Santa Clara Square-Residential/Mixed Use Project

Final Environmental Impact Report

SCH No. 2015032075

Prepared for:

City of Santa Clara
1500 Warburton Avenue
Santa Clara, California 95050

Prepared by:

Impact Sciences, Inc.
505 14th Street, Suite 1230
Oakland, California 94612

December 2015

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1.0 INTRODUCTION

1.1 PURPOSE OF THE FINAL ENVIRONMENTAL IMPACT REPORT

This response to comments document, together with the Santa Clara Square – Residential/Mixed Use Project Draft Environmental Impact Report (Draft EIR) which is incorporated by reference, constitutes the Santa Clara Square – Residential/Mixed Use Project Final Environmental Impact Report (Final EIR). The Final EIR is an informational document, prepared by the City of Santa Clara as lead agency that must be considered by decision makers before approving or denying the Santa Clara Square – Residential/Mixed Use project (proposed project). Pursuant to Section 15132 of the *California Environmental Quality Act (CEQA) Guidelines*, this Final EIR consists of (1) revisions to the Draft EIR, (2) a list of persons, organizations, and public agencies commenting on the Draft EIR, (3) comments received on the Draft EIR, (4) the City's responses to significant environmental points raised in the review and consultation process, and (5) any other information added by the City. The Final EIR will be used for review and consideration for certification by the City.

A copy of the Final EIR is available on the web at http://www.santaclaraca.gov/. The Final EIR is also available for review at the following location:

City of Santa Clara
City Hall
1500 Warburton Avenue
Santa Clara, California 95050

Contact: Yen Han Chen, Associate Planner
Email address: ychen@santaclaraca.gov

1.2 ORGANIZATION OF THIS RESPONSE TO COMMENTS DOCUMENT

This document is organized into four sections. Following this introduction (**Section 1.0**), **Section 2.0, Comments on the Draft EIR and Responses to Comments**, contains a list of persons that submitted written comments on the Draft EIR; reproductions of the comment letters; and responses to the comments received. Each comment letter is coded and each comment is labeled with a number in the margin. **Section 3.0, Errata** presents changes to Draft EIR text in response to comments received on the Draft EIR as well as City-initiated minor corrections and changes to the Draft EIR text. **Section 4.0**, **Report Preparation,** lists persons involved in the preparation of the Final EIR.

1.3 EIR CERTIFICATION – PROJECT APPROVAL PROCESS

Prior to approving the proposed project, the City must certify that (1) the Final EIR has been completed in compliance with the California Environmental Quality Act (CEQA); (2) the City has reviewed and considered the information in the Final EIR; and (3) the Final EIR reflects the City's independent judgment and analysis (*State CEQA Guidelines*, Section 15090).

Once the Final EIR is certified, the City can approve the project as proposed, approve one of the alternatives evaluated in the EIR, or choose to take no action on the project. As part of the approval of either the project or an alternative, the City must make written findings for each significant effect identified in the EIR. These findings will state whether the identified significant effect can be avoided or substantially reduced through feasible mitigation measures or a feasible alternative, whether the effect can only be mitigated by the action of some agency other than the City, or whether the identified mitigation measures or alternatives are infeasible and cannot be implemented (*State CEQA Guidelines*, Section 15091). To ensure implementation of all adopted mitigation measures, the City must adopt a mitigation monitoring and reporting plan (*State CEQA Guidelines*, Section 15097). In addition, after all feasible mitigation measures are adopted, if some effects are still considered significant and unavoidable, the City must adopt a Statement of Overriding Considerations that identifies the specific economic, social, technical, or other considerations that, in the City's judgment, outweigh the significant environmental effects of the proposed project (*State CEQA Guidelines*, Section 15091).

Once it is certified, the Final EIR may also be used by responsible agencies in deciding whether, or under what conditions, to approve the required entitlements.

1.4 PUBLIC INVOLVEMENT

On October 5, 2015, the City of Santa Clara, as the Lead Agency under CEQA, issued a Draft EIR on the Santa Clara Square – Residential/Mixed Use Project. The Draft EIR was circulated for a 45-day public comment period that ended on November 19, 2015. Copies of the Draft EIR were distributed to agencies, local governments, and interested parties. The Draft EIR, including all appendices, was also posted on the City's web site, and hard copies of the Draft EIR and appendices were made available to the public at the Santa Clara Library and Santa Clara Planning Division.

1.5 RESPONSE TO COMMENTS

Under CEQA, following completion of a Draft EIR, the City of Santa Clara is required to consult with and obtain comments from public agencies that have jurisdiction by law or discretionary approval authority with respect to the proposed project, and provide the general public with an opportunity to comment on the Draft EIR. Responses to all written comments received within the comment period are contained in this Final EIR in **Section 2.0, Comments on the Draft EIR and Response to Comments**. **Section 3.0, Errata** includes factual corrections to the Draft EIR text. Any changes to the text of the Draft EIR that resulted from the comments are also presented in **Section 3.0**. None of the changes to the Draft EIR text represents significant new information (as defined by *State CEQA Guidelines* Section 15088.5) and the conclusions of the EIR regarding significant impacts, alternatives, and mitigation measures remain unchanged.

2.0 COMMENTS ON THE DRAFT EIR AND RESPONSES TO COMMENTS

2.1 INDEX TO COMMENTS

All agencies, organizations, and individuals who commented on the Draft EIR are listed in **Table 2.0-1, Index to Comments,** below. As described in **Section 1.0, Introduction,** all comments on the Draft Environmental Impact Report (EIR) received in writing have been coded, and the codes assigned to each comment are indicated on the written communications.

Table 2.0-1
Index of Comments

Letter Number	Agency/Organization/Individuals Name
Local Agencies	
LA-1	California Department of Transportation Patricia Maurice, District Branch Chief
LA-2	California Department of Toxic Substances Control Jayantha Randeni, P.E., Project Manager
LA-3	Santa Clara Valley Transportation Authority Roy Molseed, Senior Environmental Planner
LA-4	Santa Clara Valley Transportation Authority Robert Cunningham, Transportation Planner
LA-5	County of Santa Clara – Roads & Airport Department
LA-6	San Jose International Airport Cary Greene, Airport Planner
LA-7	Santa Clara Unified School District Mark Allgire, CPA, Assistant Superintendent
LA-8	Santa Clara Unified School District Mark Allgire, CPA, Assistant Superintendent
Organizations	
ORG-1	Silicon Valley Bicycle Association Shiloh Ballard, President and Executive Director
ORG-2	Service Employees International Union-United Service Workers West Gideon Kracov, Attorney at Law
ORG-3	Service Employees International Union-United Service Workers West Gideon Kracov, Attorney at Law
Individuals	
IND-1	Sudhanshu Jain

2.2 RESPONSES TO INDIVIDUAL COMMENTS

This section presents all written comments received on the Draft EIR and responses to individual comments.

Letter No. LA-1

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
www.dot.ca.gov

Serious Drought.
Help save water!

November 18, 2015

SCL101955
SCL/101/PM 42.3
SCH# 2015032075

Mr. Yen Chen
Department of Planning
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Dear Mr. Yen:

Santa Clara Square – Draft Environmental Impact Report (DEIR)

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Caltrans has reviewed the Draft Environmental Impact Report (DEIR) to ensure consistency with its mission and state planning priorities of infill, conservationism, and efficient development. Please refer to the previous Notice of Preparation comment letter, dated April 23, 2015, on this project. Caltrans provides these comments consistent with the State's smart mobility goals to support a vibrant economy and build communities, not sprawl.

Project Understanding

The proposed project is located approximately 988 feet southwest of the southbound US Highway (US) 101/Bowers Avenue on-ramp. The proposed project would demolish the existing use and replace it with mixed-use residential infill consisting of approximately 2,200 rental apartment units with parking garages. Also, the project includes approximately 40,000 gross square feet (gsf) of retail space, 4,500 gsf of leasing space, and approximately 38,000 gsf of amenity space. 1

Lead Agency

As the lead agency, the City of Santa Clara (City) is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. 2

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Traffic Impacts

1. The freeway and intersection level of service (LOS) should be based on the Highway Capacity Manual 2010 LOS, so please correct the LOS criteria table. 3

2. The traffic models require demand volume inputs for project intersection LOS study. Please provide this information for our review. 4

3. Please provide queuing analysis on the US Highway (US) 101 on- and off-ramps, to determine whether the queuing could impact the traffic on the State Highway System (SHS). 5

4. The proposed plan is likely to have impacts on the operations of the following metered freeway on-ramps:

   - Northbound (NB) US 101/Great America Parkway loop on-ramp (metered Monday through Friday 5:30 a.m. to 9:00 a.m.);
   - NB US 101/Montague Expressway loop on-ramp (metered Monday through Friday 5:30 a.m. to 9:00 a.m.); 6
   - Southbound (SB) US 101/Bowers Avenue diagonal on-ramp (metered Monday through Friday 3:00 p.m. to 7:00 p.m.);
   - SB US 101/Montague Expressway diagonal on-ramp (metered Monday through Friday 3:00 p.m. to 7:00 p.m.); and
   - SB US 101/De La Cruz Boulevard diagonal on-ramp (metered Monday through Friday 3:00 p.m. to 7:00 p.m.).

   During ramp metering (metering hours maybe extended to both morning and afternoon peaks in the future), the on-ramp queues will likely be lengthened with the additional traffic demand by this project. Please provide additional storage on the on-ramps and the local streets for the freeway on-ramp traffic to avoid such impacts. 7

Vehicle Trip Reduction

In order to reduce impacts to the SHS, we recommend including Transportation Demand Management (TDM) measures that encourage the use of walking, bicycling, and transit. The TDM program should include bicycle parking, unbundling of residential parking, and providing transit passes and/or transit subsidies to residents. 8

The project proposes to build 106 more parking spaces than is required by the City. We recommend that the Project consider reduced parking ratios which reflect the urban environment. We also recommend that the City refer to "Reforming Parking Policies to Support Smart Growth," an MTC study funded by the department, for sample parking ratios and strategies that support smart growth and transit oriented development. 9

Please analyze secondary impacts on pedestrians and bicyclists that may result from any traffic impact mitigation measures. Please describe any pedestrian and bicycle mitigation measures and safety countermeasures that would therefore be needed as a means of maintaining and improving access to transit facilities and reducing traffic impacts on the SHS. 10

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Traffic Impact Fees
Given the project's contribution to area traffic and its proximity to US 101, the project should contribute fair share traffic impact fees. These contributions would be used to lessen future traffic congestion and improve transit in the project vicinity. 11

Voluntary Contribution Program
Please elaborate on which freeway project(s) the project applicant will voluntarily contribute toward to assist Santa Clara Valley Transportation Authority (VTA) with the development of these freeway improvements. The following projects have been submitted by VTA to MTC to be considered for the next round of Regional Transportation Plan (RTP) development. We request project applicant at minimum consider voluntary contributions toward these projects: 12

- US 101 Express Lanes to Cochrane Road in Morgan Hill (already in the current RTP Plan Bay Area, RTP ID 240466, to be rolled into the next RTP);
- US 101/Moffett Boulevard Interchange Improvements; and
- US 101 SB Aux Lane: Great America Parkway to Lawrence Expressway (already in the current RTP Plan Bay Area, RTP ID 230410, to be rolled into the next RTP).

Cultural Resources
Caltrans requires that a project's environmental document include documentation of a current archaeological record search from the Northwest Information Center of the California Historical Resources Information System if construction activities are proposed within State right-of-way (ROW). Current record searches must be no more than five years old. Caltrans requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, and evidence of Native American consultation to ensure compliance with CEQA, Section 5024.5 and 5097 of the California Public Resources Code, and Volume 2 of Caltrans' Standard Environmental Reference (www.dot.ca.gov/ser/vol2/vol2.htm). 13

These requirements, including applicable mitigation, must be fulfilled before an encroachment permit can be issued for project-related work in State ROW. Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs, sidewalks and driveways within or adjacent to State ROW.

Traffic Control Plan (TCP)
Since it is anticipated that vehicular, bicycle, and pedestrian traffic along US 101 will be impacted during the construction of the proposed project requiring traffic restrictions and detours, a Caltrans-approved TCP is required to avoid project-related impacts to the State Highway System (SHS). The TCP must also comply with the requirements of corresponding jurisdictions. In addition, pedestrian access through the construction zone must be in accordance with the Americans with Disabilities Act regulations (see Caltrans' *Temporary Pedestrian Facilities Handbook* for maintaining pedestrian access and meeting ADA requirements during construction at: 14
www.dot.ca.gov/hq/construc/safety/Temporary_Pedestrian_Facilities_Handbook.pdf) (see also

Caltrans' Traffic Operations Policy Directive 11-01 "Accommodating Bicyclists in Temporary Traffic Control Zones" at: www.dot.ca.gov/hq/traffops/policy/11-01.pdf).

For further TCP assistance, please contact the Caltrans District 4 Office of Traffic Management Operations at (510) 286-4579. Further traffic management information is available at the following website: www.dot.ca.gov/hq/traffops/trafmgmt/tmp_lcs/index.htm. 14

Encroachment Permit

Please be advised that any work or traffic control that encroaches onto the State ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See this website for more information: www.dot.ca.gov/hq/traffops/developserv/permits. 15

Should you have any questions regarding this letter, please contact Brian Ashurst at (510) 286-5505 or brian.ashurst@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: Scott Morgan, State Clearinghouse
Robert Swierk, Santa Clara Valley Transportation Authority (VTA) – electronic copy
Robert Cunningham, Santa Clara Valley Transportation Authority (VTA) – electronic copy

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Letter No. LA-1 Letter from California Department of Transportation, dated November 18, 2015

Response LA-1-1

Please note that the proposed project consists of 1,800 rental apartment units, not 2,200 rental apartment units as stated by the commenter. The Draft EIR considered the environmental impacts based on traffic generated from development of 1,800 residential apartment units and 40,000 square feet of retail use.

Response LA-1-2

Comment noted. The City is the lead agency, and is collecting a fair share contribution to mitigate impacts at the following intersections based on Appendix G of the Traffic Impact Analysis (TIA) prepared by Fehr & Peers for the proposed project and dated September 30, 2015 (Appendix 4.11 of the Draft EIR):

1. Bowers Avenue / Scott Boulevard
2. San Tomas Expressway / Scott Boulevard
3. Scott Boulevard / Central Expressway
4. Bowers Avenue / Monroe Street
5. Zanker Road / Montague Expressway
6. De La Cruz Boulevard / Central Expressway

Financing, scheduling and implementation responsibilities are discussed in Section 4.11 of the Draft EIR. The project applicant will pay the City the project's fair share contribution pursuant to Mitigation Measure TRANS -3 and the terms in the Development Agreement.

The project's impacts to freeways are discussed in Section 4.11 of the Draft EIR. Please see Response LA-1-12 below for more information related to the proposed project's voluntary contribution to the Santa Clara Valley Transportation Authority (VTA) for freeway impacts.

Response LA-1-3

The VTA uses the 2000 Highway Capacity Manual (HCM) for local intersection analysis and freeway segments within the County. Therefore, 2000 HCM level of service thresholds are considered state of the practice within Santa Clara County (**Appendix 2.1** in the Final EIR).

Response LA-1-4

The volume inputs are presented in Appendix B of the TIA (Appendix 4.11 of the Draft EIR).

Response LA-1-5

An analysis of the on- and off-ramp queuing is presented in Chapter 13 and Appendix L of the TIA (Appendix 4.11 of the Draft EIR).

Response LA-1-6

The transportation impact analysis evaluated the on-ramps at the US 101 and Montague Expressway/San Tomas Expressway interchange and the US 101 and Great America Parkway/Bower Avenue interchange. The southbound on-ramp at the US 101 and Trimble Road/De La Cruz Boulevard interchange was not evaluated. Due to the largely residential nature of this project, the development would attract trips in the PM peak hour as opposed to the current land use which disperses trips in the PM peak hour. Therefore, the project would reduce the number of vehicle trips at this ramp compared to existing conditions and additional analysis is not necessary (**Appendix 2.1** in the Final EIR).

Response LA-1-7

The ramp queuing analysis was completed for the project in accordance with VTA guidelines for CMP facilities, and is presented in Chapter 13 and Appendix L of the TIA (Appendix 4.11 of the Draft EIR). The VTA guidelines require that this analysis be completed for planning purposes only and the guidelines do not include any thresholds that may be used to evaluate a project's impacts on freeway on- and off-ramps under CEQA. Consistent with the guidelines, the TIA presents the ramp queuing analysis for informational purposes only. The analysis is based on current, known conditions, including metering hours; ramp metering is typically not evaluated under future conditions, thus the analysis does not consider potential for increased metering hours (**Appendix 2.1** in the Final EIR).

Response LA-1-8

Pursuant to Mitigation Measure AIR-2, and consistent with the City of Santa Clara Climate Action Plan (CAP), the project applicant will prepare a TDM plan for approval by the City. Based on its location in Transportation District 1 (North of Caltrain) and anticipated General Plan designation (High Density Residential) the City will require that the project show a reduction in Vehicle Miles Traveled (VMT) by 20 percent, 10 percent of which must come from TDM measures (City of Santa Clara CAP, pp 50-51). As explained in Chapter 11 of the TIA (Appendix 4.11 of the Draft EIR), the TDM program will offer amenities and incentives to encourage residents to use carpooling, transit, bicycling, and walking instead of driving their private automobiles. Table 11-1 of the TIA lists TDM measures that may be included in the final TDM plan the City approves for the project. The text of Mitigation Measure AIR-2 has been revised to provide additional specifics about the TDM plan. See Final EIR **Chapter 3.0, Errata**.

Response LA-1-9

Comment noted. The project complies with current City parking code requirements, and provides adequate parking to serve the project's residential and retail uses. The project applicant has agreed to provide unbundled parking, which as noted in Table 11-1 of the TIA, could result in a 2.6 to 13 percent reduction in VMT.

Response LA-1-10

An analysis of the secondary impacts on pedestrian and bicyclists that may results from any traffic impact mitigation measures can be found in Chapter 10 and Appendix I of the TIA (Appendix 4.11 of the Draft EIR) (**Appendix 2.1** in the Final EIR).

The VTA provided the following comment (Comment Letter LA-3): "VTA commends the City for including extensive analyses of project effects on transit, bicycle and pedestrian modes in the TIA (pgs. 100-112), including an analysis of transit vehicle delay based on traffic generated by the project and an analysis of pedestrian and bicycle Quality of Service (QOS) at intersections that would be modified by the project and/or transportation mitigation measures identified in the TIA. These analyses, which are called for in the updated 2014 VTA TIA Guidelines, provide information to decision-makers about the project's effects on other modes besides the automobile."

Finally, also please note the Silicon Valley Bike Coalition's endorsement of the project, as stated in its letter to the City dated October 19, 2015.

Response LA-1-11

See Response LA-1-2 above. The project will contribute fair share traffic fees.

Response LA-1-12

The project applicant will make a voluntary contribution to the VTA to assist with freeway improvements. The funds may be used by the VTA to make improvements at any of the facilities planned by the VTA. With respect to the three improvement projects listed in the comment, the project would contribute traffic to two of the three facilities. Based on the characteristics of the project and its trip distribution, the proposed project is not expected to contribute a substantial amount of traffic to U.S. 101/Moffett Boulevard interchange.

Response LA-1-13

Comment noted. The proposed project does not anticipate any work within a State ROW. However, in the unlikely event that project-related work is performed within a State ROW, the City and project applicant will provide Caltrans with the requested cultural resources documentation.

The Draft EIR includes documentation of current archaeological records searches (February 4, 2014; November 2014; see Section 4.4 and Appendix 4.4 of the Draft EIR). Basin Research Associates performed a cultural resource assessment for the proposed project, and the report includes evidence of Native American consultation.

Response LA-1-14

Comment noted. The proposed project does not anticipate any construction activities that will require traffic restrictions and detours that could impact vehicular, bicycle, and pedestrian traffic along US 101. However, if such traffic restrictions or detours are required, the project applicant will submit a TCP to Caltrans for approval prior to the start of such construction.

Response LA-1-15

Comment noted. The proposed project does not anticipate any work within a State ROW. However, in the unlikely event that project-related work is performed within a State ROW, the project applicant will obtain an encroachment permit from Caltrans prior to the start of construction within the State ROW.

Letter No. LA-2

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
700 Heinz Avenue
Berkeley, California 94710-2721

Edmund G. Brown Jr.
Governor

November 10, 2015

Mr. Yen Han Chen
Associate Planner
City of Santa Clara
1500 Warburton Avenue
Santa Clara, California 95050

DTSC REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SANTA CLARA SQUARE RESIDENTAIL/MIXED USE PROJECT, STATE CLEARINGHOUSE NO. 2015032075

Dear Mr. Chen,

The Department of Toxic Substances Control (DTSC) has reviewed the Draft Environmental Impact Report for the Santa Clara Square Residential/Mixed Use Project (DEIR) received by DTSC on October 7, 2015. The proposed project includes demolishing existing buildings on the 33.4-acre project site and constructing an infill, mixed-use residential development that would consist of 1,800 apartment units with approximately 1,750,000 gross square feet (gsf) of residential building space. The proposed project also includes approximately 40,000 gsf of retail space, 4,500 gsf of leasing space, and approximately 38,000 gsf of amenity space. The proposed retail space would be located in the northwestern corner of the project site along the east side of a new street that would run north-south connecting Scott Boulevard to Augustine Drive.

The City of Santa Clara began a 45-day public comment period on the DEIR on October 5, 2015 and the due date for comments on the DEIR is November 19, 2015.

DTSC has provided comments to the Draft Response Plan (Roux Associates, Inc., October 2015) developed to address hazardous substances contamination at various locations within the project site. The Response Plan activities are generally described within the Hazards and Hazardous Materials Section (4.6) of the DEIR and are addressed elsewhere within the DEIR where project impacts from the Response Plan are anticipated, for example, Air Quality, Greenhouse Gas, Cultural Resources, Noise, and Biological Resources, etc. DTSC is listed in Section 3.10 as a Responsible Agency

1

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under the California Environmental Quality Act (CEQA) and presently intends to use the City of Santa Clara's EIR in approving the Response Plan for the project site. DTSC submits the comments below as a Responsible Agency with approval authority over the Response Plan. Although the Response Plan is currently in draft form, DTSC anticipates the recommended response action activities described in the document will not change, and DTSC requests that the following details and statements be added to the DEIR, section 4.6 under a new heading, titled "Draft Response Plan":

"The recommended response action subject to the Department of Toxic Substances Control review and approval, to remediate soil contaminated with arsenic, lead, dieldrin, and dichlorodiphenyldichloroethylene, the contaminants of concern (COCs), is expected to include a combination of the following actions:

1. Using background concentrations for naturally occurring metals like arsenic as the remedial goals (RGs), and risk-based unrestricted use (residential) screening criteria as RGs for other chemicals. If a few sample locations do not meet unrestricted use criteria, statistical analyses, such as a 95% upper confidence level of the mean evaluation, may be conducted as a contingency option to demonstrate that soil in specific areas of the Site meets the RGs;

2. Excavating soil above a RG for placement and consolidation below a permanent cap such as pavement parking areas, buildings, and in landscaped areas, two feet of clean fill (with a marker material such as a geotextile (orange geogrid or similar) below the clean fill. Consolidation cells will be constructed no deeper than 2 feet above the historical high groundwater elevation; 1

3. In the utility corridors for main utility trunk lines, if present, soil with elevated COC concentrations will be removed as needed to ensure that residual COC concentrations in these utility corridors are protective of construction and maintenance worker health and safety;

4. Placing a cap over existing soil that exceeds an RG; or

5. Excavating soil above a RG for offsite disposal;

6. If potentially contaminated soil is encountered during slab and asphalt removal or soil excavation, or if an unknown underground container or structure that could have potentially hazardous materials is discovered, the protocols outlined in the Response Plan will be followed. However, if chemical concentrations in the evaluation soil samples and/or confirmation samples for this soil exceed screening criteria for residential, but are below screening criteria for commercial land use, it may be more feasible for such areas to be remediated only to commercial levels in public spaces.

