 (fuel scan)
- Hexane Extractable Materials (Oil and Grease) by EPA 1664
- Volatile Organic Compounds (VOCs), with chlorinated hydrocarbons (full scan) by EPA method 8260B
- PCB's by EPA method 8082A
- Cd, Cr, Pb, Ni, and Zn by EPA 6010B
- Semi Volatile Organic Compounds (SVOCs) including Polycyclic Aromatic Hydrocarbons (PAHs) by EPA method 8270

Samples collected from beneath the acid neutralization chamber and the base of 11 hydraulic lifts after their removal, all located on the basement level in the southern portion of the former Sears Automotive Center, did not contain any detections above the respective ESL/RSLs for any of the compounds included in the analysis listed above. After the removal of six hydraulic lift cylinders in the northern portion of the former Sears Automotive Center, samples were taken at three of the six cylinders (locations HL-1, HL-4, and HL-6 on Figure 4) at approximately nine ft-bgs, which is from the soils immediately beneath the base of three of these cylinders. After the removal of the oil-water separator and associated piping, three samples were taken approximately 12 to 14 ft-bgs which is immediately beneath the separator and piping. Several of these samples yielded results that exceed the PCB ESL/RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs. Two samples collected at a depth of nine ft-bgs, immediately below each of two (HL-4 and HL-6) of the three former hydraulic lift



cylinders, exceeded the RSL for TPH-D. Soil sample locations are shown on Figure 4 and analytical results performed for this sampling event as part of the Closure Plan are included as Table 1.

In response to the detections of PCBs above the ESL/RSL, 22 step-out borings were advanced in the northern portion of the Center to delineate the extent of PCB impacted soil and to sample under the remaining three former hydraulic lifts, HL-2, HL-3, and HL-5 (Figure 5). All step-out borings were advanced with a direct push Geoprobe® Rig equipped with Macro Core® continuous core sample tooling. The base of the hydraulic lift cylinders extended to nine ft-bgs and step-out borings for the lifts were advanced to 20 ft-bgs and samples were collected at depths of 9, 12, and 15 ft-bgs. The bottom of the oil-water separator was 12 ft-bgs and step-out borings for the separator were advanced to 25 ft-bgs and samples were collected at depths of 12, 16, and 20 ft-bgs. Additional samples were collected if staining or odor was noted, which only occurred in one boring (HL-6N5). All soil samples were analyzed for PCBs by EPA method 8082 with the soxhlet extraction method. Additionally, select soil sample depths were sampled for TPH-d and TPH-mo by EPA method 8015.

ANALYTICAL RESULTS

WOLFE ROAD AREA

Analytical results are summarized in Table 2 and are depicted on Figure 2. Total PCBs were found above the ESL/RSL of 0.230 mg/kg in a total of 14 of the 34 borings. The detections of total PCBs above the screening levels were isolated to samples collected from one ft-bgs. The PCB detections were primarily of aroclor-1254, which was the only aroclor that contained concentrations greater than the respective screening level. Aroclor-1260 was also detected in some of the one ft-bgs samples; no other aroclors were detected.

Of the borings that had exceedances of the screening levels, the PCB concentration of two boring locations (E5P-W and E5P-NW10) were just above the TSCA cleanup level of 1 mg/kg, with a maximum total PCB concentration of 1.046 mg/kg. In both borings, no singular aroclor was detected above 1 mg/kg, but rather the sum of the detected aroclors (aroclor-1254 and aroclor-1260) was just above 1 mg/kg.

FORMER SEARS AUTOMOTIVE CENTER

Analytical results are summarized in Table 3 (TPH results) and Table 4 (PCB results) and are depicted on Figures 6 and 7. Of the twenty-two step-out borings, only three discrete samples contained detectable concentrations of PCBs. As discussed above, soil samples taken at approximately nine ft-bgs, which is from immediately beneath each of three of the hydraulic cylinders and three samples taken approximately 12 to 14 feet bgs immediately beneath the oil-water separator contained PCBs exceeding the RSL of 0.230 mg/kg PCBs. Additionally, two of the three samples beneath the oil-water separator exceeded 1 mg/kg of PCBs at 14 feet, with a maximum concentration of 1.9 mg/kg; however, none of the step-out borings detected concentrations of PCBs above the ESL/RSL.

Additionally, only one step out boring discrete sample (OWPI-W5-20) detected TPH-d above the ESL; however, the detection was qualified by the laboratory as not exhibiting the standard chromatographic pattern for TPH-d.



REMEDIAL APPROACH; SOIL EXCAVATION AND DISPOSAL; EPA REGULATORY COMPLIANCE

Under the ESMP, VPO must notify the City if the planned additional sampling finds PCB levels in excess of residential screening levels, and a determination will be made "as to whether a regulatory agency should be contacted to determine if regulatory oversight is required, prior to issuance of a permit that allows soil disturbance in the area of boring E-5."

Given that each of the areas contained PCBs above 1 mg/kg and are located within the footprint of the planned development, excavation that will extend to a depth of five ft-bgs and up to 32 ft-bgs at the Wolfe Road and former Sears Automotive Center areas, respectively. The project team contacted EPA to identify an appropriate remedial approach that is consistent with TSCA. Steve Armann, EPA Region 9's PCB Program Coordinator, indicated that disposal of PCBs under 40 CFR 761.61(b) would be appropriate. Among other things, 40 CFR 761.61(b) requires soil containing PCBs above the TSCA threshold of 1 mg/kg to be disposed of as a TSCA waste at a TSCA landfill. Consistent with 40 CFR 761.61(a), confirmation base of excavation and sidewall sampling will be performed with sampling using grids with sample spacing every 1.5 meters (approximately five feet) to verify that soil with PCB concentrations greater than 1 mg/kg and 0.230 mg/kg are removed from the previously characterized areas. Specifically, the limits of excavation were determined by step-out sampling and the step-out samples will serve as confirmation samples for the excavation of PCBs impacted soil above 0.230 mg/kg. The areas that have been identified to contain PCBs above the ESL/RSL of 0.230 mg/kg but are less than the TSCA threshold limit of 1 mg/kg, will be disposed of according to waste acceptance standards for soils containing PCBs at a licensed landfill.

WOLFE ROAD AREA

Based on the approach noted above, WSP estimates that approximately 7 cubic yards of soil, which may contain concentrations of PCBs that equal or exceed 1 mg/kg, will need to be removed from the Wolfe Road area for disposal to a TSCA landfill pursuant to 40 CFR 761.61(b). This total proposed excavation area will be approximately 60 square feet and will extend to three ft-bgs. The PCB excavation area is depicted in context with the project excavation area on Figure 3.

The remaining area with PCBs detected above the ESL/RSL of 0.230 mg/kg at one ft-bgs is approximately 714 square feet. Excavation for removal of the PCB contaminated soils to three ft-bgs of this area would yield approximately 73 cubic yards of soil. An outline of the proposed excavation area is shown on Figures 2 and 3. As noted, confirmation sampling will utilize a grid of approximately 5 feet (1.5 meters) for base of excavation and sidewall samples on the walls of the completed excavation.

FORMER SEARS AUTOMOTIVE CENTER

Remediation of the former Sears Automotive Center will be performed with oversight/review from SCCFD under the approved Closure Plan. In the area beneath the former oil-water separator where samples exceeded 1 mg/kg of PCBs, WSP proposes to excavate and remove soils from beneath the separator over an area of a 10 feet by 20 feet rectangle at a depth from 12 feet to 20 feet (Figure 8) and arrange for proper disposal of all PCB impacted soils at a TSCA landfill (approximately 60 cubic yards), consistent with 40 CFR 761.61(b). In the area beneath the three hydraulic lift cylinders where soil samples exceeded the PCB ESL/RSL (but are below 1 mg/kg), WSP proposes to excavate and remove soils from beneath each hydraulic cylinder from nine feet to 12 feet bgs and segregate these excavated



soils for disposal according to waste acceptance standards for soils containing PCBs at an appropriately licensed landfill. The volume of soils to be excavated and segregated for excavation beneath the three former cylinders is estimated at nine cubic yards. Excavation profiles in the former Sears area are shown on Figure 8.

Confirmation sidewall sampling will be conducted with the previously noted five-foot sample grids.

Per Section 4, Reporting Requirements, of the ESMP, a closure implementation report will be generated with the closure of the former Sears Automotive center and submitted to the SCCFD, with a courtesy copy provided to the City. In addition, the soil sampling and removal of soils in the Wolfe Road area will be documented in a memorandum and provided to the City. If additional impacted soils are uncovered during mass excavation activities, the analysis and subsequent disposal of the impacted soil will also be documented in the ESMP completion report.

Sincerely,

Ruhard E. Freudenberge

Richard E. Freudenberger Managing Director, Regional

408.206.3504

REFERENCES

WSP. 2019. Environmental Site Management Plan, Former Vallco Shopping Mall, 10123 North Wolfe Road, Cupertino, California. August.

WSP. 2019a. Workplan for Former Vallco Mall, Delineation of Extent of PCB Impact to Soil. August 20.

FIGURES

Figure 1 – PCB Investigation Areas

Figure 2 – Wolfe Road PCB Investigation Area

Figure 3 – Wolfe Road PCB Excavation Area

Figure 4 – Sears Automotive Center Closure Sample Locations

Figure 5 – Sears Automotive Center PCB Investigation Area

Figure 6 – Hydraulic Lift Step-Out Borings

Figure 7 – Oil-Water Separator Step-Out Borings

Figure 8 – Excavation Profiles

TABLES

Table 1 – Summary of Sears Closure Soil Data

Table 2 – Wolfe Road PCB Data

Table 3 – Sears Center TPH Data

Table 4 – Sears Center PCB Data



TABLES

Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] mple Date	ESLs Residential	RSLs Residential	<u>H-1</u> 1/22/20	H-2 1/22/20		<u>H-3</u> 1/22/20		<u>H-4</u> 1/22/20)	<u>H-5</u> 1/22/20		<u>H-6</u> 1/22/20)	<u>H-7</u> 1/22/20	0
Purgeable Aromatics & Tota	al Petroleu	m Hydrocarbo	ns													
TPH-g	(mg/kg)	430		1 U	1 T	U	0.98 U	IJ	1	U	0.93 U	J	1	U	1	U
TPH-d	(mg/kg)	260		0.92 J	0.70	J	1.1	J	27	Y	2 U	J	3.5	Y	4.4	Y
TPH-mo	(mg/kg)	12,000		10 U	9.9 t	U	6.2	J	86		9.9 U	J	15		19	
Oil & Grease	(mg/kg)			500 U	500 U	U	500 U	IJ	500	U	500 U	J	500	U	500	U
SVOCs & PAHs [3]																
bis (2-Ethylhexyl)phthalate	(µg/kg)	3.9E+04	3.9E+04	340 U	340 U	U	20	J	27	J	340 U	J	340	U	17	J
VOCs [3]																
Acetone	(µg/kg)	6.1E+07		17 U	20 U	U	16 U	IJ	4.9	J	17 U	J	3.6	J	16	U
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
2-Butanone	$(\mu g/kg)$			8.3 U	10 U	U	8.2 U	IJ	8	U	8.3 U	J	9.2	U	8.1	U
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.3 U	10 U	U	8.2 U	IJ	8	U	8.3 U	J	0.7	J	8.1	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Metals																
Cadmium	(mg/kg)	78	71	0.24 J	0.25	J	0.34		0.37		0.35		0.33		0.30	
Chromium	(mg/kg)			55	47		52		55		51		54		57	
Lead	(mg/kg)	80	80	6.2	5.0		8.6		9.3		10		7.8		9.1	
Nickel	(mg/kg)	820	820	57	49		62		66		76		65		65	
Zinc	(mg/kg)	23,000	23,000	46	40		61		63		62		55		59	
PCBs [2]																
Aroclor-1254	(mg/kg)	0.230	0.240	0.012 U	0.012 U	U	0.058		0.061		0.012 U	J	0.012	U	0.021	

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Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] .mple Date	ESLs Residential	RSLs Residential	<u>H-8</u> 1/22/20		.9 2/20		H-10 1/22/20)	H-11 1/22/20)	H-P-1 2	_	<u>AN-1</u> 1/22/20		<u>AN-2</u> 1/22/20	
Purgeable Aromatics & Tota	al Petroleu	m Hydrocarbo	ns														
TPH-g	(mg/kg)	430		1.1 U	1	.1 L	J	1.1	U	1.1	U	1	U	0.96	U	0.96	U
TPH-d	(mg/kg)	260		2 U	9	.2	Y	7.9	Y	2.2	Y	3.2	Y	2.8	Y	3.2	Y
TPH-mo	(mg/kg)	12,000		10 U	4	9		39		10	U	6.0	J	3.1	J	3.9	J
Oil & Grease	(mg/kg)			500 U	5	J 00	J	500	U	500	U	500	U	500	U	500	U
SVOCs & PAHs [3]																	
bis (2-Ethylhexyl)phthalate	$(\mu g/kg)$	3.9E+04	3.9E+04	330 U	5,90	0		96	J	330	U	340	U	330	U	330	U
VOCs [3]																	
Acetone	$(\mu g/kg)$	6.1E+07		18 U		16 L	J	3.7	J	16	U	17	U	19	U	19	U
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.4 U		4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
2-Butanone	$(\mu g/kg)$			8.8 U		8 U	J	8	U	8.2	U	8.4	U	9.6	U	9.6	U
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.4 U	-	4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.8 U	-	8 U	J	8	U	8.2	U	8.4	U	9.6	U	9.6	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.4 U	-	4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.4 U	-	4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.4 U		4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Metals																	
Cadmium	(mg/kg)	78	71	0.29	0.3	9		0.30		0.31		0.34		0.32		1.8	
Chromium	(mg/kg)			52	:	9		55		56		54		78		97	
Lead	(mg/kg)	80	80	7.7	-	0		8.3		7.2		9.4		7.5		7.6	
Nickel	(mg/kg)	820	820	71	1	6		65		70		70		88		86	
Zinc	(mg/kg)	23,000	23,000	55	,	3		58		53		69		57		69	
PCBs [2]																	
Aroclor-1254	(mg/kg)	0.230	0.240	0.012 U	0.0	2 L	J	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U

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Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] mple Date	ESLs Residential	RSLs Residential	OWS- 2/7/20		OWS-2		OWP-2/7/20		HL-1 2/7/20		<u>HL-4</u> 2/7/20	,	HL-6 2/7/20	
Purgeable Aromatics & Tota	al Petroleu	ım Hydrocarbo	ons												
TPH-g	(mg/kg)	430		0.16	JY	0.98	U	1	U	0.93	U	0.3	JY	1	U
TPH-d	(mg/kg)	260		92	Y	36	Y	21	Y	7.9	Y	990	Y	330	Y
TPH-mo	(mg/kg)	12,000		290		120		90		7.8		3,200		470	
Oil & Grease	(mg/kg)			500	U	500	U	500	U	500	U	2,000		500	U
SVOCs & PAHs [3]															
bis (2-Ethylhexyl)phthalate	$(\mu g/kg)$	3.9E+04	3.9E+04	30	J	330	U	330	U	340	U	3,400		74	J
VOCs [3]															
Acetone	(µg/kg)	6.1E+07		17	U	17	U	19	U	3.2	J	1,000	U	26	
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.3	U	4.4	U	4.7	U	3.9	U	48		3.6	U
2-Butanone	$(\mu g/kg)$			8.6	U	8.7	U	9.5	U	1.8	J	16		6.1	J
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.3	U	4.4	U	4.7	U	3.9	U	11		3.6	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.6	U	8.7	U	9.5	U	7.8	U	12		7.2	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.3	U	4.4	U	4.7	U	3.9	U	8.1		3.6	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.3	U	4.4	U	4.7	U	3.9	U	41		3.6	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.3	U	4.4	U	4.7	U	3.9	U	4.4		3.6	U
Metals															
Cadmium	(mg/kg)	78	71	0.32		0.3		0.41		0.46		0.32		0.27	
Chromium	(mg/kg)			80		57		84		93		86		89	
Lead	(mg/kg)	80	80	7.9		8.2		8.7		7.8		7.7		6.9	
Nickel	(mg/kg)	820	820	80		63		67		96		86		86	
Zinc	(mg/kg)	23,000	23,000	62		58		55		59		59		55	
PCBs [2]															
Aroclor-1254	(mg/kg)	0.230	0.240	1.9		1.2		0.93		0.75		0.64		0.62	

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Sears Closure - Summary of Detected Results Former Vallco Mall 10123 North Wolfe Road, Cupertino, CA

Notes:

mg/kg = milligram per kilogram

μg/kg = microgram per kilogram

U = not detected above the method detection limit; reporting limit shown

J = concentration detected between the method detection limit and the reporting limit and is considered an estimate

Y = sample exhibits chromatographic pattern which does not resemble standard

-- = not available

SVOCs = Semi-volatile organic compounds

PAHs = Polycyclic aromatic hydrocarbons

VOCs = Volatile organic compounds

PCBs = Polychlorinated biphenyl

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019 (revision 2). Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

- [1] = Bold values indicate a detection above the reporting limit. Shaded values indicate an exceedance of the screening levels.
- [2] = Samples H-1 through H-11, including sample H-P-12 were collect beneath hydraulic lifts that extended in to the basement level on January 22, 2020. Samples AN-1 and AN-2 were collected beneath/ around the former acid neutralization chamber on January 22, 2020. Samples OW-1, OW-3, and OWP-1 were collect beneath/ around the former oil-water seperator on February 7, 2020. Samples HG-1 through HG-3 were collected beneath hydraulic lifts at ground level, in the northern portion of the building on February 7, 2020.
- [3] = Only analytes detected over the reporting limit in at least one sample are shown.

WSP

Table 2

Wolfe Rd PCB Summay Table
Former Vallco Mall

10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	<u>l</u>	Aroclor-123	32	Aroclor-12	<u> 12</u>	Aroclor-12	18	Aroclor-125	54	Aroclor-126	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
E5-1 [3]	9/6/2016	0.034	U	0.043	U	0.042	U	0.034	U	0.034	U	0.523		0.034	U	0.523
E5-2 [3]	9/6/2016	0.0066	U	0.0084	U	0.0083	U	0.0066	U	0.0066	U	0.0079	U	0.0066	U	ND
E5-3 [3]	9/6/2016	0.0066	U	0.0084	U	0.0083	U	0.0066	U	0.0066	U	0.0079	U	0.0066	U	ND
E5P-1	10/4/2019	0.032	U	0.065	U	0.032	U	0.032	U	0.032	U	0.75		0.13		0.88
E5P-3	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-N-1	10/4/2019	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.83		0.11		0.94
E5P-N-3	10/4/2019	660	U	1,300	U	660	U	660	U	660	U	660	U	660	U	ND
E5P-N-5 [5]	10/4/2019	0.034	U	0.067	U	0.034	U	0.034	U	0.034	U	0.034	U	0.034	U	ND
E5P-S-1	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.043		0.0078	J	0.0508
E5P-S-3	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-E-1	10/4/2019	0.034	U	0.068	U	0.034	U	0.034	U	0.034	U	0.15		0.027	J	0.177
E5P-E-3	10/4/2019	0.02	U	0.04	U	0.02	U	0.02	U	0.02	U	0.02	U	0.015	J	0.015 J
E5P-W-1	10/4/2019	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.92		0.14		1.06
E5P-W-3	10/4/2019	0.02	U	0.041	U	0.02	U	0.02	U	0.02	U	0.02	U	0.023		0.023
E5P-W-5 [5]	10/4/2019	0.033	U	0.065	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
E5P-NN5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.24		0.044		0.284
E5P-NN5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NN10-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.38		0.06		0.44
E5P-NN10-3	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NE5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.19		0.042		0.232
E5P-NE5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.008	J	0.008 J
E5P-NE10-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.15		0.037		0.187
E5P-NE10-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.010	J	10 J
E5P-NW5-1	10/30/2019	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.75		0.091		0.841
E5P-NW5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NW10-1	10/30/2019	0.013	U	0.026	U	0.013	U	0.013	U	0.013	U	0.95		0.096		1.046
E5P-NW10-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-WW5-1	10/30/2019	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.67		0.082	**	0.752
E5P-WW5-3	10/30/2019	0.012	U U	0.024	U	0.012	U	0.012	U	0.012	U	0.012 0.18	U	0.012 0.028	U	ND 0.200
E5P-WW10-1 E5P-WW10-3	10/30/2019 10/30/2019	0.013	U	0.027	U	0.013 0.012	U	0.013 0.012	U U	0.013 0.012	U U	0.012	U	0.028	U	0.208 ND
E5P-WS5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	0.631
E5P-WS5-3	10/30/2019	0.033	U	0.000	U	0.033	U	0.033	U	0.033	U	0.012	U	0.001	U	0.031 ND
E5P-WS10-1	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	В	0.012	-	0.559
E5P-WS10-3	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND

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Table 2

Wolfe Rd PCB Summay Table
Former Vallco Mall

10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	<u>l</u>	Aroclor-123	32	Aroclor-124	12	Aroclor-12	18	Aroclor-125	54	Aroclor-120	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
SO-E1-1	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.025		0.0066	U	0.025
SO-E1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-E2-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.12		0.033	U	0.12
SO-E2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-N1-1	2/14/2020	0.034	U	0.067	U	0.034	U	0.034	U	0.034	U	0.28		0.034	U	0.28
SO-N1-3	2/14/2020	0.0048	U	0.0097	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-N2-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.014	J	0.033	U	0.014 J
SO-N2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NE1-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.26		0.01	U	0.26
SO-NE1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NE2-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.0089	J	0.01	U	0.0089 J
SO-NE2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW1-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.16		0.01	U	0.16
SO-NW1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW2-1	2/14/2020	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
SO-NW2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW3-1	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.012		0.0066	U	0.012
SO-NW3-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.038		0.0067	U	0.038
SO-S1-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.022		0.017	U	0.022
SO-S1-3	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	ND
SO-S2-1	2/14/2020	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	ND
SO-S2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-SW1-1	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.015		0.0048	U	0.015
SO-SW1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-SW2-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.27		0.017	U	0.27
SO-SW2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND

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Wolfe Rd PCB Summay Table Former Vallco Mall 10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	1	Aroclor-123	32	Aroclor-12	12	Aroclor-124	18	Aroclor-125	<u>54</u>	Aroclor-126	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
SO-SW3-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	ND
SO-SW3-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-SW4-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
SO-SW4-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-W1-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.21		0.0067	U	0.21
SO-W1-3	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.0066	U	0.0066	U	ND
SO-W2-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0071		0.0067	U	0.0071
SO-W2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-W3-1	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0059		0.0048	U	0.0059
SO-W3-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-W4-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0065	J	0.0067	U	0.0065 J
SO-W4-3	2/14/2020	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
ESLs Residential (n	ng/kg)															0.230
RSLs Residential (1	ng/kg)	4		0.200		0.170		0.230		0.230		0.240		0.240		0.230

Notes:

mg/kg = millograms per kilogram

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019. Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

U = compound was not detected at a concentration greater than the reporting limit shown

J

= compound was detected at a concentration less than the laboratory reporting limit, but greater than the method detection limit

B = analyte detected in the associated method blank and in the sample

-- = not applicable or not available

- [1] Bold results indicate the concentration is greater than the reporting limit; results in red font indicate exceedance of screening levels. Gray gradient indicates increased depth within soil boring
- [2] For samples with E5P identifier, sample nomenclature is as follows: "sample location direction from original boring sample depth". For samples with SO identifier, sample nomenclature is as follows: "sample type (SO=step-out boring) - relative direction-sample depth". All samples were collected by WSP excluding those qualified by note 3.
- [3] Samples collected by Geosphere consultants, inc. on September 6, 2016. Sample E5-1 was collected at a depth of 1 foot below ground surface (ft-bgs), sample E5-2 was collected at 5 ft-bgs, and sample E5-3 was collected at 10 ft-bgs.
- [4] The PCB-sum is the sum of any detected aroclor listed above method dection limit.
- [5] Sample analyzed out-side of hold time; however, the laboratory has advised the data should be respresentative as the new analytical method update has extended the hold time to 1 year but California has not yet adopted the hold time.

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Table 3
Sears Center Investigation Area - TPH Data

Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	TPH-d		TPH-mo	
Sample ID [1][2]	(mg/kg)		(mg/kg)	
HL-1	7.9	Y	7.8	
HL-1N5-9	1.2	Y	4.7	J
HL-2-10	0.39	J	5	U
HL-2-12	1	U	5	U
HL-2N5-9	0.4	J	5	U
HL-2W5-9	0.46	J	5	U
HL-3-10	1	U	5	U
HL-3-12	0.31	J	5	U
HL-3N5-9	0.35	J	5	U
HL-3W5-10	0.45	J	5	U
HL-4	990	Y	3200	
HL-4N5-9	1.1	Y	2.8	J
HL-5-9	1	U	5	U
HL-5-12	0.38	J	5	U
HL-5N5-9	1	U	5	U
HL-5E5-9	0.45	J	5	U
HL-6	330	Y	470	
HL-6N5-4	64	Y	290	
HL-6N5-9	200	Y	1100	
HL-6E5-9	1	U	5	U
OWS-1	92	Y	290	
OWS-O-12	0.99	U	5	U
OWS-O-16	0.38	J	1.7	J
OWS-O-20	0.33	J	5	U
OWS-1N5-12	0.44	J	5	U
OWS-1N5-16	1	U	5	U
OWS-1N5-20	0.94	J	4.1	J
OWS-1S5-12	1.5	Y	5.6	
OWS-1S5-16	1.7	Y	2.5	J
OWS-1S5-20	1.4	Y	3.3	J
OWS-2	36	Y	120	
OWS-2N5-12	0.33	J	5	U
OWS-2N5-16	0.39	J	5	U
OWS-2N5-20	0.51	J	5	U
OWS-2S5-12	0.49	J	5	U
OWS-2S5-16	0.89	J	2.2	J
OWS-2S5-20	0.77	J	5	U

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Sears Center Investigation Area - TPH Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	TPH-d		TPH-mo	0
Sample ID [1][2]	(mg/kg)		(mg/kg))
OWP-1	21	Y	90	
OWP-1N5-12	1	U	5	U
OWP-1N5-16	0.46	J	5	U
OWP-1N5-20	0.54	J	5	U
OWP-1S5-12	1	U	1.7	J
OWP-1S5-16	0.54	J	1.8	J
OWP-1S5-20	0.52	J	1.9	J
OWP-1E5-12	1	U	5	U
OWP-1E5-16	0.99	U	5	U
OWP-1E5-20	1	U	5	U
OWPI-W5-12	0.34	J	5	U
OWPI-W5-16	1	U	5	U
OWPI-W5-20	1200	Y	3600	
Residential ESL	260		12,000	
Residential RSL			-	

Notes:

mg/kg = milligram per kilogram

J = concentration detected between the method detection limit and the reporting limit and is considered an estimate

Y = sample exhibits chromatographic pattern which does not resemble standard

-- = not available

TPH = total petroleum hydrocarbons (TPH) as diesel (TPH-d) and as motor oil (TPH-mo)

- ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019 (revision 2). Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.
- RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.
 - [1] = Bold values indicate a detection above the reporting limit. Shaded values indicate an exceedance of the screening levels.
 - [2] = Sample nomenclature is sample area (HL = hydraulic lift; OWS = oil-water seperator; OWP = oil-water seperator pipe)- relative direction sample depth (in feet below ground surface). Bold sample ID's were collected in Feburary 2020. All other samples were collected in April 2020 in an effort to delineate TPH-d,mo concentrations in soil in the area.

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Sears Center Investigation Area - PCB Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	<u>16</u>	Aroclor-122	1	Aroclor-123	32	Aroclor-124	12	Aroclor-12	<u> 18</u>	Aroclor-125	54	Aroclor-120	<u>50</u>	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
HL-1	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.75		0.067	U	0.75
HL-1N5-9	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-1N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-1N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2-10	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2-15	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2N5-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2W5-9	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2W5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2W5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3-10	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-3-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3W5-10	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3W5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.64		0.067	U	0.64
HL-4N5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND

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Sears Center Investigation Area - PCB Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	16	Aroclor-122	1	Aroclor-12	32	Aroclor-124	12	Aroclor-124	18	Aroclor-125	54	Aroclor-120	50	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
HL-5E5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5E5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5E5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6	0.066	U	0.13	U	0.066	U	0.066	U	0.066	U	0.62		0.066	U	0.62
HL-6N5-4	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0018	J	0.0048	U	0.0018 J
OWS-O-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-O-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-O-20	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
OWS-1	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	1.9		0.067	U	1.9
OWS-1N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1N5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1N5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1S5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.01		0.0048	U	0.01
OWS-1S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	1.2		0.067	U	1.2
OWS-2N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2N5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2N5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2S5-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
OWS-2S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0066		0.0048	U	0.0066
OWS-2S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1	0.066	U	0.13	U	0.066	U	0.066	U	0.066	U	0.93		0.066	U	0.93
OWP-1N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1N5-16	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1N5-20	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND

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Table 4

Sears Center Investigation Area - PCB Data Former Vallco Mall

10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	<u> 16</u>	Aroclor-122	1	Aroclor-123	32	Aroclor-124	12	Aroclor-12	18	Aroclor-125	<u>54</u>	Aroclor-120	<u>50</u>	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
OWP-1S5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-20	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.061		0.0048	U	0.061
ESLs Residential (mg/kg)								•							0.230
RS Ls Residential (mg/kg)	4		0.200		0.170		0.230		0.230		0.240		0.240		0.230

Notes:

mg/kg = millogram per kilogram

PCB = polychlorinated biphenyl

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019. Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

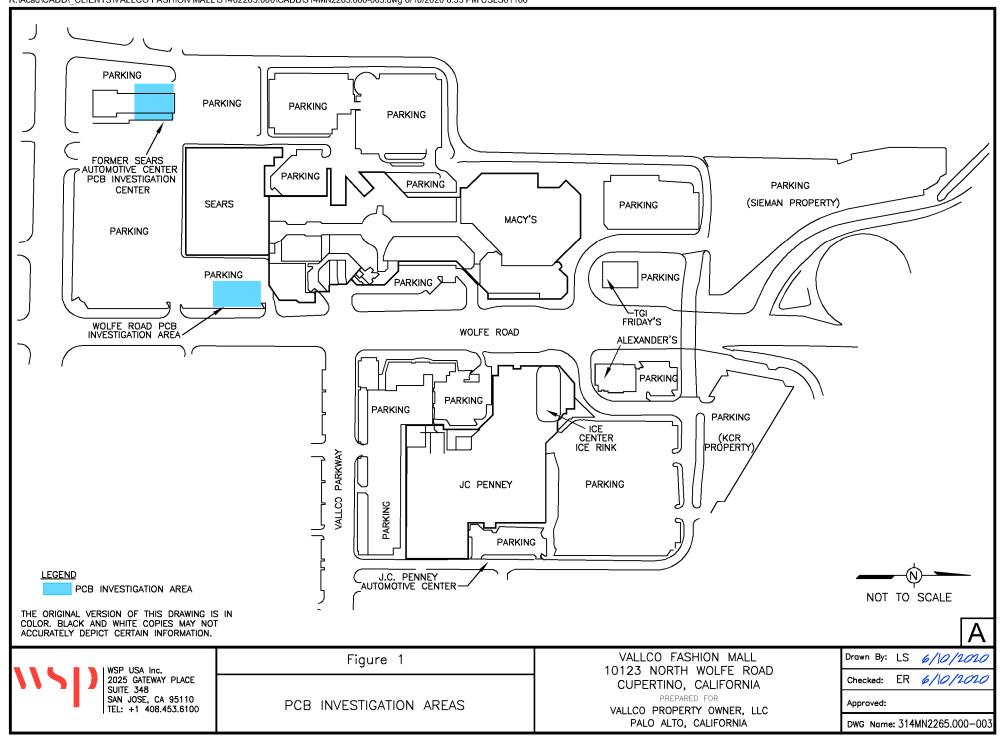
RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

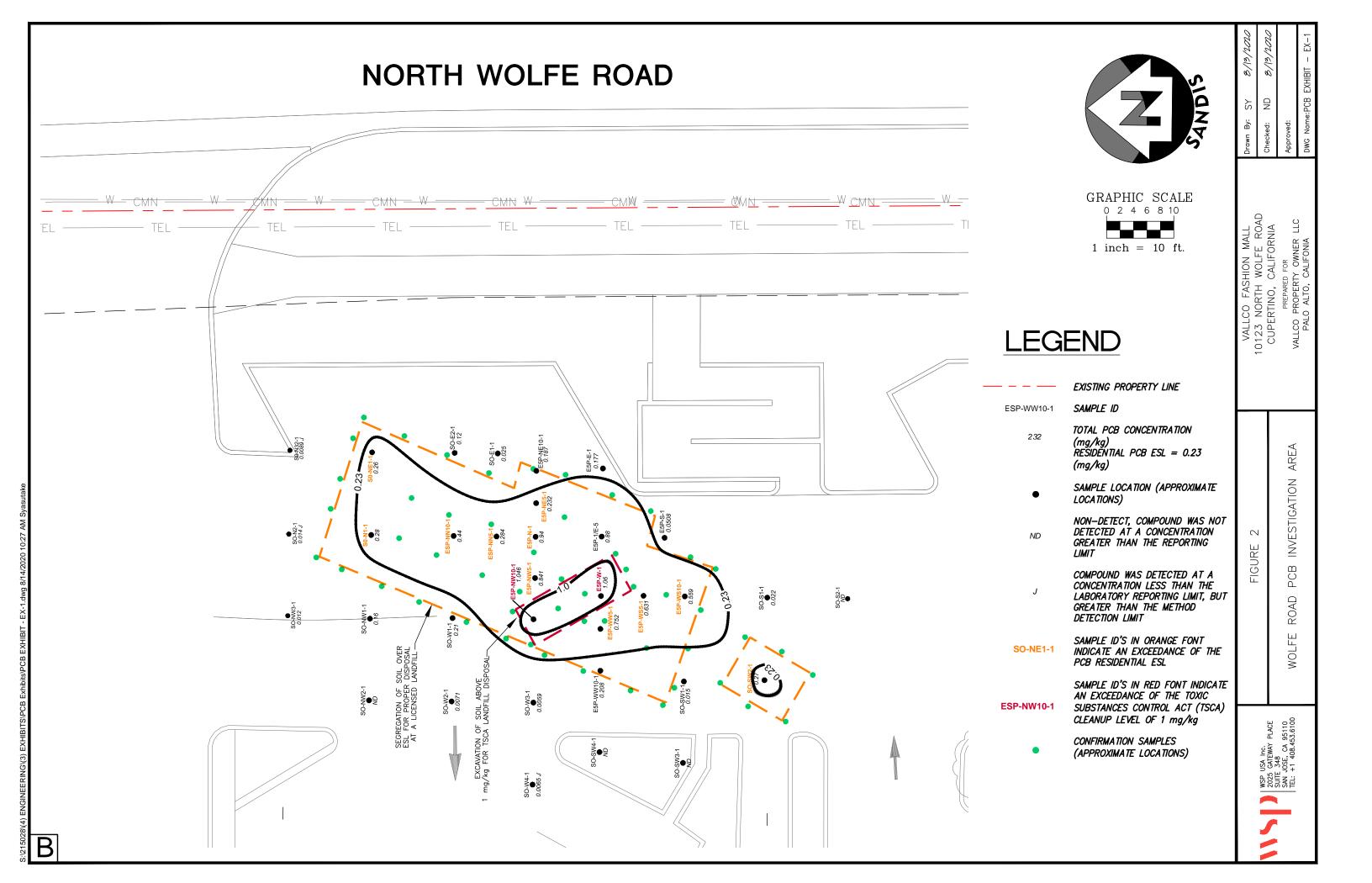
- U = compound was not detected at a concentration greater than the reporting limit shown
- J = compound was detected at a concentration less than the laboratory reporting limit, but greater than the method detection limit
- -- = not applicable or not available
- [1] Bold results indicate the concentration is greater than the reporting limit; results in red font indicate exceedance of screening levels. Gray gradient indicates increased depth within soil boring
- [2] Sample nomenclature is sample area (HL = hydraulic lift; OWS = oil-water seperator; OWP = oil-water seperator pipe)- relative direction sample depth (in feet below ground surface). Bold sample ID's were collected in February 2020. All other samples were collected in April 2020 in an effort to delineate PCB concentrations in soil in the area.
- [3] The PCB-sum is the sum of any detected aroclor listed above method dection limit.

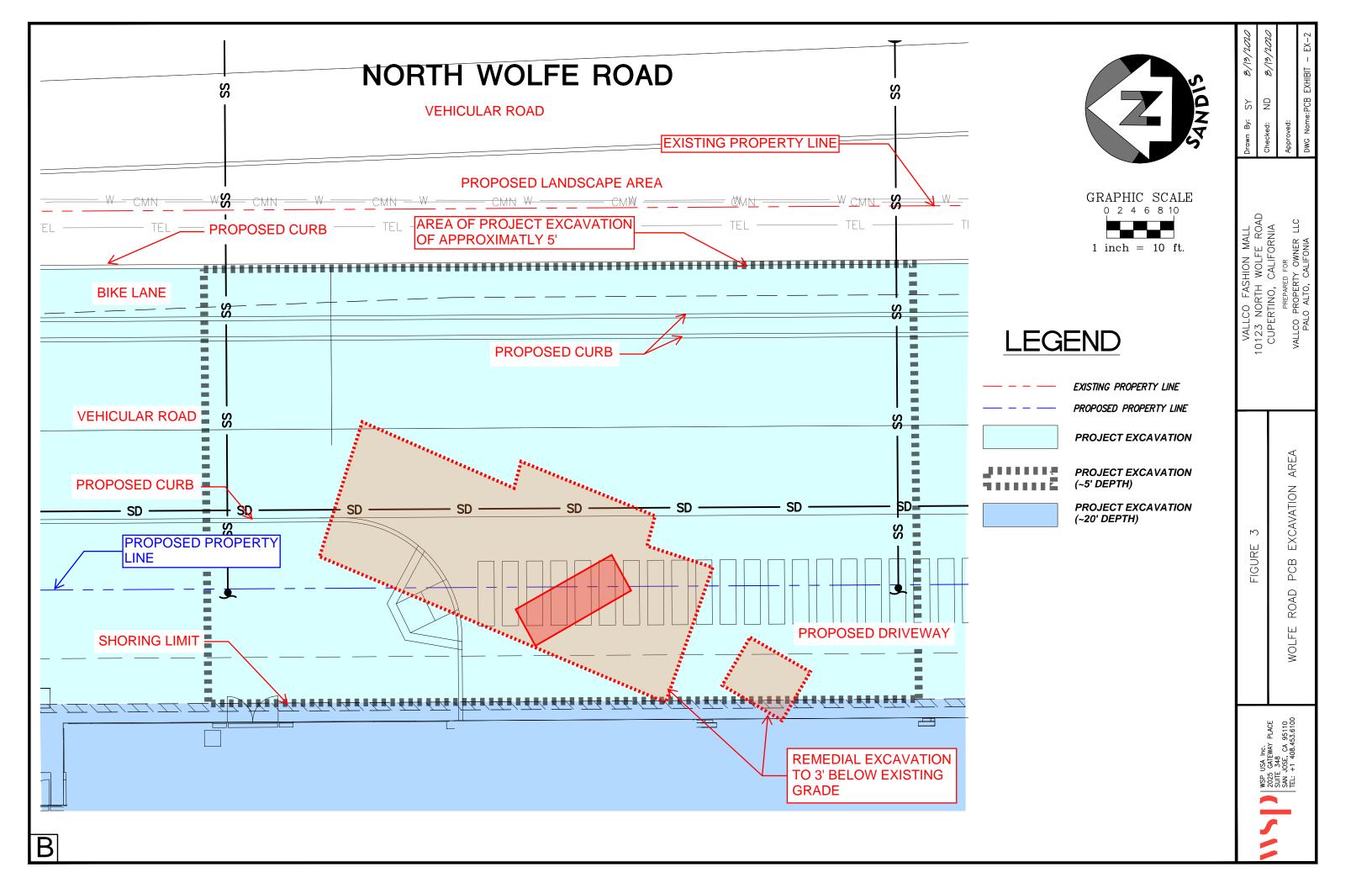
WSP Page 3 of 3



FIGURES







WSP USA Inc.

2025 GATEWAY PLACE SUITE 348 SAN JOSE, CA 95110 TEL: +1 408.453.6100

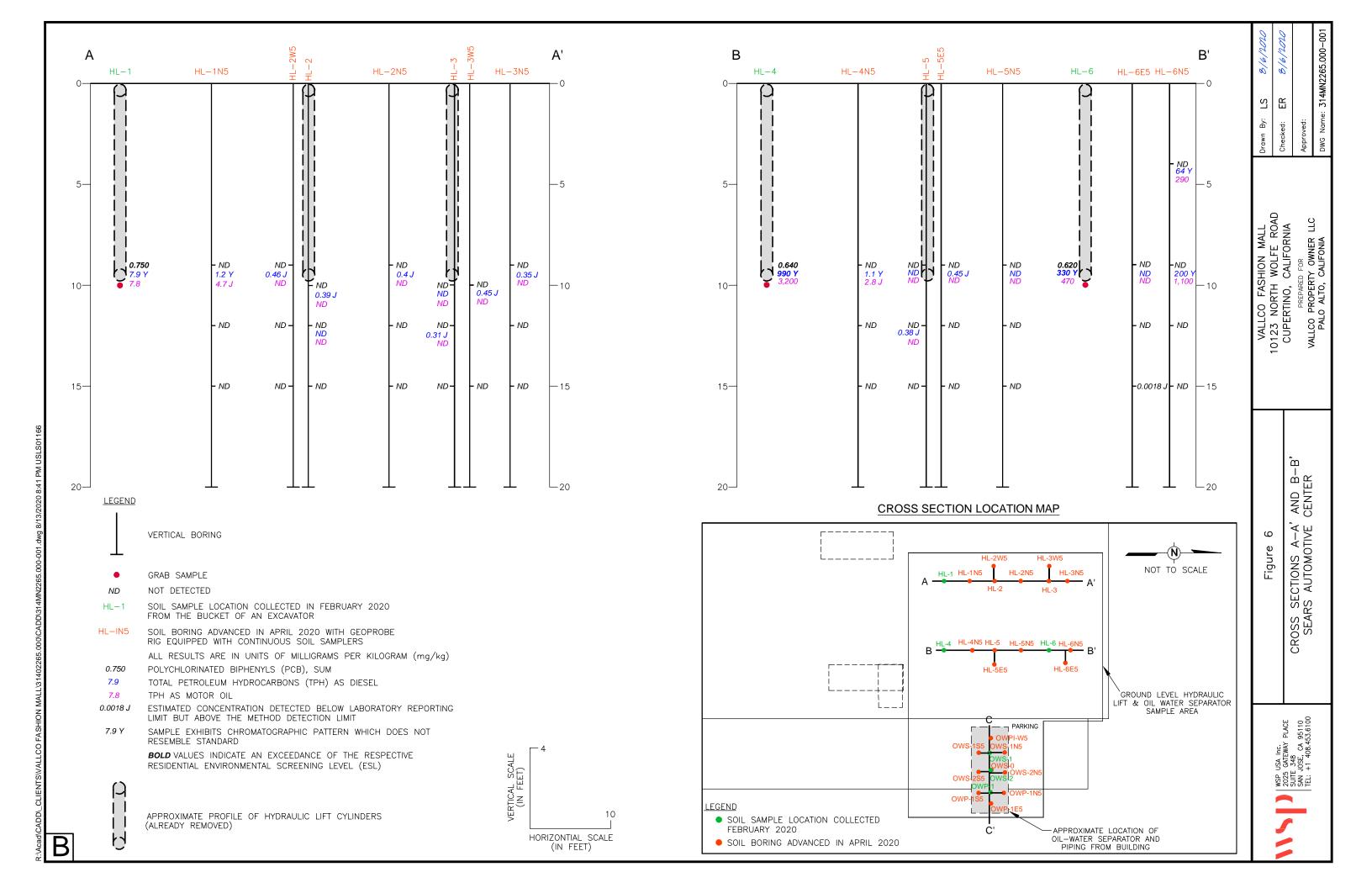
SAMPLING LOCATIONS -SEARS AUTOMOTIVE CENTER 10123 NORTH WOLFE ROAD CUPERTINO, CALIFORNIA PREPARED FOR

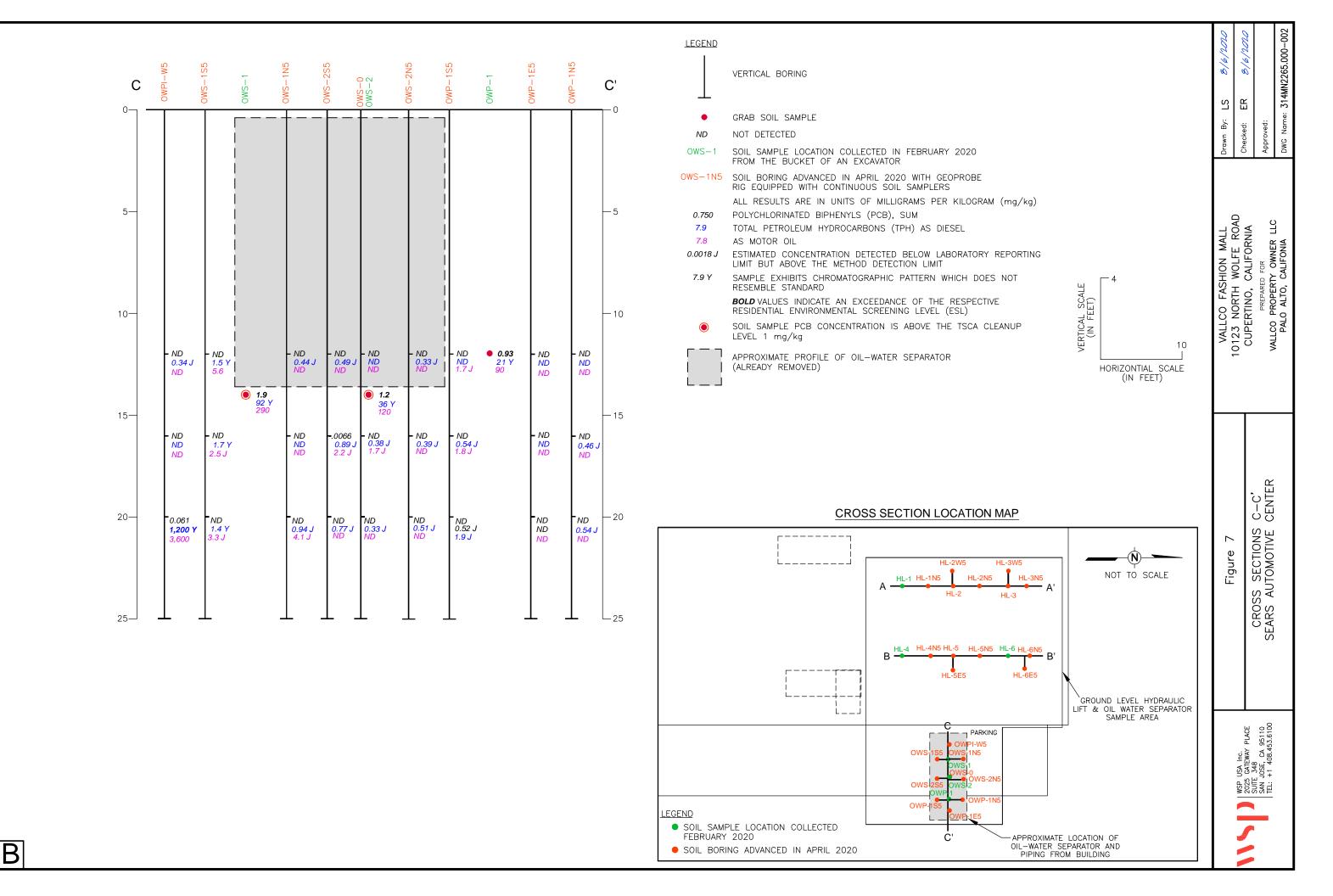
VALLCO PROPERTY OWNER LLC PALO ALTO, CALIFORNIA

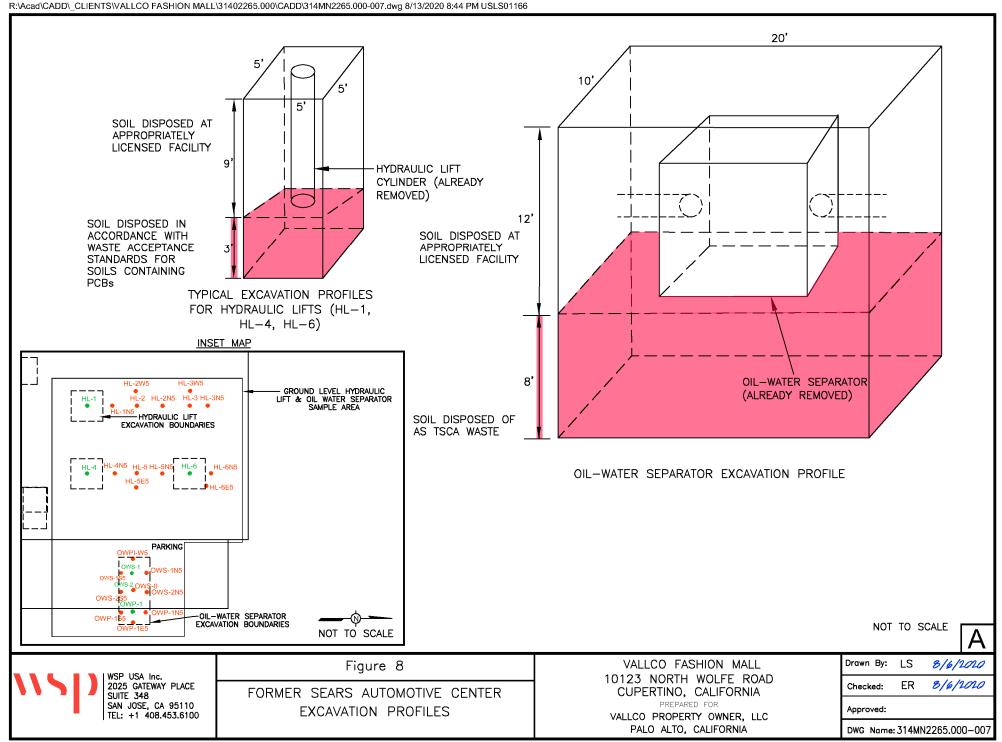
ER 6/10/2020 Checked:

Approved:

DWG Name: 314MN2265.000-005







APPENDIX

STORM WATER POLLUTION AND PREVENTION PLAN (SWPPP)

STORMWATER POLLUTION PREVENTION PLAN

for

Vallco Town Center

RISK LEVEL 1

Legally Responsible Person (LRP):

Sand Hill Property Company 965 Page Mill Road Palo Alto, CA 93404

Paul Hansen

Prepared for:

Sand Hill Property Company

Project Address:

10000 North Wolfe Road Cupertino, CA 95014

SWPPP Prepared by:

SANDIS 5117 Johnson Dr. Pleasanton, CA 94588

SWPPP Preparation Date

August 27, 2018 Revised April 14, 2020

WDID

2 43C384792

Estimated Project Dates:

Start of Construction: October 2018 Completion of Construction: October 2026

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Qualified SWPPP Developer

Project Name:	Vallco Town Center		
Project Number/ID:	215058		
eet the requirements of the California Cor	n and Attachments were prepared under my direction to astruction General Permit (SWRCB Orders No. 2009-009-VQ and Order 2012-0006-DWQ) ¹ . I certify that I am a ing as of the date signed below."		
QSD Signature			
David Angers	21651		
QSD Name	QSD Certificate Number		
Senior Project Manager, Associa Principal	ate 510.873.8866		
Title and Affiliation	Telephone Number		

¹ The CGP amendments were adopted on July 17, 2012. As of September 26, 2012, the amendment has not be posted to the State Water Board website.

Legally Responsible Person

Approval and Certification of the St	ormwater Pollution Pres	vention Plan
Project Name:	Valle	to Town Center
Project Number/ID:		215028
direction or supervision in accordant properly gather and evaluate the info who manage the system or those per of my knowledge and belief, the info	ce with a system design ormation submitted. Bases rsons directly responsible formation submitted is, to or submitting false information	tachments were prepared under my ed to assure that qualified personnel sed on my inquiry of the person or persons e for gathering the information, to the best rue, accurate, and complete. I am aware mation, including the possibility of fine
Legally Responsibl	e Person	
Signature of Legally Responsibl Signatory	e Person or Approved	Date
Title of Legally Responsible F	Person or Approved	Telephone Number

Amendment Log

Project Name:	Vallco Town Center
Project Number/ID:	215028

Amendment No.	Date	Brief Description of Amendment, include section and page number	Prepared and Approved By
1	4/14/20	SWPPP revision. Change site name from The Hills at Vallco to Vallco Town Center. Extend completion date.	Name: David Angers QSD# 21651
			Name: QSD#

Section 1 SWPPP Requirements

1.1 INTRODUCTION

The Vallco Town Center project comprises approximately 30 acres and is located 10000 in Cupertino, California. The property is owned and being developed by Sandhill Property. The project's location is shown on the Site Map in Appendix B.

This Stormwater Pollution Prevention Plan (SWPPP) is designed to comply with California's General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order No. 2009-0009-DWQ as amended in 2010 and 2012 (NPDES No. CAS000002) issued by the State Water Resources Control Board (State Water Board). This SWPPP has been prepared following the SWPPP Template provided on the California Stormwater Quality Association Stormwater Best Management Practice Handbook Portal: Construction (CASQA, 2012). In accordance with the General Permit, Section XIV, this SWPPP is designed to address the following:

- Pollutants and their sources, including sources of sediment associated with construction, construction site erosion and other activities associated with construction activity are controlled;
- Where not otherwise required to be under a Regional Water Quality Control Board (Regional Water Board) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
- Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Control Technology (BAT/BCT) standard;

1.2 PERMIT REGISTRATION DOCUMENTS

Required Permit Registration Documents (PRDs) shall be submitted to the State Water Board via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Legally Responsible Person (LRP), or authorized personnel (i.e., Approved Signatory) under the direction of the LRP. The project-specific PRDs include:

- 1. Notice of Intent (NOI);
- 2. Risk Assessment (Construction Site Sediment and Receiving Water Risk Determination);
- 3. Site Map;
- 4. Annual Fee;
- 5. Signed Certification Statement (LRP Certification is provided electronically with SMARTS PRD submittal); and
- 6. SWPPP.
- Post-construction water balance calculation:
- Dischargers proposing an alternate soil erodibility factor must submit justification (documentation of methods used [e.g. soil particle size analysis].

Site Maps can be found in Appendix B. A copy of the submitted PRDs shall also be kept in Appendix C along with the Waste Discharge Identification (WDID) confirmation.

1.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The discharger shall make the SWPPP available at the construction site during working hours (see Section 7.5 of CSMP for working hours) while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone. (CGP Section XIV.C)

The SWPPP shall be implemented concurrently with the start of ground disturbing activities.

1.4 SWPPP AMENDMENTS

The SWPPP should be revised when:

- If there is a General Permit violation.
- When there is a reduction or increase in total disturbed acreage (General Permit Section II Part C).
- BMPs do not meet the objectives of reducing or eliminating pollutants in stormwater discharges.

Additionally, the SWPPP shall be amended when:

- There is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- When there is a change in the project duration that changes the project's risk level; or
- When deemed necessary by the QSD. The QSD has determined that the changes listed in Table 1.1 can be field determined by the QSP. All other changes shall be made by the QSD as formal amendments to the SWPPP.

The following items shall be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for change;
- The original BMP proposed, if any; and
- The new BMP proposed.

Amendment shall be logged at the front of the SWPPP and certification kept in Appendix D. The SWPPP text shall be revised replaced, and/or hand annotated as necessary to properly convey the amendment. SWPPP amendments must be made by a QSD. The following changes have been designated by the QSD as "to be field determined" and constitute minor changes that the QSP may implement based on field conditions.

Table 1.1 List of Changes to be Field Determined

Candidate changes for field location or determination by QSP ⁽¹⁾	Check changes that can be field located or field determined by QSP
Increase quantity of an Erosion or Sediment Control Measure	✓
Relocate/Add stockpiles or stored materials	✓
Relocate or add toilets	✓
Relocate vehicle storage and/or fueling locations	✓
Relocate areas for waste storage	✓
Relocate water storage and/or water transfer location	✓
Changes to access points (entrance/exits)	✓
Change type of Erosion or Sediment Control Measure	√
Changes to location of erosion or sediment control	✓
Minor changes to schedule or phases	√
Changes in construction materials	✓
(1) Any field changes not identified for field location or j	ield determination by OSP must be approved

⁽¹⁾ Any field changes not identified for field location or field determination by QSP must be approved by QSD

1.5 RETENTION OF RECORDS

Paper or electronic records of documents required by this SWPPP shall be retained for a minimum of three years from the date generated or date submitted, whichever is later, for the following items:

- SWPPP Binder
- Training Records
- All Inspection Records
- All Violations of the General Permit

These records shall be available at the Site until construction is complete. Records assisting in the determination of compliance with the General Permit shall be made available within a reasonable time, to the Regional Water Board, State Water Board or U.S. Environmental Protection Agency (EPA) upon request. Requests by the Regional Water Board for retention of records for a period longer than three years shall be adhered to.

1.6 REQUIRED NON-COMPLIANCE REPORTING

If a General Permit discharge violation occurs the QSP shall immediately notify the LRP. The LRP shall include information on the violation with the Annual Report. Corrective measures will be implemented immediately following identification of the discharge or written notice of non-compliance from the Regional Water Board. Discharges and corrective actions must be documented and include the following items:

- The date, time, location, nature of operation and type of unauthorized discharge.
- The cause or nature of the notice or order.
- The control measures (BMPs) deployed before the discharge event, or prior to receiving notice or order.
- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence.

1.7 ANNUAL REPORT

The General Permit requires that permittees prepare, certify, and electronically submit an Annual Report no later than September 1st of each year. Reporting requirements are identified in Section XVI of the General Permit. Annual reports will be filed in SMARTS and in accordance with information required by the on-line forms.

1.8 CHANGES TO PERMIT COVERAGE

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when: a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs shall be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP shall be modified appropriately, shall be logged at the front of the SWPPP and cetrification of SWPPP amendments are to be kept in Appendix D. Updated PRDs submitted electronically via SMARTS can be found in Appendix E.

1.9 NOTICE OF TERMINATION

A Notice of Termination (NOT) must be submitted electronically by the LRP via SMARTS to terminate coverage under the General Permit. The NOT must include a final Site Map and representative photographs of the project site that demonstrate final stabilization has been achieved. The NOT shall be submitted within 90 days of completion of construction. The Regional Water Board will consider a construction site complete when the conditions of the General Permit, Section II.D have been met.

Section 2 Project Information

2.1 PROJECT AND SITE DESCRIPTION

2.1.1 Site Description

The Vallco Town Center project site comprises approximately 30 acres and is located at 10000 North Wolfe Road in Cupertino, California. The project site is located approximately 0.24 miles south of the intersection of Interstate-280 and North Wolfe Road. The project site is located approximately 680 feet northwest of Calabazas Creek. The project is located at Latitude 37.3231/Longitude -122.0141 and is identified on the Site Map in Appendix B.

2.1.2 Existing Conditions

As of the initial date of this SWPPP, the project site is the Vallco Shopping Center. The site currently includes a 2-story shopping center, multi-level parking structures, surface parking lots, a pedestrian bridge, a vehicular tunnel, and several stand-alone buildings. There are no known historic sources of contamination onsite at this time.

2.1.3 Existing Drainage

The project site is relatively flat with a slope to the southwest. The elevation of the project site ranges from 180 - 172 feet above mean sea level (msl). Surface drainage at the site currently flows to the soutwest, towards storm drain inlets. Stormwater is conveyed through surface run off as well as storm drain inlets. Stormwater discharges, from the site, are not considered direct discharges, as defined by the State Water Board Calabazas Creek. Existing site topography, drainage patterns, and stormwater conveyance systems are shown on [names of drawings or plans].

The project discharges to Calabazas Creek that is not listed for water quality impairment on the most recent 303(d)-list for:

- Sedimentation/Siltation
- Turbidity
- pH

2.1.4 Geology and Groundwater

The site is underlain by 3-10 inches of aggregate base. The site is underlain also by alluvial deposits consisting of stiff to hard clays and sandy clays and medium dense to very dense sand and gravel. Historic high groundwater at the site is 50 feet bgs with groundwater also being encountered at depths between 65-75 feet bgs.

2.1.5 Project Description

Project grading will occur on approximately 30 acres of the project, which comprises approximately 100 percent of the total area. The limits of grading are shown on P-0401 in Appendix B. Grading will include both cut and fill activities with graded material expected to be

balanced onsite. Soil will be stockpiled at a location TBD by the contractor along with the QSP as shown on WPCD in Appendix B. Construction activities will be not be phased.

2.1.6 Developed Condition

Post construction surface drainage will be directed as surface flow through stormwater conveyance systems and sheet flow towards and will discharge a storm drain system as well as self treating planters.

Post construction drainage patterns and conveyance systems are presented on the Stormwater Management Plan in Appendix B.

Table 2.1 Construction Site Estimates

Construction site area	<u>30</u>	acres
Percent impervious before construction	<u>90</u>	%
Runoff coefficient before construction	<u>.85</u>	
Percent impervious after construction	<u>58</u>	%
Runoff coefficient after construction	<u>.70</u>	

2.2 PERMITS AND GOVERNING DOCUMENTS

In addition to the General Permit, the following documents have been taken into account while preparing this SWPPP

- Regional Water Board requirements
- Air Quality Regulations and Permits

2.3 STORMWATER RUN-ON FROM OFFSITE AREAS

There is no anticipated offsite run-on to this construction site because of the relatively flat topography of the surrounding area as well as the placement of inlets on the perimeter area of the site.

2.4 FINDINGS OF THE CONSTRUCTION SITE SEDIMENT AND RECEIVING WATER RISK DETERMINATION

A construction site risk assessment has been performed for the project and the resultant risk level is Risk Level 1.

The risk level was determined through the use of the site specific analysis. The risk level is based on project duration, location, proximity to impaired receiving waters and soil conditions. A copy of the Risk Level determination submitted on SMARTS with the PRDs is included in Appendix C.

Table 2.2 and Table 2.3 summarize the sediment and receiving water risk factors and document the sources of information used to derive the factors.

Table 2.2 Summary of Sediment Risk

RUSLE Factor	Value	Method for establishing value	
R	348	EPA Fact Sheet 3.1 - Construction Rainfall Erosivity Waiver	
K	0.24	Waterboards RUSLE K Factor Map	
LS	0.139816	Table from Renard et. al., 1997	
Total Pred	Total Predicted Sediment Loss (tons/acre) 11.68		
Overall Sediment Risk Low Sediment Risk < 15 tons/ acre Medium Sediment Risk >= 15 and < 75 tons/acre High Sediment Risk >= 75 tons/acre High Sediment Risk >= 75 tons/acre			Medium

Runoff from the project site discharges into storm drain inlets that connect to the storm drain system that discharge into Calabazas Creek.

Table 2.3 Summary of Receiving Water Risk

Receiving Water Name	303(d) Listed for Sediment Related Pollutant ⁽¹⁾	TMDL for Sediment Related Pollutant ⁽¹⁾	Beneficial Uses of COLD, SPAWN, and MIGRATORY ⁽¹⁾	
Calabazas Creek	☐ Yes ⊠ No	☐ Yes ⊠ No	☐ Yes ⊠ No	
Overall Receiving Water	⊠ Low ☐ High			
(1) If yes is selected for all 3 options the Receiving Water Risk is High				

Risk Level 1 sites are subject to the narrative effluent limitations specified in the General Permit. The narrative effluent limitations require stormwater discharges associated with construction activity to minimize or prevent pollutants in stormwater and authorized non-stormwater through the use of controls, structures, and best management practices. This SWPPP has been prepared to address Risk Level 1 requirements (General Permit Attachment C).

2.5 CONSTRUCTION SCHEDULE

The site sediment risk was determined based on construction taking place between 10/5/2018 and 10/5/2026. Modification or extension of the schedule (start and end dates) may affect risk

determination and permit requirements. The LRP shall contact the QSD if the schedule changes during construction to address potential impact to the SWPPP. The estimated schedule for planned work can be found in Appendix F.

2.6 POTENTIAL CONSTRUCTION ACTIVITY AND POLLUTANT SOURCES

Appendix G includes a list of construction activities and associated materials that are anticipated to be used onsite. These activities and associated materials will or could potentially contribute pollutants, other than sediment, to stormwater runoff.

The anticipated activities and associated pollutants were used in Section 3 to select the Best Management Practices for the project. Location of anticipated pollutants and associated BMPs are show on the Site Map in Appendix B.

For sampling requirements for non-visible pollutants associated with construction activity please refer to Section 7.7.1. For a full and complete list of onsite pollutants, refer to the Material Safety Data Sheets (MSDS), which are retained onsite at the construction trailer.

2.7 IDENTIFICATION OF NON-STORMWATER DISCHARGES

Non-stormwater discharges consist of discharges which do not originate from precipitation events. The General Permit provides allowances for specified non-stormwater discharges that do not cause erosion or carry other pollutants.

Some regional Water Boards may prohibit, require a separate NPDES permit, or specific monitoring and reporting requirements for the non-storm water discharges identified in the Construction General Permit as authorized. Additionally, some local jurisdictions may prohibit the non-storm water discharges identified in the General Permit as authorized. If either of these is true, the General Permit does not authorize the discharge even if it is listed as an authorized discharge. Check with the Regional Water Board and local jurisdiction on what discharges may or may not be regionally or local authorized.

Authorized non-storm water may include de-chlorinated potable water sources such as: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing, water to control dust, uncontaminated groundwater dewatering and other discharges not subject to separate general NPDES permit adopted by the region.

- Non-storm water discharges must meet the following conditions to be authorized:
 - o Discharge does not cause or contribute to a water quality standard violation;
 - o Discharge does not violate other provision of the General Permit;
 - o Discharge is not prohibited by the applicable Basin Plan;
 - The SWPPP includes appropriate BMPs are implemented to prevent or reduce contact of the non-storm water discharge with construction materials or equipment;
 - O The discharge does not contain a hazardous substance in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges;
 - o The discharger samples and reports the sampling information in the annual report.

- PROHIBITED (ILLICIT) DISCHARGES. Non-storm water discharges into storm
 drainage systems or waterways, which are not authorized under the General Permit or
 authorized under a separate NPDES permit, are prohibited. Examples of prohibited nonstormwater discharges common to construction activities include but are not limited to:
 - o Vehicle and equipment cleaning, fueling and maintenance operations;
 - o Vehicle and equipment wash water, including concrete washout water;
 - o Slurries from concrete cutting and coring operations, PCC grinding or AC grinding operations;
 - o Slurries from concrete or mortar mixing operations;
 - o Blast residue from high-pressure washing of structures or surfaces;
 - Wash water from cleaning painting equipment;
 - o Sanitary and septic wastes;
 - o Chemical leaks and/or spills of any kind including but not limited to petroleum, paints, cure compounds, etc.

Non-stormwater discharges that **are authorized** from this project site include the following:

- Irrigation of vegetative erosion control measures;
- Pipe flushing and testing (dechlorinated);
- Water to control dust;
- Uncontaminated ground water dewatering.
- Discharges that are infeasible to eliminate

These authorized non-stormwater discharges will be managed with the stormwater and non-stormwater BMPs described in Section 3 of this SWPPP and will be minimized by the QSP.

Steps will be taken, including the implementation of appropriate BMPs, to ensure that non-stormwater discharges are eliminated, controlled, disposed properly, or treated on-site.

Discharges of construction materials and wastes, such as fuel or paint, resulting from dumping, spills, or direct contact with rainwater or stormwater runoff, are also prohibited.

The following discharges have been authorized by regional NPDES permits):

NONE

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the General Permit and listed in the SWPPP, or not authorized under a separate NPDES permit, are strictly prohibited.

2.8 REQUIRED SITE MAP INFORMATION

The construction project's Site Map(s) showing the project location, surface water boundaries, geographic features, construction site perimeter and general topography and other requirements identified in Attachment B of the General Permit is located in Appendix B. Table 2.5 identifies Map or Sheet Nos. where required elements are illustrated.

Table 2.5 Required Map Information

Included on Map/Plan Sheet No. (1)	Required Element
VIC Map	The project's surrounding area (vicinity)
WPCD	Site layout
WPCD	Construction site boundaries
WPCD	Drainage areas
WPCD	Discharge locations
WPCD	Sampling locations
GRAD	Areas of soil disturbance (temporary or permanent)
GRAD	Active areas of soil disturbance (cut or fill)
WPCD	Locations of runoff BMPs
WPCD	Locations of erosion control BMPs
WPCD	Locations of sediment control BMPs
N/A	ATS location (if applicable)
WPCD	Locations of sensitive habitats, watercourses, or other features which are not to be disturbed
SWMP	Locations of all post construction BMPs
WPCD	Waste storage areas
WPCD	Vehicle storage areas
WPCD	Material storage areas
WPCD	Entrance and Exits
WPCD	Fueling Locations

Notes: (1) Indicate maps or drawings that information is included on (e.g., Vicinity Map, Site Map, Drainage Plans, Grading Plans, Progress Maps, etc.)

Section 3 Best Management Practices

3.1 SCHEDULE FOR BMP IMPLEMENTATION

	BMP	Implementation	Duration
	EC-1: Scheduling	The schedule will be amended before rainy season to show updated information on the installation and deployment of construction site BMPs.	Entirety of Project
	EC-2: Preservation of Existing Vegetation	ESA fencing will be installed before soil disturbance commences.	TBD
	EC-3: Hydraulic Mulch	Hydraulic mulch will be used as a temporary erosion control BMP against wind used in conjunction with straw mulch when feasible.	TBD
u lo	EC-4: Hydroseeding	Hydroseeding will be used to temporarily protect exposed soils from erosion from water and wind.	TBD
Erosion Control	EC-5: Soil Binders	Soil Binders will be applied to recently graded area to prevent erosion due to water and any stockpiles of materials kept on site which are not otherwise protected by other BMPs.	TBD
	EC-6: Straw Mulch	Straw mulch should be applied in combination with seeding strategies to enhance plant establishment and soil stabilization.	TBD
	EC-7: Geotextile and Mats	Geotextiles and matting of natural materials should be used to cover the soil surface, to reduce erosion from rainfall impact, hold soil in place, and absorb and hold moisture near the soil surface.	TBD

ВМР	Implementation	Duration
EC-8: Wood Mulching	Wood mulch shall be applied to disturbed soil areas to provide temporary protection against rain and wind erosion until permanent stabilization is established.	TBD
EC-9: Earth Dikes and Drainage Swales	Drainage swales will be used to divert runoff to a desired location. Velocity dissipation devices will be used as needed to slow runoff velocities.	TBD
EC-10: Velocity Dissipation Devices	Velocity dissipation devices will be used where discharge velocities and energies at the outlets of culverts, conduits or channels are sufficient to erode immediate downstream reach	TBD
EC-11: Slope Drains	The slope drain will be needed to direct surface flow away from slope areas to protect cut or fill slopes which have not been stabilized yet	TBD
EC-12: Steambank Stabilization	Streambank stabilization will be used wherever construction activity can increase a streams sediment load.	TBD
EC-13: Compost Blanket	A compost blanket will be applied to slopes and earth disturbed areas to increase infiltration and help establish vegetation	TBD
EC-15: Soil Preparation and Roughening	Soil preparation and roughening (track walking) will be used to prepare soil for additional BMPs or to break up sheet flow.	TBD
EC-16: Non-Vegetated Stabilization	Non-vegetative stabilization will be used to stabilize exposed soils and to protect soils from erosion from wind or rain.	TBD

	BMP	Implementation	Duration
	SE-1: Silt Fence	The silt fence detains sediment-laden water, promoting sedimentation behind the fence. The silt fence is suitable for perimeter control below areas where sheet flow discharges from the site.	TBD
	SE-2: Sediment Basin	Constructed prior to cleaning and grading work begins whenever possible.	
	SE-3: Sediment Trap	Construct near the areas producing sediment.	
	SE-4: Check Dams	Place in areas in need of erosion control as well as sediment control. Using check dams in series will greatly increase their effectiveness.	
ontrol	SE-5: Fiber Rolls	After final grading of the slopes; implement in sequence with other erosion control BMPs.	TBD
Sediment Control	SE-6: Gravel Bag Berm	The gravel bag berms will pond sheet flow reducing flow velocity and increasing residence time which will both allow more sediment to settle and prevent erosion.	TBD
	SE-7: Street Sweeping	On adjacent paved roads (public and private) on an as needed basis, determined by QSP.	TBD
	SE-8: Sand Bag Barrier	Sand bag barrier will be placed on a level contour to intercept sheet flows.	TBD
	SE-9: Straw Bale Barrier	A straw bale barrier will be placed on a level contour to intercept sheet flows.	TBD

	ВМР	Implementation	Duration
	SE-10: Storm Drain Inlet Protection	Determine appropriate method of protection due to site conditions. Limit the upstream drainage area that contributes to the inlet to 1 acre maximum.	TBD
	SE-11: Active Treatment System	Aids in the reduction of turbidity caused by fine suspended sediment.	TBD
	SE-12: Temporary Silt Dike	Generally, used in conjunction with temporary soil stabilization controls.	
	SE-13: Compost Socks and Berms	Installed along the perimeter of the project, as check dams in unlined ditches, on contours of exposed soil areas, around stockpiles, or as inlet protection.	
	SE-14: Biofilter Bags	Biofilter bags can be used both as inlet protection and as a linear erosion control measure.	TBD
trol	TC-1: Stabilized Construction Entrance/exit	Install prior to soil disturbance.	TBD
Tracking Control	TC-2: Stabilized Construction Roadway	Implement in roadways susceptible to erosion to increase speed on worksite.	
Trac	TC-3: Entrance Outlet Tire Wash	Incorporate with TC-1, stabilized Construction Entrance/Exit.	TBD
Erosion	WE-1: Wind Erosion	Starting during the grading phase until the landscaping phase.	TBD

3.2 EROSION AND SEDIMENT CONTROL

Erosion and sediment controls are required by the General Permit to provide effective reduction or elimination of sediment related pollutants in stormwater discharges and authorized non-stormwater discharges from the Site. Applicable BMPs are identified in this section for erosion control, sediment control, tracking control, and wind erosion control.

3.2.1 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles.

This construction project will implement the following practices to provide effective temporary and final erosion control during construction:

- 1. Preserve existing vegetation where required and when feasible.
- 2. The area of soil disturbing operations shall be controlled such that the Contractor is able to implement erosion control BMPs quickly and effectively.
- 3. Stabilize non-active areas within 14 days of cessation of construction activities or sooner if stipulated by local requirements.
- 4. Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding or alternate methods.
- 5. Prior to the completion of construction, apply permanent erosion control to remaining disturbed soil areas.

Sufficient erosion control materials shall be maintained onsite to allow implementation in conformance with this SWPPP.

The following temporary erosion control BMP selection table indicates the BMPs that shall be implemented to control erosion on the construction site. Fact Sheets for temporary erosion control BMPs are provided in Appendix H.

Table 3.2 **Temporary Erosion Control BMPs**

CASQA	BMP Name	Meets a Minimum	BMP U	J sed	
Fact Sheet		Requirem ent ⁽¹⁾	YES	NO	If not used, state reason
EC-1	Scheduling	✓			
EC-2	Preservation of Existing Vegetation	✓			
EC-3	Hydraulic Mulch				N/A
EC-4	Hydroseed				N/A
EC-5	Soil Binders				N/A
EC-6	Straw Mulch				N/A
EC-7	Geotextiles and Mats				N/A
EC-8	Wood Mulching				N/A
EC-9	Earth Dike and Drainage Swales				N/A
EC-10	Velocity Dissipation Devices				N/A
EC-11	Slope Drains				N/A
EC-12	Stream Bank Stabilization				N/A
EC-14	Compost Blankets				N/A
EC-15	Soil Preparation-Roughening				N/A
EC-16	Non-Vegetated Stabilization				N/A
WE-1	Wind Erosion Control	✓			
Alternate	BMPs Used:				If used, state reason:

⁽¹⁾ Applicability to a specific project shall be determined by the QSD.
(2) The QSD shall ensure implementation of one of the minimum measures listed or a combination thereof to achieve and maintain the Risk Level requirements.

⁽³⁾ Run-on from offsite shall be directed away from all disturbed areas, diversion of offsite flows may require design/analysis by a licensed civil engineer and/or additional environmental permitting

These temporary erosion control BMPs shall be implemented in conformance with the following guidelines and as outlined in the BMP Factsheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

EC-1: Scheduling

The schedule will be amended before rainy season to show updated information on the installation and deployment of construction site BMPs.

EC-2: Preservation of Existing Vegetation

Areas of existing vegetation will be preserved and not disturbed until it is necessary to grade that area. Either orange ESA fencing or orange silt fencing will be used to restrict access to these areas.

WE-1: Wind Erosion Control

Fugitive dust control will be managed with water and/or with soil binders. Water used for dust suppression will be applied so that it will evaporate or percolate into the ground and not pose a problem to the storm drain system. Stockpiles will be kept moist with water to ensure wind erosion and dust control is adequately addressed on the site. When a stockpile is not actively being used (not used for a period of 14 days or more), it is required to be bermed with a secured fiber roll or rock bags, and covered with plastic sheeting.

3.2.2 Sediment Controls

Sediment controls are temporary or permanent structural measures that are intended to complement the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water.

The following sediment control BMP selection table indicates the BMPs that shall be implemented to control sediment on the construction site. Fact Sheets for temporary sediment control BMPs are provided in Appendix H.

Table 3.3	Temporary	Sediment	Control BMPs
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CASQA Fact	BMP Name	Meets a Minimum	BMP used		If not used, state	
Sheet	Regu	cheet Requirement (1)	Requirement (1)	YES	NO	reason
SE-1	Silt Fence			✓	N/A	
SE-2	Sediment Basin			✓	N/A	
SE-3	Sediment Trap			✓	N/A	
SE-4	Check Dams			✓	N/A	
SE-5	Fiber Rolls		✓			

Table 3.3 Temporary Sediment Control BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum	BMP used		If not used, state
		Requirement (1)	YES	NO	reason
SE-6	Gravel Bag Berm			✓	N/A
SE-7	Street Sweeping	✓			
SE-8	Sandbag Barrier			✓	N/A
SE-9	Straw Bale Barrier			1	N/A
SE-10	Storm Drain Inlet Protection	✓			
SE-11	ATS			✓	N/A
SE-12	Manufactured Linear Sediment Controls			√	N/A
SE-13	Compost Sock and Berm			✓	N/A
SE-14	Biofilter Bags			✓	N/A
TC-1	Stabilized Construction Entrance and Exit	✓			
TC-2	Stabilized Construction Roadway			✓	N/A
TC-3	Entrance Outlet Tire Wash			✓	N/A
Alternate BMPs Used:				If used, state reason:	

⁽¹⁾ Applicability to a specific project shall be determined by the QSD

⁽²⁾ The QSD shall ensure implementation of one of the minimum measures listed or a combination thereof to achieve and maintain the Risk Level requirements

These temporary sediment control BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

SE-5: Fiber Rolls

Fiber rolls or straw wattles will be installed along the perimeter of the site along with the construction fencing. Straw wattle shall be left in place where reasonable at the completion of the project.

SE-7: Street Sweeping

Street sweeping on all adjacent (public and private) paved roads is addressed daily or on an "as needed" basis. Inspections by the project supervisor and/or the QSP will determine the frequency of the sweeping.

SE-10: Storm Drain Inlet Protection

Determine appropriate method of protection due to site conditions. Limit the upstream drainage area that contributes to the inlet to 1 acre maximum.

TC-1: Stabilized Construction Entrance and Exit

A stabilized construction entrance/exit will be constructed and maintained at construction site entrance and exits, equipment yard, PCC batch plants and water filling area for water trucks. The site entrance/exit will be stabilized to reduce tracking of sediments as a result of construction traffic. QSP shall ensure construction activity traffic to and from the project is limited to controlled entrances and exits.

TC-2: Stabilized Construction Roadway

Implement in roadways susceptible to erosion to increase speed on worksite.

TC-3: Entrance/Outlet Tire Wash

An entrance/outlet tire wash station will be used to ensure that sediment tracking to public streets in minimized.

3.3 NON-STORMWATER CONTROLS AND WASTE AND MATERIALS MANAGEMENT

3.3.1 Non-Stormwater Controls

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the General Permit, are prohibited. Non-stormwater discharges for which a separate NPDES permit is required by the local Regional Water Board are prohibited unless coverage under the separate NPDES permit has been obtained for the discharge. The selection of non-stormwater BMPs is based on the list of construction activities with a potential for non-stormwater discharges identified in Section 2.7 of this SWPPP.

The following non-stormwater control BMP selection table indicates the BMPs that shall be implemented to control non-stormwater discharges on the construction site. Fact Sheets for temporary non-stormwater control BMPs are provided in Appendix H.

Table 3.4 Temporary Non-Stormwater BMPs

CASQA	BMP Name	Meets a Minimum	BMP u	sed	
Fact Sheet		Requirem ent ⁽¹⁾	YES	NO	If not used, state reason
NS-1	Water Conservation Practices	✓			
NS-2	Dewatering Operation			✓	N/A
NS-3	Paving and Grinding Operation		✓		
NS-4	Temporary Stream Crossing			✓	N/A
NS-5	Clear Water Diversion			✓	N/A
NS-6	Illicit Connection/Discharge Detection	✓			
NS-7	Potable Water/Irrigation		✓		
NS-8	Vehicle and Equipment Cleaning	✓			
NS-9	Vehicle and Equipment Fueling	✓			
NS-10	Vehicle and Equipment Maintenance	✓			
NS-11	Pile Driving Operation			✓	N/A
NS-12	Concrete Curing		✓		
NS-13	Concrete Finishing		✓		
NS-14	Material and Equipment Use Over Water			✓	N/A
NS-15	Demolition Removal Adjacent to Water			✓	N/A
NS-16	Temporary Batch Plants			✓	N/A
Alternate	BMPs Used:		If used	, state reas	son:

Table 3.4 Temporary Non-Stormwater BMPs

CASQA	Fact RMP Name Vilnimum		ed		
	BMP Name	Requirem ent ⁽¹⁾	YES NO		If not used, state reason
(1) Applical	(1) Applicability to a specific project shall be determined by the QSD				

Non-stormwater BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

NS-1: Water Conservation Practices

The use of water at the construction site will be minimal. Water will be used for dust control, irrigation of new landscaping, for cement curing, and to do some minimal cleaning. This water will not reach a receiving water body or an MS4 drainage system.

NS-3: Paving and Grinding Operation

Avoid paving and grinding in the rain. Protect storm drain inlets during paving and grinding activities and collect and remove excess material as to not allow debris to enter the storm drain system.

NS-6: Illicit Connection/Discharge

Illicit connection/discharge and reporting is applicable anytime an illicit connection or discharge is discovered or illegally dumped material is found on the construction site. Illicit connections and illegal discharges or dumping refers to the discharge and dumping caused by parties other than the contractor, therefore, inspection of the site before the start of the project is required. During project execution, the site must be inspected regularly for illicit connections and illegal dumping and discharge.

NS-7: Potable Water/Irrigation

Whenever potable water or irrigation water that discharges from or enters a construction site, consideration must be made to ensure this water is not transporting pollutants offsite.

NS-8: Vehicle and Equipment Cleaning

Vehicle and equipment cleaning will be done in designated, contained areas only, or using offsite facilities.

NS-9: Vehicle and Equipment Fueling

Dedicated fueling areas shall be level grade areas and at least 50 feet away from downstream storm drain inlets. Protect the fueling areas with berms and dikes to prevent run on or runoff and to protect the site. Drip pans and absorbent pads shall be used when fueling and absorbent spill clean up materials shall be readily available.

NS-10: Vehicle and Equipment Maintenance

The best option to ensure a "dry and clean site" is to perform maintenance activities at an offsite facility. If this is not an option, work should be performed in appropriately protected, designated areas only.

NS-12: Concrete Curing

Concrete curing is used in the construction of structures such as bridges, retaining walls, pump houses, large slabs and structured foundations. Concrete curing includes the use of chemical and water methods. Discharges of storm water and non-storm water exposed to concrete during curing may contain chemicals, metals and fines. Therefore proper procedures must be followed to reduce or eliminate the contamination of storm water runoff during concrete curing.

NS-13: Concrete Finishing

Concrete finishing methods include sand blasting, shot blasting, grinding, or high pressure water blasting. Storm water and non-storm water exposed to concrete finishing may have high pH and may contain chemicals, metals and fines. Proper procedures must be followed to eliminate or reduce the contamination of the storm water runoff during concrete finishing.

3.3.2 Materials Management and Waste Management

Materials management control practices consist of implementing procedural and structural BMPs for handling, storing and using construction materials to prevent the release of those materials into stormwater discharges. The amount and type of construction materials to be utilized at the Site will depend upon the type of construction and the length of the construction period. The materials may be used continuously, such as fuel for vehicles and equipment, or the materials may be used for a discrete period, such as soil binders for temporary stabilization.

Waste management consist of implementing procedural and structural BMPs for handling, storing and ensuring proper disposal of wastes to prevent the release of those wastes into stormwater discharges.

Materials and waste management pollution control BMPs shall be implemented to minimize stormwater contact with construction materials, wastes and service areas; and to prevent materials and wastes from being discharged off-site. The primary mechanisms for stormwater contact that shall be addressed include:

- Direct contact with precipitation
- Contact with stormwater run-on and runoff
- Wind dispersion of loose materials
- Direct discharge to the storm drain system through spills or dumping
- Extended contact with some materials and wastes, such as asphalt cold mix and treated wood products, which can leach pollutants into stormwater.

A list of construction activities is provided in Section 2.6. The following Materials and Waste Management BMP selection table indicates the BMPs that shall be implemented to handle materials and control construction site wastes associated with these construction activities. Fact Sheets for Materials and Waste Management BMPs are provided in Appendix H.

Table 3.5 Temporary Materials Management BMPs

CASQ	BMP Name	Meets a Minimum	BMP us	ed	
A Fact Sheet		Requirem ent ⁽¹⁾	YES	NO	If not used, state reason
WM-01	Material Delivery and Storage	✓			
WM-02	Material Use	✓			
WM-03	Stockpile Management	✓			
WM-04	Spill Prevention and Control	✓			
WM-05	Solid Waste Management	✓			
WM-06	Hazardous Waste Management	✓			
WM-07	Contaminated Soil Management			~	N/A
WM-08	Concrete Waste Management	✓			
WM-09	Sanitary-Septic Waste Management	✓			
WM-10	Liquid Waste Management				
Alternate	e BMPs Used:			If used	, state reason:

(1) Applicability to a specific project shall be determined by the QSD.

Material management BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

WM-1 Material Delivery and Storage

Materials at the project will be delivered, received, and stored within the construction staging area. Materials which could introduce pollutants when coming into contact with storm water will be stored within a covered shed, container, or under plastic sheeting and/or tarps.

WM-2 Material Use

Pollutant discharge to the storm drain system or waterways from material used onsite will be prevented or reduced by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

WM-3 Stockpile Management

Stockpiles may be generated at this project during the grading, utility installation, street installation, and landscaping phases. Stockpiles will vary in size and location as determined by the current construction activities. When a stockpile is not actively being used (not used for a period of 14 days), it is required to be bermed with a secured fiber roll or rock bags, and covered with plastic sheeting, geotextile, or other erosion control coverings.

WM-4 Spill Prevention and Control

General Measures

To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110, 117, 302, and sanitary and septic wastes should be contained and cleaned up immediately.

- Store hazardous materials and wastes in covered containers and protect from vandalism.
- Store spill cleanup materials where it will be readily accessible.

Training

Designate responsible individuals to oversee and enforce control measures. Spills should be covered and protected from storm water run-on during rainfall to the extent that it doesn't compromise cleanup activities. Do not bury or wash spills with water. Store and dispose of used cleanup materials, contaminated materials, and recovered spill material that tis no longer suitable for the intended purpose in conformance with the local, state, and federal laws.

- Do not allow water used for cleaning and decontamination to runoff the site or percolate into the ground. Collect and dispose of contaminated water in accordance with WM-10, Liquid Waste Management.
- Place proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spill occurs on a dirt surface, then excavate the impacted soil and place in a waste drum or other container. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of it properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Follow the response practices indicated below for a minor spill:
 - o Contain the spread of the spill.
 - o Recover spilled materials.
 - o Clean the contaminated area and properly dispose of the contaminated materials.

Semi-Significant Spills

- Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.
- Spills should be cleaned up immediately:
 - o Contain spread of the spill.
 - o Notify the project foreman immediately.
 - o If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
 - o If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
 - o If the spill occurs during rain, cover the spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:

- Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper Count officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- Notify the Governor's Office of Emergency Services Warning Center, (916) 845-8911.

- For spills of Federal reportable quantities, in conformance with the requirements in 40 CFR parts 110, 119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report.
- The services of a spills contractor or haz-mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, etc

WM-5 Solid Waste Management

Solid waste management is intended to prevent storm water pollution by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

WM-6: Hazardous Waste Management

Proper material use, waste disposal, and training of employees and subcontractors can prevent or reduce the discharge of pollutants to storm water.

WM-8 Concrete Waste Management

The concrete wash-out area will be located in the construction staging area and will consist of rented wash out bins. The level of wash water in the bins will be managed to prevent overflow. The bins will be covered or checked prior to storm events to assure that there is sufficient freeboard to prevent overflowing.

WM-9 Sanitary-Septic Waste Management

On-site portable toilets will be provided during the project and located within the construction staging yard. All sanitary facilities will be inspected weekly for leaks and prior to any forecasted storm event. In the event of high winds, ensure that the facilities are staked-down or secured to prevent them from tipping over and spilling.

WM-10: Liquid Waste Management

Drilling slurries, oil-free rinse water, dredging, and other non-storm water liquid discharges should be collected and managed properly to prevent discharge to the storm drain system or waterways.

3.4 POST CONSTRUCTION STORMWATER MANAGEMENT MEASURES
Post construction BMPs are permanent measures installed during construction, designed to reduce or eliminate pollutant discharges from the site after construction is completed.
This site is located in an area subject to a Phase I or Phase II Municipal Separate Storm Sewe System (MS4) permit approved Stormwater Management Plan.
The following source control post construction BMPs to comply with General Permit Section XIII.B and local requirements have been identified for the site:

Biofiltration

- Infiltration
- Self-Retention

A plan for the post construction funding and maintenance of these BMPs has been developed to address at minimum five years following construction. The post construction BMPs that are described above shall be funded and maintained by the LRP. If required, post construction funding and maintenance will be submitted with the NOT.

Section 4 BMP Inspection and Maintenance

BMP INSPECTION AND MAINTENANCE

The General Permit requires routine weekly inspections of BMPs, along with inspections before, during, and after qualifying rain events. A BMP inspection checklist must be filled out for inspections and maintained on-site with the SWPPP. The inspection checklist includes the necessary information covered in Section 7.6. A blank inspection checklist can be found in Appendix I. Completed checklists shall be kept in CSMP Attachment 2 "Monitoring Records."

BMPs shall be maintained regularly to ensure proper and effective functionality. If necessary, corrective actions shall be implemented within 72 hours of identified deficiencies and associated amendments to the SWPPP shall be prepared by the QSD.

Specific details for maintenance, inspection, and repair of Construction Site BMPs can be found in the BMP Factsheets in Appendix H.

Section 5 Training

Appendix L identifies the QSPs for the project. To promote stormwater management awareness specific for this project, periodic training of job-site personnel shall be included as part of routine project meetings (e.g. daily/weekly tailgate safety meetings), or task specific trainings as needed.

The QSP shall be responsible for providing this information at the meetings, and subsequently completing the training logs shown in Appendix K, which identifies the site-specific stormwater topics covered as well as the names of site personnel who attended the meeting. Tasks may be delegated to trained employees by the QSP provided adequate supervision and oversight is provided. Training shall correspond to the specific task delegated including: SWPPP implementation; BMP inspection and maintenance; and record keeping.

Documentation of training activities (formal and informal) is retained in SWPPP Appendix K.

Section 6 Responsible Parties and Operators

6.1 RESPONSIBLE PARTIES

Approved Signatory who is responsible for SWPPP implementation and have authority to sign permit-related documents are listed below. Written authorizations from the LRP for these individuals are provided in Appendix L.

The Approved Signatory assigned to this project is:

Name	Title	Phone Number
Paul Hansen		

QSPs identified for the project are identified in Appendix L. The QSP shall have primary responsibility and significant authority for the implementation, maintenance and inspection/monitoring of SWPPP requirements. The QSP will be available at all times throughout the duration of the project. Duties of the QSP include but are not limited to:

- Implementing all elements of the General Permit and SWPPP, including but not limited to:
 - o Ensuring all BMPs are implemented, inspected, and properly maintained;
 - o Performing non-stormwater and stormwater visual observations and inspections;
 - o Performing non-stormwater and storm sampling and analysis, as required;
 - o Performing routine inspections and observations;
 - o Implementing non-stormwater management, and materials and waste management activities such as: monitoring discharges; general Site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than stormwater are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems; etc.;
- The QSP may delegate these inspections and activities to an appropriately trained employee, but shall ensure adequacy and adequate deployment.
- Ensuring elimination of unauthorized discharges.
- The QSPs shall be assigned authority by the LRP to mobilize crews in order to make immediate repairs to the control measures.
- Coordinate with the Contractor(s) to assure all of the necessary corrections/repairs are made immediately and that the project complies with the SWPPP, the General Permit and approved plans at all times.
- Notifying the LRP or Authorized Signatory immediately of off-site discharges or other non-compliance events.

6.2 CONTRACTOR LIST

Contractor

Name:

Title:

Company: Devcon

Address: 690 Gibraltar Dr, Milpitas CA, 95035

Phone Number:

Number (24/7):

Section 7 Construction Site Monitoring Program

7.1 Purpose

This Construction Site Monitoring Program was developed to address the following objectives:

- 1. To demonstrate that the site is in compliance with the Discharge Prohibitions of the Construction General Permit;
- 2. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives;
- 3. To determine whether immediate corrective actions, additional Best Management Practices (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in stormwater discharges and authorized non-stormwater discharges;
- 4. To determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges.

7.2 Applicability of Permit Requirements

This project has been determined to be a Risk Level 1 project. The General Permit identifies the following types of monitoring as being applicable for a Risk Level 1 project.

Risk Level 1

- Visual inspections of Best Management Practices (BMPs);
- Visual monitoring of the site related to qualifying storm events;
- Visual monitoring of the site for non-stormwater discharges;
- Sampling and analysis of construction site runoff for non-visible pollutants when applicable; and
- Sampling and analysis of construction site runoff as required by the Regional Water Board when applicable.

7.3. Weather and Rain Event Tracking

Visual monitoring and inspections requirements of the General Permit are triggered by a qualifying rain event. The General Permit defines a qualifying rain event as any event that produces ½ inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

7.3.1 Weather Tracking

The QSP should daily consult the National Oceanographic and Atmospheric Administration (NOAA) for the weather forecasts. These forecasts can be obtained at http://www.weather.gov/. Weather reports should be checked daily and should be saved/stored digitally. Weather report storage location is provided in CSMP Attachment 1 "Weather Reports" and can be printed/produced upon request.

The QSP will use the Forecast Weather Table Interface to determine actual Precipitation Potential.

https://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=37.327061927917846&lon=122.01413440678155&table=custom&duration=7&interval=6

7.3.2 Rain Gauges

The QSP shall install 1 rain gauge on the project site. Locate the gauge in an open area away from obstructions such as trees or overhangs. Mount the gauge on a post at a height of 3 to 5 feet with the gauge extending several inches beyond the post. Make sure that the top of the gauge is level. Make sure the post is not in an area where rainwater can indirectly splash from sheds, equipment, trailers, etc.

The rain gauge shall be read daily during normal site scheduled hours. The rain gauge should be read at approximately the same time every day and the date and time of each reading recorded. Log rain gauge readings in CSMP Attachment 1 "Weather Records". Follow the rain gauge instructions to obtain accurate measurements.

Once the rain gauge reading has been recorded, accumulated rain shall be emptied and the gauge reset.

For comparison with the site rain gauge, the nearest appropriate governmental rain gauge is located at Maryknoll 37.33° N 122.08° W Elevation 184 ft.

7.4 Monitoring Locations

Monitoring locations are shown on the Site Maps in Appendix B. Monitoring locations are described in the Section 7.6.

Whenever changes in the construction site might affect the appropriateness of sampling locations, the sampling locations shall be revised accordingly. All such revisions shall be implemented as soon as feasible and the SWPPP amended.

7.5 Safety and Monitoring Exemptions

This project is not required to conduct visual observations (inspections) under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms.
- Outside of scheduled site business hours.

Scheduled site business hours are: Monday through Friday from 7:00AM to 3:30PM.

If visual monitoring of the site is unsafe because of the dangerous conditions noted above then the QSP shall document the conditions for why an exception to performing the monitoring was necessary. The exemption documentation shall be filed in CSMP Attachment 2 "Monitoring Records".

7.6 Visual Monitoring

Visual monitoring includes observations and inspections. Inspections of BMPs are required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Visual observations of the site are required to observe storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources.

Table 7.1 identifies the required frequency of visual observations and inspections. Inspections and observations will be conducted at the locations identified in Section 7.6.3.

Table 7.1 Summary of Visual Monitoring and Inspections

Type of Inspection	Frequency
Routine Inspections	
BMP Inspections	Weekly ¹
BMP Inspections – Tracking Control	Daily
Non-Stormwater Discharge Observations	Quarterly during daylight hours
Rain Event Triggered Inspections	
Site Inspections Prior to a Qualifying Event	Within 48 hours of a qualifying event ²
BMP Inspections During an Extended Storm Event	Every 24-hour period of a rain event ³
Site Inspections Following a Qualifying Event	Within 48 hours of a qualifying event ²

¹ Most BMPs must be inspected weekly; those identified below must be inspected more frequently.

7.6.1 Routine Observations and Inspections

Routine site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the Construction General Permit.

7.6.1.1 Routine BMP Inspections

Inspections of BMPs are conducted to identify and record:

- BMPs that are properly installed;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; or
- BMPs that could fail to operate as intended.

7.6.1.2 Non-Stormwater Discharge Observations

Each drainage area will be inspected for the presence of or indications of prior unauthorized and authorized non-stormwater discharges. Inspections will record:

² Inspections are required during scheduled site operating hours.

³ Inspections are required during scheduled site operating hours regardless of the amount of precipitation on any given day.

- Presence or evidence of any non-stormwater discharge (authorized or unauthorized);
- Pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.); and
- Source of discharge.

7.6.2 Rain-Event Triggered Observations and Inspections

Visual observations of the site and inspections of BMPs are required prior to a qualifying rain event; following a qualifying rain event, and every 24-hour period during a qualifying rain event. Pre-rain inspections will be conducted after consulting NOAA and determining that a precipitation event with a 50% or greater probability of precipitation has been predicted.

7.6.2.1 Visual Observations Prior to a Forecasted Qualifying Rain Event

Within 48-hours prior to a qualifying event a stormwater visual monitoring site inspection will include observations of the following locations:

- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify if they have been properly implemented;
- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

Consistent with guidance from the State Water Resources Control Board, pre-rain BMP inspections and visual monitoring will be triggered by a NOAA forecast that indicates a probability of precipitation of 50% or more in the project area.

7.6.2.2 BMP Inspections During an Extended Storm Event

During an extended rain event BMP inspections will be conducted to identify and record:

- BMPs that are properly installed;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; or
- BMPs that could fail to operate as intended.

If the construction site is not accessible during the rain event, the visual inspections shall be performed at all relevant outfalls, discharge points, downstream locations. The inspections should record any projected maintenance activities.

7.6.2.3 Visual Observations Following a Qualifying Rain Event

Within 48 hours following a qualifying rain event (0.5 inches of rain) a stormwater visual monitoring site inspection is required to observe:

- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify if they have been properly designed, implemented, and effective;
- Need for additional BMPs;
- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard; and
- Discharge of stored or contained rain water.

7.6.3 Visual Monitoring Procedures

Visual monitoring shall be conducted by the QSP or staff trained by and under the supervision of the QSP.

The name(s) and contact number(s) of the site visual monitoring personnel are listed below and their training qualifications are provided in Appendix K.

Assigned inspector: John Bielefeld Contact phone: 510.410.6406

Alternate inspector: TBD Contact phone: TBD

Stormwater observations shall be documented on the *Visual Inspection Field Log Sheet* located in CSMP Attachment 3 "Example Forms". BMP inspections shall be documented on the site specific BMP inspection checklist. Any photographs used to document observations will be referenced on stormwater site inspection report and maintained with the Monitoring Records in Attachment 2.

The QSP shall within 2 days of the inspection submit copies of the completed inspection report to site superintendent.

The completed reports will be kept in CSMP Attachment 2 "Monitoring Records".

7.6.4 Visual Monitoring Follow-Up and Reporting

Correction of deficiencies identified by the observations or inspections, including required repairs or maintenance of BMPs, shall be initiated and completed as soon as possible.

If identified deficiencies require design changes, including additional BMPs, the implementation of changes will be initiated within 72 hours of identification and be completed as soon as possible. When design changes to BMPs are required, the SWPPP shall be amended to reflect the changes.

Deficiencies identified in site inspection reports and correction of deficiencies will be tracked on the *Inspection Field Log Sheet* or *BMP Inspection Report* and shall be submitted to the QSP and shall be kept in CSMP Attachment 2 "Monitoring Records".

The QSP shall within 2 days of the inspection submit copies of the completed *Inspection Field Log Sheet* or *BMP Inspection Report* with the corrective actions to TBD.

Results of visual monitoring must be summarized and reported in the Annual Report.

7.6.5 Visual Monitoring Locations

The inspections and observations identified in Sections 7.6.1 and 7.6.2 will be conducted at the locations identified in this section.

BMP locations are shown on the Site Maps in SWPPP Appendix A.

There are ____ drainage area(s) on the project site, staging areas, and storage areas. Drainage area(s) are shown on the Site Maps in Appendix B and Table 7.2 identifies each drainage area by location.

Table 7.2 Site Drainage Areas

Location No.	Location				
1	Inlets along western parking lot perimeter along Wolfe rd				
2	Inlets along Vallco Parkway and paved areas				

There are 0 stormwater storage or containment area(s) are on the project site. Stormwater storage or containment area(s) are shown on the Site Maps in Appendix B and Table 7.3 identifies each stormwater storage or containment area by location.

There are _____ discharge location(s) on the project site. Site stormwater discharge location(s) are shown on the Site Maps in Appendix B and Table 7.4 identifies each stormwater discharge location.

Table 7.4 Site Stormwater Discharge Locations

Location No.	Location				
1	Manhole along eastern edge on Perimeter rd				
2	Manhole along Vallco Parkway on southern edge				
3	Manhole along N Wolfe rd on northern edge				
4	Manhole along Perimeter rd on western edge				

7.7 Water Quality Sampling and Analysis

7.7.1 Sampling and Analysis Plan for Non-Visible Pollutants in Stormwater Runoff Discharges

This Sampling and Analysis Plan for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in stormwater runoff discharges from the project site.

Sampling for non-visible pollutants will be conducted when (1) a breach, leakage, malfunction, or spill is observed; and (2) the leak or spill has not been cleaned up prior to the rain event; and (3) there is the potential for discharge of non-visible pollutants to surface waters or drainage system.

The following construction materials, wastes, or activities, as identified in Section 2.6, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the Site Maps in Appendix B.

- Adhesives
- Asphalt
- Concrete slurries and waste
- Drywall waste
- Sawdust, particle board dust, and treated wood
- Paint
- Plumbing
- Tile cutting slurries
- Sanitary waste
- Soil amendments
- Solid waste
- Vehicle and equipment use

The following existing site features, as identified in Section 2.6, are potential sources of non-visible pollutants to stormwater discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the Site Maps in Appendix B.

NONE

The following soil amendments have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site. Locations of soil amendment application are shown on the Site Maps in Appendix B.

- Fertilizers used for landscaping
- Lime treatment of soils

The project has the potential to receive stormwater run-on from the following locations with the potential to contribute non-visible pollutants to stormwater discharges from the project. Locations of such run-on to the project site are shown on the Site Maps in Appendix B.

NONE

7.7.1.1 Sampling Schedule

Samples for the potential non-visible pollutant(s) and a sufficiently large unaffected background sample shall be collected during the first two hours of discharge from rain events that result in a sufficient discharge for sample collection. Samples shall be collected during the site's scheduled hours and shall be collected regardless of the time of year and phase of the construction.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during site inspections conducted prior to or during a rain event.

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.
- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- A construction activity, including but not limited to those in Section 2.6, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- Soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- Stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

7.7.1.2 Sampling Locations

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling, and personnel safety. Planned non-visible pollutant sampling locations are shown on the Site Maps in Appendix B and include the locations identified in Tables 7.5 through 7.9.

0 sampling location(s) on the project site have been identified for the collection of samples of runoff from planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned.

0 sampling locations have been identified for the collection of samples of runoff from drainage areas where soil amendments will be applied that have the potential to affect water quality.

0 sampling locations have been identified for the collection of samples of runoff from drainage areas contaminated by historical usage of the site as there are no known sources of historic contamination at this time

Osampling location(s) has been identified for the collection of an uncontaminated sample of runoff as a background sample as there are no known sources of historic contamination at this time.

0 sampling locations have been identified for the collection of samples of run-on to the project site as there is no anticipated run-on to this site

If a stormwater visual monitoring site inspection conducted prior to or during a storm event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a storm drain system that is at a location not listed above and has not been identified on the Site Maps, sampling locations will be selected by the QSP using the same rationale as that used to identify planned locations. Non-visible pollutant sampling locations shall be identified by the QSP on the pre-rain event inspection form prior to a forecasted qualifying rain event.

7.7.1.3 Monitoring Preparation

Non-visible pollutant samples will be collected by:					
Contractor	Yes	☐ No			
Consultant	Yes	☐ No			
Laboratory	X Yes	☐ No			
Samples on the project site will be collected by the following contractor sampling personnel:					
Name/Telephone	Number:	TBD			
Alternate(s)/Telephone Number:					

An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, clean powder-free nitrile gloves, sample collection equipment, coolers, appropriate

number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and *Effluent Sampling Field Log Sheets* and Chain of Custody (CoC) forms, which are provided in CSMP Attachment 3 "Example Forms".

Samples on the project site will be collected by the following TBD:

Company Name:
Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact TBD 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins if one of the triggering conditions is identified during an inspection to ensure that adequate sample collection personnel and supplies for monitoring non-visible pollutants are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.1.4 Analytical Constituents

Table 7.10 lists the specific sources and types of potential non-visible pollutants on the project site and the water quality indicator constituent(s) for that pollutant.

Table 7.10 Potential Non-Visible Pollutants and Water Quality Indicator Constituents

Pollutant Source	Pollutant	Water Quality Indicator Constituent
Adhesives	Glue, Binder	COD, SVOC
Pollutant Source	Pollutant	Water Quality Indicator
Fonutant Source	Fonutant	Constituent
	Acids	pН
Cleaning products	Bleaches	Residual Chlorine
Creaming products	TSP	Phosphate
	Solvents	VOC
	Masonry products	рН
Destination of Community Community 8	Sealant	Cobalt, Zinc
Portland Concrete Cement & Masonry Products	Fly ash	Aluminum, Vanadium
iviasom y 1 roducts	Curing Compounds	рН
	Lime	pН
Landscaping and Other Products	Fertilizers-Inorganic	Nitrate, phosphate

 Table 7.10
 Potential Non-Visible Pollutants and Water Quality Indicator Constituents

Pollutant Source	Pollutant	Water Quality Indicator Constituent	
	Fertilizers-Organic	TOC, Nitrate	
	Aluminum Sulfate	TDS, Sulfate	
Painting Products	Paint Strippers Resins, Sealants, Solvents Thinners	VOC, SVOC COD, SVOC VOC, COD	
Contaminated Soil	Other	Contaminate Specific	
Dust Palliative Products	Salts (Magnesium Chloride, Calcium Chloride, and Natural Brines)	Chloride, TDS	
Vehicle	Batteries	Sulfuric Acid, PH	
Soil Amendment/Stabilization	Polymer/Copolymer Guar/Plant Gums	BOD, Nitrate, Sulfate COD, TOC	
Treated Wood Products	Ammoniacal-Copper- Zinc Arsenate (ACZA) Ammoniacal-Copper- Arsenate (ACA)	Total Chromium, Copper, Zinc	

7.7.1.5 Sample Collection

Samples of discharge shall be collected at the designated non-visible pollutant sampling locations shown on the Site Maps in Appendix B or in the locations determined by observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas, and historical site usage areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the methods identified in the Table, "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" provided in Section 7.7.1.6. Only the QSP, or personnel trained in water quality sampling under the direction of the QSP shall collect samples.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.1.6 Sample Analysis

Samples shall be analyzed using the analytical methods identified in the Table 7.11. Samples will be analyzed by:

Laboratory Name:	TBD		
Street Address:			
City, State Zip:			
Telephone Number:			
Point of Contact:			
ELAP Certification Number:			
Samples will be delivered to	to the laborator	y by:	
Driven by Contractor		Yes	No
Picked up by Laboratory C	ourier \square	Yes	No
Shipped		Yes	No

Table 7.11 Sample Collection, Preservation and Analysis for Non-Visible Pollutants

Constituent	Analytica l Method	Minimum Sample Volume	Sample Containe rs	Sample Preservation	Reporting Limit	Maximum Holding Time
PCBs	EPA 8081A/808 2	1x1 L	Glass- Amber	Store at 4°C	0.1 μg/L	7 days
BOD	EPA 405.1	1x500 mL	Polypropyl ene	Store at 4°C	1 mg/L	48 hours
COD	EPA 410.4	1x250 mL	Glass- Amber	Store at 4°C, H2SO4 to pH<2	5 mg/L	28 days
Metals (Al, Ca, Cu, Ni, Pb, Sn, Va, Zn)	EPA 6010B/747 0A	1x250 mL	Polypropyl ene	Store at 4°C, HNO3 to pH <2	0.1 mg/L	6 months
рН	Field test with calibrated portable instrument	1x100 mL	Polypropyl ene	None	Unitless	15 minutes
sVOCs	EPA 8270C	1x1 L	Glass- Amber	Store at 4°C	10 μg/L	7 days
тос	EPA 9060, SMEWW 5310 B	1x250 mL	Glass- Amber	Store at 4°C, H2SO4 to pH < 2	2 mg/L	28 days
VOCs- Solvents	EPA 8260B	3x40 mL	VOA- Glass	Store at 4°C, HCl to pH<2	1μ/L	14 days
Phenols, Total	Phenols, Total	250 mL	Glass- Amber	Store at 4°C, H2SO4 to pH<2	250mL	28 days
Chlorine, Residual	SMEWW 4500 Cl-G	125 mL	Glass	Unpreserved	25mL	15 minutes

Notes:

7.7.1.7 Data Evaluation and Reporting

The QSP shall complete an evaluation of the water quality sample analytical results.

Runoff/downgradient results shall be compared with the associated upgradient/unaffected results and any associated run-on results. Should the runoff/downgradient sample show an increased level of the tested analyte relative to the unaffected background sample, which cannot be explained by run-on results, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

The General Permit prohibits the storm water discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4. The results of any non-stormwater discharge results that indicate the presence of a hazardous substance in excess of established reportable quantities shall be immediately reported to the Regional Water Board and other agencies as required by 40 C.F.R. §§ 117.3 and 302.4.

Results of non-visible pollutant monitoring shall be reported in the Annual Report.

7.7.2 Sampling and Analysis Plan for pH and Turbidity in Stormwater Runoff Discharges

Sampling and analysis of runoff for pH and turbidity is not required for Risk Level 1 projects.

7.7.3 Sampling and Analysis Plan for pH, Turbidity, and SSC in Receiving Water

This project is not subject to Receiving Water Monitoring.

7.7.4 Sampling and Analysis Plan for Non-Stormwater Discharges

This project is not subject to the non-stormwater sampling and analysis requirements of the General Permit because it is a Risk Level 1 project.

7.7.5 Sampling and Analysis Plan for Other Pollutants Required by the Regional Water Board

The Regional Water Board has not specified monitoring for additional pollutants.

7.8 Records Retention

All records of stormwater monitoring information and copies of reports (including Annual Reports) must be retained for a period of at least three years from date of submittal or longer if required by the Regional Water Board.

Results of visual monitoring, field measurements, and laboratory analyses must be kept in the SWPPP along with CoCs, and other documentation related to the monitoring.

Records are to be kept onsite while construction is ongoing. Records to be retained include:

- The date, place, and time of inspections, sampling, visual observations, and/or measurements, including precipitation;
- The individual(s) who performed the inspections, sampling, visual observation, and/or field measurements:
- The date and approximate time of field measurements and laboratory analyses;
- The individual(s) who performed the laboratory analyses;
- Rain gauge readings from site inspections;
- Visual observation exemption records;
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections;

CSMP Attachment 1: Weather Reports

ALL WEATHER REPORTS WILL BE PDF FILES STORED IN QSP FACILITIES AND CAN BE PRODUCED UPON REQUEST.

NOAA PAGES REFERENCED FOR WEATHER MONITORING ARE:

FORECAST WEATHER TABLE INTERFACE:

HTTPS://WWW.WRH.NOAA.GOV/FORECAST/WXTABLES/INDEX.PHP?LAT=37. 327061927917846&LON=-

122.01413440678155&TABLE=CUSTOM&DURATION=7&INTERVAL=6

CSMP Attachment 2: Monitoring Records

CSMP Attachment 3: Example Forms

Rain Gauge Log Sheet						
Construction Site Name:						
WDID #:	WDID #:					
Date (mm/dd/yy)	Time (24-hr)	Initials	Rainfall Depth (Inches)	Notes:		

CSMP Attachment 4: Field Meter Instructions

TURBIDIMETER:

An online PDF version of the Oakton T-100 field turbidity meter instruction manual can be found here,

http://www.4oakton.com/manuals/Turbidity/35635-00.pdf

Waterproof pH Tester:

An online PDF version of the Oakton pH Testr 30 instruction manual can be found here,

 $\underline{https://fscimage.fishersci.com/cmsassets/downloads/segment/Scientific/pdf/Coupons/oakton_ph_testr.pdf}$

CSMP Attachment 5: Supplemental Information

Section 8 References

State Water Resources Control Board (2009). Order 2009-0009-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at:

http://www.waterboards.ca.gov/water issues/programs/stormwater/construction.shtml.

State Water Resources Control Board (2010). Order 2010-0014-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at:

http://www.waterboards.ca.gov/water issues/programs/stormwater/construction.shtml.

State Water Resources Control Board (2012). Order 2012-0006-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at:

http://www.waterboards.ca.gov/water issues/programs/stormwater/construction.shtml.

CASQA 2009, Stormwater BMP Handbook Portal: Construction, November 2009, www.casqa.org

Appendix A: Calculations

Appendix A - Ri	sk Assess	ment	_			
	Calculated	Requires Input				
	T			Date	Prepared:	4/14/2020
	Vallco Town					
Project Number:	21502	8		Month	Day	Year
Construction Start D				10		
Construction End Da				10	5	
Total Project Duration	n (Years):					8.01
Receiving Water						
Water body name:	Calabazas C	reek				
Beneficial Uses:			Cold	Spawn	Migratory	
(Enter "Y" or "N" for			Υ	N	N	LOW
303d impaired for se	•	ation:		N		LOW
Overall receiving wa	ter risk:					LOW
Sediment Risk						
						1
<u>Raintal</u>	Erosivity Facto	r Calculator for Sn	<u>nall Constructi</u>	on Sites		
	348.00					
	Length (ft)	Change in Ele	vation (ft)	L	S Value =	0.139816
Renard LS Table	See Attache	ed Map				
K Factor: K Fa	ictor Map				K Value =	0.24
Waters	shed Erosi	on Estimate	(=RxKxL	S) in ton	s/acre=	11.68
			•	-	-	
Cita Caalina	ent Risk Facto	M			15 tons/acre	_
Site Sealme	HILKISK FACTO	iviealum :	Sediment Risk		•	
			rign Seaim	ent KISK: >=	75 tons/acre	
					Risk Level	Level 1

https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml

Facility Information

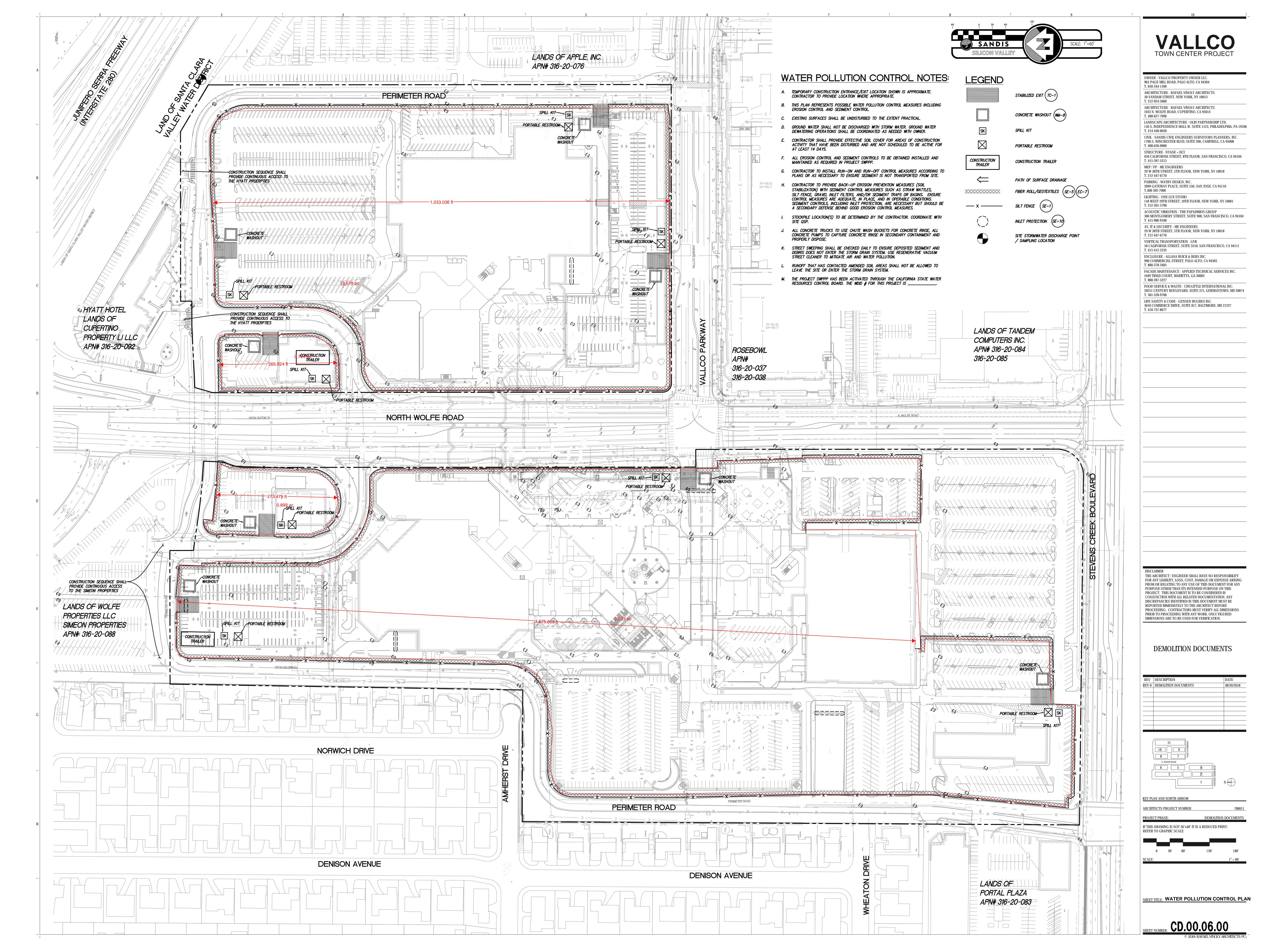
Start Date: 10/05/2018 Latitude: 37.3231 End Date: 10/05/2026 Longitude: -122.0142

Calculation Results

Rainfall erosivity factor (R Factor) = 348

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage. If you are located in an area where EPA is the permitting authority, you must submit a Notice of Intent (NOI) through the NPDES eReporting Tool (NeT). Otherwise, you must seek coverage under your state's CGP.

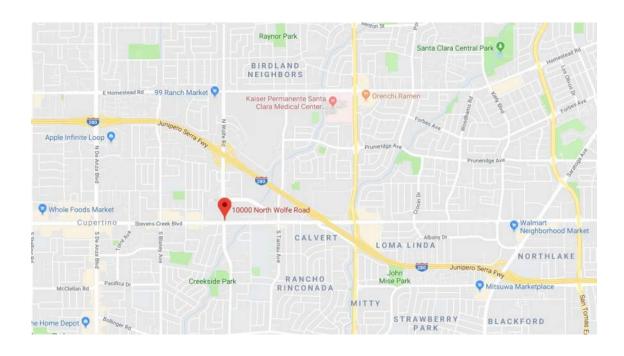


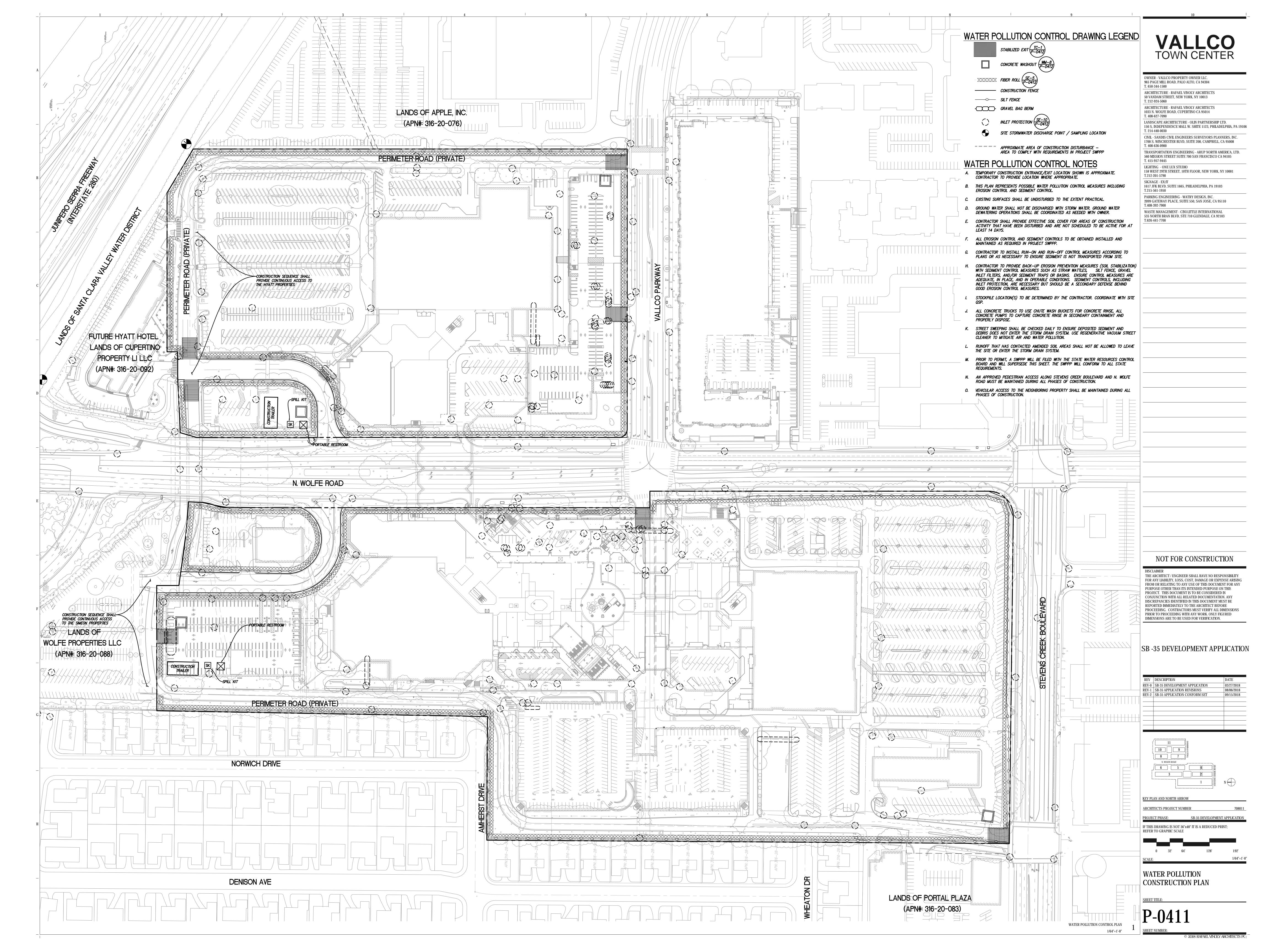
COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SAN MATEO AND SANTA CLARA COUNTIES, continued																			
Alambique Creek									Е						Е	Е	Е	Е	
Sausal Creek (San Mateo)									E				·		Е	Е	Е	Е	
SANTA CLARA COUNTY ONLY																			
Palo Alto Harbor & Baylands										Е		Е	Е			Е	Е	Е	
Mayfield Slough										Е		Е	Е			Е	Е	Е	
Matadero Creek									Е			Е	Е	Е	Е	Е	Е	Е	
Deer Creek (Santa Clara)									Е				Е		Е	Е	Е	Е	
Arastradero Creek									Е				Е		Е	Е	Е	Е	
Charleston Slough										Е		Е	Е			Е	Е	Е	
Barron Creek															Е	Е	Е	Е	
Adobe Creek (Santa Clara)									Е						Е	Е	Е	Е	
Mountain View Slough										Е			Е			Е	Е	Е	
Permanente Creek				Е					Е				Е	Е	Е	Е	Е	Е	
Hale Creek									Е						Е	Е	Е	Е	
Stevens Creek			Е	Е					Е			Е	Е	Е	Е	Е	Е	Е	
Stevens Creek Reservoir		Е		Е			Е		Е			Е		Е	Е	Е	Е	Е	
Swiss Creek			Е						Е						Е	Е	Е	Е	
Guadalupe Slough										Е			Е			Е	Е	Е	
Moffett Channel										Е						Е	Е	Е	
Calabazas Creek	Е			Е					E						Е	Е	Е	Е	
San Tomas Aquino Creek									Е				Е		Е	Е	Е	Е	
Saratoga Creek	Е		Е	Е					Е						Е	Е	Е	Е	
Bonjetti Creek									Е						Е	Е	Е	Е	
McElroy Creek									Е						Е	Е	Е	Е	
Alviso Slough										Е		Е	Е			Е	Е	Е	
Guadalupe River				Е					Е			Е	Е	Е	Е	Е	Е	Е	
Los Gatos Creek		Е	Е	Е					Е			P	Е	P	Е	Е	Е	P	
Campbell Percolation Pond				Е			Е		Е					Е	Е	Е	Е	Е	
Vasona Reservoir		Е		Е			Е		Е					Е	Е	Е	Е	Е	
Lexington Reservoir		Е		Е			Е		Е					Е	Е	Е	Е	Е	
Soda Springs Creek			Е						Е						Е	Е	Е	Е	

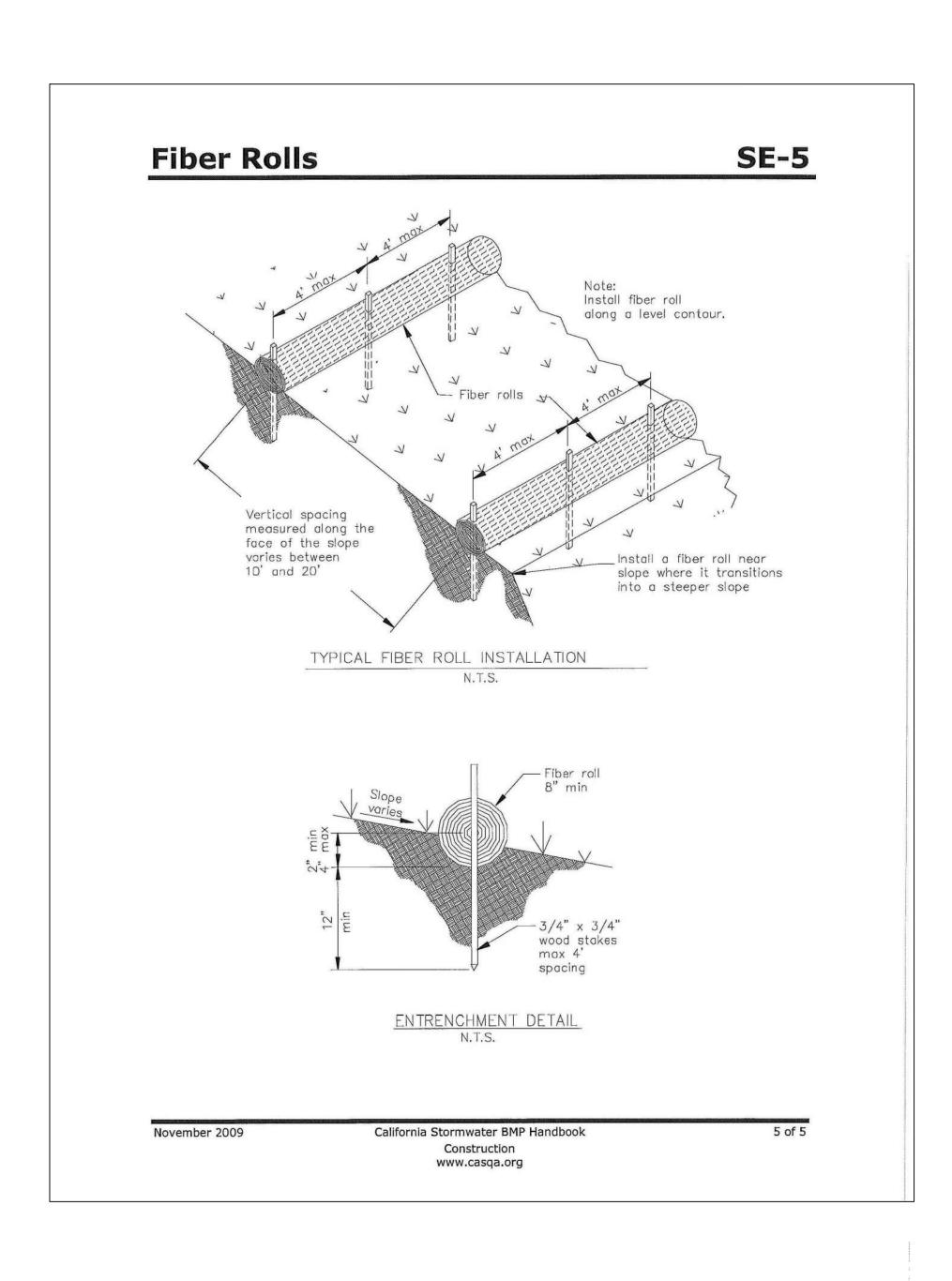
Appendix B: Site Maps

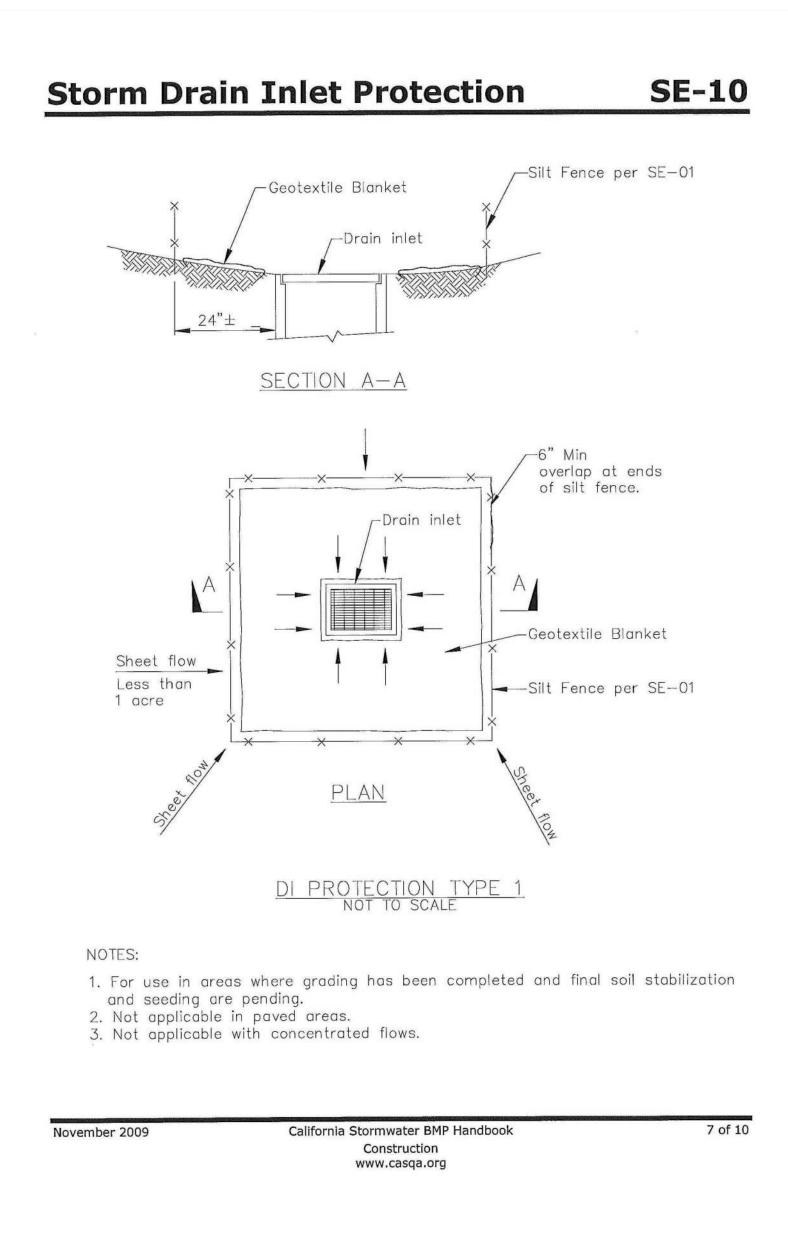
Vicinity Map

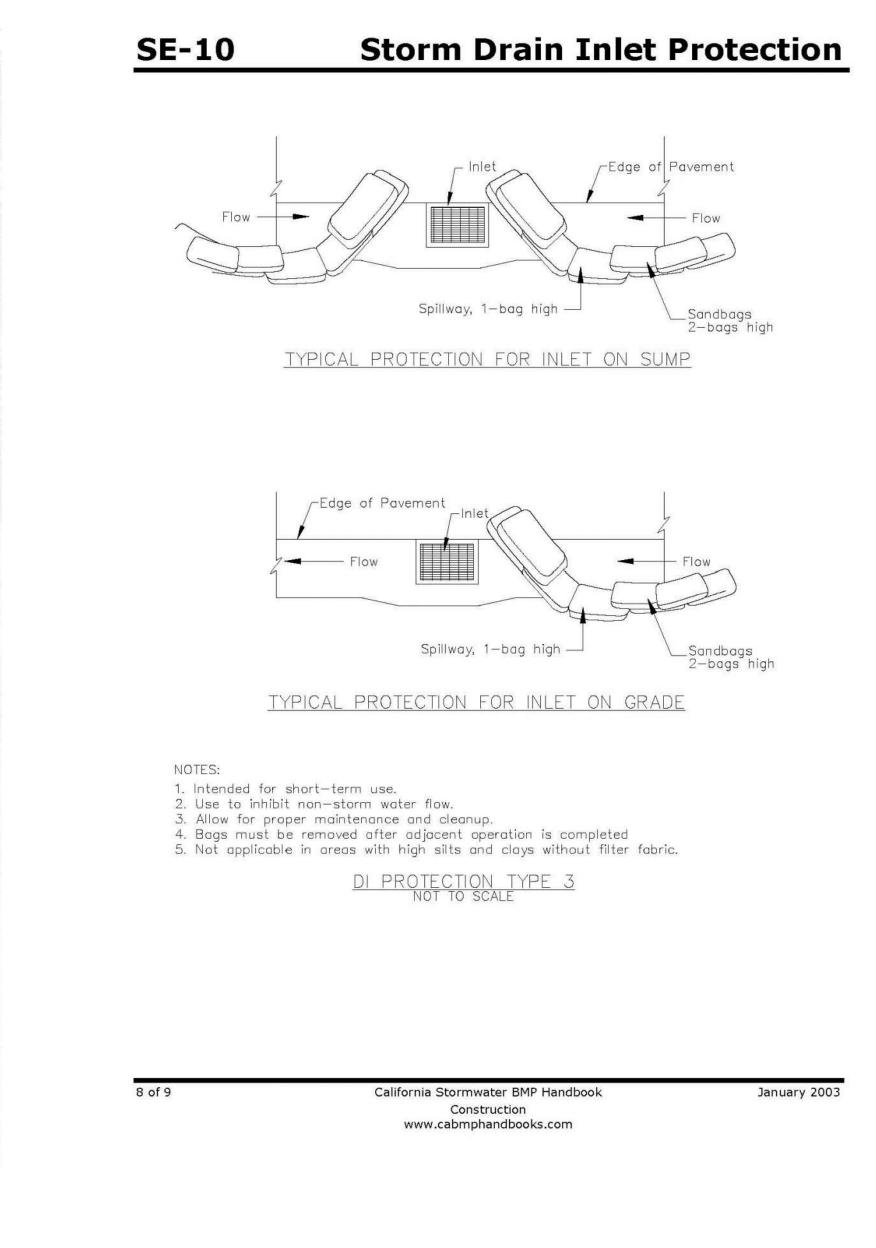
The Hills at Vallco

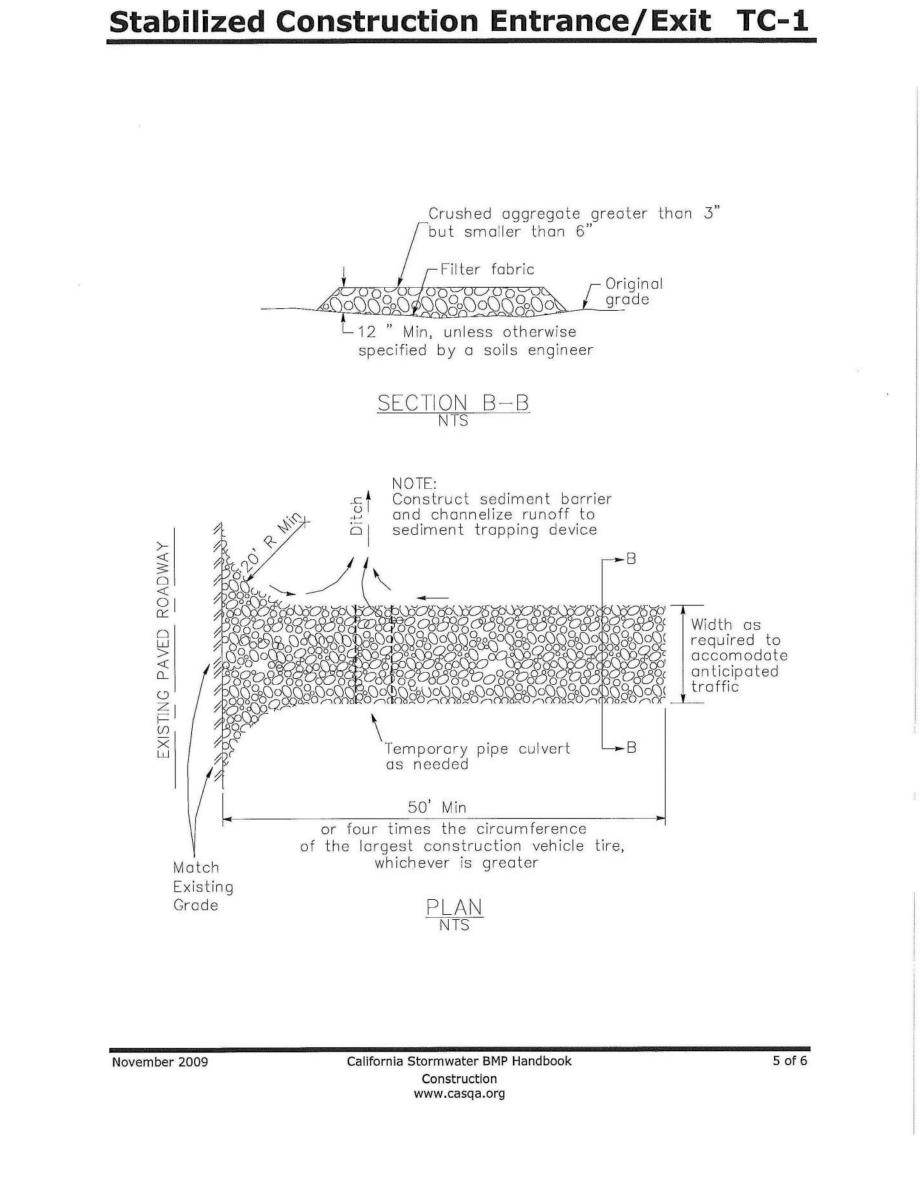


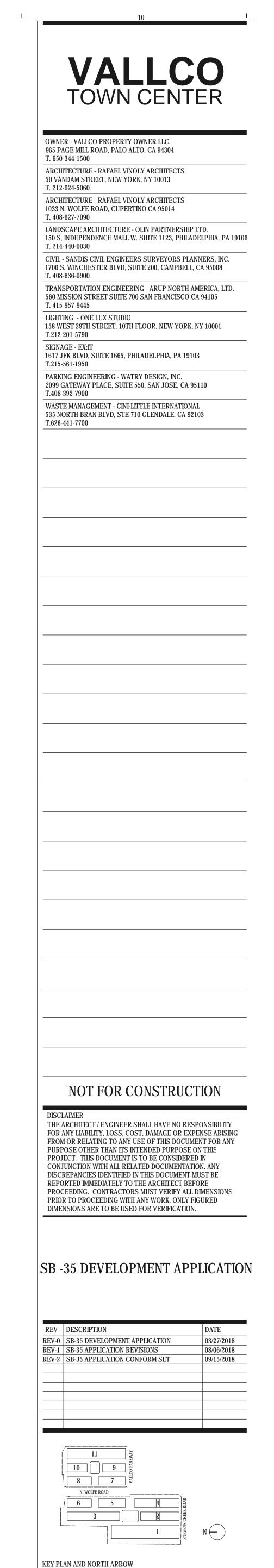












ARCHITECTS PROJECT NUMB	ER 7080
PROJECT PHASE:	SB-35 DEVELOPMENT APPLICATION
IF THIS DRAWING IS NOT 36"x-REFER TO GRAPHIC SCALE	48" IT IS A REDUCED PRINT;

WATER POLLUTION CONTROL

SHEET TITLE:

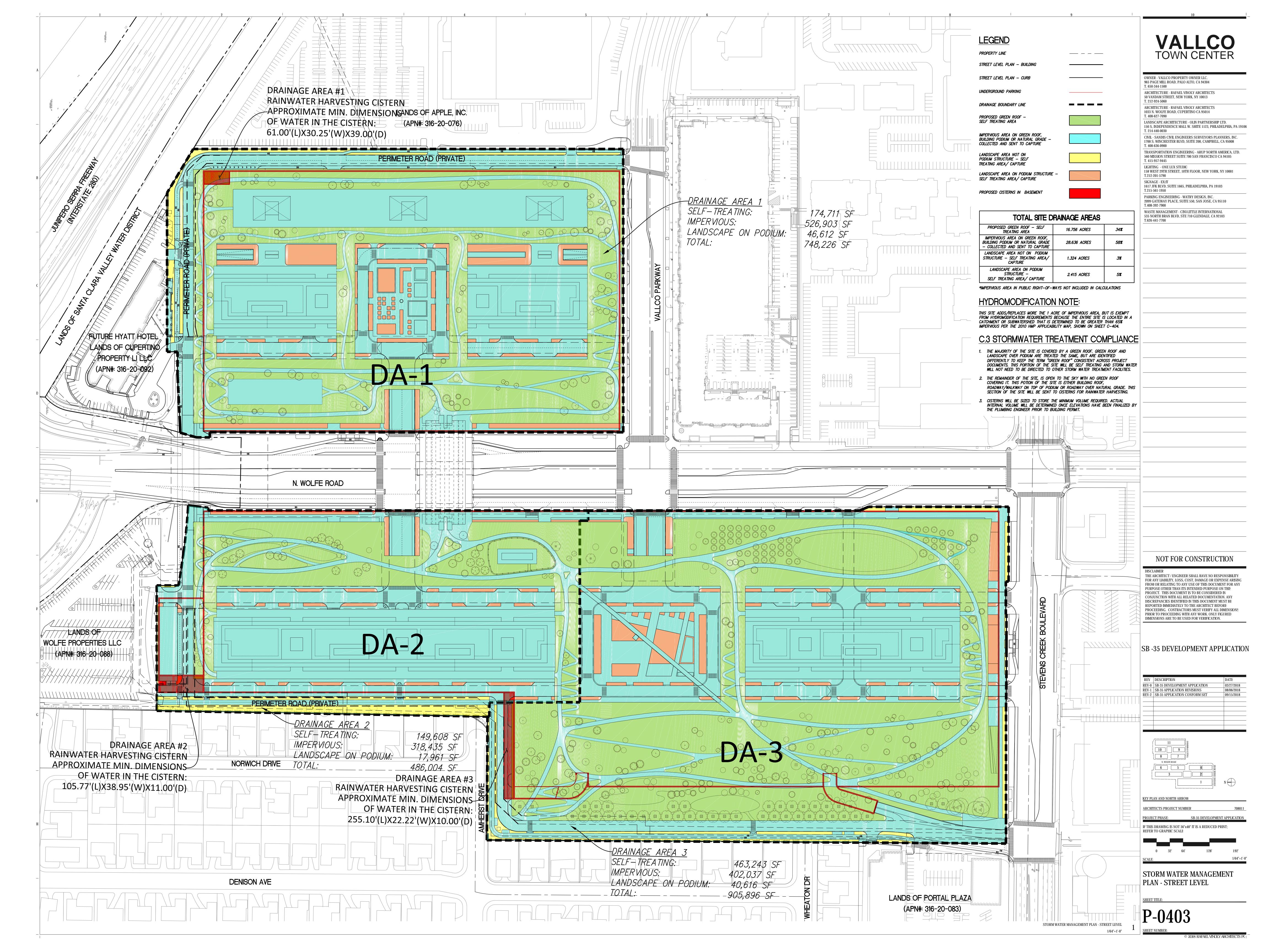
P-0412

California Stormwater BMP Handbook
Construction
www.casqa.org

WM-8

Concrete Waste Management

November 2009



Appendix C: Permit Registration Documents

Permit Registration Documents included in this Appendix

Y/N	Permit Registration Document
	Notice of Intent
	Risk Assessment
	Certification
	Post Construction Water Balance
	Copy of Annual Fee Receipt
	ATS Design Documents
	Site Map, see Appendix B

Appendix D: SWPPP Amendment Certifications

SWP	PP Amendment No.
Project Name:	
Project Number:	
Qualified S	WPPP Developer's Certification of the
Stormwater	Pollution Prevention Plan Amendment
	-0014-DWQ and 2012-0006-DWQ). I certify that I am a standing as of the date signed below."
nalified SWPPP Developer in good	standing as of the date signed below."
nalified SWPPP Developer in good	standing as of the date signed below."
QSD's Signature	Date QSD Certificate Number
QSD's Signature QSD Name	Date QSD Certificate Number

Appendix E: Submitted Changes to PRDs

Log of Updated PRDs

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs shall be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP shall be modified appropriately, with revisions and amendments recorded in Appendix C. Updated PRDs submitted electronically via SMARTS can be found in this Appendix.

This appendix includes all of the following updated PRDs (Revised Notice of Intent (NOI);	check all that apply):
Revised Site Map;	
Revised Risk Assessment;	
New landowner's information (name, address, phone nu	mber, email address); and
New signed certification statement.	
Lacelly Decreasible Decreas	
Legally Responsible Person	
Signature of Legally Responsible Person or Approved Signatory	Date
Name of Legally Responsible Person or Approved Signatory	Telephone Number

Appendix F: Construction Schedule

Appendix G: Construction Activities, Materials Used, and Associated Pollutants

TABLE G1. SWPPP CONSTRUCTION SITE POLLUTION CHECKLIST

Category	Product	Pollutants
	Adhesives, glues	Phenolics, formaldehydes
	Resins and epoxy synthetics	Phenolics, formaldehydes
Adhesives	Calk, sealers, putty, sealing agents	Asbestos, phenolics, formaldehydes
	Coal tars (naphtha, pitch)	Benzene, phenols, nathalene
	Solder (lead, tin), flux (zinc chloride)	Lead, copper, zinc, tin
	Pipe fitting (cut shavings)	Copper
Plumbing	Galvanized metals (nails, fences)	Zinc
	Electrical wiring	Copper, lead
	Paint thinner, acetone, MEK, stripper	VOC's
	Paints, lacquers, varnish, enamels	Metals, Penolics, mineral spirits
Painting	Turpentine, gum spirit, solvents	VOC's
g	Sanding, stripping	Metals
	Sanding (pigments), dyes	Metals
	Sawdust	BOD
Woods	Particle board dusts (formaldehyde)	Formaldehyde
**************************************	Treated woods	Copper, creosote
	Dusts (brick, cement)	Acidity, sediments
	Colored chalks (pigments)	Metals
Masonry and	Concrete curing compounds	
concrete	Glazing compounds	Asbestos
	Cleaning surfaces	Acidity
	Flashing	Copper, aluminum
	Drywall	Dusts
Floors and walls	Tile cutting (ceramic dusts)	Minerals
	Adhesives*	
	Insulation	Asbestos
Remodeling and	Coolant reservoirs	Aluminum, zinc
Demolition*	Adhesives*	
	Vehicle and machinery maintenance	Oils and grease, coolants
	Gasoline, oils, additives	Benzene & derivatives, oil and grease
Yard operation	Marking paints (sprays)	Vinyl chloride, metals
and	Grading, earth moving	Erosion (sediments)
maintenance	Portable toilets	BOD, disinfectants (spills)
	Fire hazard control (herbicides)	Sodium arsenate, dinitro compounds
	Health and Safety	Rodenticides, insecticides
1		

	Wash Waters* (herbicides, concrete, oils and greases)	
	Planting, plant maintenance	Pesticides, herbicides, nutrients
	Excavation, tilling	Erosion (sediments)
	Masonry and concrete*	
Landscaping	Solid Wastes (trees, shrubs)	BOD
and	Exposing natural lime or other mineral deposits	Acidity/alkalinity, metals
earthmoving	Soil Adhesives	Aluminum sulfate, sulfur
	Revegetation of graded areas	Fertilizers
	Waste storage (used oils, solvents, etc.)	Spills, leaks
Materials	Hazardous waste containment	Spills, leaks
Storage	Raw material piles	Dusts, sediments

^{*}See above categories

Note: VOC = Volatile organic compounds, BOD = Biological oxygen demand due to the use of oxygen by decomposing materials.

References: USEPA, 1973. Processes, Procedures and Methods to Control Pollution Resulting From Construction Activity. Office of Air and Water Programs, EPA 430/9-73-007. October, 1973.

Meech, Mark L., and Margaret Luin Bazany. 1991. Construction Creates Own Set of Hazardous Wastes. Hazmat World August, 1991.

Gosselin, R.E. Ph. D., R.P. Smith Ph.D., and H. C. Hodge Ph.D. 1984. Clinical Toxicology of Commercial Products

TABLE G2. POLLUTANT SOURCES AND PROPOSED CONTROL MEASURES

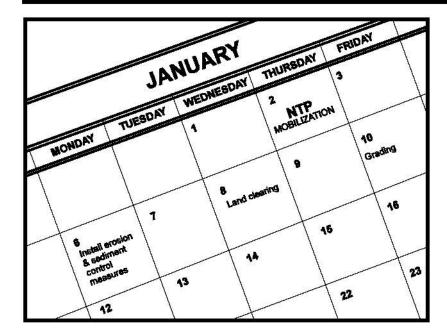
	Potential	
Source Area or Activity	Pollutants	Control Measures
CONSTRUCTION PHASE:		
Concrete Truck Wash Area	Acidity/Sediment	Washout Pit
Construction Materials Loading, Unloading, and Access Areas	All pollutants listed in Table 1	Earthen Berms, Secondary Containment, Impervious Covers
Vehicle and Equipment Storage, Maintenance Areas	Oil and grease, coolants, sediments	Earthen Berms, Drip Pans, Absorbent Materials
Waste Storage Areas	All pollutants listed in Table 1	Earthen Berms, Secondary Containment, Covered Dumpsters
Project Grading	Sediment	Straw Wattles, Silt Traps, Gravel Construction Entrances, Inlet Protection
Small Quantities of Partially Used Materials Throughout Site (during construction)	All raw materials	Employee Training
POST-CONSTRUCTION PHASE:		
Roofs, Structures	Runoff Volume	Project Specific
Bare Surfaces	Sediment	Project Specific
Yards	Fertilizers, Pesticides, Herbicides, Fecal Coliform	Project Specific
Paved Areas	Sediment, Oils	Project Specific

⁽¹⁾ Categories per CASQA BMP Handbook (i.e., Sediment, Nutrients, Bacteria and Viruses, Oil and Grease, Metals, Synthetic Organics, Pesticides, Gross Pollutants, and Vector Production)

Appendix H: CASQA Stormwater BMP Handbook Portal: Construction Fact Sheets

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Scheduling is the development of a written plan that includes sequencing of construction activities and the implementation of BMPs such as erosion control and sediment control while taking local climate (rainfall, wind, etc.) into consideration. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Suitable Applications

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project especially during rainy season. Use of other, more costly yet less effective, erosion and sediment control BMPs may often be reduced through proper construction sequencing.

Limitations

 Environmental constraints such as nesting season prohibitions reduce the full capabilities of this BMP.

Implementation

- Avoid rainy periods. Schedule major grading operations during dry months when practical. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means or to install sediment trapping devices.
- Plan the project and develop a schedule showing each phase

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EC	Erosion Control	\square
SE	Sediment Control	×

NS Non-Stormwater
Management Control

Waste Management and Materials Pollution Control

Legend:

- ☑ Primary Objective
- **☒** Secondary Objective

Targeted Constituents

Sediment

Nutrients Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



of construction. Clearly show how the rainy season relates to soil disturbing and restabilization activities. Incorporate the construction schedule into the SWPPP.

- Include on the schedule, details on the rainy season implementation and deployment of:
 - Erosion control BMPs
 - Sediment control BMPs
 - Tracking control BMPs
 - Wind erosion control BMPs
 - Non-stormwater BMPs
 - Waste management and materials pollution control BMPs
- Include dates for activities that may require non-stormwater discharges such as dewatering, sawcutting, grinding, drilling, boring, crushing, blasting, painting, hydro-demolition, mortar mixing, pavement cleaning, etc.
- Work out the sequencing and timetable for the start and completion of each item such as site
 clearing and grubbing, grading, excavation, paving, foundation pouring utilities installation,
 etc., to minimize the active construction area during the rainy season.
 - Sequence trenching activities so that most open portions are closed before new trenching begins.
 - Incorporate staged seeding and re-vegetation of graded slopes as work progresses.
 - Schedule establishment of permanent vegetation during appropriate planting time for specified vegetation.
- Non-active areas should be stabilized as soon as practical after the cessation of soil disturbing activities or one day prior to the onset of precipitation.
- Monitor the weather forecast for rainfall.
- When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment treatment controls on all disturbed areas prior to the onset of rain.
- Be prepared year round to deploy erosion control and sediment control BMPs. Erosion may be caused during dry seasons by un-seasonal rainfall, wind, and vehicle tracking. Keep the site stabilized year round, and retain and maintain rainy season sediment trapping devices in operational condition.
- Apply permanent erosion control to areas deemed substantially complete during the project's defined seeding window.

Costs

Construction scheduling to reduce erosion may increase other construction costs due to reduced economies of scale in performing site grading. The cost effectiveness of scheduling techniques should be compared with the other less effective erosion and sedimentation controls to achieve a cost effective balance.

Scheduling EC-1

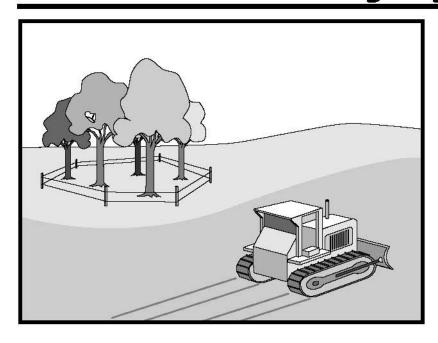
Inspection and Maintenance

- Verify that work is progressing in accordance with the schedule. If progress deviates, take corrective actions.
- Amend the schedule when changes are warranted.
- Amend the schedule prior to the rainy season to show updated information on the deployment and implementation of construction site BMPs.

References

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities Developing Pollution Prevention Plans and Best Management Practices (EPA 832-R-92-005), U.S. Environmental Protection Agency, Office of Water, September 1992.



Categories

C Erosion Control

SE Sediment Control

TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

Waste Management and Materials Pollution Control

Legend:

✓ Primary Objective

☒ Secondary Objective

Description and Purpose

Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs, and grasses that protect soil from erosion.

Suitable Applications

Preservation of existing vegetation is suitable for use on most projects. Large project sites often provide the greatest opportunity for use of this BMP. Suitable applications include the following:

- Areas within the site where no construction activity occurs, or occurs at a later date. This BMP is especially suitable to multi year projects where grading can be phased.
- Areas where natural vegetation exists and is designated for preservation. Such areas often include steep slopes, watercourse, and building sites in wooded areas.
- Areas where local, state, and federal government require preservation, such as vernal pools, wetlands, marshes, certain oak trees, etc. These areas are usually designated on the plans, or in the specifications, permits, or environmental documents.
- Where vegetation designated for ultimate removal can be temporarily preserved and be utilized for erosion control and sediment control.

Limitations

■ Requires forward planning by the owner/developer,

Targeted Constituents

Sediment

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Nutrients

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



contractor, and design staff.

- Limited opportunities for use when project plans do not incorporate existing vegetation into the site design.
- For sites with diverse topography, it is often difficult and expensive to save existing trees
 while grading the site satisfactory for the planned development.

Implementation

The best way to prevent erosion is to not disturb the land. In order to reduce the impacts of new development and redevelopment, projects may be designed to avoid disturbing land in sensitive areas of the site (e.g., natural watercourses, steep slopes), and to incorporate unique or desirable existing vegetation into the site's landscaping plan. Clearly marking and leaving a buffer area around these unique areas during construction will help to preserve these areas as well as take advantage of natural erosion prevention and sediment trapping.

Existing vegetation to be preserved on the site must be protected from mechanical and other injury while the land is being developed. The purpose of protecting existing vegetation is to ensure the survival of desirable vegetation for shade, beautification, and erosion control. Mature vegetation has extensive root systems that help to hold soil in place, thus reducing erosion. In addition, vegetation helps keep soil from drying rapidly and becoming susceptible to erosion. To effectively save existing vegetation, no disturbances of any kind should be allowed within a defined area around the vegetation. For trees, no construction activity should occur within the drip line of the tree.

Timing

 Provide for preservation of existing vegetation prior to the commencement of clearing and grubbing operations or other soil disturbing activities in areas where no construction activity is planned or will occur at a later date.

Design and Layout

- Mark areas to be preserved with temporary fencing. Include sufficient setback to protect roots.
 - Orange colored plastic mesh fencing works well.
 - Use appropriate fence posts and adequate post spacing and depth to completely support the fence in an upright position.
- Locate temporary roadways, stockpiles, and layout areas to avoid stands of trees, shrubs, and grass.
- Consider the impact of grade changes to existing vegetation and the root zone.
- Maintain existing irrigation systems where feasible. Temporary irrigation may be required.
- Instruct employees and subcontractors to honor protective devices. Prohibit heavy equipment, vehicular traffic, or storage of construction materials within the protected area.

Costs

There is little cost associated with preserving existing vegetation if properly planned during the project design, and these costs may be offset by aesthetic benefits that enhance property values. During construction, the cost for preserving existing vegetation will likely be less than the cost of applying erosion and sediment controls to the disturbed area. Replacing vegetation inadvertently destroyed during construction can be extremely expensive, sometimes in excess of \$10,000 per tree.

Inspection and Maintenance

During construction, the limits of disturbance should remain clearly marked at all times. Irrigation or maintenance of existing vegetation should be described in the landscaping plan. If damage to protected trees still occurs, maintenance guidelines described below should be followed:

- Verify that protective measures remain in place. Restore damaged protection measures immediately.
- Serious tree injuries shall be attended to by an arborist.
- Damage to the crown, trunk, or root system of a retained tree shall be repaired immediately.
- Trench as far from tree trunks as possible, usually outside of the tree drip line or canopy. Curve trenches around trees to avoid large roots or root concentrations. If roots are encountered, consider tunneling under them. When trenching or tunneling near or under trees to be retained, place tunnels at least 18 in. below the ground surface, and not below the tree center to minimize impact on the roots.
- Do not leave tree roots exposed to air. Cover exposed roots with soil as soon as possible. If soil covering is not practical, protect exposed roots with wet burlap or peat moss until the tunnel or trench is ready for backfill.
- Cleanly remove the ends of damaged roots with a smooth cut.
- Fill trenches and tunnels as soon as possible. Careful filling and tamping will eliminate air spaces in the soil, which can damage roots.
- If bark damage occurs, cut back all loosened bark into the undamaged area, with the cut tapered at the top and bottom and drainage provided at the base of the wood. Limit cutting the undamaged area as much as possible.
- Aerate soil that has been compacted over a trees root zone by punching holes 12 in. deep with an iron bar, and moving the bar back and forth until the soil is loosened. Place holes 18 in. apart throughout the area of compacted soil under the tree crown.
- Fertilization
 - Fertilize stressed or damaged broadleaf trees to aid recovery.
 - Fertilize trees in the late fall or early spring.

- Apply fertilizer to the soil over the feeder roots and in accordance with label instructions, but never closer than 3 ft to the trunk. Increase the fertilized area by one-fourth of the crown area for conifers that have extended root systems.
- Retain protective measures until all other construction activity is complete to avoid damage during site cleanup and stabilization.

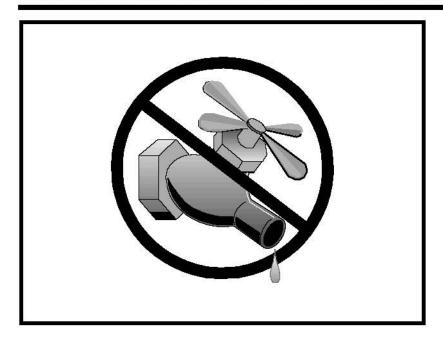
References

County of Sacramento Tree Preservation Ordinance, September 1981.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Water Quality Management Plan for The Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.



EC	Erosion Control	×
SE	Sediment Control	×
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	$ \sqrt{} $
WM	Waste Management and Materials Pollution Control	

Legend:

Categories

- ☑ Primary Objective
- **☒** Secondary Objective

Description and Purpose

Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and the transport of pollutants offsite. These practices can reduce or eliminate non-stormwater discharges.

Suitable Applications

Water conservation practices are suitable for all construction sites where water is used, including piped water, metered water, trucked water, and water from a reservoir.

Limitations

None identified.

Implementation

- Keep water equipment in good working condition.
- Stabilize water truck filling area.
- Repair water leaks promptly.
- Washing of vehicles and equipment on the construction site is discouraged.
- Avoid using water to clean construction areas. If water must be used for cleaning or surface preparation, surface should be swept and vacuumed first to remove dirt. This will minimize amount of water required.
- Direct construction water runoff to areas where it can soak

Targeted Constituents

Sediment Nutrients \checkmark

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



into the ground or be collected and reused.

- Authorized non-stormwater discharges to the storm drain system, channels, or receiving waters are acceptable with the implementation of appropriate BMPs.
- Lock water tank valves to prevent unauthorized use.

Costs

The cost is small to none compared to the benefits of conserving water.

Inspection and Maintenance

- Inspect and verify that activity based BMPs are in place prior to the commencement of authorized non-stormwater discharges.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges are occuring.
- Repair water equipment as needed to prevent unintended discharges.
 - Water trucks
 - Water reservoirs (water buffalos)
 - Irrigation systems
 - Hydrant connections

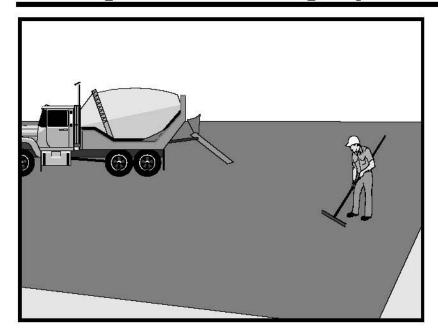
References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

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Description and Purpose

Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent runon and runoff pollution, properly disposing of wastes, and training employees and subcontractors.

The General Permit incorporates Numeric Effluent Limits (NEL) and Numeric Action Levels (NAL) for pH and turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Many types of construction materials associated with paving and grinding operations, including mortar, concrete, and cement and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

These procedures are implemented where paving, surfacing, resurfacing, or sawcutting, may pollute stormwater runoff or discharge to the storm drain system or watercourses.

Limitations

- Paving opportunities may be limited during wet weather.
- Discharges of freshly paved surfaces may raise pH to environmentally harmful levels and trigger permit violations.

Categories

- **Erosion Control**
- SE Sediment Control
- TC Tracking Control
- WE Wind Erosion Control
- Non-Stormwater NS Management Control
- Waste Management and
- Materials Pollution Control

Legend:

- ✓ Primary Category
- Secondary Category

Targeted Constituents

Sediment

Nutrients

Trash

Metals

Bacteria

V Oil and Grease

Organics

Potential Alternatives



Implementation

General

- Avoid paving during the wet season when feasible.
- Reschedule paving and grinding activities if rain is forecasted.
- Train employees and sub-contractors in pollution prevention and reduction.
- Store materials away from drainage courses to prevent stormwater runon (see WM-1, Material Delivery and Storage).
- Protect drainage courses, particularly in areas with a grade, by employing BMPs to divert runoff or to trap and filter sediment.
- Stockpile material removed from roadways away from drain inlets, drainage ditches, and watercourses. These materials should be stored consistent with WM-3, Stockpile Management.
- Disposal of PCC (Portland cement concrete) and AC (asphalt concrete) waste should be in conformance with WM-8, Concrete Waste Management.

Saw Cutting, Grinding, and Pavement Removal

- Shovel or vacuum saw-cut slurry and remove from site. Cover or barricade storm drains during saw cutting to contain slurry.
- When paving involves AC, the following steps should be implemented to prevent the discharge of grinding residue, uncompacted or loose AC, tack coats, equipment cleaners, or unrelated paving materials:
 - AC grindings, pieces, or chunks used in embankments or shoulder backing should not be allowed to enter any storm drains or watercourses. Install inlet protection and perimeter controls until area is stabilized (i.e. cutting, grinding or other removal activities are complete and loose material has been properly removed and disposed of)or permanent controls are in place. Examples of temporary perimeter controls can be found in EC-9, Earth Dikes and Drainage Swales; SE-1, Silt Fence; SE-5, Fiber Rolls, or SE-13 Compost Socks and Berms
 - Collect and remove all broken asphalt and recycle when practical. Old or spilled asphalt should be recycled or disposed of properly.
- Do not allow saw-cut slurry to enter storm drains or watercourses. Residue from grinding operations should be picked up by a vacuum attachment to the grinding machine, or by sweeping, should not be allowed to flow across the pavement, and should not be left on the surface of the pavement. See also WM-8, Concrete Waste Management, and WM-10, Liquid Waste Management.
- Pavement removal activities should not be conducted in the rain.
- Collect removed pavement material by mechanical or manual methods. This material may be recycled for use as shoulder backing or base material.

 If removed pavement material cannot be recycled, transport the material back to an approved storage site.

Asphaltic Concrete Paving

- If paving involves asphaltic cement concrete, follow these steps:
 - Do not allow sand or gravel placed over new asphalt to wash into storm drains, streets, or creeks. Vacuum or sweep loose sand and gravel and properly dispose of this waste by referring to WM-5, Solid Waste Management.
 - Old asphalt should be disposed of properly. Collect and remove all broken asphalt from the site and recycle whenever possible.

Portland Cement Concrete Paving

Do not wash sweepings from exposed aggregate concrete into a storm drain system. Collect waste materials by dry methods, such as sweeping or shoveling, and return to aggregate base stockpile or dispose of properly. Allow aggregate rinse to settle. Then, either allow rinse water to dry in a temporary pit as described in WM-8, Concrete Waste Management, or pump the water to the sanitary sewer if authorized by the local wastewater authority.

Sealing Operations

- During chip seal application and sweeping operations, petroleum or petroleum covered
 aggregate should not be allowed to enter any storm drain or water courses. Apply temporary
 perimeter controls until structure is stabilized (i.e. all sealing operations are complete and
 cured and loose materials have been properly removed and disposed).
- Inlet protection (SE-10, Storm Drain Inlet Protection) should be used during application of seal coat, tack coat, slurry seal, and fog seal.
- Seal coat, tack coat, slurry seal, or fog seal should not be applied if rainfall is predicted to occur during the application or curing period.

Paving Equipment

- Leaks and spills from paving equipment can contain toxic levels of heavy metals and oil and grease. Place drip pans or absorbent materials under paving equipment when not in use. Clean up spills with absorbent materials and dispose of in accordance with the applicable regulations. See NS-10, Vehicle and Equipment Maintenance, WM-4, Spill Prevention and Control, and WM-10, Liquid Waste Management.
- Substances used to coat asphalt transport trucks and asphalt spreading equipment should not contain soap and should be non-foaming and non-toxic.
- Paving equipment parked onsite should be parked over plastic to prevent soil contamination.
- Clean asphalt coated equipment offsite whenever possible. When cleaning dry, hardened asphalt from equipment, manage hardened asphalt debris as described in WM-5, Solid Waste Management. Any cleaning onsite should follow NS-8, Vehicle and Equipment Cleaning.

Thermoplastic Striping

- Thermoplastic striper and pre-heater equipment shutoff valves should be inspected to
 ensure that they are working properly to prevent leaking thermoplastic from entering drain
 inlets, the stormwater drainage system, or watercourses.
- Pre-heaters should be filled carefully to prevent splashing or spilling of hot thermoplastic.
 Leave six inches of space at the top of the pre-heater container when filling thermoplastic to allow room for material to move.
- Do not pre-heat, transfer, or load thermoplastic near drain inlets or watercourses.
- Clean truck beds daily of loose debris and melted thermoplastic. When possible, recycle thermoplastic material.

Raised/Recessed Pavement Marker Application and Removal

- Do not transfer or load bituminous material near drain inlets, the stormwater drainage system, or watercourses.
- Melting tanks should be loaded with care and not filled to beyond six inches from the top to leave room for splashing.
- When servicing or filling melting tanks, ensure all pressure is released before removing lids to avoid spills.
- On large-scale projects, use mechanical or manual methods to collect excess bituminous material from the roadway after removal of markers.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of paving and grinding operations.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Sample stormwater runoff required by the General Permit.
- Keep ample supplies of drip pans or absorbent materials onsite.
- Inspect and maintain machinery regularly to minimize leaks and drips.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

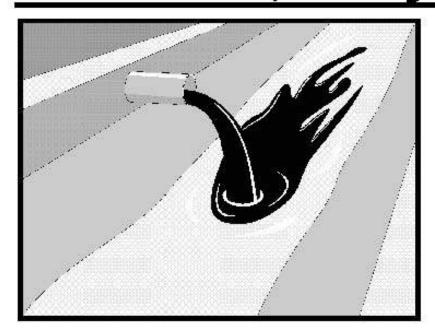
Paving and Grinding Operations

NS-3

Hot Mix Asphalt-Paving Handbook AC 150/5370-14, Appendix I, U.S. Army Corps of Engineers, July 1991.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



EC Erosion Control SE Sediment Control TC Tracking Control WE Wind Erosion Control Non-Stormwater Management Control Waste Management and

Materials Pollution Control

Legend:

Categories

- Primary Objective
- Secondary Objective

Description and Purpose

Procedures and practices designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents.

Suitable Applications

This best management practice (BMP) applies to all construction projects. Illicit connection/discharge and reporting is applicable anytime an illicit connection or discharge is discovered or illegally dumped material is found on the construction site.

Limitations

Illicit connections and illegal discharges or dumping, for the purposes of this BMP, refer to discharges and dumping caused by parties other than the contractor. If pre-existing hazardous materials or wastes are known to exist onsite, they should be identified in the SWPPP and handled as set forth in the SWPPP.

Implementation *Planning*

- Review the SWPPP. Pre-existing areas of contamination should be identified and documented in the SWPPP.
- Inspect site before beginning the job for evidence of illicit connections, illegal dumping or discharges. Document any pre-existing conditions and notify the owner.
- Inspect site regularly during project execution for evidence

Targeted Constituents

아이들은 유민들과 아이는 아이를 보면 하는데 하는데 살아 있다.	
Sediment	56130
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	Ø

Potential Alternatives



of illicit connections, illegal dumping or discharges.

 Observe site perimeter for evidence for potential of illicitly discharged or illegally dumped material, which may enter the job site.

Identification of Illicit Connections and Illegal Dumping or Discharges

- General unlabeled and unidentifiable material should be treated as hazardous.
- **Solids** Look for debris, or rubbish piles. Solid waste dumping often occurs on roadways with light traffic loads or in areas not easily visible from the traveled way.
- Liquids signs of illegal liquid dumping or discharge can include:
 - Visible signs of staining or unusual colors to the pavement or surrounding adjacent soils
 - Pungent odors coming from the drainage systems
 - Discoloration or oily substances in the water or stains and residues detained within ditches, channels or drain boxes
 - Abnormal water flow during the dry weather season
- Urban Areas Evidence of illicit connections or illegal discharges is typically detected at storm drain outfall locations or at manholes. Signs of an illicit connection or illegal discharge can include:
 - Abnormal water flow during the dry weather season
 - Unusual flows in sub drain systems used for dewatering
 - Pungent odors coming from the drainage systems
 - Discoloration or oily substances in the water or stains and residues detained within ditches, channels or drain boxes
 - Excessive sediment deposits, particularly adjacent to or near active offsite construction projects
- Rural Areas Illicit connections or illegal discharges involving irrigation drainage ditches are detected by visual inspections. Signs of an illicit discharge can include:
 - Abnormal water flow during the non-irrigation season
 - Non-standard junction structures
 - Broken concrete or other disturbances at or near junction structures

Reporting

Notify the owner of any illicit connections and illegal dumping or discharge incidents at the time of discovery. For illicit connections or discharges to the storm drain system, notify the local stormwater management agency. For illegal dumping, notify the local law enforcement agency.