7. After the response actions for the site have been completed, an Operations and Maintenance Plan will be prepared, and a Land Use Covenant will be recorded. The

Operations and Maintenance Plan will include annual inspection requirements to verify that any consolidation cells are appropriately covered."

1

When DTSC releases the draft Response Plan for public comments, revisions to the current draft Response Plan may be required based on public comments.

If you have any questions, please feel free to contact me at (510) 540-3806 or by email at Jayantha.Randeni@dtsc.ca.gov.

Sincerely,

Jayantha Randeni, P.E., Project Manager
Brownfields and Environmental Restoration Program - Berkeley Office

cc: Governor's Office of Planning and Research
State Clearinghouse
state.clearninghouse@oper.ca.gov

CEQA Reading File – Berkeley

Ms. Laura Kaweski
Senior Environmental Planner
Department of Toxic Substances Control
laura.kaweski@dtsc.ca.gov

Ms. Jackie Buttle
Staff Services Analyst
Department of Toxic Substances Control
jackie.buttle@dtsc.ca.gov

Letter No. LA-2 **Letter from California Department of Toxic Substances Control, dated November 10, 2015**

Response LA-2-1

As noted by the DTSC, "the Response Plan activities are generally described within the Hazards and Hazardous Materials Section (4.6) of the DEIR." The Draft Response Plan was developed by the project applicant for DTSC review and approval. The Draft Response Plan is consistent with Mitigation Measure HAZ-2. For informational purposes, the full Draft Response Plan that was released for public comment on November 25, 2015, is included as **Appendix 2.3** in this Final EIR, along with the summary statement describing the Draft Response Plan provided by the DTSC.

Letter No. LA-3

SANTA CLARA
Valley Transportation Authority

November 19, 2015

City of Santa Clara
Department of Planning
1500 Warburton Avenue
Santa Clara, CA 95050

Attention: Yen Chen

Subject: City File No. PLN2015-10899 / Santa Clara Square

Dear Mr. Chen:

Santa Clara Valley Transportation Authority (VTA) staff have reviewed the Draft EIR for 1,000 rental apartments, 40,000 square feet of retail, and 4,500 square feet of leasing space on Scott Boulevard, between Bowers Avenue and San Tomas Aquino Creek. We have the following comments.

Land Use

VTA supports the proposed land use intensification and mix of uses on this site. While not in an established core or station area, the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work, which could lead to a reduction in per-capita automobile trips and vehicle miles traveled (VMT). 1

Freeway Impacts and Mitigation Measures

The DEIR identifies significant impacts to six directional segments of US 101, based on the CMP LOS standard. The DEIR states that "feasible mitigation measures are not available to avoid or substantially lessen this impact" and finds the impact Significant and Unavoidable, but notes, "The project applicant's voluntary contribution to the VTA to assist with freeway improvements… will help lower the magnitude of this impact." (4.11-49)

VTA commends the project applicant for including voluntary contributions to assist with freeway improvements. However, VTA recommends that the City include the contribution as a mitigation measure for freeway impacts in the DEIR. VTA notes that Santa Clara and other cities in Santa Clara County have identified contributions to regional transportation improvements as mitigation measures for significant freeway impacts, in some cases while acknowledging that the impacts would remain significant but would be partially offset by the contributions. Please see the March 6, 2014 Report to the VTA Board of Directors (Agenda Item 6.18), available online at http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001LwZYIA0, for further information about Voluntary Contributions to Transportation Improvements. 2

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Transportation Demand Management (TDM)
The DEIR includes a requirement for the project applicant to prepare a Transportation Demand Management (TDM) program as a mitigation measure for Air Quality impacts: "AIR 2 – The project applicant will prepare and submit a TDM program for the proposed project (to fulfill the requirements of the City's Climate Action Plan) for approval by the City. The approved program will be implemented for the life of the project." (p. 4.2-26)
The TIA includes a general description of the types of TDM measures that could be included in the project (p. 113-116), but does not include a specific vehicle trip reduction or mode share target, or any discussion of monitoring or enforcement to ensure the effectiveness of the TDM programs.

VTA notes that establishing vehicle trip reduction goals and including a Lead Agency monitoring and enforcement mechanism in a TDM Program can be an effective strategy to reduce automobile trips, traffic impacts and vehicle miles traveled, which has been utilized by a number of cities in Santa Clara County. The establishment of a Transportation Management Agency (TMA) to coordinate TDM strategies among several developments in an area has also proven to be beneficial. VTA believes these strategies could help reduce automobile trips to/from the Santa Clara Square project. 3

In addition, VTA recommends that the City work with the applicant to include the following measures in the TDM program:

- Parking management measures, such as unbundled parking and shared parking;
- Transit fare incentives such as such as free or discounted transit passes on a continuing basis;
- Public-private partnerships or contributions to provide improved transit or shuttle service in the project area.

Pedestrian Accommodations
Given increased pedestrian volumes associated with the project, VTA recommends that the City work with the applicant to provide exceptional pedestrian accommodations on all project frontages, including Scott Boulevard, Augustine Drive and Octavius Drive. VTA commends the City and applicant for including pedestrian improvements in the DEIR Project Description, including minimum six- to eight-foot sidewalks on all frontages and high visibility crosswalks at the uncontrolled crossing at Augustine Drive and Octavius Drive providing access to the San Tomas Aquino Creek (p. 3.0-10). However, VTA believes that the project could go further to enhance the pedestrian experience on the project frontages. 4

VTA's Pedestrian Technical Guidelines (PTG), which forms part of the implementation framework of the VTA Community Design and Transportation (CDT) Program, provide recommended typologies for various street types. For Major Residential Streets and Commercial Streets, which most closely fit the land uses and street design along the arterial project frontages,

the PTG recommends a minimum total width of the pedestrian realm of 15 feet to account for wide sidewalks, a buffer strip between pedestrians and automobiles with landscaping elements such as closely planted trees, shrubs, or light posts, and appropriate transition zones between the street, pedestrians and buildings (see attached excerpts from the PTG). VTA also notes that resources on pedestrian quality of service, such as the Highway Capacity Manual 2010 Pedestrian Level of Service methodology, indicate that such accommodations improve pedestrian perceptions of comfort and safety on a roadway. 4

In addition, the existing intersections of Scott Boulevard with Octavius Drive and Montgomery Drive along the project frontage have wide right-turn radii which encourages higher auto speeds and reduces pedestrian comfort and safety. VTA recommends squaring off the corners or otherwise reducing the speed of right turns at these locations. 5

Multimodal Analysis

VTA commends the City for including extensive analyses of project effects on transit, bicycle and pedestrian modes in the TIA (pgs. 100-112), including an analysis of transit vehicle delay based on traffic generated by the project and an analysis of pedestrian and bicycle Quality of Service (QOS) at intersections that would be modified by the project and/or transportation mitigation measures identified in the TIA. These analyses, which are called for in the updated 2014 VTA *TIA Guidelines*, provide information to decision-makers about the project's effects on other modes besides the automobile. 6

Auto Trip Reduction Statement (ATRS)

VTA notes that the TIA report did not include an Auto Trip Reduction Statement (ATRS) as required per Section 8.2 and Appendix C of the updated 2014 Transportation Impact Analysis (TIA) Guidelines. VTA notes that the ATRS is intended to highlight project features and efforts that improve the multimodal transportation system and reduce automobile trips, in addition to formal trip reductions assumed in the TIA analysis. VTA requests a revised TIA report or follow-up memo including the completed ATRS form. 7

Thank you for the opportunity to review this project. If you have any questions, please call me at (408) 321-5784.

Sincerely,

Roy Molseed
Senior Environmental Planner

cc: Patricia Maurice and Brian Brandert, Caltrans SC1502

A. Neighborhood Street Types

Minor and Major Residential Streets

These streets serve primarily residential areas. On Minor Residential Streets, the emphasis is on walking, bicycling, neighborhood livability and access to homes; traffic is typically slower than on other street types. Major Residential Streets are collectors and entries to neighborhoods. Traffic speeds and volumes are higher, but equal emphasis is given to creating a safe and comfortable pedestrian realm.

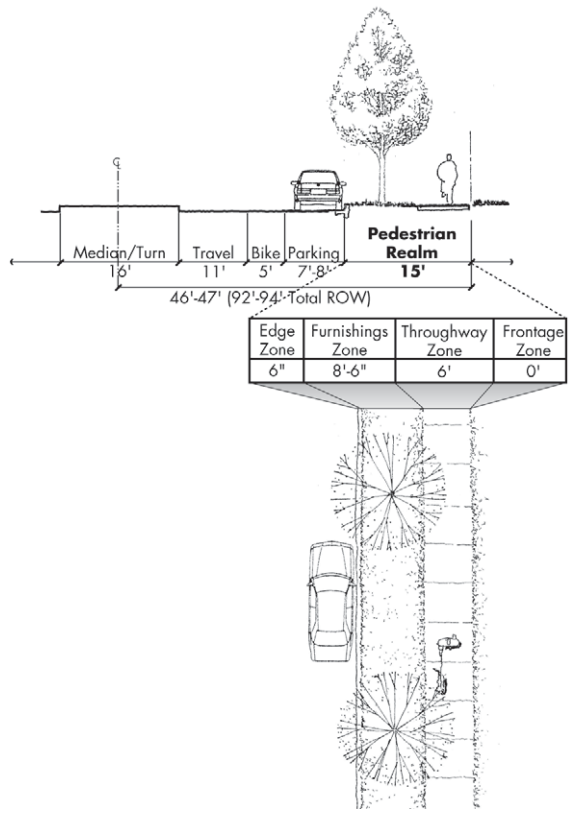


Figure 2.15: Pedestrian realm for Major Residential streets

Table 2.2: Neighborhood Street Types

		Neighborhood Streets	
		Minor Residential	Major Residential
Operational Characteristics	Volume (vehicles per day)	< 2000	2000-8000
	Typical Speed (mph)	15-25	25
	Adjacent Land Uses	Residential	Residential
Design Parameters	Number of Lanes	2	2-3
	Overall R.O.W. Width	53′ - 57′	92′ - 94′
	Lane Width	10′	11′ - 12′
	On-street Parking	yes	yes
	Pedestrian Realm Width	9′6″ - 11′6″	15′

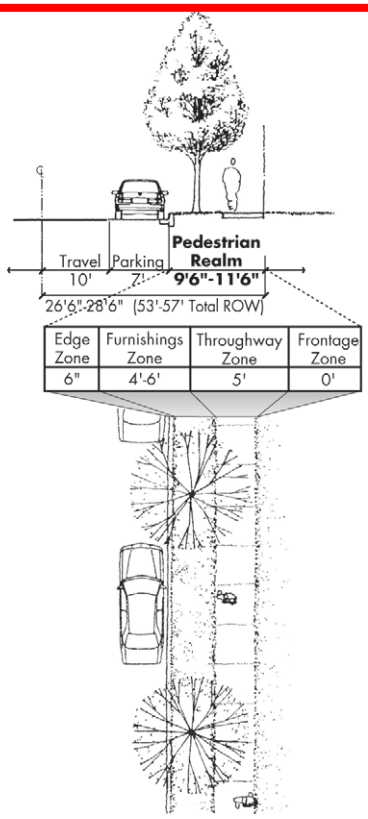
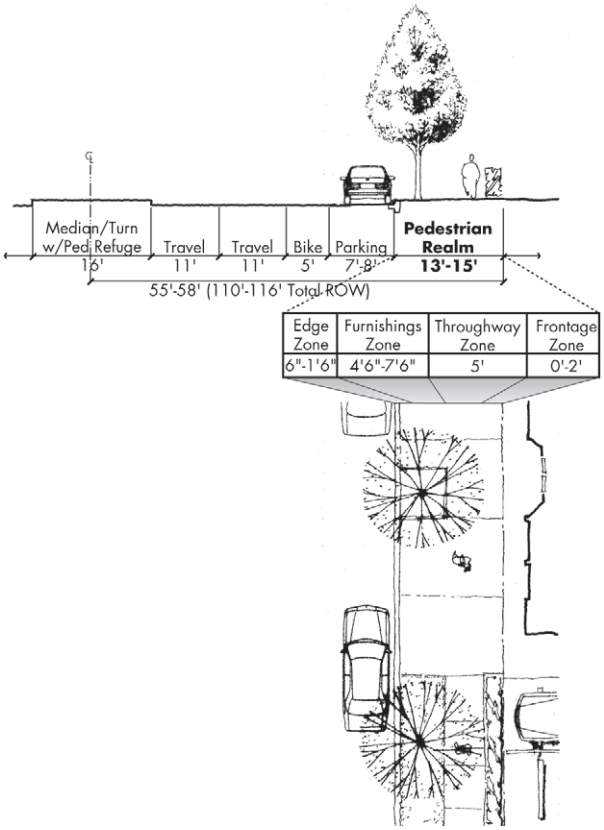


Figure 2.16: Pedestrian Realm for Minor Residential streets

Commercial Streets

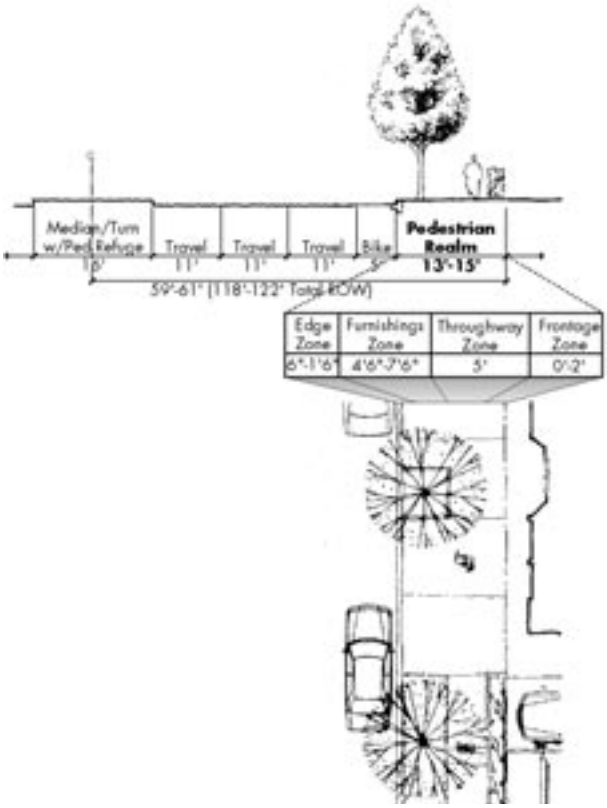
Commercial Streets serve corridors with large amounts of adjacent commercial land uses generally set back from the street (referred to as "auto-oriented suburban strip commercial"). To best serve these uses, Commercial Streets emphasize convenient vehicular traffic movement and access to adjacent uses. To best serve these uses, on-street parking may or may not be present. Pedestrian activity on such streets is generally fairly low, but the pedestrian realm should still be generous enough to provide a buffer - particularly where there is no on-street parking.



Figures 2.27: Pedestrian Realm for Commercial Streets (with on-street parking)

Table 2.7: Commercial Streets

		Corridor Streets
		Commercial Street
Operational Characteristics	Volume (vehicles per day)	15,000 +
	Typical Speed (mph)	30-35
	Adjacent Land Uses	varies
Design Parameters	Number of Lanes	3-6 lanes w/ turn lane or median
	Overall R.O.W. Width	110 ′ - 122′
	Lane Width	11′
	On-street Parking	yes/no
	Pedestrian Realm Width	13′ w/ parking 15′ w/o parking



Figures 2.28: Pedestrian Realm for Commercial Streets (no on-street parking)

Letter No. LA-3 **Letter from Santa Clara Valley Transportation Authority, dated November 19, 2015**

Response LA-3-1

Comment noted. The City agrees that this proposed high density residential project is ideally located in close proximity to existing offices, and to the Santa Clara Square Retail and Office projects that are currently under construction. The proposed project will also help address the City's longstanding jobs/housing imbalance, and will allow more people to both live, work, and shop in Santa Clara which will result in a regional reduction in per-capita automobile trips and VMT.

Response LA-3-2

Comment noted. The project applicant has committed to a voluntary contribution to the VTA to assist with freeway improvements (see Final EIR **Appendix 2.4**, and payment of the funds is included as an enforceable provision in the project's Development Agreement.

As noted in Response LA-1-12, the project applicant's voluntary contribution will be put toward the improvement projects planned by the VTA. The voluntary contribution for freeway improvements is not listed as a mitigation measure because at this time neither Caltrans nor VTA has a program in place to collect fair share contributions from new development to pay for any proposed/planned capacity improvements on regional freeway facilities.

Response LA-3-3

As noted by the commenter, pursuant to Mitigation Measure AIR-2, and consistent with the City of Santa Clara Climate Action Plan (CAP), the project applicant will prepare a TDM plan for approval by the City. Based on its location in Transportation District 1 (North of Caltrain) and anticipated General Plan designation (High Density Residential), the City will require that the project applicant show a reduction in Vehicle Miles Traveled (VMT) by 20 percent, 10 percent of which must come from TDM measures. City of Santa Clara CAP, pp 50-51. The project applicant will be required to submit annual reports to the City to evaluate the project's progress towards achieving TDM goals. The text of Mitigation Measure AIR-2 has been revised to provide additional specifics about the TDM plan. See Final EIR **Chapter 3.0, Errata**.

As noted by the commenter, and as explained in Chapter 11 of the TIA (Appendix 4.11 to the EIR), the TDM program will offer amenities and incentives to encourage residents to use carpooling, transit, bicycling, and walking instead of driving their private automobiles. Table 11-1 of the TIA lists TDM measures that may be included in the final TDM plan the City approves for the project. The final TDM plan will include some or all of the items in Table 11-1, and as explained above, the project applicant will

be required to show a 20 percent reduction in VMT, 10 percent of which will come from the TDM measures selected. The project applicant has stated that it will provide unbundled parking which can result in a 2.6 to 13 percent reduction in VMT, and will cooperate with the VTA to accommodate its future Flex shuttle program. The City will also work with the project applicant to explore other TDM measures that promote the use of transit.

Response LA-3-4

Comment noted. The project will be improving the pedestrian experience along all the project frontages and will be both adding new street trees, and retaining a number of large redwood trees. The project includes an approximately 15 foot wide pedestrian realm that is made up of six to eight foot wide sidewalks, landscaped planters, and preserved redwood trees. Please see **Figure 2.0-1** for more details.

Response LA-3-5

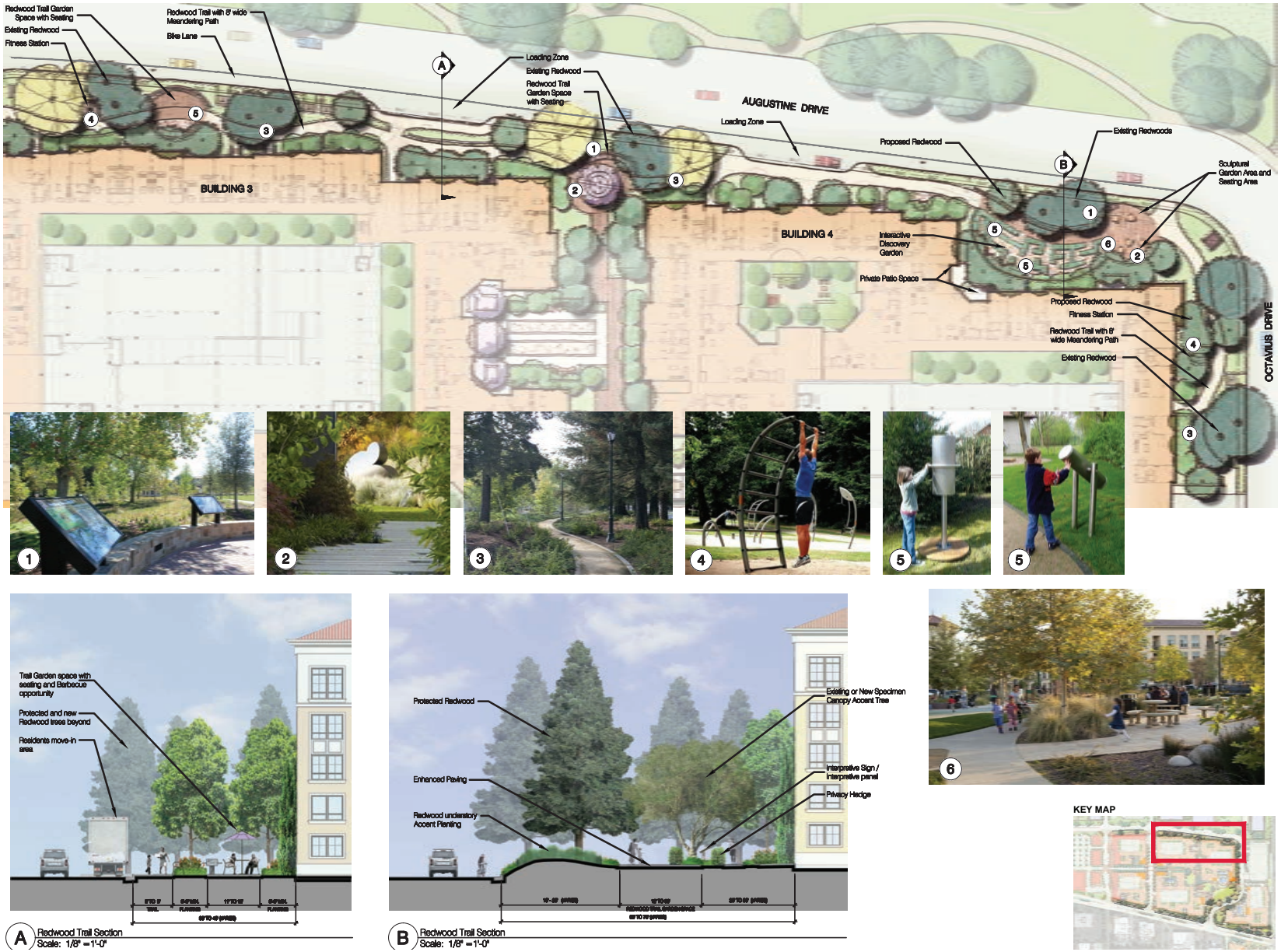
The current corner radii on Scott Boulevard with Octavius and Montgomery Drive is proposed to remain in order to provide adequate turning radii for moving vans and other large trucks that will access the site (Final EIR **Appendix 2.1**).