Cleanup and Removal

The responsibility for cleanup and removal of illicit or illegal dumping or discharges will vary by location. Contact the local stormwater management agency for further information.

Costs

Costs to look for and report illicit connections and illegal discharges and dumping are low. The best way to avoid costs associated with illicit connections and illegal discharges and dumping is to keep the project perimeters secure to prevent access to the site, to observe the site for vehicles that should not be there, and to document any waste or hazardous materials that exist onsite before taking possession of the site.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect the site regularly to check for any illegal dumping or discharge.
- Prohibit employees and subcontractors from disposing of non-job related debris or materials at the construction site.
- Notify the owner of any illicit connections and illegal dumping or discharge incidents at the time of discovery.

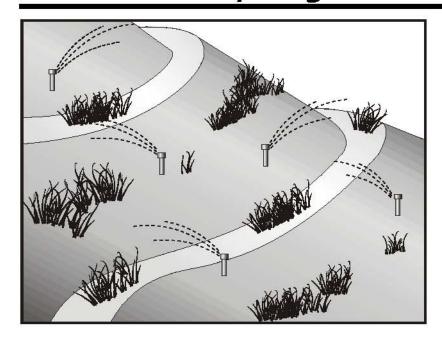
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Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

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Description and Purpose

Potable Water/Irrigation consists of practices and procedures to manage the discharge of potential pollutants generated during discharges from irrigation water lines, landscape irrigation, lawn or garden watering, planned and unplanned discharges from potable water sources, water line flushing, and hydrant flushing.

Suitable Applications

Implement this BMP whenever potable water or irrigation water discharges occur at or enter a construction site.

Limitations

None identified.

Implementation

- Direct water from offsite sources around or through a construction site, where feasible, in a way that minimizes contact with the construction site.
- Discharges from water line flushing should be reused for landscaping purposes where feasible.
- Shut off the water source to broken lines, sprinklers, or valves as soon as possible to prevent excess water flow.
- Protect downstream stormwater drainage systems and watercourses from water pumped or bailed from trenches excavated to repair water lines.
- Inspect irrigated areas within the construction limits for

Categories

EC Erosion Control

SE Sediment Control

TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

WM Waste Management and Materials Pollution Control

Legend:

☑ Primary Objective

☒ Secondary Objective

Targeted Constituents

Sediment ☑

Nutrients

Trash

Metals
☑

Bacteria

Oil and Grease

Organics 🗹

Potential Alternatives



excess watering. Adjust watering times and schedules to ensure that the appropriate amount of water is being used and to minimize runoff. Consider factors such as soil structure, grade, time of year, and type of plant material in determining the proper amounts of water for a specific area.

Costs

Cost to manage potable water and irrigation are low and generally considered to be a normal part of related activities.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Repair broken water lines as soon as possible.
- Inspect irrigated areas regularly for signs of erosion and/or discharge.

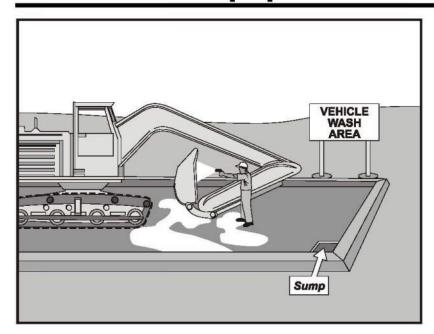
References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

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Categories

EC Erosion Control

SE Sediment Control

TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

WM Waste Management and Materials Pollution Control

Legend:

☑ Primary Objective

■ Secondary Objective

Description and Purpose

Vehicle and equipment cleaning procedures and practices eliminate or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning operations. Procedures and practices include but are not limited to: using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors in proper cleaning procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Implementation

Other options to washing equipment onsite include contracting with either an offsite or mobile commercial washing business. These businesses may be better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

If washing operations are to take place onsite, then:

Targeted Constituents

Sediment

Nutrients

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.
- Do not permit steam cleaning onsite. Steam cleaning can generate significant pollutant concentrates.
- Cleaning of vehicles and equipment with soap, solvents or steam should not occur on the project site unless resulting wastes are fully contained and disposed of. Resulting wastes should not be discharged or buried, and must be captured and recycled or disposed according to the requirements of WM-10, Liquid Waste Management or WM-6, Hazardous Waste Management, depending on the waste characteristics. Minimize use of solvents. Use of diesel for vehicle and equipment cleaning is prohibited.
- All vehicles and equipment that regularly enter and leave the construction site must be cleaned offsite.
- When vehicle and equipment washing and cleaning must occur onsite, and the operation cannot be located within a structure or building equipped with appropriate disposal facilities, the outside cleaning area should have the following characteristics:
 - Located away from storm drain inlets, drainage facilities, or watercourses
 - Paved with concrete or asphalt and bermed to contain wash waters and to prevent runon and runoff
 - Configured with a sump to allow collection and disposal of wash water
 - No discharge of wash waters to storm drains or watercourses
 - Used only when necessary
- When cleaning vehicles and equipment with water:
 - Use as little water as possible. High-pressure sprayers may use less water than a hose and should be considered
 - Use positive shutoff valve to minimize water usage
 - Facility wash racks should discharge to a sanitary sewer, recycle system or other approved discharge system and must not discharge to the storm drainage system, watercourses, or to groundwater

Costs

Cleaning vehicles and equipment at an offsite facility may reduce overall costs for vehicle and equipment cleaning by eliminating the need to provide similar services onsite. When onsite cleaning is needed, the cost to establish appropriate facilities is relatively low on larger, long-duration projects, and moderate to high on small, short-duration projects.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Inspection and maintenance is minimal, although some berm repair may be necessary.
- Monitor employees and subcontractors throughout the duration of the construction project to ensure appropriate practices are being implemented.
- Inspect sump regularly and remove liquids and sediment as needed.
- Prohibit employees and subcontractors from washing personal vehicles and equipment on the construction site.

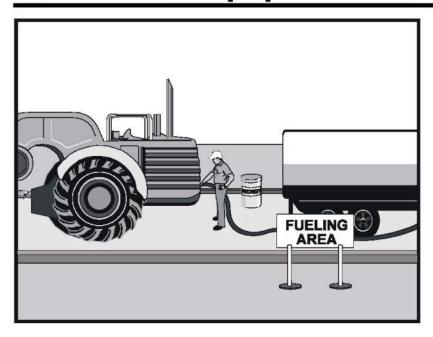
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Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Swisher, R.D. Surfactant Biodegradation, Marcel Decker Corporation, 1987.

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Categories

EC Erosion Control

SE Sediment Control

TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

WM Waste Management and Materials Pollution Control

Legend:

☑ Primary Objective

■ Secondary Objective

Description and Purpose

Vehicle equipment fueling procedures and practices are designed to prevent fuel spills and leaks, and reduce or eliminate contamination of stormwater. This can be accomplished by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors in proper fueling procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment fueling takes place.

Limitations

Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending vehicles and equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/ Exit.

Implementation

- Use offsite fueling stations as much as possible. These businesses are better equipped to handle fuel and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate fueling area at a site.
- Discourage "topping-off" of fuel tanks.
- Absorbent spill cleanup materials and spill kits should be available in fueling areas and on fueling trucks, and should

Targeted Constituents

Sediment

Nutrients

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



be disposed of properly after use.

- Drip pans or absorbent pads should be used during vehicle and equipment fueling, unless
 the fueling is performed over an impermeable surface in a dedicated fueling area.
- Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the adsorbent materials promptly and dispose of properly.
- Avoid mobile fueling of mobile construction equipment around the site; rather, transport the
 equipment to designated fueling areas. With the exception of tracked equipment such as
 bulldozers and large excavators, most vehicles should be able to travel to a designated area
 with little lost time.
- Train employees and subcontractors in proper fueling and cleanup procedures.
- When fueling must take place onsite, designate an area away from drainage courses to be used. Fueling areas should be identified in the SWPPP.
- Dedicated fueling areas should be protected from stormwater runon and runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Protect fueling areas with berms and dikes to prevent runon, runoff, and to contain spills.
- Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.
- Use vapor recovery nozzles to help control drips as well as air pollution where required by Air Quality Management Districts (AQMD).
- Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

Costs

 All of the above measures are low cost except for the capital costs of above ground tanks that meet all local environmental, zoning, and fire codes.

Inspection and Maintenance

- Vehicles and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.
- Keep ample supplies of spill cleanup materials onsite.
- Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

Vehicle and Equipment Fueling

NS-9

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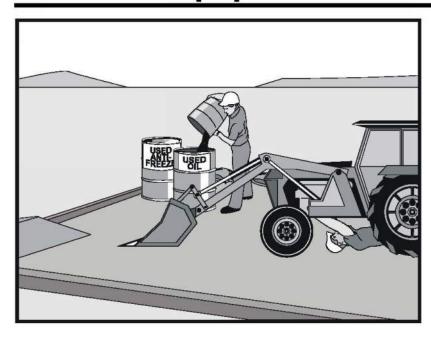
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Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Vehicle & Equipment Maintenance NS-10



Categories

EC Erosion Control
SE Sediment Control

TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

WM Waste Management and Materials Pollution Control

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Legend:

☑ Primary Objective

■ Secondary Objective

Description and Purpose

Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a "dry and clean site". The best option would be to perform maintenance activities at an offsite facility. If this option is not available then work should be performed in designated areas only, while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately. Employees and subcontractors must be trained in proper procedures.

Suitable Applications

These procedures are suitable on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles.

Limitations

Onsite vehicle and equipment maintenance should only be used where it is impractical to send vehicles and equipment offsite for maintenance and repair. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid leaks). For further information on vehicle or equipment servicing, see NS-8, Vehicle and Equipment Cleaning, and NS-9, Vehicle and

Targeted Constituents

Sediment

Nutrients

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



Vehicle & Equipment Maintenance NS-10

Equipment Fueling.

Implementation

- Use offsite repair shops as much as possible. These businesses are better equipped to handle
 vehicle fluids and spills properly. Performing this work offsite can also be economical by
 eliminating the need for a separate maintenance area.
- If maintenance must occur onsite, use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater runon and runoff, and should be located at least 50 ft from downstream drainage facilities and watercourses.
- Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices.
- Use adsorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly.
- Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately.
- Keep vehicles and equipment clean; do not allow excessive build-up of oil and grease.
- Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite.
- Train employees and subcontractors in proper maintenance and spill cleanup procedures.
- Drip pans or plastic sheeting should be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than 1 hour.
- For long-term projects, consider using portable tents or covers over maintenance areas if maintenance cannot be performed offsite.
- Consider use of new, alternative greases and lubricants, such as adhesive greases, for chassis lubrication and fifth-wheel lubrication.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.
- Do not place used oil in a dumpster or pour into a storm drain or watercourse.
- Properly dispose of or recycle used batteries.
- Do not bury used tires.

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Vehicle & Equipment Maintenance NS-10

Repair leaks of fluids and oil immediately.

Listed below is further information if you must perform vehicle or equipment maintenance onsite.

Safer Alternative Products

- Consider products that are less toxic or hazardous than regular products. These products are often sold under an "environmentally friendly" label.
- Consider use of grease substitutes for lubrication of truck fifth-wheels. Follow manufacturers label for details on specific uses.
- Consider use of plastic friction plates on truck fifth-wheels in lieu of grease. Follow manufacturers label for details on specific uses.

Waste Reduction

Parts are often cleaned using solvents such as trichloroethylene, trichloroethane, or methylene chloride. Many of these cleaners are listed in California Toxic Rule as priority pollutants. These materials are harmful and must not contaminate stormwater. They must be disposed of as a hazardous waste. Reducing the number of solvents makes recycling easier and reduces hazardous waste management costs. Often, one solvent can perform a job as well as two different solvents. Also, if possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. For example, replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check the list of active ingredients to see whether it contains chlorinated solvents. The "chlor" term indicates that the solvent is chlorinated. Also, try substituting a wire brush for solvents to clean parts.

Recycling and Disposal

Separating wastes allows for easier recycling and may reduce disposal costs. Keep hazardous wastes separate, do not mix used oil solvents, and keep chlorinated solvents (like,-trichloroethane) separate from non-chlorinated solvents (like kerosene and mineral spirits). Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around. Provide cover and secondary containment until these materials can be removed from the site.

Oil filters can be recycled. Ask your oil supplier or recycler about recycling oil filters.

Do not dispose of extra paints and coatings by dumping liquid onto the ground or throwing it into dumpsters. Allow coatings to dry or harden before disposal into covered dumpsters.

Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Costs

All of the above are low cost measures. Higher costs are incurred to setup and maintain onsite maintenance areas.

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Vehicle & Equipment Maintenance NS-10

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Keep ample supplies of spill cleanup materials onsite.
- Maintain waste fluid containers in leak proof condition.
- Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately or the problem vehicle(s) or equipment should be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

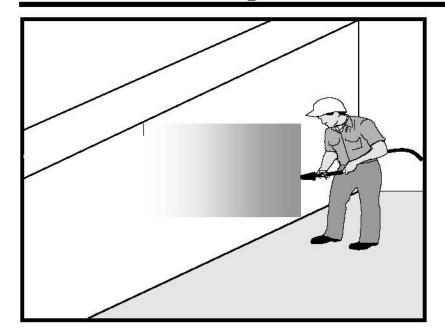
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Cat	categories				
EC	Erosion Control				
SE	Sediment Control				
TC	Tracking Control				
WE	Wind Erosion Control				
NS	Non-Stormwater Management Control				

WM Waste Management and Materials Pollution Control

Legend:

Categories

- ☑ Primary Category
- Secondary Category

Description and Purpose

Concrete curing is used in the construction of structures such as bridges, retaining walls, pump houses, large slabs, and structured foundations. Concrete curing includes the use of both chemical and water methods.

Concrete and its associated curing materials have basic chemical properties that can raise the pH of water to levels outside of the permitted range. Discharges of stormwater and non-stormwater exposed to concrete during curing may have a high pH and may contain chemicals, metals, and fines. The General Permit incorporates Numeric Effluent Limits (NEL) and Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Proper procedures and care should be taken when managing concrete curing materials to prevent them from coming into contact with stormwater flows, which could result in a high pH discharge.

Suitable Applications

Suitable applications include all projects where Portland Cement Concrete (PCC) and concrete curing chemicals are placed where they can be exposed to rainfall, runoff from other areas, or where runoff from the PCC will leave the site.

Targeted Constituents

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Sediment	
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	\checkmark
Organics	

Potential Alternatives

None



Limitations

 Runoff contact with concrete waste can raise pH levels in the water to environmentally harmful levels and trigger permit violations.

Implementation

Chemical Curing

- Avoid over spray of curing compounds.
- Minimize the drift by applying the curing compound close to the concrete surface. Apply an amount of compound that covers the surface, but does not allow any runoff of the compound.
- Use proper storage and handling techniques for concrete curing compounds. Refer to WM-1, Material Delivery and Storage.
- Protect drain inlets prior to the application of curing compounds.
- Refer to WM-4, Spill Prevention and Control.

Water Curing for Bridge Decks, Retaining Walls, and other Structures

- Direct cure water away from inlets and watercourses to collection areas for evaporation or other means of removal in accordance with all applicable permits. See WM-8 Concrete Waste Management.
- Collect cure water at the top of slopes and transport to a concrete waste management area in a non-erosive manner. See EC-9 Earth Dikes and Drainage Swales, EC-10, Velocity Dissipation Devices, and EC-11, Slope Drains.
- Utilize wet blankets or a similar method that maintains moisture while minimizing the use and possible discharge of water.

Education

- Educate employees, subcontractors, and suppliers on proper concrete curing techniques to prevent contact with discharge as described herein.
- Arrange for the QSP or the appropriately trained contractor's superintendent or representative to oversee and enforce concrete curing procedures.

Costs

All of the above measures are generally low cost.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Sample non-stormwater discharges and stormwater runoff that contacts uncured and partially cured concrete as required by the General Permit.
- Ensure that employees and subcontractors implement appropriate measures for storage, handling, and use of curing compounds.
- Inspect cure containers and spraying equipment for leaks.

References

Blue Print for a Clean Bay-Construction-Related Industries: Best Management Practices for Stormwater Pollution Prevention; Santa Clara Valley Non Point Source Pollution Control Program, 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

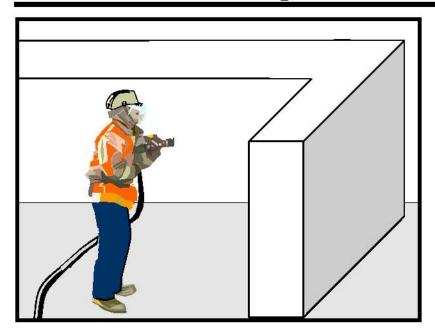
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Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

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Categories

- EC Erosion Control
- SE Sediment Control
- TC Tracking Control
- WE Wind Erosion Control
- NS Non-Stormwater
 Management Control
- WM Waste Management and Materials Pollution Control

Legend:

- ✓ Primary Category
- Secondary Category

Description and Purpose

Concrete finishing methods are used for bridge deck rehabilitation, paint removal, curing compound removal, and final surface finish appearances. Methods include sand blasting, shot blasting, grinding, or high pressure water blasting. Stormwater and non-stormwater exposed to concrete finishing by-products may have a high pH and may contain chemicals, metals, and fines. Proper procedures and implementation of appropriate BMPs can minimize the impact that concrete-finishing methods may have on stormwater and non-stormwater discharges.

The General Permit incorporates Numeric Effluent Limits (NEL) and Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Concrete and its associated curing materials have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

These procedures apply to all construction locations where concrete finishing operations are performed.

Targeted Constituents

- Sediment 🗹
- **Nutrients**
- Trash
- Metals
- Bacteria
- Oil and Grease
- Organics 🗹

Potential Alternatives

None



Limitations

 Runoff contact with concrete waste can raise pH levels in the water to environmentally harmful levels and trigger permit violations.

Implementation

- Collect and properly dispose of water from high-pressure water blasting operations.
- Collect contaminated water from blasting operations at the top of slopes. Transport or dispose of contaminated water while using BMPs such as those for erosion control. Refer to EC-9, Earth Dikes and Drainage Swales, EC-10, Velocity Dissipation Devices, and EC-11, Slope Drains.
- Direct water from blasting operations away from inlets and watercourses to collection areas for infiltration or other means of removal (dewatering). Refer to NS-2 Dewatering Operations.
- Protect inlets during sandblasting operations. Refer to SE-10, Storm Drain Inlet Protection.
- Refer to WM-8, Concrete Waste Management for disposal of concrete debris.
- Minimize the drift of dust and blast material as much as possible by keeping the blasting nozzle close to the surface.
- When blast residue contains a potentially hazardous waste, refer to WM-6, Hazardous Waste Management.

Education

- Educate employees, subcontractors, and suppliers on proper concrete finishing techniques to prevent contact with discharge as described herein.
- Arrange for the QSP or the appropriately trained contractor's superintendent or representative to oversee and enforce concrete finishing procedures.

Costs

These measures are generally of low cost.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Sample non-stormwater discharges and stormwater runoff that contacts concrete dust and debris as required by the General Permit.

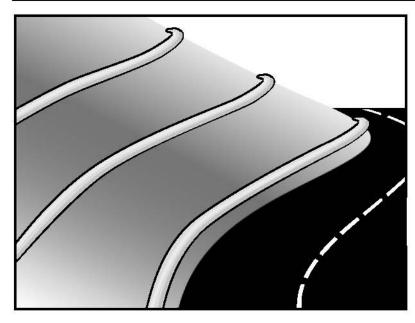
- Sweep or vacuum up debris from sandblasting at the end of each shift.
- At the end of each work shift, remove and contain liquid and solid waste from containment structures, if any, and from the general work area.
- Inspect containment structures for damage prior to use and prior to onset of forecasted rain.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.



Categories

EC Erosion Control

SE Sediment Control

TC Tracking Control

WE Wind Erosion Control
Non-Stormwater

NS Management Control

WM Waste Management and Materials Pollution Control

Legend:

✓ Primary Category

☒ Secondary Category

Description and Purpose

A fiber roll consists of straw, coir, or other biodegradable materials bound into a tight tubular roll wrapped by netting, which can be photodegradable or natural. Additionally, gravel core fiber rolls are available, which contain an imbedded ballast material such as gravel or sand for additional weight when staking the rolls are not feasible (such as use as inlet protection). When fiber rolls are placed at the toe and on the face of slopes along the contours, they intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff (through sedimentation). By interrupting the length of a slope, fiber rolls can also reduce sheet and rill erosion until vegetation is established.

Suitable Applications

Fiber rolls may be suitable:

- Along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
- At the end of a downward slope where it transitions to a steeper slope.
- Along the perimeter of a project.
- As check dams in unlined ditches with minimal grade.
- Down-slope of exposed soil areas.
- At operational storm drains as a form of inlet protection.

Targeted Constituents

Sediment

 \checkmark

V

Nutrients

Trash

Metals Bacteria

Oil and Grease

Organics

Potential Alternatives

SE-1 Silt Fence

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags



Around temporary stockpiles.

Limitations

- Fiber rolls are not effective unless trenched in and staked.
- Not intended for use in high flow situations.
- Difficult to move once saturated.
- If not properly staked and trenched in, fiber rolls could be transported by high flows.
- Fiber rolls have a very limited sediment capture zone.
- Fiber rolls should not be used on slopes subject to creep, slumping, or landslide.
- Rolls typically function for 12-24 months depending upon local conditions.

Implementation

Fiber Roll Materials

- Fiber rolls should be prefabricated.
- Fiber rolls may come manufactured containing polyacrylamide (PAM), a flocculating agent within the roll. Fiber rolls impregnated with PAM provide additional sediment removal capabilities and should be used in areas with fine, clayey or silty soils to provide additional sediment removal capabilities. Monitoring may be required for these installations.
- Fiber rolls are made from weed free rice straw, flax, or a similar agricultural material bound into a tight tubular roll by netting.
- Typical fiber rolls vary in diameter from 9 in. to 20 in. Larger diameter rolls are available as well.

Installation

- Locate fiber rolls on level contours spaced as follows:
 - Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a maximum interval of 20 ft.
 - Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective).
 - Slope inclination 2:1 (H:V) or greater: Fiber Rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective).
- Prepare the slope before beginning installation.
- Dig small trenches across the slope on the contour. The trench depth should be ¼ to 1/3 of the thickness of the roll, and the width should equal the roll diameter, in order to provide area to backfill the trench.

 It is critical that rolls are installed perpendicular to water movement, and parallel to the slope contour.

- Start building trenches and installing rolls from the bottom of the slope and work up.
- It is recommended that pilot holes be driven through the fiber roll. Use a straight bar to drive holes through the roll and into the soil for the wooden stakes.
- Turn the ends of the fiber roll up slope to prevent runoff from going around the roll.
- Stake fiber rolls into the trench.
 - Drive stakes at the end of each fiber roll and spaced 4 ft maximum on center.
 - Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in.
- If more than one fiber roll is placed in a row, the rolls should be overlapped, not abutted.
- See typical fiber roll installation details at the end of this fact sheet.

Removal

- Fiber rolls can be left in place or removed depending on the type of fiber roll and application (temporary vs. permanent installation). Typically, fiber rolls encased with plastic netting are used for a temporary application because the netting does not biodegrade. Fiber rolls used in a permanent application are typically encased with a biodegradeable material and are left in place. Removal of a fiber roll used in a permanent application can result in greater disturbance.
- Temporary installations should only be removed when up gradient areas are stabilized per General Permit requirements, and/or pollutant sources no longer present a hazard. But, they should also be removed before vegetation becomes too mature so that the removal process does not disturb more soil and vegetation than is necessary.

Costs

Material costs for regular fiber rolls range from \$20 - \$30 per 25 ft roll.

Material costs for PAM impregnated fiber rolls range between 7.00-\$9.00 per linear foot, based upon vendor research.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Repair or replace split, torn, unraveling, or slumping fiber rolls.
- If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates in the BMP should be periodically removed

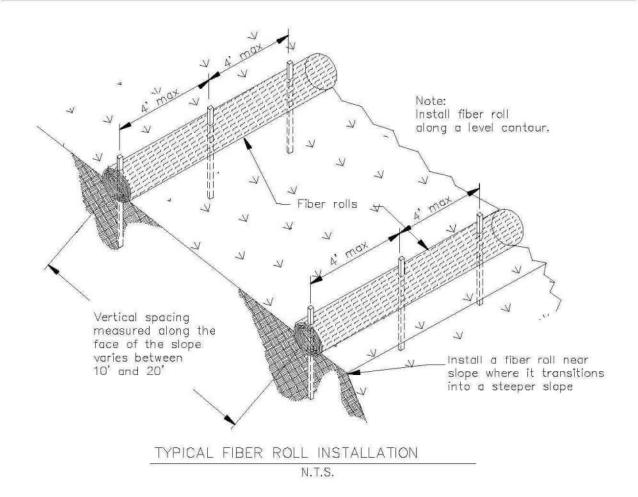
in order to maintain BMP effectiveness. Sediment should be removed when sediment accumulation reaches one-third the designated sediment storage depth.

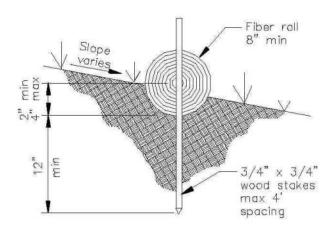
- If fiber rolls are used for erosion control, such as in a check dam, sediment removal should not be required as long as the system continues to control the grade. Sediment control BMPs will likely be required in conjunction with this type of application.
- Repair any rills or gullies promptly.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.





ENTRENCHMENT DETAIL N.T.S.

N N



Categories

- EC Erosion Control
- SE Sediment Control
- TC Tracking Control
- WE Wind Erosion Control
- NS Non-Stormwater
 Management Control
- WM Waste Management and Materials Pollution Control

Legend:

- ☑ Primary Objective
- ☑ Secondary Objective

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.
- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.

Targeted Constituents

Sediment

Nutrients

Trash 🗹

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives

None



Street Sweeping and Vacuuming SE-7

 If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from \$58/hour (3 yd³ hopper) to \$88/hour (9 yd³ hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

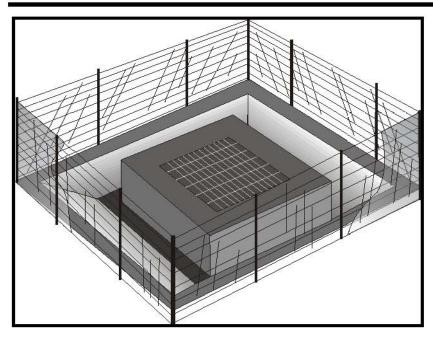
- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

V



Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.

Categories

- EC Erosion Control
- SE Sediment Control
- TC Tracking Control
- WE Wind Erosion Control
- NS Non-Stormwater
 Management Control
- Waste Management and

WM Materials Pollution Control

Legend:

- ☑ Primary Category
- Secondary Category

Targeted Constituents

Sediment

 $\overline{\mathbf{V}}$

Nutrients

Trash

X

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags



- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use other onsite sediment trapping techniques in conjunction with inlet protection.
- Frequent maintenance is required.
- Limit drainage area to 1 acre maximum. For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

Implementation

General

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap and/or used in conjunction with other drainage control, erosion control, and sediment control BMPs to protect the site. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Alternative methods are available in addition to the methods described/shown herein such as prefabricated inlet insert devices, or gutter protection devices.

Design and Layout

Identify existing and planned storm drain inlets that have the potential to receive sedimentladen surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- The key to successful and safe use of storm drain inlet protection devices is to know where runoff that is directed toward the inlet to be protected will pond or be diverted as a result of installing the protection device.
 - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet.
 The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
 - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

- Six types of inlet protection are presented below. However, it is recognized that other
 effective methods and proprietary devices exist and may be selected.
 - Silt Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
 - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
 - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
 - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
 - Temporary Geotextile Storm drain Inserts: Different products provide different features. Refer to manufacturer details for targeted pollutants and additional features.
 - Biofilter Bag Barrier: Used to create a small retention area upstream of inlets and can be located on pavement or soil. Biofilter bags slowly filter runoff allowing sediment to settle out. Appropriate for flows under 0.5 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Provide area around the inlet for water to pond without flooding structures and property.
- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

Installation

- DI Protection Type 1 Silt Fence Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced and water flow through the grate will be blocked resulting in flooding. See typical Type 1 installation details at the end of this fact sheet.
 - Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
 - 2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes should be at least 48 in.
 - 3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
 - 4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.

- 5. Backfill the trench with gravel or compacted earth all the way around.
- DI Protection Type 2 Excavated Drop Inlet Sediment Trap Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd³/acre of drainage area. See typical Type 2 installation details at the end of this fact sheet.
- DI Protection Type 3 Gravel bag Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability. See typical Type 3 installation details at the end of this fact sheet.
 - Construct on gently sloping street.
 - 2. Leave room upstream of barrier for water to pond and sediment to settle.
 - Place several layers of gravel bags overlapping the bags and packing them tightly together.
 - 4. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10 year storm) should not overtop the curb.
- DI Protection Type 4 Block and Gravel Filter Block and gravel filters are suitable
 for curb inlets commonly used in residential, commercial, and industrial construction. See
 typical Type 4 installation details at the end of this fact sheet.
 - Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place woven geotextile over the wire mesh.
 - 2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.
 - 3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.
 - 4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.
- DI Protection Type 5 Temporary Geotextile Insert (proprietary) Many types of temporary inserts are available. Most inserts fit underneath the grate of a drop inlet or inside of a curb inlet and are fastened to the outside of the grate or curb. These inserts are removable and many can be cleaned and reused. Installation of these inserts differs between manufacturers. Please refer to manufacturer instruction for installation of proprietary devices.

- DI Protection Type 6 Biofilter bags Biofilter bags may be used as a substitute for gravel bags in low-flow situations. Biofilter bags should conform to specifications detailed in SE-14, Biofilter bags.
 - 1. Construct in a gently sloping area.
 - 2. Biofilter bags should be placed around inlets to intercept runoff flows.
 - 3. All bag joints should overlap by 6 in.
 - Leave room upstream for water to pond and for sediment to settle out.
 - 5. Stake bags to the ground as described in the following detail. Stakes may be omitted if bags are placed on a paved surface.

Costs

- Average annual cost for installation and maintenance of DI Type 1-4 and 6 (one year useful life) is \$200 per inlet.
- Temporary geotextile inserts are proprietary and cost varies by region. These inserts can often be reused and may have greater than 1 year of use if maintained and kept undamaged. Average cost per insert ranges from \$50-75 plus installation, but costs can exceed \$100. This cost does not include maintenance.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes. At a minimum, remove the sediment behind the fabric fence when accumulation reaches one-third the height of the fence or barrier height.
- Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Inspect and maintain temporary geotextile insert devices according to manufacturer's specifications.
- Remove storm drain inlet protection once the drainage area is stabilized.

Storm Drain Inlet Protection

SE-10

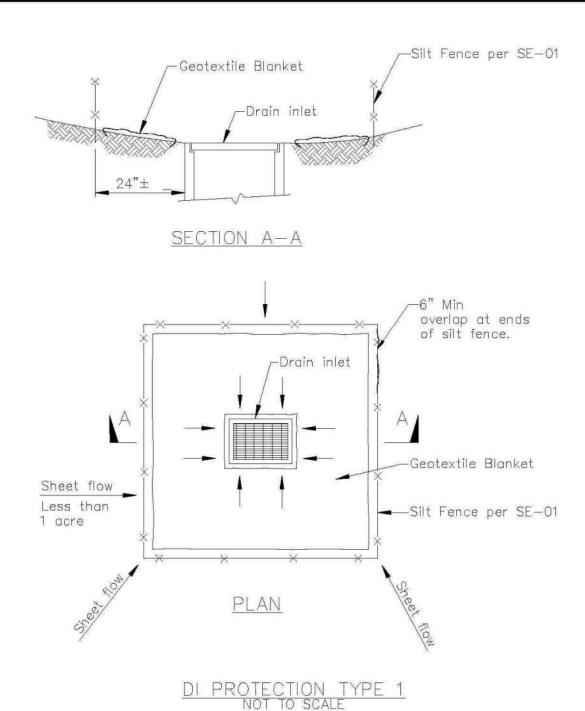
- Clean and regrade area around the inlet and clean the inside of the storm drain inlet, as it should be free of sediment and debris at the time of final inspection.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

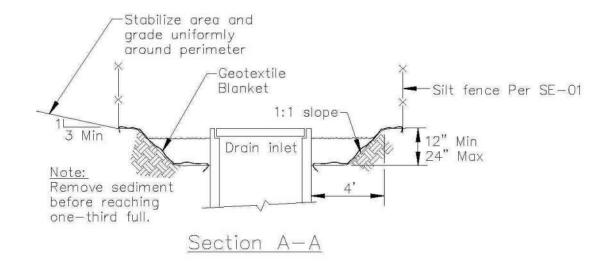
Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.

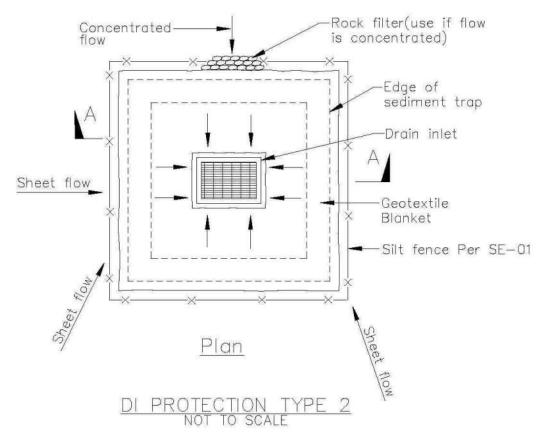
Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



NOTES:

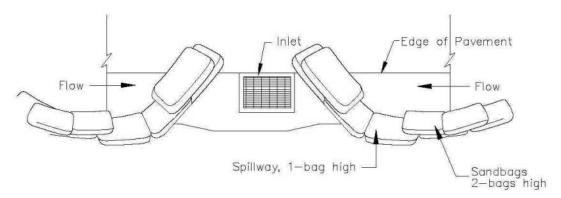
- 1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
- 2. Not applicable in paved areas.
- 3. Not applicable with concentrated flows.



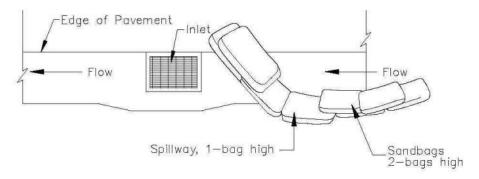


Notes

- 1. For use in cleared and grubbed and in graded areas.
- 2. Shape basin so that longest inflow area faces longest length of trap.
- 3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.



TYPICAL PROTECTION FOR INLET ON SUMP

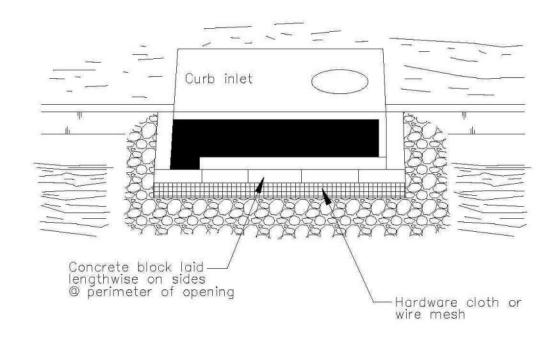


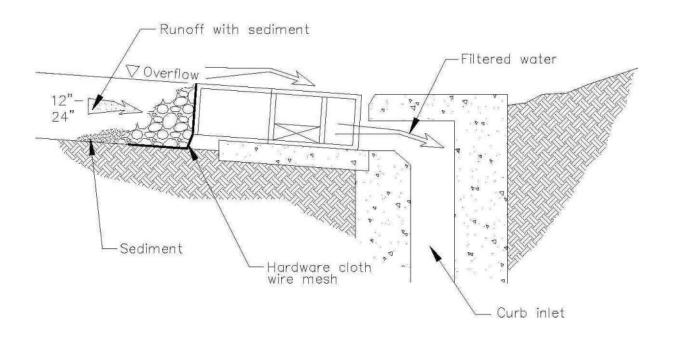
TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

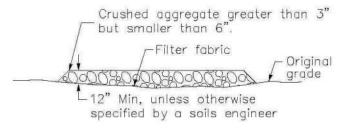
- 1. Intended for short-term use.
- 2. Use to inhibit non-storm water flow.
- 3. Allow for proper maintenance and cleanup.
- 4. Bags must be removed after adjacent operation is completed
- 5. Not applicable in areas with high silts and clays without filter fabric.



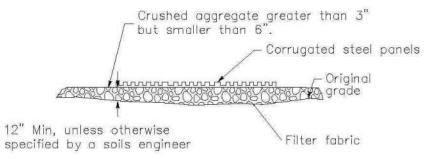




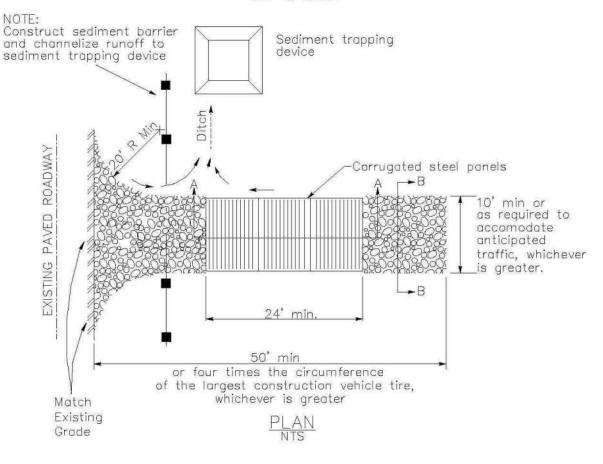
DI PROTECTION - TYPE 4 NOT TO SCALE

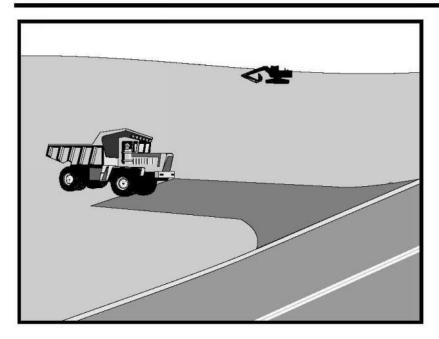


SECTION B-B



SECTION A-A





Cat	tego	orie	25

EC	Erosion Control	×
SE	Sediment Control	×

TC Tracking Control

WE Wind Erosion Control
Non-Stormwater

NS Non-Stormwater
Management Control

WM Waste Management and Materials Pollution Control

Legend:

- ☑ Primary Objective
- Secondary Objective

Description and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Suitable Applications

Use at construction sites:

- Where dirt or mud can be tracked onto public roads.
- Adjacent to water bodies.
- Where poor soils are encountered.
- Where dust is a problem during dry weather conditions.

Limitations

- Entrances and exits require periodic top dressing with additional stones.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way.
- Entrances and exits should be constructed on level ground only.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water

Targeted Constituents

Sediment Nutrients

V

V

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives

None



runoff.

Implementation

General

A stabilized construction entrance is a pad of aggregate underlain with filter cloth located at any point where traffic will be entering or leaving a construction site to or from a public right of way, street, alley, sidewalk, or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights of way or streets. Reducing tracking of sediments and other pollutants onto paved roads helps prevent deposition of sediments into local storm drains and production of airborne dust.

Where traffic will be entering or leaving the construction site, a stabilized construction entrance should be used. NPDES permits require that appropriate measures be implemented to prevent tracking of sediments onto paved roadways, where a significant source of sediments is derived from mud and dirt carried out from unpaved roads and construction sites.

Stabilized construction entrances are moderately effective in removing sediment from equipment leaving a construction site. The entrance should be built on level ground. Advantages of the Stabilized Construction Entrance/Exit is that it does remove some sediment from equipment and serves to channel construction traffic in and out of the site at specified locations. Efficiency is greatly increased when a washing rack is included as part of a stabilized construction entrance/exit.

Design and Layout

- Construct on level ground where possible.
- Select 3 to 6 in. diameter stones.
- Use minimum depth of stones of 12 in. or as recommended by soils engineer.
- Construct length of 50 ft minimum, and 30 ft minimum width.
- Rumble racks constructed of steel panels with ridges and installed in the stabilized entrance/exit will help remove additional sediment and to keep adjacent streets clean.
- Provide ample turning radii as part of the entrance.
- Limit the points of entrance/exit to the construction site.
- Limit speed of vehicles to control dust.
- Properly grade each construction entrance/exit to prevent runoff from leaving the construction site.
- Route runoff from stabilized entrances/exits through a sediment trapping device before discharge.
- Design stabilized entrance/exit to support heaviest vehicles and equipment that will use it.

- Select construction access stabilization (aggregate, asphaltic concrete, concrete) based on longevity, required performance, and site conditions. Do not use asphalt concrete (AC) grindings for stabilized construction access/roadway.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 in. depth, or place aggregate to a depth recommended by a geotechnical engineer. A crushed aggregate greater than 3 in. but smaller than 6 in. should be used.
- Designate combination or single purpose entrances and exits to the construction site.
- Require that all employees, subcontractors, and suppliers utilize the stabilized construction access.
- Implement SE-7, Street Sweeping and Vacuuming, as needed.
- All exit locations intended to be used for more than a two-week period should have stabilized construction entrance/exit BMPs.

Inspection and Maintenance

- Inspect and verify that activity—based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMPs are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect local roads adjacent to the site daily. Sweep or vacuum to remove visible accumulated sediment.
- Remove aggregate, separate and dispose of sediment if construction entrance/exit is clogged with sediment.
- Keep all temporary roadway ditches clear.
- Check for damage and repair as needed.
- Replace gravel material when surface voids are visible.
- Remove all sediment deposited on paved roadways within 24 hours.
- Remove gravel and filter fabric at completion of construction

Costs

Average annual cost for installation and maintenance may vary from \$1,200 to \$4,800 each, averaging \$2,400 per entrance. Costs will increase with addition of washing rack, and sediment trap. With wash rack, costs range from \$1,200 - \$6,000 each, averaging \$3,600 per entrance.

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Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

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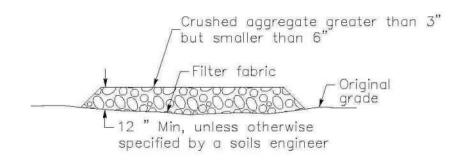
Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

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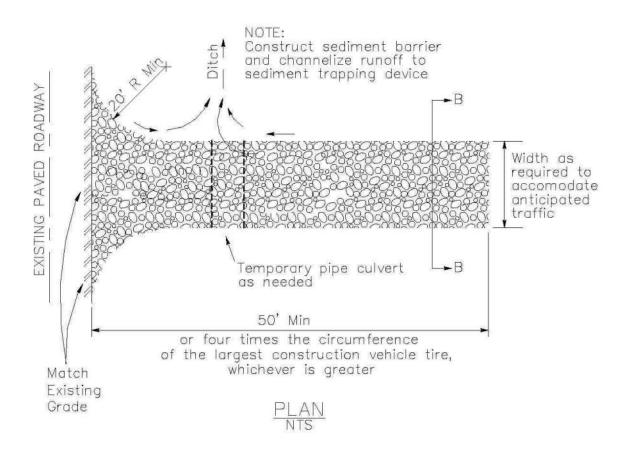
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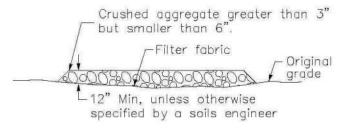
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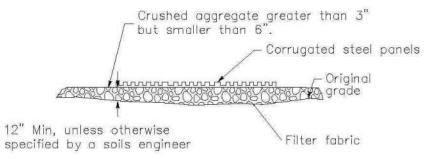


SECTION B-B

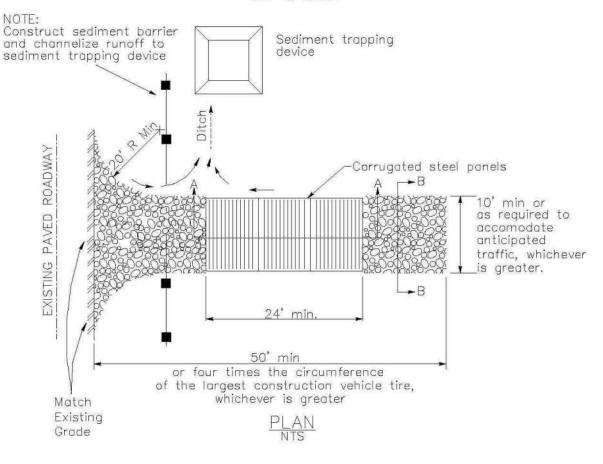




SECTION B-B



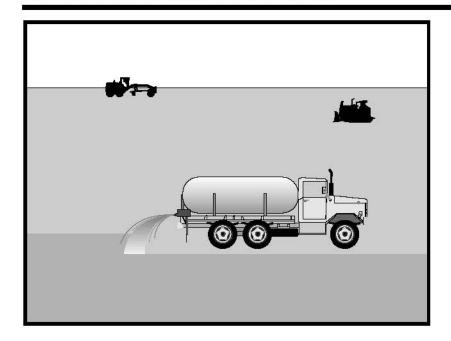
SECTION A-A



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- EC Erosion Control
- SE Sediment Control
- TC Tracking Control
- WE Wind Erosion Control
- NS Non-Stormwater
 Management Control
- WM Waste Management and Materials Pollution Control

Legend:

Sediment

Nutrients

Trash

Metals

Bacteria

Organics

- ✓ Primary Category
- **☒** Secondary Category

Targeted Constituents

Description and Purpose

Wind erosion or dust control consists of applying water or other chemical dust suppressants as necessary to prevent or alleviate dust nuisance generated by construction activities. Covering small stockpiles or areas is an alternative to applying water or other dust palliatives.

California's Mediterranean climate, with a short "wet" season and a typically long, hot "dry" season, allows the soils to thoroughly dry out. During the dry season, construction activities are at their peak, and disturbed and exposed areas are increasingly subject to wind erosion, sediment tracking and dust generated by construction equipment. Site conditions and climate can make dust control more of an erosion problem than water based erosion. Additionally, many local agencies, including Air Quality Management Districts, require dust control and/or dust control permits in order to comply with local nuisance laws, opacity laws (visibility impairment) and the requirements of the Clean Air Act. Wind erosion control is required to be implemented at all construction sites greater than 1 acre by the General Permit.

Potential Alternatives

Oil and Grease

EC-5 Soil Binders

Suitable Applications

Most BMPs that provide protection against water-based erosion will also protect against wind-based erosion and dust control requirements required by other agencies will generally meet wind erosion control requirements for water quality protection. Wind erosion control BMPs are suitable during the following construction activities:



- Construction vehicle traffic on unpaved roads
- Drilling and blasting activities
- Soils and debris storage piles
- Batch drop from front-end loaders
- Areas with unstabilized soil
- Final grading/site stabilization

Limitations

- Watering prevents dust only for a short period (generally less than a few hours) and should be applied daily (or more often) to be effective.
- Over watering may cause erosion and track-out.
- Oil or oil-treated subgrade should not be used for dust control because the oil may migrate into drainageways and/or seep into the soil.
- Chemical dust suppression agents may have potential environmental impacts. Selected chemical dust control agents should be environmentally benign.
- Effectiveness of controls depends on soil, temperature, humidity, wind velocity and traffic.
- Chemical dust suppression agents should not be used within 100 feet of wetlands or water bodies.
- Chemically treated subgrades may make the soil water repellant, interfering with long-term infiltration and the vegetation/re-vegetation of the site. Some chemical dust suppressants may be subject to freezing and may contain solvents and should be handled properly.
- In compacted areas, watering and other liquid dust control measures may wash sediment or other constituents into the drainage system.
- If the soil surface has minimal natural moisture, the affected area may need to be pre-wetted so that chemical dust control agents can uniformly penetrate the soil surface.

Implementation

Dust Control Practices

Dust control BMPs generally stabilize exposed surfaces and minimize activities that suspend or track dust particles. The following table presents dust control practices that can be applied to varying site conditions that could potentially cause dust. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching can be employed for areas of occasional or no construction traffic. Preventive measures include minimizing surface areas to be disturbed, limiting onsite vehicle traffic to 15 mph or less, and controlling the number and activity of vehicles on a site at any given time.

Chemical dust suppressants include: mulch and fiber based dust palliatives (e.g. paper mulch with gypsum binder), salts and brines (e.g. calcium chloride, magnesium chloride), non-petroleum based organics (e.g. vegetable oil, lignosulfonate), petroleum based organics (e.g. asphalt emulsion, dust oils, petroleum resins), synthetic polymers (e.g. polyvinyl acetate, vinyls, acrylic), clay additives (e.g. bentonite, montimorillonite) and electrochemical products (e.g. enzymes, ionic products).

		Dust Control Practices							
Site Condition	Permanent Vegetation	Mulching	Wet Suppression (Watering)	Chemical Dust Suppression	Gravel or Asphalt	Temporary Gravel Construction Entrances/Equipment Wash Down	Synthetic Covers	Minimize Extent of Disturbed Area	
Disturbed Areas not Subject to Traffic	x	Х	х	х	х			х	
Disturbed Areas Subject to Traffic			х	х	x	х		х	
Material Stockpiles		Х	х	х			Х	х	
Demolition			х			x	X		
Clearing/ Excavation			x	x				X	
Truck Traffic on Unpaved Roads			х	х	х	х	х		
Tracking					х	x			

Additional preventive measures include:

- Schedule construction activities to minimize exposed area (see EC-1, Scheduling).
- Quickly treat exposed soils using water, mulching, chemical dust suppressants, or stone/gravel layering.
- Identify and stabilize key access points prior to commencement of construction.
- Minimize the impact of dust by anticipating the direction of prevailing winds.
- Restrict construction traffic to stabilized roadways within the project site, as practicable.
- Water should be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment should be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit should be available at all times to apply water or dust palliative to the project.
- If reclaimed waste water is used, the sources and discharge must meet California
 Department of Health Services water reclamation criteria and the Regional Water Quality

Control Board (RWQCB) requirements. Non-potable water should not be conveyed in tanks or drain pipes that will be used to convey potable water and there should be no connection between potable and non-potable supplies. Non-potable tanks, pipes, and other conveyances should be marked, "NON-POTABLE WATER - DO NOT DRINK."

- Pave or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for haul trucks transporting materials that contribute to dust.
- Provide for rapid clean up of sediments deposited on paved roads. Furnish stabilized construction road entrances and wheel wash areas.
- Stabilize inactive areas of construction sites using temporary vegetation or chemical stabilization methods.

For chemical stabilization, there are many products available for chemically stabilizing gravel roadways and stockpiles. If chemical stabilization is used, the chemicals should not create any adverse effects on stormwater, plant life, or groundwater and should meet all applicable regulatory requirements.

Costs

Installation costs for water and chemical dust suppression vary based on the method used and the length of effectiveness. Annual costs may be high since some of these measures are effective for only a few hours to a few days.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Check areas protected to ensure coverage.
- Most water-based dust control measures require frequent application, often daily or even multiple times per day. Obtain vendor or independent information on longevity of chemical dust suppressants.

References

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

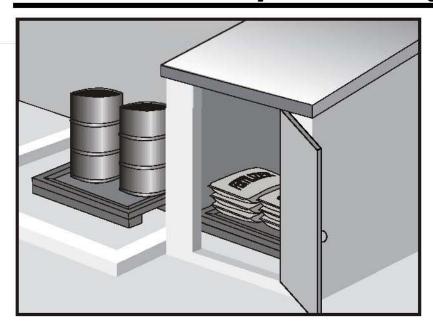
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Construction Manual, Chapter 4, Section 10, "Dust Control"; Section 17, "Watering"; and Section 18, "Dust Palliative", California Department of Transportation (Caltrans), July 2001.

Prospects for Attaining the State Ambient Air Quality Standards for Suspended Particulate Matter (PM10), Visibility Reducing Particles, Sulfates, Lead, and Hydrogen Sulfide, California Air Resources Board, April 1991.

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Categories

EC Erosion Control

SE Sediment Control

TC Tracking Control

WE Wind Erosion Control
Non-Stormwater

NS Management Control

WM Waste Management and Materials Pollution Control

Legend:

☑ Primary Category

Secondary Category

Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or a completely enclosed designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease

Targeted Constituents

Sediment	
Nutrients	
Trash	$ \mathbf{V} $
Metals	
Bacteria	
Oil and Grease	$ \mathbf{\nabla}$
Organics	$ \mathbf{V} $

Potential Alternatives



- Asphalt and concrete components
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Concrete compounds
- Other materials that may be detrimental if released to the environment

Limitations

- Space limitation may preclude indoor storage.
- Storage sheds often must meet building and fire code requirements.

Implementation

The following steps should be taken to minimize risk:

- Chemicals must be stored in water tight containers with appropriate secondary containment or in a storage shed.
- When a material storage area is located on bare soil, the area should be lined and bermed.
- Use containment pallets or other practical and available solutions, such as storing materials within newly constructed buildings or garages, to meet material storage requirements.
- Stack erodible landscape material on pallets and cover when not in use.
- Contain all fertilizers and other landscape materials when not in use.
- Temporary storage areas should be located away from vehicular traffic.
- Material Safety Data Sheets (MSDS) should be available on-site for all materials stored that have the potential to effect water quality.
- Construction site areas should be designated for material delivery and storage.
- Material delivery and storage areas should be located away from waterways, if possible.
 - Avoid transport near drainage paths or waterways.
 - Surround with earth berms or other appropriate containment BMP. See EC-9, Earth Dikes and Drainage Swales.
 - Place in an area that will be paved.
- Storage of reactive, ignitable, or flammable liquids must comply with the fire codes of your area. Contact the local Fire Marshal to review site materials, quantities, and proposed storage area to determine specific requirements. See the Flammable and Combustible Liquid Code, NFPA30.
- An up to date inventory of materials delivered and stored onsite should be kept.

- Hazardous materials storage onsite should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- Keep ample spill cleanup supplies appropriate for the materials being stored. Ensure that cleanup supplies are in a conspicuous, labeled area.
- Employees and subcontractors should be trained on the proper material delivery and storage practices.
- Employees trained in emergency spill cleanup procedures must be present when dangerous materials or liquid chemicals are unloaded.
- If significant residual materials remain on the ground after construction is complete, properly remove and dispose of materials and any contaminated soil. See WM-7, Contaminated Soil Management. If the area is to be paved, pave as soon as materials are removed to stabilize the soil.

Material Storage Areas and Practices

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 should be stored in approved containers and drums and should not be overfilled. Containers and drums should be placed in temporary containment facilities for storage.
- A temporary containment facility should provide for a spill containment volume able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary, whichever is greater.
- A temporary containment facility should be impervious to the materials stored therein for a minimum contact time of 72 hours.
- A temporary containment facility should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be collected and placed into drums. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. All collected liquids or non-hazardous liquids should be sent to an approved disposal site.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Materials should be covered prior to, and during rain events.
- Materials should be stored in their original containers and the original product labels should be maintained in place in a legible condition. Damaged or otherwise illegible labels should be replaced immediately.

- Bagged and boxed materials should be stored on pallets and should not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials should be covered during non-working days and prior to and during rain events.
- Stockpiles should be protected in accordance with WM-3, Stockpile Management.
- Materials should be stored indoors within existing structures or completely enclosed storage sheds when available.
- Proper storage instructions should be posted at all times in an open and conspicuous location.
- An ample supply of appropriate spill clean up material should be kept near storage areas.
- Also see WM-6, Hazardous Waste Management, for storing of hazardous wastes.

Material Delivery Practices

- Keep an accurate, up-to-date inventory of material delivered and stored onsite.
- Arrange for employees trained in emergency spill cleanup procedures to be present when dangerous materials or liquid chemicals are unloaded.

Spill Cleanup

- Contain and clean up any spill immediately.
- Properly remove and dispose of any hazardous materials or contaminated soil if significant residual materials remain on the ground after construction is complete. See WM-7, Contaminated Soil Management.
- See WM-4, Spill Prevention and Control, for spills of chemicals and/or hazardous materials.
- If spills or leaks of materials occur that are not contained and could discharge to surface waters, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

Cost

The largest cost of implementation may be in the construction of a materials storage area that is covered and provides secondary containment.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Keep storage areas clean and well organized, including a current list of all materials onsite.
- Inspect labels on containers for legibility and accuracy.

Material Delivery and Storage

WM-1

 Repair or replace perimeter controls, containment structures, covers, and liners as needed to maintain proper function.

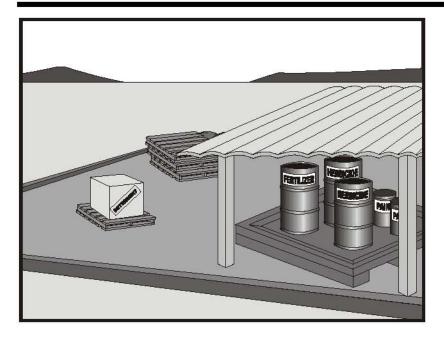
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Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Categories

- EC Erosion Control
- SE Sediment Control
- TC Tracking Control
- WE Wind Erosion Control
- NS Non-Stormwater
 Management Control
- WM Waste Management and Materials Pollution Control

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Legend:

- ✓ Primary Category
- ▼ Secondary Category

Description and Purpose

Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for use at all construction projects. These procedures apply when the following materials are used or prepared onsite:

- Pesticides and herbicides
- Fertilizers
- Detergents
- Petroleum products such as fuel, oil, and grease
- Asphalt and other concrete components
- Other hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Other materials that may be detrimental if released to the environment

Targeted Constituents

Sediment	\square
Nutrients	$ \mathbf{V} $
Trash	$ \mathbf{V} $
Metals	
Bacteria	
Oil and Grease	$ \mathbf{V} $
Organics	$ \mathbf{V} $

Potential Alternatives



Limitations

Safer alternative building and construction products may not be available or suitable in every instance.

Implementation

The following steps should be taken to minimize risk:

- Minimize use of hazardous materials onsite.
- Follow manufacturer instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
- Train personnel who use pesticides. The California Department of Pesticide Regulation and county agricultural commissioners license pesticide dealers, certify pesticide applicators, and conduct onsite inspections.
- The preferred method of termiticide application is soil injection near the existing or proposed structure foundation/slab; however, if not feasible, soil drench application of termiticides should follow EPA label guidelines and the following recommendations (most of which are applicable to most pesticide applications):
 - Do not treat soil that is water-saturated or frozen.
 - Application shall not commence within 24-hours of a predicted precipitation event with a 40% or greater probability. Weather tracking must be performed on a daily basis prior to termiticide application and during the period of termiticide application.
 - Do not allow treatment chemicals to runoff from the target area. Apply proper quantity to prevent excess runoff. Provide containment for and divert stormwater from application areas using berms or diversion ditches during application.
 - Dry season: Do not apply within 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).
 - Wet season: Do not apply within 50 feet of storm drains or aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds) unless a vegetative buffer is present (if so, refer to dry season requirements).
 - Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.
 - Cover treatment site prior to a rain event in order to prevent run-off of the pesticide into non-target areas. The treated area should be limited to a size that can be backfilled and/or covered by the end of the work shift. Backfilling or covering of the treated area shall be done by the end of the same work shift in which the application is made.
 - The applicator must either cover the soil him/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the

application (if different than the contractor). If notice is provided to the contractor or the person commissioning the application, then they are responsible under the Federal Insecticide Fungicide, and Rodenticide Act (FIFRA) to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application, the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.

- Do not over-apply fertilizers, herbicides, and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Unless on steep slopes, till fertilizers into the soil rather than hydraulic application. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried offsite by runoff. Do not apply these chemicals before predicted rainfall.
- Train employees and subcontractors in proper material use.
- Supply Material Safety Data Sheets (MSDS) for all materials.
- Dispose of latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths, when thoroughly dry and are no longer hazardous, with other construction debris.
- Do not remove the original product label; it contains important safety and disposal information. Use the entire product before disposing of the container.
- Mix paint indoors or in a containment area. Never clean paintbrushes or rinse paint
 containers into a street, gutter, storm drain, or watercourse. Dispose of any paint thinners,
 residue, and sludge(s) that cannot be recycled, as hazardous waste.
- For water-based paint, clean brushes to the extent practicable, and rinse to a drain leading to a sanitary sewer where permitted, or contain for proper disposal off site. For oil-based paints, clean brushes to the extent practicable, and filter and reuse thinners and solvents.
- Use recycled and less hazardous products when practical. Recycle residual paints, solvents, non-treated lumber, and other materials.
- Use materials only where and when needed to complete the construction activity. Use safer alternative materials as much as possible. Reduce or eliminate use of hazardous materials onsite when practical.
- Document the location, time, chemicals applied, and applicator's name and qualifications.
- Keep an ample supply of spill clean up material near use areas. Train employees in spill clean up procedures.
- Avoid exposing applied materials to rainfall and runoff unless sufficient time has been allowed for them to dry.
- Discontinue use of erodible landscape material within 2 days prior to a forecasted rain event and materials should be covered and/or bermed.

 Provide containment for material use areas such as masons' areas or paint mixing/preparation areas to prevent materials/pollutants from entering stormwater.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Ensure employees and subcontractors throughout the job are using appropriate practices.

References

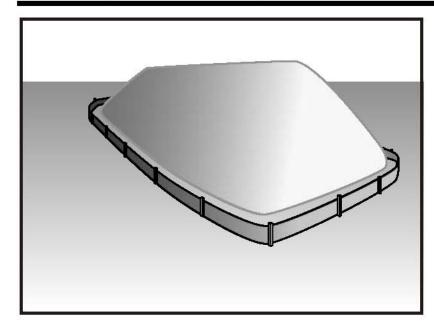
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Comments on Risk Assessments Risk Reduction Options for Cypermethrin: Docket No. OPP-2005-0293; California Stormwater Quality Association (CASQA) letter to USEPA, 2006. Environmental Hazard and General Labeling for Pyrethroid Non-Agricultural Outdoor Products, EPA-HO-OPP-2008-0331-0021; USEPA, 2008.

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Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Categories		
EC	Erosion Control	
SE	Sediment Control	×
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	X
ww	Waste Management and Materials Pollution Control	V

- ☑ Primary Category
- **☒** Secondary Category

Description and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of Plastic materials and photodegradable plastics should be avoided.

Implementation

Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Potential Alternatives



- On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.
- All stockpiles are required to be protected immediately if they are not scheduled to be used within 14 days.
- Protect all stockpiles from stormwater runon using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.
- Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.
- Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.
- Place bagged materials on pallets and under cover.
- Ensure that stockpile coverings are installed securely to protect from wind and rain.
- Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

Protection of Non-Active Stockpiles

Non-active stockpiles of the identified materials should be protected further as follows:

Soil stockpiles

- Soil stockpiles should be covered or protected with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- Temporary vegetation should be considered for topsoil piles that will be stockpiled for extended periods.

Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate sub base

 Stockpiles should be covered and protected with a temporary perimeter sediment barrier at all times.

Stockpiles of "cold mix"

 Cold mix stockpiles should be placed on and covered with plastic sheeting or comparable material at all times and surrounded by a berm.

Stockpiles of fly ash, stucco, hydrated lime

 Stockpiles of materials that may raise the pH of runoff (i.e., basic materials) should be covered with plastic and surrounded by a berm. Stockpiles/Storage of wood (Pressure treated with chromated copper arsenate or ammoniacal copper zinc arsenate

 Treated wood should be covered with plastic sheeting or comparable material at all times and surrounded by a berm.

Protection of Active Stockpiles

Active stockpiles of the identified materials should be protected as follows:

- All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of "cold mix" and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.
- The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

Costs

For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

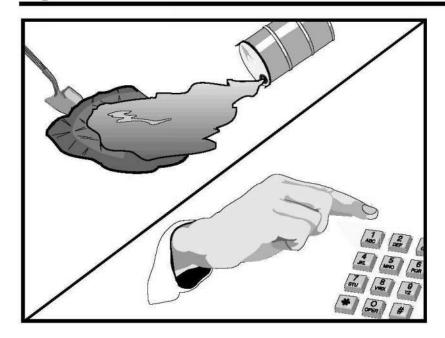
Inspection and Maintenance

- Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).
- Repair and/or replace perimeter controls and covers as needed to keep them functioning properly.
- Sediment shall be removed when it reaches one-third of the barrier height.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

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Description and Purpose

Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

Categories

EC Erosion Control
SE Sediment Control
TC Tracking Control
WE Wind Erosion Control

NS Non-Stormwater
Management Control

WM Waste Management and Materials Pollution Control

Legend:

- ☑ Primary Objective
- Secondary Objective

Targeted Constituents

Sediment	✓
Nutrients	\checkmark
Trash	\checkmark
Metals	$ \overline{\checkmark} $
Bacteria	
Oil and Grease	\checkmark
Organics	\checkmark

Potential Alternatives



- Fuels
- Lubricants
- Other petroleum distillates

Limitations

- In some cases it may be necessary to use a private spill cleanup company.
- This BMP applies to spills caused by the contractor and subcontractors.
- Procedures and practices presented in this BMP are general. Contractor should identify appropriate practices for the specific materials used or stored onsite

Implementation

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.
- Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- Store hazardous materials and wastes in covered containers and protect from vandalism.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Train employees in spill prevention and cleanup.
- Designate responsible individuals to oversee and enforce control measures.
- Spills should be covered and protected from stormwater runon during rainfall to the extent that it doesn't compromise clean up activities.
- Do not bury or wash spills with water.

- Store and dispose of used clean up materials, contaminated materials, and recovered spill
 material that is no longer suitable for the intended purpose in conformance with the
 provisions in applicable BMPs.
- Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with WM-10, Liquid Waste Management.
- Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- Place proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
 - Contain the spread of the spill.
 - Recover spilled materials.
 - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of
other personnel such as laborers and the foreman, etc. This response may require the
cessation of all other activities.

- Spills should be cleaned up immediately:
 - Contain spread of the spill.
 - Notify the project foreman immediately.
 - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
 - If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
 - If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:
 - Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper county officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
 - Notify the Governor's Office of Emergency Services Warning Center, (916) 845-8911.
 - For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
 - Notification should first be made by telephone and followed up with a written report.
 - The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
 - Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, etc.

Reporting

- Report significant spills to local agencies, such as the Fire Department; they can assist in cleanup.
- Federal regulations require that any significant oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hours).

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Use the following measures related to specific activities:

Vehicle and Equipment Maintenance

- If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Regularly inspect onsite vehicles and equipment for leaks and repair immediately
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- Place drip pans or absorbent materials under paving equipment when not in use.
- Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around
- Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- If fueling must occur onsite, use designate areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Discourage "topping off" of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks.

Prevention of leaks and spills is inexpensive. Treatment and/or disposal of contaminated soil or water can be quite expensive.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.

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Spill Prevention and Control

WM-4

- Keep ample supplies of spill control and cleanup materials onsite, near storage, unloading, and maintenance areas.
- Update your spill prevention and control plan and stock cleanup materials as changes occur
 in the types of chemicals onsite.

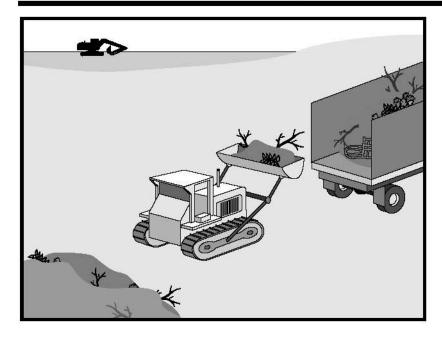
References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

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Categories

EC Erosion Control
SE Sediment Control
TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

Waste Management and Materials Pollution Control

Legend:

- ☑ Primary Objective
- **☒** Secondary Objective

Description and Purpose

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, nonhazardous equipment parts, styrofoam and other materials used to transport and package construction materials
- Highway planting wastes, including vegetative material,

Targeted Constituents

Sediment	$\overline{\mathbf{Q}}$
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	abla

Potential Alternatives



plant containers, and packaging materials

Limitations

Temporary stockpiling of certain construction wastes may not necessitate stringent drainage related controls during the non-rainy season or in desert areas with low rainfall.

Implementation

The following steps will help keep a clean site and reduce stormwater pollution:

- Select designated waste collection areas onsite.
- Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite
 use. Inspect dumpsters for leaks and repair any dumpster that is not watertight.
- Locate containers in a covered area or in a secondary containment.
- Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes when it is windy.
- Plan for additional containers and more frequent pickup during the demolition phase of construction.
- Collect site trash daily, especially during rainy and windy conditions.
- Remove this solid waste promptly since erosion and sediment control devices tend to collect litter.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash hauling contractor.
- Arrange for regular waste collection before containers overflow.
- Clean up immediately if a container does spill.
- Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas.

Education

- Have the contractor's superintendent or representative oversee and enforce proper solid waste management procedures and practices.
- Instruct employees and subcontractors on identification of solid waste and hazardous waste.
- Educate employees and subcontractors on solid waste storage and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).

- Require that employees and subcontractors follow solid waste handling and storage procedures.
- Prohibit littering by employees, subcontractors, and visitors.
- Minimize production of solid waste materials wherever possible.

Collection, Storage, and Disposal

- Littering on the project site should be prohibited.
- To prevent clogging of the storm drainage system, litter and debris removal from drainage grates, trash racks, and ditch lines should be a priority.
- Trash receptacles should be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.
- Litter from work areas within the construction limits of the project site should be collected and placed in watertight dumpsters at least weekly, regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris should not be placed in or next to drain inlets, stormwater drainage systems, or watercourses.
- Dumpsters of sufficient size and number should be provided to contain the solid waste generated by the project.
- Full dumpsters should be removed from the project site and the contents should be disposed of by the trash hauling contractor.
- Construction debris and waste should be removed from the site biweekly or more frequently as needed.
- Construction material visible to the public should be stored or stacked in an orderly manner.
- Stormwater runon should be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures or through the use of measures to elevate waste from site surfaces.
- Solid waste storage areas should be located at least 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding.
- Except during fair weather, construction and highway planting waste not stored in watertight dumpsters should be securely covered from wind and rain by covering the waste with tarps or plastic.
- Segregate potentially hazardous waste from non-hazardous construction site waste.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.

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For disposal of hazardous waste, see WM-6, Hazardous Waste Management. Have hazardous waste hauled to an appropriate disposal and/or recycling facility.

Salvage or recycle useful vegetation debris, packaging and surplus building materials when practical. For example, trees and shrubs from land clearing can be used as a brush barrier, or converted into wood chips, then used as mulch on graded areas. Wood pallets, cardboard boxes, and construction scraps can also be recycled.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity—based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Inspect construction waste area regularly.
- Arrange for regular waste collection.

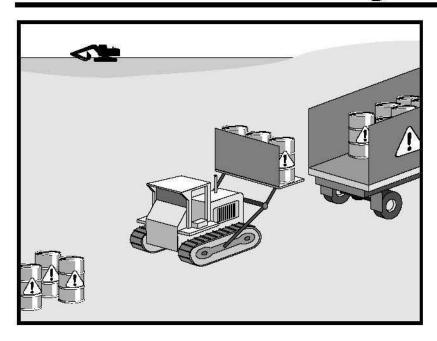
References

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

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Categories

EC Erosion Control
SE Sediment Control

TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

Waste Management and Materials Pollution Control

Legend:

☑ Primary Objective

☒ Secondary Objective

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.

Suitable Applications

This best management practice (BMP) applies to all construction projects. Hazardous waste management practices are implemented on construction projects that generate waste from the use of:

Petroleum Products
 Asphalt Products

Concrete Curing Compounds
 Pesticides

- Palliatives - Acids

- Septic Wastes - Paints

- Stains - Solvents

Wood Preservatives
 Roofing Tar

Any materials deemed a hazardous waste in California,
 Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117,
 261, or 302

Targeted Constituents

Sediment

Nutrients

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



In addition, sites with existing structures may contain wastes, which must be disposed of in accordance with federal, state, and local regulations. These wastes include:

- Sandblasting grit mixed with lead-, cadmium-, or chromium-based paints
- Asbestos
- PCBs (particularly in older transformers)

Limitations

- Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.
- Nothing in this BMP relieves the contractor from responsibility for compliance with federal, state, and local laws regarding storage, handling, transportation, and disposal of hazardous wastes.
- This BMP does not cover aerially deposited lead (ADL) soils. For ADL soils refer to WM-7, Contaminated Soil Management.

Implementation

The following steps will help reduce stormwater pollution from hazardous wastes:

Material Use

- Wastes should be stored in sealed containers constructed of a suitable material and should be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179.
- All hazardous waste should be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263.
- Waste containers should be stored in temporary containment facilities that should comply with the following requirements:
 - Temporary containment facility should provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest tank within its boundary, whichever is greater.
 - Temporary containment facility should be impervious to the materials stored there for a minimum contact time of 72 hours.
 - Temporary containment facilities should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. Non-hazardous liquids should be sent to an approved disposal site.
 - Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.

- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Throughout the rainy season, temporary containment facilities should be covered during non-working days, and prior to rain events. Covered facilities may include use of plastic tarps for small facilities or constructed roofs with overhangs.
- Drums should not be overfilled and wastes should not be mixed.
- Unless watertight, containers of dry waste should be stored on pallets.
- Do not over-apply herbicides and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over application is expensive and environmentally harmful. Apply surface dressings in several smaller applications, as opposed to one large application. Allow time for infiltration and avoid excess material being carried offsite by runoff. Do not apply these chemicals just before it rains. People applying pesticides must be certified in accordance with federal and state regulations.
- Paint brushes and equipment for water and oil based paints should be cleaned within a contained area and should not be allowed to contaminate site soils, watercourses, or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused should be disposed of as hazardous waste. When thoroughly dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths should be disposed of as solid waste.
- Do not clean out brushes or rinse paint containers into the dirt, street, gutter, storm drain, or stream. "Paint out" brushes as much as possible. Rinse water-based paints to the sanitary sewer. Filter and reuse thinners and solvents. Dispose of excess oil-based paints and sludge as hazardous waste.
- The following actions should be taken with respect to temporary contaminant:
 - Ensure that adequate hazardous waste storage volume is available.
 - Ensure that hazardous waste collection containers are conveniently located.
 - Designate hazardous waste storage areas onsite away from storm drains or watercourses and away from moving vehicles and equipment to prevent accidental spills.
 - Minimize production or generation of hazardous materials and hazardous waste on the job site.
 - Use containment berms in fueling and maintenance areas and where the potential for spills is high.
 - Segregate potentially hazardous waste from non-hazardous construction site debris.
 - Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.

- Clearly label all hazardous waste containers with the waste being stored and the date of accumulation.
- Place hazardous waste containers in secondary containment.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Do not mix wastes.
- Use all of the product before disposing of the container.
- Do not remove the original product label; it contains important safety and disposal information.

Waste Recycling Disposal

- Select designated hazardous waste collection areas onsite.
- Hazardous materials and wastes should be stored in covered containers and protected from vandalism.
- Place hazardous waste containers in secondary containment.
- Do not mix wastes, this can cause chemical reactions, making recycling impossible and complicating disposal.
- Recycle any useful materials such as used oil or water-based paint.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Arrange for regular waste collection before containers overflow.
- Make sure that hazardous waste (e.g., excess oil-based paint and sludge) is collected, removed, and disposed of only at authorized disposal areas.

Disposal Procedures

- Waste should be disposed of by a licensed hazardous waste transporter at an authorized and licensed disposal facility or recycling facility utilizing properly completed Uniform Hazardous Waste Manifest forms.
- A Department of Health Services certified laboratory should sample waste to determine the appropriate disposal facility.
- Properly dispose of rainwater in secondary containment that may have mixed with hazardous waste.
- Attention is directed to "Hazardous Material", "Contaminated Material", and "Aerially Deposited Lead" of the contract documents regarding the handling and disposal of hazardous materials.

Education

- Educate employees and subcontractors on hazardous waste storage and disposal procedures.
- Educate employees and subcontractors on potential dangers to humans and the environment from hazardous wastes.
- Instruct employees and subcontractors on safety procedures for common construction site hazardous wastes.
- Instruct employees and subcontractors in identification of hazardous and solid waste.
- Hold regular meetings to discuss and reinforce hazardous waste management procedures (incorporate into regular safety meetings).
- The contractor's superintendent or representative should oversee and enforce proper hazardous waste management procedures and practices.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.
- Warning signs should be placed in areas recently treated with chemicals.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- If a container does spill, clean up immediately.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity—based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Hazardous waste should be regularly collected.
- A foreman or construction supervisor should monitor onsite hazardous waste storage and disposal procedures.
- Waste storage areas should be kept clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored.
- Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.
- Hazardous spills should be cleaned up and reported in conformance with the applicable Material Safety Data Sheet (MSDS) and the instructions posted at the project site.

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Hazardous Waste Management

WM-6

- The National Response Center, at (800) 424-8802, should be notified of spills of federal reportable quantities in conformance with the requirements in 40 CFR parts 110, 117, and 302. Also notify the Governors Office of Emergency Services Warning Center at (916) 845-8911.
- A copy of the hazardous waste manifests should be provided.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

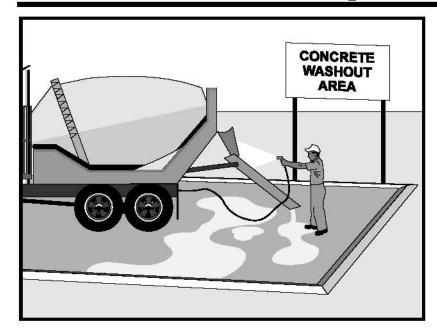
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Categories

- EC Erosion Control
- SE Sediment Control
- TC Tracking Control
- WE Wind Erosion Control
- NS Non-Stormwater
 Management Control
- WM Waste Management and Materials Pollution Control

Legend:

- ✓ Primary Category
- Secondary Category

Description and Purpose

Prevent the discharge of pollutants to stormwater from concrete waste by conducting washout onsite or offsite in a designated area, and by employee and subcontractor training.

The General Permit incorporates Numeric Effluent Limits (NEL) and Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Many types of construction materials, including mortar, concrete, stucco, cement and block and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows and raising pH to levels outside the accepted range.

Suitable Applications

Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete is used as a construction material or where concrete dust and debris result from demolition activities.
- Slurries containing portland cement concrete (PCC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition.

Targeted Constituents

Sediment 🗹

Nutrients

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives



- Concrete trucks and other concrete-coated equipment are washed onsite.
- Mortar-mixing stations exist.
- Stucco mixing and spraying.
- See also NS-8, Vehicle and Equipment Cleaning.

Limitations

- Offsite washout of concrete wastes may not always be possible.
- Multiple washouts may be needed to assure adequate capacity and to allow for evaporation.

Implementation

The following steps will help reduce stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Store dry and wet materials under cover, away from drainage areas. Refer to WM-1, Material Delivery and Storage for more information.
- Avoid mixing excess amounts of concrete.
- Perform washout of concrete trucks in designated areas only, where washout will not reach stormwater.
- Do not wash out concrete trucks into storm drains, open ditches, streets, streams or onto the ground. Trucks should always be washed out into designated facilities.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
 - On larger sites, it is recommended to locate washout areas at least 50 feet from storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
 - Washout wastes into the temporary washout where the concrete can set, be broken up, and then disposed properly.
 - Washout should be lined so there is no discharge into the underlying soil.
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain.
 Collect and return sweepings to aggregate base stockpile or dispose in the trash.
- See typical concrete washout installation details at the end of this fact sheet.

Education

 Educate employees, subcontractors, and suppliers on the concrete waste management techniques described herein.

- Arrange for contractor's superintendent or representative to oversee and enforce concrete waste management procedures.
- Discuss the concrete management techniques described in this BMP (such as handling of concrete waste and washout) with the ready-mix concrete supplier before any deliveries are made.

Concrete Demolition Wastes

- Stockpile concrete demolition waste in accordance with BMP WM-3, Stockpile Management.
- Dispose of or recycle hardened concrete waste in accordance with applicable federal, state or local regulations.

Concrete Sharry Wastes

- PCC and AC waste should not be allowed to enter storm drains or watercourses.
- PCC and AC waste should be collected and disposed of or placed in a temporary concrete washout facility (as described in Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below).
- A foreman or construction supervisor should monitor onsite concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure proper methods are implemented.
- Saw-cut concrete slurry should not be allowed to enter storm drains or watercourses. Residue from grinding operations should be picked up by means of a vacuum attachment to the grinding machine or by sweeping. Saw cutting residue should not be allowed to flow across the pavement and should not be left on the surface of the pavement. See also NS-3, Paving and Grinding Operations; and WM-10, Liquid Waste Management.
- Concrete slurry residue should be disposed in a temporary washout facility (as described in Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below) and allowed to dry. Dispose of dry slurry residue in accordance with WM-5, Solid Waste Management.

Onsite Temporary Concrete Washout Facility, Transit Truck Washout Procedures

- Temporary concrete washout facilities should be located a minimum of 50 ft from storm
 drain inlets, open drainage facilities, and watercourses. Each facility should be located away
 from construction traffic or access areas to prevent disturbance or tracking.
- A sign should be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Temporary concrete washout facilities should be constructed above grade or below grade at the option of the contractor. Temporary concrete washout facilities should be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.

- Temporary washout facilities should have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures.
- Temporary washout facilities should be lined to prevent discharge to the underlying ground or surrounding area.
- Washout of concrete trucks should be performed in designated areas only.
- Only concrete from mixer truck chutes should be washed into concrete wash out.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of or recycled offsite.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete should be broken up, removed, and disposed of per WM-5, Solid Waste Management. Dispose of or recycle hardened concrete on a regular basis.
- Temporary Concrete Washout Facility (Type Above Grade)
 - Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft; however, smaller sites or jobs may only need a smaller washout facility. With any washout, always maintain a sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
 - Materials used to construct the washout area should conform to the provisions detailed in their respective BMPs (e.g., SE-8 Sandbag Barrier).
 - Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
 - Alternatively, portable removable containers can be used as above grade concrete
 washouts. Also called a "roll-off"; this concrete washout facility should be properly
 sealed to prevent leakage, and should be removed from the site and replaced when the
 container reaches 75% capacity.
- Temporary Concrete Washout Facility (Type Below Grade)
 - Temporary concrete washout facilities (type below grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft. The quantity and volume should be sufficient to contain all liquid and concrete waste generated by washout operations.
 - Lath and flagging should be commercial type.
 - Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

 The base of a washout facility should be free of rock or debris that may damage a plastic liner.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and properly disposed or recycled in accordance with federal, state or local regulations. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and properly disposed or recycled in accordance with federal, state or local regulations..
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Costs

All of the above are low cost measures. Roll-off concrete washout facilities can be more costly than other measures due to removal and replacement; however, provide a cleaner alternative to traditional washouts. The type of washout facility, size, and availability of materials will determine the cost of the washout.

Inspection and Maintenance

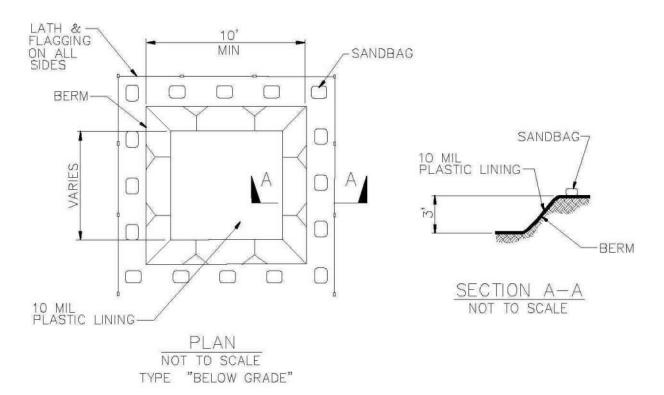
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Temporary concrete washout facilities should be maintained to provide adequate holding capacity with a minimum freeboard of 4 in. for above grade facilities and 12 in. for below grade facilities. Maintaining temporary concrete washout facilities should include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials should be removed and properly disposed or recycled in accordance with federal, state or local regulations.
- Washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.
- Inspect washout facilities for damage (e.g. torn liner, evidence of leaks, signage, etc.). Repair all identified damage.

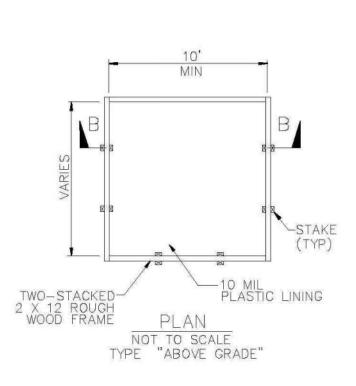
References

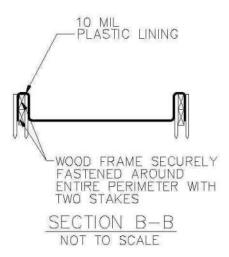
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000, Updated March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

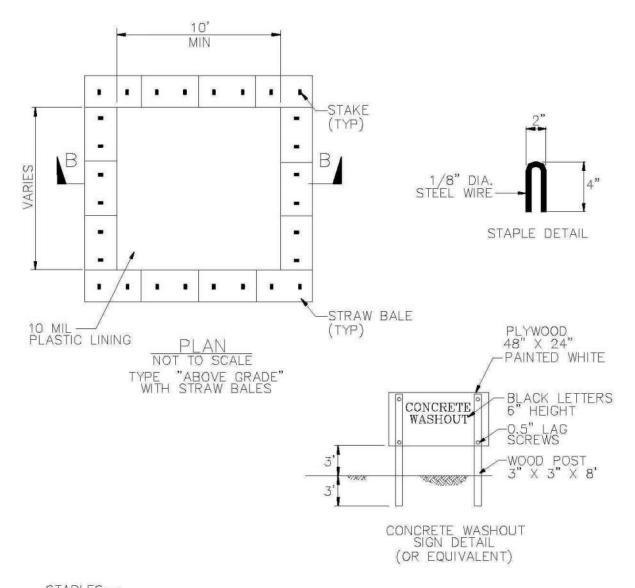


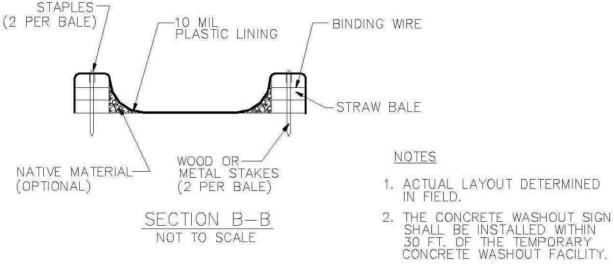




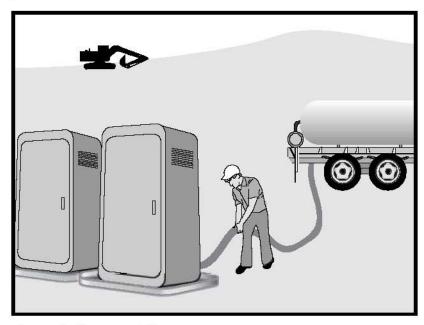
NOTES

- 1. ACTUAL LAYOUT DETERMINED IN FIELD.
- 2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.





Sanitary/Septic Waste Management WM-9



Categories

EC Erosion Control

SE Sediment Control

TC Tracking Control

WE Wind Erosion Control

NS Non-Stormwater
Management Control

WM Waste Management and

Materials Pollution Control

 \mathbf{V}

Legend:

✓ Primary Category

☒ Secondary Category

Description and Purpose

Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

Suitable Applications

Sanitary septic waste management practices are suitable for use at all construction sites that use temporary or portable sanitary and septic waste systems.

Limitations

None identified.

Implementation

Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements. In many cases, one contract with a local facility supplier will be all that it takes to make sure sanitary wastes are properly disposed.

Storage and Disposal Procedures

Temporary sanitary facilities should be located away from drainage facilities, watercourses, and from traffic circulation. If site conditions allow, place portable facilities a minimum of 50 feet from drainage conveyances and traffic areas. When subjected to high winds or risk of high winds, temporary sanitary facilities should be secured to prevent overturning.

Targeted Constituents

Sediment
Nutrients ☑

Trash ☑

Metals

Bacteria ☑

Oil and Grease

Organics 🗹

Potential Alternatives

None



Sanitary/Septic Waste Management WM-9

- Temporary sanitary facilities must be equipped with containment to prevent discharge of pollutants to the stormwater drainage system of the receiving water.
- Consider safety as well as environmental implications before placing temporary sanitary facilities.
- Wastewater should not be discharged or buried within the project site.
- Sanitary and septic systems that discharge directly into sanitary sewer systems, where permissible, should comply with the local health agency, city, county, and sewer district requirements.
- Only reputable, licensed sanitary and septic waste haulers should be used.
- Sanitary facilities should be located in a convenient location.
- Temporary septic systems should treat wastes to appropriate levels before discharging.
- If using an onsite disposal system (OSDS), such as a septic system, local health agency requirements must be followed.
- Temporary sanitary facilities that discharge to the sanitary sewer system should be properly connected to avoid illicit discharges.
- Sanitary and septic facilities should be maintained in good working order by a licensed service.
- Regular waste collection by a licensed hauler should be arranged before facilities overflow.
- If a spill does occur from a temporary sanitary facility, follow federal, state and local regulations for containment and clean-up.

Education

- Educate employees, subcontractors, and suppliers on sanitary and septic waste storage and disposal procedures.
- Educate employees, subcontractors, and suppliers of potential dangers to humans and the environment from sanitary and septic wastes.
- Instruct employees, subcontractors, and suppliers in identification of sanitary and septic waste.
- Hold regular meetings to discuss and reinforce the use of sanitary facilities (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.

Costs

All of the above are low cost measures.

Sanitary/Septic Waste Management WM-9

Inspection and Maintenance

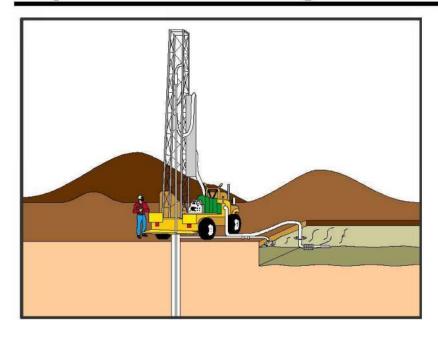
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Arrange for regular waste collection.
- If high winds are expected, portable sanitary facilities must be secured with spikes or weighed down to prevent over turning.
- If spills or leaks from sanitary or septic facilities occur that are not contained and discharge from the site, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

 $\overline{\mathbf{A}}$



Categories

EC Erosion Control
SE Sediment Control
TC Tracking Control

WE Wind Erosion Control
NS Non-Stormwater
Management Control

WM Waste Management and Materials Pollution Control

Legend:

- ☑ Primary Objective
- ☑ Secondary Objective

Description and Purpose

Liquid waste management includes procedures and practices to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid wastes.

Suitable Applications

Liquid waste management is applicable to construction projects that generate any of the following non-hazardous by-products, residuals, or wastes:

- Drilling slurries and drilling fluids
- Grease-free and oil-free wastewater and rinse water
- Dredgings
- Other non-stormwater liquid discharges not permitted by separate permits

Limitations

- Disposal of some liquid wastes may be subject to specific laws and regulations or to requirements of other permits secured for the construction project (e.g., NPDES permits, Army Corps permits, Coastal Commission permits, etc.).
- Liquid waste management does not apply to dewatering operations (NS-2 Dewatering Operations), solid waste management (WM-5, Solid Waste Management), hazardous wastes (WM-6, Hazardous Waste Management), or concrete slurry residue (WM-8, Concrete Waste

Targeted Constituents

Sediment

Nutrients

Trash

Metals

Bacteria

Oil and Grease

Organics

Potential Alternatives

None



Management).

Typical permitted non-stormwater discharges can include: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated pumped ground water; discharges from potable water sources; foundation drains; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; flows from riparian habitats and wetlands; and discharges or flows from emergency fire fighting activities.

Implementation

General Practices

- Instruct employees and subcontractors how to safely differentiate between non-hazardous liquid waste and potential or known hazardous liquid waste.
- Instruct employees, subcontractors, and suppliers that it is unacceptable for any liquid waste to enter any storm drainage device, waterway, or receiving water.
- Educate employees and subcontractors on liquid waste generating activities and liquid waste storage and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Verify which non-stormwater discharges are permitted by the statewide NPDES permit;
 different regions might have different requirements not outlined in this permit.
- Apply NS-8, Vehicle and Equipment Cleaning for managing wash water and rinse water from vehicle and equipment cleaning operations.

Containing Liquid Wastes

- Drilling residue and drilling fluids should not be allowed to enter storm drains and watercourses and should be disposed of.
- If an appropriate location is available, drilling residue and drilling fluids that are exempt under Title 23, CCR § 2511(g) may be dried by infiltration and evaporation in a containment facility constructed in conformance with the provisions concerning the Temporary Concrete Washout Facilities detailed in WM-8, Concrete Waste Management.
- Liquid wastes generated as part of an operational procedure, such as water-laden dredged material and drilling mud, should be contained and not allowed to flow into drainage channels or receiving waters prior to treatment.
- Liquid wastes should be contained in a controlled area such as a holding pit, sediment basin, roll-off bin, or portable tank.
- Containment devices must be structurally sound and leak free.
- Containment devices must be of sufficient quantity or volume to completely contain the liquid wastes generated.

- Precautions should be taken to avoid spills or accidental releases of contained liquid wastes.
 Apply the education measures and spill response procedures outlined in WM-4, Spill Prevention and Control.
- Containment areas or devices should not be located where accidental release of the contained liquid can threaten health or safety or discharge to water bodies, channels, or storm drains.

Capturing Liquid Wastes

- Capture all liquid wastes that have the potential to affect the storm drainage system (such as wash water and rinse water from cleaning walls or pavement), before they run off a surface.
- Do not allow liquid wastes to flow or discharge uncontrolled. Use temporary dikes or berms to intercept flows and direct them to a containment area or device for capture.
- Use a sediment trap (SE-3, Sediment Trap) for capturing and treating sediment laden liquid waste or capture in a containment device and allow sediment to settle.

Disposing of Liquid Wastes

- A typical method to handle liquid waste is to dewater the contained liquid waste, using procedures such as described in NS-2, Dewatering Operations, and SE-2, Sediment Basin, and dispose of resulting solids per WM-5, Solid Waste Management.
- Methods of disposal for some liquid wastes may be prescribed in Water Quality Reports, NPDES permits, Environmental Impact Reports, 401 or 404 permits, and local agency discharge permits, etc. Review the SWPPP to see if disposal methods are identified.
- Liquid wastes, such as from dredged material, may require testing and certification whether
 it is hazardous or not before a disposal method can be determined.
- For disposal of hazardous waste, see WM-6, Hazardous Waste Management.
- If necessary, further treat liquid wastes prior to disposal. Treatment may include, though is not limited to, sedimentation, filtration, and chemical neutralization.

Costs

Prevention costs for liquid waste management are minimal. Costs increase if cleanup or fines are involved.

Inspection and Maintenance

- Inspect and verify that activity—based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.

Liquid Waste Management

WM-10

- Remove deposited solids in containment areas and capturing devices as needed and at the completion of the task. Dispose of any solids as described in WM-5, Solid Waste Management.
- Inspect containment areas and capturing devices and repair as needed.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Appendix I: BMP Inspection Form

BMP INSPECTION REPORT

Date and Time of Insp	pection:		Date Report Written:			
Inspection Type: (Circle one)	Weekly Complete Parts I,II,III and VII	Comple	Storm te Parts ' and VII	During Rain E Complete Parts III, V, and V	s I, II,	Post-Storm Complete Parts I,II,III,VI and VII
Part I. General In	formation					
		Site Info	rmation			
Construction Site Nan	ne:					
Construction stage an completed activities:	d			Approximate a of site that is e		d:
Photos Taken: (Circle one)	Yes		No	Photo Referer	nce IDs:	
		Wea	ther			
Estimate storm beginr (date and time)	ning:		Estimate s (hours)	torm duration:		
Estimate time since last storm: (days or hours) Rain gauge reading and location: (in)						
Is a "Qualifying Event' If yes, summarize fore	' predicted or did one o ecast:	ccur (i.e., 0	.5" rain with	48-hrs or greate	er betwe	en events)? (Y/N)
	entation (explanation quired outside of busine					
	lr	nspector I	nformatio	n		
Inspector Name:				Inspector Titl	e:	
Signature:					Date:	

Part II. BMP Observations. Describe deficiencies in Pa	art III.		
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)			
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system			
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters			
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

Part II. BMP Observations Continued. Describe def	iciencies in Part	III.	
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use			
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations			
Non-Stormwater Management			
Non-Stormwater discharges are properly controlled			
Vehicles are washed in a manner to prevent non-stormwater discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-stormwater discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.			
Other			

Are the project SWPPP and BMP pland being properly implemented?	an up to date, availab	le on-site			
Part III. Descriptions of B	MP Deficiencie	S			
Deficiency	Note - Repai	rs must b		olemented: n 72 hours of id soon as possi	lentification and, ble.
	Start Date			Action	
1.					
2.					
3.					
4.					
Part IV. Additional Pre-Strauspended materials, sheen, or					
					Yes, No, N/A
Do stormwater storage and containr	nent areas have adeq	uate freebo	pard? If no, o	complete Part III.	
Are drainage areas free of spills, lea and describe below.	ks, or uncontrolled po	llutant soui	rces? If no, o	complete Part VII	
Notes:					
Are stormwater storage and contain and describe below.	ment areas free of lea	ks? If no,	complete Par	ts III and/or VII	
Notes:					

	isual inspections at all relevant outfalls, discharge points, s or visible sheen on the surface of discharges. Complete d.
Outfall, Discharge Point, or Other Downst	tream Location
Location	Description

Part V. Additional During Storm Observations. If BMPs cannot be inspected during

discharges at all discharge locat rain event, and observe (inspect derived from and discharged sul	orm Observations. Visually observe (inspections within two business days (48 hours) aftent) the discharge of stored or contained stormy bsequent to a qualifying rain event producing large. Complete Part VII (Corrective Actions) a	r each qualifying vater that is precipitation of ½
Discharge Location, Storage or Containment Area	Visual Observation	
	ive Actions Required. Identify additional (Part III) above. Note if SWPPP change is requ	
Required Actions		Implementation Date

Appendix J: Not Included

Appendix K: Training Reporting Form

Trained Contractor Personnel Log

Stormwater Management Training Log and Documentation

Project Name: WDID #:		
Stormwater Management Topic: (c		
☐ Erosion Control ☐ Wind Erosion Control ☐ Non-Stormwater Management	☐ Sediment Control ☐ Tracking Control ☐ Waste Management and	l Materials Pollution Control
Specific Training Objective:		
Location:	Date:	
Instructor:	Telephone:	
Course Length (hours):	_	
	er (Attach additional forms	
Name	Company	Phone

As needed, add proof of external training (e.g., course completion certificates, credentials for QSP, QSD).

Appendix L: Responsible Parties

<i>OPTIONAL</i>				
Authorization of	Approved Signat	ories		
Project Name:				_
WDID #:				
Name of Personnel	Project Role	Company	Signature	Date
		'		
LRP's Signature			Date	
LRP Name and Ti	itle		Telephone Number	

Project Name: ______ WDID #: _____ The following are QSPs associated with this project Name of Personnel⁽¹⁾ Company Date

⁽¹⁾ If additional QSPs are required on the job site add additional lines and include information here

Authorization of Data Submitters

					-
WDID #:			_		
Name of Personnel	Project Role	Company		Signature	Date
Approved Signa	atory's Signature		Date		
Approved Signs	atory		Telep	hone Number	
Name and Title					

Appendix M:Contractors and Subcontractors

Appendix N: Construction General Permit

PDF of Construction General Permit Fact Sheet

PDF OF CONSTRUCTION GENERAL PERMIT ORDER

APPENDIX

SAMPLING AND ANALYSIS PLAN (SAP)

SAMPLING AND ANALYSIS PLAN REMOVAL ACTIONS IN WOLFE ROAD AND SEARS AREAS OF FORMER VALLCO MALL

DECEMBER 2020







SAMPLING AND ANALYSIS PLAN

REMOVAL ACTIONS IN WOLFE ROAD AND SEARS AREAS OF FORMER VALLCO MALL

10123 NORTH WOLFE ROAD CUPERTINO, CALIFORNIA

DECEMBER 2020

PREPARED FOR:

SHPDM, LLC 965 PAGE MILL ROAD PALO ALTO, CA 94304

PREPARED BY:

WSP USA INC. 2025 GATEWAY PLACE, SUITE 348 SAN JOSE, CA 95110

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APPENDIX

APPENDIX A- INVESTIGATION AND MANAGEMENT OF PCB CONTAMINATED SOIL, FORMER VALLCO MALL, CUPERTINO, CALIFORNIA, AUGUST 14, 2020

1 INTRODUCTION

WSP USA Inc. (WSP) has prepared this Sampling and Analysis Plan (SAP) on behalf of Vallco Property Owner, LLC (VPO) for the two select areas (each a Site Area) at the former Vallco Mall located at 10123 North Wolfe Road in Cupertino, California (the Site). The Site Areas are located in the portion of the former Vallco Mall that is on the west side of Wolfe Road. The first area is in the eastern parking lot adjacent to Wolfe Road and the former Bay Club Fitness Center, herein referred to as the Wolfe Road area. The second area is within the former Sears Automotive Center is referred to as the Sears Area below. Both Site Areas lie within areas of the Site planned for mass excavation in connection with the planned redevelopment of the Site. Sampling in both areas, however, has identified the limited presence of polychlorinated biphenyls (PCBs) in soil above the Toxic Substances Control Act (TSCA) threshold of 1 milligram per kilogram (mg/kg). These impacted soils will be removed prior to the planned mass excavation at the Site, consistent with this SAP.

Appendix A contains a letter report prepared by WSP dated August 14, 2020 entitled "Investigation and Management of PCB Contaminated Soil, Former Vallco Mall, Cupertino, California ("Summary Report")" This Summary Report summarizes the investigations of the Wolfe Road Area and the Former Sears Automotive Area ("Sears Area") including analytical results and various figures depicting sample locations and proposed removal areas of PCB-contaminated soil. This SAP describes the sampling and analysis procedures to be followed during the excavation of soils contaminated by PCBs and a small area with TPH-d in the Sears Area and subsequent confirmation sampling. The SAP will serve as a guide for measures to be conducted by the selected contractor and WSP during soil excavation in accordance with applicable environmental regulations. WSP will be responsible for oversight of the contractor in the implementation of the SAP.

2 SITE BACKGROUND

2.1 WOLFE ROAD AREA

A single soil sample at the Site was found to contain PCBs in the Wolfe Road area based on a subsurface investigation conducted by Geosphere in 2016. The sample from a boring at one foot below ground surface (ft-bgs) (sample E5-1) contained PCBs at a concentration 0.523 mg/kg, above the residential screening level of 0.230 mg/kg (RSL) as established by the California Department of Toxic Substances Control (DTSC).

In accordance with Section 3.3 of the Environmental Site Management Plan (ESMP) (WSP, August 2019), WSP performed step-out sampling for PCBs in the area of boring E-5 to delineate the lateral and vertical extent of PCB concentrations in that area. A total of 34 step-out borings were advanced to fully delineate the lateral and vertical extent of PCB contamination.

Total PCBs were found above the RSL of 0.230 mg/kg in a total of 14 of the 34 borings. The detections of total PCBs above the screening levels were isolated to samples collected from one ft-bgs. Of the borings that had exceedances of the screening level, the PCB concentration of two boring locations (E5P-W and E5P-NW10) were just above the TSCA cleanup level of 1 mg/kg, with a maximum total PCB concentration of 1.046 mg/kg.

2.2 FORMER SEARS AUTOMOTIVE CENTER AREA

In connection with implementation of the approved closure plan for the former Sears Automotive Center, three samples were collected from approximately 12 to 14 ft-bgs immediately beneath the former oil-water separator and associated piping. Several of these samples yielded results that exceed the PCB RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs and one of the three samples exceeds the RSL but is below the TSCA cleanup level. Samples were also collected beneath removed hydraulic lift cylinders, of which, samples collected at a depth of nine ft-bgs, immediately below each of three (HL-1, HL-4, and HL-6) former hydraulic lift cylinders, exceeded the RSL for PCBs and exceed the Environmental Screening Level (ESL) for residential soil established by the San Francisco Regional Water Quality Control Board (RWQCB, 2019, revision 2) for diesel total petroleum hydrocarbons (TPH-d) in two samples (HL-4 and HL-6).

In response to the detections of PCBs above the RSL, 22 step-out borings were advanced in the northern portion of the Center, around the hydraulic lifts (HL-4 and HL-6) and the oil-water separator, to delineate the extent of PCB-impacted soil. All soil samples were analyzed for PCBs by EPA method 8082 with the Soxhlet extraction method. Additionally, select soil sample depths were sampled for TPH-d and motor oil TPH (TPH-mo) by EPA method 8015 to address the TPH-d exceedances of the RSL under the two hydraulic lifts.

Of the 22 step-out borings, only three discrete samples contained detectable concentrations of PCBs; however, no concentrations exceeded the RSL. Additionally, only one step out boring discrete sample (OWPI-W5-20) detected TPH-d above the RSL; however, the detection was qualified by the laboratory as not exhibiting the standard chromatographic pattern for TPH-d.

3 EXCAVATION ACTIVITIES

Given that each of the Site Areas contained PCBs above 1 mg/kg, an appropriate remedial approach that is consistent with TSCA was explored. Both Site Areas are located within the footprint of the planned development and mass excavation will extend to a depth of five ft-bgs and up to 32 ft-bgs at the Wolfe Road and former Sears Automotive Center areas, respectively. Since excavation was already planned in the two Site Areas, the best and most appropriate removal approach was determined to be disposal of soil with PCBs greater than 1 mg/kg under EPA 40 CFR 761.61(b).

Among other things, 40 CFR 761.61(b) requires soil containing PCBs above the TSCA threshold of 1 mg/kg to be disposed of as a TSCA waste at a TSCA landfill. Following the targeted excavation, confirmation sampling of the base of the excavation and sidewalls will be performed using grids with sample spacing every 1.5 meters (approximately five feet) to verify that soil with PCB concentrations greater than 1 mg/kg are properly removed from the previously characterized areas. This sampling frequency is consistent with 40 CFR 761.61(a), though the overall PCB excavation approach will be pursuant to 40 CFR 761.61(b) and not 40 CFR 761.61(a). The sampling protocol identified in 40 CFR 761.61(a) will be applied as a conservative confirmation measure. Such sampling will separately be applied to confirm the removal of soils with PCB concentrations that exceed the RSL of 0.230 mg/kg. Soils containing PCBs above the RSL of 0.230 mg/kg but less than the TSCA threshold limit of 1 mg/kg, will be disposed of according to waste acceptance standards for soils containing PCBs at a licensed landfill.

3.1 WOLFE ROAD AREA

Based on the approach noted above, WSP estimates that approximately 7 cubic yards of soil, which may contain concentrations of PCBs that equal or exceed 1 mg/kg, will be removed from the Wolfe Road area for disposal to a TSCA landfill pursuant to 40 CFR 761.61(b). This total proposed excavation area will be approximately 60 square feet and will extend to three ft-bgs. The PCB excavation area is depicted in context with the mass redevelopment excavation area on Figure 3 of Appendix A.

After completion of the excavation of soil with PCBs greater than 1 mg/kg, and the associated collection and analysis of confirmation soil samples, the remaining area with PCBs detected above the RSL of 0.230 mg/kg at one ft-bgs will be excavated. This area is approximately 714 square feet. Excavation for removal of the PCB contaminated soils to three ft-bgs of this area would yield approximately 73 cubic yards of soil. An outline of the proposed excavation area is shown on Figure 3 in Appendix A. As noted, confirmation sampling will utilize a grid of approximately 5 feet (1.5 meters) within the base of the excavation and sidewall samples on the walls of the completed excavation.

3.2 FORMER SEARS AUTOMOTIVE CENTER

In the area beneath the former oil-water separator where samples exceeded 1 mg/kg of PCBs, WSP proposes to excavate the overburden to a depth of 10 feet, then remove soils from beneath the separator over an area of a 10 feet by 20 feet rectangle at a depth from 12 feet to 20 feet (Figure 8 in Appendix A), and arrange for proper disposal of all PCB impacted soils at a TSCA landfill (approximately 60 cubic yards), consistent with 40 CFR 761.61(b). In the area beneath the three hydraulic lift cylinders where soil samples exceeded the PCB RSL (but are below 1 mg/kg), WSP proposes to excavate the overburden to a depth of nine feet, remove soils from beneath each hydraulic cylinder from nine feet to 12 feet bgs, and segregate these excavated soils for disposal according to waste acceptance standards for soils containing PCBs at an appropriately licensed landfill. The volume of soils to be excavated and segregated for excavation beneath the three former cylinders is estimated at nine cubic yards. Excavation profiles in the former Sears area are shown on Figure 8 in Appendix A.

Confirmation sidewall and bottom sampling will be conducted with the previously noted five-foot sample grids.

4 CONFIRMATION SAMPLING

4.1 SAMPLING PROCEDURES

Following removal of soil where PCBs are found above 1 mg/kg, confirmation samples will be collected from the excavation sidewalls and bottom at a spacing of 1.5 meters (approximately 5 feet). Sidewall confirmation samples will be collected at the depth that corresponds to where PCB concentrations were noted above 1 mg/kg (i.e., 1 foot bgs in the Wolfe Road Area and up to 20 feet bgs in the former Sears Area).

Confirmation samples will be analyzed for PCBs by EPA Method 8082 using the Soxhlet extraction method (EPA 3540C) on a rush 24-hour turn-around time (TAT). Upon receipt of the laboratory analytical report, sample results will be reviewed to confirm that confirmation results for PCBS are below 1 mg/kg. If confirmation results are found above 1 mg/kg, then further excavation will be performed in those areas and the confirmation sampling process repeated. This process will be repeated until PCB concentrations are below 1 mg/kg.

Once all soil containing PCBs above 1 mg/kg are removed, excavation of soil above the PCB RSL of 0.230 mg/kg will be performed. In the Sears Area, confirmation results will be reviewed again to see if soil above 0.230 mg/kg of PCBs exists beyond the Area subject to greater than 1 mg/kg excavation. Confirmation sampling will be performed in the same manner as described above and will be continued until soil samples collected from the sidewalls and bottom of excavation are below 0.230 mg/kg.

In the Sears Area, confirmation samples collected from the excavation around the hydraulic lifts (HL-4 and HL-6) will also be analyzed for TPH-d by EPA Method 8015 to confirm concentrations are below the ESL.

Based on existing data, it is estimated that confirmation samples will need to be collected from a total of 53 locations in the Wolfe Road Area and 75 locations in the Sears Center Area, as shown in Figures 2 and 8, respectively, in Appendix A. Note that the laboratory analysis of sample E5P-N-3 in the Wolfe Road (near the area of high PCB concentrations) had high reporting limits (RLs), above 50 m/kg PCBs. A confirmation sample will be collected in the immediate vicinity of sample E5P-N-3 to determine whether elevated levels of PCBs may be present in soil in this area following excavation in this area.

Select confirmation samples collected in the Sears Area will additionally be analyzed for VOCs by method 8260B in an abundance of caution to address some low-level detections of VOCs discovered during sampling as part of the closure plan for the Sears Automotive Center approved by the Santa Clara County Fire Department (SCCFD).

Depending on how safely the individual sampling locations can be accessed, soil samples from the bottom and sidewalls of the excavation will be collected by one of two possible ways. If personnel can safely access the bottom and or sidewalls of the excavation, a small trowel will be used to scoop up enough soil to fill the sample containers. If the sample location is inaccessible, the sample will be collected by filling containers with soil brought to the surface using the excavator bucket.

4.2 DECONTAMINATION

After each sample is collected the trowel will be decontaminated by first removing any soil or debris then washing in a non-phosphate detergent solution (such as Liquinox® or Alconox®) followed by a tap water rinse. The decontamination process will be performed within 5-gallon buckets that will be sealed when not in use to prevent accidental release of fluids and will be labeled as to their contents.

If samples must be collected from the bucket of an excavator, the excavator bucket will be decontaminated between samples by removing any remnant soil with a wire brush until the bucket is visibly free of any soils. If oils are observed on the bucket, then the bucket will be pressure washed in the truck decontamination area followed by a non-phosphate detergent scrub and again a pressure wash rinse.

4.3 SAMPLE HANDLING

Soil samples collected for PCB analysis will be placed into a minimum 1-ounce (oz) laboratory supplied soil sample jar. Soil samples collected for TPH-d analysis will be placed into a minimum 4-ounce (ox) laboratory supplied soil sample jar. Soil samples collected for VOC analysis will be collected with 5-gram En Core® samplers.

Each sample will be identified with the prefix CS ("confirmation sample") along with the sample number (i.e., 01, 02, 03, etc.) followed by the sample depth in parenthesis (i.e. a five-foot sample depth would be written as CS-01(5)).

Precautions will be taken to prevent cross-contamination and contamination of the environment when collecting samples. A clean pair of new, disposable gloves will be worn each time a different sample is collected. In no case will gloved hands be used as a sampling device; the appropriate sampler will always be used to move the sample into the laboratory supplied containers.

Each sample will be labeled with the following information on waterproof labels:

- client job name
- sample identification number
- sample collection date and time
- sample analysis requested
- sampler name

Samples will be packed for shipment to the laboratory via a courier using the following procedures.

— Inspect the cooler used for shipment to determine that it is in good condition. Place the samples in the cooler with ice. Care should be taken to ensure sample containers are kept cool prior to sample collection to prevent volatilization of contaminates of concern (COCs).

All samples will be accompanied with signed chain-of-custody documentation. The sampler will complete a chain-of-custody form to account for each sample. The chain-of-custody forms will contain the following information:

- project number
- sample numbers
- date and time of sample collection
- analysis requested for each sample
- name of sampling personnel
- date and time sample was relinquished

When the samples are ready for shipment, the sampler will record the date and time on the chain-custody form before relinquishing the samples. Signatures of anyone relinquishing and/or accepting custody of the cooler(s) will sign the chain of custody form. The chain of custody form will be signed when the cooler is received by the laboratory.

4.4 QUALITY CONTROL SAMPLES

As part of quality assurance and quality control (QA/QC), a field duplicate sample will be collected at a minimum sample frequency of every 25 samples, with a minimum of one field duplicate to be collected from the two excavation areas. All field duplicates will be sent blind to the laboratory and analyzed for PCBs by EPA method 8082 (with Soxhlet extraction), with a sample designation similar to other soil samples. The sample designation and location of the duplicate sample will be written in the field notebook and on the WSP copy of the chain-of-custody. The labels and the chain-of-custody forms will not identify the samples as duplicates.

An equipment blank will be collected at a rate of one per type of sampling equipment (trowel or excavator bucket) to document if any cross contamination attributed to using non-dedicated equipment exists. The equipment blank(s) will be

collected by pouring lab prepared DI water over the sampling equipment and into the laboratory supplied bottles. Equipment blanks will be analyzed for PCBs by EPA Method 8082.

Additionally, temperature blanks provided by the laboratory will be included in each sample cooler to determine if the samples are at the appropriate temperature for preservation at the time the sample cooler is received by the laboratory.

REFERENCES

Analytical Soil Sampling and Testing Study dated October 25, 2016 and prepared by Geosphere Consultants, Inc.

Closure Letter report- West Side of Mall dated December 11, 2018 and prepared by WSP

Construction Management Plan for Vallco Shopping Center Shoring and Mass Excavation dated October 26, 2018 and prepared by Devcon Construction, Inc.

Environmental Site Management Plan (ESMP) revised August 2019 and prepared by WSP.

GPR Survey Report dated February 11, 2019 and prepared by WSP

Investigation and Management of PCB Contaminated Soil, Former Vallco Mall, Cupertino, California ("Summary Report")" dated August 14, 2020 and prepared by WSP

Regional Water Board, 2019 (San Francisco Bay Regional Water Quality Control Board). Environmental Screening Level (ESL) Workbook. January.

Sears Automotive Center Closure Plan dated March 26, 2019 and prepared by WSP

Sears Closure Report for the Fuel Leak site Case Closure dated December 6, 1999 and prepared by Santa Clara Valley Water District

Site Characterization Report (SCXR) revised August 2019 and prepared by WSP

Stormwater Pollution Prevention Plan (SWPPP) revised April 14, 2020 and prepared by Sandis

ACRONYMS

1,1-DCA 1,1-dichloroethane

1,1-DCE 1,1-dichloroethene

1,2-DCE 1,2-dichloroethene

1,1,1-TCA 1,1,1-trichloroethane

bgs below ground surface

COE California-Olive-Emerson

COPC chemical of potential concern

DQO data quality objective

HVAC heating, ventilation, and air conditioning

PCE tetrachloroethene

PID Photoionization detector

SIM Selective ion monitoring

TCE trichloroethene

USEPA U.S. Environmental Protection Agency

VIMS vapor intrusion mitigation system

VOC volatile organic compound

WSP USA Inc.

APPENDIX A

INVESTIGATION AND
MANAGEMENT OF PCB
CONTAMINATED SOIL
FORMER VALLCO
MALL, CUPERTINO,
CALIFORNIA





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August 14, 2020

Vallco Property Owner, LLC 965 Page Mill Road Palo Alto, CA 94304 Attn: Reed Moulds

Subject: Post Closure Report: Investigation and Management of PCB Contaminated Soil

Former Vallco Mall, 10101 North Wolfe Road, Cupertino, California

Dear Mr. Moulds,

Per the request of the Vallco Property Owner, LLC (VPO), WSP USA Inc. (WSP) provides this summary report documenting WSP's investigation of two select areas at the former Vallco mall located at 10101 North Wolfe Road in Cupertino, California (the Site) (Figure 1) and presenting an approach to the remediation and disposal of all impacted soils at the investigation areas. WSP investigated the two areas for polychlorinated biphenyls (PCBs), consistent with the Environmental Site Management Plan (WSP, August 2019) (ESMP). The first is an area in the eastern parking lot adjacent to Wolfe Road and the former Bay Club Fitness Center, herein referred to as the Wolfe Road area. The second area is within the former Sears Automotive Center and is referred to as such below.

BACKGROUND & INVESTIGATION APPROACH

WOLFE ROAD AREA

In September 2016, Vallco retained Geosphere to conduct a subsurface investigation to collect various discrete soil samples at the Site as part of an accompanying geotechnical investigation. Geosphere drilled a total of eight borings (E-1 through E-8) using a mobile direct push GeoProbe® DT-22. A single sample from Geosphere boring E-5 at one foot below ground surface (sample E5-1) contained PCBs at a concentration of 0.523 milligrams per kilogram (mg/kg), which is above the Environmental Screening Levels (ESLs) for residential human health risks (0.230 mg/kg) as established by the San Francisco Regional Water Quality Control Board (RWQCB), revision two, July 2019 and above the Regional Screening Levels (RSLs) for human health risks (0.230 mg/kg) as established by the Department of Toxic Substance Control (DTSC), revised April 2019. The detection of PCBs above the ESL/RSL was isolated to this single sample out of the 32 samples Geosphere collected across the former shopping mall area; however, in accordance with Section 3.3 of the ESMP, WSP performed step-out sampling for PCBs in the area of boring E-5 to delineate the lateral and vertical extent of PCB concentrations in that area. VPO provided the City of Cupertino with a workplan outlining the investigation approach in August 2019 (WSP, 2019a).

Pursuant to the workplan, WSP advanced soil borings to a depth of five feet below ground surface (ft-bgs) in a general grid fashion around boring E-5 (Figure 2). Initially, four soil borings were advanced in a square shape approximately 7.5 feet (ft) away from boring E-5 on each side, with one additional boring advanced adjacent to location E-5 (boring E5P-1) to confirm the original detection of PCBs. If there was a detection of PCBs above the ESL/RSL at the initial sampling location, additional step-out boring locations were advanced in five-foot increments outwards from perimeter borings. Eventually, a total of 29 additional step-out borings were advanced to fully delineate the lateral extent of PCB contamination.



The soil borings were advanced either by hand auger or by a direct push Geoprobe® Rig equipped with Macro Core® continuous core sample tooling. Soil samples were collected at depths of one, three, and five ft-bgs. Only soil samples collected at one and three ft-bgs were analyzed initially; five ft-bgs soil samples were archived and were only analyzed if there were detections of PCBs in the three ft-bgs samples, which occurred at only two of the 34 boring locations (E5P-N and E5P-W). Samples at three ft-bgs at ESP-N-3 had laboratory reporting limits for PCBs above the ESL/RSL and there were PCBs detected at ESP-W-3 (0.046 mg/kg) below the ESL/RSL Samples collected at 5 ft-bgs at these two locations did not detect PCBs. All soil samples were analyzed for PCBs by Environmental Protection Agency (EPA) method 8082 with 18 of the 29 step outs additionally undergoing the soxhlet extraction method preferred by the EPA.

FORMER SEARS AUTOMOTIVE CENTER

The Sears Automotive Center was constructed in 1970 on the southwest side of the Mall property and was later referenced as a closed Leaking Underground Storage Tank (LUST) site on the state Geotracker website. This designation was a result of the removal of six underground storage tanks (UST) in 1985 and dispenser island and product lines in 1994. The Santa Clara County Fire Department (SCCFD) required implementation of an approved closure plan for the demolition of the former Sears Automotive Center due to the presence of an oil-water separator, hydraulic lifts, petroleum fluid pipelines, battery storage area, and lead containing materials. A Closure Plan for the Former Sears Automotive Center was submitted to the SCCFD on March 25, 2019 and approved by the SCCFD by letter dated April 11, 2019 and included soil sampling under the oil-water separator, remnant piping and any other subsurface equipment for proper characterization and subsequent disposal.

Consistent with the Closure Plan, soil samples were collected beneath an oil-water separator, acid neutralization chamber, and 17 hydraulic lifts during building demolition in January through February 2020 to determine if these features had impacted surrounding soil. All soil samples collected were analyzed for the following list of compounds:

- Total petroleum hydrocarbons (TPH) as gasoline (TPH-g), TPH as diesel (TPH-D), and TPH as motor oil (TPH-MO) by EPA method 8015 (fuel scan)
- Hexane Extractable Materials (Oil and Grease) by EPA 1664
- Volatile Organic Compounds (VOCs), with chlorinated hydrocarbons (full scan) by EPA method 8260B
- PCB's by EPA method 8082A
- Cd, Cr, Pb, Ni, and Zn by EPA 6010B
- Semi Volatile Organic Compounds (SVOCs) including Polycyclic Aromatic Hydrocarbons (PAHs) by EPA method 8270

Samples collected from beneath the acid neutralization chamber and the base of 11 hydraulic lifts after their removal, all located on the basement level in the southern portion of the former Sears Automotive Center, did not contain any detections above the respective ESL/RSLs for any of the compounds included in the analysis listed above. After the removal of six hydraulic lift cylinders in the northern portion of the former Sears Automotive Center, samples were taken at three of the six cylinders (locations HL-1, HL-4, and HL-6 on Figure 4) at approximately nine ft-bgs, which is from the soils immediately beneath the base of three of these cylinders. After the removal of the oil-water separator and associated piping, three samples were taken approximately 12 to 14 ft-bgs which is immediately beneath the separator and piping. Several of these samples yielded results that exceed the PCB ESL/RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs. Two samples collected at a depth of nine ft-bgs, immediately below each of two (HL-4 and HL-6) of the three former hydraulic lift



cylinders, exceeded the RSL for TPH-D. Soil sample locations are shown on Figure 4 and analytical results performed for this sampling event as part of the Closure Plan are included as Table 1.

In response to the detections of PCBs above the ESL/RSL, 22 step-out borings were advanced in the northern portion of the Center to delineate the extent of PCB impacted soil and to sample under the remaining three former hydraulic lifts, HL-2, HL-3, and HL-5 (Figure 5). All step-out borings were advanced with a direct push Geoprobe® Rig equipped with Macro Core® continuous core sample tooling. The base of the hydraulic lift cylinders extended to nine ft-bgs and step-out borings for the lifts were advanced to 20 ft-bgs and samples were collected at depths of 9, 12, and 15 ft-bgs. The bottom of the oil-water separator was 12 ft-bgs and step-out borings for the separator were advanced to 25 ft-bgs and samples were collected at depths of 12, 16, and 20 ft-bgs. Additional samples were collected if staining or odor was noted, which only occurred in one boring (HL-6N5). All soil samples were analyzed for PCBs by EPA method 8082 with the soxhlet extraction method. Additionally, select soil sample depths were sampled for TPH-d and TPH-mo by EPA method 8015.

ANALYTICAL RESULTS

WOLFE ROAD AREA

Analytical results are summarized in Table 2 and are depicted on Figure 2. Total PCBs were found above the ESL/RSL of 0.230 mg/kg in a total of 14 of the 34 borings. The detections of total PCBs above the screening levels were isolated to samples collected from one ft-bgs. The PCB detections were primarily of aroclor-1254, which was the only aroclor that contained concentrations greater than the respective screening level. Aroclor-1260 was also detected in some of the one ft-bgs samples; no other aroclors were detected.

Of the borings that had exceedances of the screening levels, the PCB concentration of two boring locations (E5P-W and E5P-NW10) were just above the TSCA cleanup level of 1 mg/kg, with a maximum total PCB concentration of 1.046 mg/kg. In both borings, no singular aroclor was detected above 1 mg/kg, but rather the sum of the detected aroclors (aroclor-1254 and aroclor-1260) was just above 1 mg/kg.

FORMER SEARS AUTOMOTIVE CENTER

Analytical results are summarized in Table 3 (TPH results) and Table 4 (PCB results) and are depicted on Figures 6 and 7. Of the twenty-two step-out borings, only three discrete samples contained detectable concentrations of PCBs. As discussed above, soil samples taken at approximately nine ft-bgs, which is from immediately beneath each of three of the hydraulic cylinders and three samples taken approximately 12 to 14 feet bgs immediately beneath the oil-water separator contained PCBs exceeding the RSL of 0.230 mg/kg PCBs. Additionally, two of the three samples beneath the oil-water separator exceeded 1 mg/kg of PCBs at 14 feet, with a maximum concentration of 1.9 mg/kg; however, none of the step-out borings detected concentrations of PCBs above the ESL/RSL.

Additionally, only one step out boring discrete sample (OWPI-W5-20) detected TPH-d above the ESL; however, the detection was qualified by the laboratory as not exhibiting the standard chromatographic pattern for TPH-d.



REMEDIAL APPROACH; SOIL EXCAVATION AND DISPOSAL; EPA REGULATORY COMPLIANCE

Under the ESMP, VPO must notify the City if the planned additional sampling finds PCB levels in excess of residential screening levels, and a determination will be made "as to whether a regulatory agency should be contacted to determine if regulatory oversight is required, prior to issuance of a permit that allows soil disturbance in the area of boring E-5."

Given that each of the areas contained PCBs above 1 mg/kg and are located within the footprint of the planned development, excavation that will extend to a depth of five ft-bgs and up to 32 ft-bgs at the Wolfe Road and former Sears Automotive Center areas, respectively. The project team contacted EPA to identify an appropriate remedial approach that is consistent with TSCA. Steve Armann, EPA Region 9's PCB Program Coordinator, indicated that disposal of PCBs under 40 CFR 761.61(b) would be appropriate. Among other things, 40 CFR 761.61(b) requires soil containing PCBs above the TSCA threshold of 1 mg/kg to be disposed of as a TSCA waste at a TSCA landfill. Consistent with 40 CFR 761.61(a), confirmation base of excavation and sidewall sampling will be performed with sampling using grids with sample spacing every 1.5 meters (approximately five feet) to verify that soil with PCB concentrations greater than 1 mg/kg and 0.230 mg/kg are removed from the previously characterized areas. Specifically, the limits of excavation were determined by step-out sampling and the step-out samples will serve as confirmation samples for the excavation of PCBs impacted soil above 0.230 mg/kg. The areas that have been identified to contain PCBs above the ESL/RSL of 0.230 mg/kg but are less than the TSCA threshold limit of 1 mg/kg, will be disposed of according to waste acceptance standards for soils containing PCBs at a licensed landfill.

WOLFE ROAD AREA

Based on the approach noted above, WSP estimates that approximately 7 cubic yards of soil, which may contain concentrations of PCBs that equal or exceed 1 mg/kg, will need to be removed from the Wolfe Road area for disposal to a TSCA landfill pursuant to 40 CFR 761.61(b). This total proposed excavation area will be approximately 60 square feet and will extend to three ft-bgs. The PCB excavation area is depicted in context with the project excavation area on Figure 3.

The remaining area with PCBs detected above the ESL/RSL of 0.230 mg/kg at one ft-bgs is approximately 714 square feet. Excavation for removal of the PCB contaminated soils to three ft-bgs of this area would yield approximately 73 cubic yards of soil. An outline of the proposed excavation area is shown on Figures 2 and 3. As noted, confirmation sampling will utilize a grid of approximately 5 feet (1.5 meters) for base of excavation and sidewall samples on the walls of the completed excavation.

FORMER SEARS AUTOMOTIVE CENTER

Remediation of the former Sears Automotive Center will be performed with oversight/review from SCCFD under the approved Closure Plan. In the area beneath the former oil-water separator where samples exceeded 1 mg/kg of PCBs, WSP proposes to excavate and remove soils from beneath the separator over an area of a 10 feet by 20 feet rectangle at a depth from 12 feet to 20 feet (Figure 8) and arrange for proper disposal of all PCB impacted soils at a TSCA landfill (approximately 60 cubic yards), consistent with 40 CFR 761.61(b). In the area beneath the three hydraulic lift cylinders where soil samples exceeded the PCB ESL/RSL (but are below 1 mg/kg), WSP proposes to excavate and remove soils from beneath each hydraulic cylinder from nine feet to 12 feet bgs and segregate these excavated



soils for disposal according to waste acceptance standards for soils containing PCBs at an appropriately licensed landfill. The volume of soils to be excavated and segregated for excavation beneath the three former cylinders is estimated at nine cubic yards. Excavation profiles in the former Sears area are shown on Figure 8.

Confirmation sidewall sampling will be conducted with the previously noted five-foot sample grids.

Per Section 4, Reporting Requirements, of the ESMP, a closure implementation report will be generated with the closure of the former Sears Automotive center and submitted to the SCCFD, with a courtesy copy provided to the City. In addition, the soil sampling and removal of soils in the Wolfe Road area will be documented in a memorandum and provided to the City. If additional impacted soils are uncovered during mass excavation activities, the analysis and subsequent disposal of the impacted soil will also be documented in the ESMP completion report.

Sincerely,

Ruhard E. Freudenberge

Richard E. Freudenberger Managing Director, Regional

408.206.3504

REFERENCES

WSP. 2019. Environmental Site Management Plan, Former Vallco Shopping Mall, 10123 North Wolfe Road, Cupertino, California. August.

WSP. 2019a. Workplan for Former Vallco Mall, Delineation of Extent of PCB Impact to Soil. August 20.

FIGURES

Figure 1 – PCB Investigation Areas

Figure 2 – Wolfe Road PCB Investigation Area

Figure 3 – Wolfe Road PCB Excavation Area

Figure 4 – Sears Automotive Center Closure Sample Locations

Figure 5 – Sears Automotive Center PCB Investigation Area

Figure 6 – Hydraulic Lift Step-Out Borings

Figure 7 – Oil-Water Separator Step-Out Borings

Figure 8 – Excavation Profiles

TABLES

Table 1 – Summary of Sears Closure Soil Data

Table 2 – Wolfe Road PCB Data

Table 3 – Sears Center TPH Data

Table 4 – Sears Center PCB Data



TABLES

Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] mple Date	ESLs Residential	RSLs Residential	<u>H-1</u> 1/22/20	H-2 1/22/20		<u>H-3</u> 1/22/20		<u>H-4</u> 1/22/20)	<u>H-5</u> 1/22/20		<u>H-6</u> 1/22/20)	<u>H-7</u> 1/22/20	0
Purgeable Aromatics & Tota	al Petroleu	m Hydrocarbo	ns													
TPH-g	(mg/kg)	430		1 U	1 T	U	0.98 U	IJ	1	U	0.93 U	J	1	U	1	U
TPH-d	(mg/kg)	260		0.92 J	0.70	J	1.1	J	27	Y	2 U	J	3.5	Y	4.4	Y
TPH-mo	(mg/kg)	12,000		10 U	9.9 t	U	6.2	J	86		9.9 U	J	15		19	
Oil & Grease	(mg/kg)			500 U	500 U	U	500 U	IJ	500	U	500 U	J	500	U	500	U
SVOCs & PAHs [3]																
bis (2-Ethylhexyl)phthalate	(µg/kg)	3.9E+04	3.9E+04	340 U	340 U	U	20	J	27	J	340 U	J	340	U	17	J
VOCs [3]																
Acetone	(µg/kg)	6.1E+07		17 U	20 U	U	16 U	IJ	4.9	J	17 U	J	3.6	J	16	U
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
2-Butanone	$(\mu g/kg)$			8.3 U	10 U	U	8.2 U	IJ	8	U	8.3 U	J	9.2	U	8.1	U
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.3 U	10 U	U	8.2 U	IJ	8	U	8.3 U	J	0.7	J	8.1	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.2 U	5.1 U	U	4.1 U	IJ	4	U	4.2 U	J	4.6	U	4	U
Metals																
Cadmium	(mg/kg)	78	71	0.24 J	0.25	J	0.34		0.37		0.35		0.33		0.30	
Chromium	(mg/kg)			55	47		52		55		51		54		57	
Lead	(mg/kg)	80	80	6.2	5.0		8.6		9.3		10		7.8		9.1	
Nickel	(mg/kg)	820	820	57	49		62		66		76		65		65	
Zinc	(mg/kg)	23,000	23,000	46	40		61		63		62		55		59	
PCBs [2]																
Aroclor-1254	(mg/kg)	0.230	0.240	0.012 U	0.012 U	U	0.058		0.061		0.012 U	J	0.012	U	0.021	

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Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] .mple Date	ESLs Residential	RSLs Residential	<u>H-8</u> 1/22/20		.9 2/20		H-10 1/22/20)	H-11 1/22/20)	H-P-1 2	_	<u>AN-1</u> 1/22/20		<u>AN-2</u> 1/22/20	
Purgeable Aromatics & Tota	al Petroleu	m Hydrocarbo	ns														
TPH-g	(mg/kg)	430		1.1 U	1	.1 L	J	1.1	U	1.1	U	1	U	0.96	U	0.96	U
TPH-d	(mg/kg)	260		2 U	9	.2	Y	7.9	Y	2.2	Y	3.2	Y	2.8	Y	3.2	Y
TPH-mo	(mg/kg)	12,000		10 U	4	9		39		10	U	6.0	J	3.1	J	3.9	J
Oil & Grease	(mg/kg)			500 U	5	J 00	J	500	U	500	U	500	U	500	U	500	U
SVOCs & PAHs [3]																	
bis (2-Ethylhexyl)phthalate	$(\mu g/kg)$	3.9E+04	3.9E+04	330 U	5,90	0		96	J	330	U	340	U	330	U	330	U
VOCs [3]																	
Acetone	$(\mu g/kg)$	6.1E+07		18 U		16 L	J	3.7	J	16	U	17	U	19	U	19	U
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.4 U		4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
2-Butanone	$(\mu g/kg)$			8.8 U		8 U	J	8	U	8.2	U	8.4	U	9.6	U	9.6	U
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.4 U	-	4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.8 U	-	8 U	J	8	U	8.2	U	8.4	U	9.6	U	9.6	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.4 U	-	4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.4 U	-	4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.4 U		4 U	J	4	U	4.1	U	4.2	U	4.8	U	4.8	U
Metals																	
Cadmium	(mg/kg)	78	71	0.29	0.3	9		0.30		0.31		0.34		0.32		1.8	
Chromium	(mg/kg)			52	:	9		55		56		54		78		97	
Lead	(mg/kg)	80	80	7.7	-	0		8.3		7.2		9.4		7.5		7.6	
Nickel	(mg/kg)	820	820	71	1	6		65		70		70		88		86	
Zinc	(mg/kg)	23,000	23,000	55	,	3		58		53		69		57		69	
PCBs [2]																	
Aroclor-1254	(mg/kg)	0.230	0.240	0.012 U	0.0	2 L	J	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U

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Sears Closure - Summary of Detected Results
Former Vallco Mall
10123 North Wolfe Road, Cupertino, CA

	ple ID [1][2] mple Date	ESLs Residential	RSLs Residential	OWS- 2/7/20		OWS-2		OWP-2/7/20		HL-1 2/7/20		<u>HL-4</u> 2/7/20	,	HL-6 2/7/20	
Purgeable Aromatics & Tota	al Petroleu	ım Hydrocarbo	ons												
TPH-g	(mg/kg)	430		0.16	JY	0.98	U	1	U	0.93	U	0.3	JY	1	U
TPH-d	(mg/kg)	260		92	Y	36	Y	21	Y	7.9	Y	990	Y	330	Y
TPH-mo	(mg/kg)	12,000		290		120		90		7.8		3,200		470	
Oil & Grease	(mg/kg)			500	U	500	U	500	U	500	U	2,000		500	U
SVOCs & PAHs [3]															
bis (2-Ethylhexyl)phthalate	$(\mu g/kg)$	3.9E+04	3.9E+04	30	J	330	U	330	U	340	U	3,400		74	J
VOCs [3]															
Acetone	(µg/kg)	6.1E+07		17	U	17	U	19	U	3.2	J	1,000	U	26	
1,1-Dichloroethane	$(\mu g/kg)$	3.6E+03	3.6E+03	4.3	U	4.4	U	4.7	U	3.9	U	48		3.6	U
2-Butanone	$(\mu g/kg)$			8.6	U	8.7	U	9.5	U	1.8	J	16		6.1	J
1,1,1-Trichloroethane	$(\mu g/kg)$	1.7E+06	1.7E+06	4.3	U	4.4	U	4.7	U	3.9	U	11		3.6	U
4-Methyl-2-Pentanone	$(\mu g/kg)$			8.6	U	8.7	U	9.5	U	7.8	U	12		7.2	U
Toluene	$(\mu g/kg)$	1.1E+06	1.1E+06	4.3	U	4.4	U	4.7	U	3.9	U	8.1		3.6	U
Tetrachloroethene	$(\mu g/kg)$	5.9E+02	5.9E+02	4.3	U	4.4	U	4.7	U	3.9	U	41		3.6	U
Naphthalene	$(\mu g/kg)$	3.8E+03	2.0E+03	4.3	U	4.4	U	4.7	U	3.9	U	4.4		3.6	U
Metals															
Cadmium	(mg/kg)	78	71	0.32		0.3		0.41		0.46		0.32		0.27	
Chromium	(mg/kg)			80		57		84		93		86		89	
Lead	(mg/kg)	80	80	7.9		8.2		8.7		7.8		7.7		6.9	
Nickel	(mg/kg)	820	820	80		63		67		96		86		86	
Zinc	(mg/kg)	23,000	23,000	62		58		55		59		59		55	
PCBs [2]															
Aroclor-1254	(mg/kg)	0.230	0.240	1.9		1.2		0.93		0.75		0.64		0.62	

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Sears Closure - Summary of Detected Results Former Vallco Mall 10123 North Wolfe Road, Cupertino, CA

Notes:

mg/kg = milligram per kilogram

μg/kg = microgram per kilogram

U = not detected above the method detection limit; reporting limit shown

J = concentration detected between the method detection limit and the reporting limit and is considered an estimate

Y = sample exhibits chromatographic pattern which does not resemble standard

-- = not available

SVOCs = Semi-volatile organic compounds

PAHs = Polycyclic aromatic hydrocarbons

VOCs = Volatile organic compounds

PCBs = Polychlorinated biphenyl

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019 (revision 2). Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

- [1] = Bold values indicate a detection above the reporting limit. Shaded values indicate an exceedance of the screening levels.
- [2] = Samples H-1 through H-11, including sample H-P-12 were collect beneath hydraulic lifts that extended in to the basement level on January 22, 2020. Samples AN-1 and AN-2 were collected beneath/ around the former acid neutralization chamber on January 22, 2020. Samples OW-1, OW-3, and OWP-1 were collect beneath/ around the former oil-water seperator on February 7, 2020. Samples HG-1 through HG-3 were collected beneath hydraulic lifts at ground level, in the northern portion of the building on February 7, 2020.
- [3] = Only analytes detected over the reporting limit in at least one sample are shown.

WSP

Table 2

Wolfe Rd PCB Summay Table
Former Vallco Mall

10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	<u>l</u>	Aroclor-123	32	Aroclor-12	<u> 12</u>	Aroclor-12	18	Aroclor-125	54	Aroclor-126	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
E5-1 [3]	9/6/2016	0.034	U	0.043	U	0.042	U	0.034	U	0.034	U	0.523		0.034	U	0.523
E5-2 [3]	9/6/2016	0.0066	U	0.0084	U	0.0083	U	0.0066	U	0.0066	U	0.0079	U	0.0066	U	ND
E5-3 [3]	9/6/2016	0.0066	U	0.0084	U	0.0083	U	0.0066	U	0.0066	U	0.0079	U	0.0066	U	ND
E5P-1	10/4/2019	0.032	U	0.065	U	0.032	U	0.032	U	0.032	U	0.75		0.13		0.88
E5P-3	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-N-1	10/4/2019	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.83		0.11		0.94
E5P-N-3	10/4/2019	660	U	1,300	U	660	U	660	U	660	U	660	U	660	U	ND
E5P-N-5 [5]	10/4/2019	0.034	U	0.067	U	0.034	U	0.034	U	0.034	U	0.034	U	0.034	U	ND
E5P-S-1	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.043		0.0078	J	0.0508
E5P-S-3	10/4/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-E-1	10/4/2019	0.034	U	0.068	U	0.034	U	0.034	U	0.034	U	0.15		0.027	J	0.177
E5P-E-3	10/4/2019	0.02	U	0.04	U	0.02	U	0.02	U	0.02	U	0.02	U	0.015	J	0.015 J
E5P-W-1	10/4/2019	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.92		0.14		1.06
E5P-W-3	10/4/2019	0.02	U	0.041	U	0.02	U	0.02	U	0.02	U	0.02	U	0.023		0.023
E5P-W-5 [5]	10/4/2019	0.033	U	0.065	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
E5P-NN5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.24		0.044		0.284
E5P-NN5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NN10-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.38		0.06		0.44
E5P-NN10-3	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NE5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.19		0.042		0.232
E5P-NE5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.008	J	0.008 J
E5P-NE10-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.15		0.037		0.187
E5P-NE10-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.010	J	10 J
E5P-NW5-1	10/30/2019	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.75		0.091		0.841
E5P-NW5-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-NW10-1	10/30/2019	0.013	U	0.026	U	0.013	U	0.013	U	0.013	U	0.95		0.096		1.046
E5P-NW10-3	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND
E5P-WW5-1	10/30/2019	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.67		0.082	**	0.752
E5P-WW5-3	10/30/2019	0.012	U U	0.024	U	0.012	U	0.012	U	0.012	U	0.012 0.18	U	0.012 0.028	U	ND 0.200
E5P-WW10-1 E5P-WW10-3	10/30/2019 10/30/2019	0.013	U	0.027	U	0.013 0.012	U	0.013 0.012	U U	0.013 0.012	U U	0.012	U	0.028	U	0.208 ND
E5P-WS5-1	10/30/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	0.631
E5P-WS5-3	10/30/2019	0.033	U	0.000	U	0.033	U	0.033	U	0.033	U	0.012	U	0.001	U	0.031 ND
E5P-WS10-1	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	В	0.012	-	0.559
E5P-WS10-3	10/31/2019	0.012	U	0.024	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	ND

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Table 2

Wolfe Rd PCB Summay Table
Former Vallco Mall

10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	<u>l</u>	Aroclor-123	32	Aroclor-124	12	Aroclor-12	18	Aroclor-125	54	Aroclor-120	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
SO-E1-1	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.025		0.0066	U	0.025
SO-E1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-E2-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.12		0.033	U	0.12
SO-E2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-N1-1	2/14/2020	0.034	U	0.067	U	0.034	U	0.034	U	0.034	U	0.28		0.034	U	0.28
SO-N1-3	2/14/2020	0.0048	U	0.0097	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-N2-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.014	J	0.033	U	0.014 J
SO-N2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NE1-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.26		0.01	U	0.26
SO-NE1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NE2-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.0089	J	0.01	U	0.0089 J
SO-NE2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW1-1	2/14/2020	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	0.16		0.01	U	0.16
SO-NW1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW2-1	2/14/2020	0.033	U	0.066	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
SO-NW2-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-NW3-1	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.012		0.0066	U	0.012
SO-NW3-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.038		0.0067	U	0.038
SO-S1-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.022		0.017	U	0.022
SO-S1-3	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	ND
SO-S2-1	2/14/2020	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	ND
SO-S2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-SW1-1	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.015		0.0048	U	0.015
SO-SW1-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-SW2-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.27		0.017	U	0.27
SO-SW2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND

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Wolfe Rd PCB Summay Table Former Vallco Mall 10123 North Wolfe Rd. Sunnyvale, CA

	Collection	Aroclor- 10	16	Aroclor-122	1	Aroclor-123	32	Aroclor-12	12	Aroclor-124	18	Aroclor-125	<u>54</u>	Aroclor-126	<u>50</u>	PCB- sum [4]
Sample ID [1][2]	<u>Date</u>	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
SO-SW3-1	2/14/2020	0.017	U	0.033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	ND
SO-SW3-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-SW4-1	2/14/2020	0.033	U	0.067	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	ND
SO-SW4-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-W1-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.21		0.0067	U	0.21
SO-W1-3	2/14/2020	0.0066	U	0.013	U	0.0066	U	0.0066	U	0.0066	U	0.0066	U	0.0066	U	ND
SO-W2-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0071		0.0067	U	0.0071
SO-W2-3	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	0.0067	U	ND
SO-W3-1	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0059		0.0048	U	0.0059
SO-W3-3	2/14/2020	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
SO-W4-1	2/14/2020	0.0067	U	0.013	U	0.0067	U	0.0067	U	0.0067	U	0.0065	J	0.0067	U	0.0065 J
SO-W4-3	2/14/2020	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
ESLs Residential (n	ng/kg)															0.230
RSLs Residential (1	ng/kg)	4		0.200		0.170		0.230		0.230		0.240		0.240		0.230

Notes:

mg/kg = millograms per kilogram

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019. Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

U = compound was not detected at a concentration greater than the reporting limit shown

J

= compound was detected at a concentration less than the laboratory reporting limit, but greater than the method detection limit

B = analyte detected in the associated method blank and in the sample

-- = not applicable or not available

- [1] Bold results indicate the concentration is greater than the reporting limit; results in red font indicate exceedance of screening levels. Gray gradient indicates increased depth within soil boring
- [2] For samples with E5P identifier, sample nomenclature is as follows: "sample location direction from original boring sample depth". For samples with SO identifier, sample nomenclature is as follows: "sample type (SO=step-out boring) - relative direction-sample depth". All samples were collected by WSP excluding those qualified by note 3.
- [3] Samples collected by Geosphere consultants, inc. on September 6, 2016. Sample E5-1 was collected at a depth of 1 foot below ground surface (ft-bgs), sample E5-2 was collected at 5 ft-bgs, and sample E5-3 was collected at 10 ft-bgs.
- [4] The PCB-sum is the sum of any detected aroclor listed above method dection limit.
- [5] Sample analyzed out-side of hold time; however, the laboratory has advised the data should be respresentative as the new analytical method update has extended the hold time to 1 year but California has not yet adopted the hold time.

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Table 3
Sears Center Investigation Area - TPH Data

Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	TPH-d		TPH-mo	
Sample ID [1][2]	(mg/kg)		(mg/kg)	
HL-1	7.9	Y	7.8	
HL-1N5-9	1.2	Y	4.7	J
HL-2-10	0.39	J	5	U
HL-2-12	1	U	5	U
HL-2N5-9	0.4	J	5	U
HL-2W5-9	0.46	J	5	U
HL-3-10	1	U	5	U
HL-3-12	0.31	J	5	U
HL-3N5-9	0.35	J	5	U
HL-3W5-10	0.45	J	5	U
HL-4	990	Y	3200	
HL-4N5-9	1.1	Y	2.8	J
HL-5-9	1	U	5	U
HL-5-12	0.38	J	5	U
HL-5N5-9	1	U	5	U
HL-5E5-9	0.45	J	5	U
HL-6	330	Y	470	
HL-6N5-4	64	Y	290	
HL-6N5-9	200	Y	1100	
HL-6E5-9	1	U	5	U
OWS-1	92	Y	290	
OWS-O-12	0.99	U	5	U
OWS-O-16	0.38	J	1.7	J
OWS-O-20	0.33	J	5	U
OWS-1N5-12	0.44	J	5	U
OWS-1N5-16	1	U	5	U
OWS-1N5-20	0.94	J	4.1	J
OWS-1S5-12	1.5	Y	5.6	
OWS-1S5-16	1.7	Y	2.5	J
OWS-1S5-20	1.4	Y	3.3	J
OWS-2	36	Y	120	
OWS-2N5-12	0.33	J	5	U
OWS-2N5-16	0.39	J	5	U
OWS-2N5-20	0.51	J	5	U
OWS-2S5-12	0.49	J	5	U
OWS-2S5-16	0.89	J	2.2	J
OWS-2S5-20	0.77	J	5	U

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Sears Center Investigation Area - TPH Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	TPH-d		TPH-mo	0
Sample ID [1][2]	(mg/kg)		(mg/kg))
OWP-1	21	Y	90	
OWP-1N5-12	1	U	5	U
OWP-1N5-16	0.46	J	5	U
OWP-1N5-20	0.54	J	5	U
OWP-1S5-12	1	U	1.7	J
OWP-1S5-16	0.54	J	1.8	J
OWP-1S5-20	0.52	J	1.9	J
OWP-1E5-12	1	U	5	U
OWP-1E5-16	0.99	U	5	U
OWP-1E5-20	1	U	5	U
OWPI-W5-12	0.34	J	5	U
OWPI-W5-16	1	U	5	U
OWPI-W5-20	1200	Y	3600	
Residential ESL	260		12,000	
Residential RSL			-	

Notes:

mg/kg = milligram per kilogram

J = concentration detected between the method detection limit and the reporting limit and is considered an estimate

Y = sample exhibits chromatographic pattern which does not resemble standard

-- = not available

TPH = total petroleum hydrocarbons (TPH) as diesel (TPH-d) and as motor oil (TPH-mo)

- ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019 (revision 2). Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.
- RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.
 - [1] = Bold values indicate a detection above the reporting limit. Shaded values indicate an exceedance of the screening levels.
 - [2] = Sample nomenclature is sample area (HL = hydraulic lift; OWS = oil-water seperator; OWP = oil-water seperator pipe)- relative direction sample depth (in feet below ground surface). Bold sample ID's were collected in Feburary 2020. All other samples were collected in April 2020 in an effort to delineate TPH-d,mo concentrations in soil in the area.

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Sears Center Investigation Area - PCB Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	<u>16</u>	Aroclor-122	1	Aroclor-123	32	Aroclor-124	12	Aroclor-12	<u> 18</u>	Aroclor-125	54	Aroclor-120	<u>50</u>	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
HL-1	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.75		0.067	U	0.75
HL-1N5-9	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-1N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-1N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2-10	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2-15	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2N5-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2W5-9	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-2W5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-2W5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3-10	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-3-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3W5-10	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-3W5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	0.64		0.067	U	0.64
HL-4N5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-4N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
HL-5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-9	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5N5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND

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Sears Center Investigation Area - PCB Data Former Vallco Mall 10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	16	Aroclor-122	1	Aroclor-12	32	Aroclor-124	12	Aroclor-124	18	Aroclor-125	54	Aroclor-120	50	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
HL-5E5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5E5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-5E5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6	0.066	U	0.13	U	0.066	U	0.066	U	0.066	U	0.62		0.066	U	0.62
HL-6N5-4	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6N5-15	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-9	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
HL-6E5-15	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0018	J	0.0048	U	0.0018 J
OWS-O-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-O-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-O-20	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
OWS-1	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	1.9		0.067	U	1.9
OWS-1N5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1N5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1N5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1S5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.01		0.0048	U	0.01
OWS-1S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-1S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2	0.067	U	0.13	U	0.067	U	0.067	U	0.067	U	1.2		0.067	U	1.2
OWS-2N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2N5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2N5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWS-2S5-12	0.0047	U	0.0095	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	0.0047	U	ND
OWS-2S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0066		0.0048	U	0.0066
OWS-2S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1	0.066	U	0.13	U	0.066	U	0.066	U	0.066	U	0.93		0.066	U	0.93
OWP-1N5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1N5-16	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1N5-20	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND

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Table 4

Sears Center Investigation Area - PCB Data Former Vallco Mall

10123 North Wolfe Road, Cupertino, California

	Aroclor- 10	<u> 16</u>	Aroclor-122	1	Aroclor-123	32	Aroclor-124	12	Aroclor-12	18	Aroclor-125	<u>54</u>	Aroclor-120	<u>50</u>	PCB- sum [3]
Sample ID [1][2]	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)
OWP-1S5-12	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1S5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1S5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWP-1E5-20	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-12	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-16	0.0048	U	0.0096	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	0.0048	U	ND
OWPI-W5-20	0.0048	U	0.0095	U	0.0048	U	0.0048	U	0.0048	U	0.061		0.0048	U	0.061
ESLs Residential (mg/kg)								•							0.230
RS Ls Residential (mg/kg)	4		0.200		0.170		0.230		0.230		0.240		0.240		0.230

Notes:

mg/kg = millogram per kilogram

PCB = polychlorinated biphenyl

ESLs Residential = Environmental Screening Levels (ESLs) for direct exposure to human health for residential shallow soil exposure as established by the San Francisco (SF) Water Board, revised January 2019. Screening levels listed are for either cancer risk or non-cancer hazards; if a screening level for both cancer risk and non-cancer hazards existed, the lower screening level was listed.

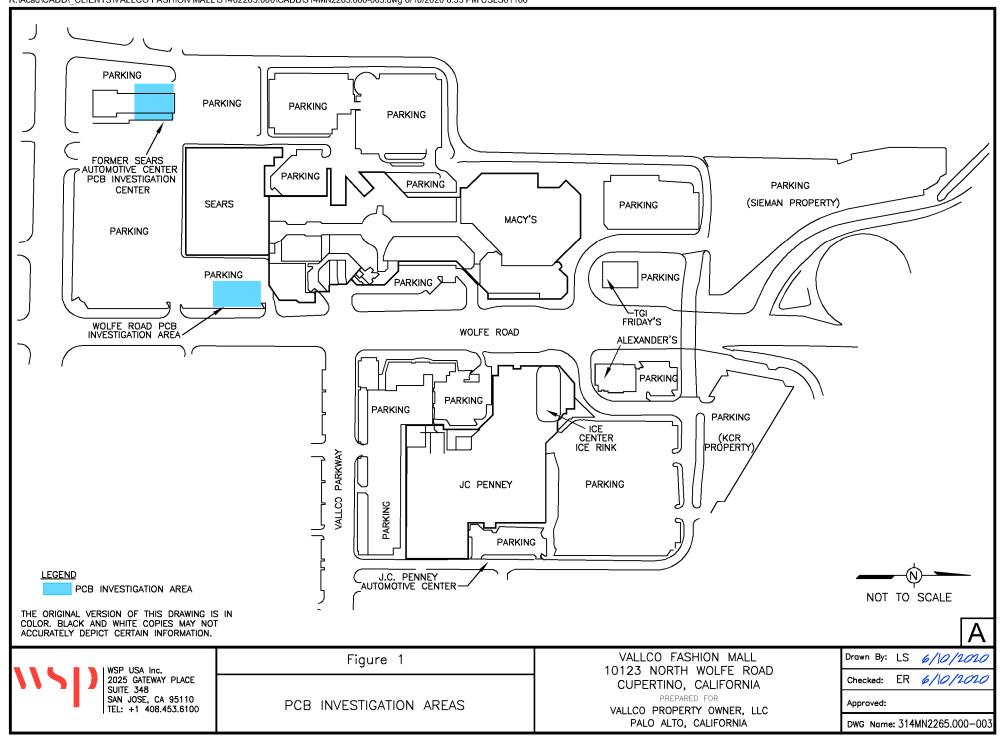
RSLs Residential = Regional Screening Levels (RSLs) for exposure to cancer/noncancer residential soil established by the Department of Toxic Substances Control (DTSC), revised April 2019 and the Environmental Protection Agency (EPA), revised May 2019.

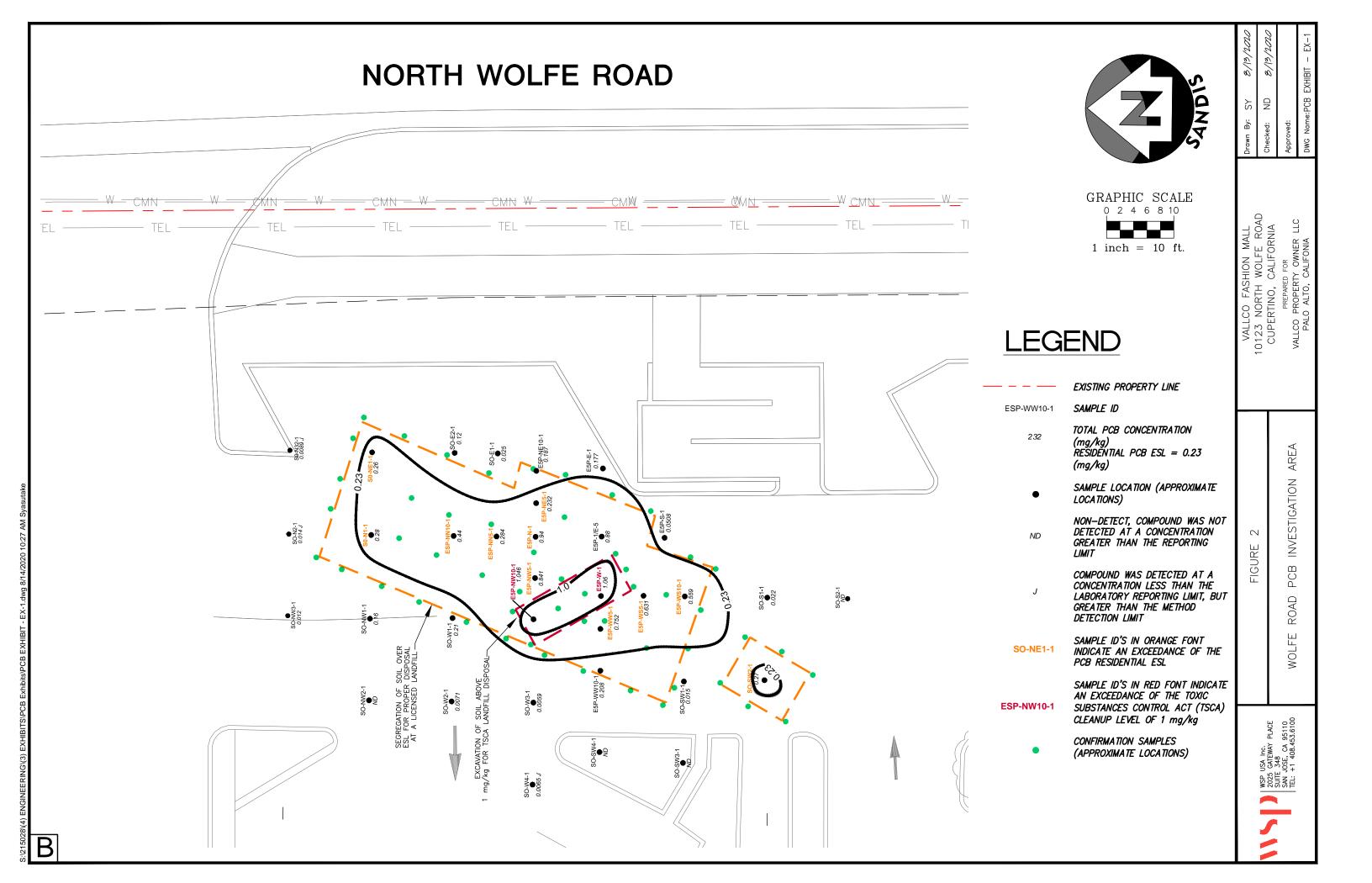
- U = compound was not detected at a concentration greater than the reporting limit shown
- J = compound was detected at a concentration less than the laboratory reporting limit, but greater than the method detection limit
- -- = not applicable or not available
- [1] Bold results indicate the concentration is greater than the reporting limit; results in red font indicate exceedance of screening levels. Gray gradient indicates increased depth within soil boring
- [2] Sample nomenclature is sample area (HL = hydraulic lift; OWS = oil-water seperator; OWP = oil-water seperator pipe)- relative direction sample depth (in feet below ground surface). Bold sample ID's were collected in February 2020. All other samples were collected in April 2020 in an effort to delineate PCB concentrations in soil in the area.
- [3] The PCB-sum is the sum of any detected aroclor listed above method dection limit.

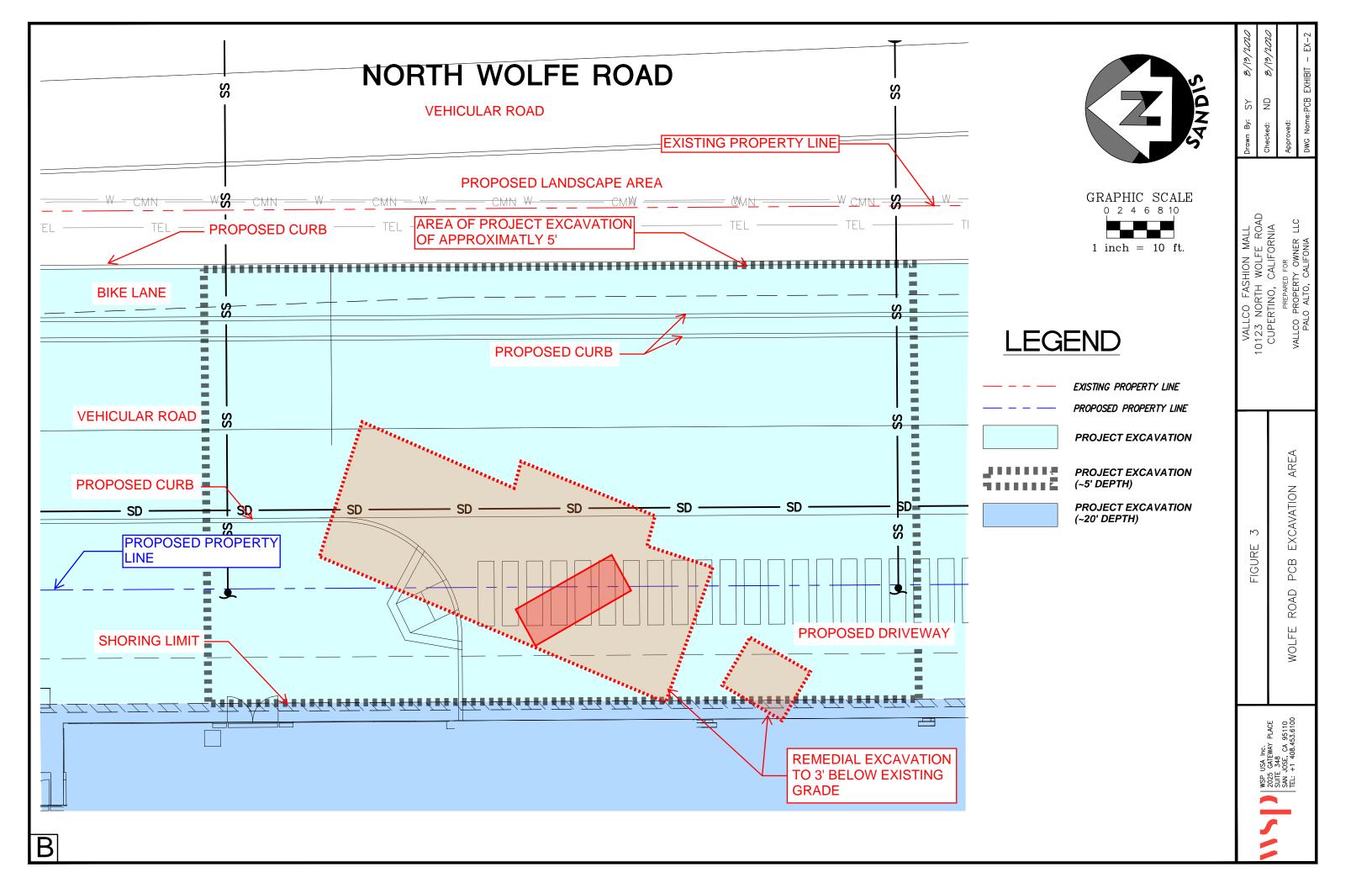
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FIGURES







WSP USA Inc.

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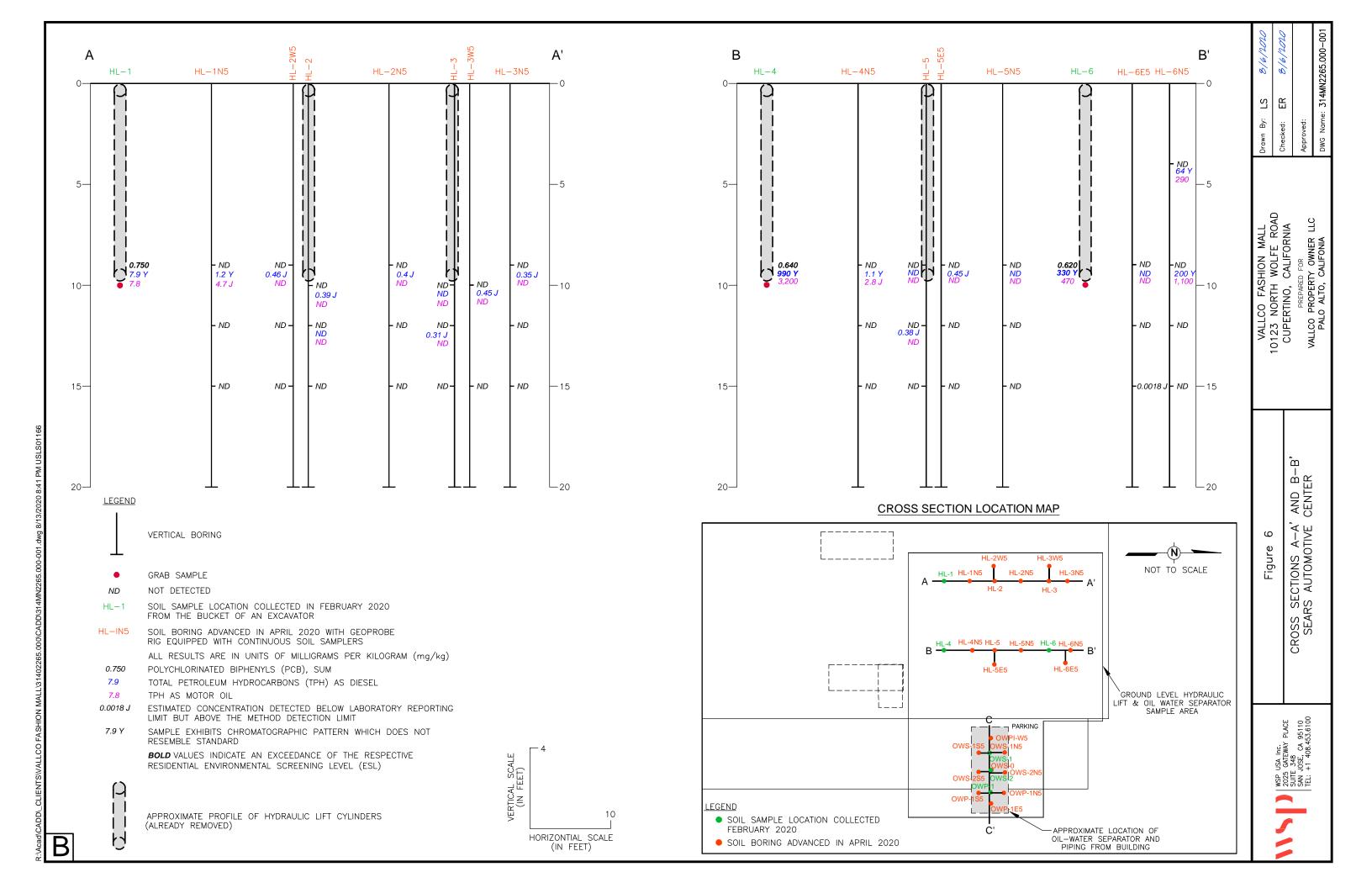
SAMPLING LOCATIONS -SEARS AUTOMOTIVE CENTER 10123 NORTH WOLFE ROAD CUPERTINO, CALIFORNIA PREPARED FOR

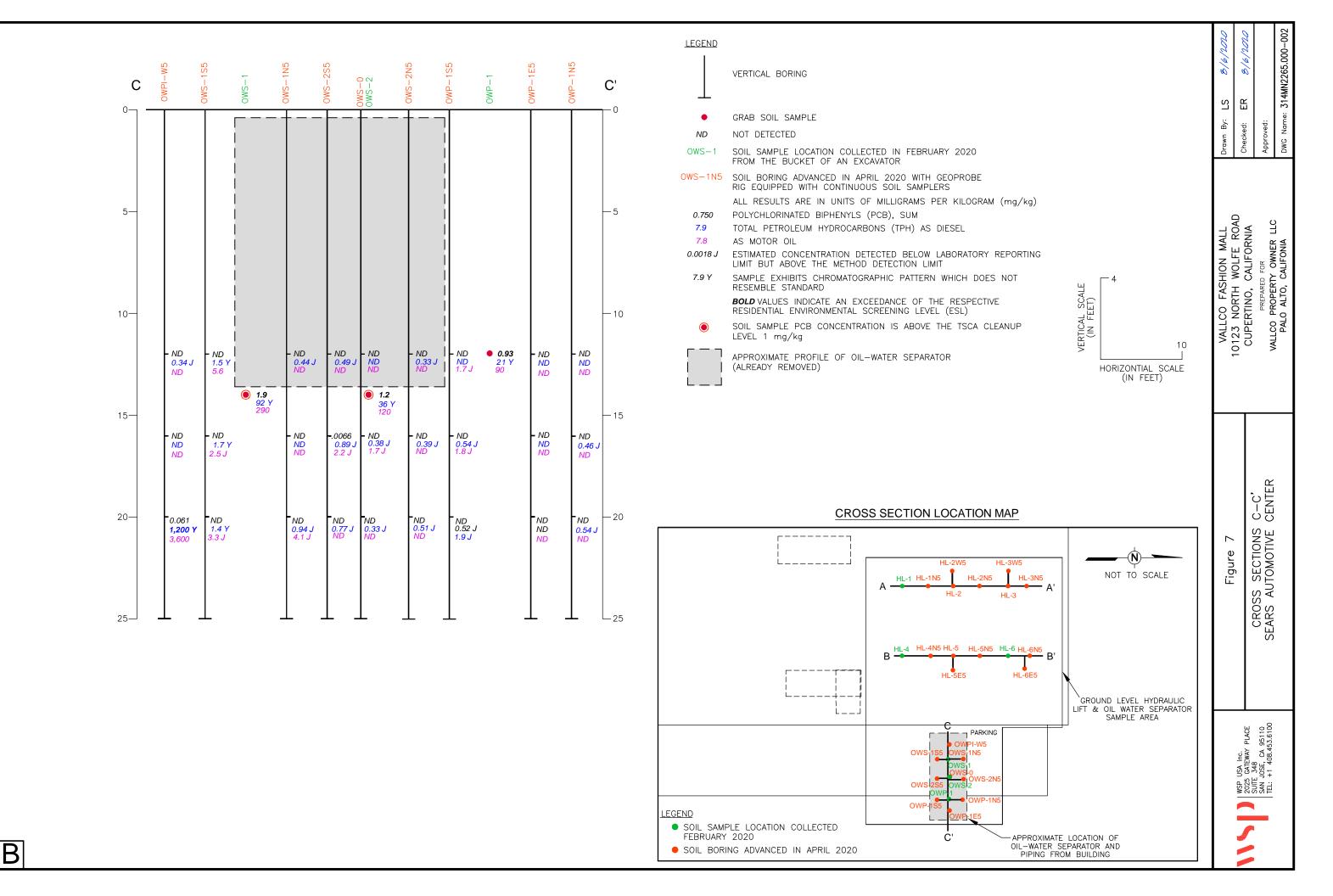
VALLCO PROPERTY OWNER LLC PALO ALTO, CALIFORNIA

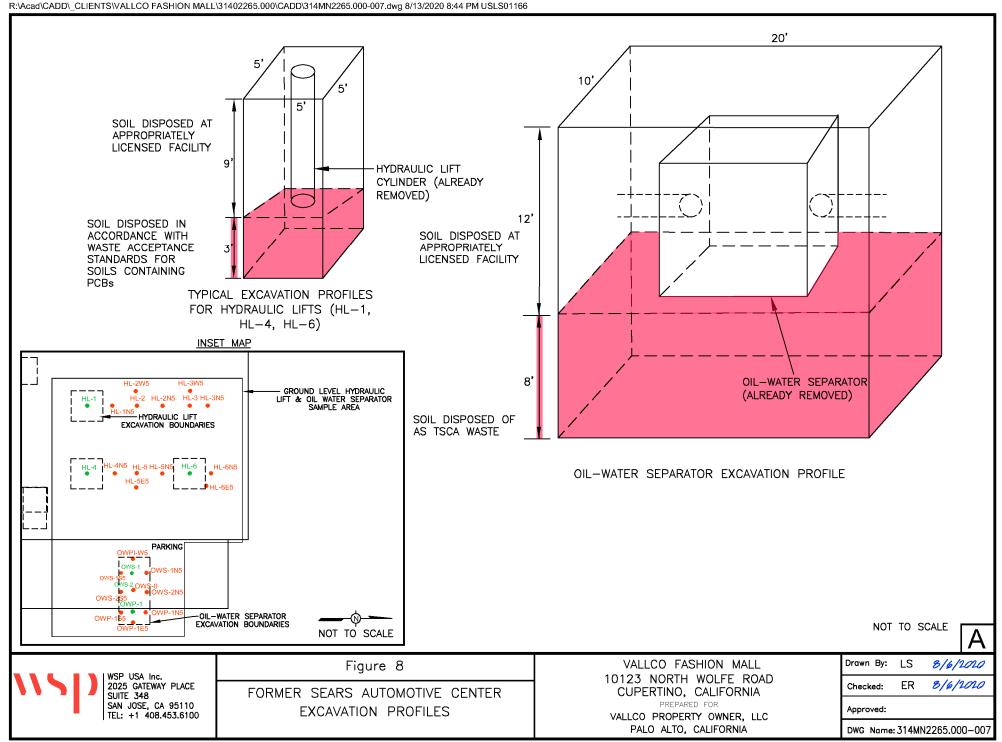
ER 6/10/2020 Checked:

Approved:

DWG Name: 314MN2265.000-005







APPENDIX

DEVCON
CONSTRUCTION
MANAGEMENT PLAN
(DCMP)

Construction Management Plan for Vallco Shopping Center Zone A2 Demolition

Prepared for **The City of Cupertino**

Prepared by **Devcon Construction, Inc.**



October 26, 2018

1. Project Overview & Site Plan

The overall project site is located on the 50.82 acre Vallco mall property in the City of Cupertino, between interstate 280 and Steven's Creek Boulevard and on both sides of North Wolfe Road. This project involves the demolition of the Demolition Zone A2, which includes the area bounded by Perimeter Road on the north and west sides, Wolfe Road on the east, Bay Club on the south, and the boundary of Demolition Zone A1. The steakhouse and its adjacent parking area on the east side of Wolfe Road are also included in the scope of Zone A2. This will serve as the second phase of demolition for the overall project. The timeline of demolition in Zone A2 will be from December 2018 through June 2019.