Response LA-3-6

Comment noted.

Response LA-3-7

Comment noted. Fehr & Peers prepared a follow-up memo that includes completed ATRS form. This memo and completed ATRS form are included in **Appendix 2.2** of the Final EIR.



A Redwood Trail Section
Scale: 1/8" =1'-0"

B Redwood Trail Section
Scale: 1/8" =1'-0"

SOURCE: Irvine Company, November 2015

FIGURE **2.0-1**

Redwood Trail Plan Enlargement

1176.002•12/15

Letter No. LA-4

From: Cunningham, Robert <Rob.Cunningham@vta.org>
Sent: Thursday, October 29, 2015 4:52 PM
To: Yen Chen
Subject: Santa Clara Square Residential

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Yen,

VTA is currently reviewing the DEIR and TIA for Santa Clara Square Residential. We had a question about the discussion of impacts and mitigation measures for freeway segments on pgs. 4.11-48 to 4.11-49 of the DEIR. The text states that there would be impacts according to CMP criteria, but there are no feasible mitigation measures. However towards the end of the discussion the text implies that the City/applicant is committing to voluntary contributions towards freeway improvement projects:

"Based on the above, as feasible mitigation measures are not available to avoid or substantially lessen this impact, the impact of the proposed project on freeway segments under Baseline with project conditions is considered significant and unavoidable. The project applicant's voluntary contribution to the VTA to asist with freeway improvements along with the applicant's implementation of a TDM program (as described under Mitigation Measure AIR-2) will help lower the magnitude of this impact." (411-49)

The wording is a bit confusing, as it suggests that voluntary contributions are discussed elsewhere in the DEIR, but after searching through the document I could not find any additional discussion on the topic. Questions/comments: 1

- VTA supports the inclusion of contributions in the DEIR. Following the recent example of the City Place DEIR, we would recommend including the contributions as a mitigation measure (rather than only a reference in the supporting text). We plan to include comments to this effect in our upcoming comment letter.
- Will the commitment to voluntary contributions will be formalized in the Development Agreement for the project? Also, will the Development Agreement be approved concurrently with the DEIR or at a later date?

Thanks,

Rob

Robert Cunningham
Transportation Planner
Planning and Program Development
Santa Clara Valley Transportation Authority
(408) 321-5792 Robert.Cunningham@vta.org

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Letter No. LA-4 **Email from Santa Clara Valley Transportation Authority, dated October 29, 2015**

Response LA-4-1

Please see Response LA-3-2 above. Also please note that the applicant's commitment to voluntary contributions to the VTA to assist with freeway improvements will be formalized in the Development Agreement (DA) for the project and that the DA will be approved concurrently with certification of the Final EIR.

Letter No. LA-5

County of Santa Clara

Roads and Airports Department

101 Skyport Drive
San Jose, California 95110-1302
1-408-573-2400

November 19, 2015

Yen Han Chen
Associate Planner
1500 Warburton Avenue,
Santa Clara, CA 95050

SUBJECT: Notice of Availability of Draft Environmental Impact Report
Santa Clara Square – Residential/Mixed-Use Project

Dear Mr. Chen:

The County of Santa Clara Roads and Airports Department appreciates the opportunity to review to the draft environmental impact report (DEIR) and is submitting the following comments.

- On April 23, 2015, the County submitted a response to the Notice of Preparation for the DEIR saying the traffic impact analysis (TIA) should be conducted following VTA's Congestion Management Program (CMP) guidelines and include intersections along County expressways. Per VTA's TIA guidelines, if the proposed development project is expected to add 10 or more peak hour vehicles per lane to any intersection movement, that location should be included in the analysis. Please provide a traffic impact analysis for the intersections listed below or document it will add less than 10 trips. Should there be a significant impact, provide a mitigation measure. 1
    - Intersections along Lawrence Expressway at Duane Avenue; Central Expressway at Mary Avenue; San Tomas Expressway at El Camino Real
- Table 4.11-5 (Page 4.11-15) of the DEIR presents the existing conditions level of service (LOS) results. For all the expressway intersections, LOS results presented in this table are not consistent with the County's and VTA's CMP analysis The correct existing traffic conditions must be used as it affects the results of the other scenarios and the identification of traffic impacts to expressway intersections. Please revise the Traffic Impact Analysis appropriately so that significant impacts can be properly identified and mitigated. 2
- Transportation mitigation measure TRANS-3 states "The project applicant will make a fair-share contribution to the City of Santa Clara for payment to responsible jurisdictions for the construction of improvements at intersections where the proposed project would contribute to a significant adverse impact." County supports this mitigation measure and fair share contribution for construction of improvements and expects that the fair-share contributions will occur even with the finding of "Significant and Unavoidable" impacts. 3
- County requests that the fair-share contributions be for the improvement projects identified in the preliminary Comprehensive County Expressway Planning Study 2040. 4

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian
County Executive: Jeffrey V. Smith

If you have any questions about these comments, please contact Aruna Bodduna at 408-572-2462 or at aruna.bodduna@rda.sccgov.org.

Sincerely,

Dawn S. Cameron
County Transportation Planner

cc: MA, AP

Letter No. LA-5 **Letter from County of Santa Clara – Roads & Airport Department, dated November 19, 2015**

Response LA-5-1

The intersection of Lawrence Expressway at Duane Avenue has four lanes in each direction (not including turn pockets) and the project is expected to add traffic to this intersection only under the City Place Cumulative Conditions. Traffic was assumed to use Great America Parkway to travel northbound under all conditions except under City Place Cumulative when Great America Parkway is assumed to be so congested that some project traffic will use Lawrence Expressway to travel northbound. A total of 14 northbound and -6 southbound trips in the morning peak hour and -2 northbound and 14 southbound trips in the evening peak hour would be added under this scenario which results in a max of 3.5 trips per lane by direction in the AM and PM peak hour, both of which are less than the 10 trips per lane required by the VTA (**Appendix 2.1** in the Final EIR).

For the intersection of Central Expressway at Mary Avenue, traffic along Central Expressway is expected to disperse as it travels westbound taking roads such as Wolfe Road and Mathilda Avenue. The number of project trips using the Central Expressway at Mary Avenue intersection is expected to be less than 10 trips per lane (**Appendix 2.1** in the Final EIR).

Finally, the project would generate less than less than 10 trips per lane at San Tomas Expressway at El Camino Real. In the TIA, a small portion of the trips travelling south of the intersection at San Tomas Expressway and Cabrillo Avenue were assumed to travel towards Cabrillo Middle School, resulting in less than 10 trips per lane at San Tomas Expressway at El Camino Real. However, after a closer look at the access ways to Cabrillo Middle School, the only access ways to the middle school are located on Cabrillo Avenue and not on San Tomas Expressway. Fehr & Peers re-evaluated the intersection of San Tomas Expressway at Cabrillo Avenue assuming two percent turn onto Cabrillo Avenue and eight percent continue south on San Tomas Expressway under all conditions. The reallocation of traffic to Cabrillo Avenue results in less than 10 trips per lane at San Tomas Expressway and El Camino Real, and there remains no impact at San Tomas Expressway at Cabrillo Avenue (**Appendix 2.1** in the Final EIR).

Response LA-5-2

The information used for the County expressway system and CMP intersections was obtained from the 2012 CMP Traffix Database and the Comprehensive County Expressway Planning Study 2040 Traffix computation sheets dated March 26, 2015. The 2012 CMP Traffix database was the most recent available database at the time of the NOP in March 2015.

Fehr & Peers received the 2014 CMP Traffix Database from the VTA in October 2015 after the final TIA was prepared, and after the Draft EIR was circulated for public comment on October 4, 2015. Therefore, the TIA for this project will not be revised (**Appendix 2.1** in the Final EIR).

Response LA-5-3

Comment noted. Fair-share contributions will occur even with the finding of "Significant and Unavoidable" impacts. The City is collecting a fair share contribution to mitigate impacts at the following intersections based on Appendix G of the TIA prepared by Fehr & Peers for the proposed project and dated September 30, 2015:

1. Bowers Avenue / Scott Boulevard
2. San Tomas Expressway / Scott Boulevard
3. Scott Boulevard / Central Expressway
4. Bowers Avenue / Monroe Street
5. Zanker Road / Montague Expressway
6. De La Cruz Boulevard / Central Expressway

Financing, scheduling and implementation responsibilities are discussed in Section 4.11 of the Draft EIR. The project applicant will pay the City the project's fair share contribution pursuant to Mitigation Measure TRANS-3 and the terms in the Development Agreement.

Response LA-5-4

Please see Response LA-5-3 above. As seen in Appendix G to the TIA (Appendix 4.11 of the Draft EIR), mitigation for each County intersection is based on improvement projects identified in the preliminary Comprehensive County Expressway Planning Study 2040, if available. The project's fair share contribution was based on an estimated cost of each improvement project and the project's contribution to total traffic at the intersection (**Appendix 2.1** in the Final EIR).

Letter No. LA-6

NORMAN Y. MINETA
SAN JOSE
INTERNATIONAL
AIRPORT

SILICON VALLEY'S AIRPORT

RECEIVED
OCT 22 2015
PLANNING DIVISION

October 19, 2015

Yen Chen
City of Santa Clara Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Draft EIR for "Santa Clara Square" Project (File #CEQ2015-01186)

Dear Mr. Chen:

Thank you for the opportunity to review the subject Draft EIR. The City of San Jose Airport Department offers only the following suggested text revisions to Page 4.6-27 (Hazards and Hazardous Material section, "Impact HAZ-6" discussion) to improve the accuracy and clarity of the information presented.

- In the 2nd paragraph under Impact HAZ-6, delete the last two sentences and replace with:

  The project site is also not located within the Santa Clara County Airport Land Use Commission's designated airport influence area of either San Jose International or Moffett Federal Airfield. 1

- In the 3rd paragraph under Impact HAZ-6, delete the first 3 of the 4 sentences and replace with:

  Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (referred to as FAR Part 77), requires that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground. For the project site, any structure exceeding approximately 90 feet in height above ground would require submittal to the FAA for airspace safety review. As the proposed project has a maximum height of 85 feet, notification to the FAA is not required. 2

City or consultant staff are welcome to contact me at cgreene@sjc.org or 408-392-3623 for any questions regarding these minor comments.

Sincerely,

Cary Greene

Cary Greene
Airport Planner

1701 Airport Boulevard, Suite B-1130 • San José, CA 95110-1206 • Tel 408.392.3600 • Fax 408.441.4591 • www.flysanjose.com

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Letter No. LA-6 Letter from San Jose International Airport, dated October 19, 2015

Response LA-6-1

The 2nd paragraph under Impact HAZ-6 has been revised as requested. Please see Final EIR **Chapter 3.0, Errata**.

Response LA-6-2

The 3rd paragraph under Impact HAZ-6 has been revised as requested. Please see Final EIR **Chapter 3.0, Errata**.

Letter No. LA-7

SANTA CLARA UNIFIED SCHOOL DISTRICT

1889 Lawrence Road
Santa Clara, CA
95051
408-423-2000

Stanley Rose III, Ed.D.
Superintendent

October 15, 2015

Yen Han Chen
Associate Planner
City of Santa Clara
1500 Warbuton Avenue
Santa Clara, CA 95050

Re: General Plan Amendment PLN2015-10899
(Santa Clara Square Residential/Mixed Use Project)

Dear Yen Han Chen,

The Santa Clara Unified School District appreciates the opportunity to respond to the Santa Clara Square Residential/Mixed Use development, which is requesting a General Plan Amendment to change the land use designation from Light Industrial (216-45-022) and Community Commercial (216-45-011 and 216-45-028) to Regional Mixed Use and to change Light Industrial (216-45-023, 216-45-024, 216-29-112, and 216-29-053) to High Density Residential. Changing the planned land use to High Density Residential from Light Industrial and Community Commercial has many implications not studied in the Santa Clara General Plan originally. 1

The Santa Clara Square project is proposing high density residential units in the project. The Santa Clara Unified School District (SCUSD) does not have any schools within walking distance to the new development. This will cause additional vehicle trips to each of the three schools, Bracher Elementary, Cabrillo Middle, and Wilcox High. 2 The student generation rate of the residential housing can be estimated for the first few years and is anticipated to be low; however the SCUSD cannot accurately predict the amount of seats needed for future students. 3

With the numerous proposed developments within Santa Clara to be constructed in the next few years, the District will either need funds for a new school site or funds to demolish existing classrooms buildings and construct larger two story classroom buildings. 4 Adding students to existing campuses creates other infrastructure complications such as inadequate multipurpose buildings, kitchens, and libraries.

The new resident population will also increase the need for additional green space in the City of Santa Clara. The open space and fields at the schools within the District are already used to capacity and residents living in the high density apartments will need adequate green space within or near the project. 5

The change in the Santa Clara General Plan and current zoning, from Light Industrial to High Density Housing, alters the SCUSD's approach to future needs at Bracher Elementary, Cabrillo Middle, and Wilcox High Schools and elsewhere within the District. 6 The SCUSD cannot continue to house the students generated by new

Board
of Education
...
Jim Canova
Albert Gonzalez
Jodi Muirhead
Andrew Ratermann
Michele Ryan Ph.D.
Noelani Sallings
Christopher Stampolis

housing projects without additional help from the developers. The District requests all developments mitigate their impact on the District by, at a minimum, paying the full mitigation amount per square foot of residential and commercial construction as well as mitigating impacts to resources such as transportation and open space. 6

Sincerely,

Mark Allgire, CPA, Assistant Superintendent Business Services.

Letter No. LA-7 Letter from Santa Clara Unified School District, dated October 15, 2015

Response LA-7-1

This introductory comment is noted, and is responded to substantively below. Please note that the environmental impacts associated with the change in land use designation to High Density Residential for the project site are analyzed in the Draft Environmental Impact Report for the Santa Clara Square Residential/Mixed-Use Project. Many of the comments in this letter were also raised in the Santa Clara Unified School District's (SCUSD) letter dated November 18, 2015, and have been responded to in detail in Responses LA-7-2 through LA-7-6 below.

Response LA-7-2

The project's traffic impacts are analyzed and mitigation identified in Section 4.11 and Appendix 4.11 of the Draft EIR. The Traffic Impact Analysis is based on a calculated trip generation rate for 1,800 residential units and 40,000 square feet of retail use. The residential trip generation rate used in the Traffic Impact Analysis accounts increased trips to schools, and therefore the trips to Bracher Elementary, Cabrillo Middle, and Wilcox High were included in the Traffic Impact Analysis (**Appendix 2.1** in the Final EIR). Where feasible mitigation exists, the project will mitigate its impacts to intersections through payment of fees to the City of Santa Clara on a fair share contribution basis. In addition, the project will make a voluntary contribution to the VTA to offset impacts to freeway segments. Therefore, all transportation impacts of the project have been sufficiently analyzed and mitigation required where feasible.

Response LA-7-3

Comment noted. The City agrees that the student generation rate for this high density rental apartment project is anticipated to be low. Based on Student Generation Rates prepared by SCUSD demographer in January 2015, high-density apartments, such as those planned for the project, generate students at the rate of 0.02 student per dwelling unit. In other words, 36 K-12 students (18 elementary, 8 middle and 10 high school students) are likely to be generated by the project (**Appendix 2.5** in the Final EIR).

The commenter's observation that it cannot accurately predict the number of seats needed for future students is noted. The SCUSD demographer prepared student generation rates used for the project based on a sample of 3,371 most recently built apartments in SCUSD. Furthermore, these assumptions were reviewed with SCUSD staff and consultants between February-June 2015 and the use of the rates was approved (**Appendix 2.5** in the Final EIR).

Response LA-7-4

As discussed in Section 4.10 (Impact PUB-3) of the Draft EIR, the project is expected to generate 36 students, and is not expected to generate enough students to trigger the need for a new school. However, the project will pay standard school impact fees on a per square foot basis which will generate an estimated $6.4 million dollars (**Appendix 2.5** in the Final EIR). Under state law, payment of standard school impact fees is deemed to fully mitigate the impacts of new development on school facilities (Gov. Code § 65996(b)). In addition, the school district would receive a portion of the property taxes collected annually after the project is constructed as well as SCUSD General Obligation bond taxes that are collected annually concurrent with property taxes. As stated by Superintendent Rose, "the proposed school fees and General Obligation bond taxes will adequately meet [the SCUSD's] facility requirements," and "the project will be a benefit to the District" (**Appendix 2.6** in the Final EIR).

Response LA-7-5

The project's impacts to public services, including parks and open space, and recreation are analyzed and mitigation identified in Section 4.10 of the Draft EIR. The project includes both private and public open space. Specifically, the residential complexes would include landscaped walkways and paseos and courtyards with outdoor BBQ areas and lounge areas "s well as other recreational amenities. Several of the complexes would include private swimming pools, spas, and cabanas. A core public park central to the community would be located along Octavius Drive between Buildings 4 and 5. A creekside public park would be located at the southeastern edge of the community along Scott Boulevard adjacent to the San Tomas Aquino trail. A redwood trail would be built along the frontage of the apartment buildings facing Augustine Drive, Octavius Drive and Scott Boulevard connecting both public park areas and providing a linkage to the San Tomas Aquino Creek trail. This will serve as a new publicly accessible connection from the project to the San Tomas Aquino Creek trail.

Notwithstanding the above improvements, the proposed project would require the City to add more parkland to the City's inventory of parkland in order to continue to meet the City's minimum standard of 2.53 acres of parkland per 1,000 residents for Mitigation Fee Act (non-subdivided projects) and 3.0 acres of parkland per 1,000 residents for new subdivisions under the Quimby Act. Pursuant to Mitigation Measure PUB-5, the project will be required to pay park in-lieu fees per City Code (Chapter 17.35) to satisfy the balance of the City's parkland dedication requirement. Any in-lieu fees imposed under this chapter shall be due and payable to the City prior to issuance of a building permit for each dwelling unit, consistent with City Code Chapter 17.35 and as specified in the Development Agreement for the project.

Therefore, all parks and open space impacts of the project have been sufficiently analyzed and mitigation required to fully mitigate the impact.

The commenter provides no evidence to support its statement that the open space and fields at the schools and parks within Santa Clara are already used to capacity. Research performed by Jeanette C. Justus Associates indicates that Bracher Elementary School that would serve the project enrolled no more than 452 students annually within the last 20 years and current enrollment is approximately 9% lower with 359 students enrolled. The school site size is approximately 12 acres. The California Department of Education recommends an approximately 9.2-acre site for up to 650 students. Cabrillo Middle School with enrollment of 851 students is housed on approximately 25 acres. The California Department of Education recommends 14.0 acres for up to 900 students (**Appendix 2.5** in the Final EIR).

While Wilcox HS appears to be impacted by enrollment from existing communities, a new high school on the Agnews site is in the early planning stages. The $150 million high school is fully paid for with the Measure H general obligation bond. The project is subject to the taxes from Measure H and will be contributing approximately $2.2 million annually. SCUSD expects the high school to draw students districtwide (**Appendix 2.5** in the Final EIR).

Response LA-7-6

The General Plan land use designation change and rezoning for the site are consistent with the City's long-term vision for the area, as set forth in the General Plan. The majority of the project site is designated High Density Residential in Phase III (2023-2035) in the City's General Plan. Impacts of this land use change were sufficiently analyzed in the General Plan EIR. This project merely accelerates the City of Santa Clara's long term growth strategy to develop new residential neighborhoods in conjunction with appropriate retail, parks, open space, and other public uses, along transit corridors. Changed circumstances necessitate a shift in both the timing and nature of redevelopment to reflect the development opportunities that are currently available, and to align growth and development with the new Santa Clara Square Retail and Office developments. Because the project is planned to be fully occupied between 2017 and 2020, the proposed General Plan amendment accelerates the timing of high density residential use at this site by about 3 to 5 years.

Finally, as explained in Response LA-7-4 above, the project will mitigate its impact to schools in the SCUSD through payment of standard school impact fees on a per square foot basis. Under state law, payment of standard school impact fees is deemed to fully mitigate the impacts of new development on school facilities (Gov. Code § 65996(b)).

Letter No. LA-8

SANTA CLARA UNIFIED SCHOOL DISTRICT

1889 Lawrence Road
Santa Clara, CA
95051
408-423-2000

Stanley Rose III, Ed.D.
Superintendent

November 18, 2015

Yen Han Chen
Associate Planner
City of Santa Clara
1500 Warbuton Avenue
Santa Clara, CA 95050

Re: Santa Clara Square – Residential/Mixed Use Project; CEQ2015-01186

Dear Mr. Chen,

The Santa Clara Unified School District appreciates the opportunity to respond to the California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) for the proposed development referred to as the Santa Clara Square Residential/ Mixed Use project. The project has impacts to schools and the environment that the EIR does not adequately consider. 1

The Santa Clara Square Project has the potential to increase the population of the City of Santa Clara by approximately 4,842 people, according to the EIR, Section 6.4.2 Population and Economic Growth. The increase in population, traffic, and public services to the surrounding community will be immense. Currently, zoning for the surrounding area is Light Industrial and Community Commercial and the City of Santa Clara 2010-2035 General Plan did not forecast the development of this area for another 10-15 years. The accelerated timeline for this development requires a reevaluation of public service locations, needs and availability. 2

The Santa Clara Square Project EIR Section 4.10 states the existing services are adequate to serve the Santa Clara Square Project. However, the General Plan Land Use Diagram Phase III: 2025-2035 in the City of Santa Clara General Plan, which incorporates this area, shows new Public Facilities, Open Space, and Regional Retail nodes immediately south of the project Site. The Facilities and Open Space will be needed when this development is constructed. The City of Santa Clara residents should not have to wait until the land south of the project is developed into high density residential, per the General Plan in 2025-2035, for the additional Public Facility Services, such as Police and Fire Stations and outdoor recreational areas and additional school field space to be constructed. 3

The new residents moving into the development will increase the need for additional field space within the City of Santa Clara. The open space and fields at the schools and parks within Santa Clara are already used to capacity and residents living in multifamily developments without yards will need adequate field space and recreational facilities. The EIR states the impact to neighborhood parks can be reduced from Potentially Significant to Less than Significant if the project applicant pays the park in-lieu fees per City Code. Payment of these fees does not solve the need to identify land for the development of new parks or additional school field space as it is difficult for Cities and School Districts to purchase land for Public Use. The developer should incorporate or dedicate land for parks, schools and fields into the development project or nearby. 4 5

Board
of Education
...
Jim Canova
Albert Gonzalez
Jodi Muirhead
Andrew Ratermann
Michele Ryan Ph.D.
Noelani Sallings
Christopher Stampolis

1394092.1 10814-008

The Santa Clara Square Project is constructing approximately 1,800 new residential units in central Santa Clara and the new residential units will increase student enrollment in all three schools: Bracher Elementary, Cabrillo Middle, and Wilcox High. Because the schools are not within walking distance, the development will increase vehicle traffic taking students to and from the schools. Safe routes for the students to walk and bike to school are imperative and the developer of the Project must work with the City of Santa Clara and the School District to mitigate issues that may affect the students ability to arrive at school and return home safely. 6 7

The project consists of studios, one- and two-bedroom apartments. The current student generation rate for these apartment types is low and the rate is likely to increase in the future, which would substantially change the number of students attending each of the schools. A large student enrollment increase would cause the need for another elementary school and potentially a new middle school in the central portion of the School District. Currently, the Santa Clara Unified School District does not have any plans for new school sites in this area, since major development was not anticipated until at least 2025, per the City of Santa Clara 2010-2035 General Plan. Land suitable for a school construction is very difficult to find in central Santa Clara. The potential cost to purchase land and clean up the soil through the Department of Toxic Substances Control and other State oversight agencies will be very expensive and time consuming. 8 9

The Statutory Developer Fee amount for full mitigation per square foot of residential and commercial construction does not adequately cover the land purchase and design and construction cost incurred by the SCUSD for new or expanded school facilities. The Santa Clara Unified School District is requesting the developers mitigate their impact on the School District by working with the SCUSD to locate and purchase alternative land, construct facilities or find alternate solutions to accommodate the additional students and support services needed by the families attending the schools. 10

Please contact Michal Healy, mhealy@scusd.net with any questions.