Construction activities under the revised project will be conducted in accordance with provisions of the City's Municipal Code which limit temporary construction work to daytime hours (7:00 AM to 8:00 PM), Monday through Friday. Certain types of construction are prohibited on weekends and all holidays pursuant to Municipal Code Sections 10.48.053(B), (C) and (D). No truck access shall be allowed outside the hours of operation.

Project Contact Information as follows:

24-Hour Emergency Contact: Dwight Harris (408) 510-1884

Project QSD: Roy LaTess – (925) 301-1442 Project QSP: Ken Sullivan – (408) 519-8365

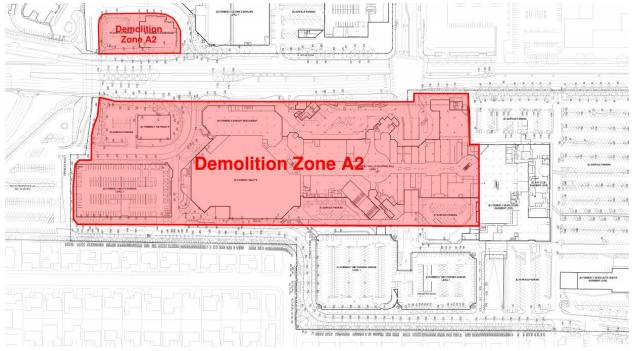


Figure 1. Site Plan

2. Air Quality

2.1 MM AQ-2.1 - Control Dust, Particular Matter, Diesel Exhaust

All subcontractors are required to ensure that they are following BAAQMD recommended measures to control dust, particulate matter, and diesel exhaust emissions for the duration of their scope during construction.

These measures include but are not limited to:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site will be covered.
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. No dry power sweepers will be used.
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour (mph), signage
 indicating speed limit will be posted at all construction entrances.
- Idling times will be minimized either by shutting equipment off when not in use or reducing the
 maximum idling time to two minutes unless subject to state law exemptions (e.g., safety issues).
 Signage indicating idling limit will be posted at all construction entrances.
- All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Devcon Construction, Inc. to post a publicly visible sign with the telephone number and person
 to contact regarding dust complaints. The contact person will respond and take corrective action
 within 48 hours. The Air District's phone number will also be visible to ensure compliance with
 applicable regulations. Signage will be posted at all construction entrances.
- All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil
 moisture of 12 percent. Moisture content to be measured via moisture probe and documented
 by subcontractor providing dust control.
- All excavation, grading, and/or demolition activities will be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.

- An existing sound barrier wall and mature trees currently separate the A2 demolition zone from the adjacent residential areas. No additional wind breaks will be provided as a part of this project scope.
- Demolition debris will be crushed onsite and stockpiled within current structure footprint. No vegetative ground cover will be provided.
- The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time will be limited. Activities will be phased to reduce the amount of disturbed surfaces at any one time.
- The following measures will be employed to avoid tracking of visible soil material on to public roadways:
 - Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel and washing truck tires and construction equipment of prior to leaving the site.
 - Sandbags or other erosion control measures will be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Diesel engines, whether for off-road equipment or on-road vehicles, will not be left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). Devcon Construction, Inc. will have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.
- All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category HDDT) used at the project site (such as haul trucks, water trucks, dump trucks, and concrete trucks) will be model year 2010 or newer.
- As a part of the larger, overall project submission (not being submitted at this time), the project shall develop a Transportation Demand Management program for construction worker travel that includes transit and carpool subsides in order to reduce worker trips.
- Due to the limited scope of the Vallco Shopping Center Zone A2 Demolition, line power to the site will not be provided at this time.
- Subcontractors responsible for ensuring and providing documentation that equipment, trucks, and architectural coatings meet the above mitigation requirements. This documentation will be

provided to Construction Manager monthly, audited, and submitted monthly to the City for review and compliance.

3. Cultural Resources

3.1 MM CR2.1 Archeological Monitoring

A qualified archaeological monitor will be retained by the project owner to inspect the ground surface at the completion of demolition activities as they occur to search for archaeological site indicators. Site indicators include, but are not limited to: darker than surrounding soils of a friable nature; evidence of fires (ash, charcoal, fire affected rock or earth); concentrations of stone, bone, or shellfish; artifacts of stone, bone, or shellfish; and burials, either human or animal.

In the event that any indicators are discovered, work shall be halted within a sensitivity zone to be determined by the archaeologist. The archaeologist shall prepare a plan for the evaluation of the resource to the CRHP and submit the plan to the Cupertino Planning Department for review and approval prior to any construction related earthmoving within the identified zone of archaeological sensitivity. The plan shall also include appropriate recommendations regarding the significance of the find and the appropriate mitigation. The identified mitigation shall be implemented and can take the form of limited data retrieval through hand excavation coupled with continued archaeological monitoring inside of the archaeologically sensitive zone to ensure that significant data and materials are recorded and/or removed for analysis. Monitoring also serves to identify and thus limit damage to human remains and associated grave goods.

3.2 MM CR2.2 Encountering Human Remains

In the event of discovering human remains during construction activities, there shall be no further excavation or disturbance of the site within a 100-foot radius of the remains or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified immediately and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the NAHC within 24 hours. The NAHC shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

3.3 MM CR2.3 Reporting Archeological Sensitive Material

If archaeological resources are identified during construction of the revised project, a final report summarizing the discovery of cultural materials shall be prepared by the archaeological monitor and submitted to the City's Project Planner prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources.

3.4 MM CR-2.4 Native American Cultural Sensitivity Training

Prior to the start of ground-disturbing activities, the City of Cupertino shall coordinate with the applicable Native American tribal representatives following approval of a development on-site under the revised project to ensure appropriate cultural sensitivity training is provided to all contractors prior to the start of ground-disturbing activities.

4. Greenhouse Gas Emissions

4.1 MM GHG-1.1

As a part of the larger, overall project submission (not being submitted at this time), the project owner shall prepare and implement a GHG Reduction Plan to offset the revised project-related incremental increase of greenhouse gas emissions resulting in the exceedance of the significance threshold of 2.6 MTCO2e/year/service population. Refinement of the estimated GHG emissions from the revised project shall be completed as part of the GHG Reduction Plan in order to reflect the most current and accurate data available regarding the project's estimated emissions (including emission rates). The GHG Reduction Plan shall include the implementation of a qualifying TDM program to reduce mobile GHG emissions.

5. Hazards and Hazardous Materials

5.1 MM HAZ-1.1

A Health and Safety Plan (HSP) is prepared (See Exhibit B) and implemented. The Vallco Shopping Center Zone A2 Demolition project scope does not involve excavation, ground-disturbing activities, dealing with hazardous material storage, etc. as outlined in MM HAZ-1.1. Therefore, an SMP is not applicable to this project scope. An SMP for the greater Vallco Shopping Center project will be submitted/ coordinated with SCCDEH prior to permit submittal.

5.2 MM HAZ-1.3

There are no groundwater monitoring wells within the Vallco Shopping Center Zone A2 project site. If any groundwater monitoring wells are encountered during demolition operations, Applicant shall obtain clearance and approval from the SCVWD and City Public Works prior to removal.

5.3 LEAD BASED & LEAD CONTAINING MATERIALS

An Asbestos and Lead Results and Findings Report was provided by Protech Consulting & Engineering (See Exhibit D). Protocol regarding asbestos-containing, lead-baed and lead-containing materials as required by California Occupational Safety & Health Administration (Cal OSHA), California Department of Public Health (CDPH), and California Department of Toxic Substance Control (DTSC) will be followed.

6. Noise and Vibration

6.1 MM NOI-1.1

Construction activities under the revised project will be conducted in accordance with provisions of the City's Municipal Code which limit temporary construction work to daytime hours (7:00 AM to 8:00 PM), Monday through Friday. Certain types of construction are prohibited on weekends and all holidays pursuant to Municipal Code Sections 10.48.053(B), (C) and (D). Further, it will be ensured that all equipment has high-quality noise mufflers and abatement devices installed and are in good condition.

Subcontractors are responsible for adhering to the following construction best management practices listed in MM NOI-1.2 below to reduce construction noise levels emanating from the site and minimize disruption and annoyance at existing noise-sensitive receptors in the project vicinity.

6.2 MM NOI-1.2

Subcontractors responsible for complying with the following noise mitigation measures:

- All internal combustion engine-driven equipment will be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Idling limit of two minutes will be enforced for internal combustion engines unless subject to state law exemptions (e.g., safety issues).
- Signage with noise disturbance contact information will be posted at both construction entrances along Perimeter Rd.

6.3 MM NOI-1.4

Deliveries between 8:00 PM and 8:00 AM on weekdays and 6:00 PM and 9:00 AM on weekends are prohibited. All deliveries to be coordinated with Devcon Construction, Inc. Superintendent.

6.4 MM NOI-2.1

Where vibration levels due to construction activities would exceed 0.3 in/sec PPV at nearby sensitive uses, development will:

- Comply with the construction noise ordinance to limit hours of exposure. The City's Municipal Code allows construction noise to exceed limits discussed in Section 10.48.040 during daytime hours. Certain types of construction are prohibited on weekends and all holidays pursuant to Municipal Code Sections 10.48.053(B), (C), and (D).
- The project contractor shall select demolition methods not involving impact tools, where
 possible. For example, where possible, hydraulic concrete pulverizes will be used in lieu of
 hydraulic breakers to limit vibration and noise.
- Pile driving is not included within the scope of the Vallco Shopping Center Zone A2Demolition, so therefore the requirements outlined in MM NOI-2.1 regarding pile driving are not applicable to this project.

7. Transportation

7.1 Standard Permit Conditions

Construction truck access to the site will be scheduled in construction agreements to avoid the peak commute times (7:00 AM to 9:00 AM and 4:00 PM to 7:00 PM).

8. Tree Protection

Any tree protection fencing installed during construction operations shall be inspected by Public Works, City's Arborist and project Arborist.

LIST OF EXHIBITS

EXHIBIT A – SITE PLAN

EXHIBIT B – HSP (HEALTH AND SAFETY REPORT)

EXHIBIT C – SITE LOGISTICS PLAN

EXHIBIT D – LEAD & ASBESTOS REPORT

EXHIBIT A – SITE PLAN

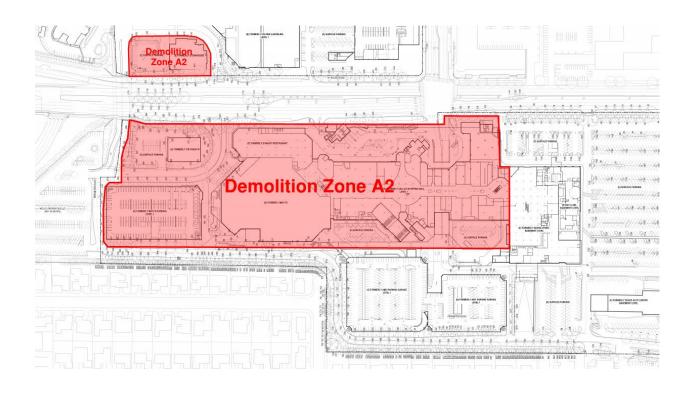


EXHIBIT B – HSP (HEALTH AND SAFETY PLAN)



DEVCON CONSTRUCTION

INCORPORATED

General Building Contractors

690 Gibraltar Drive

Milpitas, CA 95035

Vallco Zone A2 Demolition 10123 North Wolfe Rd Cupertino, CA 95014

SITE SAFETY PROGRAM





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Site Logistics

Job Site Address:

Name: Vallco Zone A2 Demolition

Street: 10123 North Wolfe Rd

City: Cupertino, CA 95014

Phone Number: (408) 510-1884

Fax Number: 408 262-2342

Devcon Project Staff:

Project Manager Amy Wilson (408) 519-0229

Field Engineer Michelle Gu (408) 519-8419

Superintendent Dwight Harris (408) 510-1884

Site Safety Officer Mike Ambrosio (408) 640-7932

Work Hours: 7;00 A.M. to 4:00 P.M.	Monday - Friday. Work outside of these hours must notify Devcon.
(Review project specific items for ea	rly start and / or overtime work in the facility)

Weekly Foreman Meetings Tuesday 10:00 am

Weekly Safety Meetings Tuesday 7:00 am

Site Orientation Daily 7:00 am

Devcon requires all personnel to check with the employer.

Deliveries & Parking:

Storage and personnel parking on site shall be in designated areas only.

Vehicle access is limited to company vehicles that are required for the immediate performance of the work. All vehicles must have company signs and be registered to the company. Workers shall park in designated area

Subcontractors must be present to receive material addressed to them. Devcon Construction, Inc. will not sign for deliveries to subcontractors or their sub-subcontractors.

Deliveries mis-labeled to Devcon Construction, Inc. may be returned.



Site Safety Mission Statement

The primary objective of Devcon Construction, Inc., and its Subcontractors is to adopt a proper and positive accident prevention program outlining responsibilities and safety requirements for all subcontractors and their sub-subcontractors and suppliers while working on the project.

This Site Safety Program, including any additions and/or modifications that may be required during the life of the project, should assist in keeping accidents to a minimum throughout construction. This program is to be used in conjunction with the subcontractor's own Safety Programs (IIPP) and all applicable Cal OSHA, State, and Local Safety Codes and Regulations.

We must realize that accident prevention is mandatory, beneficial to all, and the responsibility of every individual on this project, whether in management, fields staff, or other position. Safety is a concern to everyone.

Devcon expects the full cooperation of all subcontractors, and sub-subcontractors and their suppliers in monitoring, supervising, and enforcing the Site Safety Program. It is mandatory that all personnel engaged in work on this Project comply with all safety regulations and all Cal OSHA, State, and Local Safety Codes and Regulations throughout the duration of their construction on this Project. Please note that in the event of a conflict between various programs, codes and regulation that the most stringent will be the one considered applicable

Devcon Construction, Inc.



Vallco Zone A2 Demolition - Job Site Rules

Each contractor must review the Devcon Construction / Devcon site-specific safety program and review the program with their field employees.

- 1. Cal OSHA regulations apply to this project. Additionally contractors and personnel are required to conform to the requirements set forth in the addendums attached to the Site Safety Plan.
- 2. The Devcon Site Safety Coordinator & Corporate Safety Officer will monitor job safety and practices per the Site Safety Plan.
- 3. Each subcontractor shall designate a member of their crew to be the Safety Contact and assist with site safety.
- 4. Each contractor shall have their IIPP & MSDS available and assure their personnel follow the program.
- 5. Park in designated areas only. Any unmarked or unauthorized vehicle not parked in the designated area will be notified and towed at the owner's expense.
- 6. No smoking allowed inside of the building. Use appropriate containers to discard your cigarette butts outside of the building.
- 7. Daily attendance sheets must be filled out and filed with Devcon for emergency purpose.
- 8. Normal work hours are from 7:00 A.M. to 4:00 P.M., Monday through Friday. Anyone working outside of these hours must notify Devcon. (Review project specific items for early start and / or overtime work in the facility).
- 9. All break and lunch debris must be disposed properly in the appropriate trash containers.
 - (Coordinate with Devcon specific areas to take breaks at in or outside the facility.)
- 10. Site Safety meetings will be held at 7:00 on Tuesdays. All workers from every company must attend "Devcon's Safety Meeting". Subcontractor crews must hold their own safety meeting/tailgate and give a copy of your safety meeting minutes to Devcon for the record.

- 11. Devcon / Subcontractor coordination meetings held at 10:00 on Tuesdays.
- 12. Hardhats, safety glasses, safety vest or equivalent and proper clothing must be worn at all times.
- 13. Professional conduct is required at all times.
- 14. All visitors to the site must check in and check out at the Devcon office.
- 15. No pets allowed on the jobsite.



Injury & Illness Prevention Program

(IIPP)

Accident prevention is the responsibility of each Individual for the good of all of us.

Purpose

- 1. Prevent jobsite accidents with emphasis on safety, including pre-planning work activities.
- 2. Outline the duties and responsibilities of all parties on this Project.
- 3. Pre-plan work activities including hazard identification and control.

4. Establish a plan for Safety education to promote management and worker identification and elimination of hazards.

Organization

- 1. Project Superintendent
- 2. Site Safety Coordinator a Devcon Construction, Inc. staff member
- 3. Subcontractor Appoint an on-site Safety supervisor (may be supervisor) who is designated as the primary contact person for his/her company on the project
- 4. All personnel associated with this project.

Responsibility

Project Superintendent

- a. To monitor compliance by all parties with the principles of the Site Safety Program, which includes timely mitigation of potential hazards for all job site operations.
- b. Assist subcontractors in pre-planning their operations to prevent personal injury of property damage to employees, other subcontractor's workers or the public.
- c. Ensure safety meetings are held on a weekly basis.
- d. Appoint the Site Safety Coordinator.
- e. Issue Safety Topics for the Site Safety Meetings.
- f. Review recommendations of the Site Safety Coordinator and of the Tool Box Meeting.
- g. Conduct periodic Safety walks.
- h. Direct the abatement of hazardous conditions.
- i. Assist with accident investigation.
- j. In the event of a life-threatening hazard or a hazard that may cause impairment or property damage, the Project Superintendent or his designated representative is authorized to stop operations until the condition is corrected.

Site Safety Coordinator

- a. Conduct weekly safety inspections and submit a written report.
- b. Review safety issues with superintendent and subcontractors for correction.
- c. Review corrective action.
- d. Attend weekly Tool Box Meeting with DCI employees.
- e. Gather facts on accidents and thefts for action by the corporate Safety Officer.
- f. Take the lead in recognition and abatement of hazardous situations.
- g. Periodically attend trade and subcontractor Tool Box Safety Meetings.
- h. Distribute and post all Safety Meeting Minutes, Safety Topics, and Accident Data.

Subcontractor & Subcontractor Safety Coordinator

- a. Assist Site Safety Coordinator in recognition and abatement of hazardous situations.
- b. Provide DCI with copies of safety meeting minutes on a weekly basis.
- c. Attend DCI Safety Meetings.
- d. Provide copy of accident reports and investigations to Devcon.
- e. Inspect work areas and ensure that unsafe acts and/or conditions are identified and corrected.
- f. Ensure that all of his/her workers and subcontractors adhere to all Safety requirements.

Employees & Subcontractor Personnel

- a. Read and comply with the safety policy and Cal OSHA regulations.
- b. Perform work to prevent accidents to yourself, fellow workers, and property.
- c. Alert supervisors to dangerous situations, including unsafe tools and equipment.
- d. Cooperate with principles of the Site Safety Program.

Principles of the Site Safety Program

1. Plan work to eliminate or minimize risk of personal injury or damage to workers or public.

- 2. Make available a copy of IIPP and related documents (i.e.: Fall Protection Plan, Confined Space Program, Erection Plan, Hazmat Programs, etc).
- 3. Provide workers with personal protective equipment (PPE) and tools with necessary training, and enforce their use as required by Safety Program and all Cal OSHA State and Local Safety Codes and Regulations.
- 4. Keep tools and equipment in good order.
- 5. Tool Box meeting shall contain the following:
 - a. Name of subcontractor and date.
 - b. Name of subcontractor Safety Coordinator.
 - c. Name of qualified First Aid person.
 - d. Names and signatures of all workers attending meeting.
 - e. Subjects discussed.
 - f. Safety observations of workers.
- 6. First Aid kits and telephone numbers of the following: medical clinic, hospitals, ambulance service, Fire Department, and Police Department
- 7. Each job office and storage container shall be equipped with at least one ABC #20 fire extinguisher in good working order.
- 8. The building perimeter, shafts, and floor openings shall be protected with guardrails and toe boards as needed. This applies to the fall potential of 6' or more.
- 9. Personnel working within 6' of the building perimeter, the edge of a shaft or a floor opening that is unprotected will wear a full body harness and be tied off with an appropriate lifeline.
- 10. Personnel removing guardrails or toe boards shall replace them immediately after completion of their task. Areas where guardrails and toe boards have been removed shall not be left unattended or unprotected. In locations where temporary protection conflicts with scheduled construction, the subcontractor or the sub-subcontractor shall notify DCI in advance of the work of necessary modifications.

- 11. All work areas shall be kept free of debris and excess materials.
- 12. At a minimum, all personnel shall wear shirts with T-shirt length sleeves, long trousers, and proper shoes.
- 13. Each subcontractor is responsible for all its sub-subcontractors and suppliers compliance with the Site Safety Program.
- 14. Any person not directly involved with the on-site construction of this Project must not enter the site without first going to DCl's Job Office, obtaining permission to enter and signing a visitor's release. Subcontractors are responsible for providing hard hats for their visitors, and are responsible for the safety of their visitors.
- 15. Equipment shall be operated in a safe manner, and in accordance with applicable codes and standards. Back up alarms shall be operable on equipment required to have them.
- 16. All crane operations require a pre-lift. All crane manufacturer requirements for set-up will be strictly enforced. Crane certifications shall be current and available.
- 17. Fall Protection Plans shall comply with Cal OSHA requirements.
- 18. All necessary precautions shall be taken to prevent injury to the public or damage to property. The "public" is defined, as all persons not employed by or under contract or subcontract to DCI.
 - a. Altered walkways that have planking, trench plates or similar material shall not have deviations from one surface to another greater than one (1") inch.
 - b. Building entrances, public sidewalks, doors, lobbies, corridors, aisles and exits shall be kept clear of obstructions to permit safe public ingress and egress at all times.
 - c. The subcontractor performing the work in public areas shall provide traffic control, both vehicular and pedestrian. A flag person shall control the movement of vehicles and/or equipment and shall coordinate the movement with public vehicles and pedestrians and shall not cause undue delay to the movement of pedestrians or public vehicles. All required signage and traffic control shall comply with Cal Trans standards, and/or the Code for Streets and Highways or as may be required by the conditions.

- d. Barricades with flashers shall be used around open trenches in the public right of way. When barricades are temporarily removed, a watchperson shall be placed at all openings.
- e. Temporary sidewalks shall be provided when a permanent sidewalk is obstructed by a subcontractor's operations. Guardrails shall be provided as required by code.
- f. Warning signs, lighting and barricades shall be maintained from dusk to dawn in public areas where hazards remain overnight. Lighting shall be maintained at a minimum as required by Cal OSHA standards.

Devcon and Subcontractor Injury Reporting Requirements

- 1. DCI is to be notified immediately.
- 2. One (1) copy of Worker's Compensation Accident Reports, Form 5020, and one (1) copy of the Supervisor's Report shall be forwarded to the DCI Corporate Safety Officer within 24 hours.
- 3. Subcontractors and their sub-subcontractors are individually responsible to notify the appropriate regulatory authorities in the event of the following:
 - a. An accident in which a fatality occurs (Call CA OSHA Immediately, no more than 8 hrs.)
 - A Serious injury or illness which requires inpatient hospitalization for a period in excess of 24 hrs. for other than medical observation or in which an employee suffers a loss of any member of the body or suffers any degree of permanent disfigurement. (Call CA OSHA Immediately, no more than 8 hrs.)
- 4. If a member of the public is injured:
 - a. DCI's Project Superintendent is to be notified immediately.



Emergency Plan - Vallco Zone A2 Demolition

Emergency Response

Reference and familiarize yourself with the project site plan; note locations of vehicular obstructions and ongoing work. Ingress and egress pathways routinely change.

In the event of an emergency notify 911 or (408) 299-3144 (Santa Clara County Fire) and Devcon immediately.

Instruct employees to direct emergency personnel from the street to incident location.

Emergency Response Team - Site Safety Coordinator and Subcontractor Designee

Superintendent / Site Safety Coordinator

- Contact emergency services.
- Contact department heads or designated persons.
- Determine if project should be shut down evacuated.
- Make sure that all personnel are accounted for.
- Do not disturb anything that may be considered evidence.

Subcontractor Supervisors / Safety Coordinators

- Upon notification inform personnel of situation.
- In event of evacuation instruct personnel to nearest exit.
- Tell people to assemble at designated area.
- Conduct head count and report it to Devcon Superintendent.
- Provide last known location of missing personnel to authorities.

Emergency First Aid / CPR Personnel

- Provide first aid as needed
- Notify emergency personnel of people in need of further treatment

Emergency Notification

- In event of a threat call DCI Superintendent.
- Alert a co-worker or security.
- Try to gather as much information as possible
- What is the reason?
- When will it happen?
- Where may the event occur?
- Why?
- How can it be prevented?

Potential crisis and need for evacuation of facility:

- Fire / Explosion: A fire or equipment explosion may occur causing risk to personnel and visitors.
- Earthquake: Living in this area there is the potential for earthquakes and the resulting damage to personnel and property.
- Threats: Bomb threats may be called in to the receptionist.
- Hazardous material: Spills, explosions, toxic releases and unlawful disposal
- Protests / Labor: Protests and labor issues may be cause for concern and evacuation.
- Termination: A fired or disgruntled employee may cause problems such as verbal or physical.



Safety Orientation

It is our intention to provide and maintain a safe work site. Your commitment to safety is a condition for continuous employment on this project.

ALL Employees must attend a Site Orientation prior to starting work on site. Typically Monday-Friday at 06:30.

EVACUATION

In the event of a fire or any time project evacuation is required; all personnel onsite will be informed via the method designated by your employer and / or Devcon Construction.

Do not leave the site until instructed by your employer or Devcon. A head count of personnel is essential.

YOU SHALL IMMEDIATELY:

- Cease all work and shut off all electrical equipment, including welding machines, air compressors, etc.
- Close valves on gas cylinders.
- Walk (DO NOT RUN OR JUMP FROM ELEVATED POSITIONS) to the designated assembly points. Remain at the assembly point until the all-clear signal is sounded. Be prepared to follow the directions from your supervisor.

FIRST AID

All injuries are to be reported to Devcon's Superintendent immediately, DO NOT LEAVE THE SITE WITHOUT REPORTING AN INJURY; REGARDLESS HOW MINOR.

- Injuries requiring a doctor's care will require a medical authorization form from your supervisor.
- If we have an employee injured on our job we want the best medical care possible.
 However, if we have an injury that we suspect is fraudulent we will spare no expense investigating and prosecuting.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

HEAD PROTECTION

Hard hat must be worn at all times once entering the work area- Areas of exception are
offices, equipment with fully enclosed cabs, lunch and break periods provided no work is
going on in the immediate area. Hard hats shall comply with ANSI Z-89-1.

EYE AND FACE PROTECTION

- Appropriate eye protection (ANSI Z-87) with side shields is required to be worn by all personnel. Prescription glasses must be approved safety glasses.
- When grinding or buffing, a face shield with approved safety glasses will be required.
- When cutting or burning, goggles will be required. When welding, a welding hood and lens with an appropriate number filter.
- Chemical goggles are required to be worn when working with corrosive or toxic material.

RESPIRATORY AND HEARING PROTECTION

- Respiratory and/or hearing protection is required in designated areas and or when performing specific tasks.
- Employees must be clean-shaven prior to using a respirator.
- Respiratory fit testing is required.

BARRICADES

- Barricade tape is not to be used in lieu of physical barricades for floor, hole, and wail
 openings or when permanent handrails have been removed.
- Yellow barricade tape indicates to use caution when approaching or entering the area.
- Red barricade tape requires authorization to enter area. Anyone entering area without authorization is subject to disciplinary action.

FALL PROTECTION/TIE-OFF

- Fall arrest is in effect anytime you are exposed to a potential of falling more than 6 feet to a lower level.
- An approved fall arrest system will be worn when working from unprotected elevations greater then 6 feet and when working in JLG's (boom lifts).
- Approved fall arrest system consists of a full body harness, two shock absorbing lanyards, each with double action or positive locking snap hooks-
- Any lifeline, safety harness, or lanyard actually subjected to fall loading shall be removed from service.

LOCKOUT/TAGOUT

 Lockout/Tag out the power source prior to making adjustments or repairs to any equipment. DO NOT DEPEND on the control switch on drills, grinders etc. UNPLUG THEM.

ELECTRICAL TOOLS CORDS

 Tools are to be visually inspected by every employee prior to use. Any tool or cord found to be defective shall be taken out of service immediately.

- Approved ground fault circuit interrupters shall be used for all temporary wiring that are not part of the permanent wiring of the building or structure.
- When using existing building power that is not protected by ground fault circuit interrupters, the subcontractor shall supply and utilize in-line (pigtail) ground fault circuit interrupters.
- An Assured Grounding Conductor Program shall be used in tandem with all ground fault circuit interrupters-Check the RPM rating of grinding wheels or discs. The RPM rating must be greater than that of the driver.
- Tools and guards are not to be altered.
- Electrical cords and welding leads will be kept away from path of travel to help minimize trip and fall hazards.
- Use plastic (nylon) ties for securing electrical cords. Do not hang cords over guardrails, put them under the rail.

LADDERS

- Ladders must be free from defects.
- Place the ladder so that its base is out 1/4 the distance of the height.
- Ladders shall be tied at the top or secured at the base.
- Ladders shall extend 3 ft. above the landing.
- No extension ladder shall extend its full length; overlap at least 3 rungs.
- Stepladders shall not be used as extension ladders.
- Stepladders shall be fully extended and locked in position.
- Only one employee, at a time, shall work off a stepladder.
- Do not stand or sit on the top or top two rungs of a stepladder.

SCAFFOLDS

- All scaffolds, platforms, and staging must be completely decked, with decking secured, and shall be built with standard handrails and toe boards on open sides and ends.
- The footing for scaffolds shall be sound and capable of carrying the maximum intended load.
- No scaffold shall be erected, moved, dismantled or altered except under the supervision of a competent person.

POWER ACTUATED TOOLS

Employees must be trained/certified before they may use these tools.

CLOTHING

- Employees will work fully clothed.
- Sleeve-less shirts, tank tops, half shirts are not permitted.
- All employees shall wear sturdy work-boots while on the project. Some tasks may require additional foot protection.

JEWELRY

Good judgment shall be used as to what type of jewelry wilt not constitute hazard. For
instance, earrings or chains that could get caught in machinery are not allowed.

COMPRESSED GAS CYLINDERS

- Compressed gas cylinders will be capped, tied-off, or otherwise properly stored when not in use.
- Cylinders must remain in the upright position at all times.
- Keep protective caps in place.
- No oil or grease is to be used on valves or gauges.
- Oxygen cylinders in storage must be separated from fuel-gas cylinders by at least 20 feet, or by a 5-foot wall with a 30-mnute-fire rating.

LIFT CAREFULLY

- Like everything else, the right way to lift is easier and safer. If the load is too heavy. GET HELP. Do not lift with your back, bend your knees.
- Set up workbenches to minimize constant bending for cutting and nailing when possible.

LIFTING AND/OR SWINGING LOADS

- Do not walk under a suspended load or permit others to do so.
- Barricade the lift area to control access into the area.
- Never pick up a load in excess of the capacity of the equipment
- Only one person at a time will give hand signals to operator.
- Tag lines will be used to control loads.
- Never leave a suspended load unattended.
- Never ride on a load, crane hook, headache ball or forks of a lift.

RIGGING

- Never use hands or feet to guide cable or line onto a drum or hoist. Use a bar as a guide.
- When it is necessary to stretch cables or lines across roads or walks. Block the road or walk if the cable or line is lower then 14 feet above roads or less than 7 feet above walk ways.
- Seat chain links into a hook by hand pressure only. Never hammer a chain link onto a hook.
- Use approved method to fasten hoisting equipment together.
- The manufacturer's recommendations shall be followed in determining the safe working loads of hooks. All hooks for which no applicable manufacturer's recommendations are available shall be tested to twice the intended safe working load before they are initially put into use.

EQUIPMENT OPERATIONS

- Operators must be trained for the type of equipment being operated. The subcontractor shall provide proof of competency for all individuals operating heavy equipment.
- Passengers are not allowed to ride on equipment with operators

ACCESS

 Climbing, sliding down columns or diagonal bracing is not permitted. Walking elevated beams and pipe without being tied off is not permitted.

PARKING AND MOTOR VEHICLES

- Employees shall park personal vehicles in designated areas only.
- Posted regulations governing the use of the parking lot shall be followed.
- All vehicles on the premises will be at the risk of the vehicle Owner. Devcon accepts no responsibility for damage to or theft of or from such vehicles.

GENERAL

- Drink water only from approved drinking water containers or dispensers.
- Proper housekeeping is essential and will be part of every job.
- Clean up all spills or leaks promptly. The contractor is responsible for containing and cleaning up all spills caused by its workforce.
- Obey all posted speed limit signs.
- Pedestrians will have the right-of-way.
- Yield right-of-way to emergency vehicles.
- Smoking is permitted in designated areas only.
- No firearms or weapons are allowed on the job site.
- No riding equipment that is not designed for personnel transport. Ride in vehicles with seats firmly attached.
- Employees must obey all danger and caution signs.
- Correct all unsafe conditions when possible. Report all unsafe conditions to your immediate supervisor or safety personnel.
- No running is permitted on the job site.
- All material raised and lowered from any height must be done by rope (No dropping or throwing).
- No horseplay will be tolerated.
- No fighting. All involved will be subject to being removed from the site.

PERMITS

There are various permits required on the project. It is the responsibility of each subcontractor to obtain any and all permits needed for their work. Commonly used permits include:

- HOT WORK Any work, tool, or equipment (welding, burning, grinding, vehicles. portable welders, etc.), which might provide a source of ignition in areas where combustibles are present.
- <u>CONFINED SPACE</u> The authorization required to enter any vessel, pipe, confined space, excavation etc., for any reason.
- <u>LOCK AND TAG</u> Prevents operation of a valve, switch or piece of equipment when injury or property damage could result from the operation.
- <u>EXCAVATION</u> Authorization to excavate anywhere on the site. An excavation permit shall not be issued until a Dig-Safe number is issued and active.
- <u>SCAFFOLD</u> Permission to use a scaffold that has been erected. Each new subcontractor that seeks to use a scaffold, following a review of his or her proposed operation, shall secure a scaffold permit.
- Failure to follow instructions on a tag or permit will constitute grounds for removing the employee from the site. If you see a tag that you do not understand, ask your supervisor.

HAZARD COMMUNICATION

Handling and storage are the two most common causes of accidents with chemicals. Inform workers with one or more of the following methods:

- Container labeling labels give you information about immediate hazards associated with the chemical.
- Material Safety Data Sheets (MSDS) give you detailed information about the chemical physical and health hazards, First Aid, fire fighting, protective equipment, etc.
- Know what you are handling, read the label, and if there is any doubt, consult the Material Safety Data Sheet.



Code of Safe Practices

Personal Protective Equipment (PPE):

- Employees shall wear appropriate clothing / footwear at all times. Long pants, shirts and work boots are required. No tennis shoes. Loose or frayed clothing, long hair, dangling ties, finger rings, etc., shall not be worn around moving machinery or other sources of entanglement.
- Hard hats required.
- Safety glasses required.
- Safety vest or equivalent ANSI approved high visible garments.
- Ear protection is required when using blowers, jack hammers, drills etc. Ear protection is recommended at all times.
- Employees shall not cross any barricaded area unless under direct supervision of his supervisor.
- Safety harnesses and lanyards are required while working at heights over 6 feet where there is no guardrail protection and on suspended scaffolds.

Working Safely:

- Employees and subcontract personnel shall follow these safe practices and additional rules, as
 deemed necessary by Devcon Construction Inc. and subcontractors. Also, employees shall
 render every aid to safe operations and report all unsafe conditions or practices to the supervisor
 or Site Safety Coordinator.
- Site Safety Inspections shall be conducted on a weekly or more frequent schedule.
- Weekly job site meetings will be held on each project.

- Plan and supervise work to prevent injuries.
- Employees shall not work in areas that are poorly lighted or ventilated.
- If friable asbestos is encountered, immediately contact your supervisor. Do not handle or disturb material.
- Report all injuries promptly supervisor so arrangements can be made for medical or first aid treatment.
- No employee shall work when his ability or alertness is impaired for any reason. Report the impairment to the superintendent.
- No employee under the influence of illegal drugs or intoxicating substances shall enter into, or remain upon the jobsite or company premises. No employee shall bring any intoxicating beverages or illegal drugs to the jobsite or the company premises.
- Horseplay and scuffling are prohibited. Employees shall refrain from physical altercation or fighting and shall refrain from provoking others.
- Personnel shall not bring or use any weapons or explosives at the jobsite or the company's premises nor have such items in his or her possession while performing work for the company.
- Employees shall not smoke in restricted or prohibited areas.
- Employees shall assist in the maintenance of sanitary conditions at the worksite and on company premises. Employees shall cleanse thoroughly after handling hazardous substances.

Fall Protection Guidelines

- Cal/OSHA regulations require fall protection when an individual has a fall potential from structure or building. To insure the safety & health of employees and subcontractors the work methods are:
- All individuals shall wear harnesses with soft stop lanyards per OSHA regulations. Harnesses and soft stop lanyards shall be worn and attached when operating zoom booms, JLG's or similar personnel lifts.
- Work requiring personnel to get outside the perimeter safety cables shall be tied off to a substantial anchor point with the soft stop lanyard and harness during all activities.
- During the placement of beams and trusses if fall protection is not used the workers shall not walk the top of the beam or truss. Walking the bottom inside flange and or sitting is advised.

- Beams and trusses shall be secured with not less than two bolts per connection to control roll.
- Welding of the trusses is required during the time of placement. No workers or material shall be placed on the trusses until welding and / or bolting has been completed.
- At no time shall beams, purlin, and trusses etc. be hung without securing.
- Pan decking shall be tack welded front and back as each sheet is laid. This is to prevent movement and exposing workers to a fall or falling material
- Roof panels shall be nailed front and rear per panel to prevent roof failure.
- When work is performed with the use of a ladder and the employee is above the safety cable he / she is to be tied off from above the safety cable.
- Employees required to reach out beyond the edge of the structure to guide or place the panel shall be tied off. To avoid reaching a push pole or rod should be used to guide the material.
- "A" frame ladders shall be used in the full open position with the feet on secure ground. Leaning of "A" frame ladders is not permitted.
- Extension ladders used for access to panel connections and adjustment shall have the feet secure and tied off or held to avoid tipping or slipping.
- Face the ladder when ascending and descending.
- Employees are not permitted to stand on the top two rungs or steps of ladder.
- When working on scaffolding (stationary or rolling) mid rails and top rails are required when the fall distance exceeds 6ft. If rails are not available, harnesses and soft stop lanyards shall be used.
- Floor, wall and roof openings must be guarded and protected at all times. Covered skylights shall be covered or have barricades of wood installed during work in progress.

Energized Circuits:

- · Lock-out tag-out procedures shall
- Only qualified electricians shall work on electrical equipment.

- When in doubt, discuss the matter with the job supervisor.
- Special care shall be exercised when working near proximity to energized equipment, systems or conductors, for 600 volts, nominal or less
- For any job where the work is in the near proximity of energized lines or equipment exceeding 600 volts, special job site rules shall be applicable to that operation. Electrical contractor's supervisors shall provide safety guidance.
- Work shall not be performed on energized lines or equipment.
- After the work has been performed, all temporary protective equipment, etc. shall be removed and permanent covers and / or barriers installed. The supervisor is to complete a safety inspection prior to allowing work in that area by other trades.
- When energized equipment is left unattended, suitable warning labels shall be installed.
- Do not work on any energized lines, equipment or use power tools if the ground or your hands are wet.
- Personnel shall not work or operate equipment within 10 feet of power lines.

Tools and Equipment:

- All tools and equipment shall be maintained in good condition. Use the right tool for the job.
- Portable electric tools should not be lifted or lowered by means of power cord. Ropes or other appropriate devices should be used.
- Protect electric cords from damage due to traffic and heavy equipment.
- Employees shall ensure that all guards and other protective devices are in proper place and adjusted. Equipment shall be taken out of service if any deficiencies exist.
- Materials, tools or other objects shall not be thrown from buildings or structures.
- Extension ladders are to be tied off and employees are to face ladder and use both hands while climbing. The top three rungs or cleats of stepladders shall not be used without fall protection.

- Employees shall immediately report to the supervisor any damage or improper condition of scaffolds, lifts or other supporting structures.
- No employee shall operate machinery or equipment unless authorized by his or her supervisor.
- Machinery shall not be serviced, repaired or adjusted while in operation, nor shall oiling of
 moving parts be attempted, except on equipment that is designed or fitted with safeguards.

Fire Protection:

- When using heat producing equipment, make certain the area is clear of fire hazards and sources of potential fire are eliminated.
- Have fire extinguishers available when using flammables. Dampen the work area of wood and combustibles when using torches or other flame producing equipment.
- Know the location of fire fighting equipment on the job site and in the shop.
- Turn in used or discharged fire extinguishers for recharging.

Welding and Burning:

- Utilize a watch person, barricades or shields where practical.
- Wear helmet and protective eyewear when burning, chipping and grinding.
- Welding cables and leads shall be connected properly.
- Good ventilation and fire extinguishers are required for safety.
- Fire blankets and similar protection shall be used to protect materials, finishes; especially glass and finished metal and water proof membranes.
- Coordinate work to avoid welding over other trades and co-workers.
- Some projects may require a "hot work permit" do to the location, occupancy and nature of work.

Rigging:

- Check with crane operator and supervisor for rigging instruction.
- Workers and other people are to be kept out from under a suspended load.
- Only trained flagmen and signalmen are to direct operations using universal hand signals standard for the industry.
- Use tag lines to help control the load. Do not wrap lines around hands, legs or body.
- Do not overload rigging or crane.
- Keep a minimum of ten (10) feet from electrical lines.
- Barricade off the area around the crane and swing of load.
- The crane operator has final say on all decisions related to how lifts are being handled.

Motor Vehicles and Mechanized Equipment:

- Employees assigned or operating company vehicles shall have a current driver's license and obey the rules of the road. Only authorized personnel may drive company vehicles.
- Vehicles will be maintained in good working condition.
- Company vehicles should be locked when unattended. Keys are not to be left in ignition.
- If there is a question as to the safe operation of any vehicle, do not drive such vehicle. Notify supervisor of the problem.
- Scissors lifts, forklifts, lulls, zoom booms and other equipment are to be used by trained and / or experienced personnel.

Tenant Safety and Public Awareness:

- All personnel are required to keep equipment and material off public streets and walkways. Traffic controls are to be used when heavy equipment is entering or leaving the job site.
- Debris or material shall be cleaned up immediately. Food scraps are to be disposed of in trash barrels.
- Fences are to be maintained in good condition and the gates locked during non-working hours.
- Housekeeping in occupied buildings shall be continuous.
- Offensive language and graffiti shall not be tolerated.

Office Code of Safe Practices:

- Keep your work area clean and free of tripping hazards. Clean up spills and keep floors clear
 of loose cords, paper clips, waste paper, rubber bands, pencils and other materials.
- Keep desk and file drawers closed when not in use. Open one file drawer at a time to avoid tipping.
- Watch where you walk. Use handrails on stairways and avoid rushing around blind corners, past doorways or in the corridors.
- When you must climb use a ladder or step stool. Never take chances by standing on a chair, desk, bookshelf or other makeshift platforms.
- Make sure that all office equipment such as typewriters, computer equipment, copy machines and the like are set firmly. Do not wear loose clothing when using shredding machine.
- Employees should dispose of trash, waste and cigarettes in the appropriate containers. The careless disposal of some waste materials can be dangerous.
- Use appropriate tools for the job such as approved paper cutters, staplers and removers, punches and the like.
- Avoid the use of unnecessary electrical extension cords. All office employees are required to get permission for the use of privately owned electrical equipment in the office.
- Use the approved technique when lifting: bend knees, grasp the load firmly, lift using leg muscles and keep back straight.



Heat Illness Prevention Plan

Policy & Procedure - Heat Illness Prevention - Cal OSHA Title 8, CCR 3395

Purpose:

- Heat Illness Prevention, Title 8, CCR 3395 is intended to provide awareness for workers exposed to temperatures above 80 degrees during an eight hour shift, of the potential health effects of heat on the body and means and methods of prevention. Key items include: Work site acclimation, shade, water, monitoring signs & symptoms of heat stress and training.
- 80° is the trigger for Devcon Heat Illness Prevention and Awareness

Monitoring Weather

The Devcon Superintendent or person in charge of the site will monitor current and future weather forecasts using tools linked to National Weather Service. An example is Intellicast website or the OSHA Heat Safety Tool app for smart phones.

Environmental Risks

When evaluating the work site, environmental risk factor must be considered in addition to ambient air temperature. Examples to be considered: relative humidity, radiant heat from the sun and other sources such as operating equipment, conductive heat sources such as ground, air movement, workload severity and duration, protective clothing and PPE.

Pre-task plans should be completed when environmental risks have been identified.

Acclimation

- The level of heat stress a person encounters depends on age, weight, level of fitness, medical condition, and acclimatization to the heat. Heat stress occurs when body muscles are being used for physical labor and less blood is available to flow to the skin and release the heat.
- An employee newly assigned to a high heat area shall be closely observed for the first 14 days.
- Acclimation takes from 4-14 days in most people based on at least 2 hours of work per day in heat.
- All employees shall be closely observed during a "Heat Wave". "Heat Wave" means any day in
 which the predicted high will be at least 80 and at least 10 degrees higher than the average high
 daily temperature in the preceding 5 days.
- Supervisors and workers shall be aware of the signs and symptoms of heat exhaustion and heat stroke.
- Frequent breaks and drinking of additional water may be necessary for 10-14 days.

Water

- Water will be provided free of charge regardless of the temperature. Water to be fresh and pure
 and available from clean sources such as domestic water. If a domestic water source is not
 available, individual employee jugs with name, bottled water or coolers and cups will be provided.
- Where single-service cups are supplied, a sanitary container for the unused cups and a receptacle for disposing of the used cups will be provided.
- The water must be cooler then the ambient temperature.
- Instruct workers to drink small amounts of water, up to 4 cups per hour (quart) when the temperature is above 80° and employees are likely to be sweating profusely.
- Water shall be available at the start of each shift and replenished as needed.
- Water shall be located as close as practicable to the work areas.
- On Multi-story sites water should be placed on every floor.
- The "HIP" monitor shall check several times during the day for adequate water supply.
- Encourage workers to eat fresh fruit, especially bananas, and avoid sweet drinks and highly caffeinated products. High energy drinks are discouraged.
- Water should be available in the shade/rest areas.

<u>Shade</u>

- Air conditioned trailers, tents, and covered areas including natural settings such as trees.
- Shade shall be provided when the temperature is expected to exceed 80°.
- Shade is required to accommodate the number of employees on recovery/rest periods.
- Shade areas will be set up away from hazardous areas and unpleasant conditions (toilets)
- Employees should not have to cross traffic or waterways to reach the shade.
- Employees are allowed to take breaks within the shaded / air conditioned areas.
- Access to shade is available upon employees request and or as needed.
- During meal periods there shall be enough shade to accommodate employees on meal period.

Monitoring

- Employees on cool-down rest shall be monitored for signs of heat illness.
- Employees shall be encouraged to remain in the shade and drink water.
- Employees shall not be ordered back to work until any signs or symptoms of heat illness have been abated. In no event rest shall not be less than 5 minutes plus time to get to the shade.
- If employee shows signs of heat illness provide appropriate first aid and/or emergency response if needed.
- Employees exhibiting signs or symptoms of heat illness shall not be left alone or sent home without being offered onsite first-aid or EMS.

High-heat procedures

- High Heat Procedures Temperatures equal to or above 95°
- Observe workers for signs & symptoms of heat illness.
 - o Designee to monitor 20 or less employees, or
 - Mandatory buddy system, or
 - o Regular communication with individual employee via cell phone or radio.
- Daily before work starts, review the High Heat Procedures, remind workers to drink water frequently and take cool-down rest when necessary. (Devcon High Heat form)
- Watch over new hires for 14 days to ensure acclimatization.
- Use radios / cell phones to summon emergency assistance. Anyone can call 911 for help.
- Have emergency procedures in place.
- · Adjust work hours to avoid peak heat during the day.

<u>Training</u>

- All personnel (Supervisors & Workers) will be trained and informed of Heat Illness Prevention using a power point program covering the Cal/OSHA and or Federal OSHA standards.
- Training shall be documented including names and dates of training. (Sample training material attached.)
- Weekly Tailgate Meetings during hot weather will include tips on heat illness prevention.
- Signage for Heat Illness Prevention will be posted on site.
- Provide at minimum shade as requested or at the temperature trigger point listed.
- Heat Illness Prevention material will be available for personnel.

Emergency Response Procedures

- ANY worker can call 911 for a medical or other emergency on site.
 - ASAP notify the Devcon person in charge of the site.
 - o The Devcon person in charge will confirm that 911 has been called.
- When an individual shows signs and symptoms of heat illness provide:
 - Immediate access to shade
 - Provide small amounts of water
 - Place wet, cool / cold towels to head, back of neck and arm pits.
 - Monitor him/her for alertness and consciousness
 - In the event of decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior or convulsions call 911 immediately.
- When medical services are notified give clear and exact address to project.
- Station one or more individuals at the project entrance and within the site to assist with getting the responders to the ill worker.

Environmental and Personal Risk Factors of Heat Illness

Environment

- Temperature 80-85°
- Radiant heat from the sun or a heat source
- Humidity
- Air velocity

Personal Risks of heat stress

- Rise in body temperature and heart rate
- Loss of concentration and difficulty in focusing on a task
- Increased irritability or sickness
- Little or no desire to drink
- Fainting and possible death if person is not removed from the source of the heat stress

Heat Illness Risk Reduction

- Job site trailers, containers, air conditioned vehicles or tents shall provide shade.
- Maintain an adequate supply of clean, cool, potable water.
- Encourage employees to drink water to replace lost fluids
- A combination of heat and high humidity above 90 F may affect workers and production
- Recognize heat stress symptoms
- Provide First Aid for heat stress disorders
- First Aid personnel recognize heat stress

- Move to a cooler place, find shade, and rest during breaks
- Slow down or reduce the work load during hot periods
- Wear cotton garments and use sunscreen, hard hats, and sunglasses
- Be aware of medication effects during hot spells
- Weight reduction helps prevent heat stress

Signs & Symptoms of Heat Stress

Heat Stroke

- Body's failure to regulate its core temperature. Most serious and may result in death.
- Mental confusion, delirium, loss of consciousness, convulsions, or coma.
- Body temperature of 106° or higher.
- Hot, dry skin that may be red, mottled, or bluish.

Treatment & Care - Report to supervisors.

- Call for medical help 911
- Move the victim to a cool / shaded area.
- Soak the victims clothing with cool water, loosen tight clothing.
- Fan the individual vigorously to increase cooling.

Heat Exhaustion:

- Loss of fluids through sweating and not drinking enough fluids.
- The worker still sweats but experiences extreme weakness or fatigue, pale skin giddiness, nausea, or headache.
- The skin is clammy and moist, while body temperatures are Norman or slightly elevated.

Treatment & Care

- The victim should rest in a cool / shaded place.
- Drink water or an electrolyte solution, such as a sports drink used by athletes to restore potassium and salt.
- Severe cases, in which the victim vomits or loses consciousness, may require longer treatment under medical supervision.

Heat Cramps:

• Painful spasms of the muscles, caused by loss of the body's salt.

Treatment & Care

- Similar to heat exhaustion, the individual should drink an electrolyte sports drink.
- · Seek medical aid for severe cramping.

Fainting:

• May occur when a worker is or is not acclimatized to a hot environment.

Treatment & Care

- Allow the victim to lie down or his or her back.
- Monitor consciousness and call for medical aid is necessary.

Heat Rash:

• Also known as prickly heat may be extensive and complicated by infection. It may disrupt sleep and cause temporary disability.

Treatment & Care

• Place the victim in a cool place and allow the skin to dry.



Excavations & Trenching

Every subcontractor performing excavation work on site must have a properly trained and designated competent person. Subcontractor shall maintain on site all required excavation documentation in

accordance with the provisions of Cal OSHA Article 6. All such records shall be available for inspection upon request.

General Requirements

- 1. USA Underground Alert and / or utilities shall be contacted, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of actual excavation.
- 2. No employee shall be permitted underneath loads handled by lifting or digging equipment.
- 3. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials
- 4. Excavations must be barricaded to alert pedestrians and vehicle traffic.
- 5. Spoil dirt may be used to barricade one side of an excavation.
- 6. The spoil pile must be at least three (3) feet high (if used as a barricade) and also must be piled at least three (3) feet from the edge of the excavation,
- 7. Access and egress must be provided for all excavations. Ladders shall be provided at depths of 4 feet or more with travel distances no greater than 25 feet. Ladders must extend at least three (3) feet above the top of the excavation and must be secured at top and bottom.
- Walkways shall be provided where employees or equipment are required or permitted to cross over excavations. Guardrails shall be provided where walkways are 6 feet (1,8 m) or more above lower levels-
- 9. Adequate barrier physical protection shall be provided at all remote excavations. All wells, pits, shafts, etc., shall be barricaded or covered.
- 10. Upon completion of tasks, excavation must be back-filled.
- 11. Excavations must be sloped or shored when deeper than five (5) feet.
- 12. A competent person must check all sloping prior to anyone entering the excavation. Excavations shall comply with Cal OSHA regulations for sloping or shoring.
- 13. A registered professional engineer shall design sloping or benching for excavations greater than 20 feet. The approved contract drawing must be kept on site.
- 14. The competent person shall conduct an inspection prior to the start of work and as needed throughout the shift.
- 15. Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, failure of protective systems, hazardous atmospheres, or other hazardous conditions.

- 16. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated,
- 17. Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.
- 18. Employees shall not work in excavations in which there is accumulated water, or in excavations, in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation.
- 19. If water is controlled or prevented from accumulating by the use of water removal equipment, a competent person shall monitor the water removal equipment and operations to ensure proper operation.
- 20. Review and follow the safety requirements for work in the soil impacted areas.



Fall Protection

Cal OSHA Article 24 regulations require fall protection when an individual has a fall potential from structure or building. To insure the safety & health of employees and subcontractors the work methods are:

- 1. Site specific plans to follow.
- All individuals shall wear harnesses with soft stop lanyards per Cal OSHA regulations. Harnesses and soft stop lanyards shall be worn and attached when operating zoom booms, JLG's or similar personnel lifts.
- 3. Work requiring personnel to get outside the guard rails shall be tied off to a substantial anchor point with the soft stop lanyard and harness during all activities.
- 4. "A" frame ladders shall be used in the full open position with the feet on secure ground.

- 5. Extension ladders used for access to panel connections and adjustment shall have the feet secure and tied off or held to avoid tipping or slipping. The ladder shall extend 3 ft. above the landing.
- 6. Face the ladder when ascending and descending. Use both hands to hold onto the ladder when ascending and descending. Secure a rope at the top of the ladder to raise and lower tools and equipment.
- 7. Employees are not permitted to stand on the top two rungs or steps of ladder without being tied off from above.
- 8. When working on scaffolding (stationary or rolling) mid rails and top rails are required when the fall distance exceeds 6ft. If rails are not available, harnesses and soft stop lanyards shall be used.
- 9. Floor, wall and roof openings must be guarded and protected at all times. Covered holes shall be secured and marked "opening do not remove". Covered skylights shall be covered or have barricades of wood installed during work in progress.



Hazardous Material Communication Program

A. Policy Statement:

The Hazardous Material and Communication Program have been developed to protect the safety and health of our employees.

- 1. As a company we intend to provide information about hazardous chemical substances used in construction with this program as the vehicle.
- 2. This written program applies to all operations, which may expose employees and subcontractors to hazardous substances as a result of normal work conditions.

3.	. The program is available upon request to Devco	n's employees, their designate	ed representatives,
su	ubcontractors and Cal OSHA agencies.		

4. The office, shop and job site will have a designated person (usually the supervisor) responsible for the program. Outside consultants will be used as needed to assist in the effort and training of key people as necessary.

B. Identification of Hazardous Substances used in the Workplace:

- 1. "Hazardous substances" are materials or mixtures, which are physical or health hazards or are included by CAL OSHA on the Director's List of Hazardous Substances Safety Order 339.
- 2. "Exposure" is any situation arising from work conditions where a worker may ingest, inhale, absorb or otherwise come in contact with a hazardous substance.
- 3. Each jobsite will maintain a list of hazardous materials to which workers may be exposed, using the same chemical name referenced on the appropriate MSDS for those substances.
- 4. A master list of products purchased by Devcon will be maintained at the company office as a back up for the jobsite. It is the responsibility of the supplier or vendor to provide the MSDS's.
- 5. Earth work, renovation or remodeling work may require special safety measures due to such exposures as water and soil contamination, asbestos exposure or other chemical exposures. These areas will be covered with specific safety measures per activity.

C. Labels:

- 1. When hazardous materials are received the supervisor shall examine the containers to determine if the labels provide the following information:
 - a. The identity of the substances.
 - b. Appropriate warning of the physical and health hazards.

- 2. When substances are transferred into portable containers the supervisor shall ensure the portable containers are labeled with the following:
 - a. The name and appropriate warnings of the physical and health hazardous of the product.
- 3. Portable containers may be labeled with an extra copy of the manufacturer's label or with a printed label that will not rub off.
 - a. EXCEPTION: When a worker transfers substances into a container for his/her own immediate use the container need not be labeled.
- 4. Supervisors will ensure the labels on containers are not removed or defaced. Containers and labeling will be maintained in good order.

D Material Safety Data Sheets (MSDS):

- 1. Material Safety Data Sheets (MSDS) are documents, which supply information about a particular substance or mixture. Manufacturers are required to provide MSDS's.
- 2. Material Safety Data Sheets contain the following information:
 - Sections 1-3 Product Information
 - Sections 4-6 Emergency Situations
 - Sections 7-10 Hazard Prevention & Personal Protection
 - Sections 11-16 Other Specific Information

E. Information and Training:

- 1. When employees may be exposed or are exposed by mistake to substances considered hazardous to health, they shall be provided information and training by the supervisor based on the data contained in the MSDS.
- 2. Training shall be conducted and documented as a "toolbox" or "tailgate" meeting and shall provide the following:
 - a. Information on the hazardous material in the work area.
 - b. How to read and interpret information on labels and MSDS sheets.
 - c. Any physical or health hazards associated with the use of a material or mixture being used.
 - d. Proper precautions for handling such materials, the specific procedures implemented to protect workers from exposure, personal protective equipment available and special work methods.
 - e. Emergency procedures for spills fire disposal and first aid.
 - f. The methods and observations that can be used to detect the presence of hazardous substances in the workplace include odor, visual appearance or monitoring.

- g. The right of employees or their physicians to receive information on substances to which they may have been exposed.
- 1. The "Medical and Exposure Records", if any, will be available through Devcon Safety.

F. Access to Information by Subcontractors:

When employees of other contractors or customers may be exposed to hazardous substances while on one of our projects, the employers will be provided with a list of the materials used. If requested the name and address of the suppliers and manufacturers of the substances will be given.



Construction Activities in Hazardous Waste Impacted Soil

Introduction

All personal working on site will be informed and trained by their employer regarding the safety measures necessary to protect the health and safety exposures that may be present in the soil.

If there are potential contaminants monitoring will be conducted to determine potential hazards.

Exposure if any is expected by way of dermal contact, liquid, vapor and dust inhalation.

Implementation and training regarding this plan shall be the responsibility of all employers.

Owner representatives will perform test and analytical reporting in suspected areas. Results will be given to Devcon Construction for informing all individuals and companies.

Worker Safety & Training - 40 Hr. Hazwoper

The following measures are to protect and health & safety of personnel on site. Each employer is responsible to provide and train his or her employees in the use and care of required personal protective equipment (PPE).

During construction each contractor shall maintain a sign-in log of his or her personnel working on site. At the end of each day a log of work activities and hours for each individual is to be submitted to Devcon.

Individuals working in the impacted area may be required to wear Tyvek coveralls and rubber gloves for protection. If the ongoing air monitoring indicates exposure levels above the Cal/OSHA permissible limits (PEL) the owner shall have licensed hazardous contractors perform the work.

A storage facility for the Tyvek coveralls and other protective gear shall be available on site. At no time shall PPE be removed from the site.

Personal hygiene requires all personnel to wash their hands and face before breaks and lunch. Wash hands before using toilets facilities. Wash stations shall be on site. Smoking should be avoided to cut down on hand to mouth contact.

Work areas will be wet down if necessary to control dust exposure in affected areas.

All non-essential traffic shall be kept off site.

Personal Protection Equipment (PPE)

Levels of personal protective equipment (PPE) that may be used on this project.

Level "C" Equipment – selected when the type and concentration of the contaminant is known and criteria for using air-purifying respirators (APR).

Full face or half mask respirator with appropriate cartridges.

Personal protective clothing i.e. Tyvek suits or similar clothing.

Rubber gloves with other work gloves (canvas or leather).

Rubber boots that may be rinsed off.

Safety glasses

Hard hats

Level "D" Equipment – selected for protection against nuisance contaminants.

Respiratory protection: N/A

Standard work clothing: May include Tyvek suit.

Foot wear: Work boot / rain boot

Gloves: As needed

Safety glasses Mandatory

Hard hats Mandatory

Medical Surveillance

The monitoring of the air and ground will be available to all personal upon request. Written authorization from the worker is required to release information to medical personal.

Air Monitoring

Cal/OSHA standards regarding air monitoring shall be conducted during the work activities requiring personnel to work in the dirt within the suspect areas.

If the action levels exceed the permissible limits additional personal protection measures may be required.

Worker Right to Know

Cal/OSHA and NIOSH standards will be used to assess worker exposure if suspect chemicals are noted. Material Safety Data Sheets for the suspect products shall be on site. Devcon personnel and subcontractor employees will be informed and materials present. All personal are welcome to review information and request a copy.



Scaffolding

All scaffolds shall be inspected, erected and/or dismantled under the supervision of a competent person. No subcontractor on this site shall allow any employee to erect or use as scaffold without being properly trained.

Subcontractors are required to comply with all requirements of Cal OSHA Article 21-23 regulations dealing with scaffold erection, inspection and training. The following provisions shall be used as guide only. Subcontractor shall maintain a comprehensive program on scaffold erection and use.

General Requirements:

- 1. Qualified and competent contractors or user shall erect scaffolding with competent trained personnel.
- 2. The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks, shall not be used to support scaffolds or planks.
- 2- No scaffold shall be erected, moved, dismantled, or altered except under the supervision of competent persons.
- 3. Guardrails and toe boards shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor, except needle beam scaffolds and floats. Scaffolds 4 feet to 10 feet in height, having a minimum horizontal dimension in either direction of less than 45 inches, shall have standard guardrails installed on all open sides and ends of the platform.
- 4. Guardrails shall be 2 x 4 inches or equivalent, approximately 42 inches high, with a mid rail. when required. Supports shall be at intervals not to exceed 8 feet. Toe boards shall be a minimum of 4 inches in height.
- 5. Where persons are required to work or pass under the scaffold, scaffolds shall be provided with a screen between the toe board and the guardrail, extending along the entire opening, consisting of No. 18 gauge U.S. Standard wire 1/2 inch mesh, or the equivalent.

6.	Scaffolds and their components shall be capable of supporting without failure at least 4 times the maximum intended load.
7.	Any scaffold including accessories such as braces, brackets, trusses, etc., weakened from any cause shall be immediately repaired or replaced.
8.	All load-carrying timber members of scaffold framing shall be a minimum of 1,500 psi- fiber (Stress Grade) construction grade lumber. All dimensions are nominal sizes as proved in the American Lumber Standards, except that where rough sizes are noted, only rough or undressed lumber of the size specified will satisfy the minimum requirements.
9.	All planking shall be scaffold grades, or equivalent, as recognized by approved grading rules for the species of wood used.
10	. Planks shall be overlapped (minimum 12 inches), or secured from movement.
11	. An access ladder or equivalent safe access shall be provided.
12	. Scaffold planks shall extend over end supports not less than 6 inches or more than 12 inches.
13	. The poles, legs, or uprights of scaffolds shall be plumb, and securely and rigidly braced to prevent swaying and displacement.
14	. Overhead protection shall be provided for men on a scaffold exposed to overhead hazards.
15	. Slippery conditions on scaffolds shall be eliminated as soon as possible after they occur.
16	. No welding, burning, riveting, or open flame work shall be performed on any staging suspended by means of fiber or synthetic rope. Only treated or protected fiber or synthetic ropes shall be used for or near any work involving the use of corrosive substances or chemicals- Specific requirements for boatswain's chairs and float or ship scaffolds are contained in the Cal OSHA manual.

- 17. Wire, synthetic, or fiber rope used for scaffold suspension shall be capable of supporting at least 6 times the rated load.
- 18. The use of shore or lean-to-scaffolds in prohibited.



Cranes

- 1. Staging is critical, check with Devcon before proceeding.
- 2. Crane operator is to check the crane before work and have crane certifications available.
- 3. Pre plan with all trades to avoid conflicts and traffic congestion.
- 4. Pre walk the site for crane set up. Note where outriggers will be located. Check for secure ground.
- 5. Dunnage (minimum of 2' X 2' square pads of 2" material or similar steel strength required under the out riggers.
- 6. Pre plan swing area and storage of material. Barricade off the area.
- 7. Avoid prolonged overhead routes.
- 8. Use a "tag line" to control load.
- 9. Coordinate signals with crane operator.
- 10. Use an air horn to warn workers of overhead loads.
- 11. Slings and attachments must be inspected for damage or defects. Remove damaged or defected slings from service

- 12. A manufacturer's label with capacity listed must be attached to the sling.
- 13. Chain or wire rope slings must not be shortened by knots, bolts, or other means.
- 14. Sling legs must not be kinked. Slings must not be overloaded.
- 15. Slings must be padded to protect against damage from sharp loads.
- 16. Deformed or defective sling hook and rings must not be used.
- 17. Safety-type hooks (or their equivalent) must be used when loads must pass over workers or occupied passageways.
- 18. Secure all material and equipment before hoisting. No loose items or loads.
- 19. Check rigging, hooks and cables. Remove and replace worn rigging.
- 20. All trades shall insure the rigger(s) or competent person trained.
- 21. All trucks, vehicles and personnel are to stay a safe distance from the railroad tracks. Observe barriers at all times



Forms, False work and Vertical Shoring

By definition, concrete forms are considered false work. False work, however, also includes support systems for forms, newly completed floors, bridge spans, ramps, decks, etc., that provide support until appropriate curing or stressing processes have been completed. See below for selected safety orders:

A. Design of false work

- 1. Concrete formwork and false work must be designed, supported, and braces to safely withstand the intended load.
- 2. False work design, detailed calculations, and drawings must be signed and approved by an engineer (Ca PE) if the false work height (sill to soffit) exceeds 14 ft., if the individual horizontal span length exceeds 16 ft., or if vehicle or railroad traffic goes through the false work.

Note: For other false work, a manufacturer's representative may provide approval or a licensed contractor's qualified representative.

- 3. False work plans must be available at the job site.
- 4. Minimum design loads are as follows:
 - a) Total combined live and dead load; 100 puff
 - b) Live load and formwork: 20 psf
- 5. Additional loads must be considered in the design.

B. Erection of false work

- 1. False work must be erected on a stable, level, compacted base and supported by adequate pads, plates, or sills.
- 2. Shore clamps (metal) must be installed in accord with manufacturer's instructions.

C. Inspection

1. Before pouring concrete on false work requiring design approval, an engineer (Ca PE) or the engineer's representative must inspect for and certify compliance with plans.

Note: For other false work, a manufacturer's representative may provide the inspection and certification or a licensed contractor's qualified representative.

2. A copy of the inspection certification must be available at the job site.

D. Access to forms and false work

- 1. Joists (5 ½ in. wide) at not more than 36 in. o.c. may be used as walkways while forms are placed.
- 2. A plank (12 in. wide) may be used as a walkway while joists are placed.

E. Fall protection

Periphery rails are required as soon as supporting members are in place.

Note: The area under formwork is a restricted area and must be posted with perimeter warning signs.



Emergency Information

Vallco Zone A2 Demolition

10123 North Wolfe Rd - Cupertino, CA 95014

Cross Street – Stevens Creek Blvd.

AMBULANCE / LIFE SQUAD 911 or (408) 299-3144

FIRST AID On-Site Health & Safety

510 245-2700

MEDICAL CLINIC Alliance Medical Clinic

2737 Walsh Rd.

Santa Clara, CA

408 228-8400

M-F 7:00-5:30 Sat & Sun - closed

HOSPITAL El Camino Hospital

2500 Grant Rd.

Mountain View CA 94040

650 940-7000

FIRE DEPARTMENT 911 or (408) 299-3144

UNDERGROUND ALERT (USA) 1-800-642-2444

7 AM TO 5 PM weekdays

P G & E 1-800 743-5000 www.pge.com

AT&T 1-800-310-2355 <u>www.pacbell.com</u>

DEVCON CONSTRUCTION, INC. 408/942-8200 - Office

408/262-2342 - Fax

ALL ACCIDENTS MUST BE REPORTED TO DEVCON IMMEDIATELY



Subcontractor Reply

-	e finished reviewing these docun om of this page.	nents and prior	r to start of construction on site, please
TO:	Devcon Construction, Inc.		
	690 Gibraltar Dr.		
	Milpitas, CA 95035		
ATTN:	Dwight Harris, Project Superint	endent	
RE:	Vallco Zone A2 Demolition		
	d the Site Safety Program, the C renced project.	ode of Safe Pr	actices and Safety Orientation Program
	and its employees agree to fully one above referenced programs.	comply with all	terms, conditions and procedures
Subcontractor		Officer Name	e, Title & Signature
Subcontractor	Site Supervisor	Date	Phone Number

for

Corporate Safety Contact:	P	hone Number	
Superintendent	P	hone Number	
Traine, me		HORE NUMBER	
Name/Title	p	hone Number	
Emergency Contact – after hours:			
Subcontractor Site Safety Coordinator	Date	Contact Number	

EXHIBIT C – SITE LOGISTIC PLAN

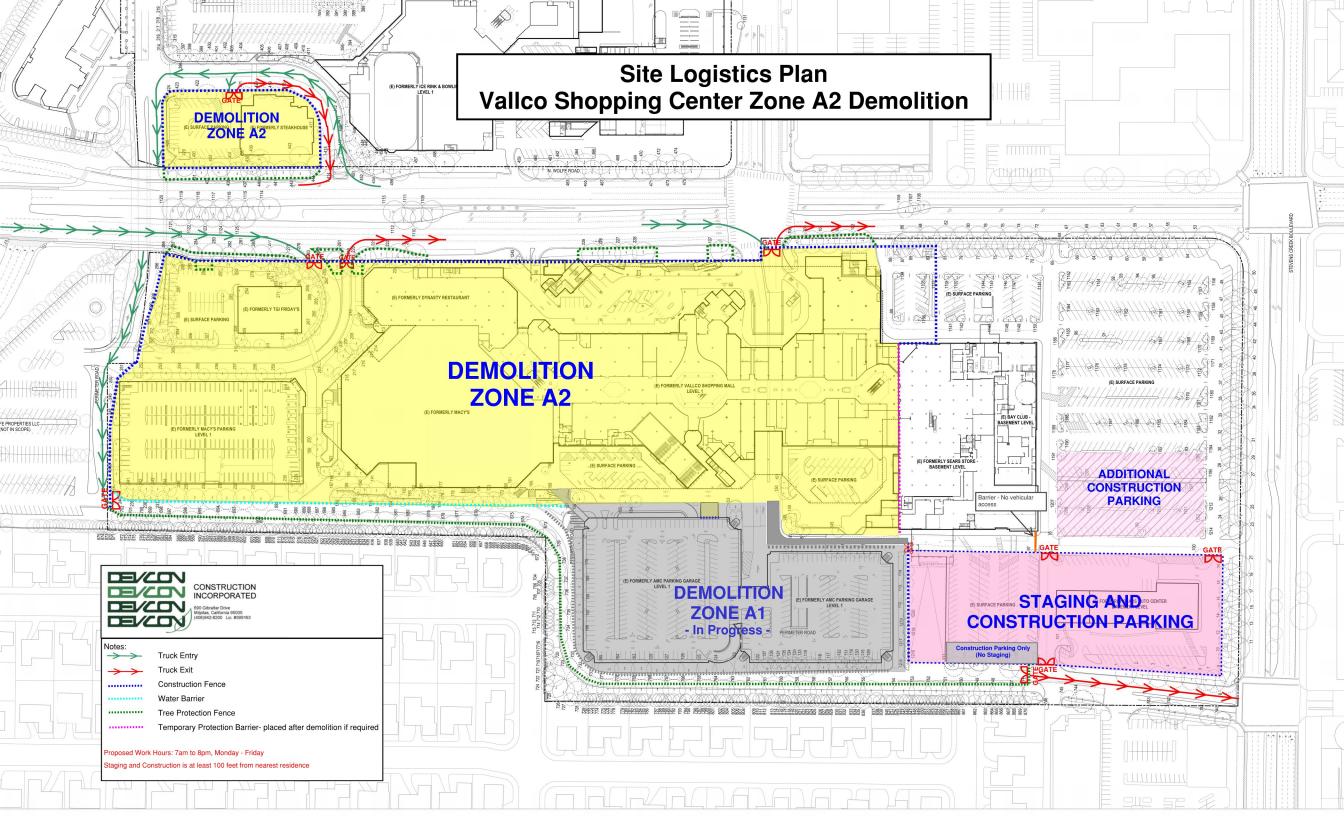


EXHIBIT D – ASBESTOS & LEAD RESULTS & FINDINGS



1208 MAIN STREET, REDWOOD CITY, CA 94063 P: (650) 569-4020 • F: (650) 569-4023 • E: info@protech-cal.com

SECTION A REPORT

ASBESTOS & LEAD (PB) REPORT

LIMITED PRE-DEMOLITION/RENOVATION SURVEY & EVALUATION

DATE:

Revised October 26, 2018

PROJECT No.:

578-MA18 Revision II FINAL

REQUESTED BY:

Sand Hill Construction Management

10123 N. Wolfe Road Suite 1043 Cupertino, CA 95014

PROJECT:

Vallco Shopping Mall 10123 N. Wolfe Road Cupertino, CA 95014

PROJECT DESCRIPTION:

Retail shopping mall, restaurants and adjacent businesses.

SERVICES AREA(S): SECTION A

- Macy's
- AMC Theater
- Dynasty restaurant
- TGIF Restaurant
- Alexander Steak House Restaurant
- Units 1002
- Unit 1011-1019
- Unit 1020
- Unit 1006
- Units 1023 A, B, & C
- Unit 1024
- Units 1025 A & B
- Units 1026
- Units 1027
- Units 1028 A & B
- Units 1029-1031
- Unit 1034
- Unit 1040
- Unit 1043
- Unit 2001
- Unit 2007
- Unit 2009
- Unit 2010
- Unit 2010
- Units 2013-2015
- 2nd floor common areas
- Unit 2056
- Section A Roofs (excluding Macy's & Theatre)
- Sears @ Section A connection

- Unit 2017
- Unit 2019
- Units 2020- 2023
- Units 2026-2028
- Unit 2031
- Unit 2032
- Unit 2034
- Unit 2044
- Unit 2044AUnits 2049-2057
- Unit 2100
- Units 2104-2108
- Units 2110-2118
- Units 2119 & 2119A
- Units 2120-2125
- Unit 2128
- Unit 2130
- Units 2132 2138
- Units 2140 2144
- Unit 2146
- Unit 2148
- Associated common areas
- Service Halls
- Mechanical rooms
- Storage rooms
- Exteriors
- Units 2125/2127
 - Old Maintenance Office and Adjacent rooms

SECTION A LIMITATIONS: Units 2134, 2135, 2136, 2137 are on elevated plywood floor platforms, there was no access to the concrete sub floor below.

Dynasty restaurant (1688) is a functioning operational space, intrusive inspection techniques were not possible.

Sears information in this Section A report is limited to the north connection at Section A.

During September & October 2018, ProTech Consulting & Engineering, Inc. performed a building survey to identify asbestos-containing materials (ACM) and presence of Lead based paint (Pb) at the subject project. The survey was conducted in an effort to comply with predemolition/renovation regulatory requirements.

Environmental consulting services were conducted by ProTech's licensed and accredited staff as follows:

Consultant	DISCIPLINE	ISSUING AGENCY	CERTIFICATION NO.
	Asbestos	Cal OSHA	96-1903
Ron Mason	Lead	CDPH	198
	IAQ	EAA	1-10-03
Emanuel Dounias	Asbestos	Cal OSHA	00-2766
Emanuel Dournas	Lead	CDPH	13059
Dob Novemon	Asbestos	Cal OSHA	00-2767
Bob Newman	IAQ	UC Berkeley	10-03
Byon Cozort	Asbestos	Cal OSHA	10-4634
Ryan Cozart	Lead	CDPH	26433

SERVICES REQUESTED BY CLIENT

Asbestos Survey

Consulting services were limited by the client to the following scope of services:

- Performed a visual survey of the project to identify, document, and assess suspect asbestoscontaining materials (ACM).
- Collected representative samples to confirm or rebut the presence of ACM.
- Submitted necessary samples to a certified laboratory for analysis by standard polarized light microscopy (PLM) to determine asbestos content.
- Assess the friability and abatement classification of identified ACM;
- Prepared this written report presenting an evaluation and assessment of the data.

ProTech is only responsible for the specific scope of work as stated. No other services are intended or implied.

LBP Survey

- Performed a visual survey of the project to identify, document, and assess suspect lead-based paint (LBP).
- Tested painted/coated surfaces using a calibrated X-ray fluorescence analyzer (XRF).

Job No. 578-MA18 Vallco Mall - Section A Page 2

- Collected representative confirmational paint chip samples to confirm or rebut the presence of lead. Submitted paint chip samples to a certified laboratory for analysis.
- Prepared this written report presenting an evaluation and assessment of the data.

Pages 3-9 Asbestos-Containing Materials (ACM)

RESULTS & REGULATORY ASSESSMENT

Asbestos types are abbreviated as follows: Chr = Chrysotile; Amo = Amosite; Cro = Crocidolite; Tre = Tremolite; Act = Actinolite.

	MACY'S RETAIL STORE											
	MATERIAL DESCRIPTION	MATERIAL, SYSTEM, LOCATION	SMPL NOS.	Approx. Quant.	Lab Result		ATORY SMENT EPA/ AQMD					
	Macy's Interior											
1	White drywall, joint tape and compound	Wall/ceilings of level 1	01, 02, 03*, 04*, 05*, 06*, 07*	250,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable					
2	White drywall, joint tape and compound	Wall/ceilings of level 2	08, 09* 10, 11*, 12, 13*, 14*	250,000 sq ft.	None detected to 2% Chr	Class II Abatement	Non-Friable					
3	Black mastic below NON ACM white with grey streaked floor tile	Level 1 exposed and below carpet of north store rooms and office, 1st floor storage adjacent telephone room, telephone room and gift wrapping	52*, 53*, 54	2,000 sq ft.	5% Chr	Class II Abatement	Non-Friable					
4	Black mirror mastic	Mirrors throughout mixed with tan mastic	56, 57	5,000 sq ft	10% Chr	Class II Abatement	Non-Friable					
5	Tan duct mastic	Throughout mixed with red and gray mastic	62	4,500 In ft	3% Chr	Class II Abatement	Non-Friable					
6	Fire door insulation	At stairwells (2 doors)	88	2 doors	5% Chr 10% Amo 3% Croc	Class I Abatement	Friable					
		Macy's R	Roof									
1	Black gray roofing mastic	Penetrations, patches, flashing, exposed and below comp shingle	04, 05, 06	500 sq ft.	10% Chr	Class II Abatement	Non-Friable					
2	Gray stucco	Penthouses, parapet walls, upper exterior perimeter walls	07	50,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable					
		AMC Mov	IE TH	EATRE	<u>L</u>							
	MATERIAL DESCRIPTION	MATERIAL, SYSTEM, LOCATION	SMPL NOS.	Approx. Quant.	Lab Result	REGUL ASSES CAL OSHA	-					
		AMC										
1	Mirror Mastic	Restrooms	60, 61	1,600 sq ft.	15% Chr	Class II Abatement	Non-Friable					
		RESTAUF	RANTS									
	MATERIAL DESCRIPTION	MATERIAL, SYSTEM, LOCATION	SMPL NOS.	Approx. Quant.	Lab Result	Cal	SMENT EPA/					
		TGIF				OSHA	AQMD					
1	Black residual mastic below NON ACM red sheet flooring	Kitchen storage adjacent kitchen restrooms	12	400 sq ft.	5% Chr	Class II Abatement	Non-Friable					
2	Black residual mastic below NON ACM gray ceramic tile mortar	Kitchen adjacent restroom and refrigerator	20	400 sq ft.	10% Chr	Class II Abatement	Non-Friable					
3	Black roofing mastic	Patches, penetrations	31	100 sq ft.	10% Chr	Class II Abatement	Non-Friable					

Environmental Testing Report Vallco Mall – Section A

4	Gray cementacious panel	Flat roof walls	33	1200 sq ft.	15% Chr	Class II Abatement	Non-Friable
5	Drywall, joint tape and compound	Exterior soffit	39	2,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable
	Co	MMON AREAS &	SHERI	FFS OF	FICE		
	MATERIAL DESCRIPTION	MATERIAL, SYSTEM,	SMPL	APPROX.	LAB	ASSES	ATORY SMENT EPA/
		LOCATION	NOS.	Quant.	RESULT	CAL OSHA	AQMD
		Hallwa	y 1		_		T
1	White smooth drywall, joint tape and compound	Walls and ceilings in corridors, walls in service closets	01*, 02, 03*	40,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Black residual mastic	Security office floor and small closet (closet has 12" of vinyl floor tile)	13	300 sq ft.	5% Chr	Class II Abatement	Non-Friable
3	Black splash panel molding mastic	Perimeter wall of corridor behind units of 2001-1031	Not sampled see samples for hallway 2B	250 In ft	5% Chr	Class II Abatement	Non-Friable
4	PG & E meter doors	In corridors	A01	24 doors	5% Chr 7% Amo	Class II Abatement	Friable
		Hallway	/2B				
1	Smooth drywall, joint tape and compound	Walls and ceilings in corridors, walls in some service rooms	01, 02*	30,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	White drywall, joint tape and compound with texture	Stairwell 1 & 2 walls and ceilings	03	5,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable
3	Brown 12 x 12 vinyl floor tile with black mastic	Trash compactor 2	08	50 sq ft.	2% Chr – tie 5% Chr – mastic	Class II Abatement	Non-Friable
4	Black splash panel molding mastic	Partial corridor walls, fire sprinkler riser room	09	400 In ft.	5% Chr	Class II Abatement	Non-Friable
5	PG & E meter doors	In corridors	A01	13 doors	5% Chr 7% Amo	Class II Abatement	Friable
		1st floor south side retail	and com	mon areas			
1	Black mirror mastic	Random walls throughout	16, 17*	2000 sq ft.	10% Chr	Class II Abatement	Non-Friable
2	Black residual flooring mastic	South (sears side) common area	18, 19, 20	6000 sq ft.	5% Chr	Class II Abatement	Non-Friable
		2 nd floor com	non areas				
1	Yellow wood floor mastic	Jewelry stand adjacent 2115	28	200 sq ft	2% Chr	Class II Abatement	Non-Friable
2	White/tan cylindrical light well acoustical plaster	2ndfloor atriums adjacent Sears and Macy's	01, 02, 03	3500 sq ft.	5% Chr	Class I Abatement	Friable
		Hallwa	y 3				
1	Drywall, joint tape and compound with texture and smooth	Stairwell	01*, 02	6,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable
		Hallway	2A				
1	Smooth drywall, joint tape and compound	Walls and ceilings in corridor	01	10,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable
2	Black splash panel mastic	Molding	04	380 In ft	5% Chr	Class II Abatement	Non-Friable
3	White fire door insulation	Stairwell door	05	1 door	15% Chr	Class II Abatement	Friable
4	PG & E meter doors	In corridors	A-01	7 doors	5% Chr 7% Chr	Class II Abatement	Friable

		RETAIL	<u>Units</u>				
	MATERIAL DESCRIPTION	MATERIAL, SYSTEM, LOCATION	SMPL NOS.	Approx. Quant.	Lab Result	ASSES CAL	ATORY SMENT EPA/
		Unit 20	ing.			OSHA	AQMD
1	White smooth drywall, joint tape			1 000 #	410/ Ob-	Class II	Nan Friabl
1	and compound Black mastic below NON ACM	Rear rooms and restrooms Security office floor and small closet	01	1,000 sq ft.	<1% Chr	Abatement Class II	Non-Friabl
2	gray 12 x 12 vinyl floor tile	(closet has 12" of vinyl floor tile)	11, 12	2500 sq ft.	5% Chr	Abatement	Non-Friabl
		Unit 20	10				
1	Smooth drywall, joint tape and compound	Most walls	01, 02, 03	13,000 sq ft.	<1% Chr	Class II Abatement	Non-Friab
2	Textured drywall, joint tape and compound	Left perimeter wall (storage and dressing rooms	04	1,500 sq ft.	<1% Chr	Class II Abatement	Non-Friab
3	Topping texture	Left perimeter wall (storage and dressing rooms	05	Included with item 2	2% Chr	Class II Abatement	Friable
4	White 12 x 12 vinyl floor tile with black mastic	Rear storage and hall	09, 10	600 sq ft.	2% Chr – tile 10% Chr – mastic	Class II Abatement	Non-Friab
5	Black mirror mastic	Mirrors throughout	13	200 sq ft.	10% Chr	Class II Abatement	Non-Friab
6	White fire door insulation	Rear stock room	15	1 door	2% Chr 15% Amo	Class I Abatement	Friable
		Unit 2011 (Gr	rain D'or)				
1	Smooth drywall, joint tape and compound	Walls throughout 1st floor ceilings in rear	01*, 02*, 03	6000 sq ft	None detected to <1% Chr	Class II Abatement	Non-Friab
2	White fire door core insulation	Mechanical room door	10	1 door	15% Chr	Class I Abatement	Friable
3	Black mirror mastic	Retail	11	125 sq ft.	10% Chr	Class II Abatement	Non-Friab
		Unit 2013 (Famor	us Footwe	ar)		7.00.01110111	I
1	Smooth drywall, joint tape and compound	Walls throughout, restroom and corridor ceilings	01*, 02*, 03	16,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friab
2	Textured drywall, joint tape and compound	Left rear wall behind mechanical equipment	04	500 sq ft.	<1% Chr	Class II Abatement	Non-Friab
3	Gray ceramic tile mortar and residual mastic	Rear of retail	10	1500 sq ft.	2% Chr	Class II Abatement	Non-Friab
4	Gray ceramic tile mortar and residual mastic	Restroom	11	80 sq ft.	2% Chr	Class II Abatement	Non-Friab
5	Black wood floor mastic	Rear retail	13	700 sq ft	2% Chr	Class II Abatement	Non-Friab
6	Tan 12 x 12 vinyl floor tile with mastic	Rear rooms	14	1000 sq ft.	2% Chr	Class II Abatement	Non-Friab
		Unit 2014	/2015				
1	Black mirror mastic	Retail and dressing rooms	13	200 sq ft.	10% Chr	Class II Abatement	Non-Friab
2	Black residual mastic	Left side of retail, dressing rooms, office below carpet	14, 15	4,500 sq ft.	5% Chr	Class II Abatement	Non-Friab
3	Black mastic below NON ACM tan 12 x 12 vinyl floor tile	Middle corridor and left rear room	19	1300 sq ft.	2% Chr	Class II Abatement	Non-Friab
		Unit's 2026, 20					1
1	Smooth drywall, joint tape and compound	Walls throughout partial ceilings	01, 02*, 03*, 04, 05*	15,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friab
2	White drywall, joint tape and compound with texture	Left rear corridor, partial walls in left rear	06, 07	1000 sq ft.	<1% Chr	Class II Abatement	Non-Friab
3	White topping texture	Left rear corridor, partial walls in left rear	08, 09	Included with item 2	<1% Chr	Class II Abatement	Friable

			,	1		T	
4	Tan fibrous wood wall panels with mastic and drywall	Partial wall in left front	10, 11*	800 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
5	Tan 12 x 12 vinyl floor tile and black mastic	Middle bathroom section	19	250 sq ft.	3% Chr – tile 7% Chr – mastic	Class II Abatement	Non-Friable
6	Black mastic below NON ACM White 12 x 12 vinyl floor tile	2026 rear section	20, 21*	2000 sq ft.	None detected to 3% Chr	Class II Abatement	Non-Friable
7	Black mastic below NON ACM White 12 x 12 vinyl floor tile with yellow mastic with 2 nd layer vinyl floor tile	2022 room adjacent rear corridor	22	1000 sq ft.	5% Chr	Class II Abatement	Non-Friable
8	Residual black flooring mastic	Exposed and under ceramic. Various locations throughout	23, 24, 25	1200 sq ft.	10% Chr	Class II Abatement	Non-Friable
		Unit 20	27				
1	Type 1 drywall, joint tape and compound with texture	Retail walls	02, 03	5000 sq ft,	<1% Chr	Class II Abatement	Non-Friable
2	Type 2 drywall, joint tape and compound with texture	Rear storage and electrical room	06, 07	1000 sq ft.	<1% Chr	Class II Abatement	Non-Friable
3	Black mirror mastic	Behind all mirrors in retail	12	300 sq ft.	15% Chr	Class II Abatement	Non-Friable
4	Tan white 12 x 12 vinyl floor tile and black mastic	Rear storage	14	200 sq ft.	2% Chr – tile 10% Chr – mastic	Class II Abatement	Non-Friable
5	Black mastic below NON ACM white 12 x 12 vinyl floor tile	Room adjacent rear storage	15	200 sq ft.	7% Chr	Class II Abatement	Non-Friable
6	Tan carpet mastic with residual black mastic	Dressing room and adjacent	16, 17	250 sq ft.	10% Chr	Class II Abatement	Non-Friable
		Unit 20	28				
1	Black mastic below NON ACM Gray ceramic tile and below mortar	Below carpet of dressing room areas	09	600 sq ft.	7% Chr	Class II Abatement	Non-Friable
2	Black mastic below NON ACM White 12 x 12 vinyl floor tile with yellow mastic and with tan 2 nd layer vinyl floor tile	Back rooms	10	800 sq ft.	5% Chr	Class II Abatement	Non-Friable
3	Black mastic below NON ACM Tan 12 x 12 vinyl floor tile	Patch areas of back room and below mechanical unit	11	300 sq ft,	5% Chr	Class II Abatement	Non-Friable
		Unit 20	31				
1	Black mastic below NON ACM Gray ceramic tile	Back wall	07	150 sq ft.	10% chr	Class II Abatement	Non-Friable
		Unit 20	34				
1	Yellow carpet mastic with residual mastic	Rear hall offices	12, 13*	1,000 sq ft.	2% Chr	Class II Abatement	Non-Friable
		Unit 20	44				
1	Black mirror mastic	Retail and dressing rooms, restrooms	06	300 sq ft.	10% Chr	Class II Abatement	Non-Friable
		Unit 20	51				
1	Residual sheet flooring below NON ACM gray ceramic tile mortar	Right rear room	05	150 sq ft.	70% Chr	Class II Abatement	Non-Friable
		Unit 20	53				
1	Smooth drywall, joint tape and compound	Lower walls throughout dining and kitchen, 2 nd floor mechanical rooms	01*, 02*, 03	8000 sq ft,	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Drywall, joint tape and compound with texture	Upper walls in dining, 2 nd floor throughout	04, 05*	6000 sq ft.	<1% Chr	Class II Abatement	Non-Friable
3	Black hardwood plank mastic	Behind tongue & groove planks in dining room	09	500 sq ft.	2% Chr	Class II Abatement	Non-Friable
4	Black residual mastic	2 nd floor throughout	14, 15	1,000 sq ft.	2% Chr	Class II Abatement	Non-Friable
5	Yellow pebble pattern sheet flooring	2 nd floor restrooms	21	80 sq ft.	70% Chr	Class II Abatement	Friable

6	Black planter box mastic	Interior of boxes at front entry and dining room and behind stainless steel panels at front entry	25	600 sq ft.	3% Chr	Class II Abatement	Non-Friable
		Unit 2'	100				
1	Smooth drywall, joint tape and compound	Walls throughout 1st floor and mechanical room walls and ceilings on 2nd floor	01, 02, 03	6,000 sq ft	<1% Chr	Class II Abatement	Non-Friable
2	Drywall, joint tape and compound with texture	2 nd floor offices and stairwell	04, 05	2500 sq ft.	<1% Chr	Class II Abatement	Non-Friable
3	Topping texture	2 nd floor offices and stairwell	06, 07	Included with item #2	2% Chr	Class II Abatement	Friable
		Unit 2104 Fre	sh Choice				
1	Smooth drywall, joint tape and compound	Walls and partial ceilings	01*, 02*, 03	20,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Black residual mastic below NON ACM gray ceramic tile mortar	Dining areas	09	1500 sq ft.	5% Chr	Class II Abatement	Non-Friable
3	Yellow carpet mastic with residual mastic	Dining areas	10, 11	5,000 sq ft.	2% Chr	Class II Abatement	Non-Friable
		Unit 2105 Se	e's Candy				
1	Smooth drywall, joint tape and compound	Walls throughout	01*, 02, 03	6,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Yellow wood floor mastic	Front entry	08	30 sq ft	2% Chr	Class II Abatement	Non-Friable
3	Black mastic below NON ACM Checker board pattern 12 x 12 vinyl floor tile	Front area	10	1,200 sq ft.	5% Chr	Class II Abatement	Non-Friable
		Unit 2	107				
1	White drywall, joint tape and compound with texture	Rear rooms	03	5,000 sq ft	<1% Chr	Class II Abatement	Non-Friable
2	Topping texture	Rear rooms	04	2,500 sq ft	2% Chr	Class II Abatement	Friable
3	Black mirror mastic	Dressing rooms and column retail	07	200 sq ft,	10% Chr	Class II Abatement	Non-Friable
4	Yellow 12 x 12 vinyl floor tile with NON ACM tan mastic and carpet mastic	Front retail	09	1500 sq ft	2% Chr	Class II Abatement	Non-Friable
5	Joint compound on NON ACM Yellow splash panel mastic	Restroom walls	12	80 sq ft.	2% Chr	Class II Abatement	Non-Friable
		Unit 2108 L	<u>egends</u>				
1	Smooth drywall, joint tape and compound	Walls throughout ceilings in rear	01*, 02, 03	8000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	White 12 x 12 vinyl floor tile with black mastic	Rear stock offices	07	300 sq ft.	2% Chr – tile 5% Chr – mastic	Class II Abatement	Non-Friable
3	White 12 x 12 vinyl floor tile with black mastic	Rear retail below carpet	08	300 sq ft.	2% Chr – tile 5% Chr – mastic	Class II Abatement	Non-Friable
		Unit 2	110				
1	Black mastic below NON ACM tan 12 x 12 vinyl floor tile	Rear half	06	800 sq ft	5% Chr	Class II Abatement	Non-Friable
		Unit 2	<u> 111 </u>	1	1		1
1	Smooth drywall, joint tape and compound	Walls throughout and ceilings in restrooms	01, 02	5,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable
2	Tan wood floor mastic	Front entry	04	60 sq ft.	5% Chr	Class II Abatement	Non-Friable
	Disab mostic hale NON AOM 40	Unit 2112 T	oy Irain	1		Ola · · · II	I
1	Black mastic below NON ACM 12 x 12 white vinyl floor tile	Restroom	11	40 sq ft.	5% Chr	Class II Abatement	Non-Friable

		Unit 2113 Fash	nion Plaza				
1	Black mirror mastic	Retail and restroom	11	100 sq ft	10% Chr	Class II Abatement	Non-Friable
2	Black mastic below NON ACM white 12 x 12 vinyl floor tile	Rear rooms	15	500 sq ft.	3% Chr	Class II Abatement	Non-Friable
		Unit 21	14				
1	Smooth drywall, joint tape and compound	Walls throughout	01, 02*, 03*	8,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Black mastic below NON ACM white 12 x 12 vinyl floor tile	Stock room and hall	08	500 sq ft	2% Chr	Class II Abatement	Non-Friable
3	Black mastic below NON ACM sheet flooring	Restroom	09	60 sq ft	2% Chr	Class II Abatement	Non-Friable
		Unit 2115 P	ayless				
1	Smooth drywall, joint tape and compound	Walls throughout, ceilings in restrooms and corridor	01, 02*, 03	11,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Yellow mastic	Throughout at entry. Below wood and ceramic tile	07, 34++	150 sq ft.	2% Chr	Class II Abatement	Non-Friable
3	Tan ceramic tile mastic	Restroom walls	09	200 sq ft.	2% Chr	Class II Abatement	Non-Friable
4	Black ceramic tile mastic	Restroom floors	10	100 sq ft.	5% Chr	Class II Abatement	Non-Friable
5	Black mastic below NON ACM red 12 x 12 vinyl floor tile	Rear hall and stock room	14	2800 sq ft.	5% Chr	Class II Abatement	Non-Friable
		2116 Armor	Geddon				
1	Smooth drywall, joint tape and compound	Walls throughout, ceilings in restrooms	01, 02*, 03	6000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Tan 12 x 12 vinyl floor tile with black mastic	Restroom	11	50 sq ft.	2% Chr- tile 2% Chr- mastic	Class II Abatement	Non-Friable
		Unit 2117, 2118, 2119,	, <mark>2119A</mark> ar	nd 2110			
1	Smooth drywall, joint tape and compound	Walls throughout	01*, 02*, 03*, 04, 05	30,000 sq ft.	None detected to <1% Chr	Class II Abatement	Non-Friable
2	Red brick pattern 12 x 12 vinyl floor tile with black mastic	Unit 2117 front	11, 12	800 sq ft.	2% Chr- tile 5% Chr- mastic	Class II Abatement	Non-Friable
3	White 12 x 12 vinyl floor tile with black mastic	Unit 2117 rear section and adjacent halls	13	500 sq ft.	2% Chr- tile 3% Chr- mastic	Class II Abatement	Non-Friable
4	Black residual floor tile mastic	Exposed and under ceramic floor tile unit 2117	15, 16	200 sq ft.	3-5% Chr	Class II Abatement	Non-Friable
5	Black mastic below NON ACM white 12 x 12 vinyl floor tile	Rear unit 2118 and 2119	17, 18	1200 sq ft.	5% Chr	Class II Abatement	Non-Friable
6	Red sheet flooring	2120 rear walls	21	15 sq ft.	70% Chr	Class II Abatement	Friable
7	White fire door core insulation	2117	26	1 door	15% Chr	Class I Abatement	Friable
		Unit 2121-	-2124				
1	Black splash panel molding mastic	Partial walls in rear	09	35 In ft	5% Chr	Class II Abatement	Non-Friable
2	Tan residual mastic	Front perimeter unit 2121 only	18	50 sq ft.	2% Chr	Class II Abatement	Non-Friable
		Unit 2125/2127 Vic	toria's Se	cret			
1	Black mirror mastic	Walls and fixtures	08	500 sq ft.	5% Chr	Class II Abatement	Non-Friable
2	Black mastic with NON ACM	Exposed and below carpet throughout most of retail	14, 15	5000 sq ft.	5% Chr	Class II Abatement	Non-Friable
3	Black mastic below NON ACM white tile	Storerooms and rear hall	16, 17	1000 sq ft.	5% Chr	Class II Abatement	Non-Friable
		Unit 21	28				
1	Black mastic below NON ACM tan 12 x 12 vinyl floor tile	Rear stock and restroom	07	150 sq ft	2% Chr	Class II Abatement	Non-Friable

	Unit 2130										
1	Textured drywall, joint tape and compound	Retail and throughout	01, 02	3000 sq ft.	<1% Chr	Class II Abatement	Non-Friable				
2	Smooth wall drywall, joint tape and compound	Above ceiling space	06	3000 sq ft.	<1% Chr	Class II Abatement	Non-Friable				
	Unit 2133										
1	Smooth wall drywall, joint tape and compound	Walls throughout	01	4500 sq ft.	<1% Chr	Class II Abatement	Non-Friable				
2	2 nd layer White 12 x 12 vinyl floor tile with NON ACM tan 12 x 12 vinyl floor tile with mastic	Stock room	09	300 sq ft.	2% Chr	Class II Abatement	Non-Friable				
3	Black mirror mastic	Retail and restroom	10	200 sq ft.	10% Chr	Class II Abatement	Non-Friable				
		Unit 21	32								
1	Black mastic below sheet flooring	Restroom	07	80 sq ft	5% Chr	Class II Abatement	Non-Friable				
2	Black mastic below NON ACM tan tile	Stock room	08	300 sq ft.	5% Chr	Class II Abatement	Non-Friable				
3	Black mirror mastic	Retail and restroom	12	200 sq ft.	10% Chr	Class II Abatement	Non-Friable				
		Unit 21	37								
1	Smooth wall drywall, joint tape and compound	Walls in retail and lower stock room	01	3,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable				
2	White drywall, joint tape and compound with texture	Upper stock room, restroom, lower rear walls	02	1,000 sq ft	<1% Chr	Class II Abatement	Non-Friable				
3	Tan pebble pattern sheet flooring	Restroom	07	40 sq ft.	70% Chr	Class II Abatement	Friable				
4	Black mirror mastic	Dressing rooms	12	60 sq ft	10% Chr	Class II Abatement	Non-Friable				
		Unit 21	41								
1	Smooth wall drywall, joint tape and compound	Mechanical room	03	400 sq ft.	<1% Chr	Class II Abatement	Non-Friable				
		Unit 21	44								
1	Smooth wall drywall, joint tape and compound	Walls and ceilings throughout	01	2500 sq ft.	<1% Chr	Class II Abatement	Non-Friable				
2	Black mirror mastic	Rear wall and retail	03	200 sq ft.	10% Chr	Class II Abatement	Non-Friable				
		Unit 21	46								
1	Yellow pebble pattern sheet flooring	Restroom floor	06	40 sq ft.	70% Chr	Class II Abatement	Friable				
		Section A Roofs Excluding	g Macy's a	and Theatre							
1	Black roofing mastic	Penetrations, joints seams, patches and flashings, supports blocks etc.	08, 09 10	10,000 sq ft.	10% Chr	Class II Abatement	Non-Friable				
2	Black/gray roofing felt	Beneath NON ACM Gray shingles for square skylight wells, perimeter of skylight roof nearest sears	11	6,000 sq ft.	70% Chr	Class II Abatement	Non-Friable				
3	Gray stucco	Soffits and facias throughout	20	50,000 sq ft.	<1% Chr	Class II Abatement	Non-Friable				
	SEARS @ SEC	TION A CONNEC	CTION	(LIMITE	DARE	A ONL	<u>.Y)</u>				
	MATERIAL DESCRIPTION	MATERIAL, SYSTEM, LOCATION	SMPL NOS.	Approx. Quant.	Lab Result	REGUL ASSES CAL OSHA	ATORY SMENT EPA/ AQMD				
1	Gray caulking	Concrete to CMU seams of exterior walls	115	300 In ft to be impacted on north wall	2% Chr	Class II Abatement	Non-Friable				
	North Parki	ng Structure, South West Pa	rking Struc		Parking Lo	ot					
		No asbestos detected in									
	no assestes actested in samples conested.										

* No asbestos detected in sample ++ Sampled with 2nd floor common areas Note: PLM 400 Point count confirmation results are pending for ACM items up to 2%

Job No. 578-MA18 Environmental Testing Report Page 9 Vallco Mall – Section A

Assumed Asbestos (Suspect ACM Not Sampled)

The following materials were not sampled and are assumed to contain asbestos unless or until sampled and proven otherwise.

ouic	EI WISE.				
	MATERIAL DESCRIPTION	MATERIAL, SYSTEM, LOCATION	Approx.		ILATORY SSMENT
	MATERIAL DESCRIPTION	MATERIAL, STSTEM, LOCATION	Quant.	CaL OSHA	EPA/ AQMD
		Dynasty			
1.	Mirror mastic	Restrooms, partial walls in dinning room	1,000 sq ft.	Class II Abatement	Non-Friable
2	Fire door core insulation	Kitchen doors, random doors throughout	>5 doors	Class I! Abatement	Friable
		Unit 2053			
1.	Tan 12 x 12 vinyl floor tile with black mastic	2 nd floor managers office	60 sq ft.	Class II Abatement	Non-Friable
2	Black mirror mastic	Left wall in dining room and all restrooms	300 sq ft.	Class II Abatement	Non-Friable
		Unit 2048/2049			
1.	Black mirror mastic	Restrooms and dinning rooms	400 sq ft.	Class II Abatement	Non-Friable
		Unit 2104 Fresh Choice			
1.	Black mirror mastic	Restrooms	50 sq ft.	Class II Abatement	Non-Friable
		Unit 2146			
1.	Black mirror mastic	Restroom and retail area	150 sq ft.	Class II Abatement	Non-Friable
		Alexander's Steak House			
1.	Black mirror mastic	Throughout restrooms and bar	500 sq ft.	Class II Abatement	Non-Friable

PAGES 10-23 NON -ASBESTOS-CONTAINING MATERIALS (ACM)

	MACY'S RETAIL STORE & EXTERIOR				
	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	SAMPLE NUMBERS		
	Macy's Interior				
1	Tan fireproofing	Decks, beam with overspray and debris on most mechanicals. (Debris possible behind wall cavities)	15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28		
2	White 2 x 2 ceiling panels	Most offices and most retail spaces	20, 30, 31, 32, 33		
3	Brown baseboard mastic	Most walls	34,35, 36		
4	Yellow /brown carpet mastic	Retail offices, dressing rooms and some store rooms of level 1	37, 38, 39		
5	Brown flooring mastic	Exposed in level 1 north store room	40		
6	Yellow parquet floor mastic	Level 1 retail below the blonde wood parquet	41, 42		
7	Brown parquet floor mastic	Level 1 retail below the brown parquet	43, 44		
8	Multi colored vinyl floor tile trim with yellow brown mastic	Retail level 1 below carpet at edges of carpet	45, 46, 47		
9	White 12 x 12 vinyl floor tile with masonite, leveling compound and black/yellow mastic	Level 1 retail pat isles mixed with beige vinyl	48, 49		
10	Beige 12 x 12 vinyl floor tile with masonite, leveling compound and black/yellow mastic	Mixed with white 12 x 12 vinyl floor tile with level 1 exposed	50, 51		
11	Yellow brick wall mastic	West store room of level 1	55		
12	Tan mirror mastic	Mirrors throughout mixed with tan mastic	58		
13	White TSI pipe jacket	Throughout	59, 60		
14	Silver TSI pipe jacket	Throughout	61		
15	Red duct mastic	Throughout	63		
16	Yellow wall carpet mastic	West store room	64		
17	Gray ceramic tile mastic	Lead 1 north store room and offices	65, 66		
18	Gray ceramic tile mortar	Restroom floors	67		
19	Gray ceramic tile mortar	West store room	68		
20	Gray ceramic tile mortar	West store room below red tile	69		
21	Gray ceramic tile mortar	At elevator	70		
22	White ceramic tile mortar	Level 1 restroom walls	71		

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Vallco Mall – Section A

	188.9		1.70
23	White ceramic tile mortar	Level 2 restroom walls	72
24	Gray ceramic tile mortar	Level 2 restroom walls	73
25	Gray marble tile mortar with leveling compound	Level 2 retail areas	74, 75
26	Tan residual parquet floor mastic	Level 2 retail areas	76
27	Yellow flooring mastic	Level 2 south east stone room and north customer service	77, 78
28	Yellow carpet mastic	Level 2 retail and store rooms and office	79, 80
29	Multicolored vinyl floor tile trim with yellow mastic	Level 2 below carpet at edges of some carports	81, 82
20	White gray 12 x 12 vinyl floor tile with brown	Level Owner teterane	04.05
30	mastic	Level 2 west store rooms	84, 85
31	Gray 12 x 12 vinyl floor tile with yellow mastic	Level 2 south dressing room	86
32	Tan 12 x 12 vinyl floor tile with yellow mastic	Level 2 north dressing room	87
33	White fire door insulation	2 nd level stairwell	88
		Macy's break room	1
1	Tan baseboards mastic	Baseboards	01
ı	Black white 12 x 12 vinyl floor tile with yellow	Dasebualus	UI
2	•	Floors	02
2	mastic	Driel les le celle	02
3	Yellow wall panel mastic	Brick look walls	03
		Macy's Roof	
1	Black gray composite sheet roof	Roof field	01, 02, 03
2	Black/tan composite shingle and felt	Pitched perimeter, Penthouse roofs	04
		Exterior "Section A"	
1	Gray concrete	Walls, ceilings and columns sidewalks	01, 02, 03, 04, 05
		Macy's walls and sidewalls (Macy's was built separately from the	
2	Gray concrete	mall	06
3	Stucco with vapor barrier	Partial walls and ceilings mixed with drywall	07, 08
4	Black asphalt	Parking lots and roads	09, 10, 11
5	Gray fire proofing	On deck for parking area by Dynasty	12, 13, 14
6	Black moisture barrier	Many's perimeter wells below grade	15, 16
		Macy's perimeter walls below grade	,
7	HVAC Duct seam tape	Ducts in parking areas	17
8	White 2 x 2 suspended ceiling panels	Macy's loading dock	18
9	Tan acoustical panels	Macy's loading dock walls	19
10	Gray brick veneer mortar	Walls throughout mixed with concrete stucco	20
11	Tan carpet mastic	Exterior lower level entry to Macy's	21
12	Gray ceramic tile mortar	Planter by Macy's lower level rear entry	23
13	Black door/window	Rough opening caulking	24, 25, 26
14	Black exterior seam exterior caulking	Macy's walls	27
	λιл	C MOVIE THEATRE	
	AW	C MOVIE THEATRE	
	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	SAMPLE NUMBERS
		AMC	
			Tat as as at as as as as
1	White smooth drywall, joint tape and compound	Walls throughout some ceilings	01, 02, 03 04, 05, 06, 07, 08, 09
2	Tan 2 x 2 suspended ceiling panels	Lobbies and corridors	10, 11
3	White 2 x 4 suspended ceiling panels	Theatres, projection rooms and offices	12, 13, 14, 15
4	Smooth white 2 x 4 suspended ceiling panels	Smooth drywall type	16
5	Tan FRP mastic	Kitchen walls	17-18
6	Gray FRP mastic	Theatre trash bins	19
7	Tan fastener mastic for insulation pads	Behind theatre screens	20, 21
8	Yellow mastic	For theatre wall acoustical panels	22, 23
9	Tan baseboard mastic	Partial walls throughout	24
10	Tan HVAC duct seam sealer	On ducts	25
11	Red fire caulking	Some wall seams and penetrations	26
12	White glass wall tile mortar/mastic	Restroom walls	27, 28
13	Gray white floor tile mortar	Janitors closet concession area floors	29, 30
14	White wall tile mortar	Concession area walls	31, 32
15	Gray floor tile mortar	Restroom floors	33, 34
16	White floor tile mortar	Theatre entries	35
17	White counter top	Restroom counter	36
18	White terrazzo flooring	Janitors closet slop sink	37
19			38
19	Black terrazzo flooring	Entry	30
20	Yellow white carpet mastic with leveling	Carpets throughout 1st floor and 2nd floor	39, 40, 41
	compound	-	
21	Gray black sheet flooring	Theatre seated areas	42, 43
22	Gray fireproofing	Deck and beams throughout	44, 45, 46, 47, 48
23	White silver pipe jacket	Pipes throughout	49, 50
24	White 12 x 12 vinyl floor tile yellow mastic	Concession storage and exit landing	51, 52
25	Gray pebble sheet flooring	2 nd floor break room	53
26	White 12 x 12 vinyl	2 nd floor corridors and room	54, 55
	,		

27	Drywall, joint tape and compound	AMC point of sale walls	56
28	White 2 x 2 ceilings panels	Suspended	57
29	White baseboard mastic	Baseboards point of sale area	58
30	Yellow carpet mastic	Carpets throughout point of sale area	59
		AMC Theatre Roofs	
1	Black comp sheet roof	Roof field upper and middle roof	01, 02, 03
2	Gray black roofing mastic	Penetrations	04, 05
3	Gray stucco	Exterior	06
4	Black white composite sheet roof	Roof field lower roof	07
5	Black exterior seam exterior caulking	Macy's walls	27

SEARS @ SECTION A CONNECTION (LIMITED AREAS ONLY)

	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	SAMPLE NUMBERS
1	Gray caulking	Entire perimeter sidewalk to building	110
2	Gray caulking	Sidewalk seams	111
3	Gray concrete	Lower perimeter walls	112
4	Tan mastic	Plexiglass panel skirts	113
5	Gray concrete	Perimeter side walks	114
6	Black asphalt	Parking lot and roadway	116, 117, 118
7	Gray ceramic tile mortar	2 nd floor mall entry walls	119
8	Gray stucco	2 nd floor mall entry front	120
9	Tan terrazzo	Floor and stairs in front stairwell	121

RESTAURANTS - TGIF, ALEXANDER'S STEAK HOUSE & DYNASTY RESTAURANT

	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	SAMPLE NUMBERS
		TGIF	•
1	White smooth drywall, joint tape and compound	Walls in rear of kitchen, behind some wood paneling, chalkboard wall in bar, behind ceiling tiles in restroom walls	01, 02, 03 04, 05
2	White smooth drywall, joint tape and compound with texture	Lower partition walls in dining room	06
3	White topping texture	Lower partition walls in dining room	07
4	White drywall without joint tape and compound	Behind most wood paneling and FRP in kitchen	08
5	White 2 x 2 suspended ceiling panels	Restrooms	09
6	White 2 x 4 suspended ceiling panels	Smooth type in kitchen	10
7	White pipe insulation jacket	Water pipes above ceilings	11
8	White 12 x 12 vinyl floor tile with black mastic beneath	Managers office	13
9	White 12 x 12 vinyl floor tile with black mastic	Storage room adjacent dishwashing area	14
10	Gray 12 x 12 vinyl floor tile with black mastic	Safe office	15
11	Yellow wall panel mastic	Kitchen walls	16
12	Black residual mastic	Electrical room	17
13	Tan ceramic tile mastic	Floor riser dining area	18
14	White baseboard mastic	Baseboards throughout	19
15	Gray/black ceramic tile mortar	Kitchen/bar	20
16	Gray ceramic tile mortar	Lower dinning area	21, 22
17	Gray ceramic tile mortar	Lower dinning area	23
18	Gray ceramic tile mortar	Upper dinning area	24
19	Gray ceramic tile mortar	Safe closet	25
20	Gray ceramic tile mortar	Restroom	26
21	Black membrane beneath wood floor	Dinning area	27
22	Black tar and gravel roof	Flat roof	28, 29
23	Black curb membrane	Patches and penetrations	30
24	Black, white cap seam mastic	Cap seams	32
25	Black composite shingle	Pitched roof	34
26	Gray brick mortar	Exterior walls	35
27	Black asphalt	Parking lot	36
28	Gray concrete	Curbs driveways	37
29	Black rough opening window caulking	Windows	38
30	Black vapor barrier	Behind exterior walls	40
		Dynasty	•
1	White smooth drywall, joint tape and compound	Walls and ceilings throughout	01
2	White drywall, joint tape and compound with texture	Most walls and ceilings throughout 2nd floor, stairwells	02
3	Topping texture	Most walls and ceilings throughout 2nd floor, stairwells	03

4	Mile Co. A constant and a disconnection	Overally Land St. Pitcher	0.4
	White 2 x 4 suspended ceiling panels	Smooth type in kitchen	04
5	Tan splash panel mastic	2ndfloor pantry, 2 nd floor storage	05
6	Brown baseboard mastic	2 nd floor throughout	06
7	Tan sheet flooring	2 nd floor pantry	07
8	Gray ceramic tile mortar	Kitchen floor, dining room, restroom floors and walls, partial walls in dining areas throughout	08
9	White 12 x 12 vinyl floor tile with mastic and carpet mastic	1st floor dining areas throughout	09, 10
10	Tan ceramic mastic	2 nd floor employee restroom walls	11
11	Gray HVAC duct seam mastic	Ducts and mechanicals	12
	oray minio duot ocam macaio	Alexander's Steak House	16
4	NAME:		I 04 00 00 04 05
1	White smooth drywall, joint tape and compound	Walls throughout, ceilings throughout excluding kitchen	01, 02, 03, 04, 05
2	White 2 x 4 suspended ceiling panels	Smooth type – kitchen	06
3	Yellow FRP mastic	Walls in kitchen	07
4	Gray ceramic tile mortar	Below slate floors	08
5	Gray ceramic tile mortar	Below kitchen floors	09
6	Gray ceramic tile mortar	Behind slate walls	10
7	Gray ceramic tile mortar	Floor around bar	11
8	Yellow carpet mastic	Throughout dining area and upstairs	12
9	Gray stone mortar	Some exterior walls	13
	,		-
10	Gray exterior stucco	Exterior walls	14, 15
11	Black roof felt	Below metal roof	16
12	Black composite sheet roof	Flat roof	17
13	Black roof mastic	Patches and penetrations	18
14	Gray HVAC dust seam mastic	Roof mounted ducts	19
15	Black rough opening	Window caulking windows	20
16	Black asphalt	Parking lot	21
17	Gray concrete	Curbs sidewalks and slabs	22
- 17	Gray Concrete	Cui de sidewaire ai la siade	22
	MATERIAL DESCRIPTION	AREAS & SHERIFFS OFFICE MATERIAL LOCATION(S)	SAMPLE NUMBERS
		Hallway 1	
1	Gray stucco	Cooling tower 2 walls	04
2	Brown baseboard mastic	Some corridors and service closets	05
3	Tan splash panel mastic	Corridors walls throughout	06
	White drywall joint tape and compound with	•	
4	texture	Stairwell 1	07
5	Topping texture	Stairwell 1	08
		Restroom left of compactor room 1	09
6	Tan pebble pattern sheet flooring wit mastic		
7	Gray pebble pattern sheet flooring	Janitors closet left of compactor room 1	
8			10
	Gray pebble pattern sheet flooring	2 nd floor janitors closet left of compactor room1	11
9	Yellow splash panel mastic	Janitors closet and restrooms	11 12
			11
9 10 11	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls	11 12 14 15
9	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls	11 12 14
9 10 11	Yellow splash panel mastic White ceramic tile mortar	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms	11 12 14 15
9 10 11 12	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B	11 12 14 15 16
9 10 11 12	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2	11 12 14 15 16
9 10 11 12 1 2	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls	11 12 14 15 16
9 10 11 12 1 2 3	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts	11 12 14 15 16 01, 05 06
9 10 11 12 1 2	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms	11 12 14 15 16
9 10 11 12 1 2 3	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts	11 12 14 15 16 01, 05 06
9 10 11 12 1 2 3	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms	11 12 14 15 16 01, 05 06
9 10 11 12 1 2 3 4	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic 1st flo Smooth White drywall joint tape and compound	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings	11 12 14 15 16 01, 05 06 07
9 10 11 12 1 2 3 4	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic 1st floc Smooth White drywall joint tape and compound White drywall joint tape and compound with	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms For south side retail and common areas	11 12 14 15 16 01, 05 06 07
9 10 11 12 1 2 3 4	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic 1st flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms For south side retail and common areas Most walls throughout some restroom ceilings See map	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09
9 10 11 12 1 2 3 4	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic 1st flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11
9 10 11 12 1 2 3 4 1 2	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic 1st flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms For south side retail and common areas Most walls throughout some restroom ceilings See map See map	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13
9 10 11 12 1 2 3 4 1 2 3 4 5	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms For south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15
9 10 11 12 1 2 3 4 1 2 3 4 5 6	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21
9 10 11 12 1 2 3 4 1 2 3 4 5 6	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22
9 10 11 12 1 2 3 4 1 2 3 4 5 6 7	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flc Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with yellow mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025A rear section	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24
9 10 11 12 1 2 3 4 1 2 3 4 5 6	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flc Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with yellow mastic Black 12 x 12 vinyl floor tile with black mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025A rear section 1026 rear section and rear hall	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24 25, 26
9 10 11 12 1 2 3 4 1 2 3 4 5 6 7	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flc Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with yellow mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025A rear section	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24 25, 26 27
9 10 11 12 1 2 3 4 1 2 3 4 5 6 7 8 9	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flc Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with yellow mastic Black 12 x 12 vinyl floor tile with black mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025A rear section 1026 rear section and rear hall	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24 25, 26
9 10 11 12 1 2 3 4 1 2 3 4 5 6 7 8 9	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with black mastic Black 12 x 12 vinyl floor tile with black mastic Blue sheet flooring with mastic Tan sheet flooring with yellow mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025A rear section 1026 rear section and rear hall 1025 Retail and rear hall	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24 25, 26 27
9 10 11 12 1 2 3 4 1 2 3 4 5 6 7 8 9 10 11	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with black mastic Black 12 x 12 vinyl floor tile with black mastic Blue sheet flooring with mastic Tan sheet flooring with yellow mastic White 12 x 12 vinyl floor tile with black mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3 walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025 Retail and rear hall 1025 Retail and rear hall 1027 rear retail	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24 25, 26 27 28 29
9 10 11 12 1 2 3 4 1 2 3 4 5 6 6 7 8 9 10 11 12	Yellow splash panel mastic White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist floc Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with black mastic Black 12 x 12 vinyl floor tile with black mastic Blue sheet flooring with mastic Tan sheet flooring with yellow mastic White 12 x 12 vinyl floor tile with mastic White 12 x 12 vinyl floor tile with mastic White 12 x 12 vinyl floor tile with mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms For south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025A rear section 1026 rear section and rear hall 1025 Retail and rear hall 1027 rear retail 1027 rear retail	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24 25, 26 27 28 29 30
9 10 11 12 1 2 3 4 1 2 3 4 5 6 7 8 9 10 11	Yellow splash panel mastic White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White ceramic tile mortar White topping texture Gray stucco Gray HVAC mastic Brown baseboard mastic Ist flo Smooth White drywall joint tape and compound White drywall joint tape and compound with texture Topping texture Fiberglass coated drywall Splash panel mastic Gray sheet flooring White 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with black mastic Black 12 x 12 vinyl floor tile with black mastic Blue sheet flooring with mastic Tan sheet flooring with yellow mastic White 12 x 12 vinyl floor tile with black mastic	Janitors closet and restrooms Restroom colors and corridors leading to restrooms Restroom walls Security holding rooms Hallway 2 B Stairwell 2 Cooling tower 3 walls Cooling tower 3 mechanical and ducts Corridors and SVC rooms or south side retail and common areas Most walls throughout some restroom ceilings See map See map Most restroom walls random walls throughout 1023 restroom 1024 rear rooms 1025 Retail and rear hall 1025 Retail and rear hall 1027 rear retail	11 12 14 15 16 01, 05 06 07 01, 02, 03, 04, 05, 06, 07 08, 09 10, 11 12, 13 14, 15 21 22 23, 24 25, 26 27 28 29

- 40	T 40 40 1 10 01 11 11 11 11	1,4000 1, 11	
16	Tan 12 x 12 vinyl floor tile with yellow mastic	1029 Left rear	33
17	Black residual sheet flooring with mastic	1012	34
18	Tan pebble pattern sheet flooring	Small pebbles 1013 rear	35
19	Tan pebble pattern sheet flooring	Large pebbles 1013 entry to stock rooms	36
20	Yellow sheet flooring	Unit 1011 restroom	37
21	Tan 12 x 12 vinyl floor tile with mastic	1010 rear	38
22	Gray sheet flooring	1010 restroom	39
23	Black 12 x 12 vinyl floor tile with black mastic	1009 rear rooms and hall	40
		1009 restroom	
24	Gray sheet flooring		41
25	White 12 x 12 vinyl floor tile with black mastic	1007 A right rear	42
26	Tan 12 x 12 vinyl floor tile with black mastic	1006 restroom	43
27	Tan pebble pattern sheet flooring	1005 rear	44
28	Gray sheet flooring	Right rear restroom in 1002) 1—2 s divided into 2 separate units)	45
29	Yellow residual carpet mastic	Various areas throughout	46, 47, 48, 49
30	Gray ceramic tile mortar	Various areas throughout	50, 51, 52, 53
31	Brown baseboard mastic	Random walls throughout	54
32	White HVAC duct seam tape	Ducts and mechanicals throughout	55
32	·		- 33
		purtyard 4 (showcase and presentation area)	
1	Smooth drywall, joint tape and compound	Walls and ceiling throughout ex. Office	01
2	White 2 x 4 suspended ceilings	Office	02
3	Yellow carpet mastic	Office	03
4	Gray ceramic tile mortar	Floor in showcase area	04
5	Tan pathway top surface	Showcase area	05
6			
ь	Dark gray pathway base rock	Showcase area	06
		1st floor common area	
1	Smooth drywall, joint tape and compound	Walls and some ceilings	01, 02, 03, 04, 05
2	Tan baseboard mastic	Most walls throughout	06
3	Gray ceramic tile mortar	On columns by sears ad dynasty	07
4	Gray stucco	Macy's soffit and closet by dynasty	08
		, , , ,	
5	Ceramic tile mortar	Hallway restrooms	09
6	Ceramic tile mortar	Hallway restrooms	10
7	Ceramic tile mortar	Common area adjacent Dynasty	11
_	Black wood floor mastic	Common area adjacent Dynasty	12
8	DIACK WOOD HOOF HIASUC	Common area adjacent Dynasty	
9	Black vapor barrier	Below plywood sub floor beneath wood floor	13
		Below plywood sub floor beneath wood floor	
	Black vapor barrier		
	Black vapor barrier White drywall joint tape and compound with	Below plywood sub floor beneath wood floor	
9	Black vapor barrier White drywall joint tape and compound with texture	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings	01, 02, 03, 04, 05, 06, 07
9 1 2	Black vapor barrier White drywall joint tape and compound with texture Topping texture	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14
9 1 2 3	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21
9 1 2	Black vapor barrier White drywall joint tape and compound with texture Topping texture	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22
9 1 2 3	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21
9 1 2 3 4	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22
9 1 2 3 4 5	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24
9 1 2 3 4 5 6 7	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25
9 1 2 3 4 5 6 7 8	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26
9 1 2 3 4 5 6 7 8	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27
9 1 2 3 4 5 6 7 8 9	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout	13 01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29
9 1 2 3 4 5 6 7 8	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113`	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27
9 1 2 3 4 5 6 7 8 9 10	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113` Below ceramic floor tiles in the corridors throughout common	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30
9 1 2 3 4 5 6 7 8 9	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas	13 01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29
9 1 2 3 4 5 6 7 8 9 10	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30
9 1 2 3 4 5 6 7 8 9 10	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar Gray white ceramic tile mortar with yellow mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area	13 01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
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9 1 2 3 4 5 6 7 8 9 10 11 12	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar Mortal	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway	13 01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar Mortal	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor	13 01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12 2 3 4	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12 2 3 4	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12 3 4 1 2 3 4	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar White ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37
9 1 2 3 4 5 6 7 8 9 10 11 12 3 4 1 2 3 4	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels White ceramic tile mortar and mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway Hall and restrooms, walls in restrooms	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37 01 02 03 04
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9 1 2 3 4 5 6 7 8 9 10 11 12 3 4 1 2 3 4	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels White ceramic tile mortar and mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway Hall and restrooms, walls in restrooms	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37 01 02 03 04
9 1 2 3 4 5 6 7 8 9 10 11 12 3 4 1 2 3 4	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar White ceramic tile mortar Gray white ceramic tile mortar with yellow mastic Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels White ceramic tile mortar and mastic White fire door core insulation	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway Hall and restrooms, walls in restrooms Trash compactor #3 door	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37 01 02 03 04
9 1 2 3 4 5 6 7 8 9 10 11 12 3 4 1 2 3 4 5 6 7 8 9 10 11 11 12 13 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mastic White ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar White ceramic tile mortar Gray white ceramic tile mortar Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels White ceramic tile mortar and mastic White fire door core insulation	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway Hall and restrooms, walls in restrooms Trash compactor #3 door Hallway 2A Stairwell	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37 01 02 03 04 01 03 04 05 06
9 1 2 3 4 5 6 7 8 9 10 11 12 1 12 3 4 5 1 2 3 4 5	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar Gray white ceramic tile mortar White ceramic tile mortar Gray white ceramic tile mortar Smooth drywall, joint tape and compound White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels White ceramic tile mortar and mastic White fire door core insulation Drywall, joint tape and compound with texture White topping texture	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway Hall and restrooms, walls in restrooms Trash compactor #3 door Hallway 2A Stairwell Stairwell	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37 01 02 03 04 01 03 04 05 06
9 1 2 3 4 5 6 7 8 9 10 11 12 1 12 3 4 5 1 2 3 4 5 1 2 3 4 5	Black vapor barrier White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar White ceramic tile mortar Gray white ceramic tile mortar Drywall, joint tape and compound Red/gray walkway tread Gray exterior stucco White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels White ceramic tile mortar and mastic White fire door core insulation Drywall, joint tape and compound with texture White topping texture Brown baseboard mastic	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113` Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway Hall and restrooms, walls in restrooms Trash compactor #3 door Hallway 2A Stairwell Stairwell Throughout	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37 01 02 03 04 01 03 04 05 06
9 1 2 3 4 5 6 7 8 9 10 11 12 1 12 3 4 5 1 2 3 4 5	White drywall joint tape and compound with texture Topping texture Smooth drywall, joint tape and compound Gray stucco Tan ceramic tile mastic Tan baseboard mastic Tan ceramic tile mastic Yellow carpet mastic Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray ceramic tile mortar Gray white ceramic tile mortar Gray white ceramic tile mortar White ceramic tile mortar Gray white ceramic tile mortar Smooth drywall, joint tape and compound White ceramic tile floor mortar Smooth drywall, joint tape and compound White topping texture White 2 x 4 suspended ceiling panels White ceramic tile mortar and mastic White fire door core insulation Drywall, joint tape and compound with texture White topping texture	Below plywood sub floor beneath wood floor 2nd floor common area Upper perimeter walls, fascias, ceilings Upper perimeter walls, fascias, ceilings Select store fronts, partician walls and some columns Macys entry walls Macy's entry walls Common areas throughout Smoothie stand adjacent 2113 Jewelry stand adjacent 2115 2009 baseboard and walls at entry All ceramic baseboards throughout Floor for smoothie stand adjacent 2113' Below ceramic floor tiles in the corridors throughout common areas 3rd level common area Ceilings and walls, hall and emergency exit Exterior emergency walkway Exterior walls Common area floor Hallway 3 Walls throughout, ceilings in restrooms Stairwell Hallway Hall and restrooms, walls in restrooms Trash compactor #3 door Hallway 2A Stairwell Stairwell	01, 02, 03, 04, 05, 06, 07 08, 09, 10 11, 12, 13, 14 15, 16, 17, 18, 19, 20, 21 22 23 24 25 26 27 29 30 31, 32, 33, 35, 36, 37 01 02 03 04 01 03 04 05 06

	Sherriff's Office				
	Smooth drawall joint tang and compound with		1		
1	Smooth drywall, joint tape and compound with texture	Walls, walls and ceilings in restrooms	01		
2	White 2 x 4 suspended ceiling panels	Office	02		
3	Tan baseboard mastic	Office	03		
4	Yellow carpet mastic with black residual black mastic	Office	04		
5	Gray ceramic tile mortar with residual black mastic	Restroom floor	05		
6	White ceramic tile mortar	Restroom walls	06		
	Old M	aintenance Office and Adjacent Rooms			
1	Smooth drywall, joint tape and compound	Walls throughout, ceiling in restroom	01		
2	Tan baseboard mastic	Throughout	02		
3	Tan ceramic tile mastic and splash panel mastic	Restroom walls, slop sink walls	03		
4	White HVAC duct seam tape	Ducts	04		
5	Gray stucco	Maintenance office exterior walls	05		
		RETAIL UNITS			
	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	SAMPLE NUMBERS		
		Unit 1002	Tax		
1	Smooth drywall, joint tape and compound	Walls throughout ceiling in corridor	01		
2	White 2 x 4 suspended ceiling panels	Maintenance storage	02		
3	Tan 12 x 12 vinyl floor tile with mastic	Throughout some sections are mixed with black in a checker pattern, corridor has gray paint over the vinyl floor tile	03		
4	Black yellow 12 x 12 vinyl floor tile with yellow mastic	Throughout some sections are mixed with black in a checker pattern, corridor has gray paint over the vinyl floor tile	04		
5	Gray ceramic tile mortar	Front entry floor	05		
6	Tan baseboard mastic	Partial walls and columns in maintenance	06		
7	Yellow ceramic tile mastic	Front exterior wall, left and right sides	07		
		Unit's 1004 & 1019			
1	Smooth drywall, joint tape and compound	Walls and ceilings in some restrooms	01, 02, 03, 04, 05		
2	White 2 x 4 suspended ceiling panels	Right side of retail	06		
3	White 2 x 4 suspended ceiling panels - smooth	Center restroom	07		
4	type Yellow baseboard mastic	Doubled wells throughout	00		
5		Partial walls throughout	08		
6	Tan 12 x 12 vinyl floor tile with yellow mastic Gray sheet flooring	Left restroom Room adjacent left restroom	10		
7	Tan sheet flooring	Center restroom and adjacent room	11		
8	White terrazzo look 12 x 12 vinyl flooring with	Right side or retail	12		
	yellow mastic	<u> </u>			
9	Black 12 x 12 vinyl floor tile wit yellow mastic	Back room in right side retail	13		
10	Tan pebble sheet flooring	Right rear restroom	14		
11	Yellow carpet mastic	Exposed in retail in various areas	15		
12	Orange carpet mastic	Exposed in retail in various areas	16		
13	Gray ceramic tile mortar	Exposed in retail in various areas	17		
14	Tan FRP mastic	Slop sink by center restroom	18		
15	Gray HVAC duct seam mastic	Exposed ducts and mechanicals	19		
16	Tan 12 x 12 vinyl floor tile with mastic	Partial floor in left mechanical room	20		
		Unit 1020	Т		
1	Smooth drywall, joint tape and compound	Walls throughout	01		
2	Brown base board mastic	Walls throughout	02		
3	Tan 12 x 12 vinyl floor tile with yellow mastic and leveling compound	Partial floor mixed with carpet mastic and ceramic tile mortar	03		
4	Yellow carpet mastic		04		
5	Gray ceramic tile mortar	Unit 1022P	05		
	Ownership desired the constant of	Unit 1023B	1.04		
1	Smooth drywall, joint tape and compound	Walls throughout	01		
2	White 2 x 4 suspended ceiling panels	Walls throughout	02		
3	Yellow carpet mastic	Throughout	03		
4	Brown parquet floor mastic	Platforms at front entry	05		
5	Gray ceramic tile mortar	Front entry	J 00		
		Unit 1040-1043			
1	Smooth drywall, joint tape and compound	Walls and some ceilings	01, 02, 03		
2	White 2 x 4 suspended ceiling panels	Most ceilings	04		
3	Gray marble tile mortar	Walk ways	05		
4	Yellow carpet mastic with leveling compound	Throughout most	06, 07		

5	Vollow 12 v 12 vinyl floor tile with valley meetie	Poetrooms and store room	08	
6	Yellow 12 x 12 vinyl floor tile with yellow mastic White 12 x 12 vinyl floor tile with yellow mastic	Restrooms and store room Back service area	09	
7	White sheet flooring	Back service area	10	
8	Tan baseboard mastic	Walls	11	
9	Tan FRP mastic	Restroom	12	
J	Tan Fra Masuc	Unit 2001/2007 Tatami	16	
		Walls throughout front perimeter ceilings , banquet room ceiling,		
1	Smooth drywall, joint tape and compound	restrooms	01, 02, 03, 04, 05	
2	White 2 x 4 suspended ceiling panels	Managers office and reception	06	
3	White 2 x 4 suspended ceiling panels	Smooth type kitchen	07	
4	Yellow splash panel mastic	Kitchen walls	08	
5	Yellow splash panel mastic	Kitchen walls (stainless steel)	09	
6	Gray fireproofing	Deck and beams	10, 11, 12	
7	Black mirror mastic	Restrooms	13	
8	Gray ceramic tile mortar	Banquet restrooms floors	14	
9	White ceramic tile mortar	Banquet restroom walls	15	
10	White ceramic tile wall mortar	Seating area large floor tiles	16	
11	Gray white ceramic floor tile mortar/mastic	Seating area small floor tiles	17	
12	Gray white ceramic floor tile mortar	Kitchen area	18	
13	White ceramic wall tile mortar /mastic	Restaurant restrooms	19	
14	Gray ceramic tile floor tile mortar	Restrooms	20	
15	White baseboard mastic	Baseboards throughout	21	
	AAR 9	Unit 2009	T	
1	White drywall, joint tape and compound with	Most walls throughout	02, 03, 04	
2	texture Topping texture	Most walls throughout	05, 06, 07	
3	White 2 x 4 suspended ceiling panels	All retail	08	
4	Tan baseboard mastic	Throughout	09	
5	Tan splash panel mastic	Restroom walls	10,	
6	Tan carpet mastic	Under carpets throughout	13	
7	White fire door insulation	Rear areas doors	15	
		Unit 2010	1 39	
1	White 2 x 4 suspended ceiling panels	Throughout	06	
2	Brown baseboard mastic	Throughout	07	
3	White HVAC duct seam tape	Ducts	08	
4	Yellow carpet mastic	Carpeted areas	11, 12	
5	Brown wood floor mastic	Entry	14	
Unit 2011 (Grain D'or)				
	White drywall, joint tape and compound with		04.05	
1	texture	Walls throughout 2 nd floor	04, 05	
2	Topping texture	Walls throughout 2 nd floor	06, 07	
3	White 2 x 2 suspended ceiling panels	Smooth type – 1st, 2nd floors throughout	08	
4	White pipe jacket insulation	Pipes in mechanical room	09	
5	Yellow wall panel mastic	Restrooms	12	
6	Yellow ceramic wall tile mastic	Retail and kitchen	13	
7	Red/brown cementations flooring	Kitchen and hall	14	
8	Tan vinyl stair tred with yellow mastic	Stairs	15	
9	White sheet flooring	1st floor restroom	16	
10	White sheet flooring	2nd floor restroom	17	
11 12	White 12 x 12 vinyl floor tile with black mastic	2 nd floor	18	
IΖ	Gray ceramic tile mortar	Retail	13	
	Tanaina tantuna	Unit 2013 (Famous Footwear)	Loc	
1	Topping texture	Left rear wall only	05	
3	White 2 x 2 suspended ceiling panels White HVAC duct seam tape	Rear areas Mechanical ducts	06	
4	White HVAC duct seam tape White HVAC mastic	Plenum perimeters	08	
5	Yellow splash panel mastic	Restroom walls	09	
6	Tan wood floor mastic	Entry and front retail	12	
<u> </u>	Hood floor flidotto	Unit 2014 /2015		
1	Smooth drywall, joint tape and compound	Walls in retail, corridors, right stockroom with restroom	01, 02, 03	
	White drywall, joint tape and compound with	, ,		
2	texture	Walls for left rear rooms behind retail	04, 05, 06	
3	Topping texture	Walls for left rear rooms behind retail	07, 08, 09	
4	Tan wall panel mastic	Partial retail walls	10	
5	Tan splash panel mastic	Restroom walls	11	
6	Brown baseboard mastic	Throughout	12	
7	Yellow residual mastic	Right side of retail	16	

_	O. Tarabatilarina					
8	Tan sheet flooring	Restroom only	17			
9	Tan/black tile pattern sheet flooring with mastic	Middle corridor and part of right rear stock room	18			
10	White 2 x 4 suspended ceiling panels	Left rear rooms behind retail and dressing rooms	20			
11	Tan HVAC duct seam mastic		21			
12	White HVAC vibration cloth	Above HVAC units	22			
		Unit 2020 Cold Stone				
1	Smooth drywall, joint tape and compound	Walls throughout ceiling in corridor	l 01			
2	Gray ceramic tile mortar	Floors	02			
3	White ceramic tile mastic	Walls in kitchen	03			
4	Yellow FRP mastic	Rear	04			
5	White 2 x 4 suspended ceiling panels	Smooth type	05			
- 3	writte 2 x 4 susperioed ceiling pariets	71	05			
		Unit 2021 Cinnabon				
1	Smooth drywall, joint tape and compound	Walls throughout	01, 02			
2	White 2 x 4 suspended ceiling panels	Fissure type in entry	03			
3	White 2 x 4 suspended ceiling panels – smooth	Kitchen and services	04			
4	type Ceramic tile mortar	Floors throughout	05			
			06			
5	White ceramic tile mortar	Partial walls	Ub			
		Unit's 2026, 2023 & 2022				
1	White 2 x 4 ceiling panels	Partial ceilings in rear	12, 13			
2	Yellow wall panel mastic	Partial walls in left rear	14			
3	White pipe jacket	Rear restroom	15			
4	White HVAC duct seam tape	Partial ducts and mechanicals throughout	16			
5	Gray fireproofing	Exposed column in front	17			
6	White HVAC duct seam mastic	Partial ducts throughout	18			
7	Yellow carpet mastic	Various locations throughout	26, 27			
8	Gray residual mortar and leveling compound	Various locations throughout	28, 29			
-	Yellow white ceramic tile mortar and leveling	various locations tilloughout	20, 29			
9	compound	Front ceramic tile	30			
10	Gray ceramic floor tile mortar	Middle section ceramic tile	31			
11	Brown wood floor mastic	Entry wood floor	32			
12	Black mastic	Bottom of various walls	33			
	Unit 2027					
1	Smooth drywall, joint tape and compound	Partial walls throughout	01			
2	Type 1 topping texture	Retail walls	04, 05			
3	Type 2 topping texture	Rear storage and electrical room	08, 09			
4	White 2 x 2 suspended ceiling panels	Retail	10			
5	White 2 x 4 suspended ceiling panels	Rear storage and electrical room	11			
6	Brown baseboard mastic	Electrical room	13			
0		Electrical room	13			
7	Tan 12 x 12 vinyl floor tile vinyl floor tile with black mastic	Restroom and adjacent hall	18			
8	Gray ceramic floor tile mortar	Front retail space	19			
9	Yellow carpet mastic	Retail space	20, 21			
10	Yellow ceramic tile mastic	Rear wall in retail	22			
		Unit 2028				
1	Smooth drywall, joint tape and compound	Walls and ceilings	01, 02, 03			
2	Tan baseboard mastic	Walls	04			
3	Brown splash panel mastic	Restrooms	05			
4	White 2 x 4 ceiling panels	Retail	07			
	Gray ceramic tile mortar		08			
5	Gray ceramic tile mortar	Below carpet of retail	00			
		Unit 2031				
1	Smooth drywall, joint tape and compound	Walls	01, 02			
2	Textured drywall, joint tape and compound	Back hall walls	03			
3	Topping texture	Back hall walls	04			
4	2 x 4 ceiling panels	Ceilings	05			
5	White ceramic wall tile	Restroom walls	06			
6	Gray ceramic tile mortar with residual yellow	Restrooms floors	08			
7	mortar Yellow carpet mastic	Main rooms	09			
	·		10, 11			
8	Acoustical spray walls	Exterior walls	10, 11			
Unit 2032						
1	Smooth drywall, joint tape and compound	Walls throughout	01, 02			
2	Brown tan baseboard mastic	Baseboard mastic	03			
3	Black mirror mastic	Mirrors throughout	04			

Unit 2034					
1	Textured drywall, joint tape and compound	Most walls	01, 02, 03		
2	Topping texture	Most walls	04, 05, 06		
3	Smooth drywall, joint tape and compound	Rear walls	07		
4	Brown baseboard mastic	Rear walls	08		
5	Yellow carpet mastic and leveling compound	Below carpet squares in retail	09		
6	Brown wood floor mastic and leveling compound	1 1	10		
7	White ceramic tile mortar with residual mastic	front entry	11		
8	Tan 12 x 12 vinyl floor tile with mastic	Back room and restroom	14		
9	White 2 x 2 suspended ceiling panels	Front retail	15		
10	White 2 x 4 suspended ceiling panels	Back room	16		
11	Gray stucco	Front right wall only	17		
	Oldy oldsoo	Unit 2043			
1	Drywall, joint tape and compound	Ceilings and walls throughout	01		
2	White fissure 2 x 4 ceiling panels	Rear	02		
3	White 12 x 12 vinyl floor tile with yellow mastic	Rear section exposed and under carpets	03		
4	Tan wood mastic	Wood floor throughout	04, 05		
5	Tan baseboard mastic	Baseboards throughout	06		
6	Gray mortar	Front	07		
0	Gray mortal	Unit 2044 Express Clothing	U U		
1	Conceth desiral inject tone and compound		01.00		
1	Smooth drywall, joint tape and compound White 2 x 4 suspended ceiling panels	Ceilings and walls throughout Throughout	01, 02		
2		Restroom walls	03		
3	Yellow splash panel mastic				
4	Yellow baseboard mastic	Stock room throughout	05		
5	White HVAC duct seam tape		07		
6	Gray ceramic tile mortar with 12 x 12 vinyl floor tile below	Retail area	09		
7	White 12 x 12 vinyl floor tile with yellow mastic	Retail below wood	10		
8	Red 12 x 12 vinyl floor tile with yellow mastic	Rear hall	11		
9	White 12 x 12 vinyl floor tile with yellow mastic	Stock room	12		
10	White 12 x 12 vinyl floor tile with yellow mastic	Rear office below carpet	13		
12	Yellow carpet mastic	Rear offices	14		
	Tollow carpor made	Unit 2044			
1	Smooth drywall, joint tape and compound	Walls and ceilings throughout	01		
2	Gray ceramic tile mortar	Throughout	02		
	Unit 2047				
- 1	Crossib dravall is int tone and someound		I 04		
2	Smooth drywall, joint tape and compound	Retail Walls and ceilings throughout Rear closet walls	01		
	Drywall, joint tape and compound with texture				
3	White topping texture	Rear closet walls	03		
<u>4</u> 5	White 2 x 4 suspended ceiling panels	Front retail	05		
5	Yellow carpet mastic	Throughout	05		
		Unit 2048/2049	T		
1	Smooth drywall, joint tape and compound	Walls throughout- partial ceilings in dining room	01, 02		
2	White 2 x 4 suspended ceiling panels – fissured	Dining room	03		
2	White 2 x 4 supported sailing papels —fiscured	Cmooth tune in kitchen and restracted			
3	White 2 x 4 suspended ceiling panels – fissured	Smooth type in kitchen and restrooms	04		
4	White ceramic tile mortar	Partial walls in kitchen , dinning room and restroom			
5	Gray ceramic tile mortar	Restroom floors	06		
6	Gray ceramic tile mortar	Dining room floors	07		
7	Gray ceramic tile mortar	Kitchen floors	08		
8	White 12 x 12 vinyl floor tile with yellow mastic	Right rear storage	09		
9	Yellow splash panel mastic	Kitchen and right rear storage exposed and behind RFP	10		
10	Gray HVAC seam mastic	Ducts and mechanicals	11		
11	Yellow ceramic mastic	Partial floors in kitchen	12		
Unit 2050					
1	White drywall, joint tape and compound with texture	Walls throughout and ceilings in restrooms	01		
2	White topping texture	Walls throughout and ceilings in restrooms	02		
3	White 2 x 4 suspended ceiling panels	J	03		
4	Brown baseboard mastic	Throughout	04		
5	Yellow carpet mastic	Retail	05		
6	Gray sheet flooring	Restroom	06		
7	White 12 x 12 vinyl floor tile with black mastic	Rear room	07		
8	Gray ceramic tile mortar	Front entry	08		
-	y and a second s	J			

Unit 2051				
1	Drywall, joint tape and compound	Walls throughout	01	
2	Topping texture	Walls throughout	02	
3	White 2 x 4 suspended ceiling panels	Throughout	03	
4	Yellow mirror mastic	Rear	04	
		Unit 2052	•	
1	Smooth drywall, joint tape and compound	Walls throughout	01	
2	White 2 x 4 suspended ceiling panels	Throughout	02	
3	Blue sheet flooring	Front retail	03	
4	Blue sheet flooring with mastic	Retain and storage	04, 05	
5	White ceramic tile mortar	Front entry top layer floor	06	
6	Gray ceramic tile mortar	Front entry bottom layer floor	07	
7	White ceramic tile mortar	Front entry wall	08	
8	Yellow splash panel mastic	Restroom and rear retail	09	
		Unit 2053		
1	Topping texture	Excluding mechanical rooms ceiling in kitchen	06, 07	
2	White 1 x 1 splined ceiling tiles	Bar and dinning areas	08	
3	Tan/yellow wood wall panel mastic	Right rear section of dining	10	
4	Brown ceramic tile mastic	Walls for bar, column and planter boxes in dining	11	
5	Yellow ceramic tile mastic	1st floor restroom alls and sink areas	12	
6	Yellow splash panel mastic	2 nd floor restroom walls	13	
7	Tan splash panel mastic	Kitchen	16	
8	Yellow ceramic wall tile mastic	Behind green tiles in kitchen	17	
9	Gray ceramic tile mortar	Kitchen floor	18	
10	Gray ceramic tile mortar	Dining room floor	19	
11	Tan baseboard mastic	2 nd floor left storage room	20	
12	Brown baseboard mastic	Dining room perimeter below windows	22	
13	Yellow carpet mastic	Dining room carpeted areas	23, 24	
14	White HVAC duct seam mastic	Ducts and mechanicals	26	
		Unit 2054		
1	Smooth drywall, joint tape and compound	Walls throughout ceiling in restroom	01	
	White 2 x 4 suspended ceiling panels - smooth	· ·		
2	type	Rear - rear	02	
3	White 2 x 4 suspended ceiling panels – fissured	Fissured – front	03	
4	Yellow ceramic tile mastic	Front entry and rear sink wall	04	
5	Yellow/gray ceramic tile mortar & residual mastic	Floor throughout	05	
Unit 2055				
1	White drywall with texture	Walls and ceilings throughout	01	
2	White topping texture	Walls and ceilings throughout	02	
3	Yellow carpet mastic	Throughout	03	
	Tollow daipot maddo	Unit 2056	00	
1.	White smooth drywall, joint tape and compound	Walls and ceilings throughout	01	
2	Tan ceramic tile mastic	Walls in front and front entry	02	
3	Gray ceramic tile mortar	Sheet flooring and mastic throughout excluding front entry	03	
4	Yellow FRP mastic	rear kitchen	04	
	I GIIGW I IXI THUGUG	Unit 2057	VT	
4	Consolla de coellisiet ton control de coel		1.04	
<u> </u>	Smooth drywall, joint tape and compound	Most walls	01	
2	White drywall, joint tape and compound with	Rear wall in retail and stock room	02	
2	texture Topping texture		03	
3	Topping texture		04	
4	White 2 x 4 suspended ceiling panels White 12 x 12 vinyl floor tile with mastic	Restroom floor	05	
5 6	White 12 x 12 vinyl floor tile with mastic Gray ceramic tile mortar		06	
7	Yellow carpet mastic	Front entry Retail	07	
1	renow carpet mastic		U/	
		Unit 2140		
1	Smooth drywall, joint tape and compound	Most walls and ceilings in retail	01	
2	White drywall with texture	Electrical panel wall in rear	02	
3	White surfacing texture	Electrical panel wall in rear	03	
4	Yellow carpet mastic	Retail and rear office	04	
5	White HVAC duct seam mastic	Ducts and mechanicals	05	
		Unit 2100	<u></u>	
1	White 2 x 4 suspended ceiling panels	Partial ceilings on 1st floor	08	
2	White 2 x 4 suspended ceiling panels - smooth	Kitchen	09	
	type			
3	Yellow ceramic tile mastic	dining room and kitchen	10	

4	Brown hasehoard mastic	2nd floor throughout	111
	Brown baseboard mastic	2nd floor throughout	11 12
5	Brown wood panel mastic	Partial walls in dining room Main front area	13
6	Gray ceramic tile mortar		
7	Gray ceramic tile mortar	Kitchen and hall	14
8	Black 12 x 12 vinyl floor tile with black mastic	2 nd floor	15
		Unit 2104 Fresh Choice	_
1	Black 2 x 4 suspended ceiling panels	dining areas	04, 05
2	White 2 x 4 suspended ceiling panels smooth	Kitchen	06
3	Tan splash panel mastic	Kitchen	07
4	Tan ceramic tile mastic	Kitchen and service area	08
5	Green 12 x 12 vinyl floor tile with yellow mastic	Kitchen storage	12
6	White ceramic tile mastic	Restroom walls	13
7	Tan baseboard mastic	Storage	14
8	Gray ceramic tile mortar	Kitchen floors	15
9	Gray HVAC Seam tape and mastic	Ducts above ceilings	16
		Unit 2105 See's Candy	
1	White 1 x 1 splined ceiling tiles	Front ceiling	04
2	White 2 x 4 ceiling panels	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	05
3	White wall panel mastic	Front left wall	06
4	Yellow splash panel mastic	Restroom walls	07
5	Brown baseboard mastic	Throughout	09
6	Black 12 x 12 vinyl floor tile with yellow mastic	Rear	11
	Sident 12 A 12 virigi noor die with yellow mastie	Units 2106	1 **
<u> </u>	Consorth description of the control of		04.00.00
1	Smooth drywall, joint tape and compound	Walls throughout , ceiling in restroom	01, 02, 03
2	White 2 x 4 suspended ceiling panels – fissured		04
	type		-
3	Yellow splash panel mastic	Back room and restroom	05
4	Tan mirror mastic	Restroom	06
5	Black HVAC duct seam mastic	Ducts and furnace	07
6	Gray 12 x 12 vinyl floor tile with black mastic	Rear section	08
7	Pebble pattern sheet flooring	Restrooms	09
8	Yellow carpet mastic	Retail space	10
9	Gray ceramic floor tile mortar	Front and rear retail	11
		Unit 2107	
1	Smooth drywall, joint tape and compound	All walls excluding rear	01, 02
2	Tan baseboard mastic	Rear	05
3	Tan wall panel mastic	Front retail	06
4	White fire door core insulation	2 doors in rear	08
5	Tan pebble pattern sheet flooring	Restroom	10
6	Yellow carpet mastic with residual mastic	Changing area	11
7	Black wood floor mastic	Front entry	13
		Unit 2108 Legends	
1	White 2 x 4 suspended ceiling panels	Retail area	04
2	Brown baseboard mastic	Throughout	05
3	Brown cork tile mastic	Rear office wall	06
4	Yellow carpet mastic	Front retail	09
5	•	Restroom	10
6	Tan pebble pattern sheet flooring		11
	Red cementicous flooring	Right rear and restroom	
7	Gray ceramic tile mortar	Front entry	12
		Unit 2110	
1	Smooth drywall, joint tape and compound	Upper perimeter walls and center walls	01
2	Drywall, joint tape and compound with texture	Perimeter walls, restroom walls and ceilings	02
3	Topping texture	Perimeter walls, restroom walls and ceilings	03
4	White 2 x 4 suspended ceiling panels	Front retail	04
5	Yellow residual wall panel mastic	Center wall in retail	05
6	Tan baseboard mastic	Throughout	07
7	Tan carpet mastic	Retail	08
8	Black residual mastic	Base of front right wall and floor	09
		Unit 2111	
1	White 2 x 4 suspended ceiling panels	Partial ceilings	03
2	White 12 x 12 vinyl floor tile with black mastic	Restrooms	05
3	Red splash panel mastic	Restroom walls, retail upper walls	06
4	Tan baseboard mastic	Throughout	07
	Tan baddboard madio	moughout	, v.

Smooth dywall, pint tape and compound read Walls above cellings in retail, celling in front of retail and walls in 01, 02 2 Dywall, pint tape and compound with texture Walls in setall 03, 04 3 Toping texture Walls in retail 05, 06 4 Write 2 x 2 suspended celling panels Retail 07 5 Write 2 x 2 suspended celling panels Retail 07 6 Drown baseboard master Throughout 08 6 Drown baseboard master Throughout 09 7 Wallow care master Throughout 13 9 Vallow care master Retail 13 10 Vallow care master Retail 13 11 Write laws shocco Front entry 15 12 Black mirror master Retail 13 13 Write laws shocco Front entry 15 14 Write laws shocco Front entry 15 15 Write laws shocco Front entry 15 16 Write laws shocco Front entry 15 17 Write laws shocco Front entry 15 18 Write laws shocco Front entry 15 19 Vallow care master Retail and restorem 16 10 Write laws shocco Front entry 15 10 Write laws shocco Front entry 15 11 Write laws shocco Front entry 15 12 Dywall, joint tape and compound Smooth walls in retail and front entry 15 13 Topping texture Retail 01 14 Write 2 x 2 suspended celling panels Retail 06 15 Write 2 x 4 suspended celling panels Retail 08 16 Yellow wall panel master Retail 08 17 Brown baseboard master Throughout behind panels in retail 08 18 Tar spikel panel master Retail 09 19 Write 2 x 4 suspended celling panels Retail 09 10 Write 2 x 4 suspended celling panels Retail 09 11 Write 2 x 4 suspended celling panels Retail 09 12 Ten well panel master Retail 09 13 Write 2 x 4 suspended celling panels Retail 09 14 Write 2 x 4 suspended celling panels Retail 09 15 Write 2 x 4 suspended celling panels Retail 09 16 Gray 12 x 12 very froot tell and very laws was seen Retail 09 17 Write 2 x 4 suspended celling panels Retail 09 18	Unit 2112 Toy Train				
Provision for the pear of compound with bedure Provision February Provision Provis		0 " 1 " "		104.00	
White 2 x 2 suspended ceiling panels Retail 97	1	Smooth drywall, joint tape and compound		01, 02	
White 2.x 2 suscended celling panels Rear 07	2	Drywall, joint tape and compound with texture	Walls in retail	03, 04	
50 White 2 x 4 suspended celling panels Rear 08 7 White 12 x 12 why floor bit and fan massic Rear 10 7 White 12 x 12 why floor bit and fan massic Rear 10 9 Yellov carpet mastic Rear 10 1 White faux stucco Rear 11 1 White faux stucco Front entity 14 1 White faux stucco Front entity 15 2 Black mirror mastic Rear wall in retail and front entity 15 1 Smooth drywall, joint tape and compound Smooth walls in retail 01 2 Drywall, joint tape and compound with texture Rear 02, 23 3 Topping taxture Rear 02, 23 4 White 2 x 2 suspended celling panels Rear 04, 05 6 Yallow wall panel mastic Rear 07 7 Brown baseloard mastic Rear 07 8 Tan splash panel mastic Rear 07 9 Gry ceramic lie mortar and mastic Front entity below wood floor 13 10 Gry mortar imastic Front entity below wood floor 13 11 Yellov carpet mastic Front enti	3		Walls in retail	05, 06	
6 Brown baseboard mastic Throughout 09 8 Tan ceramic file motar and mastic Front retail 12 9 Yellow ceramic file motar and mastic Rear 10 10 Yellow ceramic file mastic Rear wall in retail and front entry 14 11 White faux succo Front entry 15 12 Black mirror mastic Rear wall in retail and front entry 15 11 Shooth drywall, joint tape and compound Unit 2113 Fashion Plaza 1 Shooth drywall, joint tape and compound with reture North and the state of the s			1.11	-	
7					
Front retail 12 9 Yellow carpet masks Front retail 12 13 13 19 Yellow carpet masks Retail 13 14 14 14 15 15 15 15 16 16 16 16			v		
Yellow carpet mastic Real 13 13 19 19 19 19 19 19					
10 Yellow caramic lib massitic Rear wall in retail and front entry 15					
11 White Faux stucco					
Retail and restroom 16			,		
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Smooth drywall, joint tape and compound with exture Rear	12	Black mirror mastic		16	
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White 2 x 2 suspended ceiling panels Retail 06					
5 White 2 x 4 suspended ceiling panels Rear 07 6 Yellow wall panel mastic Retail 08 7 Brown baseboard mastic Throughout behind panels in retail 09 8 Tan spissh panel mastic Restoom walls 10 10 Gray mortar /mastic Front entry below wood floor 13 11 Yellow carpet mastic Front entry below wood floor 13 1 White 2 x 4 suspended ceiling panels Retail 14 2 Tan wall panel mastic Retail 04 3 Brown baseboard mastic Retail 05 4 Yellow carpet mastic Most walls 06 4 Yellow carpet mastic Retail 07 5 Gray ceramic lile mortar and mastic Entry 10 6 Tan spissh panel mastic Retail 07 1 White 2 x 4 suspended ceiling panels Entry 10 1 White 2 x 4 suspended ceiling panels Throughout 04 2 Brown baseboard mastic Corridor and slock room 05 3 Yellow carpet mastic Retail area 06 4 Gray ceramic lile mortar Retail area					
Figure Retail 09 17 18 19 19 19 19 19 19 19			1 11		
Throughout behind panels in retail 09				-	
Restroom walls					
Gray ceramic tile mortar and mastic					
10 Gray mortar /mastic					
Vellow carpet mastic			1	ı	
White 2 x 4 suspended ceiling panels Retail 04					
White 2 x 4 suspended ceiling panels Retail 05	11	Yellow carpet mastic		14	
Tan wall panel mastic					
3 Brown baseboard mastic					
Vellow carpet mastic Retail 07 10 10 11 11 11 12 13 14 15 15 15 15 15 15 15					
September Sept		Brown baseboard mastic	Most walls		
Tan splash panel mastic Restroom 11 Unit 2115 Payless					
Unit 2115 Payless White 2 x 4 suspended ceiling panels			1 7		
1 White 2 x 4 suspended ceiling panels Throughout 04 2 Brown baseboard mastic Corridor and stock room 05 3 Yellow carpet mastic Retail area 06 4 Gray ceramic tile mortar Entry 08 5 Tan 12 x 12 vinyl floor tile and black mastic Below carpet of rear retail 11 6 Gray 12 x 12 vinyl floor tile and yellow mastic Middle hall 12 Unit 2116 Armor Geddon	6	Tan splash panel mastic		11	
Brown baseboard mastic Corridor and stock room O5					
3 Yellow carpet mastic Retail area 06 4 Gray ceramic tile mortar Entry 08 5 Tan 12 x 12 vinyl floor tile and black mastic Below carpet of rear retail 11 6 Gray 12 x 12 vinyl floor tile and yellow mastic Below carpet of middle retail and hall 12 Tan 12 x 12 vinyl floor tile and yellow mastic Middle hall 13 Unit 2116 Armor Geddon Unit 2117 Armor Geddon Unit 2117, 2118 Armor Geddon <td< td=""><td>1</td><td>White 2 x 4 suspended ceiling panels</td><td>Throughout</td><td>04</td></td<>	1	White 2 x 4 suspended ceiling panels	Throughout	04	
4 Gray ceramic tile mortar Entry Below carpet of rear retail 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	Brown baseboard mastic	Corridor and stock room	05	
5 Tan 12 x 12 vinyl floor tile and black mastic Below carpet of rear retail 11 6 Gray 12 x 12 vinyl floor tile and yellow mastic Below carpet of middle retail and hall 12 Tan 12 x 12 vinyl floor tile and yellow mastic Middle hall 13 Unit 2116 Armor Geddon 1 White 2 x 2 suspended ceiling panels Retail 04 2 White 2 x 4 suspended ceiling panels Stockroom 05 3 Tan splash panel mastic Restroom walls 06 4 Yellow carpet mastic Retail walls 07 5 Brown baseboard mastic Retail 09, 10 6 Yellow/black carpet mastic Retail 09, 10 7 Gray ceramic tile mortar Front entry 12 Unit 2117, 2118, 2119, 2119A and 2110 1 White 2 x 4 suspended ceiling panels Small office in 2117 06 2 Brown baseboard mastic Partial walls throughout 07 3 Black mirror mastic Unit 2119 and 2117 08 4 Gray HVAC duct mastic Most ducts 09 5 Tan FRP mastic 2119 A kitchen walls 10 6 Gray ceramic floor tile mortar Unit 2117 14 7 White ceramic floor tile mortar Mortar with residual mastic 19, 20 8 Yellow carpet mastic Throughout 22,	3	Yellow carpet mastic	Retail area	06	
Below carpet of middle retail and hall 12 13	4	Gray ceramic tile mortar	Entry	08	
Tan 12 x 12 vinyl floor tile and yellow mastic Unit 2116 Armor Geddon White 2 x 2 suspended ceiling panels Retail 04	5	7			
Unit 2116 Armor Geddon White 2 x 2 suspended ceiling panels Retail 04					
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3 Tan baseboard mastic Partial walls in rear 08	2	White drywall, no tape or compound		06, 07	
		<u> </u>	Š		
	4	Gray sprayed on fireproofing	Deck and beams	10, 11, 12, 13	

5	Black residual mastic with carpet mastic	Partial floors 2121 & 2124	14, 15		
6	Yellow carpet mastic	Partial floors throughout	16, 17		
- 6	reliow carper mastic		10, 17		
		Unit 2125/2127 Victoria's Secret	T		
1	Smooth drywall, joint tape and compound	Wall/ceilings	01, 02, 03, 04, 05		
2	Drywall, joint tape and compound with texture	Entry to left store room	06		
3	Topping texture	Entry to left store room	07		
4	Brown baseboard mastic	Walls	09		
5	White 2 x 4 suspended ceiling panels	2 x 4 ceiling panels	10, 11		
6	Tan wood floor mastic with leveling compound	Entry and retail areas	12, 13		
7	Gray 12 x 12 vinyl floor tile and yellow mastic Off white 12 x 12 vinyl floor tile and yellow mastic	Below carpet of retail	18		
8	and 2 nd layer	Right restrooms	19		
9	Tan sheet flooring	Left restrooms	20		
10	Yellow splash panel mastic	Restrooms	21		
11	White fire door insulation	Stockroom entry	22		
		Unit 2128			
1	Smooth drywall, joint tape and compound	Walls and ceilings	01, 02, 03		
2	White 2 x 4 suspended ceiling panels	Rear stock room	04		
3	Yellow carpet mastic	Retail	05		
4	Ceramic floor tile mortar	Front entries	06		
5	White FRP mastic	Restrooms walls	08		
6	Gray fire proofing	On deck and beams	09		
7	White ceramic tile mortar	Front exterior walls	10		
8	Tan baseboard mastic	Rear stock and restroom	11		
		Unit 2130	•		
1	Topping textured	Rear	03, 04		
2	Brown cork board	Back office	05		
3	Yellow carpet mastic	Retail	07		
4	Brown baseboard mastic	Behind wood wall panels	08		
5	Tan wood panel with sheet flooring	Display area in front mirrors	09		
6	Black mirror mastic	Mirrors throughout	10		
7	Tan wood floor panel mastic	Display area in front of mirror	111		
	rail wood floor parier mastic	Unit 2133	11		
1	White 2 x 4 suspended ceiling panels	Walls throughout	02		
2	White 2 x 2 suspended ceiling panels	Rear	03		
3	HVAC Duct sea mastic	Front	04		
4	Yellow splash panel mastic	Restroom	05		
5	Yellow carpet mastic	Retail	06		
6	Brown ceramic tile mastic	Retail	07		
7	Gray 12 x 12 vinyl floor tile with black mastic	Retail	08		
		Unit 2133			
1	Drywall, joint tape and compound	Walls throughout, ceilings in restrooms, partial ceilings in retail	01, 02		
2	White 2 x 4 suspended ceiling panels	Partial ceilings in retail, stock room	03		
3	Yellow baseboard mastic	Throughout	04		
4	Gray ceramic tile mortar	Front entry	05		
5	Tan sheet flooring with mastic	Rear hall	06		
6	Yellow splash panel mastic	Restroom walls	09		
7	Gray /yellow ceramic tile mortar and mastic	Front retail	10		
8	Yellow carpet mastic		11		
		Unit 2134			
1	Smooth drywall, joint tape and compound	Walls throughout, ceilings and restrooms	01, 02		
2	White 2 x 2 suspended ceiling panels	Retail	03		
3	HVAC Duct seam tape	Mechanicals and ducts	04		
4	White splash panel mastic	Stockroom sink area	05		
5	Brown splash panel mastic	Restroom walls	06		
6	Tan sheet flooring	Stock room sink area and restrooms	07		
7	White ceramic tile mortar	Retail floor	08		
	Unit 2135				
1	Smooth drywall, joint tape and compound	Walls throughout, ceilings in restrooms	01, 02		
2	White 2 x 4 suspended ceiling panels	Rear	03		
3	Yellow splash panel mastic	Restroom walls	04		
4	White 12 x 12 vinyl floor tile with yellow mastic	Rear	05		
5	Tan pebble pattern sheet flooring	Restrooms	06		
6	Yellow hardwood floor mastic	Retail	07		
7	Yellow wall panel mastic	Retail	08		
8	Tan HVAC duct seam mastic	All ducts	09		
9	Gray ceramic tile mortar	Front entry	10		
J	Oray ocianiio liic mortai	1 TOTA GIRLY	10		

Unit 2135				
1	Smooth drywall, joint tape and compound	Walls throughout	01, 02	
2	White drywall, joint tape and compound with	Dressing rooms	03	
3	texture Topping texture	Dressing rooms	04	
<u> </u>	White 2 x 2 suspended ceiling panels	Throughout	05	
5	Yellow carpet mastic	Retail	06	
6	Brown baseboard mastic	Throughout	07	
7	Gray vinyl stair tread with brown mastic	Rear entry	08	
8	Gray sheet flooring with mastic	Rear entry	09	
9	Gray ceramic tile mortar	Front entry	10	
10	White ceramic tile mortar	Restroom walls	11	
11	Gray ceramic tile mortar and mastic	Restroom floor	12	
		Unit 2137		
1	Topping texture	Upper stockroom, restrooms, lower rear walls	03	
2	White 2 x 4 suspended ceiling panels	Retail	04	
3	Yellow splash panel mastic	Restroom walls	05	
4	Tan 12 x 12 vinyl floor tile with yellow mastic	Cashier area and stairs	06	
5	Brown wood floor mastic	Lower stock room	08	
6	Yellow carpet mastic	Thursday (09	
7	Tan baseboard mastic	Throughout	10	
8	Tan wood floor mastic	Front entry	11	
1	White dravell is int tone and compared	Unit 2138	01	
1 2	White drywall, joint tape and compound	Walls and ceilings	02	
3	Tan ceiling panels	Drop ceilings Walls/fixtures	03	
	White mirror mastic Gray ceramic tile mortar with vapor barrier		04	
4		Throughout		
5	Gray ceramic tile mortar	Restroom walls Unit 2138	05	
	Miles I all Sections of the second Section 196	UIIIL 2 130		
1	White drywall, joint tape and compound with texture	Walls and ceilings throughout excluding mechanical room	01	
2	Topping texture	Walls and ceilings throughout excluding mechanical room	02	
3	Yellow carpet mastic With residual mastic	Retail area	04	
4	Gray ceramic tile mortar	Front entry	05	
5	Yellow ceramic tile mastic	Front wall	06	
6	Gray stucco	Front ceiling and columns	07	
	Unit 2140			
1	Smooth drywall, joint tape and compound	Smooth walls, ceilings in retail	01	
2	White drywall, joint tape and compound with texture	Electrical panel wall in rear	02	
3	Topping texture	Electrical panel wall in rear	03	
4	Yellow carpet mastic	Retail and rear office	04	
5	Tan HVAC duct seam mastic	Ducts and mechanicals	05	
	Tan The Gard Count March	Unit 2142	1 44	
1	White drywall, joint tape and compound with	Remaining walls	01	
	texture	· ·		
2	Topping texture	Remaining walls	02	
3	Topping texture on concrete	Upper walls	03	
4	Yellow residual mastic	Right column	04	
5	White HVAC seam tape	On ducts	05	
6	White ceramic tile mortar	Entry floor	06	
7	White leveling compound and mastic	Throughout	07	
		Unit 2144		
1	Yellow wood wall panel mastic	Partial walls throughout	02	
2	Yellow carpet mastic	Floors	04	
3	Yellow carpet mastic	Walls in left rear	05	
4	White ceramic tile mortar	Floors in left rear	06	
5	Gray ceramic tile mortar	Front entry floor	07	
6	Gray ceramic tile mortar	Front entry exterior lower wall	08	
7	White drywall, joint tape and compound with texture	Front entry exterior lower wall	09	
8	Topping texture	Front entry exterior upper wall	10	
_		Unit 2146		
1	White drywall, joint tape and compound with texture	Walls and ceilings throughout	01	
2	Topping texture	Walls and ceilings throughout	02	
3	Brown baseboard mastic	Throughout	03	
	2.5.m bacoboard maduc			

S Yellow carpet mastic Retail Unit 2146 Unit 2146 White 2 x 4 suspended ceiling panels Smooth type throughout 02 3 Yellow mastic on concrete Above sink area in front 03 4 White ceramic tile mortar Front floor 05 6 Gray ceramic tile mortar Front floor 05 6 White ceramic tile mortar Front floor 05 White peramic tile mortar Front floor 05 White peramic tile mortar Front floor 05 White peramic tile mortar Rear 06 7 Yellow FRP mastic retail Retail 07 North Parking Structure 1 Gray concrete Most of parking structure 01, 02, 03, 04 2 Tan concrete Oclumns and perimeter walls 05, 06, 07 3 Gray exterior stucco Elevator tower 08 4 White smooth drywall, joint tape and compound Elevator tower 08 5 Gray CMJ and mortar Sultwest Corner 10 6 Gray seam caulking Perimeter walls 11 7 Elevator door rough opening Caulking 12 8 Gray taux stucco West perimeter wall 13 South West Parking Structure 1 Gray concrete Floors for 2 nd and 3 nd floor level 01, 02, 03, 04 2 Gray concrete Walls 13 South West Parking Structure 1 Gray concrete Floors for 2 nd and 3 nd floor level 06, 07, 08, 09 3 Black asphalt For 1 nd level, entrance roads 11, 12, 13 4 Gray seam caulking Planter box to structure 96, 07, 08, 09 3 Black asphalt For 1 nd level, entrance roads 11, 12, 13 5 Gray seam caulking Planter box to structure seams, some floor joints, some staircase joints 11, 12, 13 5 Gray seam caulking 11, 12, 13 6 Gray expansion joint caulking 11 level expansions 12, 22, 23 8 Gray concrete Malls and caelings for entire structure 17, 18, 19 6 Gray expansion joint caulking 11 level expansions 12, 22, 23 8 Gray concrete Floor for cooling tower 24 9 Gray mechanical pad concrete All equipment rooms 25 Fireprofing 1 level expansions 12, 22, 23 8 Gray concrete Floor For Succowalls 26, 27 10 Gray exterior stucco Exterior walls 26, 27 11 Black asphalt Main parking field 07, 02, 03, 04 2 Gray concrete Curbs and slands 06 Section A – Roofs (excluding (Macy's & Theatre)	Yellow wall panel ma	04			
Unit 2146		• • • • • • • • • • • • • • • • • • • •			
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White 2 x 4 suspended ceiling panels Smooth type throughout 03	O	104			
3 Yellow mastic on concrete					
White ceramic tile mortar		-			
Section A – Roofs (excluding (Macy's & Theatre) Front floor Gray ceramic tile mortar Front floor Front floor Front floor O5 6 White ceramic tile mortar Rear O6 7 Yellow FRP mastic retail Rear North Parking Structure 1 Gray concrete Most of parking structure Columns and perimeter walls O5, 06, 07 3 Gray exterior stucco Elevator tower A White smooth drywall, joint tape and compound Elevator mechanical rooms O9 Gray CMU and mortar Southwest Corner 10 Gray seam caulking Perimeter walls 11 Televator door rough opening Caulking Perimeter wall To Gray faux stucco South West Parking Structure 1 Gray concrete Floors for 2 nd and 3 nd floor level O6, 07, 08, 09 Black asphalt For 1 nd level, entrance roads 11, 12, 13 For a level, entrance roads For a level, entrance roads 14, 15, 16 Gray expansion joint caulking 7 Flereproofing 1 Perimeter boxes and large island pots on 3 nd level Gray mechanical pad concrete All equipment rooms 25 Gray mechanical pad concrete All equipment rooms 25 Gray expension floor Gray expension floor Gray expension stucco Exterior walls Perimeter boxes and large island pots on 3 nd level Gray expension floor Fireproofing 1 level expansion floors Gray expension floor Gray expension floor Gray expension floor Gray expension stucco Exterior walls 26 Gray mechanical pad concrete All equipment rooms 25 Oray flange gaskets Plumbing flanges Perimeter boxes and large island pots on 3 nd level Dark the floor for cooling tower All equipment rooms 25 Dark wall vapor barrier For stucco walls Black wall vapor barrier For stucco walls Rear Rear O1, 02, 03, 04 Perimeter walls Dark the mathematic towns Dark the mathematic towns Dark		-			
Rear Retail Ret		• • • • • • • • • • • • • • • • • • • •			
North Parking Structure 1 Gray concrete Most of parking structure 01,02,03,04 2 Tan concrete Columns and perimeter walls 05,06,07 3 Gray exterior stucco Elevator tower 08 4 White smooth drywall, joint tape and compound Elevator mechanical rooms 09 5 Gray CMU and mortar Southwest Corner 10 6 Gray seam caulking Perimeter walls 11 7 Elevator door rough opening Caulking 12 8 Gray faux stucco West perimeter wall 13					
North Parking Structure					
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Columns and perimeter walls					
Soray exterior stucco Elevator tower O8	Gray concrete	01, 02, 03, 04			
4 White smooth drywall, joint tape and compound 5 Gray CMU and mortar 6 Gray seam caulking 7 Elevator rough opening 8 Gray faux stucco 8 West perimeter walls 11 7 Elevator door rough opening 9 Caulking 12 8 Gray faux stucco 1 Gray concrete 1 Gray concrete 1 Gray concrete 1 Gray concrete 2 Gray concrete 2 Gray concrete 3 Black asphalt 4 Gray seam caulking 5 Black plant box liner 5 Black plant box liner 6 Gray expansion joint caulking 7 Fireproofing 8 Gray mechanical pad concrete 9 Gray mechanical pad concrete 1 Gray expansion joint caulking 9 Gray mechanical pad concrete 1 Gray expansion 1 Gray concrete 1 Gray expansion 1 Gray e	Tan concrete	05, 06, 07			
5 Gray CMU and mortar 6 Gray seam caulking 7 Elevator door rough opening 8 Gray faux stucco West perimeter walls 11 7 Elevator door rough opening 8 Gray faux stucco West perimeter wall 13 8 South West Parking Structure 1 Gray concrete Floors for 2nd and 3nd floor level 01, 02, 03, 04 2 Gray concrete Walls and ceilings for entire structure 06, 07, 08, 09 3 Black asphalt For 1nd level, entrance roads 11, 12, 13 4 Gray seam caulking Planter box to structure seams, some floor joints, some staircase joints 5 Black plant box liner 6 Gray expansion joint caulking 7 Fireproofing 1 stevel expansion joints 20 7 Fireproofing 1 stevel expansions 21, 22, 23 8 Gray concrete floor 9 Gray exterior stucco 10 Gray exterior stucco 10 Gray exterior stucco 11 Black wall vapor barrier 12 Gray flange gaskets Plumbing flanges North Parking Lot 1 Black asphalt Main parking field Curbs and islands 06, 07, 08, 09 06, 07, 08, 09 07, 08, 09 06, 07,	Gray exterior stucco				
6 Gray seam caulking 7 Elevator door rough opening Caulking 12 8 Gray faux stucco West perimeter wall 13 South West Parking Structure 1 Gray concrete Floors for 2 nd and 3 nd floor level 01, 02, 03, 04 2 Gray concrete Walls and ceilings for entire structure 06, 07, 08, 09 3 Black asphalt For 1 nd level, entrance roads 111, 12, 13 4 Gray seam caulking Planter box to structure seams, some floor joints, some staircase joints 5 Black plant box liner Perimeter boxes and large island pots on 3 nd level 17, 18, 19 6 Gray expansion joint caulking 3 nd level expansion joints 20 7 Fireproofing 1 nd level expansions 21, 22, 23 8 Gray concrete floor for going tower 24 9 Gray mechanical pad concrete All equipment rooms 25 10 Gray exterior stucco Exterior walls 26, 27 11 Black wall vapor barrier For stucco walls 28 12 Gray flange gaskets Plumbing flanges 29 North Parking Lot Section A − Roofs (excluding (Macy's & Theatre) 1 Black tar and gravel roof Roof fields exposed and covered in mall 01, 02, 03, 04					
7 Elevator door rough opening Caulking 12 8 Gray faux stucco West perimeter wall 13 South West Parking Structure 1 Gray concrete Floors for 2nd and 3nd floor level 06, 07, 08, 09 3 Black asphalt For 1st level, entrance roads 11, 12, 13 4 Gray seam caulking Planter box to structure seams, some floor joints, some staircase joints Perimeter boxes and large island pots on 3nd level 17, 18, 19 6 Gray expansion joint caulking 3nd level expansion joints 20 7 Fireproofing 1st level expansions 21, 22, 23 8 Gray concrete floor for cooling tower 24 9 Gray mechanical pad concrete All equipment rooms 25 10 Gray exterior stucco Exterior walls 28 11 Black wall vapor barrier For stucco walls 28 12 Gray flange gaskets Plumbing flanges 29 North Parking Lot Section A − Roofs (excluding (Macy's & Theatre)					
South West Parking Structure South West Parking Structure					
South West Parking Structure Gray concrete Floors for 2nd and 3rd floor level O1, 02, 03, 04					
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Section A – Roofs (excluding (Macy's & Theatre) 1 Black tar and gravel roof Roof fields exposed and covered in mall 01, 02, 03, 04	Black asphalt	01, 02, 03, 04, 05			
1 Black tar and gravel roof Roof fields exposed and covered in mall 01, 02, 03, 04					
	Black tar and gravel i	01, 02, 03, 04, 05, 06, 07			
2 White HVAC caulking HVAC joints 12	White HVAC caulking	12			
3 Gray skylight caulking Skylight window perimeters 13, 14		13, 14			
4 Black composite sheet Skylight platform pitched walls 15	Black composite she				
5 White HVAC tape and mastic Mechanical screens 16	White HVAC tape an	16			
6 Black curb membrane Roof curb 17, 18, 19		17, 18, 19			

ACM Note: Confirmation of <1% PLM Results

Materials (listed in the ACM table) reported as <1% asbestos pending confirmational analysis (by PLM pointcount or other) analysis to confirm. Confirmational analysis is required to handle/treat these materials as <1% asbestos. Confirmation is required because the standard PLM analysis is not sensitive enough to accurately determine asbestos content at or below 1%.