Sincerely,

Mark Allgire, CPA, Assistant Superintendent, Business Services

MA:mh

1394092.1 10814-008

Letter No. LA-8 Letter from Santa Clara Unified School District, dated November 18, 2015

Response LA-8-1

This introductory comment is noted, and is responded to substantively below.

Response LA-8-2

The proposed General Plan land use designation change and rezoning for the site are consistent with the City's long-term vision for the area, as set forth in the General Plan. The majority of the project site is designated High Density Residential in Phase III (2023-2035) in the City's General Plan. Impacts of this land use change were sufficiently analyzed in the General Plan EIR. This project merely accelerates the City of Santa Clara's long term growth strategy to develop new residential neighborhoods in conjunction with appropriate retail, parks, open space, and other public uses, along transit corridors. Changed circumstances necessitate a shift in both the timing and nature of redevelopment to reflect the development opportunities that are currently available, and to align growth and development with the new Santa Clara Square Retail and Office developments. Because the project is planned to be fully occupied between 2017 and 2020, the proposed General Plan amendment accelerates the timing of high density residential use at this site by about 3 to 5 years.

See also Responses LA-7-3, LA-7-4, and LA-7-8 regarding mitigation of impacts on public services.

Response LA-8-3

The project's impacts to public services, including parks, open space, and recreation, are analyzed and mitigation identified in Section 4.10 of the Draft EIR. The project includes both private and public open space. Specifically, the residential complexes would include landscaped walkways and paseos and courtyards with outdoor BBQ areas and lounge areas as well as other recreational amenities. Several of the complexes would include private swimming pools, spas, and cabanas. A core public park central to the community would be located along Octavius Drive between Buildings 4 and 5. A creekside public park would be located at the southeastern edge of the community along Scott Boulevard adjacent to the San Tomas Aquino Creek trail. A redwood trail would be built along the frontage of the apartment buildings facing Augustine Drive, Octavius Drive and Scott Boulevard connecting both public park areas and providing a linkage to the San Tomas Aquino Creek trail. This will serve as a new publicly accessible connection from the project to the San Tomas Aquino Creek trail.

Notwithstanding the above improvements, the proposed project would require the City to add more parkland to the City's inventory of parkland in order to continue to meet the City's minimum standard of 2.53 acres of parkland per 1,000 residents for Mitigation Fee Act (non-subdivided projects) and 3.0 acres of parkland per 1,000 residents for new subdivisions under the Quimby Act. Pursuant to Mitigation Measure PUB-5, the project will be required to pay park in-lieu fees per City Code (Chapter 17.35) to

satisfy the balance of the City's parkland dedication requirement. Any in-lieu fees imposed under this chapter will be due and payable to the City prior to issuance of a building permit for each dwelling unit, consistent with City Code Chapter 17.35 and as specified in the Development Agreement for the project. Therefore, all parks and open space impacts of the project have been sufficiently analyzed and mitigation required to fully mitigate the impact.

Regarding police and fire services, as discussed in the Draft EIR Section 4.10, the project would not require the construction of any additional facilities or expansion of existing facilities to serve the 4,953 residents and employees added to the project area by the proposed project. Thus, the project will not leave Santa Clara residents waiting for the construction of any public service facilities.

According to the Santa Clara Fire Department (SCFD), existing fire facilities in the City could accommodate the additional firefighters required by the proposed project to meet the SCFD's service standard, and would not require the construction of new or physically altered SCFD facilities. The project applicant will make a fair share contribution to the City of Santa Clara towards the acquisition cost of an emergency vehicle with hazardous materials response capabilities, and this additional piece of equipment could be housed in existing SCFD facilities in the City. Thus, neither the additional personnel nor the new equipment would require the construction of new or physically altered SCFD facilities.

According to the Santa Clara Police Department (SCPD), existing police facilities in the City could accommodate the additional officers and equipment required to maintain service levels for the proposed project. Thus, the project would not require the construction of any additional SCPD facilities or expansion of existing facilities.

For more information regarding the project's mitigation of impacts to public services, including parks, open space and recreation, fire services and police services see Section 4.10 of the Draft EIR.

Response LA-8-4

As noted above, the project will mitigate its impact to parks and open space through dedication of public parks within the project site, and payment of park in-lieu fees. The commenter provides no evidence to support its statement that the open space and fields at the schools and parks within Santa Clara are already used to capacity. Research performed by Jeanette C. Justus Associates indicates that Bracher Elementary School that would serve the project enrolled no more than 451 students annually within the last 20 years and current enrollment is approximately 9 percent lower with 359 students enrolled. The school site size is approximately 12 acres. The California Department of Education recommends an approximately 9.2-acre site for up to 650 students. Cabrillo Middle School with enrollment of 851

students is housed on approximately 25 acres. The California Department of Education recommends 14.0 acres for up to 900 students (**Appendix 2.5** in the Final EIR).

While Wilcox HS appears to be impacted by enrollment from existing communities, a new high school on the Agnews site is in the early planning stages. The $150 million high school is fully paid for with the Measure H general obligation bond. The project is subject to the taxes from Measure H and will be contributing approximately $2.24 million annually. SCUSD expects the high school to draw students districtwide (**Appendix 2.5** in the Final EIR).

Response LA-8-5

As explained in Response LA-8-3 above, the project will dedicate parkland and will pay park in-lieu fees pursuant to Chapter 17.35 of the City Code to mitigate its impacts to parks and open space. The Quimby Act (Gov. Code §66477) authorizes the legislative body of a city or county to require the dedication of land or to impose fees for park or recreational purposes, and is independent of payment and utilization of school impact fees authorized to Section 17620 of the Education Code and Section 65995 of the Government Code. Thus, park in-lieu fees will not be applied to the construction of new school facilities or school fields. The project payment of school impact fees "provide[s] full and complete school facilities mitigation" pursuant to Gov. Code § 65996(b), and is discussed in Response LA-8-8 below.

The comment regarding the difficulty of obtaining land for public use is noted. However, the in-lieu park fee is set on a citywide basis under City Code Chapter 17.35, and Mitigation Measure PUB-5, under which the project will pay in-lieu fees to mitigate some of its impact on parks, is fully compliant with that Chapter. Further, while it is true that the developer will pay in-lieu fees to mitigate a portion of the project's neighborhood park impacts, the project does incorporate parks into the project as the commenter suggests. Specifically, the project incorporates a core public park central to the community, a creekside public park, and a redwood trail connecting both public park areas and providing a linkage to the San Tomas Aquino Creek trail. See also Response LA-8-3 above.

Response LA-8-6

As explained below in Response LA-8-8, based on the SCUSD's student generation rates, the proposed project will generate only 36 students (18 elementary, 8 middle and 10 high school students).

The project's traffic impacts are analyzed and mitigation identified in Section 4.11 and Appendix 4.11 of the Draft EIR. The Traffic Impact Analysis is based on a calculated trip generation rate for 1,800 residential units and 40,000 square feet of retail use. The residential trip generation rate used in the Traffic Impact Analysis accounts for increased trips to schools, and therefore the trips to Bracher Elementary, Cabrillo Middle, and Wilcox High were included in the Traffic Impact Analysis (Final EIR

Appendix 2.1). Where feasible mitigation exists, the project will mitigate its impacts to intersections through payment of fees to the City of Santa Clara on a fair share contribution basis. In addition, the project will make a voluntary contribution to the VTA to offset impacts to freeway segments. Therefore, all transportation impacts of the project have been sufficiently analyzed and mitigation required where feasible.

Response LA-8-7

The project site access and on-site circulation are designed to City of Santa Clara standards and standard engineering practices, which will maximize safety to students and all those traveling to and from the project site. Moreover, the project will provide additional amenities at transit stops adjacent to the project site that will increase safety of all transit riders, some of which may include:

- Bus pull-outs;
- Benches;
- Shelter;
- Lighting;
- Landscaping.

As for bicycle and pedestrian safety, lighting will be provided along all paseos and walkways on the project site and the pathways that border the site will be grade separated thus providing an enhanced level of pedestrian safety. Additionally, the project would provide a direct connection with the San Tomas Aquino Creek trail.

These safety features would promote the safety of the students who would walk, bike and/or take public transit to and from school. Finally, please note the Silicon Valley Bike Coalition's enthusiastic support for the project (See Comment Letter ORG-1).

For additional information on transit, bicycle and pedestrian facilities and safety, see Section 4.11 of the Draft EIR and Chapter 10 of the TIA. The Santa Clara Valley Transportation Authority commended the City on this analysis in its comment letter ("VTA commends the City for including extensive analyses of Project effects on transit, bicycle and pedestrian modes in the TIA (pgs. 100-112), including an analysis of transit vehicle delay based on traffic generated by the project and an analysis of pedestrian and bicycle Quality of Service (QOS) at intersections that would be modified by the project and/or transportation mitigation measures identified in the TIA.") (See Comment Letter LA-3).

Response LA-8-8

Based on Student Generation Rates prepared by SCUSD demographer in January 2015, high-density apartments, such as those planned for the project, generate students at the rate of 0.02 students per unit. In other words, 36 K-12 students (18 elementary, 8 middle and 10 high school students) are likely to be generated by the project. It is unlikely that SCUSD would be constructing any new facilities to house project students. Even if SCUSD pursues school construction, the cost of one portable classroom is approximately $100,000 and the cost of a permanent classroom is $384,000, so the cost of any additional construction that may be required to accommodate the project is well within the amount of school impact fees that the project will generate (**Appendix 2.5** in the Final EIR).

That the student generation rates will increase in the future is speculative, and the commenter provides no data to support its comment. The SCUSD demographer prepared student generation rates used for the project based on a sample of 3,371 most recently built apartments in SCUSD. Furthermore, these assumptions were reviewed with SCUSD staff and consultants between February-June 2015 and the use of the rates was approved (**Appendix 2.5** in the Final EIR).

As stated by Superintendent Rose, the project will generate $6.4 million in school impact fees (**Appendix 2.6** in the Final EIR). Additionally, SCUSD has several outstanding local General Obligation bonds approved by the district-wide voters in 1999, 2004, 2010 and 2014. With the assessed valuation of the proposed project projected to be $1.9 billion at build-out, Superintendent Rose estimated that SCUSD will be able to collect approximately $2.24 million annually for capital school projects throughout the District. (Id.) The funds from the school impact fees and/or General Obligation bonds can be used to purchase school sites, construct new schools or re-open closed schools.

Development of the project does not generate the need for construction of a new school at any level. Additionally, SCUSD recently acquired the Agnews site and will be constructing the K-8 and 9-12 schools. Finally, SCUSD has a surplus school site – Monticello ES that is currently leased out to private schools. Should the need for additional school facilities materialize, the school could be re-opened as a public school to alleviate overcrowding at other existing campuses (**Appendix 2.5** in the Final EIR).

Finally, please see Response LA-8-2 above related to the project's consistency with the City's General Plan which anticipates development of high density residential uses in this area starting in 2023.

As for school services, as a Basic Aid district, SCUSD pays for its operating expenses from a percentage of the annual property tax. At build-out, the project will generate over $7.3 million annually to pay for the education of students generated from the project (**Appendix 2.6** in the Final EIR).

For additional information regarding mitigation of impacts to schools, see Section 4.10 of the Draft EIR.

Response LA-8-9

The comment regarding the high cost of securing land and cleaning-up the soil is noted. However, the statewide statutory maximum for school impact fees that may be levied on a development is set by the Government Code—residential developments at $1.93 per square foot fee and commercial developments at $.31 per square foot—and increased every two years by the State Allocation Board. (Government Code § 65995(b)(1)-(3).) Thus, this is not a matter over which the project has direct control. Further, school districts in the vicinity of the project with the same economic and practical considerations have, in fact, utilized school impact fees to modernize, expand and construct new facilities. (See Fremont Union High School District's 2012 Development Impact Fee Justification Report, p. 13, [stating developer fee revenues have contributed to modernizing obsolete facilities and adding enrollment capacity], available at: http://www.fuhsd.org/file/1224957820900/1283581236344/5211489323826187726.pdf; see also East Side Union High School District's Facilities Planning, Construction, Maintenance & Operations webpage [stating, "We use developer fee revenues to ensure that we have adequate facilities to accommodate high school students within our District boundaries."], available at: http://www.esuhsd.org/Community/Facilities/index.html.)

Response LA-8-10

As explained above in Response LA-8-8, based on the SCUSD's student generation rates, the proposed project will generate only 36 students. However, SCUSD will collect standard school impact fees on a per square foot basis, and not on a per student generated basis. SCUSD is authorized to use those school impact fees to cover construction and reconstruction costs for school facilities pursuant to Education Code Section 17620(a)(1). Additionally, Section 7210 of the SCUSD's own regulations state that developer impact fees can be used to purchase school sites and construct school buildings:

> "When it is determined that school facilities must be built or expanded to accommodate an increased or projected increased enrollment, **the Governing Board shall consider appropriate methods of financing for the purchase of school sites and the construction of buildings.** In addition, financing may be needed when safety considerations and educational program improvements require the replacement, reconstruction or modernization of existing facilities.
>
> The Superintendent or designee shall research funding alternatives and recommend to the Board the method that would best serve district needs as identified in the district's master plan for school facilities.

These funding alternatives may include, but not be limited to:

1. Levying developer fees pursuant to Education Code 17620 and Government Code 65995-65998

2. Forming a community facilities district pursuant to Government Code 53311-53368.3, the Mello-Roos Community Facilities Act

3. Forming a school facilities improvement district pursuant to Education Code 15300-15425

4. Issuing voter-approved general obligation bonds

5. Imposing a qualified parcel tax pursuant to Government Code 50079

6. Using lease revenues for capital outlay purposes from surplus school property."

Further, the Government Code states that payment of school impact fees pursuant to Education Code Section 17620 in the amount specified in Government Code Section 65995 is, "deemed to be full and complete mitigation of the impacts," and that, "a state or local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving …development of real property…on the basis that school facilities are inadequate." (Government Code §§ 65995(h), 65996(b)).

See Response LA-8-8 for a breakdown of revenue generated for SCUSD from the project. According to the Superintendent's June letter, "[t]his amount of funding is significantly more than expected to be necessary for project students alone and will result in educational benefits to the district as a whole" (**Appendix 2.6** in the Final EIR).

Letter No. ORG-1

Promoting the bicycle for everyday use.

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San Jose, CA 95109

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http://bikesiliconvalley.org

October 19, 2015

Mayor Jamie Matthews and City Council
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050
Via email

Re: Irvine Company Santa Clara Square and Mission Town Center

Dear Mayor Matthews and Members of Santa Clara City Council:

I am writing as the Executive Director of Silicon Valley Bicycle Coalition, a membership-based non-profit with the mission to create a healthy community, environment, and economy through bicycling for people who live, work, or play in San Mateo and Santa Clara Counties. We enthusiastically support the bicycle facilities, infrastructure, and routes for Irvine Company's Santa Clara Square and Mission Town Center.

Regarding Santa Clara Square, we were very impressed to hear that the project will exceed requirements for Class I bike facilities (lockers and bike rooms) and Class II bike racks. The large amount of Class I facilities for residential and Class II facilities for retail areas is particularly useful: providing secure bicycle storage facilities helps to encourage residents and visitors to bike, knowing their bikes will be safe from theft and weather. The development will also have on site bicycle workstations and a bike shop. These amenities provide more options for residents and make it easier to choose a bike for transportation. 1

We are also happy to see that the development will connect to existing Class II bike lanes on Bowers Dr. and Scott Blvd. and include Class II bike lanes internally on Augustine Dr. While the proximity and dual access to the San Tomas Aquino Trail is also wonderful, we cautioned Irvine Company that the trail is closed adjacent to Levi's Stadium on game days, creating a blockage in the otherwise good surrounding bike network. It would be helpful for the City of Santa Clara to work with Levi's Stadium to address this. 2

Mission Town Center is also a very good development for bikes, again exceeding city requirements and offering bike workstations. We are very excited at the prospect of a 7' Class II bike lane on Benton, which will create a good connection to the surrounding bicycle network. We urged Irvine Company to look at the possibility, along with Santa Clara 3

University and City of Santa Clara, to eventually create a Class IV protected bike lane on both sides of The Alameda instead of the existing Class III bike route. Silicon Valley Bicycle Coalition has an initiative to see high quality bike facilities on the El Camino Real/The Alameda corridor from Daly City to San José. A Class III bike route is not sufficient to provide a safe and comfortable bike connection on that street, with high-speed vehicle traffic. To promote more bicycling and reduce congestion and pollution, this street needs a high quality bike facility. 3

We hope you approve these projects, which will enhance the bike network in Santa Clara and make it easy for residents and visitors to choose a bike when traveling to and from these developments. Thank you for the opportunity to comment.

Sincerely,

Shiloh Ballard
President and Executive Director

CC:
Julio Fuentes, City Manager
Kevin Riley, Planning Director

Letter No. ORG-1 Letter from Silicon Valley Bicycle Association, dated October 19, 2015

Response ORG-1-1

Comment noted.

Response ORG-1-2

Comment noted.

Response ORG-1-3

Comment noted.

The environmental impacts of the Mission Town Center project are being analyzed separately from the Santa Clara Square – Residential/Mixed Use project. A Draft Environmental Impact Report (EIR) for the Mission Town Center project was circulated for public review beginning November 17, 2015 for 45 days. The Draft EIR is available for review at the Planning Division office in City Hall at 1500 Warburton Avenue, and the Central Library at 2635 Homestead Road, both of which are located in the City of Santa Clara. The document is also available online at www.santaclaraca.gov/CEQA.

Letter No. ORG-2

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Via E-Mail
ychen@santaclaraca.gov

November 19, 2015

Yen Han Chen
Associate Planner
City of Santa Clara Planning Division
1500 Warburton Ave.
Santa Clara, CA 95050

Re: Comments On Santa Clara Square Residential/Mixed Use SCH#2015032075, PLN2015-10899 (GPA), PLN2015-10900 (Rezone), PLN2015-10901 (DA), PLN2015-10902 (Map)

Dear Mr. Chen:

INTRODUCTION

This Office respectfully writes on behalf of the Service Employees International Union – United Service Workers West ("*USWW*" or "*Commentor*"). USWW appreciates the opportunity to comment on the referenced Santa Clara Square proposal and Draft Environmental Impact Report *("DEIR" or "Project").*

Rising inequality is a threat to Silicon Valley's prosperity. While news headlines report a "tech boom" lifting all boats, the reality is more complicated. There is an affordable housing crisis in the region. According to the Center for Housing Policy, the San Jose Metro Area is the third most expensive metro area in the nation for renters. The Association of Bay Area Governments' ("*ABAG*") Regional Housing Need Allocation Report concludes that the City of Santa Clara ("the "City") needs a total of 2,500 units for households earning moderate incomes and below by the year 2022. USWW works to stem this rising tide of inequality – to make Silicon Valley a place of opportunity for all – a place where its members can work **and** afford to live. 1

Yet, the Project as proposed may do nothing to remedy this affordable housing crisis. **USWW has been informed by City staff that every one of the Project's 1,800 apartment units is market rate**. **USWW is extremely concerned about this lack of affordable housing, and whether the Project therefore violates the City's General Plan Goals and Policies, as set forth in more detail below**. USWW also has additional comments on the DEIR on issues including: land use, project description, air 2 3

quality, greenhouse gas emissions, hazardous substances, tree removals and a statement of overriding considerations. 3

This Project is discretionary, not by right. The applicant Carlene Matchniff/Irvine Company ("*Irvine*") seeks a host of discretionary approvals including a General Plan amendment, rezoning and a Development Agreement. The City has leverage to disapprove the Project or to ensure that it actually benefits Santa Clara. **Please use it**. Make sure a Development Agreement includes requirements for affordable housing. 4

BRIEF PROJECT DESCRIPTION

Irvine proposes to demolish the existing buildings on the Project site and construct a residential mixed-use development project with 1,800+ rental apartment units to be developed in seven (7) apartment complexes. The Project also includes approximately 40,000 gross square feet (gsf) of retail space, 4,500 gsf of leasing space, and approximately 38,000 gsf of amenity space. The proposed retail space would be located in the northwestern portion of the Project site along the east side of a new street that would run north-south connecting Scott Boulevard to Augustine Drive. 5

STANDING OF USWW

USWW represents thousands of property service workers across California, including approximately 8,500 security officers. USWW and its sister local unions have many members, including public sector and healthcare workers, who reside and work in Santa Clara where this Project is located. They will be directly affected by traffic, air quality, noise, land use inconsistency, hazardous substances, working conditions and other Project impacts. USWW's local address is 1010 Ruff Drive, San Jose, CA 95110.

USWW therefore is a stakeholder in this Project, and worker and labor organizations like USWW have a long history of engaging in the California Environmental Quality Act ("*CEQA*") process to secure safe working conditions, reduce environmental impacts, and maximize community benefits. The courts have held that "unions have standing to litigate environmental claims." (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1198.) 6

This comment letter is made to exhaust remedies under *Pub. Res. Code* § 21177 concerning the Project, and incorporates by this reference all written and oral comments submitted on the Project by any commenting party or agency. It is well-established that any party, as USWW here, who participates in the administrative process can assert all factual and legal issues raised by any commenting party or agency. (*Citizens for Open Government v. City of Lodi* (2006) 144 Cal.App.4th 865, 875.)

LACK OF AFFORDABLE HOUSING/GENERAL PLAN CONSISTENCY 7

A DEIR must discuss any inconsistencies between the proposed Project and applicable General Plan. (14 Cal. Code Regs. "*CEQA Guidelines*" § 15125(d).) This

inconsistency is particularly acute here when it comes to affordable housing, a topic that the Project DEIR entirely ignores. 7

City staff have informed USWW that the Project's 1,800+ housing units will include no affordable housing – it will be all market rate. This is a great concern. According to the Center for Housing Policy, the San Jose Metro Area is now the third most expensive metro area in the nation for renters. http://www.housingpolicy.org/assets/Most_Least_Expensive_Rental_1Q2015.pdf. 8 According to ABAG's Regional Housing Need Allocation Report, Santa Clara County needs a total of 36,336 units for households earning moderate incomes and below by the year 2022. http://www.abag.ca.gov/planning/housingneeds/pdfs/Final%20RHNA%20%282014-2022%29.pdf. The City of Santa Clara needs a total of 2,500 units for households earning moderate incomes and below by the year 2022, including 1,050 very low, 695 low and 755 moderate units. http://www.abag.ca.gov/planning/housingneeds/pdfs/Final%20RHNA%20%282014-2022%29.pdf

The City's General Plan reflects this urgent need for affordable housing. General Plan "Residential Land Use Goals" include: 5.3.2-G1 ("Equitable housing opportunities within the community for persons of all economic levels . . ."), 5.3.2-G2 ("A variety of housing types, sizes, location and tenure in order to maintain social and economic diversity in the City"), 5.3.2-G3 ("Affordable housing units dispersed throughout the City to avoid a concentration in any one neighborhood"), 5.3.2-P6 ("Provide adequate choices for housing tenure, type and location, including higher density, and affordability for low- and moderate-income and special needs households"), 5.3.2-P7 ("Construct and preserve affordable housing for low-and moderate-income households through the use of public subsidies, regulatory incentives and flexible development standards"), 5.3.2-P8 ("Require new residential development to comply with applicable regulations for the provision of affordable housing"), 5.3.2-P9 ("Encourage senior and group residential facilities, and affordable housing developments near neighborhood retail . . ."), and 5.3.2-P10 ("Create opportunities for affordable housing and housing to support special needs populations, including Extremely Low Income households"). **With no affordability component, this Project likely is General Plan inconsistent, not in the "general welfare," and the City may be paying mere lip service to its General Plan**. 9

So too, the City's General Plan Housing Element Goal C includes "Goals" to: "Provide housing within the community for persons of all economic levels . . .", and includes Policies such as: C1 "Construct and preserve affordable housing for lower and moderate income households through the use of public subsidies, regulatory incentives and flexible development standards," C2 "Participate in local, regional, State and federal programs that support affordable, transitional, supportive and permanent housing," C3 "Create opportunities for affordable housing and housing to support special needs populations and extremely low income households," and C4 "Ensure equitable housing opportunities for all residents." The City's General Plan Housing Element Goal D is to "Provide an adequate variety of individual choices of housing tenure, type and location, 10

including higher density where possible, especially for low and moderate income and special needs households" and includes Policy D1 to "Promote a variety of housing types, in different locations to maintain social and economic diversity in the City." 10

This Project does nothing to address these General Plan Goals and Policies, and the DEIR is silent on the affordable housing issue and General Plan inconsistency related thereto. **The DEIR should be recirculated to meaningfully address the affordable housing issue, including a housing nexus study**. 11

More feasibly can be done. For example, the City of San Jose has recently enacted residential impact fees for all new developments, which include developments for rental units. www.sjhousing.org/AHIF. Also, San Jose's Diridon Station Area Plan also has a 15% affordable housing goal. The City of Santa Clara is far behind on affordable housing. Alternatively, any Development Agreement with Irvine must ensure that the Project is available to low and moderate income residents such as USWW members so they can have access to the Project's residential component. **Has Irvine demonstrated with substantial evidence why it is not feasible to include affordable housing in this Project**? 12

Otherwise, the requested discretionary entitlements should be rejected, and the required discretionary findings not be made. *See, eg, Santa Clara Municipal Code § 18.112.010 (General Plan Amendment and rezoning allowed only if "the public necessity or convenience of the general welfare require the same"); § 17.10.180 (Before the "City Council may approve a development agreement . . . it must find that its provisions are consistent with the general plan and any applicable specific plans and relevant City policies and guidelines for development"); and § 17.05.020 ("Subdivisions allowed if "necessary for the preservation of the public health, safety and general welfare, to promote orderly growth and development . . .")*

OTHER CEQA COMMENTS

Legal Standard

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report. (*See, e.g., Pub. Res. Code* § 21100; *Communities for a Better Environment v. South Coast Air Quality Management Dist. (ConocoPhillips)* (2010) 48 Cal. 4th 310 ("*CBE v. SCAQMD*").) The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal. App. 4th 98, 109.) 13

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (*CEQA Guidelines* § 15002(a)(1).) Its purpose is to inform the public and its responsible

officials of the environmental consequences of their decisions before they are made. Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring implementation of "environmentally superior" alternatives and all feasible mitigation measures. (*CEQA Guidelines* § 15002(a)(2) and (3).) Indeed, the fundamental goals of environmental review under CEQA are information, participation, mitigation, and accountability. (*Lincoln Place Tenants Ass'n. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 443-444.) 13

CEQA requires a lead agency to re-circulate an EIR when significant new information is added to the EIR following public review but before certification. *Pub. Res. Code* § 21092.1. The Guidelines clarify that new information is significant if "the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project" including, for example, "a disclosure showing that … [a] new significant environmental impact would result from the project." (*Guidelines* § 15088.5.)

Project Description

"An accurate, stable and finite project description is the sine qua non of an informative and legally adequate EIR." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192.) "[A] curtailed or distorted project description," on the other hand, "may stultify the objectives of the reporting process." (*Id.*) 14

Here, the "Project Approval" section in the DEIR is vague, referencing only the General Plan Amendment and rezoning approvals. What about other discretionary lead agency Project approvals such as the Development Agreement and Tract Map? Or responsible agency Project permits or approvals? For example, it is unclear if Irvine can rely on this DEIR for responsible agency Department of Toxic Substances approvals and actions including its "Response Plan," when the DEIR does not identify the Department of Toxic Substances in the "Project Approval" section.

Air Quality

Air quality impacts, and their concomitant impacts on human health, must be studied in a DEIR. (*Bakersfield Citizens for Local Control v. City of Bakersfield (*2004) 124 Cal.App.4th 1184, 1220.) If an impact is significant, the agency must impose all feasible mitigation measures, and may only declare the impact to be unavoidable if it remains significant after imposition of all feasible mitigation measures. 15

Here, the DEIR determines that air quality mobile source ROG emissions will remain significant and unavoidable from the 11,720+ predicted daily car trips, but it is unclear if all feasible mitigation has been implemented. It is unclear exactly what performance standards the sole mitigation measure – a future TDM program – will meet, and CEQA typically disallows deferring the formulation of mitigation measures to post-approval studies. (*CBE v. Richmond*, 184 Cal.App.4th at 92, *CEQA Guidelines* § 15126.4(a)(1)(B).) 16

Moreover, additional mobile mitigation measures can be found in CAPCOA's Quantifying Greenhouse Gas Mitigation Measures, which attempt to reduce Greenhouse Gas ("*GHG*") levels from mobile sources, as well as reduce Criteria Air Pollutants such as ROG. Mitigation for mobile source ROG emissions should include consideration of all measures that are proposed in CAPCOA's Quantifying Greenhouse Gas Mitigation Measures, in an effort to reduce operational ROG emissions to below SCAQMD thresholds. http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf. 17

GHG Baseline

Every CEQA document must start from a "baseline" assumption – which means the existing conditions on the ground. The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD* (2010) 48 Cal. 4th 310, 321.) Here, the DEIR concludes that Project GHG emissions exceed relevant GHG thresholds from all the car trips, but that on a per capita "service population," GHG emissions are below a per capita threshold of 4.6 $MTCO_{2e/yr.}$ However, this calculation deletes the current existing operational baseline at the site. Is it proper to delete existing baseline emissions when calculating per capita GHG emissions? 18

Soil Contamination

The existence of toxic contamination on a Project site is a significant impact requiring CEQA review. (*McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136.) When toxic contamination is identified on a project site, the CEQA document must propose a feasible clean-up plan to safeguard public health and the environment. (*Id.*) 19

Here, the DEIR discusses groundwater and soil vapor contamination, but not soil contamination. This must be better disclosed and addressed in the DEIR. More detail must be provided on the "contaminated soil consolidation areas" and the "soil cap," particularly if Irvine intends to use this DEIR for responsible agency Department of Toxic Substances approvals and actions. 20

The DEIR provides little to no detail on the pending Department of Toxic Substances "Response Plan." For example, what type of use will be permitted in the "contaminated soil consolidation areas?" Will land use covenants be required to restrict land use in the "consolidation areas" and the "soil cap?" Please also describe off-site monitoring during remedial activities. Also, it is entirely unclear from the DEIR what the Project clean-up levels or performance standards will be. CEQA disallows deferring the formulation of mitigation measures to post-approval studies. (*CBE v. Richmond*, 184 Cal.App.4th at 92, CEQA Guidelines § 15126.4(a)(1)(B).) This approach helps "insure the integrity of the process of decisionmaking by precluding stubborn problems or serious criticism from being swept under the rug." (*Concerned Citizens of Costa Mesa,* 21

Inc. v. 32nd Dist. Agricultural Assn. (1986) 42 Cal.3d 929, 935.) Commentor will now closely track the Department of Toxic Substances' "Response Plan," which it understands is subject to comment until January 5, 2016. 21

Loss of Mature Trees

The project intends to remove 350 trees, but determines that this is not a significant aesthetic or biological impact because many smaller trees will be re-planted, that in "10 to 20 years" time that will grow into comparable size. 22

This finding lacks substantial evidence. Removing three hundred and fifty trees is a significant environmental impact. It will have undoubted short to medium term aesthetic impacts, for a generation or more of City residents. Also, protection of biological resources is a fundamental policy incorporated in CEQA. Loss of urban tree cover is often considered to be a significant adverse biological impact, including habitat for resident bird species and for migratory species both during migration and as wintering habitat.

Statement Overriding Considerations

Under CEQA, when an agency approves a project, as here, with significant environmental impacts that will not be fully mitigated, it must adopt a "statement of overriding considerations" finding that, because of the project's overriding benefits, it is approving the project despite its environmental harm. (*Guidelines* §15043; *Pub. Res. Code* §21081(B); *Sierra Club v. Contra Costa County* (1992) 10 Cal.App.4th 1212, 1222.) A statement of overriding considerations expresses the "larger, more general reasons for approving the project, such as the need to create new jobs, provide housing, generate taxes and the like." (*Concerned Citizens of South Central LA v. Los Angeles Unif. Sch. Dist.* (1994) 24 Cal.App.4th 826, 847.) An agency may adopt a statement of overriding considerations only *after* it has imposed all feasible mitigation measures to reduce a project's impact to less than significant levels. (*Guidelines* §§ 15126.4, 15091.) 23

Here, a Statement of Overriding Considerations will be required due to the Project's unmitigated air quality, transportation, noise and land use and other impacts. The City must assure it has imposed all feasible mitigation or may not adopt a Statement of Overriding Considerations. Moreover, the City must honestly assess the Project benefits, especially if there is no affordable housing component. **The DEIR should be recirculated to address the affordable housing issue, including a housing nexus study**. The City cannot find that the economic and social benefits of the Project outweigh the environmental costs if it does not know what the benefits will be.

CONCLUSION

Rising inequality threatens Silicon Valley's prosperity. There is an affordable housing crisis in the region. USWW works to stem this rising tide of inequality, and to make Silicon Valley a place of opportunity for all – a place where its members can work **and** afford to live.

Yet, the Project as proposed may do nothing to remedy this affordable housing crisis. USWW is extremely concerned about this lack of affordable housing, and whether the Project satisfies the City's General Plan Goals and Policies. USWW also has additional comments on the DEIR, as set forth in this letter. 24

This Project is discretionary, not by right. The City has leverage to disapprove the Project or to ensure that the Project actually benefits Santa Clara. **Please use it**. Make sure that a Development Agreement includes requirements for affordable housing.

USWW respectfully reserves the right to supplement these comments at later hearings and proceedings for this Project. *See Communities for a Better Environment v. City of Richmond,* 184 Cal.App.4th at 86 (EIR invalidated based on comments and expert reports submitted after Final EIR completed); *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1120 (CEQA litigation not limited only to claims made during EIR comment period).

Finally, this Office is requesting, on behalf of USWW, all notices of CEQA actions and any approvals, Project CEQA determinations, or public hearings to be held on the Project under any provision of Title 7 of the California Government Code (California Planning and Zoning Law), as well as the *City of Santa Clara Municipal Code* § 18.112.060. This request is filed pursuant to *Pub. Res. Code* §§ 21092.2 and 21167(f), and *Government Code* § 65092, that require local agencies to mail such notices to any person who has filed a written request for them. Please send notice by electronic and regular mail to: Gideon Kracov, Esq., 801 S. Grand Avenue, 11th Fl., Los Angeles, CA 90017, gk@gideonlaw.net.

Thank you for consideration of these comments. We ask that they be placed in the Administrative Record for the Project.

Sincerely,

Gideon Kracov
Lawyer for Service Employees International Union – United Service Workers West

Letter No. ORG-2 Letter from Service Employees International Union-United Service Workers West, dated November 19, 2015

Response ORG-2-1

Comment noted. As explained by the Santa Clara Valley Transportation Authority (VTA), "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." See Comment Letter LA-3. The City was able to construct or approve approximately 629 Below Market Rate (BMR) units that are affordable to moderate, low and very low income residents (City of Santa Clara 2014). The City has a number of affordable housing options. http://santaclaraca.gov/government/departments/city-manager/housing-community-services-division/affordable-housing. As explained further below, the project will also provide an additional 100 affordable units in the City, and the proposed rental apartments are considered "affordable-by-design" in comparison to more costly housing types such as single-family homes. Therefore the project will help the City towards the achievement of its affordable housing goals.

Response ORG-2-2

As an initial matter, the affordability of housing products is a socioeconomic issue that does not impact the physical environment and accordingly not a required element in an EIR. The commenter's assertion is also factually incorrect: the project will provide 100 affordable units in the City and in doing so will help the City achieve its affordable housing goals. Santa Clara City Code does not include any requirements for the provision of affordable units within or in connection with the residential rental program. *Palmer/Sixth St. Props., L.P. v. City of Los Angeles* (2009) 175 Cal.App.4th 1396 (holding that provisions of a specific plan requiring developers of new rental housing to rent a portion of the units at restricted rents conflict with the Costa Hawkins Act). The commenter's policy advocacy for affordable housing is noted for the record.

The applicant has agreed to provide 100 units of affordable housing as a provision in the Development Agreement that is being finalized concurrently with the Final EIR. The provision of these units is not mitigation for project impacts. Rather, it is a voluntary measure by the applicant to assist the City in achieving its affordable housing goals. Pursuant to the terms of the Development Agreement, the applicant and the City will work together to determine whether the affordable housing units will be on the project site or located elsewhere in the City. If the units are developed off-site, the City will require CEQA analysis of the impacts of that project.

Response ORG-2-3

This introductory comment is noted, and is responded to in detail below.

Response ORG-2-4

The commenter's policy advocacy is noted. The project applicant is seeking discretionary approvals, and the Development Agreement for the project includes provisions that require the applicant to provide 100 affordable housing units.

Response ORG-2-5

Comment noted. Please note that the project proposes to develop 1,800 residential rental apartment units, not more than 1,800 residential apartment units as implied by the commenter's addition of a "+" symbol after 1,800.

Response ORG-2-6

The commenter's opinion and legal intent are noted.

Response ORG-2-7

The commenter correctly states that CEQA Guidelines Section 15125(d) that an EIR "shall discuss any ***inconsistencies*** between the proposed project and applicable general plans, specific plans and regional plans." The Draft EIR discusses inconsistencies between the proposed project, and the General Plan. See Draft EIR Section 4.8. However, the commenter fails to note that an EIR is not required to discuss ***consistency*** with the applicable land use plans. *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 918-919 ("Because [EIRs] are required only to evaluate 'any inconsistencies' with plans, no analysis should be required if the project is consistent with the relevant plans." [internal citations omitted]). As discussed in detail in Responses ORG-2-9 and ORG-2-10, the project is consistent with all the General Plan policies cited by the commenter. Although not required by CEQA or the Guidelines, Table 4.8-2 in the Land Use Section of the Draft EIR has been updated to discuss the project's consistency with the City's General Plan goals and policies related to the provision of a wide range of housing opportunities to the residents of Santa Clara. Updated Table 4.8-2 is presented in **Chapter 3.0, Errata** of the Final EIR.

Response ORG-2-8

Comment noted. As explained above, the project includes 1,800 residential rental apartments, not "1,800+" residential rental apartments. Residential rental units are among the most affordable of the market-based housing products, and are often referred to as "affordable by design" in contrast to residential product types that are more costly (e.g., condominiums, town homes, and single family homes). Furthermore, as noted above, the project will provide 100 affordable units (see also Response

ORG-2-1). The commenter's references to the housing costs for this area, and to the Regional Housing Need Allocation Report, are also noted for the record. The EIR discusses the jobs-housing imbalance for the region, and the RHNA affordable housing allocation, in Sections 4.5 and 4.8 of the Draft EIR.

Response ORG-2-9

The General Plan policies and goals that the commenter has identified in the comment relate to the City's general, citywide land use goals to provide a range of housing opportunities throughout the City. As described in detail below, the approval of the project is consistent with each of these goals and policies, with or without the provision of affordable units.

- **Goal 5.3.2-G1: Equitable housing opportunities within the community for persons of all economic levels, regardless of religion, gender, sexual orientation, marital status, national origin, ancestry, familial status, race, color, age, source of income or mental or physical disability.** The project will provide a range of unit types (studio, 1-bedroom, 2-bedroom) that will accommodate residents of various economic levels, but as noted above rental housing is "affordable by design" in being less costly than other residential product types such as condominiums, townhomes and single-family homes. Additionally, the project will comply with all applicable non-discrimination requirements. Moreover, and although not required in the Santa Clara City Code, the project will provide affordable units in accordance with the terms of the Development Agreement. Approval of the project is consistent with GP Goal 5.3.2-G1.

- **Goal 5.3.2-G2: A variety of housing types, sizes, location and tenure in order to maintain social and economic diversity in the City.** The project adds higher-density rental units to the City's housing supply, which improves the affordability of market-based housing projects relative to more traditional for-sale products such as condominiums, townhomes and single-family homes. Within this "affordable-by-design" multi-family rental project design, the project also includes a variety of apartment sizes and unit types, including approximately 232 studio units, 880 one-bedroom units, and 688 two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." Development of the project with or without affordable units is therefore consistent with this policy. Finally, as noted above, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with GP Goal 5.3.2-G2.

- **Goal 5.3.2-G3: Affordable housing units dispersed throughout the City to avoid a concentration in any one neighborhood.** This policy applies to the City generally, and

development of the project with or without affordable units is consistent with this policy. Affordable housing units are dispersed throughout the City (http://santaclaraca.gov/government/departments/city-manager/housing-community-services-division/affordable-housing). Prior to the Palmer decision, the City had an "inclusionary" housing policy in place since 1992 that requires private development projects to include new housing units as affordable. These housing developments were distributed in different areas throughout the City. The project's provisions of affordable units will help the City achieve its goal of dispersing affordable units throughout the City. Approval of the project is consistent with the GP Goal 5.3.2-G3.

- **Policy 5.3.2-P6: Provide adequate choices for housing tenure, type and location, including higher density, and affordability for low- and moderate-income and special needs households.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The Santa Clara Square – Residential/Mixed Use project will help the City implement this policy because the project is a high-density residential housing project that includes a mix of unit types, including studio, one-bedroom, and two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project, "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." In addition, the project includes affordable units which will provide affordable choices for low and moderate income households. Approval of the project is consistent with GP Policy 5.3.2-P6.

- **Policy 5.3.2-P7: Construct and preserve affordable housing for low- and moderate-income households through the use of public subsidies, regulatory incentives and flexible development standards.** The project is replacing existing office buildings, and will not displace or impact any existing housing, nor will it affect any existing affordable housing. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. Furthermore, and as explained above, the project will provide 100 affordable units to the City in accordance with the terms in the Development Agreement, and as a multi-family rental product is far more affordable for moderate income households than more costly new residential projects such as condominiums, townhomes and single family homes. Approval of the project is consistent with GP Policy 5.3.2-P7.

- **Policy 5.3.2-P8: Require new residential development to comply with applicable regulations for the provision of affordable housing.** The Santa Clara City Code (SCCC) currently does not include any requirements for the provision of affordable units within or in connection with the

project. Therefore, development of the project with or without affordable units is consistent with this policy. The City has complied with Government Code § 65588, and updated its Housing Element in December 2014. "The Housing Element covers the 2015 to 2023 planning period, focusing on ways to promote residential infill development, given land supply and cost constraints. The intent of this Element is to plan for an adequate variety of safe, appropriate and well-built housing for all residents of Santa Clara." Housing Element 8.12-1.1 (Introduction and Purpose). Approval of this high quality mixed-use residential project will provide 1,800 residential units to the City in an area surrounded by employment, and will provide a mix of unit types and affordability to ensure all residents of Santa Clara have appropriate housing within the City. In addition, the project voluntarily will provide affordable units within the City in accordance with the terms in the Development Agreement. Approval of the project is consistent with GP Policy 5.3.2-P8.

- **Policy 5.3.2-P9: Encourage senior and group residential facilities, and affordable housing developments near neighborhood retail, support services and transit facilities.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The City has existing senior and group residential facilities, as well as affordable housing developments that are located near retail and transit services. http://santaclaraca.gov/government/departments/city-manager/housing-community-services-division/affordable-housing (e.g., Balmoral Apartments are located next to the Lawrence Caltrain station and includes 42 affordable units). The project provides a mix of unit types in a high density residential mixed use project that includes 40,000 square feet of neighborhood serving retail, and that is located adjacent to the previously approved Santa Clara Square Retail project. Approval of the project is consistent with GP Policy 5.3.2-P9.

- **Policy 5.3.2-P10: Create opportunities for affordable housing and housing to support special needs populations, including Extremely Low Income households.** From 2007 to 2014, the City was able to construct or approve approximately 629 BMR units that are affordable to moderate, low and very low income residents. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. In collaboration with the City, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with GP Policy 5.3.2-P10.

The commenter's opinion that the City is merely "paying lip service to its General Plan" is noted. As explained above, approval of the project is consistent with all the General Plan policies cited by the commenter, with or without the provision of affordable units. Moreover, the project is providing 100 affordable units, and will help the City meet its affordable housing goals.

The City is afforded great deference in determining consistency with its General Plan policies and goals. Importantly, because "policies in a general plan reflect a range of competing interests" local agencies "must be allowed to weigh and balance the plan's policies when applying them, and it has broad discretion to construe its policies in light of the plan's purpose." *Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807, 816-17 (noting that to be consistent, an action, program, or project must be in "agreement or harmony" with the general plan); *California Native Plant Soc'y* (2009) 172 Cal.App.4th 603,638; *San Franciscans Upholding the Downtown Plan v. City & County of San Francisco* (2002) 102 Cal.App.4th 656, 677-678. Furthermore, local agencies are instructed to consider all aspects of a project. OPR General Plan Guidelines (2003) page 164 ("An action, program or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment"). Finally, "[a] given project need not be in perfect conformity with each and every general plan policy." *Families Unafraid to Uphold Rural El Dorado County v. El Dorado County* (1998) 62 Cal.App.4th 1332, 1336. Here, the City used its discretion and determined that the proposed project is consistent with the General Plan policies related to provision of a range of housing options for the residents of Santa Clara. As explained above, the City was therefore not required to include an analysis of these consistencies in the Draft EIR. Nonetheless, Table 4.8-2 in the Land Use section of the Draft EIR has been revised to include the analysis presented above and the revised table is presented in **Chapter 3.0, Errata** of the Final EIR.