ACM Note: Topping Texture

The EPA and AQMD consider topping texture (skim coat) that is applied to drywall surfaces to be an "add-on" material. Add-on materials are not treated like joint compound. These materials (when present) require separate analysis independent of the substrate (eg: drywall). In other words, add-on materials cannot be composited with drywall during analysis and are classified as RACM if they contain greater than 1% asbestos.

ACM Note: Conflicting Laboratory Results

The EPA has a specific protocol for sampling suspect asbestos building materials. In general, it recommends collecting multiple samples (often a minimum of three) of each suspect asbestos material. Multiple samples are recommended by the EPA to increase the statistical reliability of the results and to minimize the potential for field or laboratory error.

Sometimes, multiple samples representing a particular material will yield both positive and negative results. When this happens, the negative sample result(s) are superseded by the positive results. Once a single positive sample is identified, the material represented by the sampling is treated as an asbestos-containing material.

However, if additional sampling data, as-built plans, or other reliable data can adequately explain or confirm that area(s) that tested positive are different (not homogeneous) from areas that tested negative, this information can be used to more accurately quantify ACM and define the scope of an asbestos abatement job.

LEAD

Painted/coated surfaces were tested in the field using an X-Ray fluorescence (XRF) spectrum analyzer and/or sampled (paint chips) and submitted to a certified laboratory for analysis by atomic absorption spectroscopy (AAS). Lead paint samples fell in to 1 of 3 types - as follows:

Types of Lead Materials				
LEAD TYPES	Definition	LEAD CONTENT STANDARD		
LBP	Lead-based paint (or material)	By XRF: 1 mg/cm ² or greater By Paint Chip: 0.5 weight % or 5,000 mg/kg (at or above)		
LCM	Lead containing material (or paint)	By XRF: <1 mg/cm ² By Paint Chip: Below 0.5 wt % of 5,000 mg/kg		
ND No lead detected		By XRF: Requires paint chip confirmation By Paint Chip: No lead Detected or <0.006 wt %		

Lead Based Paint/Coating Components by XRF and Paint Chip		
Component	General location	
Ceramic wall tiles	Restrooms, retail units, AMC theater	
Ceramic floor tiles	Restrooms and retail units	
Metal pipes	Throughout interior and exterior	
Metal door components	Throughout	
Metal stair components	Stairwell, emergency exits, and retail units throughout	
Structural steel (beams, columns, etc)	Throughout interior and exterior	
Roof flashing (penetrations)	Most roofs	
Metal wall louvers	Exterior walls at mechanical rooms throughout	
Yellow asphalt/concrete striping	South west parking structure	

Lead-Based Paint (LBP) – By XRF

XRF READINGS

• Twenty-seven (27) XRF readings tested positive for lead-based paint/coating (see XRF report).

	Lead-Containing Material (LCM) - By XRF
XRF READINGS	• Ninety-one (91) XRF readings tested positive for low levels of lead (see XRF) report.

	Non-Lead – By XRF
XRF READINGS	• One hundred & fifty-six (156) XRF readings tested negative (no lead detected) for the presence of lead (see XRF report). (Note: Cal OSAH does not accept XRF to prove "non-lead" – paint-chip lab analysis is required)

ASBESTOS REGULATORY NOTES

Cal OSHA (DOSH)

Asbestos-Containing Material (ACM): A material is an asbestos containing material (ACM) when the sample aggregate or any one of its layers (analyzed individually) contains greater than 1% asbestos. Cal OSHA does **not** allow composite analysis (mixing layers of materials together).

Less than 1% Asbestos: Materials containing less than 1% asbestos are not regulated by most governmental agencies. However, Cal OSHA is not one of those agencies. The Cal OSHA asbestos standard must be followed for work involving materials that contain a concentration of asbestos as low as **0.1%**.

If a material can be shown to contain less than 1% asbestos by PLM point count (or other approved method), it can be treated as an asbestos-containing construction material (ACCM). ACCM is a term Cal OSHA uses to describe materials containing less than 1% (but greater than 0.1%) asbestos. In certain situations, there may be some economic advantages to making this characterization. The decision to do so is evaluated on a case-by-case basis at the client's request.

Less than 0.1% Asbestos: If a material can be shown to contain less than 0.1% asbestos by an approved method, it can be treated as a non-asbestos material. In certain situations, there may be some economic advantages to making this characterization. The decision to do so is evaluated on a case-by-case basis at the client's request.

Class I Asbestos Work: Cal OSHA prescribes specific work practices involving the removal of asbestos-containing insulation and surfacing (i.e. sprayed-on) materials.

Class II Asbestos Work: Cal OSHA prescribes specific work practices involving the removal of ACM which is not insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing, cement products, and construction mastics.

EPA/AQMD

Asbestos-Containing Material (ACM): Any building material which contains commercial asbestos in an amount greater than 1%.

Less than 1% Asbestos: Materials that are found to contain less than 1% asbestos by standard polarized light microscopy (PLM) may be considered non-asbestos (by EPA/AQMD) if confirmation analysis is performed. To be treated as a non-asbestos material, the EPA and AOMD require analytical verification by PLM Point Count (or better). This verification is required because the standard PLM analysis is not sensitive enough to accurately determine asbestos content at or below 1%. In certain situations, there may be some cost advantages to making this characterization. The decision to do so is evaluated on a case-by-case basis at the client's request.

Regulated Asbestos-Containing Material (RACM): RACM includes friable (easily crumbled) ACM, or Category I nonfriable ACM that has or will become friable or that has been subjected to sanding, drilling, grinding, cutting, or abrading, or Category II nonfriable ACM that may become or has become crumbled, pulverized, or reduced to powder.

Friable: Materials that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure.

Non-Friable: Materials that **cannot** be easily crumbled, pulverized, or reduced to powder, when dry, by hand pressure. Non-friable materials are categorized by EPA/AQMD as follows:

- Category I Nonfriable ACM: Asbestos-containing packings, gaskets, resilient floor coverings, mastics and asphalt roofing products.
- <u>Category II Nonfriable ACM</u>: Asbestos-containing material, excluding Category I nonfriable asbestos-containing material, that, when dry, and in its present form, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

LEAD REGULATORY NOTES

Lead-Based Paint (LBP)

	MATERIAL DESCRIPTION	REGULATORY ASSESSMENT GOVERNING REGULATIONS				
1.	Lead-based paint components (LBP)	 Cal OSHA standards apply if LBP will be disturbed by employees/workers CDPH standards apply of lead "abatement" is performed DTSC requires characterization of waste and proper disposal US EPA standards apply if LBP is disturbed in a children occupied site 				
2.	Lead containing materials (LCM)	 Cal OSHA standards apply if LCM will be disturbed by employees CDPH standards apply if worker exposure standards are exceeded DTSC requires characterization of waste and proper disposal 				

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3.	No Lead Detected by XRF	Cal OSHA standards apply unless paint chip laboratory analysis confirms non-lead
4.	No Lead Detected by Paint-chip	No regulations apply

Regulatory Assessment Notes

California Occupational Safety & Health Administration (Cal OSHA):

- Regulates any detectable amount of lead (does not have to be LBP) when trigger tasks are performed
- Requires worker training
- Regulates employee safety during lead-related work
- Enforces proper work practices
- Requires notification when 100 sq ft (or more) of LBP is disturbed.

California Department of Public Health (CDPH):

- Regulates "abatement" of Lead-based paint
- Requires accredited training for workers and supervisors
- Provides certification of workers and supervisors performing abatement
- Mandates lead abatement be performed in accordance with US HUD guidelines
- Defines "abatement" as an action performed for the purpose and intent of reducing or eliminating a lead "hazard"
- Requires notification when abatement is performed

California Department of Toxic Substance Control (DTSC):

- Regulates disposal of lead waste
- Requires testing of waste stream to characterize hazard level

US Environmental Protection Agency (US EPA):

- Regulates Lead-based paint in child occupied facilities
- Regulates work involving the disturbance of as little as 6 sq ft of interior & 20 sq ft exterior LBP
- Requires accredited training for workers and supervisors
- Requires certification of companies performing LBP work
- Mandates minimal work practices

LEAD DISCUSSION

Lead-Based Paint & Lead Containing Materials

Lead-based paint (LBP) is defined as a material/coating/paint which contains a lead content at or in excess of 5,000 parts per million (PPM), 0.5% by weight, or 1 mg/cm² (by XRF). Materials containing a lead content below these levels are not considered LBP and are not considered a hazard by most regulatory agencies. However, the dust from materials containing low levels of lead can produce a lead hazard if enough lead dust accumulates.

Cal OSHA Trigger Tasks

Cal OSHA defines lead paint at the Consumer Product Safety Commission's (CPAC) level of 600 ppm for non-trigger tasks. However, Cal OSHA regulates any detectable amount of lead when trigger tasks are conducted.

The following table lists the Cal OSHA trigger tasks, presumed exposure and the type of respiratory protection that is required while performing those tasks:

Vallco Mall - Section A Page 28

CAL OSHA TRIGGER TASK	Presumed Exposure	REQUIRED RESPIRATORY PROTECTION
 Manual demolition Manual scraping and sanding Heat gun use Use of power tools with dust collection systems Spray painting with lead paint Any other activity that the employer has any reason to believe that an employee may be exposed in excess of the PEL. 	50-100 μm/m ³	Half-mask, air purifying
 Using lead containing mortar Lead burning Rivet busting Power tool cleaning without dust collection system Clean-up of dry abrasive blast residue. 	500-2500 μm/m ³	Full-face, air purifying, or Tight fitting PAPR, or Supplied air, contiguous flow
Abrasive blastingWeldingCuttingTorch burning.	>2500 μm/m ³	Supplied air, pressure demand

SURVEY & REPORT LIMITATIONS

- Scope of work limitations were established by the Client to include items of interest and concern to the Client. *ProTech* is only responsible for the specific scope of work performed. No other services are intended or implied.
- This report has been prepared for the exclusive use of ProTech's client and is not intended for use by any other party. The scope of work and results presented in this report may not be appropriate for uses by any other party. Any use by a third party of this report shall be at their own risk and shall constitute a release and an agreement to defend and indemnify ProTech from any and all liability in connection therewith whether arising out of ProTech's negligence or otherwise.
- This project may contain undiscovered asbestos in areas that were not accessible or identified during ProTech's survey. Suspect asbestos may be discovered during demolition, renovation, or maintenance. If suspect asbestos is discovered, stop all work that could impact asbestos to allow properly trained personnel to perform sampling and or removal.
- This report and it's evaluations/conclusions are based on the current condition of the project. This report does not assess or anticipate future events that may impact or damage asbestos materials. Future changes in the condition of asbestos materials will require a new assessment by a certified asbestos consultant/technician.
- The quantities of asbestos stated in this report are approximations. This report is not a work plan or project specification. Contractors should not rely on this document for bidding purposes.
- Reasonable efforts were made to examine below carpeted areas and resilient floor coverings to determine and quantify the presence of suspect asbestos materials. ProTech accepts no

liability for additional materials or under-reporting of asbestos materials which exist below other floor coverings.

- Glass fiber insulated mechanical systems were inspected as completely as possibly without destroying the integrity of the glass fiber insulation. The condition and presence or absence of asbestos associated with mechanical systems is assumed to be consistent with those areas exposed and examined during our inspection. However, ProTech does not guarantee that this is the case.
- ProTech does not represent this **limited survey** as a comprehensive inspection or evaluation. ProTech recommends that an expanded, comprehensive asbestos survey be conducted at this site if renovation or demolition activities are expected to impact any building materials other then those specifically addressed in this report.
- Because this survey was conducted in an **occupied building**, intrusive inspection methods were limited. Specific care and caution were observed to:
 - 1. Avoid significant aesthetic impact to architectural finishes.
 - 2. Avoid disturbing tenants and patrons.
 - 3. Avoid disturbing tenant spaces.

SURVEY APPROACH

Inspection & Sample Collection

ProTech performed a survey of the project to identify and document accessible suspect asbestos. Identified suspect asbestos materials categorized by homogenous area and sampled. Samples were collected by misting small areas with water, then cutting or scraping the sample from the substrate with an appropriate sampling tool. Whenever possible, samples were collected from areas previously damaged or deteriorating. No building systems, components, or structures were demolished to obtain samples of potentially hidden ACM.

Each suspect bulk sample was sealed in its own Zip-lock plastic container and labeled with a unique identification number. Sampling tools were individually cleaned before and after each sample was collected to avoid sample cross contamination. Decontamination was accomplished using singleuse, pre-moistened cloths.

Sample information was recorded on ProTech's chain-of-custody form. This form accompanied the samples to a laboratory possessing accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP). Samples were submitted to Forensic Analytical Services, Inc. of Hayward, California.

Sample Analysis

Bulk sample analysis was conducted in accordance with the EPA interim method for determination of asbestos in bulk materials. Samples were first examined by a stereoscopic microscope for determination of homogeneity and preliminary evaluation of composition and presence of fibers.

Environmental Testing Report Job No. 578-MA18 Vallco Mall - Section A Page 30 Fibers observed during this examination were then mounted in various refractive index oils and examined in polarized light. During this examination, all minerals and/or man-made materials were identified and the percentages of each were estimated and/or counted.

Evaluation of Asbestos-Containing Materials

In evaluating each asbestos material, the adhesion of the asbestos material to the underlying substrate, deterioration, and damage from vandalism or any other cause was assessed. Evidence of debris on horizontal surfaces, hanging material, dislodged chunks, scraping, indentations, cracking, etc. would be indicators of poor material condition.

Accidental or deliberate physical contact with asbestos materials can result in damage. Inspectors looked for any evidence that asbestos-containing materials had been disturbed. Indicators such as: finger marks in the material, graffiti, pieces dislodged or missing, scraping marks from movable equipment, or furniture, or an accumulation of suspect asbestos dust or debris on floors, shelves, or other horizontal surfaces indicate poor material condition.

Asbestos-containing materials may deteriorate as a result of either the quality of the installation or environmental factors which affect the cohesive strength of the asbestos-containing material or the strength of the adhesion to the substrate. Deterioration can result in an accumulation of dust on the surface of the asbestos-containing material, delamination of the material, or an adhesive failure of the material where it pulls away from the substrate and either hangs loosely or falls to the floor and exposes the substrate. Inspectors touch the asbestos-containing material to determine if dust is released when the material is lightly brushed or rubbed.

CONCLUSIONS & RECOMMENDATIONS

Asbestos Removal

ACM should be removed prior to activity that may disturb it. Prior to ACM disturbance/removal, the following should be performed:

	Task	Task Description	Fee		
1.	Prepare Project Specification	Prepare a written scope of work & instructions to bidders (site plans not included).	\$800.00 - \$1,200.00		
2.	Bid Review and Contractor Selection	Select qualified contractors (prospective bidders), review bids and award contract.			
3.	Project Monitoring & Oversight	roject Monitoring & Oversight Monitoring asbestos abatement work and document contractor compliance.			
4.	Project Clearance	Perform final inspection and collect air samples to certify work area clearance.	Pricing upon request		

Excluded Items

Materials or areas excluded from this inspection should be inspected and sampled if future activities will impact the excluded items. Additional consulting services would include a more intrusive inspection methods and additional sampling

LEAD

- Cal OSHA worker protection rules, CDPH certification requirements, US EPA standards, and DTSC disposal requirements need to be assessed by each contractor/employer who performs work on this project.
- Contractors, whose employees work at this site, are required to assess if their work will be subject to the requirements of the Cal OSHA lead construction standard (CCR Title 8 § 1532). Cal OSHA standards are designed to regulate and enforce on-the-job worker safety. Employers are required by law to ensure that employees are not exposed to airborne lead levels which exceed the permissible exposure limit (PEL). The standard requires worker exposure monitoring, medical surveillance, training, special work practices, etc.
- Each contractor/employer who bids and/or performs work at the site will need to assess potential lead exposure to employees performing their particular scope of work. Contractors who perform work at this site may need to obtain additional data (beyond the data presented in this report) during their assessment and Cal OSHA compliance planning. Individual contractors/sub-contractors should be allowed access to the project to obtain any needed data (samples, consultation, etc.) to complete their employee exposure assessment.
- ProTech recommends that the building owner and/or general contractor disseminate this report as
 well as any other lead-related information to all prospective contractors bidding work at the
 subject site.
- Contractors, whose employees disturbs more that 100 sq ft of lead-based paint (LBP), are required
 to submit written notification to Cal OHSA (per Health and Safety Code, Title 17 CCR Section
 36000 (c)). The Cal OSHA LBP notification rule requires 24-hour advance notice prior to LBP
 disturbance.
- Any work performed at the site where LBP or LCP is likely to be disturbed should be performed
 by a contractor trained and qualified to perform lead-related construction work. Any work that
 exceeds Cal OSHA's permissible exposure limit or is performed to remediate a lead hazard must
 be conducted by CDPH certified personnel. All lead related work should be conducted employing
 lead work practices in accordance with HUD guidelines.

Environmental Testing Report

Layer



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265462 **Date Received:** 09/18/18 1208 Main St. **Date Analyzed:** 09/20/18 Redwood City, CA 94063 **Date Printed:** 09/20/18 09/20/18 First Reported: Job ID/Site: 578-MA18, 917-518-01 - Vallco Mall 2010 Finder, Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 1 **Date(s) Collected:** 09/17/2018 **Total Samples Analyzed:** Asbestos Percent in Asbestos Percent in Asbestos Percent in

Layer

Type

Amosite

Layer

15 %

Type

Type

Layer: Off-White Fibrous Material Chrysotile 2 %
Total Composite Values of Fibrous Components: Asbestos (17%)

Lab Number

12078201

Cellulose (Trace)

Sample ID

15

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.



APPENDIX 1



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Page

Environmental Services

, age	
Job#	578-MAIS
P.O. #	920-578-26

General Inf	ormation		Analysis Requested	Turn Around T	ime	Special Instruc	tions
9	1-1	C-9	☐ PCM NIOSH 7400 ☐ TEM	Rush			
te:7	120/1	8	O AHERA	☐ 12 hours			
DID: Val	100 M	211	O Level 2 O Bulk Quantitative	24 hours 48 hours			
4.5.7	205		Bulk Qualitative	3-5 days			
			—				
Cupe	Stino		O AA	-			
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	4SI		_O TCLP				
:	AJL					☐ Prior Positive	
ter Type: [☐ MCE, 0.8	um 25n		□ MCE, 0.8μm,	37mm	□ Other	
	I WOL, 0.0	μπ, 201	III	L WOL, σ.σμπ,	07111111	A	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
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1- /	☐ Background ☐ Personal	□ ALS		off	Ave		
4-5	☐ Blank ☐ Bulk	☐ Agg.	Sheet not TIR	pump#	Roto#		
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6-+	☐ Area ☐ Background	□ ALS	1 cyture	off	end		
8	☐ Personal ☐ Blank	□ Agg.	Co. 1 - T. 1	pump#	Ave Roto#	_	
0	☐ Bulk ☐ Post		Ceiting Tiles				
9-17	☐ Area ☐ Background	☐ Amb.	MASTIC	on	on		
	☐ Personal	□ ALS		off	Ave		
18-19	☐ Blank ☐ Bulk	☐ Agg.	mortar	pump#	Roto#		
	□ Post □ Area	☐ Amb.	MASTIC	on	on		
20	☐ Background	□ ALS	<i>p</i>	off	end		
21	☐ Personal ☐ Blank ☐ Bulk	□ Agg.	sheet flooring	pump#	Ave Roto#	_	
~ V	□ Post	☐ Amb.	,	on	on		
22	☐ Area ☐ Background	□ ALS	mastic	off —	end		
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave		
23-24	□ Bulk		MASTIC	рипр#	Roto#		
25-26	☐ Post ☐ Area	☐ Amb.	IntSTIC	on	on		
2,00	☐ Background ☐ Personal	□ ALS		off	end Ave		
	☐ Blank ☐ Bulk	☐ Agg.		pump#	Roto#		
	□ Post	☐ Amb.		on	on		
	☐ Area ☐ Background	□ ALS		off	end		
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave		
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Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265614 **Date Received:** 09/21/18 1208 Main St. **Date Analyzed:** 09/25/18 Redwood City, CA 94063 **Date Printed:** 09/25/18 09/25/18 First Reported: **Job ID/Site:** 578-MA18, 920-578-26 - Vallco Mall, Unit 2053, Cupertino FALI Job ID: 1454 **Total Samples Submitted: 26 Date(s) Collected:** 09/20/2018 **Total Samples Analyzed:** Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12079406 Layer: White Drywall ND Layer: Off-White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 2 12079407 Layer: White Drywall ND Layer: Off-White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 3 12079408 Layer: White Drywall ND Layer: Off-White Joint Compound ND Layer: White Tape ND Layer: Off-White Joint Compound Chrysotile 2 % Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (20 %) Fibrous Glass (10 %) 12079409 Layer: White Drywall ND Layer: Off-White Joint Compound Chrysotile 2 % Layer: White Tape 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: Asbestos (Trace) Cellulose (20 %) Fibrous Glass (10 %)

Client Name: Protech Consulting & Engineers Inc.

Report Number: B265614 **Date Printed:** 09/25/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: Off-White Joint Compound Layer: White Tape Layer: Off-White Joint Compound Layer: Paint	12079410		ND ND ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (10	_	Asbestos (ND)					
6 Layer: White Texture Layer: Paint	12079411		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents:	Asbestos (ND)					
7 Layer: White Texture Layer: Paint	12079412		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
8 Layer: White Fibrous Tile Layer: Paint	12079413		ND ND				
Total Composite Values of Fibrous Cor Cellulose (2 %) Fibrous Glass (90	•	Asbestos (ND)					
9 Layer: Black Mastic	12079414	Chrysotile	2 %				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents:	Asbestos (2%)					
10 Layer: Tan Mastic	12079415		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents:	Asbestos (ND)					
11 Layer: Tan Mastic	12079416		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace) Wollastonite (5		Asbestos (ND)					
12 Layer: Yellow Mastic	12079417		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents:	Asbestos (ND)					
13 Layer: Yellow Mastic	12079418		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B265614 **Date Printed:** 09/25/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
14	12079419						
Layer: Black Mastic		Chrysotile	2 %				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (2%)					
15	12079420						
Layer: Black Mastic		Chrysotile	2 %				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (2%)					
16	12079421						
Layer: Tan Mastic			ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
17	12079422						
Layer: Tan Mastic			ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
18 Layer: Grey Mortar	12079423		ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
19	12079424						
Layer: Grey Mortar			ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
20	12079425						
Layer: Tan Mastic			ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
21	12079426						
Layer: Off-White Sheet Flooring		Clare (1	ND				
Layer: Fibrous Backing	,	Chrysotile	70 %				
Total Composite Values of Fibrous Co Cellulose (5 %)	imponents:	Asbestos (25%)					
22 Layer: Brown Mastic	12079427		ND				
Total Composite Values of Fibrous Co Cellulose (Trace) Wollastonite (5	_	Asbestos (ND)					
23	12079428						
Layer: Brown Mastic			ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	emponents:	Asbestos (ND)					

Date Printed: 09/25/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Layer Lab Number Type Layer Type Type Layer 24 12079429 Layer: Brown Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 25 12079430 Layer: Black Mastic Chrysotile 3 % Total Composite Values of Fibrous Components: Asbestos (3%) Cellulose (Trace) 26 12079431 Layer: Off-White Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Report Number:

B265614



Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

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Pro Tech 1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Page _ _ of | 15 | Job # _ \$78 · MA18 | P.O. # 0920 · \$78 · \$5

Consulting & Engi	neering				Envi	ronmental Servi	Ces	F.O. # 0 1	20.170.00
General Inf	ormation			urn	Around Ti	me	Spe	ecial Instru	ctions
20	0 12 1	- 0	☐ PCM NIOSH 7400 ☐ TEM		ush				
D 01.01	9.20-20		O AHERA		hours				
Job ID: VA	LLCO1	MALL	O Level 2 U O Bulk Quantitative		hours hours				
1STFL. SOUT	HS10E	RETA	O Bulk Qualitative		5 days				
			PLM BULK - EPA/600/R/116						
+ COMMON			O AA O TTLC						
Collected By:	RN, R	C, ED	O STLC						
Lab:	FASI		O TCLP 						
			Other					Prior Positive	
Filter Type:	☐ MCE, 0.8	μm, 25m	nm	МС	E, 0.8μm,	37mm	□ O ¹	ther	
Sample #	Sample	Sample			Time		and the same	Total Min.	
Date	Туре	Protocol	Location / Activity / Material Description		On/Off	LPM	Ē	Total Vol. ibers/Fields	Results
#01-07	☐ Post ☐ Area	☐ Amb.	SRTC-SMOOTH	(on	on	_		
08-09	☐ Background ☐ Personal	□ ALS	SRTC W/TEXT	(off	end Ave	_		
10-11	☐ Blank ☐ Bulk	☐ Agg.	SR SURF TEXT	-	pump#	Roto#			
# 12-13	□ Post	☐ Amb.	FIBERGLASS SHEATHER DRYWA	2./	on	on			
14 1	☐ Area ☐ Background	□ ALS			off	end			
16-17	☐ Personal ☐ Blank	□ Agg.	MASTIC		pump#	Ave			
	☐ Bulk ☐ Post		MASTIC			Roto#	=		
# 18-20	☐ Area ☐ Background	Amb.	MASTIC		on	onend	_		
21	☐ Personal ☐ Blank	ALS	SHEETFLOORING		off	Ave			
22-26	□ Bulk	☐ Agg.	12X12 VFT W/MASTIC		pump#	Roto#			
# 27-28	☐ Post ☐ Area	☐ Amb.	SHEETPLOORING		on	on			
29-30	☐ Background ☐ Personal	□ ALS	12×12 VFT W/ MASTIC		off	end	-		
31-32	☐ Blank ☐ Bulk	□ Agg.	SHEETFLOORING	1	pump#	Roto#			
# 33	☐ Post ☐ Area	☐ Amb.	12X12 VFTW/MASTIC	-	on	on			
24-27	☐ Background ☐ Personal	□ ALS	SHRETFLOORING		off	end			
38	☐ Blank	□ Agg.			pump#	Ave Roto#			
# 00	☐ Bulk ☐ Post	☐ Amb.	12X12 VFT W/MASTIC	_	on	on	_		
* 39	☐ Area ☐ Background	□ ALS	SHEETPLOOKING		off	end			
70	☐ Personal ☐ Blank	□ Agg.	12X12 VIT W/MASTIC		pump#	Ave			
41	□ Bulk		SHEET FLOODING			Roto#			
#42-43	□ Post □ Area	☐ Amb.	12 X 12 VFTW/MASTIC		on	onend			
44-45	☐ Background ☐ Personal	□ ALS	SHEETFLOORING		off	Ave			
46-49	☐ Blank ☐ Bulk	☐ Agg.	MASTIC		pump#	Roto#			
# 50 - 53	□ Post □ Area	☐ Amb.	MORTAR		on	on			
54	☐ Background ☐ Personal	□ ALS	MASTIC	-	off	end	-		
55	☐ Blank ☐ Bulk	□ Agg.	DUCT SEAM TAPE		pump#	Ave			
#	□ Post	☐ Amb.	DOCT SCAPITATE		on	on			
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Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265615 **Date Received:** 09/21/18 1208 Main St. **Date Analyzed:** 09/25/18 Redwood City, CA 94063 **Date Printed:** 09/25/18 First Reported: 09/25/18

Job ID/Site: 578-MA18, 0920-578-55 - Vallco Mall, 1st Fl. South Side Retail + Common Area FALI Job ID: 1454

Job ID/Site: 578-MA18, 0920-578-55 - V Date(s) Collected: 09/20/2018	/allco Mall, 1	st Fl. South Sid	e Retail + Co	mmon Area		es Submitted:	55 55
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: White Joint Compound Layer: White Tape	12079436		ND ND ND				
Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 °C)		Asbestos (ND)					
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: Paint	12079437		ND ND ND ND				
Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 °C)		Asbestos (ND)					
03 Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: Paint	12079438		ND ND ND ND				
Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 °C)		Asbestos (ND)					
04 Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: Paint	12079439		ND ND ND ND				
Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 °C)		Asbestos (ND)					
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: Paint	12079440		ND ND ND ND				
Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 %)		Asbestos (ND)					

Report Number: B265615 **Date Printed:** 09/25/18

Client Name: Protech Consulting & Engineers Inc.

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
06	12079441						
Layer: White Drywall Layer: White Joint Compound			ND ND				
Layer: White Tape			ND ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Co	mponents:	Asbestos (ND)					
Cellulose (20 %) Fibrous Glass (1	0 %)						
07	12079442						
Layer: White Drywall			ND ND				
Layer: White Joint Compound Layer: White Tape			ND ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (1	_	Asbestos (ND)					
08	12079443						
Layer: White Drywall			ND				
Layer: White Joint Compound			ND				
Layer: White Tape Layer: White Texture			ND ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (1	-	Asbestos (ND)					
09	12079444						
Layer: White Drywall			ND				
Layer: White Joint Compound			ND				
Layer: White Tape Layer: White Texture			ND ND				
Layer: Write Texture Layer: Paint			ND ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (1	•	Asbestos (ND)	- \ <u>-</u>				
10	12079445						
Layer: White Texture			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
11	12079446						
Layer: White Texture Layer: Paint			ND ND				
·	mnononto	A shostos (NID)	NU				
Total Composite Values of Fibrous Co Cellulose (Trace)	imponents:	Asbestos (ND)					
12	12079447						
Layer: White Semi-Fibrous Material	1=0.7111		ND				
Total Composite Values of Fibrous Co	mponents:	Asbestos (ND)					
Cellulose (5 %) Fibrous Glass (20	(%)						

Report Number: B265615 **Date Printed:** 09/25/18

Client Name: Protech Consulting & Engineers Inc.

Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 13 12079448 Layer: White Semi-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (5 %) Fibrous Glass (20 %) 14 12079449 Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 15 12079450 Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 16 12079451 10 % Chrysotile Layer: Black Mastic Total Composite Values of Fibrous Components: Asbestos (10%) Cellulose (Trace) 12079452 **17** Layer: Black Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 18 12079453 Layer: Black Mastic Chrysotile 5 % Total Composite Values of Fibrous Components: Asbestos (5%) Cellulose (Trace) 19 12079454 Layer: Black Mastic Chrysotile 5 % Total Composite Values of Fibrous Components: Asbestos (5%) Cellulose (Trace) 20 12079455 Layer: Black Mastic Chrysotile 5 % Total Composite Values of Fibrous Components: Asbestos (5%) Cellulose (Trace) 12079456 21 Layer: White Sheet Flooring ND Layer: Fibrous Backing ND Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %) 22 12079457 Layer: White Tile ND Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Report Number: B265615

Client Name: Protech Consulting & Engineers Inc.

Date Printed: 09/25/18

Sample ID	Lab Numbe	Asbestos er Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Tile Layer: Black Mastic Layer: White Non-Fibrous Material	12079458		ND ND ND				-
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
24 Layer: White Tile Layer: Black Mastic	12079459		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
25 Layer: Black Tile Layer: Black Mastic	12079460		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
26 Layer: Black Tile Layer: Black Mastic	12079461		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
27 Layer: Black Sheet Flooring Layer: Yellow Mastic	12079462		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace) Fibrous Glass (10	_	Asbestos (ND)					
Layer: Tan Sheet Flooring Layer: Fibrous Backing Layer: Tan Mastic	12079463		ND ND ND				
Total Composite Values of Fibrous Con Cellulose (20 %) Fibrous Glass (5 %)	•	Asbestos (ND) etic (10 %)					
29 Layer: Off-White Tile Layer: Yellow Mastic	12079464		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
30 Layer: Off-White Tile Layer: Yellow Mastic	12079465		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					

Report Number: B265615 **Date Printed:** 09/25/18

Client Name: Protech Consulting & Engineers Inc.

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: Tan Sheet Flooring Layer: Fibrous Backing Layer: Tan Mastic	12079466		ND ND ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (5	•	sbestos (ND) c (10 %)					
Layer: Tan Sheet Flooring Layer: Fibrous Backing Layer: Tan Mastic	12079467		ND ND ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (5	•	sbestos (ND) c (10 %)					
33 Layer: Tan Tile Layer: Yellow Mastic	12079468		ND ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	omponents: As	sbestos (ND)					
34 Layer: Black Felt Layer: Tan Mastic	12079469		ND ND				
Total Composite Values of Fibrous Co Cellulose (85 %)	omponents: A	sbestos (ND)					
Layer: Tan Sheet Flooring Layer: Fibrous Backing Layer: Yellow Mastic	12079470		ND ND ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (5	•	sbestos (ND) c (10 %)					
Ager: Tan Sheet Flooring Layer: Fibrous Backing Layer: Yellow Mastic	12079471		ND ND ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (5	=	sbestos (ND) c (10 %)					
Layer: Tan Sheet Flooring Layer: Fibrous Backing Layer: Tan Mastic	12079472		ND ND ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (5	•	sbestos (ND) c (10 %)					

Report Number: B265615 **Date Printed:** 09/25/18

Client Name: Protech Consulting & Engineers Inc.

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
38 Layer: Off-White Tile Layer: Yellow Mastic	12079473		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents: A	Asbestos (ND)					
Layer: Grey Sheet Flooring Layer: Fibrous Backing Layer: Yellow Mastic	12079474		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (5	•	Asbestos (ND) etic (10 %)					
40 Layer: Black Tile Layer: Black Mastic	12079475		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents: A	Asbestos (ND)					
41 Layer: Grey Sheet Flooring Layer: Fibrous Backing Layer: Tan Mastic	12079476		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (5	-	Asbestos (ND) etic (10 %)					
42 Layer: White Tile Layer: Black Mastic	12079477		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents: A	Asbestos (ND)					
43 Layer: Tan Tile Layer: Tan Mastic	12079478		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
Layer: Tan Sheet Flooring Layer: Fibrous Backing Layer: Tan Mastic	12079479		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (5	•	Asbestos (ND) etic (10 %)					
Layer: Tan Sheet Flooring Layer: Fibrous Backing Layer: Tan Mastic	12079480		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (5	_	Asbestos (ND) etic (10 %)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B265615 **Date Printed:** 09/25/18

Sample ID	Lab Numbe	Asbestos er Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
46 Layer: Tan Mastic	12079481		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
47 Layer: Tan Mastic	12079482		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
48 Layer: Tan Mastic	12079483		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
49 Layer: Tan Mastic	12079484		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
50 Layer: Grey Cementitious Material	12079485		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
51 Layer: Grey Mortar Layer: White Mortar	12079486		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
52 Layer: Grey Mortar Layer: Brown Non-Fibrous Material	12079487		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
53 Layer: Grey Mortar	12079488		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
54 Layer: Brown Mastic	12079489		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
Layer: White Tape	12079490		ND				
Total Composite Values of Fibrous Cor Cellulose (60 %)	nponents:	Asbestos (ND)					

Report Number: B265615 Client Name: Protech Consulting & Engineers Inc. **Date Printed:** 09/25/18 Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Layer Type Layer Type Type Layer

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

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1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com Page ______ of ____ Job # 578 - Male P.O. # 920 - 518 - 20

Environmental Services

Date:	ertino FASI N	.ll	Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/11 Lead AA TTLC STLC TCLP Mold Other	16	Rush 12 hours 24 hours 48 hours 3-5 days		Special Inst	
		μπ, Ζοππ	□ MCE, 0.45μm, 25mm	n L M	CE, 0.8μm,	37mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Descri	ption	Time On/Off	LPM	Total Min. Total Vol.	Results
# 01-05	□ Post □ Area	☐ Amb.	SR		on	on	Fibers/Fields	
	☐ Background☐ Personal	□ ALS			off	end		_
06	☐ Blank ☐ Bulk	□ Agg.	ZYYC.P.		pump#	Ave Roto#	_	_
#	□ Post □ Area	☐ Amb.	BBM ZX4C	Q	on	on	_	
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08	☐ Personal ☐ Blank	□ Agg.	12 XIZ VFT/M:	0 0	pump#	Ave	_	
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" 09	☐ Area ☐ Background	☐ Amb.	12 XIZ VFT/M		on	on		
100 11	☐ Personal ☐ Blank	□ ALS			off	end		
10-11	□ Bulk	□ Agg.	5.F.		pump#	Roto#		
# 12	☐ Post ☐ Area	☐ Amb.	12 X12 VIFT W/A	h	on	on		
	☐ Background ☐ Personal	□ ALS		•	off	end		
13	☐ Blank ☐ Bulk	☐ Agg.	12 X12 VFT w/	M	pump#	Ave Roto#		
# 1./	□ Post	☐ Amb.			on	on		
" 14	☐ Area ☐ Background	□ ALS	S.F.		off	end	_	
15-16	☐ Personal ☐ Blank	□ Agg.	0 1 20		-	Ave		
"	□ Bulk □ Post		Cpt. M.		pump#	Roto#		
" 17	□ Area	☐ Amb.	Morta		on	on	_	
. 0	☐ Background☐ Personal☐	□ ALS			off	end Ave	_	
18	☐ Blank ☐ Bulk	☐ Agg.	Mastic		pump#	Roto#		
# 19	□ Post □ Area	☐ Amb.	Duct Mustic		on	on		
1 1	☐ Background☐ Personal	□ ALS	0 30 7 10/1/2		off	end		
20	☐ Blank ☐ Bulk	□ Agg.	12×12 VITIM		pump#	Ave	_	
#	□ Post	☐ Amb.	-712 V11/PO			Roto#	_	
	☐ Area ☐ Background	□ ALS			on	on end	_	
	☐ Personal ☐ Blank	□ Agg.			off	Ave		
4	☐ Bulk ☐ Post				pump#	Roto#	_	
Ŧ	☐ Area ☐ Background	☐ Amb.			on	on	_	
	☐ Personal ☐ Blank	□ ALS			off	end Ave	- '	
	☐ Bulk	□ Agg.			pump#	Roto#	156	789
			CHAIN OF C	USTODY		-	13	100
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					X	MAY	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1 2010



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265617 **Date Received:** 09/21/18 1208 Main St. **Date Analyzed:** 09/25/18 Redwood City, CA 94063 **Date Printed:** 09/25/18 09/25/18 First Reported: **Job ID/Site:** 578-MA18, 920-578-20 - Vallco Mall, 1019, Cupertino FALI Job ID: 1454 **Total Samples Submitted: 20 Date(s) Collected:** 09/20/2018 **Total Samples Analyzed:** Percent in Asbestos Percent in Asbestos Percent in Asbestos Sample ID Lab Number Type Layer Type Layer Type Layer 01 12079494 Layer: White Drywall ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 02 12079495 Layer: White Drywall ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 03 12079496 Layer: White Drywall ND Layer: White Joint Compound ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Fibrous Glass (10 %) Cellulose (20 %) 04 12079497 ND Layer: White Drywall Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 05 12079498 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %)

Client Name: Protech Consulting & Engineers Inc.

Report Number: B265617 **Date Printed:** 09/25/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent ir Layer
06 Layer: Off-White Fibrous Material Layer: Paint	12079499		ND ND				
Total Composite Values of Fibrous Co. Cellulose (35 %) Fibrous Glass (4.	_	Asbestos (ND)					
07 Layer: White Drywall Layer: Tan Tape	12079500		ND ND				
Total Composite Values of Fibrous Co. Cellulose (20 %) Fibrous Glass (19	_	Asbestos (ND)					
08 Layer: Yellow Mastic	12079501		ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
09 Layer: Beige Tile Layer: Yellow Mastic	12079502		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
10 Layer: Grey Sheet Flooring Layer: Off-White Mastic	12079503		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
11 Layer: White Sheet Flooring Layer: Off-White Mastic	12079504		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
12 Layer: White/ Black Tile Layer: Yellow Mastic	12079505		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
13 Layer: Black Tile Layer: Yellow Mastic	12079506		ND ND				
Total Composite Values of Fibrous Co. Cellulose (Trace)	mponents:	Asbestos (ND)					
14 Layer: Grey Sheet Flooring Layer: Fibrous Backing	12079507		ND ND				
Total Composite Values of Fibrous Co. Cellulose (20 %) Fibrous Glass (5	_	Asbestos (ND) etic (10 %)					

Date Printed: 09/25/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 15 12079508 ND Layer: Yellow Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 16 12079509 ND Layer: Yellow Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12079510 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Asbestos (ND)

Asbestos (ND)

Asbestos (ND)

ND

ND

ND

ND

12079511

12079512

12079513

18

19

20

Layer: Tan Mastic

Layer: Off-White Mastic

Layer: Light Brown Tile

Layer: Yellow Mastic

Cellulose (Trace)

Total Composite Values of Fibrous Components:

Total Composite Values of Fibrous Components:

Total Composite Values of Fibrous Components:

Report Number: B265617

Jade Harris

Tad Thrower, Laboratory Supervisor, Hayward Laboratory



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Environmental Services

General	Information		Analysis Requested □ PCM NIOSH 7400	Turn Around T	ime	Special Instruc	ctions
Data	09-20-	18	□ TEM	☐ Rush ☐ 12 hours			
Date:	Valles Ma	11	O AHERA O Level 2	☐ 24 hours			
Job ID:	Valled Ma ZU 56 Cuputins RN FASI		O Bulk QuantitativeO Bulk Qualitative	48 hours 3-5 days			
	1		 PLM BULK - EPA/600/R/116 Lead 				
	Cupetins		O AA O TTLC				
Collected By:_	RN		O STLC				
Lab:	41117		O TCLP Mold			☐ Prior Positive	
			Other			□ Filoi Fositive	
Filter Type:	☐ MCE, 0.8	μm, 25mm	□ MCE, 0.45µm, 25mm	□ MCE, 0.8μm,	37mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	<u>Total Min.</u> <u>Total Vol.</u> Fibers/Fields	Results
# 01	□ Post □ Area	☐ Amb.	5.R.	on	on		
	☐ Background ☐ Personal	□ ALS		off	end Ave		
v	☐ Blank ☐ Bulk	□ Agg.	Mastic	pump#	Roto#		
# 03	□ Post □ Area	☐ Amb.	Moster	on	on		
	☐ Background☐ Personal	□ ALS		off	end		
04	☐ Blank ☐ Bulk	□ Agg.	Mastic	pump#	Ave Roto#		
#	□ Post □ Area	☐ Amb.	7, 11.0	on	on		
	☐ Background ☐ Personal	□ ALS		off	end		
- 7 39	☐ Blank ☐ Bulk	□ Agg.		pump#	Ave Roto#		
#	□ Post	☐ Amb.		on	on		
	☐ Area ☐ Background	□ ALS		off	end		
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave		
#	☐ Bulk				Roto#		
#	☐ Area ☐ Background	☐ Amb.		on	on end		
	☐ Personal ☐ Blank	□ Agg.		off	Ave		
	□ Bulk			pump#	Roto#		
#	□ Post □ Area	☐ Amb.		on	on		
	☐ Background☐ Personal	□ ALS		off	end Ave		
	□ Blank □ Bulk	□ Agg.		pump#	Roto#		
#	□ Post □ Area	☐ Amb.	~	on	on		
	☐ Background☐ Personal	□ ALS		off	end		*
	☐ Blank ☐ Bulk	□ Agg.		pump#	Ave Roto#		
#	□ Post □ Area	☐ Amb.		on	on		
	☐ Background☐ Personal	□ ALS		off	end		
	☐ Blank ☐ Bulk	□ Agg.		pump#	Ave Roto#	_	*
#	□ Post	☐ Amb.		on	on		
	☐ Area ☐ Background	□ ALS		off -	end		
	□ Personal □ Blank	□ Agg.		pump#	Ave	15678	0
	□ Bulk				Roto#	313	3 10
Relinquished E	2 _V .		Date/Time Rece			A	VED S
E Q			Date/Time Rece	eived By:	~ MN	Date/fime	2010
- 12				\sim	YXA	SEP 21	2018
					111	(a) (D)(
			WHITE - RETAIN WITH SAMPLES	CANARY - FILE COPY		THE RE	150
			AND RESIDENCE OF THE PROPERTY			10/	C. 1



Layer: Yellow Mastic

Cellulose (Trace)

Total Composite Values of Fibrous Components:

Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265619 **Date Received:** 09/21/18 1208 Main St. **Date Analyzed:** 09/25/18 Redwood City, CA 94063 **Date Printed:** 09/25/18 09/25/18 First Reported: **Job ID/Site:** 578-MA18, 920-578-04- Vallco Mall, 2056, Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 4 **Date(s) Collected:** 09/20/2018 **Total Samples Analyzed:** Asbestos Asbestos Percent in Asbestos Percent in Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 01 12079515 Layer: White Drywall ND Layer: Off-White Joint Compound ND Layer: White Tape ND Layer: Off-White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12079516 Layer: White Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 03 12079517 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 04 12079518

Tad Thrower

Asbestos (ND)

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

ND

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



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com	Environmental Services	Page of
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General Ir	nformation		Analysis Requested	Turn Around	l Time	Special Instru	ctions
Job ID: Va	20/18 11co M 1020 quale BN FASI	nall	PCM NIOSH 7400 AHERA O Level 2 O Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead O AA O TTLC O STLC O TCLP Mold Other	Rush 12 hours 24 hours 48 hours 3-5 days		□ Prior Positive	
Filter Type:	☐ MCE, 0.8	μm, 25m	nm	□ MCE, 0.8µ	m, 37mm	□ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 1	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	Sheed rock ITC	on off pump#	on end Ave Roto#		
* 2	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	BASEBOARD MASTI	onoffpump#	on end Ave Roto#		
# 3	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	12x12 V ft w/m 5:7	on off pump#	on end Ave Roto#		
* ' 4	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	mastic	on off pump#	onendAveRoto#		
# 5	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	C.T. Mortar	on off pump#	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.		onoffpump#	onendAveRoto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		on offpump#	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#_	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.		onoffpump#">	end 8000 Ave 8000	D PR	
Dellessished D			CHAIN OF CUSTO	ODY ~	SEP 21 20	118	
Relinquished By	<i>y</i> :	A	Date/Time Rece	eived By:	cypi	Date/Tim	e
					1 D/O	(13)	

1454

Client ID:



Protech Consulting & Engineers Inc.

Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Project Manager 1208 Main St. Redwood City, CA 94063					Report Numbe Date Received: Date Analyzed Date Printed: First Reported	09/21/1 09/24/1 09/24/1	8 8 8
Job ID/Site: 578-MA18, 920-578-05	- Vallco Mall, 102	20 Sunnyvale			FALI Job ID: Total Samples		
Date(s) Collected: 09/20/2018					Total Samples		5
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: Off-White Joint Compound Layer: White Tape Layer: Off-White Joint Compound Layer: Paint Total Composite Values of Fibrous Composite Values	12079559 Components: A	sbestos (ND)	ND ND ND ND ND				
Cellulose (20 %) Fibrous Glass Layer: Brown Mastic Total Composite Values of Fibrous Cellulose (Trace)	12079560	sbestos (ND)	ND				
Layer: White Tile Layer: Tan Mastic Total Composite Values of Fibrous C Cellulose (Trace)	12079561 Components: A	sbestos (ND)	ND ND				
4 Layer: Tan Mastic Total Composite Values of Fibrous C	12079562	sbestos (ND)	ND				
Cellulose (Trace)	components. A	SUCSIUS (IND)					
5 Layer: Light Grey Mortar	12079563		ND				
Total Composite Values of Fibrous C Cellulose (Trace)	Components: A	sbestos (ND)					

lad Shower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023

Page	lofl
Job#	578-MIS
P.O. #	920-578-12

info@protech-cal.com Consulting & Engineering **Environmental Services General Information Analysis Requested** Turn Around Time Special Instructions PCM NIOSH 7400 ☐ Rush TEM 09-20-18 12 hours Date:. AHERA Valles Mall 24 hours 0 Level 2 00 Job ID: -**Bulk Quantitative** 48 hours 2048 **Bulk Qualitative** 3-5 days PLM BULK - EPA/600/R/116 Cupatino AA ŏ TTLC Collected By:_ 0 STLC FASI 0 TCLP Lab: _ Mold Prior Positive Other Filter Type: ☐ MCE, 0.8 μm, 25mm ☐ MCE, 0.45μm, 25mm □ MCE, 0.8µm, 37mm ☐ Other Sample # Sample Sample Total Min. Total Vol. Time Date Type Protocol Location / Activity / Material Description On/Off Results Fibers/Fields □ Post ☐ Amb. on R. on ☐ Area 01- 02 end ☐ Background ☐ ALS off ☐ Personal Ave ☐ Blank ☐ Bulk ☐ Agg. 03-04 pump# 2 × 4 C.P. Roto# □ Post ☐ Amb. Mortus on on ☐ Area 05 - 48 end ☐ Background ☐ ALS off ☐ Personal Ave ☐ Blank ☐ Bulk ☐ Agg. 09 pump# 12X12VFT W/n Roto# ☐ Post ☐ Amb. on Mastic on 10 end ☐ Background ☐ ALS off ☐ Personal ☐ Blank Ave ☐ Agg. 11 Duct Mastic pump# Roto# ☐ Post ☐ Amb. on on ☐ Area ☐ Background ☐ Personal 12 end ☐ ALS off Ave ☐ Blank
☐ Bulk ☐ Agg. pump# Roto# □ Post □ Area ☐ Amb on on ☐ Background end ☐ ALS off ☐ Personal Ave ☐ Blank
☐ Bulk ☐ Agg. pump# Roto# ☐ Post ☐ Amb. on □ Area ☐ Background end ☐ ALS off ☐ Personal Ave ☐ Blank ☐ Bulk ☐ Agg. pump# Roto# ☐ Post ☐ Area ☐ Amb on on ☐ Background end ☐ ALS off ☐ Personal
☐ Blank
☐ Bulk Ave ☐ Agg. pump# Roto# ☐ Post ☐ Area ☐ Amb. on ☐ Background
☐ Personal end ☐ ALS off Ave ☐ Blank ☐ Bulk ☐ Agg. pump# Roto# □ Post □ Area ☐ Amb on ☐ Background ☐ Personal end □ ALS off Ave ☐ Blank ☐ Bulk □ Agg pump# Roto# CHAIN OF CUSTODY Relinquished By: Date/Time Received By: Date/Time



Cellulose (Trace)

Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation) Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265631 **Date Received:** 09/21/18 1208 Main St. **Date Analyzed:** 09/25/18 Redwood City, CA 94063 **Date Printed:** 09/25/18 09/25/18 First Reported: **Job ID/Site:** 578-MA18, 920-578-12 - Vallco Mall, 2048, Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 12 **Date(s) Collected:** 09/20/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12079564 Layer: White Drywall ND Layer: Yellow Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12079565 Layer: Light Brown Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) 3 12079566 ND Layer: White Fibrous Tile Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (2 %) Fibrous Glass (90 %) 12079567 ND Layer: White Non-Fibrous Material Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 5 12079568 Layer: White Mortar ND Layer: Tan Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (10 %) 6 12079569 ND Layer: Grey Mortar Total Composite Values of Fibrous Components: Asbestos (ND)

Report Number: B265631
Client Name: Protech Consulting & Engineers Inc.
Date Printed: 09/25/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
7 Layer: Grey Mortar	12079570		ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
8 Layer: White Mortar Layer: Clear Non-Fibrous Material	12079571		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
9 Layer: White Tile Layer: Yellow Mastic	12079572		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
10 Layer: Yellow Mastic	12079573		ND				
Total Composite Values of Fibrous Con Cellulose (2 %)	nponents:	Asbestos (ND)					
11 Layer: Multicolored Mastic	12079574		ND				
Total Composite Values of Fibrous Con Cellulose (7 %)	nponents:	Asbestos (ND)					
12 Layer: Brown Mastic	12079575		ND				
Total Composite Values of Fibrous Con Cellulose (3 %)	nponents:	Asbestos (ND)					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Page ______ of _____

Environmental Services

Job # 578-M13 P.O. # 920 574-05

General Information Date: 09-20-19 Job ID: Valled Mall 2054 Coperting Collected By: RM FASI	Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative Lead AA TTLC STLC TCLP Mold Other	Turn Around Rush 12 hours 24 hours 48 hours 3-5 days		□ Prior Positive	ctions
Filter Type: MCE, 0.8 μm, 25mm Sample # Date Sample Protocol	□ MCE, 0.45μm, 25mm Location / Activity / Material Description	□ MCE, 0.8μm	LPM	Other	Results
# Post Area Amb. Background ALS	SR	on	on	Fibers/Fields	
Personal ALS Blank Agg.	2×4 C.P.	offpump#	Ave Roto#		
# Post Amb.	1	on	on		
Background ALS Personal Blank Agg.	Mustic	offpump#	Ave		
# Post Amb.	Moitor	on	on		
□ Background □ ALS □ Personal □ Blank □ Bulk	-	offpump#	Ave Roto#		
# Post Amb. Background ALS		on	on end Ave		
□ Blank □ Agg.		pump#_	Roto#		
# Post Amb. Amb. Background Personal Blank Agg. Bulk Agg.		onoffpump#	end Ave Roto#		
# Post Area Amb. Background ALS Personal Blank Agg.		on off pump#	on end Ave Roto#		
# Post Amb. Area Amb. Background ALS Personal Blank Agg.		on off _ pump#	on end Ave Roto#		
# Post Amb. Amb. Area ALS Personal Blank Agg.		onoffpump#	on end Ave Roto#		
# Post Amb. Area Background ALS Personal Blank Bulk Agg.		on off pump#	onend		
Relinquished By:	CHAIN OF CUS Date/Time Re	1-1	RECFIVE		
Helinquished By:	Date/Time He	ceived By:	EP 2 1 20	Date/Tim	

1454

Client ID:



Protech Consulting & Engineers Inc.

Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Project Manager 1208 Main St. Redwood City, CA 94063				Report Numbe Date Received: Date Analyzed Date Printed: First Reported	: 09/21/1 : 09/25/1 09/25/1	8 8 8
Job ID/Site: 578-MA18, 920-578-05 -	Vallco Mall, 2054, Cuper	tino		FALI Job ID: Total Samples	1454	5
Date(s) Collected: 09/20/2018				Total Samples		5
Sample ID	Lab Number Asbesto Type		Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: White Joint Compound	12079576	ND ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (10	•	ND)				
02 Layer: White Drywall Layer: Paint	12079577	ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (10		ND)				
03 Layer: Beige Fibrous Material Layer: Paint	12079578	ND ND				
Total Composite Values of Fibrous Con Cellulose (35 %) Fibrous Glass (45	•	ND)				
04 Layer: Yellow Mastic	12079579	ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents: Asbestos (I	ND)				
05 Layer: Grey Mortar Layer: Paint	12079580	ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents: Asbestos (I	ND)				

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Lad Shower

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

Report Number: B265632
Client Name: Protech Consulting & Engineers Inc.
Date Printed: 09/25/18

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



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Environmental Services

1 age	
Job #	578-M418
P.O. #	920-578-05

General	Information		Analysis Requested	Turn	Around T	ime	Special Instruc	tions
Date: 9 Job ID: 1 Jo2 3 1 Collected By: 1	17 #023 BN	Mal	PCM NIOSH 7400 TEM AHERA	Ri	ush 2 hours 4 hours 3 hours 5 days			
_ab:	FASI			- brim,	14011	N-T	☐ Prior Positive	
			☐ Other		1	ATY(SH)	9/21/18	
Filter Type:	☐ MCE, 0.8	μm, 25mr	m □ MCE, 0.45μm, 25r	mm 🗆 MC	E, 0.8μm,	37mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material De	escription	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 1 2	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	sheed rock of		on off oump#	on end Ave Roto#		
* 3 4	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	MASTIC	(on off oump#	onendAveRoto#		
* 5	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	Mortan	(on off oump#	onend AveRoto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.			on off oump#	onend Ave Roto#		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. Project Manager 1208 Main St. Redwood City, CA 94063	•	·			Client ID: Report Numbe Date Received: Date Analyzed Date Printed: First Reported	09/21/1 09/25/1 09/25/1	8 8 8
Job ID/Site: 578-MA18, 920-578-05	5 - Vallco Mall, Uni	it 1023B			FALI Job ID: Total Samples	1454	5
Date(s) Collected: 09/20/2018					Total Samples		5
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
1	12079953						
Layer: White Drywall Layer: Off-White Joint Compound Layer: White Tape Layer: Off-White Joint Compound Layer: Paint			ND ND ND ND ND				
Total Composite Values of Fibrous C Cellulose (20 %) Fibrous Glass	•	sbestos (ND)					
2 Layer: Off-White Fibrous Material Layer: Paint	12079954		ND ND				
Total Composite Values of Fibrous C Cellulose (35 %) Fibrous Glass	•	sbestos (ND)					
3 Layer: Tan Mastic	12079955		ND				
Total Composite Values of Fibrous C Cellulose (Trace)	Components: A	sbestos (ND)					
4 Layer: Brown Mastic	12079956		ND				
Total Composite Values of Fibrous C Cellulose (Trace)	Components: A	sbestos (ND)					
5 Layer: Grey Mortar	12079957		ND				
Total Composite Values of Fibrous Cellulose (Trace)	Components: A	sbestos (ND)					

lad Imourer

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such



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info@protech-cal.com

Page ____l ___of ___l

Job # 578 -MAI 3

P.O. # 920 - 518 - 03

				EII.	THOUSE CHEEK SET	VICE3		1
General In	formation		Analysis Requested	Turn Around T	ime	Special Inst	tructions	
Date:	09-20-	18	PCM NIOSH 7400	☐ Rush ☐ 12 hours				t
V	alleo Ma		O AHERA O Level 2	☐ 24 hours				ı
JOD ID	55		O Bulk Quantitative O Bulk Qualitative	48 hours				ı
			PLM BULK - EPA/600/R/116 Lead	☐ 3-5 days				ı
COY	FASI		O AA O TTLC					ı
Collected By:	RN		O STLC O TCLP					ı
_ab:	10,0		Mold			☐ Prior Posi	tive	L
Filter Type:	□ MCE, 0.8	μm, 25mm	□ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm	□ Other		
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results	Γ
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. Project Manager 1208 Main St. Redwood City, CA 94063		: 1 1			Client ID: Report Numbe Date Received: Date Analyzed Date Printed: First Reported	: 09/21/1 : 09/25/1 09/25/1	8 8 8
Job ID/Site: 578-MA18, 920-578-03 - V	allco Mall, 205	55 Cupertino			FALI Job ID: Total Samples Total Samples	3 3	
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: Yellow Joint Compound Layer: Paint Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	-	.sbestos (ND)	ND ND ND				
02 Layer: White Texture Layer: Paint	12079981		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace) Synthetic (Trace)	ponents: A	sbestos (ND)					
03 Layer: Yellow Mastic	12079982		ND				
Total Composite Values of Fibrous Com- Cellulose (Trace) Synthetic (2 %)	ponents: A	sbestos (ND)					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



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Page _	of
Job#	578-MA18
	915 MO -

	info@	protech-cal.	.com			PO #	720-578-5
onsulting & Eng	ineering				nvironmental Serv	1000	
Date: 9/ Job ID: Va Cope Collected By:	tino		Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other	Turn Around Rush 12 hours 24 hours 48 hours 3-5 days	Time	□ Prior Position	
Filter Type:	☐ MCE, 0.8	μm, 25mr	m □ MCE, 0.45μm, 25mm	☐ MCE, 0.8μn	n, 37mm	☐ Other	
Sample # Date	Sample Type Post Area Background Personal Blank	Sample Protocol Amb. ALS Agg.	Location / Activity / Material Description	Time On/Off on off pump#	LPM on end Ave	Total Min. Total Vol. Fibers/Fields	Results
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WHITE - RETAIN WITH SAMPLES



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265668 **Date Received:** 09/21/18 **Date Analyzed:** 1208 Main St. 09/24/18 Redwood City, CA 94063 **Date Printed:** 09/25/18 09/25/18 First Reported: FALI Job ID: **Job ID/Site:** 578-MA18, 920-578-05 - Vallco Mall, Unit 2140, Cupertino 1454 **Total Samples Submitted:** 5 **Date(s) Collected:** 09/20/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12079983 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12079984 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 3 12079985 ND Layer: White Drywall Layer: White Texture ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12079986

ND

ND

5 12079987

Total Composite Values of Fibrous Components:

Layer: Yellow Mastic

Layer: White Non-Fibrous Material

Layer: White Non-Fibrous Material ND

Total Composite Values of Fibrous Components: Asbestos (ND)

Asbestos (ND)

					Report Numl	ber: B2656	68
Client Name: Protech Cons	ulting & Engineers Inc.				Date Printed	: 09/25/	18
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	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'.



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onsulting & Engi	neering				Env	ironmental Servi	Ces 1.0	. π_/	
General Inf	formation		Analysis Requested	Tur	n Around T	ime	Special	Instruct	tions
0/2	110		☐ PCM NIOSH 7400 ☐ TEM		Rush				
Date:	2/10	17	O AHERA O Level 2		12 hours 24 hours				
Job ID: Vc	elleo	mal	O Bulk Quantitative		48 hours				
Wir	1 100	2	Bulk Qualitative PLM BULK - EPA/600/R/116		3-5 days				
Cupe	_ A_		☐ Lead						
			O AA O TTLC						
Collected By:			_ O STLC O TCLP						
Lab:	ASI		Mold				□ Prior	r Positive	
			Other				<u> П</u>	i i Ositive	
Filter Type: [☐ MCE, 0.8	μm, 25mm	n □ MCE, 0.45µm, 25mm		1CE, 0.8µm,	37mm	☐ Other	Asym San	- Name and State and E
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description		Time On/Off	LPM	Total Total Fibers/	Vol.	Results
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265670 **Date Received:** 09/21/18 1208 Main St. **Date Analyzed:** 09/25/18 Redwood City, CA 94063 **Date Printed:** 09/25/18 09/25/18 First Reported: Job ID/Site: 578-MA18, 920-578-7 - Vallco Mall, Unit 1002, Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 7 **Date(s) Collected:** 09/20/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12080034 ND Layer: White Drywall Layer: Yellow Skimcoat/Joint Compound ND Layer: White Tape ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 2 12080035 Layer: White Fibrous Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Fibrous Glass (45 %) Cellulose (35 %) 3 12080036 ND

Layer: White Tile

Layer: Yellow Mastic ND

Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

12080037

ND Layer: Black Tile Layer: Yellow Mastic ND

Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

5 12080038 ND Layer: Grey Mortar

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (Trace) 12080039 6

ND Layer: Clear Mastic

Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

12080040

ND Layer: Yellow Mastic

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (Trace)

					Report Numl	ber: B2656	70
Client Name: Protech Con	sulting & Engineers Inc.				Date Printed	: 09/25/	18
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	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'.



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info@protech-cal.com

Environmental Services

General Info	21.20	gu	Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other Other	Rush 12 hours 24 hours 48 hours 3-5 days	ime	□ Prior Positive	
Filter Type:	MCE, 0.8	μm, 25m	m	□ MCE, 0.8μm,	37mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
* 01	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	□ Amb. □ ALS □ Agg.	SRTCW/76XT SRSURF TEXT	on off pump#	on end Ave Roto#		
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# 66 07	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	SHEETFLOOR 12X12VFTW/MASTR	on off pump#	onendAveRoto#		
# 08	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	MORTAR	onoffpump#	onendAveRoto#		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265770 **Date Received:** 09/25/18 1208 Main St. **Date Analyzed:** 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/27/18 09/27/18 First Reported: **Job ID/Site:** 578-MA18, 0921-578-08 - Vallco Mall, Unit 2050 FALI Job ID: 1454 **Total Samples Submitted:** 8 **Date(s) Collected:** 09/21/2018 **Total Samples Analyzed:** Percent in Asbestos Percent in Asbestos Percent in Asbestos Sample ID Lab Number Type Layer Type Layer Type Layer 01 12080678 ND Layer: White Drywall Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND

Total Composite Values of Fibrous Components: Asbestos (ND)
Cellulose (20 %) Fibrous Glass (10 %)

Cellulose (20 %) Fibrous Glass (10 %)

Layer: White Texture ND
Layer: Paint ND

12080679

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (Trace)

02

03 12080680

Layer: Beige Fibrous Material ND

Layer: Paint ND

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (35 %) Fibrous Glass (45 %)

04 12080681 Layer: Brown Mastic **ND**

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (Trace)

05 12080682 Layer: Yellow Mastic ND

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (Trace)

0612080683Layer: Multi-Color Sheet FlooringNDLayer: Fibrous BackingND

Layer: Yellow Mastic ND
Layer: Grey Cementitious Material ND

Total Composite Values of Fibrous Components: **Asbestos (ND)**Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)

Date Printed: 09/27/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Layer Type Layer Type Type Layer 07 12080684 Layer: Grey Tile ND Layer: Black Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND)

Report Number:

B265770

Cellulose (Trace)

08 12080685

Layer: Grey Mortar ND

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (Trace)

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



Pro Tech

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info@protech-cal.com

Environmental Services

Page 1 of 1 Job # 578 M A 18 P.O. # 0921 S 78 - 06

Date:	FASI	Au t c, El	O TCLP Mold Other	Turn Around T Rush 12 hours 24 hours 48 hours 3-5 days		Special Instruc	tions
Filter Type:	☐ MCE, 0.8	VIII CARDACTE	☐ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm	Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 0/	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	SRTZ-SMOUTH 2X4 SUSP CP'S	on off pump#	onendAveRoto#		
# 03	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. (□ ALS □ Agg.	CARPET MASTIC	on off _ pump#	onendAveRoto#		
# 05	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	BASE ROLK	on off pump#	on end Ave Roto#		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265771 **Date Received:** 09/25/18 **Date Analyzed:** 1208 Main St. 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/27/18 First Reported: 09/27/18

Job ID/Site: 578-MA18, 0921-578-06 - Vallco Mall, 1st Fl Courtyard & Showcase Area FALI Job ID: 1454

Date(s) Collected: 09/21/2018	vanco ivian, i	, 150 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0			Total Sample	6	
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: White Joint Compound Layer: Paint	12080686		ND ND ND ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10 02 Layer: Beige Fibrous Material Layer: Paint		Asbestos (ND)	ND ND				
Total Composite Values of Fibrous Com Cellulose (35 %) Fibrous Glass (45 03	•	Asbestos (ND)	ND				
Layer: Yellow Mastic Total Composite Values of Fibrous Com Cellulose (Trace)	ponents: A	Asbestos (ND)	ND				
O4 Layer: Grey Ceramic Tile Total Composite Values of Fibrous Com Cellulose (Trace)	12080689 ponents: A	Asbestos (ND)	ND				
05 Layer: Brown Non-Fibrous Material Total Composite Values of Fibrous Com Cellulose (Trace)	12080690 ponents: A	Asbestos (ND)	ND				
06 Layer: Dark Grey Non-Fibrous Material Total Composite Values of Fibrous Com Cellulose (Trace)	12080691 ponents: A	Asbestos (ND)	ND				

					Report Numl	ber: B2657	71
Client Name: Protech Con-	sulting & Engineers Inc.				Date Printed	: 09/27/	18
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	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'.



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com Environmental Services

General Inf	formation		Analysis Requested	Turn Around T	ime	Special Instru	ections
Date: 9/2 Job ID: Va Hallu Cupes Collected By: Ke	timo	Mal 2B 3N	PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other	☐ Rush ☐ 12 hours ☐ 24 hours ☐ 48 hours ☐ 3-5 days ☐		☐ Prior Positive	
Filter Type: [□ MCE, 0.8	μm, 25m	m □ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm	□ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# <i>1-</i> 3	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	Texture	on off pump#	on end Ave Roto#		
# 5	☐ Post☐ Area☐ Background☐ Personal☐ Blank	☐ Amb. ☐ ALS ☐ Agg.	MASTIC	onoffpump#	onendAveRoto#		
#	☐ Bulk ☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.	7.043/10	onoffpump#	onendAve		
#	☐ Bulk ☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAve		
#	□ Bulk □ Post □ Area □ Background □ Personal □ Blank □ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on offpump#	Roto# on end Ave Roto#		
#	Post Area Background Personal Blank Blank	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		onoffpump#	onendAveRoto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump# 1 8	onendAveRoto#/		
			CHAIN OF CUST	ODY /S	A /3	4	
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265772 **Date Received:** 09/25/18 1208 Main St. **Date Analyzed:** 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/27/18 09/27/18 First Reported: Job ID/Site: 578-MA18, 924-578-09 - Vallco Mall, Hallway 2B Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 9 **Date(s) Collected:** 09/24/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12080695 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: Asbestos (Trace) Fibrous Glass (10 %) Cellulose (20 %) 12080696 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 3 12080697 ND Layer: White Drywall Layer: Off-White Joint Compound 2 % Chrysotile Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (20 %) Fibrous Glass (10 %) 12080698 Layer: White Texture ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 5 12080699 ND Layer: Grey Cementitious Material Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Date Printed: 09/27/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Layer Lab Number Type Layer Type Type Layer 12080700 6 Layer: Grey Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080701 ND Layer: Brown Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080702 Layer: Orange Tile Chrysotile 2 % Layer: Black Mastic Chrysotile 5 % Total Composite Values of Fibrous Components: Asbestos (2%) Cellulose (Trace) 12080703 Layer: Black Mastic Chrysotile 5 % Total Composite Values of Fibrous Components: Asbestos (5%)

Cellulose (Trace)

Report Number:

B265772



Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such



Pro Tech 1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Environmental Services

Page _____ of _/ Job # _ 578-M4.8 P.O. # 924-578-12

General Inf	formation		Analysis Requested T	urn Around	d Time	Special Instru	ctions
Cuper-	100 M	43	PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other	12 hours 24 hours 48 hours		☐ Prior Positive	9
Filter Type:	☐ MCE, 0.8	μm, 25m	m □ MCE, 0.45μm, 25mm □	MCE, 0.8μ	m, 37mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# <i>1</i> -3	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	Celing Panel	onoffpump#	on end Ave Roto#		
# 5	□ Post □ Area	☐ Amb.	Mortur	on	on		
6-7	☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ ALS ☐ Agg.	masticul compound	off pump#	end Ave Roto#		
# 8-9	☐ Post ☐ Area ☐ Background ☐ Personal	☐ Amb.	12 X12 V FT w/mastic	on off	on end Ave		
10	☐ Blank ☐ Bulk ☐ Post	☐ Agg.	sheet floring	pump#_	Roto#		
#11-12	☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.	jus stic	onoffpump#	on end Ave Roto#		
#	□ Bulk □ Post □ Area	☐ Amb.		on	on		
	☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ ALS □ Agg.		off	end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.		on	on end Ave		
#	□ Bulk	☐ Amb.		pump#_	Roto#	_	
	☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ ALS □ Agg.		onoffpump# _	end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.		onoff	on end Ave		
#	☐ Bulk ☐ Post	☐ Amb.		on on	Roto#		
	☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ ALS □ Agg.		off pump#	Ave Roto#		
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Relinquished By:	_ <		Date/Time Receive		SEP 2 5 201	Date/Tin	ne
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				15	01 5 0 1 9 5		



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265775 **Date Received:** 09/25/18 **Date Analyzed:** 1208 Main St. 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/27/18 09/27/18 First Reported: Job ID/Site: 578-MA18, 0924-578-12 - Vallco Mall, Unit 1040-1043 Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 12 **Date(s) Collected:** 09/24/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12080706 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12080707 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Fibrous Glass (10 %) Cellulose (20 %) 3 12080708 Layer: White Drywall ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12080709 Layer: Beige Fibrous Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (35 %) Fibrous Glass (45 %) 5 12080710 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Client Name: Protech Consulting & Engineers Inc.

Report Number: B265775 **Date Printed:** 09/27/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
6 Layer: Yellow Mastic Layer: Paint	12080711		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents: A	Asbestos (ND)					
7 Layer: Yellow Mastic Layer: White Joint Compound	12080712		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents: A	Asbestos (ND)					
8 Layer: Tan Tile Layer: Tan Mastic	12080713		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents: A	Asbestos (ND)					
9 Layer: Grey Tile Layer: Yellow Mastic	12080714		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents: A	Asbestos (ND)					
10 Layer: Grey Sheet Flooring Layer: Fibrous Backing Layer: Yellow Mastic	12080715		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (5	_	Asbestos (ND) tic (10 %)					
11 Layer: White Mastic Layer: Paint	12080716		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents: A	Asbestos (ND)					
12 Layer: Tan Mastic Layer: Paint	12080717		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents: A	Asbestos (ND)					

Report Number: B265775 Client Name: Protech Consulting & Engineers Inc. **Date Printed:** 09/27/18 Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Layer Type Layer Type Type Layer

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Environmental Services

Page	1	of	1	1
Job#	092	1.57	8.	07
P.O. #	0921	: 378	3·M	A17

General Information Analysis Requested Turn Around Time PCM NIOSH 7400 TEM O AHERA O Level 2 O Bulk Quantitative O Bulk Qualitative PLM BULK - EPA/600/P/116 Lead O AA O TTLC O STLC O TCLP Mold Other OTHER O Prior Positive Prior Positive									
Filter Type: [□ MCE, 0.8 μ	um, 25m	m □ MCE, 0.45μm, 25mm	□М	CE, 0.8μm,	37mm		r	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description		Time On/Off	LPM	Tota	al Min. al Vol. s/Fields	Results
# O)	□ Post □ Area	☐ Amb.	SRTC-SMODTY		on	on end			
or	☐ Background ☐ Personal ☐ Blank	☐ ALS ☐ Agg.	2×4 SUSP CPS		off pump#	Ave	_		
4	□ Bulk □ Post	☐ Amb.	CX4 3031 CF3		on	on		1	
03	☐ Area ☐ Background	□ ALS	12×12 VFT W/ MAS	710	off	end			
04-05	☐ Personal ☐ Blank	□ Agg.	MASTIC		pump#	Ave Roto#	_		
# 07-03	□ Bulk □ Post	☐ Amb.			on	on			
06	☐ Area ☐ Background	□ ALS	MASTIC		off ———	end			
07	☐ Personal ☐ Blank	□ Agg.	MORTAR		pump#	Ave Roto#	-		
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	☐ Area ☐ Background	□ ALS			off	end	_		
	☐ Personal ☐ Blank ☐ Bulk	□ Agg.			pump#	Ave Roto#			
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	☐ Blank ☐ Bulk	□ Agg.			pump#	Roto#			
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	☐ Background ☐ Personal	□ ALS			off	end			
	☐ Blank ☐ Bulk	□ Agg.	4		pump#	Roto#			
#	□ Post □ Area	☐ Amb.			on	on			
	☐ Background☐ Personal	□ ALS			off	end Ave			
	☐ Blank ☐ Bulk	□ Agg.			pump#	Roto#			
	The state of the s	1	CHAIN OF CUST	ODY	MEG	EIWI	EM		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265776 **Date Received:** 09/25/18 1208 Main St. **Date Analyzed:** 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/27/18 09/27/18 First Reported:

Job ID/Site: 578-MA17, 0921-578-07 - VALLCO Mall, Unit 2043 FALI Job ID: 1454 **Total Samples Submitted:** 7 **Date(s) Collected:** 09/21/2018 **Total Samples Analyzed:** Asbestos Asbestos Percent in Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 01 12080720 ND Layer: White Drywall Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 02 12080721 Layer: Beige Fibrous Material ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (35 %) Fibrous Glass (45 %) 03 12080722 Layer: White Tile ND ND Layer: Yellow Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 04 12080723 ND Layer: Yellow Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 05 12080724 ND Layer: Yellow Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 06 12080725 Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) **07** 12080726 ND Layer: Grey Mortar Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

					Report Numl	ber: B2657	76
Client Name: Protech Consul	ting & Engineers Inc.			Date Printed	: 09/27/	18	
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	Layer

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266027 **Date Received:** 09/28/18 **Date Analyzed:** 1208 Main St. 10/02/18 Redwood City, CA 94063 **Date Printed:** 10/02/18 First Reported: 10/02/18

Job ID/Site: 578-MA18, 0926-578-24 - Vallco Mall Section A Roofs FALI Job ID: 1454

Job ID/Site: 578-MA18, 0926-578-24 - Valld Date(s) Collected: 09/26/2018	etion A Roofs			FALI Job ID Total Sample Total Sample	24 24		
Sample ID Lab	Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: Black Tar Layer: Black Felt Layer: Black Felt Layer: Black Felt Layer: Black Felt Layer: Black Tar Layer: Black Felt Layer: Tan Non-Fibrous Material Total Composite Values of Fibrous Compone Cellulose (Trace) Fibrous Glass (15 %) Comment: Bulk complex sample.	982226 ents: As	sbestos (ND)	ND ND ND ND ND ND				
1 1	082227		ND ND ND ND ND ND				
Total Composite Values of Fibrous Compone Cellulose (10 %) Fibrous Glass (10 %) Comment: Bulk complex sample.	ents: As	sbestos (ND)					
Layer: Black Tar Layer: Black Felt Layer: Black Felt Layer: Black Felt Layer: Black Tar Layer: Black Tar Layer: Black Felt Layer: Tan Non-Fibrous Material	982228		ND ND ND ND ND ND				
Total Composite Values of Fibrous Compone	ents: As	sbestos (ND)					

Cellulose (10 %) Fibrous Glass (10 %)

Comment: Bulk complex sample.

Report Number: B266027 Date Printed: Client Name: Protech Consulting & Engineers Inc.