Response ORG-2-10

The General Plan Housing Element (HE) policies and goals the commenter has identified in the comment relate to the City's general, citywide land use goals to provide a range of housing opportunities throughout the City. As described in detail below, the approval of the project is consistent with each of these goals and policies, with or without the provision of affordable units.

- **Goal C. Provide housing within the community for persons of all economic levels, regardless of religion, gender, sexual orientation, marital status, national origin, ancestry, familial status, source of income, or mental or physical disability**. The project will provide a range of rental unit types (studio, 1-bedroom and 2-bedroom) that will accommodate persons of various economic levels, including those who could not afford alternate housing product types such as single family homes, condominiums or town homes. Additionally, the project will comply with all applicable non-discrimination requirements. Development of the project with or without affordable units is therefore consistent with this goal. The project will also provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Goal C.

- **Policy C-1. Construct and preserve affordable housing for lower and moderate income households through the use of public subsidies, regulatory incentives and flexible development standards.** The project is replacing existing office buildings, and will not displace or impact existing affordable housing. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. Furthermore, and as explained above, the project will provide affordable units to the City in accordance with the terms in the Development Agreement. Approval of the project is therefore consistent with HE Policy C-1.

- **Policy C-2. Participate in local, regional, State and federal programs that support affordable, transitional, supportive and permanent housing.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The City participates in the federal Community Development Block Grant (CDBG) and HOME Investment Partnerships Act Program (HOME) entitlement grant programs that support affordable, transitional, supportive and permanent housing. Approval of this higher density, market-rate rental project will help the City achieve its affordability goals by adding more "affordable-by-design" housing options to the City, as well as through the voluntary provision of affordable units in accordance with the terms in the Development Agreement, and is entirely consistent with HE Policy C-2.

- **Policy C-3. Create opportunities for affordable housing and housing to support special needs populations and extremely low income households.** To ensure consistency with the 2010-2035 General Plan, the City of Santa Clara initiated an update to their Zoning Ordinance in 2014. Prior to the adoption of the updated Ordinance, the City allowed developers to utilize the maximum residential densities based on the General Plan land use designations. While the Zoning Ordinance is being updated, the City has continued to approve development projects consistent with Chapter 18.54, Regulations for PD–Planned Development and Combined Zoning Districts. Based on the number of projects approved and proposed during the 2007-2014 Housing Element planning period and since the adoption of the 2010-2035 General Plan, the City feels that this process has not constrained the ability of developers to construct new housing. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. In collaboration with the City, the project will provide rental units that will increase the affordability of housing options within the City, and also 100 new affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Policy C-3.

- **Policy C-4. Ensure equitable housing opportunities for all residents.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The project includes a mix of multi-family rental unit types that are inherently more affordable that the dominant housing types within the City such as single family homes, and the project will also provide 100 affordable units in the City. Approval of the project is consistent with HE Policy C-4.

- **Goal D. Provide an adequate variety of individual choices of housing tenure, type and location, including higher density where possible, especially for low and moderate income and special needs households**. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The project will help the City implement this policy because the project is a high-density rental housing project that includes a mix of unit types, including studio, one-bedroom, and two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project, "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." In addition, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Goal D.

- **Policy D-1. Promote a variety of housing types, in different locations to maintain social and economic diversity in the City.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The project adds higher-density rental units to the City's housing supply, which improves the affordability of market-based housing projects relative to more traditional for-sale products such as condominiums, townhomes and single-family homes. Within this "affordable-by-design" multi-family rental project design, the project also includes a variety of apartment sizes and unit types, including approximately 232 studio units, 880 one-bedroom units, and 688 two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." Finally, as noted above, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Policy D-1.

As explained in Response ORG-2-9 above, the City is afforded great deference in determining consistency with its General Plan Housing Element's policies and goals. Here, the City used its discretion and

determined that the proposed project is consistent with the General Plan Housing Element goals and policies related to provision of a range of housing options for the residents of Santa Clara. As explained above, the City was therefore not required to include an analysis of these consistencies in the Draft EIR. Nonetheless, Table 4.8-3, which presents the analysis above, has been added to Land Use section of the Draft EIR and the table is presented in **Chapter 3.0, Errata** of the Final EIR.

Response ORG-2-11

The commenter's opinion is noted. As discussed above, the Draft EIR meets the requirements of CEQA and does not need to be recirculated to address the affordable housing issue. The City is only required to recirculate the Draft EIR if significant new information is added after notice of public review has been given, but before final certification of the EIR. CEQA §21092.1; Guidelines §15088.5; *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 447. Recirculation is generally required when the addition of new information deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives that are not adopted. *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112 ("*Laurel Heights*"); Guidelines §15088.5(a). There are only four situations in which recirculation is required, none of which are applicable here:

1. When the new information shows a new, substantial environmental impact resulting either from the project or from a mitigation measure;

2. When the new information shows a substantial increase in the severity of an environmental impact, except that recirculation would not be required if mitigation that reduces the impact to insignificance is adopted;

3. When the new information shows a feasible alternative or mitigation measure, considerably different from those considered in the EIR, that clearly would lessen the significant environmental impacts of a project and the project proponent declines to adopt it; and

4. When the draft EIR was "so fundamentally and basically inadequate and conclusory in nature" that public comment on the draft EIR was essentially meaningless. *Laurel Heights* at 1130, Guidelines §15088.5(a).

Here, no information has been added to the EIR that shows either a new substantial impact, or a substantial increase in the severity of an impact. First, as explained in Responses ORG-2-10 and ORG-2-11, the project is consistent with all of the General Plan and Housing Element goals and policies identified by the commenter. Second, even if the project was not consistent with one or more of the General Plan policies or goals, an inconsistency with the General Plan is not a physical impact, and is not itself an environmental impact. *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170,

1207. The commenter has not pointed to a new significant impact, and the Draft EIR includes detailed analysis, and is not fundamentally inadequate.

Minor modifications to a Draft EIR do not trigger recirculation. *Laurel Heights,* at 1129-30; Guidelines §15088.5(b); *Citizens for a Sustainable Treasure Island v. City & County of San Francisco* (2014) 227 Cal.App.4th 1036, 1065 (modification of development plan to add consultation requirement did not show any new significant adverse impacts); *Mount Shasta Bioregional Ecology Ctr. v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 221 (addition to final EIR of two reports that had been summarized in draft EIR was not significant new information); *Silverado Modjeska Recreation & Park Dist. v. County of Orange* (2011) 197 Cal.App.4th 282, 308 (new information about proximity of sensitive toad larvae to project site did not show new impact since earlier analysis had assumed that toad was present near project site); *Clover Valley Found. v. City of Rocklin* (2011) 197 Cal.App.4th 200, 223-24 (specific information added to final EIR about cultural resources sites added narrative detail about resources' characteristics but did not add new information affecting EIR's impact findings); *California Oak Found. v Regents of Univ. of Cal.* (2010) 188 Cal.App.4th 227, 266 (new seismic study and requests by agencies for further investigation did not show significant new seismic hazards); *Western Placer Citizens for an Agric. & Rural Env't v. County of Placer* (2006) 144 Cal.App.4th 890, 904-05 (change in project phasing not significant new information); *See* Kostka & Zische (2015) Practice Under the California Environmental Quality Act §16.15.

Modifications in the Final EIR here are minor, and merely clarify, amplify, or make insignificant modifications to an otherwise adequate EIR. The Draft EIR does not need to be recirculated.

Response ORG-2-12

The commenter references the City of San Jose's recently enacted residential impact fees for all new development that apply citywide, and the San Jose Diridon Station Area Plan's 15 percent affordable housing goal that applies to an approximately 500 acres area. Here, the project is a single mixed-use development on approximately 33 acres. There is neither a citywide ordinance, nor is the project a 500-acre specific plan area. Instead of initiating a separate citywide nexus study, the City is requiring the project to include affordable units in accordance with the terms in the Development Agreement. The commenter also asserts, incorrectly, that affordable housing is itself a CEQA impact requiring mitigation. Socioeconomics are not included within the scope of CEQA, notwithstanding several legislative efforts to extend CEQA's scope to socioeconomics. As explained in Responses ORG-2-10 and ORG-2-11, approval of the project is consistent with the General Plan, and its approval is therefore also consistent with SCCC §§ 18.112.010, 17.10.180, and 17.05.020.

Response ORG-2-13

Comment noted. The City agrees that the EIR is the "heart of CEQA" and its central purpose is to identify the significant environmental impacts of the proposed project. The Draft EIR contains a detailed analysis of potential environmental impacts, and imposes feasible mitigation measures on the proposed project to minimize those impacts. The feasibility of mitigation measures is responded to in Response ORG-2-15 below. The Draft EIR also includes an evaluation of a range of reasonable alternatives to the proposed project. As explained in Response ORG-2-12 above, the Draft EIR does not need to be recirculated because no significant new information has been added to the Final EIR following public review.

Response ORG-2-14

Under CEQA, an EIR project description must contain certain information, including the location and boundaries of the proposed project; statement of project objectives; a general description of the project's technical, economic, and environmental characteristics; and a statement briefly describing the EIR's intended uses. *See* CEQA Guidelines § 15124. Although a conceptual description is sufficient for an EIR project description, here the Draft EIR includes a 23-page project description that includes the project setting, project objectives, and a detailed description of the project characteristics, including proposed land uses, circulation and parking, utilities, demolition and construction activities. *See Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1053-55 (rejecting the argument that the EIR's project description was conceptual and lacked accurate, finite and stable project-level details, where the EIR made extensive effort to provide meaningful information about the project while providing flexibility needed to respond to changing conditions and unforeseen events that could possibly impact final design, and provided concrete information about building heights, mass, bulk, and design specifications); *Dry Creek Citizens Coal'n v. County of Tulare* (1999) 70 Cal.App.4th 20, 31-33 (rejecting the argument that the EIR's conceptual descriptions failed to provide detailed information required by CEQA).

The project approvals section states "the proposed residential mixed-use project, GPA, and rezoning will require approval from the City of Santa Clara." There is no CEQA requirement for identifying every subordinate or subsequent form of approval by the City, as lead agency, nor is the EIR required to identify optional forms of project approvals (e.g., a Development Agreement) or additional types of lead agency approvals (e.g., tentative tract map, grading and building permits, etc.).

The EIR identifies DTSC as a responsible agency in Section 3.10 of the Draft EIR, p. 3.0-22. The DTSC has itself stated (see Comment Letter LA-2) that the "Response Plan activities are generally described within the Hazards and Hazardous Materials Section (4.6) of the DEIR," that as a responsible agency under

CEQA, DTSC "presently intends to use the City of Santa Clara's EIR in approving the Response Plan for the project site."

Response ORG-2-15

All of the air quality impacts of the proposed project are fully evaluated in Section 4.2 of the Draft EIR, and mitigation measures are set forth for all impacts identified as significant. The commenter mischaracterizes the source of ROG emissions identified in the Draft EIR. First, the project is estimated to add 7,390 net new trips, not "11,720+" trips as stated by the commenter.

Table 2.0-2, SCS Residential/Mixed Use Project – Operational Unmitigated ROG Emissions, below was prepared by Illingworth and Rodkin based on data included in Attachment 2 of its September 30, 2015 report (Santa Clara Square Residential and Mixed Use Project Air Quality and Greenhouse Gas Emissions Assessment) that is included as Appendix 4.2 of the Draft EIR. As shown in the table below, Illingworth & Rodkin calculated that the project's mobile sources would generate 5.32 tons of ROG per year. This is significantly below the BAAQMD threshold of 10 tons per year (Final EIR **Appendix 2.7**).

Table 2.0-2
SCS Residential/Mixed Use Project – Operational[1] Unmitigated ROG Emissions

Scenario	Mobile ROG	Energy ROG	Consumer Products ROG	Other Area Source ROG	Total ROG[2]
Annual Project Operational Emissions	5.32 tons	0.07 tons	7.16 tons	1.90 tons	14.45 tons
Annual Existing Emissions (2020)	1.54 tons	0.04 tons	1.64 tons	0.22 tons	3.44 tons
Net New Annual Emissions (2020)	3.78 tons	0.03 tons	5.52 tons	1.68 tons	11.01 tons
BAAQMD Significance Threshold	--	--	--	--	10 tons
Net Average daily emissions (pounds)	20.7 lbs.	0.16 lbs.	30.2 lbs.	9.2 lbs.	60 lbs.
BAAQMD Significance Threshold	--	--	--	--	54 lbs.

1 Assumes 365-day operation
2 Due to rounding, values may not total exactly.

As stated on pages 4.2-25 and 4.2-26 of the Draft EIR, and pages 14 and 15 of Illingworth and Rodkin's September 30, 2015 Report, approximately 63 percent of the ROG emissions from the project are from area sources and only 37 percent are from mobile sources. Area sources include, for example, architectural coatings, consumer products, and landscaping. As seen in the table above and as stated on page 4.2-26 of the Draft EIR, the net new ROG emissions from consumer products make up 50 percent of the net new ROG emissions (5.52 tons from consumer products compared to 11.01 tons of total operational emissions). "Specifically, the consumer products that emit ROGs are items that consumers make independent choices to use, and range from deodorants to cleaning solvents and charcoal fluid and

are not tied to a specific project or project location." If the ROG emissions from consumer products were subtracted out, the net new annual ROG emissions would be 5.49 tons per year, which is below the BAAQMD threshold of 10 tons per year.

As noted in the Draft EIR and Illingworth and Rodkin's September 30, 2015 Report, the BAAQMD threshold of significance for ROG is considered the emission levels for which a project's individual emissions would be cumulatively considerable on a regional scale. Many of the future residents of the project may relocate from other existing residential units in the Bay Area, in which case the CalEEMod's calculated ROG impact on a regional level is overstated. More particularly, if only 15 percent of project residents relocate from other locations within the Bay Area, ROG emissions associated with the project would be below the significance threshold.

There are no means to reduce ROG emissions from consumer products on a project level (Draft EIR, p. 4.2-26; Illingworth and Rodkin, September 30, 2015 Report; **Appendix 2.7**). The applicant cannot control, restrict, or monitor the products residents use in their homes. The City's conclusion that mitigation of ROG emissions from consumer products is infeasible is a reasonable conclusion. *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 350-351 (upholding reasonable conclusion that mitigation was infeasible). Pursuant to Mitigation Measure AIR-2, the applicant is required to develop and implement a TDM plan in compliance with the City's Climate Action Plan, and the TDM plan will be required to reduce vehicle miles travelled by at least 10 percent which will reduce the project's mobile source ROG emissions proportionately; however, because this reduction will be small and because consumer products represent the predominant source of ROG emissions calculated for this project, the City has appropriately concluded that the impact to air quality would remain significant and unavoidable.

Response ORG-2-16

The project includes Mitigation Measure AIR-2 which requires the project applicant to develop a TDM program in compliance with the City's Climate Action Plan (CAP). The CAP requires the project to show a 20 percent reduction in VMT, 10 percent of which must come from TDM measures (Santa Clara CAP pp. 50-51). As explained in Chapter 11 of the project's Traffic Impact Analysis, the TDM program will offer amenities and incentives to encourage residents to use carpooling, transit, bicycling, and walking instead of driving their private automobiles. In Chapter 11 of the TIA, Fehr & Peers included a menu of TDM measures that may be used as part of the approved TDM program, and provided the estimated VMT reduction associated with each measure. The City will approve the final TDM program, and the project applicant will be required to submit an annual report to the City to document compliance. CAP p.

52. The text of Mitigation Measure AIR-2 has been revised to provide additional specifics about the TDM plan. See Final EIR **Chapter 3.0, Errata**.

Mitigation Measure AIR-2 is not deferred migration. It contains a specific performance threshold: a 20 percent reduction in VMT, 10 percent of which must come from a TDM program, as required by the City's CAP. The TDM will be approved and enforced by the City. This is not deferred mitigation, and complies with CEQA. Guidelines § 15126.4; *California Native Plant Soc. v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 621 ("the details of exactly how mitigation will be achieved under the identified measures can be deferred pending completion of a future study," citing *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011. As explained in *Sacramento Old City*, at 1028-1029 '"for [the] kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process ..., the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated. [Citations.]"

Finally, the commenter's citation to *CBE v. Richmond*, 184 Cal.App.4th at 92 does not support its claim that Mitigation Measure AIR-2 is deferred mitigation. In *CBE v. Richmond*, the court found that the City of Richmond violated CEQA "by not even attempting to formulate a legally adequate mitigation plan" for greenhouse gas emissions from a project that proposed upgrades to a refinery. *CBE v. Richmond* at 96. Here, the City first reasonably found there was no feasible mitigation for ROG emissions from consumer products. It next imposed Mitigation Measure AIR-2 that requires, in compliance with the CAP, a 20 percent reduction in VMT, 10 percent of which will come from an enforceable TDM program. Mitigation Measure AIR-2 does not violate CEQA.

Response ORG-2-17

Comment noted. The City will work with the project applicant to develop a TDM program that reduces all criteria pollutant emissions from mobile sources including ROG. As seen in Table 11-2 of the TIA (Appendix 4.11 of the Draft EIR), the effectiveness of each TDM measure was estimated based on the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures report (August 2010), as suggested by the commenter.

Response ORG-2-18

The City, as the lead agency, has the discretion to use the significance thresholds and methodology for analyzing air quality impacts under CEQA based on the evidence and technical studies supporting the guidelines. *Citizens for Responsible Equitable Envt'l Dev. v City of Chula Vista* (2011) 197 Cal.App.4th 327,

336 ("the City properly exercised its discretion to utilize compliance with AB 32 as the threshold"). The City used this discretion, and decided that in this circumstance it will utilize the methodologies and thresholds BAAQMD's 2011 CEQA Air Quality Guidelines.

BAAQMD's GHG thresholds include a bright-line threshold of 1,100 metric tons of CO2e per year (MTCO2e/yr). For projects that result in operational emissions that exceed the bright-line threshold, the BAAQMD has put forth a GHG efficiency threshold of 4.6 metric tons CO2e/service person/year (where service persons are residents and employees). Projects that have operational emissions below 4.6 metric tons of CO2e/service person/year are considered to have less than significant GHG emissions (BAAQMD, CEQA Air Quality Guidelines § 2.2, p. 2-4, Table 2-1, p. 2-2). As correctly stated by the commenter, operational GHG emissions from the project exceed the bright-line-threshold of 1,100 MTCO2e/yr. Therefore, consistent with the BAAQMD Guidelines, the per capita emissions for the proposed project were calculated. *Without accounting* for the existing office uses currently present at the site, per capita GHG emissions were estimated and reported to be 2.7 MTCO2e/yr, well below the BAAQMD threshold of 4.6 metric tons of CO2e/year. When the existing office uses that will be replaced by the project were accounted for, the per capita *net* increase was estimated to be 1.5 MTCO2e/yr which is also below the BAAQMD threshold.

In response to the commenter's direct question, it is entirely proper to subtract existing baseline emissions that will no longer occur if the project is approved and implemented, when calculating the project's **net** per capita GHG emissions for purposes of evaluating the significance of project GHG impacts under the BAAQMD Guidelines. Guidelines section 15064.4(b) ("A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment: (1) The extent to which the project may increase or reduce greenhouse gas emissions *as compared to the existing environmental setting*," emphasis added); BAAQMD CEQA Guidelines (page 4-2) ("If a proposed project involves the removal of existing emission sources, *BAAQMD recommends subtracting the existing emissions levels from the emissions levels estimated for the new proposed land use*"). Compared to the existing environmental setting, operation of the proposed project will increase GHG emissions by 1.5 MTCO2e/year per resident/employee. Note that a further reduction in this number will result with the implementation of Mitigation Measure AIR-2 which requires the project to show a 20 percent reduction in VMT, 10 percent of which must come from a TDM program.

In order to identify significant environmental effects, an EIR must identify environmental conditions that constitute the baseline, or existing environmental setting, against which predicted effects can be described and quantified. *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 447 (*Smart Rail*). The California Supreme Court acknowledged in *Smart Rail* that certain cases provide guidance in determining a realistic CEQA baseline where circumstances change or fluctuate over time,

including based on recent historical use. *Id.*, 449-50, referencing *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310 (*CBE v. SCAQMD*) and *Cherry Valley Pass Acres and Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316.

The commenter's cite to *CBE v. SCAQMD* (2010) is not in conflict with the above cited cases, and instead illustrates the importance of justifying baseline based on actual prior operations, not hypothetical maximum operations. 48 Cal.4th 310, 322. The case also includes the California Supreme Court's notable holding that agencies have discretion to decide how existing conditions without the project can most realistically be measured. *Id*. at 328.

Here, it was entirely consistent with the CEQA Guidelines, BAAQMD guidance, and case law to calculate the GHG emissions from the occupancy and operation of the existing, occupied office buildings that will be removed from the project site, and to subtract those emissions from the GHG emissions estimated for the new proposed residential and retail land uses.

Response ORG-2-19

The introductory comment is noted. Section 4.6 of the Draft EIR identifies potentially significant impacts to future project residents related to existing impacts to soil, groundwater, and soil vapor from agricultural and industrial chemicals. As discussed in detail below, Mitigation Measure HAZ-2 provides that, "[a]gricultural chemicals or other contaminated media that may be identified by the DTSC shall be addressed prior to or as part of project construction under a site remediation plan approved by the DTSC. The remediation plan will be developed for the project site to prevent unacceptable human health risks to site users from chemicals of concern (COCs)." As noted by the DTSC in Comment Letter LA-2, Mitigation Measure HAZ-2 is consistent with the draft site remediation plan, or Draft Response Plan, and that will be reviewed and approved by the DTSC. The Draft Response Plan was released for public comment on November 25, 2015 and is attached as **Appendix 2.3** to the Final EIR. The EIR therefore proposes a feasible plan to safeguard public health and the environment.

The commenter's cite to *McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136 is distinguishable on its facts. In *McQueen*, the court found that the sale of land was not categorically exempt from CEQA review because the "possibility that the storage, use, or disposal of PCB may only eventually cause an adverse change in the physical conditions of the affected area." *Id*. at 1149. In that case, the district performed no CEQA analysis on a site that had transformers containing PCB, buried fuel tanks, and drums containing solvents and other chemicals. Here, the City prepared a Draft EIR, and fully analyzed the potential impacts on future residents from existing impacts to soil, groundwater, and soil vapor from agricultural and industrial chemicals under the oversight of the Department of Toxic Substances Control. It is also noteworthy that the California Supreme Court is presently considering the extent to which impacts to the

project from existing environmental conditions (such as contamination) must be evaluated under CEQA; the case remains pending. *California Building Industry Ass'n v. Bay Area Air Quality Management District*, Supreme Court No. S213478 (Review granted November 26, 2013).