Client Name: Protech Consulting	& Engineers Inc.				Date Printed	10/02/	18
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent ir Layer
Layer: Black Tar Layer: Black Felt Layer: Black Tar Layer: Black Felt Layer: Black Felt Layer: Black Tar Layer: Black Felt Layer: Black Felt Layer: Black Felt Layer: Black Felt Layer: Boige Non-Fibrous Mater Total Composite Values of Fibro	ous Components: A	sbestos (ND)	ND ND ND ND ND ND ND ND ND				
Cellulose (5 %) Fibrous Gla Comment: Bulk complex sample	e.						
Layer: Black Tar Layer: Black Felt Layer: Black Tar Layer: Black Felt Layer: Black Tar Layer: Black Tar Layer: Black Felt Layer: Black Felt Layer: Black Felt Layer: Black Felt	12082230		ND ND ND ND ND ND ND ND ND				
Total Composite Values of Fibro Cellulose (5 %) Fibrous Gla Comment: Bulk complex sample	ass (15 %)	sbestos (ND)					
Layer: Black Tar Layer: Black Felt Layer: Black Tar Layer: Black Felt	12082231		ND				
Total Composite Values of Fibro Cellulose (5 %) Fibrous Gla Comment: Bulk complex sample	ass (15 %)	sbestos (ND)					
Layer: Black Tar Layer: Black Felt Layer: Black Tar Layer: Black Felt Layer: Black Felt Layer: Black Tar Layer: Black Felt Layer: Black Felt Layer: Black Felt	12082232		ND ND ND ND ND ND				
Total Composite Values of Fibro	ous Components: A	sbestos (ND)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B266027 **Date Printed:** 10/02/18

Sample ID	Lab Number	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
08 Layer: Grey Mastic Layer: Silver Paint	12082233	Chrysotile	10 % ND				
Total Composite Values of Fibrous Com Fibrous Glass (5 %)	iponents:	Asbestos (10%)					
09 Layer: Grey Mastic	12082234	Chrysotile	10 %				
Total Composite Values of Fibrous Com	iponents:	Asbestos (10%)					
10 Layer: Grey Mastic	12082235	Chrysotile	10 %				
Total Composite Values of Fibrous Com	ponents:	Asbestos (10%)					
11 Layer: Grey Roof Shingle Layer: Black Felt	12082236	Chrysotile	ND 70 %				
Total Composite Values of Fibrous Com Cellulose (5 %) Fibrous Glass (10 %	•	Asbestos (25%)					
12 Layer: White Non-Fibrous Material	12082237		ND				
Total Composite Values of Fibrous Com	iponents:	Asbestos (ND)					
13 Layer: Grey Non-Fibrous Material Layer: Paint	12082238		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace) Synthetic (5 %)	ponents:	Asbestos (ND)					
14 Layer: Black Tar Layer: Black Non-Fibrous Material	12082239		ND ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
Layer: Black Tar Layer: Black Felt Layer: Black Tar Layer: Black Tar Layer: Black Felt Layer: Black Tar Layer: Black Tar	12082240		ND ND ND ND ND				
Total Composite Values of Fibrous Com Cellulose (10 %) Fibrous Glass (10 Comment: Bulk complex sample.		Asbestos (ND)					

Report Number: B266027 Client Name: Protech Consulting & Engineers Inc. **Date Printed:** 10/02/18 Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Layer Type Layer Type Type Layer 16 12082241 Layer: White Tape ND Layer: White Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (5 %) Synthetic (5 %) 17 12082242 Layer: Black Tar ND Layer: Black Felt ND Layer: Black Tar ND Layer: Black Felt ND Layer: Beige Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (10 %) 18 12082243 ND Layer: Stones Layer: Black Tar ND Layer: Black Felt ND Layer: Black Tar ND ND Layer: Black Felt Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (15 %) Comment: Bulk complex sample. 19 12082244 ND Layer: Stones Layer: Black Tar ND Layer: Black Felt ND Layer: Tan Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (10 %)

Comment: Bulk complex sample.

Fibrous Glass (15 %)

Report Number: B266027 **Date Printed:** 10/02/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Layer Lab Number Type Layer Type Type Layer 20 12082245 Chrysotile Layer: Grey Cementitious Material Trace Layer: Light Grey Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (Trace) 21 12082246 ND Layer: Stones 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) Fibrous Glass (15 %) Cellulose (Trace) Comment: Bulk complex sample. 22 12082247 Layer: Silver Paint ND Layer: Black Tar ND Layer: Black Felt ND Layer: Black Tar ND Layer: Black Felt ND ND Layer: Black Tar Layer: Black Felt ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (15 %) Comment: Bulk complex sample. 23 12082248 ND Layer: Grey Mortar Total Composite Values of Fibrous Components: Asbestos (ND) 24 12082249 ND Layer: Beige Non-Fibrous Material

Tad Thrower

Asbestos (ND)

Total Composite Values of Fibrous Components:

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

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Report Number: B266027
Client Name: Protech Consulting & Engineers Inc.
Date Printed: 10/02/18

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



Pro Tech 1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Page <u>i</u> of <u>l</u>

Job # <u>578-mais</u>

P.O. # 925-578-3

Consulting & Engir	neering			E	nvironmental Servic	P.O. #	-1 , 60 ,
	5/18 lcor lcor lcor s/rc	1211 Mo,	Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/11 Lead AA TTLC STLC TCLP Mold Other			□ Prior Positive	
Filter Type: [☐ MCE, 0.8	μm, 25r	mm	n □ MCE, 0.8µm	1, 37mm L	Other	
Sample # Date	Sample Type Post Area Background	Sample Protocol Amb.	Location / Activity / Material Descri	Time On/Off on off	LPM onend	Total Min. Total Vol. Fibers/Fields	Results
8-14	☐ Personal ☐ Blank ☐ Bulk	□ Agg.	Texture	pump#	Ave		
#15-21 22	□ Post □ Area □ Background □ Personal □ Blank □ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#_	onendAveRoto#		
#23-28 29-30	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.	VICESTIC	onoffpump#	onendAveRoto#		
*31-35 36-37	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.		off	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off	end Ave Roto#	72	
			CHAIN OF	CUSTODY SE		_	
Relinquished By:	(R	Date/Time 9/25/18	Received By:	D/0/	Date/Tin	ne
		N	1	13	1 9	/	



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266028 **Date Received:** 09/28/18 1208 Main St. **Date Analyzed:** 10/01/18 Redwood City, CA 94063 **Date Printed:** 10/02/18 10/02/18 First Reported: Job ID/Site: 578-MA18, 0925-578-37 - Vallco Mall Section 2nd Fl Common Areas FALI Job ID: 1454 **Total Samples Submitted: 37 Date(s) Collected:** 09/25/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12082250 Layer: White Plaster ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (5 %) 2 12082251 Layer: White Drywall ND Layer: White Plaster ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 3 12082252 Layer: White Drywall ND Layer: White Plaster ND Layer: White Joint Compound ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12082253 Layer: White Plaster ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (5 %) 5 12082254 Layer: White Drywall ND ND Layer: White Plaster Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %)

Client Name: Protech Consulting & Engineers Inc.

Report Number: B266028 **Date Printed:** 10/02/18

Sample ID	Lab Numbe	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: White Plaster Layer: White Tape Layer: White Joint Compound Layer: Paint	12082255		ND ND ND ND				
Total Composite Values of Fibrous C Cellulose (20 %) Fibrous Glass (•	Asbestos (ND)					
7 Layer: White Joint Compound Layer: Paint	12082256		ND ND				
Total Composite Values of Fibrous C Cellulose (Trace)	omponents:	Asbestos (ND)					
8 Layer: White Plaster Layer: White Texture Layer: Paint	12082257		ND ND ND				
Total Composite Values of Fibrous C Cellulose (Trace)	omponents:	Asbestos (ND)					
Layer: White Plaster Layer: White Texture Layer: Paint	12082258		ND ND ND				
Total Composite Values of Fibrous C Cellulose (Trace)	omponents:	Asbestos (ND)					
10 Layer: White Plaster Layer: White Texture Layer: Paint	12082259		ND ND ND				
Total Composite Values of Fibrous C Cellulose (Trace)	omponents:	Asbestos (ND)					
Layer: White Plaster Layer: White Texture Layer: Paint	12082260		ND ND ND				
Total Composite Values of Fibrous C Cellulose (Trace)	omponents:	Asbestos (ND)					
Layer: White Plaster Layer: White Texture Layer: Paint	12082261		ND ND ND				
Total Composite Values of Fibrous C Cellulose (Trace)	omponents:	Asbestos (ND)					

Report Number: B266028 **Date Printed:** 10/02/18

Client Name: Protech Consulting & Engineers Inc.

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Plaster Layer: White Texture Layer: Paint	12082262		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents: A	Asbestos (ND)					
14 Layer: White Drywall Layer: White Texture Layer: Paint	12082263		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (10	•	Asbestos (ND)					
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: White Joint Compound Layer: Paint	12082264		ND ND ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (10	1	Asbestos (ND)					
16 Layer: White Drywall Layer: White Joint Compound Layer: Paint	12082265		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (10	•	Asbestos (ND)					
17 Layer: White Drywall Layer: White Joint Compound Layer: Paint	12082266		ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (20 %) Fibrous Glass (10	•	Asbestos (ND)					
18 Layer: White Drywall Layer: White Joint Compound Layer: Paint	12082267		ND ND ND				
Total Composite Values of Fibrous Con Cellulose (20 %) Fibrous Glass (10		Asbestos (ND)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B266028 **Date Printed:** 10/02/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: White Joint Compound Layer: Paint	12082268		ND ND ND ND ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	•	Asbestos (ND)					
20 Layer: White Drywall Layer: White Joint Compound Layer: Paint	12082269		ND ND ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	_	Asbestos (ND)					
21 Layer: White Drywall Layer: White Joint Compound Layer: Paint	12082270		ND ND ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	_	Asbestos (ND)					
22 Layer: Grey Cementitious Material Layer: Paint	12082271		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
23 Layer: Yellow Mastic	12082272		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
24 Layer: Yellow Mastic	12082273		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
25 Layer: Yellow Mastic	12082274		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	iponents:	Asbestos (ND)					
26 Layer: Yellow Mastic	12082275		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	iponents:	Asbestos (ND)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B266028 **Date Printed:** 10/02/18

Cheff Name. Protecti Consuming & Eng	,meers me.				Date I Illiteu	10/02/	
Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
27	12082276						
Layer: Yellow Mastic			ND				
Total Composite Values of Fibrous Co. Cellulose (Trace) Talc (5 %)	mponents:	Asbestos (ND)					
28	12082277						
Layer: Yellow Mastic		Chrysotile	2 %				
Total Composite Values of Fibrous Co. Cellulose (Trace)	mponents:	Asbestos (2%)					
29	12082278						
Layer: White Mastic Layer: White Joint Compound			ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
30 Layer: Grey Mortar	12082279		ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
31	12082280						
Layer: White Mortar Layer: Yellow Mastic			ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
32	12082281						
Layer: White Mortar Layer: Yellow Mastic			ND ND				
Total Composite Values of Fibrous Co. Cellulose (Trace)	mponents:	Asbestos (ND)					
33	12082282						
Layer: Grey Mortar Layer: Yellow Mastic			ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					
34	12082283						
Layer: White Mortar		G1	ND				
Layer: Yellow Mastic		Chrysotile	2 %				
Total Composite Values of Fibrous Con Cellulose (Trace)	•	Asbestos (Trac	e)				
35	12082284						
Layer: White Mortar Layer: Yellow Mastic			ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	mponents:	Asbestos (ND)					

Report Number: B266028
Client Name: Protech Consulting & Engineers Inc.

Date Printed: 10/02/18

Ashestos Percent in Ashestos

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
36 Layer: White Mortar Layer: Black/Yellow Mastic	12082285		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents: A	sbestos (ND)					
37 Layer: White Mortar Layer: Black/Yellow Mastic	12082286		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	mponents: A	sbestos (ND)					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

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Job ID: VAC	PASI	N ARE	Lead O AA O TTLC O STLC O TCLP Mold Other	Turn Around T ☐ Rush ☐ 12 hours ☐ 24 hours ☐ 48 hours ☐ 3-5 days ☐ ☐		□ Prior Positive	tions
Sample # Date	Sample	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 01-05	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	SRTC-SMOOTH	on off pump#	on end Ave Roto#		
# 06	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	BBMASTIC	on off pump#	onendAveRoto#		
# 07	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	MORTAR	on off pump#	onendAveRoto#		
# 08	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.	STUCCO	on off pump#	onendAveRoto#		
#09-11	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.	MORTAR	on off pump#	onendAveRoto#		
# /2	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	□ Amb. □ ALS □ Agg.	MASTIC	on off pump#	onendAveRoto#	9	
# 13	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	VAPOR BARRIER	on offpump#	onend Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		onoffpump#	on end Ave Roto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.		onoffpump#	onendAveRote#	7	
			CHAIN OF CUST	ODY 5	sam	E	
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			7 09,26,2018	S	EP 28 2	010	

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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266029 **Date Received:** 09/28/18 1208 Main St. **Date Analyzed:** 10/01/18 Redwood City, CA 94063 **Date Printed:** 10/02/18 10/02/18 First Reported: Job ID/Site: 578-MA18, 0926-578-13 - Vallco Mall, 1st Fl. Common Areas FALI Job ID: 1454 **Total Samples Submitted:** 13 **Date(s) Collected:** 09/26/2018 **Total Samples Analyzed:** Percent in Asbestos Percent in Asbestos Percent in Asbestos Sample ID Lab Number Type Layer Type Layer Type Layer 01 12082291 Layer: White Drywall ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 02 12082292 Layer: White Drywall ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 03 12082293 Layer: White Drywall ND Layer: White Joint Compound ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Fibrous Glass (10 %) Cellulose (20 %) 04 12082294 ND Layer: White Drywall Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 05 12082295 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %)

Client Name: Protech Consulting & Engineers Inc.Report Number:B266029Date Printed:10/02/18

Sample ID	Lab Number	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
06	12082296		ND				
Layer: White Mastic Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)	ND				
07 Layer: Grey Mortar Layer: White Drywall	12082297		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	iponents:	Asbestos (ND)					
08 Layer: Grey Cementitious Material Layer: Brown Cementitious Material	12082298		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
09 Layer: Grey Mortar	12082299		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	iponents:	Asbestos (ND)					
10 Layer: Grey Mortar Layer: Black Mortar	12082300		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
11 Layer: Grey Mortar	12082301		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
12 Layer: Black/Yellow Mastic	12082302		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
13 Layer: Black Felt	12082303		ND				
Total Composite Values of Fibrous Com Cellulose (70 %)	ponents:	Asbestos (ND)					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.

Report Number: B266029
Client Name: Protech Consulting & Engineers Inc.
Date Printed: 10/02/18

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



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023

info@protech-cal.com

Environmental Services

General Inf	ormation		Analysis Requested	Turn Around	ime	Special Instruct	ions
G G T G T G T G T G T G T G T G T G T G	1 1		☐ PCM NIOSH 7400	Rush			
9	126/18		□ TEM □ O AHERA	☐ 12 hours			
ate:	-		O Level 2	24 hours			
ob ID: A M	c Thea		 O Bulk Quantitative Bulk Qualitative 	48 hours			
Moofs	Vall	co Ma	PLM BULK - EPA/600/R/116	3-5 days			
C . 0 . 5	timo		☐ Lead				
cype	TINO		O AA O TTLC				
Collected By:	L/BN	120	_ O STLC				
C	4 S I		O TCLP Mold			_	
.ab:			Other			☐ Prior Positive	
		0.5	TIMOT 0.45 05mm	T MCE 0 9um	27mm	☐ Other	
ilter Type: [☐ MCE, 0.8	µm, 25mn	n □ MCE, 0.45μm, 25mm	☐ MCE, 0.8μm	, 3711111		* NO 18 THE CO.
Sample #	Sample	Sample	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol.	Results
Date	Type	Protocol		_	on	Fibers/Fields	
# 1-3	☐ Area	☐ Amb.	comp. Sheet ho	on	end		
1-1	☐ Background ☐ Personal	□ ALS	•	off	Ave		
4-5	☐ Blank ☐ Bulk	□ Agg.	Raofing Mystic	pump#	Roto#		
# /	□ Post	☐ Amb.	0 = : : : : : : : : : : : : : : : : : :	on	on		
" 6	☐ Area ☐ Background	□ ALS	Tucco	off	end		
_	☐ Personal				Ave		
7	☐ Blank ☐ Bulk	□ Agg.	on. Sheet Roof	pump#	Roto#		
#	□ Post □ Area	☐ Amb.		on	on		
	☐ Background	□ ALS		off	end		
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave		
	□ Bulk				_ Roto#		
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	☐ Background ☐ Personal	□ ALS		off	end	_	
	☐ Blank	□ Agg.		pump#	- Ave _ Roto#	_	
	☐ Bulk ☐ Post						
#	☐ Area	☐ Amb.		on	on end	_	
	☐ Background ☐ Personal	□ ALS		off	- Ave	_	
	☐ Blank ☐ Bulk	☐ Agg.		pump#	Roto#		
#	□ Post	☐ Amb.		on	on		
	☐ Area ☐ Background	□ ALS			end		
	☐ Personal ☐ Blank			off	Ave		
	□ Bulk	□ Agg.		pump#	_ Roto#		
#	□ Post □ Area	☐ Amb.		on	on		
	☐ Background	□ ALS		off	end		
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave		
	☐ Bulk			ратрп	_ Roto#		
#	☐ Post ☐ Area	☐ Amb.		on	on		
	☐ Background ☐ Personal	□ ALS		off	end	_	
	□ Blank □ Bulk	□ Agg.		pump#	Ave Roto#		
#	□ Post	☐ Amb.		on	on		
850	☐ Area ☐ Background	□ ALS			end 6 7 8	9 10	
	☐ Personal ☐ Blank	□ Agg.		off	Ave CVW	1 3	
	□ Bulk	L rigg.		pump#	Roto#	2 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
			CHAIN OF CUS	TODY	-	2018	
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			-		11 0	68 693	



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266030 **Date Received:** 09/28/18 1208 Main St. **Date Analyzed:** 10/01/18 Redwood City, CA 94063 **Date Printed:** 10/01/18 First Reported: 10/01/18

Job ID/Site: 578-MA18, 926-578-0 Date(s) Collected: 09/26/2018	07 - AMC Theatre Ro	oofs Vallco Ma	all, Cupertino		FALI Job ID: 1454 Total Samples Submitted: 7 Total Samples Analyzed: 7			
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	
1	12082304							
Layer: 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					
Layer: Grey Non-Fibrous Material			ND					
Total Composite Values of Fibrous Cellulose (2 %) Fibrous Glass Comment: Bulk complex sample.	s (45 %)	sbestos (ND)						
2	12082305							
Layer: 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					
Layer: Grey Non-Fibrous Material			ND					
Total Composite Values of Fibrous	•	sbestos (ND)						
Cellulose (2 %) Fibrous Glass								
Comment: Bulk complex sample.								
3	12082306							
Layer: 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					
Layer: Grey Non-Fibrous Material			ND					
Total Composite Values of Fibrous Cellulose (2 %) Fibrous Glass	*	sbestos (ND)						

Comment: Bulk complex sample.

Date Printed: 10/01/18 Client Name: Protech Consulting & Engineers Inc. Percent in Asbestos Percent in Asbestos Asbestos Percent in Sample ID Layer Lab Number Type Layer Type Type Layer 4 12082307 Layer: Black Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (10 %) 12082308 Layer: Grey Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082309 Layer: Grey Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082310 Layer: Stones ND Layer: Black Tar ND Layer: Black Felt ND Layer: Black Tar ND Layer: Black Felt ND Layer: Black Tar ND

ND

ND

Layer: Black Felt

Cellulose (5 %)

Layer: Grey Fibrous Material

Total Composite Values of Fibrous Components:

Fibrous Glass (40 %)

Tad Thrower

Asbestos (ND)

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such

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Report Number: B266030



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Environmental Services

Page _	of
Job #_	578-M418
PO#	92/5-578-0

	126/18 11co 1 15 Ro -timo 45E		Bulk Qualitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other	Turn Around T Rush 12 hours 24 hours 48 hours 3-5 days		□ Prior Positive	
Filter Type: [☐ MCE, 0.8	μm, 25m	nm	□ MCE, 0.8μm,	3/mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	<u>Total Min.</u> <u>Total Vol.</u> Fibers/Fields	Results
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266065 **Date Received:** 09/28/18 1208 Main St. **Date Analyzed:** 10/01/18 Redwood City, CA 94063 **Date Printed:** 10/01/18 10/01/18 First Reported: Job ID/Site: 578-MA18, 926-578-07 - Vallco Mall, Macy's Roof Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 7 **Date(s) Collected:** 09/26/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12082466 Layer: White Roof Shingle ND Layer: Black Felt ND Layer: White Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (5 %) Fibrous Glass (45 %) 2 12082467 Layer: 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 Layer: White Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (5 %) Fibrous Glass (40 %) Comment: Bulk complex sample. 3 12082510 Layer: White Roof Shingle ND Laver: Black Felt ND Layer: White Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (5 %) Fibrous Glass (45 %) 12082511 Layer: Brown Roof Shingle ND 10 % Layer: Black Mastic Chrysotile Asbestos (6%) Total Composite Values of Fibrous Components: Fibrous Glass (25 %) 5 12082512 Layer: Black Semi-Fibrous Tar Chrysotile 10 % Total Composite Values of Fibrous Components: Asbestos (10%) Cellulose (Trace)

Date Printed: 10/01/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Layer Lab Number Type Layer Type Type Layer 12082513 6 Layer: Grey Mastic Chrysotile 10 % Layer: Brown Roof Shingle ND Total Composite Values of Fibrous Components: Asbestos (2%) Fibrous Glass (25 %) 12082514 Layer: White Cementitious Material Chrysotile Trace Layer: Tan Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (Trace)

Report Number: B266065

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com Page __i _ of _/

Job # _578 - MA/8

P.O. # _0926 - 578 - 04

Environmental Services

General Inf	formation		Analysis Requested	Turn Around T	ime	Special Instruc	ctions	
AA			☐ PCM NIOSH 7400 ☐ TEM	Rush				1
Date: 09	. 26.20	018	_ O AHERA	☐ 12 hours ☐ 24 hours				
ob ID: VAL	LCO MA	JLL	O Level 2 O Bulk Quantitative	48 hours				
OBID: VAL	MMON	AREA	Bulk Qualitative PLM BULK - EPA/600/R/116	☐ 3-5 days				
(AMC)		5	☐ Lead					
		c ~	O AA O TTLC					
Collected By:	RNR	C, ED	O STLC O TCLP					
.ab:	751		Mold			☐ Prior Positive		
			Other					J
Filter Type:	☐ MCE, 0.8	μm, 25mm	☐ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm	☐ Other		
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results	
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. Project Manager 1208 Main St. Redwood City, CA 94063	Client ID: Report Numb Date Received Date Analyze Date Printed: First Reporte	d: 09/28/1 d: 10/01/1 10/01/1	8 8 8			
Job ID/Site: 578-MA18, 0926-578-04 - VALLCO M Date(s) Collected: 09/26/2018	all, 3rd Fl. Com	mon Area		FALI Job ID: Total Sample: Total Sample:	s Submitted:	4 4
Sample ID Lab Number	Asbestos er Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
01 12082559 Layer: White Drywall Layer: White Joint Compound Layer: Paint		ND ND ND				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)	Asbestos (ND)					
02 12082560 Layer: Dark Grey Semi-Fibrous Material Layer: Grey Non-Fibrous Material Layer: White Non-Fibrous Material Layer: Red Paint		ND ND ND ND				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (5 %)	Asbestos (ND)					
03 12082561 Layer: Grey Cementitious Material Layer: Red Cementitious Material		ND ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)	Asbestos (ND)					
04 12082562 Layer: White Mortar		ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)	Asbestos (ND)					

lad Imourer

Tad Thrower, Laboratory Supervisor, Hayward Laboratory
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Pro Tech 1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Page ______ of _____ Job # 578 MA18 P.O. # 0927 - 578 - 27

Environmental Services

Job ID:	9.27.20 LCO N A' EX	TERICO	PCM NIOSH 7400	Around Taush 2 hours 4 hours 8 hours -5 days		Special Instru	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
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07-08	☐ Background ☐ Personal	□ ALS		off	end	_	
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	□ Post	П A Is				_	
# 12-14	□ Area	☐ Amb.	FIREPROPING	on	on		
	☐ Background ☐ Personal	□ ALS		off	end Ave	_	
15-16	☐ Blank ☐ Bulk	☐ Agg.	MOISTURE BARRIER	pump#	Roto#	_	
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22	☐ Personal ☐ Blank	□ Agg.			Ave		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266118 **Date Received:** 10/01/18 **Date Analyzed:** 1208 Main St. 10/02/18 Redwood City, CA 94063 **Date Printed:** 10/03/18 10/03/18 First Reported: Job ID/Site: 578-MA18, 0927-578-27 - Vallco Mall, Section A Exterior FALI Job ID: 1454 **Total Samples Submitted: 27** Date(s) Collected: **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 12082748 Layer: Grey Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082749 Layer: Grey Cementitious Material ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 3 12082750 Layer: Grey Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082751 ND Layer: Grey Cementitious Material Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 5 12082752 Layer: Grey Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082753 ND Layer: Pink Cementitious Material ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Client Name: Protech Consulting & Engineers Inc.

 Report Number:
 B266118

 Date Printed:
 10/03/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
7 Layer: Black Felt Layer: Grey Cementitious Material Layer: White Cementitious Material Layer: Paint	12082754		ND ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (5 %)	nponents:	Asbestos (ND)					
8 Layer: Black Felt Layer: Grey Cementitious Material Layer: White Cementitious Material Layer: Paint	12082755		ND ND ND ND				
Total Composite Values of Fibrous Cor Cellulose (5 %)	nponents:	Asbestos (ND)					
9 Layer: Black Cementitious Tar	12082756		ND				
Total Composite Values of Fibrous Cor Fibrous Glass (Trace)	nponents:	Asbestos (ND)					
10 Layer: Black Cementitious Tar	12082757		ND				
Total Composite Values of Fibrous Cor Fibrous Glass (Trace)	nponents:	Asbestos (ND)					
11 Layer: Black Cementitious Tar	12082758		ND				
Total Composite Values of Fibrous Cor Fibrous Glass (Trace)	nponents:	Asbestos (ND)					
12 Layer: White Fibrous Material Layer: Black Paint	12082759		ND ND				
Total Composite Values of Fibrous Cor Cellulose (65 %)	nponents:	Asbestos (ND)					
13 Layer: White Fibrous Material Layer: Black Paint	12082760		ND ND				
Total Composite Values of Fibrous Cor Cellulose (65 %)	nponents:	Asbestos (ND)					
14 Layer: White Fibrous Material Layer: Black Paint	12082761		ND ND				
Total Composite Values of Fibrous Cor Cellulose (65 %)	nponents:	Asbestos (ND)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B266118 **Date Printed:** 10/03/18

Sample ID	Lab Numbe	Asbestos er Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: Black Non-Fibrous Material Layer: Grey Cementitious Material	12082762		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
16 Layer: Black Non-Fibrous Material Layer: Grey Cementitious Material	12082763		ND ND				
Total Composite Values of Fibrous Cor Cellulose (2 %)	nponents:	Asbestos (ND)					
17 Layer: White Semi-Fibrous Material	12082764		ND				
Total Composite Values of Fibrous Con Cellulose (15 %) Fibrous Glass (10	•	Asbestos (ND)					
18 Layer: White Non-Fibrous Material Layer: Tan Fibrous Material	12082765		ND ND				
Total Composite Values of Fibrous Cor Cellulose (10 %)	nponents:	Asbestos (ND)					
19 Layer: Tan Fibrous Material Layer: Paint	12082766		ND ND				
Total Composite Values of Fibrous Cor Cellulose (90 %)	nponents:	Asbestos (ND)					
20 Layer: Red Cementitious Material Layer: Grey Grout	12082767		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
21 Layer: Black Mastic	12082768		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
22 Layer: Grey Mortar	12082769		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
23 Layer: Black Non-Fibrous Material	12082770		ND				
Total Composite Values of Fibrous Cor Cellulose (3 %)	nponents:	Asbestos (ND)					

Date Printed: 10/03/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Layer Lab Number Type Layer Type Type Layer 24 12082771 Layer: Brown Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (3 %) 25 12082772 Layer: Red Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Synthetic (Trace) Cellulose (3 %) 26 12082773 Layer: Grey Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (3 %) 27 12082774 ND Layer: Brown Non-Fibrous Material Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (3 %)

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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Report Number: B266118



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PO. # 0928.578-07

constitut a cuti	HEELLHA				ENV	iloumeurai zeiai	tes	
General Inf Date:	9.28.20 LLCO	/ (Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other Other	☐ Ru ☐ 12 ☐ 24 ☑ 48	Around Tush hours hours hours hours downs	ime	□ Prior Positi	
Filter Type:	☐ MCE, 0.8	μm, 25mm	☐ MCE, 0.45μm, 25mm	□МС	E, 0.8μm,	37mm	☐ Other	
Sample #	Sample Type	Sample Protocol	Location / Activity / Material Description		Time On/Off	LPM	Total Min. Total Vol.	Results
* 01-02 63	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	SRTC - SMOOTH EXA SUSP CPS	(on off pump#	onend Ave Roto#	Fibers/Fields	
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			CHAIN OF CUSTO	ODY 3	OCT 0	1 2018		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266119 **Date Received:** 10/01/18 **Date Analyzed:** 1208 Main St. 10/03/18 Redwood City, CA 94063 **Date Printed:** 10/03/18 First Reported: 10/03/18

Job ID/Site: 578-MA18, 0928-578-07 - Date(s) Collected: 09/28/2018	Vallco Mall U	Jnit 2111			FALI Job ID Total Sample Total Sample	7 7	
Sample ID	Lab Number	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: Off-White Joint Compound Layer: Paint	12082775	Chrysotile	ND 2 % ND ND ND				
Total Composite Values of Fibrous Con Cellulose (20 %) Fibrous Glass (10	-	Asbestos (Trace	e)				
Layer: White Drywall Layer: White Joint Compound Layer: White Tape	12082776	Chrysotile	ND 2 % ND				
Total Composite Values of Fibrous Con Cellulose (20 %) Fibrous Glass (10	-	Asbestos (Trac	e)				
03 Layer: Beige Fibrous Material Layer: Paint	12082777		ND ND				
Total Composite Values of Fibrous Con Cellulose (35 %) Fibrous Glass (45	-	Asbestos (ND)					
04 Layer: Tan Mastic	12082778	Chrysotile	5 %				
Total Composite Values of Fibrous Con	iponents:	Asbestos (5%)					
05 Layer: White Tile Layer: Yellow Mastic	12082779		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
06 Layer: White Non-Fibrous Material Layer: Red Mastic	12082780		ND ND				
Total Composite Values of Fibrous Con	nponents:	Asbestos (ND)					

Report Number: B266119
Client Name: Protech Consulting & Engineers Inc.
Date Printed: 10/03/18

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

07 12082781

Layer: Yellow Mastic ND

Total Composite Values of Fibrous Components: Asbestos (ND)

Tad Shrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.



1208 Main Street, Redwood City, CA 94063

PIUIE	Phone info@	: (650) 569- protech-cal	4020 Fax: (650)	569-4023				DO #	578.MAIE 0928.578.2
onsulting & Eng			A water	Dogwood	Т		vironmental Servi		
Date:O	TNOER	ALL	PCM N TEM O AHEI O Leve O Bulk	Quantitative Qualitative JLK - EPA/600/R/116	□ F □ 1 □ 2	Around T Rush 12 hours 24 hours 18 hours 3-5 days	ime	□ Prior Pos	
Filter Type:	☐ MCE, 0.8	μm, 25m	m	0.45μm, 25mm	□М	CE, 0.8μm,	37mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Acti	vity / Material Description	í	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 01-05	☐ Post ☐ Area ☐ Background ☐ Personal	☐ Amb.	SRTC-			on off	on end Ave		
06	☐ Blank ☐ Bulk	☐ Agg.	2×4 SUS			pump#	Roto#		
* 07	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.	MAST			off	end		
08-11	☐ Bulk ☐ Post	☐ Amb.	MORTI			on	Roto#		
12	☐ Area ☐ Background ☐ Personal ☐ Blank	□ ALS □ Agg.	MAST			off	end Ave Roto#		
14-15	☐ Bulk ☐ Post ☐ Area ☐ Background	☐ Amb.	STUCC			on	onend		
16	☐ Personal ☐ Blank ☐ Bulk	□ Agg.	FELT			pump#	Ave		-
17	☐ Post☐ Area☐ Background	□ Amb.	•	HEET ROD	F	on	on		
18	☐ Personal ☐ Blank ☐ Bulk	□ Agg.	MAST7	C		pump#	Ave		
# 19	☐ Post ☐ Area ☐ Background ☐ Personal	☐ Amb.	MASTI	С		on	on end Ave		
20	□ Blank □ Bulk	☐ Agg.	CAULK			pump#	Roto#		
# 21	☐ Post ☐ Area ☐ Background ☐ Personal	☐ Amb.	ASPHI	tut.		onoff	end		
22	□ Blank □ Bulk	☐ Agg.	CONCR	EJE		pump#	Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.		,		onoffpump#	end Ave Roto#		
‡	□ Bulk □ Post □ Area □ Background □ Personal □ Blank □ Bulk	☐ Amb. ☐ ALS ☐ Agg.				on off 56	on on Ave Poto#		
				CHAIN OF CUS	TODY	RI	CEIVED	3	
Relinquished By	r: //		Date/Time		ceived B	1	0 1 2018	Date Date	e/Time
	110	-	100	20 2010		1	IINN	/~/	



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266120 **Date Received:** 10/01/18 **Date Analyzed:** 1208 Main St. 10/03/18 Redwood City, CA 94063 **Date Printed:** 10/03/18 10/03/18 First Reported: Job ID/Site: 578-MA18, 0928-578-22 - Vallco Mall Alexanders FALI Job ID: 1454 **Total Samples Submitted: 22 Date(s) Collected:** 09/28/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 01 12082782 Layer: White Drywall ND Layer: Off-White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 02 12082783 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 03 12082784 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12082785 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %)

Report Number: B266120 **Date Printed:** 10/03/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 05 12082786 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 06 12082787 ND Layer: White Drywall Total Composite Values of Fibrous Components: Asbestos (ND) Fibrous Glass (5 %) Cellulose (Trace) **07** 12082788 ND Layer: Off-White Mastic Total Composite Values of Fibrous Components: Asbestos (ND) 08 12082789 ND Layer: Grey Mortar Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 09 12082790 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082791 10 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 11 12082792 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12 12082793 ND Layer: Yellow Mastic Total Composite Values of Fibrous Components: Asbestos (ND) 13 12082794 Layer: Grey Mortar ND

Asbestos (ND)

Total Composite Values of Fibrous Components:

Cellulose (Trace)

Client Name: Protech Consulting & Engineers Inc.

 Report Number:
 B266120

 Date Printed:
 10/03/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
14 Layer: Grey Cementitious Material Layer: Paint	12082795		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
15 Layer: Grey Cementitious Material Layer: Paint	12082796		ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
16 Layer: Black Felt	12082797		ND				
Total Composite Values of Fibrous Con Cellulose (95 %)	nponents:	Asbestos (ND)					
Layer: White Roof Shingle Layer: Black Tar Layer: Black Felt	12082798		ND ND ND				
Total Composite Values of Fibrous Con Cellulose (55 %) Fibrous Glass (10	•	Asbestos (ND)					
18 Layer: Black Mastic	12082799		ND				
Total Composite Values of Fibrous Con Cellulose (7 %) Synthetic (2 %)	nponents:	Asbestos (ND)					
19 Layer: Black Mastic	12082800		ND				
Total Composite Values of Fibrous Con Cellulose (7 %) Synthetic (2 %)	nponents:	Asbestos (ND)					
20 Layer: Black Non-Fibrous Material	12082801		ND				
Total Composite Values of Fibrous Con	nponents:	Asbestos (ND)					
21 Layer: Black Cementitious Material	12082802		ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
22 Layer: Grey Cementitious Material	12082803		ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					

Report Number: B266120 Client Name: Protech Consulting & Engineers Inc. **Date Printed:** 10/03/18 Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Layer Type Layer Type Type Layer

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



General In Date: 09 Job ID: VA UNIT Collected By:	formation 7.28.20 LLCO 2110 PN R FA'S 1	MALC C	O Level 2 O Bulk Quantitative O Bulk Qualitative EL PLM BULK - EPA/600/R/116 Lead O AA O TTLC O STLC O TCLP Mold Other	Turn Around T Rush 12 hours 24 hours 48 hours 3-5 days		Special Instru	
Sample #	□ MCE, 0.8	Sample		☐ MCE, 0.8μm,		Other	Paguita
# 0 / 0 &	Type Post Area Background Personal Blank Bluk	Protocol Amb. ALS Agg.	SRTC ~ SMOOTH SRTC W/TEXT	On/Off on off pump#	onendAveRoto#	Fibers/Fields	Results
* 03	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	SR SURF TEXT 2X4 SUSP CPS	onoffpump#	on end Ave Roto#		
* 05 06	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.	MASTIC 12X12 VET W/ MASTI		onend Ave Roto#		e tour
* 07 08	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	□ Amb. □ ALS □ Agg.	MASTIC	on off pump#	end Ave Roto#		
# 09	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	<i>y</i>	on off pump#	on end Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		onoffpump#	onendAveRoto#		
#	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
Relinquished By:	<i>M</i>		Date/Time Recei 0 9 28 20 8 WHITE - RETAIN WITH SAMPLES	ved By: CANARY - FILE CAPY	7 01 201 Ydo	8 Date/Tin	ne



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266148 **Date Received:** 10/01/18 1208 Main St. **Date Analyzed:** 10/03/18 Redwood City, CA 94063 **Date Printed:** 10/03/18 10/03/18 First Reported: **Job ID/Site:** 578-MA18, 0928-578-09 - Vallco Mall, Unit 2110 FALI Job ID: 1454 **Total Samples Submitted:** 9 **Date(s) Collected:** 09/28/2018 **Total Samples Analyzed:** Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 01 12083004 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 02 12083005 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 03 12083006 Layer: White Texture ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 04 12083007 ND Layer: Tan Fibrous Material ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (35 %) Fibrous Glass (45 %) 05 12083008 ND Layer: Yellow Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (10 %) **06** 12083009 ND Layer: Tan Tile Layer: Black Mastic Chrysotile 5 % Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (Trace)

Date Printed: 10/03/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Lab Number Sample ID Layer Type Layer Type Type Layer 07 12083010 Layer: Black Non-Fibrous Material ND Layer: Brown Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) 08 12083011 Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) 09 12083012 ND Layer: Black Mastic Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (10 %)

Report Number: B266148



Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

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m Environmen

Environmental Services

ob ID: VAU SHERR Collected By: ab:	RN	TALL EFICE	Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative Bulk Qualitative ANA TILC STLC TCLP Mold Other DMCE 0.45um 25mm	Turn Around Rush 12 hours 24 hours 48 hours 3-5 days MCE, 0.8µm		□ Prior Positive	tions
Sample #	□ MCE, 0.8 Sample	Sample		Time		Total Min. Total Vol.	Danish
Date #	Type Post Area Background Personal Blank Blulk	Protocol ☐ Amb. ☐ ALS ☐ Agg.	SRTC , SMOOTH	On/Off on off pump#	onend	Fibers/Fields	Results
# 02	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	☐ Amb. ☐ ALS ☐ Agg.	2x4 Suspeps	onoffpump#	on end Ave Roto#		
* 03	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	MASTIC	on off pump#	on end Ave Roto#		
# 04	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	MASTIC	onoffpump#	on end Ave Roto#		
* 05	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.	MORPAR + MASTIC	onoffpump#	on end Ave Roto#		
# 06	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	MORTAR	onoff	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		onoff	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#_		
Relinquished By:	A		Date/Time Received Page 28 2018	ved By:	2018	Date/Time	

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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266149 **Date Received:** 10/01/18 **Date Analyzed:** 1208 Main St. 10/02/18 Redwood City, CA 94063 **Date Printed:** 10/03/18 First Reported: 10/03/18

Job ID/Site: 578-MA18, 0928-578-06 Date(s) Collected: 09/28/2018	- Vallco Mall,	Sherriff's Office	;		FALI Job ID Total Sample Total Sample	es Submitted:	6 6
Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: White Joint Compound Layer: White Tape Layer: White Joint Compound Layer: Paint	12083013		ND ND ND ND ND				
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (1	•	Asbestos (ND)					
02 Layer: Tan Fibrous Material Layer: Paint	12083014		ND ND				
Total Composite Values of Fibrous Co Cellulose (35 %) Fibrous Glass (4	_	Asbestos (ND)					
03 Layer: Off-White Mastic	12083015		ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
04 Layer: Black/Tan Mastic	12083016		ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
05 Layer: Grey Mortar Layer: Black Mastic	12083017		ND ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					
06 Layer: White Mortar	12083018		ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	mponents:	Asbestos (ND)					

					Report Numl	ber: B2661	49
Client Name: Protech Con	sulting & Engineers Inc.				Date Printed	: 10/03/	18
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	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'.



Environmental Services

P.O. # 1001-578-03

Break of Mall & Collected By: Mall & Fabrica &	1,/18 ecy's room	120	O TTLC O STLC O TCLP Mold Other	F 1 2 2 3 3 5 5 5 5 5 5 5 5	Around T Rush 2 hours 4 hours 8 hours -5 days		Special Instru	ctions
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description		Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 1	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.	MASTIC		on off pump#	on end Ave Roto#	- Ibers/Heids	
# 2	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	12 x12 V FT w/MA	STIC	on off pump#	onendAveRoto#		
# 3	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.	M4 STIC		on off pump#	onend Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.			on off pump#	onend Ave Roto#		
#	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.			on off pump#	onendAveRoto#		
#	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.			on off pump#	onendAveRoto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.			on off pump#	on end Ave Roto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.			on off pump#	onendAveRoto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.			on off pump#	on end 30 Ave 2 pm Boto		
Relinquished By:			Date/Time Rece	ODY eived By	200	CT 0,2 ,201	Date/Time	
lu	- tu	4	10/01/18		To The	D/O Wy ZL) Janes Hills	



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. Project Manager 1208 Main St. Redwood City, CA 94063		Client ID: Report Numb Date Received Date Analyzed Date Printed: First Reported	1: 10/02/1 d: 10/03/1 10/03/1	8 8 8			
Job ID/Site: 578-MA18, 1001-578-03 - Date(s) Collected: 10/01/2018	Macys Break R	toom Vallco Ma	all Cupertino		FALI Job ID: Total Samples Total Samples	Submitted:	3 3
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
01 Layer: Tan Mastic Total Composite Values of Fibrous Con	12083516 nponents: A	sbestos (ND)	ND				
Layer: White Tile Layer: Yellow Mastic Layer: Black Tile Layer: Yellow Mastic	12083517		ND ND ND ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents: A	sbestos (ND)					
03 Layer: Yellow Mastic	12083518		ND				
Total Composite Values of Fibrous Con	nponents: A	sbestos (ND)					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



Environmental Services

Date: Va Job ID: Va HAII Coupte Collected By: Lab:	Ilco M ay 21 stino		PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other	Rush 12 hours 24 hours 48 hours 3-5 days		□ Prior Positive	
Filter Type: [□ MCE, 0.8	μm, 25m	m □ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm	☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 1- Q 3	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	Sheed Rock TIZ	on off pump#	onend Ave Roto#		
* 4	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	□ Amb. □ ALS □ Agg.	MASTIC DOOR INSULATION	on off pump#	onendAveRoto#		
# 6	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.	mastic	on off pump#	onend AveRoto#		unie : 1 mm, con
* 8	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.	MASTIC	on off pump#	onend Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		on off pump#	onend Ave Roto#	PM 1 2 3	
Relinquished By:		1	Date/Time Receiv			Pate Pine	018



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Pr 12	rotech Consulting & Engineers Inc. roject Manager 208 Main St. edwood City, CA 94063					Client ID: Report Number Date Received: Date Analyzed Date Printed: First Reported	10/02/1 10/04/1 10/04/1	8 8 8	
	bb ID/Site: 578-MA18,1001-578-08 - Vate(s) Collected: 10/01/2018	'allco Mall, I	Hallway 2A, Cup	otertino		FALI Job ID: 1454 Total Samples Submitted: 8 Total Samples Analyzed: 8			
Sa	ample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	
	Layer: White Drywall Layer: Off-White Joint Compound Layer: Paint	12083533	Chrysotile	ND 2 % ND					
	Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	•	Asbestos (Trac	ee)					
	Layer: White Drywall Layer: Off-White Joint Compound Layer: White Tape Layer: Off-White Joint Compound Layer: Paint Total Composite Values of Fibrous Com	•	Asbestos (ND)	ND ND ND ND ND					
	Cellulose (20 %) Fibrous Glass (10 Layer: White Texture Layer: Paint	%) 12083535		ND ND					
	Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)	1,2					
	Layer: Black Mastic Total Composite Values of Fibrous Com Cellulose (Trace)	12083536 ponents:	Chrysotile Asbestos (5%)	5 %					
	Layer: Pink Fibrous Material Total Composite Values of Fibrous Com Cellulose (Trace)	12083537 ponents:	Amosite Asbestos (15%	15 %					
	Layer: Brown Mastic Total Composite Values of Fibrous Com Cellulose (Trace)	12083538 ponents:	Asbestos (ND)	ND					

Client Name: Protech Consulting &	Engineers Inc.				Date Printed:	10/04/1	18
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
7	12083539						
Layer: Grey Mortar			ND				
Total Composite Values of Fibrou Cellulose (Trace)	s Components: As	sbestos (ND)					
8	12083540						
Layer: Off-White Mastic			ND				
Total Composite Values of Fibrou	s Components: As	sbestos (ND)					

Report Number: B266240

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



Environmental Services

ansercing a chern				Carr	TORMERCET SCIT	11003	
Cuper Collected By:	ormation 1/18 11co 2047 -time 1/82 SI		Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other	Turn Around T	ime	Special Instru	
Filter Type: [□ MCE, 0.8	μm, 25mn	n □ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm	□ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
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3	☐ Blank ☐ Bulk	□ Agg.	Texture	pump#	Ave	_	
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5	☐ Blank ☐ Bulk	☐ Agg.	Mastic	pump#	Roto#	_	
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#	☐ Post	☐ Amb.		on	on		
	☐ Area ☐ Background				end		
	☐ Personal	□ ALS		off	Ave		
	☐ Blank ☐ Bulk	☐ Agg.		pump#	Roto#		
#	□ Post	☐ Amb.		on	on		
"	☐ Area	Carlo None Carlo			end		
	☐ Background ☐ Personal	□ ALS		off	Ave		
	☐ Blank ☐ Bulk	☐ Agg.		pump#	Roto#		
#	□ Post	□ Amb					
#	□ Area	☐ Amb.		on	on end		
	☐ Background ☐ Personal	□ ALS		off			
	☐ Blank	☐ Agg.		pump#	Ave Roto#	_	
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#	☐ Post ☐ Area	☐ Amb.		on	on		
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	☐ Blank	□ Agg.		pump#	Ave	_	
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#	☐ Post ☐ Area	☐ Amb.		on	on		
	☐ Background ☐ Personal	□ ALS		off	end		
	□ Blank	□ Agg.		pump#	Ave	_	
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#	☐ Post ☐ Area	☐ Amb.		on 1 2	on		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266255 **Date Received:** 10/02/18 **Date Analyzed:** 1208 Main St. 10/04/18 Redwood City, CA 94063 **Date Printed:** 10/04/18 First Reported: 10/04/18

Job ID/Site: 578-MA18, 1001-578-05 - V Date(s) Collected: 10/01/2018	allco Mall Un	nit 2047, Cuper	rtino		FALI Job ID Total Sample Total Sample	es Submitted:	5
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Layer: White Drywall Layer: Off-White Joint Compound Layer: White Tape Layer: Off-White Joint Compound Layer: White Tape Layer: Off-White Joint Compound	12083914		ND ND ND ND ND				
Layer: Paint Layer: Paint Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 %		sbestos (ND)	ND				
02 Layer: White Drywall Layer: Off-White Joint Compound Layer: Paint	12083915		ND ND ND				
Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 %		sbestos (ND)					
03 Layer: White Drywall Layer: White Texture Layer: Paint	12083916		ND ND ND				
Total Composite Values of Fibrous Comp Cellulose (20 %) Fibrous Glass (10 %		sbestos (ND)					
04 Layer: Off-White Fibrous Material Layer: Paint	12083917		ND ND				
Total Composite Values of Fibrous Comp Cellulose (35 %) Fibrous Glass (45 %		sbestos (ND)					
05 Layer: Tan Mastic	12083918		ND				
Total Composite Values of Fibrous Comp Cellulose (Trace) Synthetic (3 %)	onents: A	sbestos (ND)					

					Report Num	ber: B2662	255
Client Name: Protech Con	sulting & Engineers Inc.				Date Printed	: 10/04/	18
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	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'.



P.O. # 1001. 578-06

Environmental Services

(General I	nformation		Analysis Requested		Around 7	Time	Spe	cial Instru	ctions
Date:	D: VA	0.01.2 LLCO N VAY 3		O Bulk Qualitative PLM BULK - EPA/600/R/116 Lead O AA	☐ 12 ☐ 24 【本 48	ush 2 hours 4 hours 3 hours 5 days				
	cted By:	RN, R	C	O TTLC O STLC O TCLP						
Lab: _		FASI		Mold Other					Prior Positive	
Filte	r Type:	☐ MCE, 0.8	μm, 25m	nm	□мс	E, 0.8μm,	, 37mm	□ Oth	ner	
	Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Descriptio	n	Time On/Off	LPM		Total Min. Total Vol. bers/Fields	Results
#	01	☐ Post ☐ Area ☐ Background	☐ Amb.	SPTZ-SMOOTY		on	on			
	02	☐ Personal ☐ Blank ☐ Bulk	□ Agg.	SRTC W/ TEXT		off oump#	Ave			
#	. 1	☐ Post ☐ Area	☐ Amb.	SR SURFTERT		on	Roto#	_		
	03	☐ Background☐ Personal	□ ALS	SIC SUPPLEX!		off	end			
	04	☐ Blank ☐ Bulk	□ Agg.	2×4 SUSPCPS	F	oump#	Ave			
#	04	□ Post □ Area	☐ Amb.	CT MORTAN	C	on	on			
	-05	☐ Background ☐ Personal	□ ALS		C	off	end	_		
	06	☐ Blank ☐ Bulk	☐ Agg.	FIRE DOOR	Ł	oump#	Roto#			
#		□ Post □ Area	☐ Amb.	•	C	on	on			
		☐ Background ☐ Personal	□ ALS		C	off	end Ave	_		
		☐ Blank ☐ Bulk	☐ Agg.		þ	oump#	Roto#			
#		□ Post □ Area	☐ Amb.		C	n	on			
		☐ Background ☐ Personal	□ ALS		C	off	end Ave	_		
		☐ Blank ☐ Bulk	☐ Agg.		p	oump#	Roto#			
#		□ Post □ Area	☐ Amb.		C	n	on			
		☐ Background ☐ Personal	□ ALS		o	off	end	_		
		☐ Blank ☐ Bulk	☐ Agg.		p	ump#	Ave	_		
#		□ Post □ Area	☐ Amb.		0	n	on			
		☐ Background ☐ Personal	□ ALS		0	ff	end			
		☐ Blank ☐ Bulk	□ Agg.		р	ump#	Ave Roto#	_		
#		□ Post □ Area	☐ Amb.		0	n	on			
		☐ Background ☐ Personal	□ ALS		0	ff	end			
		☐ Blank ☐ Bulk	□ Agg.		р	ump#	Ave	_		
#		□ Post □ Area	☐ Amb.		0	n	en			
		☐ Background ☐ Personal	□ ALS			ff MAN 1	en			
		☐ Blank ☐ Bulk	□ Agg.		p	ump#	Roto#			
		1		CHAIN OF CUS	TODY	REC	EIVED	6		
Relin	quished By:				ceived By	OCT (2 2018	8	Date/Time	
		1/		10.01.2018	0		Lm /	-		
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	15					120	110 /			



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266256 **Date Received:** 10/02/18 1208 Main St. **Date Analyzed:** 10/04/18 Redwood City, CA 94063 **Date Printed:** 10/04/18 10/04/18 First Reported: **Job ID/Site:** 578-MA18, 1001-578-06 - Vallco Mall Hallway 3 FALI Job ID: 1454 **Total Samples Submitted:** 6 **Date(s) Collected:** 10/01/2018 **Total Samples Analyzed:** Percent in Asbestos Percent in Asbestos Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 01 12083919 ND Layer: White Drywall Layer: White Joint Compound ND Layer: White Tape ND Layer: White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 02 12083920 Layer: White Drywall ND Layer: Off-White Joint Compound Chrysotile 2 % Layer: White Tape ND Layer: Off-White Texture Chrysotile 2 % Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (20 %) Fibrous Glass (10 %) 03 12083921 ND Layer: White Texture Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12083922 ND Layer: Off-White Fibrous Material Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (35 %) Fibrous Glass (45 %) 05 12083923 Layer: White Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

06 12083924

Layer: White Fibrous Material ND

Total Composite Values of Fibrous Components: Asbestos (ND)

Cellulose (85 %) Synthetic (5 %)

					Report Num	ber: B2662	56
Client Name: Protech Cons	sulting & Engineers Inc.				Date Printed	: 10/04/	18
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	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'.



Environmental Services

Page __1 _ of __1

Job # _ 578 · MA/8

P.O. # _ [002 · 578 ·]2

DYNAST	1.01.21 LCO N	TALL SURANT C	Lead O AA O TTLC O STLC O TCLP Mold Other	R 11 24 24 24 24 24 24 24	Around T ush 2 hours 4 hours 3 hours 5 days		□ Prior Positive	tions
Sample #	Sample Type	Sample Protocol	Location / Activity / Material Description		Time On/Off	LPM	Total Min. Total Vol.	Results
# 0/	Post Area Background Personal Blank Bulk	□ Amb. □ ALS	SRTC - SMOOTH		on off pump#	onendAveRoto#	Fibers/Fields	
# 03	Post Area Background Personal Blank	□ Amb.	SK SURF TEXT		on off pump#	onendAveRoto#		
# 05	Bulk Post Area Background Personal Blank Bulk	- A	1ASTIC		on off pump#	onendAveRoto#		
# 07	Post Area Background Personal Blank Bulk	□ ALS	SHEETPEONING		on off pump#	onendAveRoto#		
# 09-10	Post Area Background Personal Blank Bulk		LXIZ VET W/ MASTIC		on off pump#	onendAveRoto#		
# 11	Post Area Background Personal Blank Bulk	□ Amb.	145776		on off pump#	on end Ave Roto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.			on off pump#	on end Ave Roto#		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B266360 **Date Received:** 10/03/18 **Date Analyzed:** 1208 Main St. 10/05/18 Redwood City, CA 94063 **Date Printed:** 10/05/18 10/05/18 First Reported: Job ID/Site: 578-MA18, 1002-578-12 - Vallco Mall Unit Dynasty Restaurant FALI Job ID: 1454 **Total Samples Submitted:** 12 **Date(s) Collected:** 10/01/2018 **Total Samples Analyzed:** Percent in Percent in Asbestos Asbestos Percent in Asbestos Sample ID Lab Number Type Layer Type Layer Type Layer 01 12084630 Layer: Light Brown Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Texture ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 02 12084631 Layer: White Drywall ND Layer: White Joint Compound ND Layer: White Tape ND Layer: White Texture ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Fibrous Glass (10 %) Cellulose (20 %) 03 12084632 ND Layer: White Texture ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 04 12084633 Layer: White Drywall ND Layer: Tan Fibrous Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (25 %) Fibrous Glass (5 %) 05 12084634 Layer: Off-White Mastic ND Layer: White Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND)

Report Number: B266360 **Date Printed:** Client Name: Protech Consulting & Engineers Inc. 10/05/18 Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 06 12084635 ND Layer: Brown Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12084636 Layer: Off-White Sheet Flooring ND Layer: Fibrous Backing ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %) **08** 12084637 ND Layer: White Mortar Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12084638 Layer: White Tile ND Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Synthetic (Trace) 10 12084639 Layer: White Tile ND Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 11 12084640 Layer: Tan Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND)

Tad Thrower

Asbestos (ND)

12084641

Cellulose (Trace)

Layer: Grey Mastic

Cellulose (Trace)

Total Composite Values of Fibrous Components:

Fibrous Glass (Trace)

12

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

ND

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

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such



Environmental Services

Page ___ of __ l
Job # __ 578 .MA18
P.O. # __ 1003 - 578 - 61

Job ID: VA SECTION COSCAL O Collected By: Lab:	0.03.20 LICO M I'A' SER NORS RN RO	ALL VICE	Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Moid Other MCE, 0.45µm, 25mm	Turn Around T ☐ Rush ☐ 12 hours ☐ 24 hours ☐ 48 hours ☐ 3-5 days ☐ ☐		□ Prior Positive	9
Sample #	Sample	Sample	THE RESIDENCE OF THE PARTY OF T	Time		Total Min. Total Vol.	Results
# O/	Type	Protocol Amb. ALS Agg.	PG+E METER BOX DOORS	on/Off on off pump#	onendAveRoto#	Fibers/Fields	75 Doors
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.		onoffpump#	onend Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		onoffpump#	onend Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onend Ave Roto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	onendAveRoto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
Relinquished By	V:		CHAIN OF CUST Date/Time Rec	ODY eived By:	AM	Date/Tir	ne
	h		10-03.2018	6 2 8 8	CT 08 201	18 8	

WHITE - RETAIN WITH SAMPLES

CANARY - FILE COPY



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. Project Manager					Client ID: Report Number		_	
1208 Main St. Redwood City, CA 94063	1: 10/08/1 1: 10/09/1 10/09/1 1: 10/09/1	.8 .8						
Job ID/Site: 578-MA18, 1003-578-01 - Vallco Mall, Section A Service Corridors FALI Job ID: 1454 Total Samples Submitted: 1 Date(s) Collected: 10/03/2018 Total Samples Analyzed: 1								
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	
01 Layer: White Semi-Fibrous Material	12085629	Chrysotile	5 %	Amosite	7 %			
Total Composite Values of Fibrous Con	mponents: A	asbestos (12%)					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



Environmental Services

Description	General Info	ormation		Analysis Requested	Turn Arou	nd Time	Special Instru	ctions
Sample Sample Sample Protocol Cocation / Activity / Material Description Time Child Min. Communication Child Min. Child Min. Communication Child Min. Communication Child Min. Communication Child Min. Communication Child Min. Child Min. Communication Child Min. Child M	Date: 9/24 Job ID: Variable Allwa Cupes Collected By: N	Heo M	,	TEM O AHERA O Level 2 O Bulk Quantitative O Bulk Qualitative PLM BULK - EPA/600/R/116 Lead O AA O TTLC O STLC O TCLP	☐ 12 hours ☐ 24 hours ☐ 48 hours ☐ 3-5 days ☐		Rrior Positive	
	Filter Type:	MCE, 0.8	μm, 25m	m				
Ass		Туре		Location / Activity / Material Description			Total Vol.	Results
	# 1-3	☐ Area		Shee snock JR	5.10			
	1 2	☐ Personal				Ave		
Assessment Ass	4		□ Agg.	STUCCO	pump#	Roto#		
	# 61		☐ Amb.	KLAST, C	on		_	
Black Agg Shearack pump# Roto# 8	2-6	□ Background	□ ALS		off		_	
# 8 Post Amb Texture On On On Ave Post Als Date/Time Post Post Date/Time Post Post Date/Time Post Post Date/Time Post Post Post Date/Time Post Po	7	☐ Blank	□ Agg.	Shootnak	pump#	Company of The		
	#		□ Amb	T	on			
	8			repluce				
# Post Amb And A	9	☐ Personal		1 D O i	nump#	CHEST AND THE	_	
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Personal	#:5-11	□ Area		shed flooring	on			
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Area					рантри	NOIO#	_	
Personal Agg. Awe Roto# Roto	#	☐ Area			on		_	
Blank Agg. pump# Roto#		☐ Personal			off		_	
# Post			☐ Agg.		pump#			
Area Background ALS Off Ave Pump# Roto#	#		☐ Amb.		on	on		
Personal Blank Date/Time Pump# Ave Roto# Pump# Pump# Roto# Pump# Roto# Pump# Roto# Pump# Roto# Pump# Roto# Pump# Pump# Roto# Pump#		□ Background	□ ALS		off			
Bulk		☐ Blank					_	
Area Background ALS Off Ave Roto# Balank Balank Agg. Pump# Roto# Post Area Background ALS Pump# Roto# Background Background ALS Off Ave Roto# Background Banak Agg. Pump# Roto# Background Aus Pump# Roto# Background Banak Agg. Pump# Roto# Background Aus							_	
Personal Blank Blank Bulk B	#	□ Area					_	
# Post		☐ Personal			off		_	
Area Background ALS Off 3 Ave Ave Pump# Roto# Blank Bulk Date/Time Received By: Date/Time Date/Tim			□ Agg.		pump#			
Background Personal Blank Blank Blank Blulk Blank Bulk Blank	#		☐ Amb.		on	7/00		
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(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265778 **Date Received:** 09/25/18 1208 Main St. **Date Analyzed:** 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/26/18 09/26/18 First Reported: Job ID/Site: 578-MA18, 0924-578-16 - Vallco Mall, Hallway 1, Cupertino FALI Job ID: 1454 **Total Samples Submitted:** 16 **Date(s) Collected:** 09/24/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12080734 ND Layer: White Drywall Layer: Off-White Joint Compound ND Layer: White Tape ND Layer: Off-White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12080735 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: Asbestos (Trace) Cellulose (20 %) Fibrous Glass (10 %) 3 12080736 ND Layer: White Drywall Layer: Off-White Joint Compound ND Layer: White Tape ND Layer: Off-White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12080737 Layer: Grey Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 5 12080738 ND Layer: Brown Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Report Number: B265778 **Date Printed:** 09/26/18 Client Name: Protech Consulting & Engineers Inc. Percent in Asbestos Percent in Asbestos Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 6 12080739 Layer: Tan Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080740 Layer: White Drywall ND Layer: Off-White Joint Compound ND Layer: White Tape ND Layer: Off-White Joint Compound ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (10 %) 12080741 ND Layer: White Texture Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 9 12080742 Layer: Tan Sheet Flooring ND Layer: Fibrous Backing ND Layer: Tan Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Synthetic (10 %) Cellulose (20 %) Fibrous Glass (5 %) 10 12080743 Layer: Tan Sheet Flooring ND Layer: Fibrous Backing ND Layer: Tan Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %) 11 12080744 Layer: Tan Sheet Flooring ND Layer: Fibrous Backing ND ND Layer: Tan Mastic Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %) 12 12080745 Layer: Yellow Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 13 12080746 5 % Layer: Black Mastic Chrysotile Total Composite Values of Fibrous Components: Asbestos (5%)

Cellulose (Trace)

Date Printed: 09/26/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Layer Lab Number Type Layer Type Type Layer 14 12080747 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080748 15 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 16 12080749 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Report Number:

B265778

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



Page 1 of 1

Job # 578 - MAI8

P.O. # 925 - 570 -29

Consulting & Engi	neering	protecn-ca	1.com	En	vironmental Servii	P.O. # 9	25-578-29
General Inf Date: 9/2 Job ID: Vall S. W. Pa Cuper + Collected By: B Lab: FA	5/18 Lo Me Lo Me L	(0)	Lead O AA O TTLC O STLC O TCLP Mold Other	Turn Around Rush 12 hours 24 hours 48 hours 3-5 days		Special Instruction	pm Wid
Sample #	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol.	Results
# 1 - 10 11 - 13	Post Area Background Personal Blank Bulk	☐ Amb.☐ ALS☐ Agg.☐	Asphalt	onoffon	on end Ave Roto#	Fibers/Fields	
17-16	☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ ALS □ Agg.	Box Linea	off	end Ave Roto#		
# 20 21-23	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	Caulk Fireproofing	on off pump#	onendAveRoto#		
# 24 25	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	CONCRETE	onoffpump#	on end Ave Roto#		
# 26-27 28	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	Vapon Bannie	on off pump#	on end Ave Roto#		
# 29	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.	Coaske+s	onoffpump#	onendAveRoto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end Ave Roto#		
#	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.		onoffpump#	on end Ave Roto#		
#	Post Area Background Personal Blank Bulk	□ Amb. □ ALS □ Agg.		on off pump#	on end Ave Roto#		
			CHAIN OF CUST	1 1	Δ ,	-1	
Relinquished By:		A	Date/Time Reco	eived By	25 2018	Date/Tim	е

CANARY - FILE COPY



(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265815 **Date Received:** 09/25/18 1208 Main St. **Date Analyzed:** 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/26/18 09/26/18 First Reported: Job ID/Site: 578-MA18, 925-578-29 - Vallco Mall, S.W. Parking Structure, Cupertino FALI Job ID: 1454 **Total Samples Submitted: 29 Date(s) Collected:** 09/25/2018 **Total Samples Analyzed:** Percent in Asbestos Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 1 12080913 ND Layer: Grey Cementitious Material Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080914 ND Layer: Grey Cementitious Material Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 3 12080915 Layer: Grey Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080916 ND Layer: Grey Cementitious Material Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 5 12080917 Layer: Grey Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 6 12080918 Layer: Grey Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080919 Layer: Grey Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080920 Layer: Grey Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Client Name: Protech Consulting & Engineers Inc.

Report Number: B265815 **Date Printed:** 09/26/18

Sample ID	Lab Numbe	Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
9	12080921	r Type	Layer	Type	Layer	Type	Layer
Layer: Grey Cementitious Material	12080921		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
10 Layer: Grey Cementitious Material	12080922		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
11 Layer: Black Cementitious Material	12080923		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
12 Layer: Black Cementitious Material	12080924		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
13 Layer: Black Cementitious Material	12080925		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
14 Layer: Tan Non-Fibrous Material	12080926		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
15 Layer: Tan Non-Fibrous Material	12080927		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
16 Layer: Tan Non-Fibrous Material	12080928		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
17 Layer: Black Non-Fibrous Material	12080929		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
18 Layer: Black Non-Fibrous Material	12080930		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B265815 **Date Printed:** 09/26/18

Sample ID	Lab Numbe	er Type	Layer	Asbestos Type	Percent in Layer	Type	Percent in Layer
19 Layer: Black Non-Fibrous Material	12080931		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)	ND				
20 Layer: Grey Non-Fibrous Material	12080932		ND				
Total Composite Values of Fibrous Con Cellulose (Trace)	nponents:	Asbestos (ND)					
21 Layer: Grey Fibrous Material	12080933		ND				
Total Composite Values of Fibrous Cor Cellulose (65 %)	nponents:	Asbestos (ND)					
22 Layer: Grey Fibrous Material	12080934		ND				
Total Composite Values of Fibrous Cor Cellulose (65 %)	nponents:	Asbestos (ND)					
23 Layer: Grey Fibrous Material	12080935		ND				
Total Composite Values of Fibrous Cor Cellulose (65 %)	nponents:	Asbestos (ND)					
24 Layer: Grey Cementitious Material	12080936		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
25 Layer: Grey Cementitious Material	12080937		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
26 Layer: Grey Cementitious Material Layer: Paint	12080938		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
27 Layer: Grey Cementitious Material Layer: Paint	12080939		ND ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
28 Layer: Black Felt	12080940 apponents:	Asbestos (ND)	ND				

Report Number: B265815
Client Name: Protech Consulting & Engineers Inc.
Date Printed: 09/26/18

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

29 12080941

Layer: Blue Green Fibrous Material ND

Total Composite Values of Fibrous Components: **Asbestos (ND)**Cellulose (85 %) Fibrous Glass (5 %) Synthetic (5 %)

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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



Environmental Services

General In	formation		Analysis Requested	Turn Around T	Time	Special Instruc	ctions
NORTH PA STRUCTO	IRE	LAU	PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/P/116 Lead AA TTLC STLC TCLP Mold Other	Rush 12 hours 24 hours 48 hours 3-5 days		SE Prior Positive	Wed
Filter Type:	☐ MCE, 0.8	μm, 25mm	□ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm [☐ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 01-04	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	□ Amb. □ ALS □ Agg.	ONCRETE-GRAY	on off pump#	on end Ave Roto#		
# 05.07	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	ONCRETE - TAN	on off pump#	onendAveRoto#		
* 08	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. (EXT, STIK CO	on off pump#	onendAveRoto#		
* 09	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. S☐ ALS☐ Agg.	RTZ-SMOOTH	on off pump#	onendAveRoto#		
* /0	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank	☐ Amb. ☐ ALS ☐ Agg.	MU + MOKTAN	on off pump#	onendAveRoto#		
* //	Daulk Post Area Background Personal Blank Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.	CAUK	onoffpump#	onendAveRoto#_		
* 12	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.	AUK	on off pump#	onendAveRoto#		
* 13	Post Area Background Personal Blank Bulk	□ Amb.	VX STUCCO	on off pump#	onendAveRoto#		
#	Post Area Background Personal Blank Bulk	☐ Amb. ☐ ALS ☐ Agg.		on off pump#	on end 4 5 A Ave		
		7	CHAIN OF CUSTO		P 9 5 2018	0	
Relinquished By:		1	Date/Time Rece 7 09, 25, 2018	ived By:	Wym Do	Date/Time	23pm



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. **Client ID:** 1454 Project Manager **Report Number:** B265822 **Date Received:** 09/25/18 **Date Analyzed:** 1208 Main St. 09/26/18 Redwood City, CA 94063 **Date Printed:** 09/26/18 09/26/18 First Reported: Job ID/Site: 578-MA18, 925-578-13 - Vallco Mall, North Parking Structure FALI Job ID: 1454 **Total Samples Submitted:** 13 **Date(s) Collected:** 09/25/2018 **Total Samples Analyzed:** Percent in Asbestos Percent in Asbestos Percent in Asbestos Sample ID Lab Number Type Layer Type Layer Type Layer 12080980 Layer: Grey Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080981 Layer: Grey Cementitious Material ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 3 12080982 Layer: Grey Cementitious Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12080983 ND Layer: Grey Cementitious Material Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 5 12080984 Layer: Tan Cementitious Material ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 6 12080985 ND Layer: Tan Cementitious Material Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace)

Report Number: B265822
Client Name: Protech Consulting & Engineers Inc.
Date Printed: 09/26/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
7 Layer: Tan Cementitious Material Layer: Paint	12080986		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
8 Layer: Grey Cementitious Material Layer: Tan Cementitious Material Layer: Paint	12080987		ND ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
9 Layer: White Drywall Layer: White Joint Compound Layer: Paint	12080988		ND ND ND				
Total Composite Values of Fibrous Com Cellulose (10 %) Fibrous Glass (5 9	•	Asbestos (ND)					
Layer: Grey Mortar Layer: Paint Layer: Grey Cementitious Material Layer: Paint	12080989		ND ND ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
11 Layer: Grey Non-Fibrous Material	12080990		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
12 Layer: Grey Non-Fibrous Material	12080991		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	nponents:	Asbestos (ND)					
Layer: Off-White Cementitious Materia Layer: White Woven Material Layer: Grey Cementitious Material Layer: Paint	12080992 1		ND ND ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace) Fibrous Glass (20	•	Asbestos (ND)					

Report Number: B265822 Client Name: Protech Consulting & Engineers Inc. **Date Printed:** 09/26/18 Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Layer Type Layer Type Type 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'.

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.



1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023

Environmental Services

General Interpretation of the Collected By: _B	fark.	NG	Analysis Requested PCM NIOSH 7400 TEM AHERA Level 2 Bulk Quantitative Bulk Qualitative PLM BULK - EPA/600/R/116 Lead AA TTLC STLC TCLP Mold Other	Turn Around T Rush 12 hours 24 hours 48 hours 3-5 days		Special Instruction	
Filter Type: [☐ MCE, 0.8	μm, 25m	nm □ MCE, 0.45μm, 25mm	□ MCE, 0.8μm,	37mm [Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total Min. Total Vol. Fibers/Fields	Results
# 1- 7	□ Post □ Area	☐ Amb.	A sphalt	on	on	_	
1- 3	☐ Background ☐ Personal	□ ALS		off	end Ave	_	
6	☐ Blank ☐ Bulk	□ Agg.	CONCrete	pump#	Roto#		
#	□ Post □ Area	☐ Amb.		on	on		
	☐ Background	□ ALS		off —	end		
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave Roto#		
#	□ Bulk	☐ Amb.					
ш	☐ Area ☐ Background			on	onend	-	
	☐ Personal	□ ALS		off	Ave	-	
	☐ Blank ☐ Bulk	☐ Agg.		pump#	Roto#	_	1
#	☐ Post ☐ Area	☐ Amb.		on	on		
	☐ Background	□ ALS		off	end	_	
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave	_	
	☐ Bulk ☐ Post			Fampi	Roto#	_	
#	□ Area	☐ Amb.		on	on	_	
	☐ Background ☐ Personal	□ ALS		off	end Ave	-	
	☐ Blank ☐ Bulk	☐ Agg.		pump#	Roto#	_	
#	Post	☐ Amb.		on	on		
	☐ Area ☐ Background	□ ALS		off	end	_	
	☐ Personal ☐ Blank	□ Agg.		pump#	Ave	_	
	□ Bulk □ Post				Roto#	_	
#	□ Area	☐ Amb.		on	onend	-	
	☐ Background☐ Personal	□ ALS		off	Ave	-	
	☐ Blank ☐ Bulk	☐ Agg.		pump#	Roto#	_	
#	□ Post □ Area	☐ Amb.		on	on		
	☐ Background ☐ Personal	□ ALS		off	end	_	
	☐ Blank ☐ Bulk	□ Agg.		pump#	Ave Roto#	-	X
#	□ Post	☐ Amb.		on	on	_	
	☐ Area ☐ Background	□ ALS			end	-	
	☐ Personal ☐ Blank	1 1		off	Ave	12 PM	
	□ Bulk	□ Agg.		pump#	Roto#	an is my	
			CHAIN OF CUST	ODY	100/	Δ	(4)
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Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

Protech Consulting & Engineers Inc. Project Manager 1208 Main St. Redwood City, CA 94063					Client ID: Report Number Date Received: Date Analyzed Date Printed: First Reported	09/25/18 09/26/18 09/26/18	3 3 3
Job ID/Site: 578-MA18, 925-578-06 - V	allco Mall, N	lorth Parking Lo	t		FALI Job ID: Total Samples	1454 Submitted:	6
Date(s) Collected: 09/25/2018					Total Samples	Analyzed:	6
Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
1 Layer: Black Cementitious Tar	12081049		ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
2 Layer: Black Cementitious Tar	12081050		ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
3 Layer: Black Cementitious Tar	12081051		ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
4 Layer: Black Cementitious Tar	12081052		ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
5 Layer: Black Cementitious Tar	12081053		ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
6 Layer: Grey Cementitious Material	12081054		ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					

lad Shower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

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1208 Main Street, Redwood City, CA 94063 Phone: (650) 569-4020 Fax: (650) 569-4023 info@protech-cal.com

Page ___ 1 _ of ___ Job # _ S78 .MA18 P.O. # _ 0927. S78 .40

Environmental Services

General Inf	ormation		Analysis Requested	Turn	Around T	ime	Special Ins	tructions
			PCM NIOSH 7400	☐ R	ush			
ate:09	. 27.20	018	TEM O AHERA		2 hours			
1///	Lico		O Level 2		1 hours			
		10174	O Bulk Quantitative O Bulk Qualitative		3 hours			
1.9	1.E.		PLM BULK - EPA/600/R/116	□ 3-	5 days			
			Lead O AA	ш _				
	RN. K	00	O TTLC					
Collected By:	_/		O STLC O TCLP					
ab:	FAS		Mold				☐ Prior Pos	sitive
			Other					
Filter Type:	☐ MCE, 0.8	μm, 25n	nm ☐ MCE, 0.45µm, 25mm	□МС	E, 0.8μm,	37mm [Other	
	0	Comple		-	Time		Total Min.	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description		On/Off	LPM	Total Vol. Fibers/Field	
# 01-05	□ Post	☐ Amb.	SRTC - SMOOTH		on	on	_	
06	☐ Area ☐ Background	□ ALS	7		off	end	_	
	☐ Personal ☐ Blank	□ Agg.	SRTCW/TEXT		pump#	Ave Roto#	_	
07	□ Bulk	□ A	SK SUKFTEXT	- 1	00	on on	_	
# 08	☐ Area ☐ Background	☐ Amb.	SHEETROCK-NOTAPEOR	COMP	on	end	_	
₽ 9	☐ Personal	□ ALS	2X 2 SUSP CPS		off	Ave		_
10	☐ Blank ☐ Bulk	☐ Agg.	2×4 SUSP CP'S		pump#	Roto#		
# /(□ Post □ Area	☐ Amb.	PIPE JACKET		on	on	_	
	☐ Background ☐ Personal	□ ALS			off	end Ave	_	
12	□ Blank □ Bulk	☐ Agg.	SHEETFLOORING+MA	STIC	pump#	Roto#	-	
# 12	□ Post	☐ Amb.			on	on		
# 13-15	☐ Area ☐ Background	□ ALS	12×12 VET W/MAST	10	off	end		_
17 10	☐ Personal ☐ Blank	□ Agg.			pump#	Ave	_	
16-19	□ Bulk	L rigg.	MASTIC		ритр#	Roto#		
# 20	□ Post □ Area	☐ Amb.	MORTAR & MASTIC		on	on		
	☐ Background ☐ Personal	□ ALS			off	Ave		
21-26	☐ Blank ☐ Bulk	☐ Agg.	VARIOUS MORTALS		pump#	Roto#		
# 27	□ Post	☐ Amb.	FLOUR MEMBRANE		on	on _		
	☐ Area ☐ Background	□ ALS	TOOK PICHBIOANE		off	end		
28-19	☐ Personal ☐ Blank	□ Agg.	2:11:		pump#	Ave	_	_
	□ Bulk		7+G-ROOF			Roto#		
# 30	□ Post □ Area	☐ Amb.	ROSF PERM CUR	3	on	on	_	
31	☐ Background ☐ Personal	□ ALS	MASTIC		off	Ave	_	
32	☐ Blank ☐ Bulk	☐ Agg.	MASTIC		pump#	Roto#		
# 33	□ Post □ Area	☐ Amb.	TRANSITE		on	on	_	
34	☐ Background ☐ Personal	□ ALS	COMPSHINGLE + FE	7	off	end	_	
35	☐ Blank	□ Agg.	MORTAN	<u></u>	pump#	Ave Roto#	_	
# 36	☐ Bulk ☐ Post	☐ Amb.	ASPHALT		on	on		
37	☐ Area ☐ Background	☐ ALS	CONCRETE		off	end		_
38	☐ Personal ☐ Blank	☐ Agg.	CAULK		pump#	Ave 9 10		
39	□ Bulk	99.	SRTC-SMOOTH		Pamp"	Roto# 10 /1	25	
40			VAPOR BARRIESPIAIN OF CUS		/s/\	MINE TO	星	
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Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

(EPA Method 40CFR, Par Protech Consulting & Engineers Inc. Project Manager 1208 Main St. Redwood City, CA 94063	t 703, Appen	uix E to Subpar	t E allu EFA (000/ K- 93-111	Client ID: Report Numb Date Received Date Analyze Date Printed: First Reporte	1454 er: B26611 d: 10/01/1 d: 10/02/1 10/03/1	8 8 8
Job ID/Site: 578-MA18, 0927-578-40 -	Vallco Mall,	Γ.G.I.F			FALI Job ID: Total Sample		40
Date(s) Collected: 09/27/2018					Total Sample	s Analyzed:	40
Sample ID	Lab Number	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
1	12082708						
Layer: White Drywall			ND				
Layer: Yellow Joint Compound			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	•	Asbestos (ND)					
2	12082709						
Layer: Pink Drywall			ND				
Layer: Yellow Joint Compound			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	•	Asbestos (ND)					
3	12082710						
Layer: White Drywall			ND				
Layer: Yellow Joint Compound			ND				
Layer: White Tape			ND ND				
Layer: Yellow Joint Compound Layer: Paint			ND ND				
Total Composite Values of Fibrous Com	•	Asbestos (ND)	T(D				
Cellulose (20 %) Fibrous Glass (10	,						
4	12082711						
Layer: White Drywall			ND ND				
Layer: Yellow Joint Compound Layer: White Tape			ND ND				
Layer: Willie Tape Layer: Yellow Joint Compound			ND ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	•	Asbestos (ND)					
5	12082712						
Layer: White Drywall			ND				
Layer: Yellow Fibrous Material			ND				
Layer: Yellow Joint Compound			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	=	Asbestos (ND)					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B266117 **Date Printed:** 10/03/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
6 Layer: White Drywall Layer: Yellow Texture Layer: Paint	12082713		ND ND ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10		sbestos (ND)					
7 Layer: White Drywall Layer: Yellow Texture Layer: Paint	12082714		ND ND ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	%)	sbestos (ND)					
8 Layer: White Drywall	12082715		ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	•	sbestos (ND)					
9 Layer: Grey Fibrous Material Layer: Paint	12082716		ND ND				
Total Composite Values of Fibrous Com Cellulose (35 %) Fibrous Glass (45	•	sbestos (ND)					
10 Layer: White Drywall Layer: Paint	12082717		ND ND				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (10	•	sbestos (ND)					
Layer: Beige Fibrous Material Layer: Tan Fibrous Material Layer: Yellow Fibrous Material	12082718		ND ND ND				
Total Composite Values of Fibrous Com Cellulose (50 %) Fibrous Glass (10	•	sbestos (ND)					
Layer: Red Sheet Flooring Layer: Fibrous Backing Layer: Yellow Mastic Layer: Brown Mastic Layer: Black Mastic	12082719	Chrysotile	ND ND ND ND 5 %				
Total Composite Values of Fibrous Com Cellulose (20 %) Fibrous Glass (5 9	_	sbestos (Trace					

Client Name: Protech Consulting & Engineers Inc.

Report Number: B266117 **Date Printed:** 10/03/18

Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
13 Layer: White Tile	12082720		ND				
Layer: Black Mastic Layer: Red Tile Layer: Black Mastic			ND ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	iponents:	Asbestos (ND)					
14 Layer: White Tile Layer: Black Mastic	12082721		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
Layer: Grey Tile Layer: Brown Mastic	12082722		ND ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
16 Layer: Yellow Mastic Layer: Blue Green Fibrous Material	12082723		ND ND				
Total Composite Values of Fibrous Com Cellulose (5 %)	ponents:	Asbestos (ND)					
17 Layer: Black Mastic	12082724		ND				
Total Composite Values of Fibrous Com Cellulose (15 %) Synthetic (3 %)	iponents:	Asbestos (ND)					
18 Layer: Yellow Mastic Layer: Tan Fibrous Material	12082725		ND ND				
Total Composite Values of Fibrous Com Cellulose (15 %)	ponents:	Asbestos (ND)					
19 Layer: Beige Mastic	12082726		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
20 Layer: Grey Mortar Layer: Black Mastic	12082727	Chrysotile	ND 10 %				
Total Composite Values of Fibrous Com	ponents:	Asbestos (Traco					
21 Layer: Grey Mortar	12082728		ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					

Total Composite Values of Fibrous Components:

Comment: Bulk complex sample.

Fibrous Glass (15 %)

Cellulose (5 %)

Report Number: B266117 **Date Printed:** 10/03/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Layer Type Layer Type Type Layer 22 12082729 Layer: Multicolored Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082730 23 Layer: White Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 24 12082731 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 25 12082732 ND Layer: White Mortar Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 26 12082733 Layer: Grey Mortar ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082734 ND Layer: Black Semi-Fibrous Tar Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (20 %) 28 12082735 Layer: Black Tar ND ND Layer: Black Felt Layer: Black Tar ND Layer: Black Felt ND Layer: Black Tar ND Layer: Black Felt ND Layer: Black Tar ND Layer: Black Felt ND

Asbestos (ND)

Client Name: Protech Consulting & Engineers Inc.

 Report Number:
 B266117

 Date Printed:
 10/03/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
29	12082736				-		
Layer: Red 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				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Total Composite Values of Fibrous Com	_	Asbestos (ND)					
Cellulose (5 %) Fibrous Glass (15	%)						
Comment: Bulk complex sample.							
30	12082737						
Layer: White Stones			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND ND				
Layer: Black Felt Layer: Black Tar			ND ND				
Layer: Black Felt			ND ND				
Total Composite Values of Fibrous Com	nnononta	Asbestos (ND)	T(D				
Cellulose (55 %) Fibrous Glass (10	*	Aspesios (ND)					
Comment: Bulk complex sample.	70)						
	12002520						
31 Lovery Cray Mostic	12082738	Charactile	10.0/				
Layer: Grey Mastic		Chrysotile	10 %				
Total Composite Values of Fibrous Con	nponents:	Asbestos (10%)					
32	12082739						
Layer: Black Mastic			ND				
Layer: Dark Grey Mastic			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Com	_	Asbestos (ND)					
Cellulose (40 %) Fibrous Glass (10							
33	12082740	CI	4 = 0 /				
Layer: White Semi-Fibrous Material		Chrysotile	15 %				
Total Composite Values of Fibrous Con	nponents:	Asbestos (15%)					
34	12082741						
Layer: Red Roof Shingle			ND				
Layer: Black Felt			ND				
Total Composite Values of Fibrous Com	nponents:	Asbestos (ND)					
Cellulose (5 %) Fibrous Glass (10	_	,					

Report Number: B266117 **Date Printed:** 10/03/18 Client Name: Protech Consulting & Engineers Inc. Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer 35 12082742 ND Layer: Grey Mortar Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082743 36 Layer: Black Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 12082744 Layer: Grey Cementitious Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 38 12082745 ND Layer: Black Non-Fibrous Material Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (3 %) 39 12082746 Layer: Brown Drywall ND Layer: Yellow Joint Compound Chrysotile Trace Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (20 %) Fibrous Glass (10 %) 40 12082747 ND Layer: Brown Fibrous Material

Tad Thrower

Asbestos (ND)

Total Composite Values of Fibrous Components:

Cellulose (95 %)

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

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

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info@protech-cal.com

Environmental Services

General Information		Analysis Requested	Turn Around	d Time	Special Instru	ctions	
Date: 0	9.26.			Rush 12 hours 24 hours			
SERTION			O Bulk Qualitative PLM BULK - EPA/600/R/116 Lead O AA	48 hours 3-5 days			
Collected By:	RN R FASI	. C , E	O TTLC O STLC O TCLP Mold Other			☐ Prior Positive	
Filter Type:	☐ MCE, 0.8	μm, 25m	m	□ MCE, 0.8μ	m, 37mm	□ Other	
Sample # Date	Sample Type	Sample Protocol	Location / Activity / Material Description	Time On/Off	LPM	Total MinTotal Vol. Fibers/Fields	Results
# 01-07	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	T+G ROOF	onoffpump#	on end Ave Roto#	Theorem to the second s	
# 08-10	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	□ Amb. □ ALS □ Agg.	MASTIC	onoffpump#	on end Ave Roto#		
# 11	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	CANLK	onoffpump#	onendAveRoto#		
# 13-14	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	□ Amb. □ ALS □ Agg.	CAUCK COMP SHEET	on off pump#	onendAveRoto#		
#· 16. 17-19	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	FLOR PERIM CURB	on off pump#	on end Ave Roto#		٨
# 20	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	STVCCO	onoffpump#	onendAveRoto#		
# 21 -22	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	ROOF MEMBRANT	onoffpump#	onendAveRoto#		
# 23	☐ Post ☐ Area ☐ Background ☐ Personal ☐ Blank ☐ Bulk	☐ Amb. ☐ ALS ☐ Agg.	MORDAR	onoffpump#	on end Ave Roto#		
# 24	☐ Post☐ Area☐ Background☐ Personal☐ Blank☐ Bulk☐	☐ Amb. ☐ ALS ☐ Agg.	ROOF DEEK PACKIN	offpump#	on Ave 10 Roto#		
			CHAIN OF CUST	ODI	RECFIVED	3	
Relinquished By	1		Date/Time Reco	eived By	P 2 8 2018	Date/Tim	е
			WHITE - RETAIN WITH SAMPLES	CANARY - FILE COR	01 6 8 1 9 5		