Response ORG-2-20

The characteristics of soil impacted with agricultural chemicals are addressed on page 4.6-4 of the Draft EIR, and the relevant section is copied here:

> "Soil sampling was performed across the project site in 2013, 2014 and 2015 to evaluate the extent of arsenic, lead, and organochlorine pesticide compounds in soils (EKI 2014b, EKI 2014c, Roux 2015b). In soil, on the portion of the project site north of Scott Boulevard, arsenic, lead, and the organochlorine compounds 4,4'- dichlorodiphenyldichloroethylene (DDE), aldrin, and dieldrin were detected in one or more soil samples at concentrations above respective risk-based screening criteria for residential land use (EKI 2014c, EKI 2014d, Roux 2015b, Roux 2014). In the area of the project site south of Scott Boulevard, arsenic, lead, DDE, chlordane, and dieldrin were detected in one or more soil samples at concentrations above respective risk-based screening criteria for residential land use (EKI 2014b, Roux 2015b)."

In addition, all of the reports and sources used in the preparation of the analysis are on file with the City and available for public review. These reports include data tables and analytical reports with results of all of the soil samples analyzed as part of the site characterization.

As noted by the DTSC, "the Response Plan activities are generally described within the Hazards and Hazardous Materials Section (4.6) of the DEIR." The Draft Response Plan was developed by the project applicant for DTSC review and approval. The Draft Response Plan is consistent with Mitigation Measure HAZ-2. For informational purposes, the full Draft Response Plan that was released for public comment on November 25, 2015, is attached as **Appendix 2.3** to the Final EIR, along with the following summary statement describing the Draft Response Plan provided by the DTSC:

"The recommended response action subject to the Department of Toxic Substances Control review and approval, to remediate soil contaminated with arsenic, lead, dieldrin, and dichlorodiphenyldichloroethylene, the contaminants of concern (COCs), is expected to include a combination of the following actions:

1. Using background concentrations for naturally occurring metals like arsenic as the remedial goals (RGs), and risk-based unrestricted use (residential) screening criteria as RGs for other chemicals. If a few sample locations do not meet unrestricted use criteria, statistical analyses ,

such as a 95 percent upper confidence level of the mean evaluation, may be conducted as a contingency option to demonstrate that soil in specific areas of the site meets the RGs;

2. Excavating soil above a RG for placement and consolidation below a permanent cap such as pavement parking areas, buildings, and in landscaped areas, two feet of clean fill (with a marker material such as a geotextile (orange geogrid or similar) below the clean fill. Consolidation cells will be constructed no deeper than 2 feet above the historical high groundwater elevation;

3. In the utility corridors for main utility trunk lines, if present, soil with elevated COC concentrations will be removed as needed to ensure that residual COC concentrations in these utility corridors are protective of construction and maintenance worker health and safety;

4. Placing a cap over existing soil that exceeds an RG; or

5. Excavating soil above a RG for offsite disposal;

6. If potentially contaminated soil is encountered during slab and asphalt removal or soil excavation, or if an unknown underground container or structure that could have potentially hazardous materials is discovered, the protocols outlined in the Response Plan will be followed. However, if chemical concentrations in the evaluation soil samples and/or confirmation samples for this soil exceed screening criteria for residential, but are below screening criteria for commercial land use, it may be more feasible for such areas to be remediated only to commercial levels in public spaces.

7. After the response actions for the site have been completed, an Operations and Maintenance Plan will be prepared, and a Land Use Covenant will be recorded. The Operations and Maintenance Plan will include annual inspection requirements to verify that any consolidation cells are appropriately covered."

The DTSC also noted that it "is listed in Section 3.10 as a Responsible Agency under the California Environmental Quality Act (CEQA) and presently intends to use the City of Santa Clara's EIR in approving the Response Plan for the project site."

The clean-up levels/performance standards and monitoring during remedial activities are described in the Draft Response Plan.

Response ORG-2-21

The commenter implies that Mitigation Measure HAZ-2 defers mitigation of the impact from agricultural chemicals or other contaminated media that may be identified by the DTSC. However, as explained above in Response ORG-2-17, "the details of exactly how mitigation will be achieved under the identified measures can be deferred pending completion of a future study." *California Native Plant Soc.* 172 Cal.App.4th 603, 621, citing *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011. As explained in *Sacramento Old City*, at 1028-1029 '"for [the] kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process ..., the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated. [Citations.]" Here, the City has committed itself to feasible mitigation of impacted soil, under the jurisdiction of an expert agency, the DTSC. DTSC itself agrees that the Mitigation Measure HAZ-2 is consistent with the Draft Response Plan for the project, and intends to use the City of Santa Clara's EIR in approving the Response Plan for the project site.

Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn. (1986) 42 Cal.3d 929, 937 is an inapplicable statute of limitations case holding that substantial changes to a theater project required preparation of a new or supplemental EIR under CEQA section 21166. Here, the City has prepared a detailed Draft EIR that is consistent with the Draft Response Plan prepared for the project. The City has therefore swept nothing under the rug and Mitigation Measure HAZ-2 complies with CEQA.

Finally, the commenter's citation to *CBE v. Richmond*, 184 Cal.App.4th at 92 does not support its claim that the City improperly deferred mitigation. In *CBE v. Richmond*, the court found that the City of Richmond violated CEQA "by not even attempting to formulate a legally adequate mitigation plan" for greenhouse gas emissions from a project that proposed upgrades to a refinery. *CBE v. Richmond* at 96. Here, the City has formulated a legally adequate mitigation plan that allows the appropriate expert agency to approve a site remediation plan that must be finalized prior to or as part of project construction.

Response ORG-2-22

Arborists define "mature" as a stage of development when height growth slows and the ultimate tree height has been attained. Many of the 449 trees at the site are mature in development. Maturity and ultimate tree size varies widely by species. Species such as coast redwood, evergreen ash, camphor and Canary Island pine are large-statured trees while others are medium-sized (ginkgo, holly oak, London plane) and small (purpleleaf plum, bronze loquat, olive) (**Appendix 2.8** in the Final EIR).

Ninety-nine (99) mature trees will be retained, either preserved in place (66 trees) or relocated (33 trees). This represents over 20 percent of trees presently on the site. All trees proposed for retention are mature in development. In addition to these 99 trees, landscape plans for the project call for the installation of over 1,000 new trees (**Appendix 2.8** in the Final EIR).

The City has determined that the impact of the proposed project on biological resources would be considered significant if it would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. General Plan Policy 5.3.1-P10 requires new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the project. Because the project is exceeding this replacement requirement by planting over 1,000 new trees, the City determined there would be no significant impact to biological resources.

The commenter states that 350 trees will be removed and will be replaced by many smaller trees. However, not all 350 that will be removed are large. In fact, the majority (over 65 percent) have trunks that are 21″ or less in diameter. Only 96 of the 350 trees to be removed have trunks that are 21″ or larger in diameter (Final EIR **Appendix 2.8**). The commenter correctly noted that there will be a reduction in tree cover at this site between the time that the existing trees are removed and the new trees mature in size and this change is acknowledged in the Draft EIR (see page 4.1-15). But even without the project, existing trees will require removal and replacement, simply because many are mature in development and/or in poor health. Among the 350 trees to be removed, only 145 were in good or excellent condition. Tree health can be expected to decline as additional restrictions on the amount of irrigation that can be applied to landscape trees are imposed by the State of California. Species proposed for planting have much lower irrigation requirement than those currently present on the site (**Appendix 2.8** in the Final EIR). Although there will be a change in tree cover as the existing trees are removed and new trees installed, the canopy coverage at the site would change over time even without the project as trees decline in health due to either maturity or reduced irrigation. The proposed landscape planting will install over 1,000 trees of species that will be able to thrive under conditions of restricted irrigation and will improve the visual character of the project area in the long term. Therefore, as analyzed under Impact AES-1 in the Draft EIR, the aesthetic impact of the proposed project on visual character due to tree removal and construction of the proposed project was determined to be less than significant.

The temporary loss of trees within the project site as potential nesting, migrating or wintering habitat for native common and special-status bird species is not anticipated to have a substantial adverse impact due to existing urban conditions, size and location of the project area, and low density of nests generally observed in urban environments. The project area is considered low quality habitat for avian species due to the low density of potential foraging habitat in the developed site and surrounding urban areas. A low density of foraging habitat limits the carrying capacity of a site, meaning the developed site could

support few nesting, migrating or wintering birds relative to a more natural setting. Additionally, the site covers a relatively small area in an extensive landscape of development. The temporary loss of trees in such an area, which has a low carrying capacity and is surrounded by similar development, is not anticipated to have a substantial adverse effect on birds because a) very few birds would be displaced, b) those displaced would be displaced only temporarily, and c) the site does not lie within a natural migration corridor. Nesting in urban environments tends to be relatively low-density for these reasons, and it often occurs on buildings where protection from predators is often greater than in exposed and managed landscape trees. Special-status species also typically require specific, natural habitats not found in urban, developed environments, and thus the temporary loss of trees in the project site is unlikely to displace many, if any, special-status birds. Therefore, the temporary loss of trees within the project area is not anticipated to have a substantial adverse effect on native birds in the area, and EIR Mitigation Measure BIO-1, which schedules project activities during the nonbreeding season to the extent feasible and prescribes procedures to mitigate impacts should construction occur during the breeding season, is anticipated to be sufficient to ensure that any potential construction-related adverse effects are less than significant (**Appendix 2.9** in the Final EIR). There is therefore substantial evidence that there would be no significant aesthetic or biological impact as a result of removing 350 trees and replacing them with over 1,000 new trees.

Response ORG-2-23

Comment noted. Should the City elect to approve the project, a Statement of Overriding Considerations will be required. Substantive comments have been addressed in the responses above.

Response ORG-2-24

Comment noted. Substantive comments have been addressed in the responses above.

From: Gideon Kracov [mailto:gk@gideonlaw.net]
Sent: Tuesday, December 01, 2015 7:41 AM
To: Yen Chen
Cc: Mark.Portuondo@seiu-usww.org
Subject: Re: Comment Letter Santa Clara Square - PLN2015-10899, SCH#2015032075

Mr. Chen:

See this brand new key Cal. Supreme Court ruling on how CEQA looks at GGAS. http://www.courts.ca.gov/opinions/documents/S217763.PDF

The City must review the Santa Clara Square Draft EIR to see if its GGAS analysis complies with the ruling.

Please put this email in the administrative record for the project. 1

Thank you.

Sent from my IPhone. Please excuse typos.

Gideon Kracov
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Letter No. ORG-3 Email from Service Employees International Union-United Service Workers West, dated December 1, 2015

Response ORG-3-1

The City has reviewed the Supreme Court decision in *Center for Biological Diversity v. California Department of Fish and Wildlife* (November 30, 2015, Case No. 217763), ("*CBD v CDFG*") as it relates to the evaluation of the impact associated with a project's greenhouse gas (GHG) emissions, and notes that the ruling does not mandate any particular methodology for analyzing GHG emissions, and does not apply to the Santa Clara Square Residential/Mixed-Use Project Draft EIR's GHG emissions analysis because this EIR does not compare the project emissions to the Business as Usual (BAU) scenario. The City is entitled to rely upon thresholds of significance promulgated by agencies with jurisdiction over resources in the project area, and the EIR uses the methodology and significance thresholds put forth by the BAAQMD for the nine-county Bay Area air basin. The Court in *CBD v CDFG* specifically referenced BAAQMD's thresholds as an example of "existing numerical thresholds of significance for greenhouse gas emissions" that a lead agency may rely on (*CBD v CDFG* p. 27). These thresholds were upheld by the Court of Appeal in *CBIA v. BAAQMD* (review granted Nov. 26, 2013, S213478) which is under review by the California Supreme Court "but the question [the Court] granted review to decide relates solely to certain BAAQMD thresholds for analyzing the effect of existing pollution sources on projects bringing more users or residents to a location," and thus the BAAQMD GHG thresholds are not under review and were expressly upheld by the First District (*CBIA v. BAAQMD* (2013) 218 Cal. App. 4th 1171; *CBD v CDFG* at p. 27). The City compared the project's emissions to the BAAQMD GHG threshold of 4.6 metric tons of CO2 equivalents per person per year, and found it was well below this threshold (Draft EIR pages 4.5-29 to 4.5-32).

In addition, the Court in *CBD v CDFG* also suggests a more defensible compliance pathway for projects that are consistent with the regional SB 375 plan and with a lead agency's climate action plan (*CBD v CDFG* at p. 26). As explained in detail on pages 4.5-33 to 4.5-42 of the Draft EIR, the project is consistent with the City's Climate Action Plan, and is consistent with the regional SB 375 plan.

Finally, as the impact from a project's GHG emissions is a cumulative impact, the analysis presented in the section provides an adequate analysis of the proposed project's cumulative impact related to GHG emissions. See BAAQMD Guidelines page 2-1 ("If a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact, and would be considered significant"). Here, the project's GHG emissions do not exceed the BAAQMD GHG significance thresholds and the project would therefore result in a less than significant cumulative impact (Draft EIR page 4.5-43).

As requested, the City will include this email in the administrative record for the project.

Letter No. IND-1

Sudhanshu Jain

Santa Clara Square EIR comments

Here are my comments regarding the EIR for the Santa Clara Square development for 1800 housing units being proposed by the Irvine Company.

Transportation and traffic

It is possible for the project to do much more to mitigate traffic impact than what is outlined in this EIR. The EIR simply states that a TDM plan will be created without giving many specific details or concrete targets with are measurable. Also there is no commitment for the timeframe over which the TDM plan will operate. There must be a statement committing to a TDM plan which will operate for the lifetime of the project or another future TDM plan which reduces vehicle miles traveled. Considering the severe impacts to traffic congestion, a much more detailed plan needs to be formulated before decision makers can evaluate the project. 1

1. The EIR states that freeway traffic on 101 will be impacted significantly but that impacts are "significant and unavoidable" and no mitigation measures are feasible.

"Impact TRANS-2
Development of the proposed project would conflict with the applicable congestion management program, which is the Santa Clara County CMP, as it would add traffic volumes in excess of one percent of the capacity of freeway segments operating at LOS F under Baseline conditions.

No mitigation measures are feasible. Significant and Unavoidable" p 2.0-21

Also
"Impact TRANS-4
Development of the proposed project would conflict with the applicable congestion management pragram, which is the Santa Clara County CMP, as it would add traffic volumes in excess of one percent of the capacity of freeway segments operating at a V/C ratio of greater than 1 under Background (2020) conditions. 2

No mitigatian measures are feasible. Significant and Unavoidable" p 2.0-21

The ramps from Highway 101 onto Bowers are very congested. The Related CityPlace project has measures described to improve ramps from Highway 237. Clearly this project can commit resources to improving the exit ramps on Highway 101. There is space on the southbound side of 101 to add another exit lane. It seems that this project will severely exacerbate congestion on 101 and the project should be scaled down if more mitigation measures cannot be found.

Perhaps some fair share funds should be contributed to a Caltrans project to improve this exit.

2. Scott is already a very congested road and there are already several large projects on Scott which are proposed or are in the process of being constructed. The Santa Clara Square EIR traffic study predicted 11,737 daily trips would be generated by the proposed project and this data was input to the CalEEMod model. With that many trips and the following road capacity it seems that there needs to be a very aggressive TDM: Scott Boulevard – This roadway, which is adjacent to the project site, is a high-volume local roadway. According to the traffic study, the roadway will carry about 19,000 average daily traffic (ADT) in the future with existing, plus background and plus project traffic projections (i.e., Background + Project). 3

   If the capacity of Scott is 19,000 ADT, adding 11,737 additional trips (adding 61%) will completely jam the road. How can we allow this construction without a detailed mitigation plan (TDM) to prevent gridlock?

3. This EIR predicts a huge increase in vehicle miles traveled and there are no specific ideas for a TDM plan to reduce the VMT. The Greenhouse gas emissions from all these additional miles will be substantial. The EIR needs to incorporate many more details for the TDM.

"Vehicle Miles Traveled 4
CalEEMod computes vehicle miles travelled (VMT) based on the trip generation values input, the breakdown in trip type, the trip length by type, and corrections for pass-by and diverted trips.With the exception of trip generation rates, described above, the model default values were used to compute VMT. CalEEMod predicts that the project would have an annual VMT of 25,095,748 miles, while the existing uses generate 7,867,408 miles. The net difference would be 17,228,340 miles annually."
Santa Clara Square Residential and Mixed Use Project Air Quality and Greenhouse Gas Emissions Assessment page 13

4. Santa Clara General Plan has the following goal:

Policy 5.8.5-P6 *Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles. p* 4.5-24 5

This project should commit to a specific minimum number of shared autos (Zip Cars, etc). This will allow for a reduced number cars needed by residents.

5. Traffic impacts monitoring must be done by 3rd parties and must be publicly reported. Stiff penalties must be imposed for failing to meet targets. 6

6. There are CEQA traffic mitigation fees described in the document but no specific measures directing where the money will be spent -- amount of fees and uses need to 7

be spelled out. 7

Transit and active transportation improvements

7. The EIR states the following:
"Transit Infrastructure Modifications
Upgrade bus stop facilities on the north side of Scott Boulevard near the Octavius Drive intersection. Specific upgrades will be determined based on coordination with the City of Santa Clara and VTA." P 3.0-10 8

The project should commit to providing bus shelters on BOTH the north and south side of Scott Boulevard.

The project should also allow for the placement of bus stops on Augustine or Octavia

8. The EIR calls for:
All residential buildings will be equipped with secure bicycle storage rooms, and will provide a total of 727 bicycle parking spaces. P 4.5-41

This number is way too low. New York City requires one bicycle parking spot per two dwelling units but other cities require as many as one bicycle parking spot per dwelling unit and the City of Davis California goes as far as two bicycle parking spots per dwelling unit. The parking must be secure to prevent theft and vandalism.

The number of Class 1 and Class 2 bike parking spots need to be specified. There need to be outside bicycle parking for guests. Bicycle parking must also be provided for the 111 estimated employees. 9

Based on an average household size of 2.69 persons for the City of Santa Clara (DOF 2015).
Based on an average number of 2.5 employee per 1,000 square feet of retail space.
4,842 residents + 111 employees = 4,953 total service population

See also:
http://labike.org/sites/default/files/Websitefiles/LACBC_Bicyle_Parking_Ordinance_Guide.pdf

Automobile Parking

9. Some consideration should be made to unbundle parking so as to encourage fewer cars. Parking for additional cars should not be free and rents should be reduced to compensate for the fee for parking. 10
10. Autonomous vehicles and services like Uber are likely to result in lower parking needs. Building layout and parking should be designed to allow repurposing of parking (or avoiding having to build it if not needed) 11

11. The EIR calls for:

"All parking garages will be equipped with Electric Vehicle (EV) charging stations." P 3.0-20

There needs to be a commitment of a certain number of parking spots with EV charging. The Related Cos CityPlace EIR commits to 5% of residential parking be configured with charging stations for Electric vehicles with future capacity of 10%. Even that number is too low considering that California mandates for 1.5 million electric vehicles on the road by 2025. Given that there are 13 million automobiles registered in California and that the Bay Area has a much higher percentage of electric vehicles than the rest of California, the full build-out percentages of 10% and 2% (residential, commercial, respectively) are too low if 11.5% of cars statewide will be electric by 2025. 12

Also the charging rates need to be specified -- Level 1, Level 2 (6.6 kW) or Fast DC

Jobs and Housing

12. Some provision should be made for Affordable housing considering that the project will have: 13

service population associated with the proposed project would be 111 workers and 4,842 new residents and is determined by the following calculations:
*• 1,800 rental apartment units * 2.69 = 4,842*
*• 44,500 leasable square feet of retail * 2.5 workers/1,000 square feet = 111*

Where will the workers live and commute from? The Greenhouse gas emissions from workers commuting must be considered. 14

Parks and Open Space

13. From the EIR

Based on the City's minimum standard, the proposed project is estimated to require 12.25 acres of parkland to serve the increased population in the City. However, the project includes about 5.44 acres of public open space which includes a park and Redwood Trail as well as 6.44 acres of private open space which includes amenities such as a promenade, private park, pools, and courtyards. 15
Mitigation Measure PUB-5 *is proposed which requires the project applicant to pay park in-lieu fees per City Code (Chapter 17.35) to provide the balance of any necessary amenities to serve the increased population.The City has determined that dedication of land and payment of remaining fees in lieu of land dedication minus the maximum credits of 50 percent for eligible*

onsite parkland recreational elements represents full and complete mitigation for parkland impacts.p 4.10-13

Given that the city is almost entirely built-out and that Santa Clara City Code Chapter 17.35 requires dedicated parkland or in lieu fees equivalent to 2.53 acres per 1000 residents, 8.27 acres would be required. The City should insist that the project dedicate more public parkland rather than accept in-lieu fees for land that doesn't exist. The City might negotiate for density bonuses or other incentives to entice the developer to dedicate land. Parks in the vicinity of the residents and as well while reducing VMT. 15

It would be very nice to include some community gardens which will allow for quite recreation for the residents. The City of Santa Clara made a commitment to community gardens in the project to develop the BAREC site. 16

14. The current park on the site is not very accessible to the public. It would be much preferable to place the park near the San Tomas Aquino trail. Perhaps Octavius drive should be straightened and Building Six (B6) should be sited next to B5. There should be tennis courts and BBQ facilities in the park. Ready access to the park should be made from the San Tomas Aquino trail much like the park in Campbell next to the creek. 17

15. The EIR does indicate the amount of pervious and impervious land but it does not indicate Floor Area Ratios (FAR) nor Lot Coverage Ration (LCR). 18

Letter No. IND-1 Letter from Sudhanshu Jain, dated November 19, 2015

Response IND-1-1

The Draft EIR includes Mitigation Measure AIR-2 which requires the project applicant to develop a TDM program in compliance with the City's Climate Action Plan (CAP). The CAP requires this project to show a 20 percent reduction in VMT, 10 percent of which must come from TDM measures (Santa Clara CAP pp. 50-51). As explained in Chapter 11 of the project's Traffic Impact Analysis, the TDM program will offer amenities and incentives to encourage residents to use carpooling, transit, bicycling, and walking instead of driving their private automobiles. Chapter 11 of the TIA includes a menu of TDM measures that may be used as part of the approved TDM program, and provides the estimated VMT reduction associated with each measure. The City will approve the final TDM program, and the project applicant will be required to submit an annual report to the City to document compliance. As stated in and required by Mitigation Measure AIR-2, the approved TDM program will be implemented for the life of the project. The text of Mitigation Measure AIR-2 has been revised to provide additional specifics about the TDM program. See Final EIR **Chapter 3.0, Errata**.

In addition, to mitigate traffic impacts at affected intersections, the Draft EIR also includes Mitigation Measure TRANS-3 which requires the proposed project to make a fair-share contribution to the City of Santa Clara for payment to the VTA for the construction of improvements at intersections where the proposed project would contribute to a significant adverse impact.

Lastly, for freeway impacts, the project applicant will make a voluntary contribution toward freeway improvements.

Therefore the mitigation for traffic impacts is not limited to the TDM plan only.

Response IND-1-2

Due to the residential nature of the Santa Clara Square Residential/Mixed-Use Project, traffic coming to and from the project site will be in the opposite (off-peak) direction of majority of traffic at the US 101 / Bowers Avenue ramps (outbound in the AM peak hour and inbound in the PM peak hour). The only existing ramp metering location at US 101 / Bowers Avenue interchange is the southbound on-ramp which is expected to have no net new project trips in the PM peak hour when the ramp is the most congested. Therefore, the project will not contribute a large amount of traffic to the ramps that are already experiencing excessive congestion. In addition, there are multiple interchanges along US 101 that patrons and residents of this development may use and just a portion will use the US 101 / Bowers Avenue interchange (Final EIR **Appendix 2.1**).

The City is the lead agency, and fair-share contributions will occur even with the finding of "Significant and Unavoidable" impacts. The City will collect a fair share contribution to mitigate project impacts at the following intersections based on Appendix G of the Traffic Impact Analysis (TIA) prepared by Fehr & Peers for the proposed project and dated September 30, 2015:

1. Bowers Avenue / Scott Boulevard
2. San Tomas Expressway / Scott Boulevard
3. Scott Boulevard / Central Expressway
4. Bowers Avenue / Monroe Street
5. Zanker Road / Montague Expressway
6. De La Cruz Boulevard / Central Expressway

Financing, scheduling and implementation responsibilities are discussed in Section 4.11 of the Draft EIR. The project applicant will pay the City its fair share contribution pursuant to Mitigation Measure TRANS-3 and the terms in the Development Agreement.

For freeway impacts, the project applicant will make a voluntary contribution to the VTA to assist with freeway improvements. The funds may be used by the VTA to make improvements at any of the facilities planned by the VTA. The voluntary contribution for freeway improvements is not listed as a mitigation measure because at this time neither Caltrans nor VTA has a program in place to collect fair share contributions from new development to pay for any proposed/planned capacity improvements on regional freeway facilities.

Response IND-1-3

The project is estimated to result in a total of 7,390 net new daily trips (see Table 4.11-10 in the Draft EIR). These trips are estimated to use Scott Boulevard and Bowers Avenue to access the site. Therefore, the project is estimated to contribute roughly 4,000-4,500 daily trips on Scott Boulevard along the project frontage. The impacts from the vehicle trips added to the various intersections along Scott Boulevard are evaluated in the Draft EIR and a significant impact is identified at one intersection on Scott Boulevard under background plus project conditions and at two intersections on Scott Boulevard under cumulative plus project conditions. Mitigation measures are set forth for the project to pay its fair share of the cost of improvements at the affected intersections.

The daily and peak hour trip estimates used to analyze the project's traffic impacts do not include the reduction in daily and peak hour trips that would result from the implementation of a TDM plan which will be required for compliance with the City's Climate Action Plan and Mitigation Measure AIR-2. Please see Response IND-1-1 above for more detail on the TDM program that will be required for this project.

Response IND-1-4

Please see Response IND-1-1 above and Chapter 11 of the TIA (Appendix 4.11 of the Draft EIR) for more details on the TDM plan. It is important to note that as explained by the Santa Clara Valley Transportation Authority (VTA), "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work, which could lead to a reduction in per-capita automobile trips and vehicle miles traveled (VMT)." See Comment Letter LA-3.

Response IND-1-5

The project applicant has stated that it will provide shared auto (i.e. Zip Car) parking in Buildings 1 and 2, as shown in **Figure 2.0-2**, **Santa Clara Square Apartment Communities Alternative Transportation Facilities.**

Response IND-1-6

Comment noted. As noted in Response IND-1-1, the project will be required to submit a TDM plan to the City of Santa Clara for its review and approval. The TDM plan will include provisions for trip monitoring and required remedial steps if TDM goals are not met.

Response IND-1-7

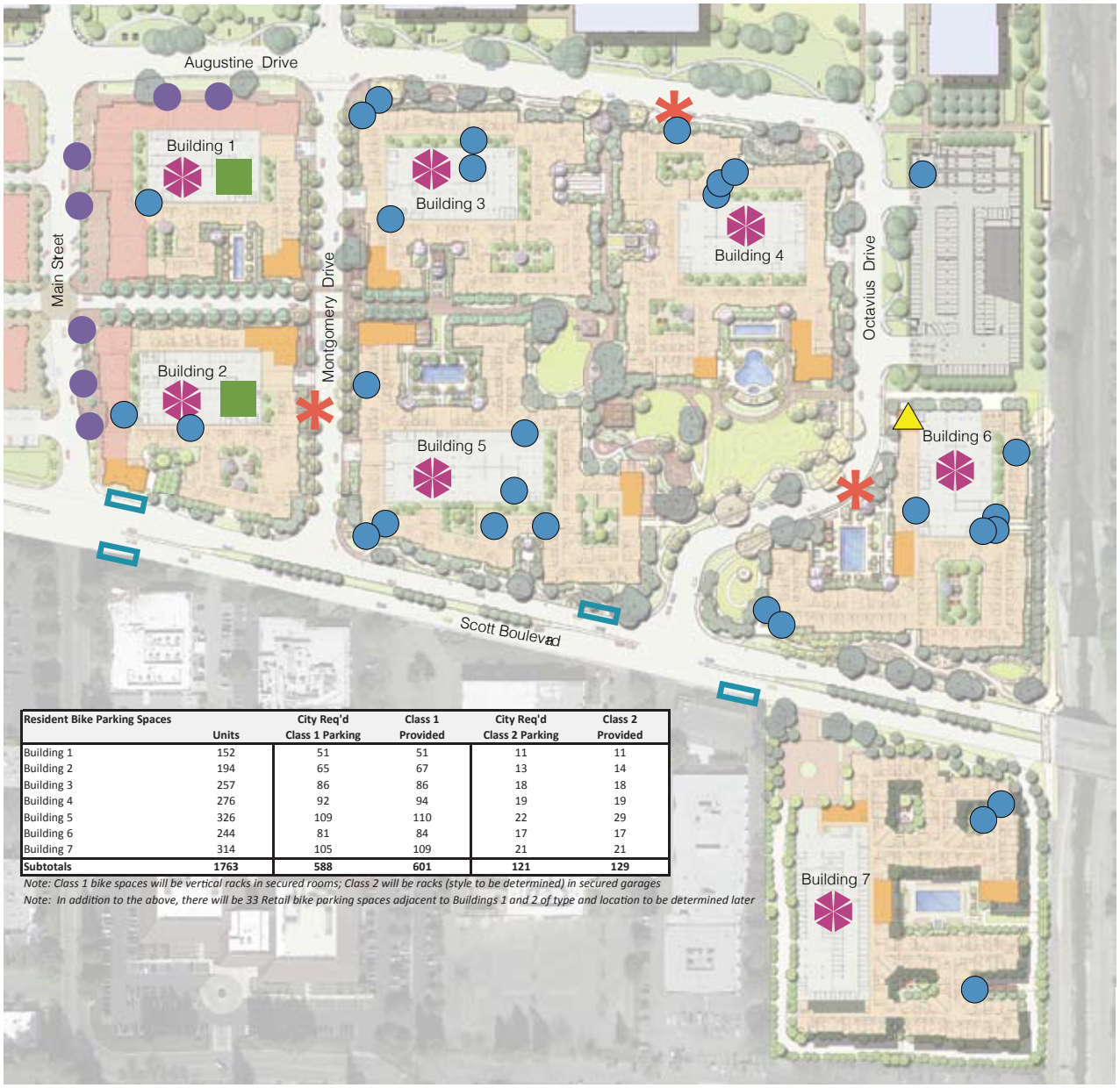
Please see Response IND-1-2 above for details on the traffic mitigation. The amount of fees and timing of when fees are due are included as provisions in the Development Agreement for this project.

Response IND-1-8

The Santa Clara Square – Residential/Mixed Use Project will upgrade the two bus stop facilities on the north side of Scott Boulevard near Octavius Drive and at the new private street located to the west of Montgomery Drive. Although not a part of this project, the Santa Clara Square Retail development (currently under construction) will provide a bus duck out with upgraded facilities at the intersection of Scott Boulevard and Bowers Avenue. It is anticipated that future developments on the south side of Scott Boulevard would be required to upgrade the bus stops located on the south side of Scott Boulevard.

LEGEND

- Shuttle Stops
- Retail Bike Parking (33 Spaces Total)
- Bike Repair Station
- Interior Bike Storage
- Zip Car Parking
- 10% EV Charging Stations by COO (25% of Total Parking Wired for Future EV Charging)
- Bus Stop



Resident Bike Parking Spaces	Units	City Req'd Class 1 Parking	Class 1 Provided	City Req'd Class 2 Parking	Class 2 Provided
Building 1	152	51	51	11	11
Building 2	194	65	67	13	14
Building 3	257	86	86	18	18
Building 4	276	92	94	19	19
Building 5	326	109	110	22	29
Building 6	244	81	84	17	17
Building 7	314	105	109	21	21
Subtotals	**1763**	**588**	**601**	**121**	**129**

Note: Class 1 bike spaces will be vertical racks in secured rooms; Class 2 will be racks (style to be determined) in secured garages

Note: In addition to the above, there will be 33 Retail bike parking spaces adjacent to Buildings 1 and 2 of type and location to be determined later

SOURCE: Irvine Company, November 2015

FIGURE **2.0-2**

Santa Clara Square Apartment Communities Alternative Transportation Facilities

1176.002•12/15

There are no bus routes planned along Augustine Drive or Octavius Drive. Therefore, bus stops are not proposed to be provided on these streets.

As seen in **Figure 2.0-2**, the project has been designed to include three shuttle stops, and the applicant will cooperate with the VTA to accommodate its future Flex shuttle program should it be added to this region. These stops would also accommodate employer shuttles, taxi, Uber or other similar services.

Response IND-1-9

The bicycle parking provided as part of the proposed project meets the standards set forth by Santa Clara Valley Transportation Authority Bicycle Technical Guidelines (2012). The recommendations are one Class I bicycle parking space for every three dwelling units and one Class II bicycle parking space for every 15 dwelling units. The number of Class I and Class II parking spots and the location of the parking facilities by building number are located in Transportation Impact Analysis (Appendix 4.11 of the Draft EIR). In addition to the residential bicycle parking provided, there will be 33 retail bike parking spaces adjacent to Buildings 1 and 2, with the type and location to be determined at a later date (Final EIR **Appendix 2.1**).

Figure 2.0-2 provides additional details on the location of bicycle parking within the project.

Response IND-1-10

The project applicant has stated that it will provide unbundled parking which, as seen in Table 11-1 of the TIA (Appendix 4.11 of the Draft EIR) can result in a 2.6 to 13 percent reduction in VMT.

Response IND-1-11

Comment noted. The project currently meets City Code requirements for parking.

Response IND-1-12

The project applicant has stated that 10 percent of the residential parking will be set up with charging stations for electric vehicles at the time that the residential certificate of occupancy is issued, with an additional 15 percent wired for the future installation of charging stations such that at project buildout up to 25 percent of the project's residential parking would be available for electric vehicles if needed (see **Figure 2.0-2**). The charging rates will be Level 2.

Response IND-1-13

Please note that the affordability of housing products is a socioeconomic issue that does not impact the physical environment and accordingly not a required element in an EIR. As further explained in the Development Agreement (DA), the project will provide 100 affordable units in the City, and in doing so will help the City achieve its affordable housing goals. Santa Clara City Code does not include any

requirements for the provision of affordable units within or in connection with the residential rental program.

Response IND-1-14

The traffic associated with and the greenhouse gas (GHG) emissions from workers commuting to the retail portion of the project were accounted for in the Draft EIR. Specifically, Illingworth & Rodkin calculated the GHG emissions based on the project's predicted daily trips (Draft EIR, p. 4.5-30). These trips accounted for trips to and from the 40,000 square feet of retail uses and include anticipated trips by employees in the retail portion of the project (Draft EIR p. 4.11-33 to 4.11-36). Please note that the estimated net GHG emissions for the project (including the retail portion) are 1.5 MTCO2e/yr per employee/resident, and are well below the BAAQMD threshold of 4.6 MTCO2e/yr/employee or resident. Although the project proposes to incorporate electric vehicle charging stations (10 percent initially and up to 25 percent of the residential parking by project build out), convenient access to trails, and walkable paseos to decrease use of the single-occupant automobile and reduce vehicle miles traveled, the effects of these project features that would reduce trips and emissions were not included in the CalEEMod emissions modeling. Further, there were no reductions taken for the TDM plan that will be required pursuant to Mitigation Measure AIR-2 in compliance with the Climate Action Plan (see Draft EIR p. 4.5-30 to 4.5-32).

Finally, as explained by the VTA, "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work, which could lead to a reduction in per-capita automobile trips and vehicle miles traveled (VMT)." See Comment Letter LA-3.

Response IND-1-15

Comment noted. The comment regarding the difficulty of obtaining land for parks is noted. However, the in-lieu park fee is set on a citywide basis under City Code Chapter 17.35, and Mitigation Measure PUB-5, under which the project will pay in-lieu fees to mitigate some of its impact on parks, is fully compliant with that Chapter. Furthermore, as explained in Section 4.10 of the Draft EIR, the project includes both private and public open space that will be used by the residents of the project, and by members of the public. Specifically, the residential complexes would include landscaped walkways and paseos and courtyards with outdoor BBQ areas and lounge areas as well as other recreational amenities. Several of the complexes would include private swimming pools, spas, and cabanas. A core public park central to the community would be located along Octavius Drive between Buildings 4 and 5. A creekside public park would be located at the southeastern edge of the community along Scott Boulevard adjacent to the San Tomas Aquino Creek trail. A redwood trail would be built along the frontage of the apartment

buildings facing Augustine Drive, Octavius Drive and Scott Boulevard connecting both public park areas and providing a linkage to the San Tomas Aquino Creek trail. This will serve as a new publicly accessible connection from the project to the San Tomas Aquino Creek trail.

As noted by the commenter, the project is both dedicating land, providing private open space, and is paying an in-lieu fee to mitigate its impacts to parks and open space. The Development Agreement for the project will include provisions for the timing and amount of fees that will be paid by the project applicant.

Response IND-1-16

Comment noted. Community gardens will not be provided as part of this project.

Response IND-1-17

Comment noted. The project applicant has worked with the City to design a functional and accessible park plan that integrates the open space elements of the adjacent Santa Clara Square Office development, and provides direct access to the San Tomas Aquino Creek trail. The larger park is placed in a central location which makes it walkable and accessible to the community at large. The project will provide public restrooms and on street parking, and will preserve many existing redwoods. A creekside public park is planned at the southeastern edge of the community along Scott Boulevard adjacent to the San Tomas Aquino Creek trail.

Response IND-1-18

As noted by the commenter, the proposed project will have approximately 9.5 acres of pervious surfaces with the remainder of the site (23.9 acres) being impervious. The FAR of the project is discussed in the Land Use section of the Draft EIR (p. 4.8-7 to 4.8-8). The minimum FAR as specified in the General Plan is for the commercial uses only. The General Plan designations (High Density Residential and Regional Mixed Use) do not limit the lot coverage ratio, and the lot coverage ratio will be specified in the Development Plan for the project.

2.3 REFERENCES

City of Santa Clara. 2014. City of Santa Clara 2010-2035 General Plan Housing Element. Adopted December 9.

3.0 ERRATA

3.1 INTRODUCTION

This chapter shows revisions to the Draft EIR, subsequent to the document's publication and public review. The revisions are presented in the order in which the text appears in the Draft EIR and are identified by page number in respective chapters and sections. These revisions are shown as excerpts from the Draft EIR. Strikethrough (~~strikethrough~~) text indicates deletions and underlined (underlined) text indicates additions.

3.2 REVISIONS TO THE DRAFT EIR

1.0 Introduction

The typographic error in reporting the project site acreage in the first full paragraph on page 1.0-2 is hereby corrected, as shown below.

> The project applicant, Irvine Company, proposes to demolish the existing buildings on the ~~334~~33.4-acre project site and construct an infill, mixed-use residential development project that would consist of 1,800 apartment units with approximately 1,750,000 gross square feet (gsf) of residential building space. The proposed project also includes approximately 40,000 gsf of retail space, 4,500 gsf of leasing space, and approximately 38,000 gsf of amenity space.

4.2 Air Quality

Mitigation Measure AIR-2 on page 4.2-26 has been expanded by the City to provide more details regarding the proposed TDM program as shown below.

> **AIR-2** The project applicant will prepare and submit a TDM program for the proposed project (to fulfill the requirements of the City's Climate Action Plan) for approval by the City. Consistent with the City's Climate Action Plan, the TDM program will be designed to ensure that the project demonstrates a reduction in Vehicle Miles Traveled (VMT) of 20 percent, with at least 10 percent of the reduction derived from TDM measures. The TDM program may include, but would not be limited to, the following types of measures:
>
> **Design Measures**
>
> - Pedestrian- and bicycle oriented site design and street network
> - Bicycle facilities (bicycle parking, showers, lockers, on-site bicycle repair facilities)

- Bike sharing
- Multi-modal signage and amenities
- Carpool and vanpool spaces
- Parking management
- Unbundled parking

Programmatic Measures

- Transportation coordinator and representatives
- Emergency ride home program
- TDM communications
- Transportation information board and website
- Development of transportation materials
- Rideshare program
- School pool program
- Car share program

The approved program will be implemented for the life of the project. The TDM program may specify a phased implementation approach that provides initially for implementation of the TDM measures that are appropriate for the early phases of the project, and then provides for more expansive TDM measures that are appropriate for the full buildout.

The TDM program shall be monitored annually to gauge its effectiveness in meeting the thresholds and to make modifications to add, intensify, or change TDM measures. General guidelines are provided below; the monitoring and reporting process shall be explained in detail in the TDM program. The Transportation Coordinator will assist with the monitoring activities that will be conducted. The monitoring activities shall include traffic counts at all project driveways, a survey of employee transportation mode shares and travel preferences, and traffic counts at the driveways to residential parking locations. The results will be reported to the City of Santa Clara.

The Santa Clara Director of Planning and Inspection shall have the authority and discretion to permit modification of the measures, provided that the modifications continue to achieve the

overall VMT reduction objective and/or Santa Clara Director of Planning and Inspection is satisfied that all feasible TDM measures are being implemented even if the overall VMT reduction objective is not being met.

4.6 Hazards and Hazardous Material

At the request of the San Jose International Airport, the 2nd and 3rd paragraphs of Impact HAZ-6 on Draft EIR page 4.6-27 have been revised as follows:

The identified flight paths and approaches for Moffett Federal Airfield are well away from the project site and would not result in a safety hazard for people living on the project site. The flight paths of the nearby San Jose International Airport are not directly over or adjacent to the project site (Santa Clara County Airport Land Use Commission 2011). The project site is also not located within the Santa Clara County Airport Land Use Commission's designated airport influence area of either San Jose International or Moffett Federal Airfield. ~~Consequently, the aircrafts flying the area would not result in a safety hazard to people living or working on the project site. The impact would be less than significant.~~

Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (referred to as FAR Part 77), requires that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground. For the project site, any structure exceeding approximately 90 feet in height above ground would require submittal to the FAA for airspace safety review. As the proposed project has a maximum height of 85 feet, notification to the FAA is not required. ~~The project site is not located within an airport influence area or within an airport safety zone. The project site is located within the FAR Part 77 Surfaces 212 feet (above MSL) height restriction zone (Santa Clara County Airport Land Use Commission 2011). As the proposed buildings would reach a maximum height of 85 feet above MSL, the proposed project would not exceed the 212 foot height restriction that is applicable to this zone.~~ For these reasons, this impact would be less than significant.

4.8 Land Use and Planning

Draft EIR text and **Table 4.8-2** on page 4.8-10 in **Section 4.8** of the Draft EIR has been revised to include consistency of the proposed project with the General Plan policies related to residential land use goals and policies, and **Table 4.8-3** has been added to present the project's consistency with the Housing Element goals and policies.

A detailed analysis of the proposed project's consistency with applicable General Plan goals and ~~mixed-use land use~~ policies is provided in **Table 4.8-2** and an analysis of consistency with applicable Housing Element goals and policies is presented in **Table 4.8-3**.

Table 4.8-2
General Plan Consistency Analysis

Applicable Goals and Policies	Project Consistency
Residential Land Use Goals and Policies	
Goal 5.3.2-G1: Equitable housing opportunities within the community for persons of all economic levels, regardless of religion, gender, sexual orientation, marital status, national origin, ancestry, familial status, race, color, age, source of income or mental or physical disability.	**Consistent.** The project will provide a range of unit types (studio, 1-bedroom, 2-bedroom) that will accommodate residents of various economic levels, but as noted above rental housing is "affordable by design" in being less costly than other residential product types such as condominiums, townhomes and single-family homes. Additionally, the project will comply with all applicable non-discrimination requirements. Moreover, and although not required in the Santa Clara City Code, the project will provide affordable units in accordance with the terms of the Development Agreement. Approval of the project is consistent with GP Goal 5.3.2-G1.
Goal 5.3.2-G2: A variety of housing types, sizes, location and tenure in order to maintain social and economic diversity in the City.	**Consistent.** The project adds higher-density rental units to the City's housing supply, which improves the affordability of market-based housing projects relative to more traditional for-sale products such as condominiums, townhomes and single-family homes. Within this "affordable-by-design" multi-family rental project design, the project also includes a variety of apartment sizes and unit types, including approximately 232 studio units, 880 one-bedroom units, and 688 two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." Development of the project with or without affordable units is therefore consistent with this policy. Finally, as noted above, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with GP Goal 5.3.2-G2.
Goal 5.3.2-G3: Affordable housing units dispersed throughout the City to avoid a concentration in any one neighborhood.	**Consistent.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. Affordable housing units are dispersed throughout the City (http://santaclaraca.gov/government/departments/city-manager/housing-community-services-division/affordable-housing). Prior to the Palmer decision, the City had an "inclusionary" housing policy in place since 1992 that requires private development projects to include new housing units as affordable. These housing developments were distributed in different areas throughout the City. The project's provisions of affordable units will help the City achieve its goal of dispersing affordable units throughout the City. Approval of the project is consistent with the GP Goal 5.3.2-G3.

Policy 5.3.2-P6: Provide adequate choices for housing tenure, type and location, including higher density, and affordability for low- and moderate-income and special needs households.	**Consistent.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The Santa Clara Square – Residential/Mixed Use project will help the City implement this policy because the project is a high-density residential housing project that includes a mix of unit types, including studio, one-bedroom, and two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project, "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." In addition, the project includes affordable units which will provide affordable choices for low and moderate income households. Approval of the project is consistent with GP Policy 5.3.2-P6.
Policy 5.3.2-P7: Construct and preserve affordable housing for low- and moderate-income households through the use of public subsidies, regulatory incentives and flexible development standards.	**Consistent**. The project is replacing existing office buildings, and will not displace or impact any existing housing, nor will it affect any existing affordable housing. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. Furthermore, and as explained above, the project will provide 100 affordable units to the City in accordance with the terms in the Development Agreement, and as a multi-family rental product is far more affordable for moderate income households than more costly new residential projects such as condominiums, townhomes and single family homes. Approval of the project is consistent with GP Policy 5.3.2-P7.
Policy 5.3.2-P8: Require new residential development to comply with applicable regulations for the provision of affordable housing.	**Consistent.** The Santa Clara City Code (SCCC) currently does not include any requirements for the provision of affordable units within or in connection with the project. Therefore, development of the project with or without affordable units is consistent with this policy. The City has complied with Government Code § 65588, and updated its Housing Element in December 2014. "The Housing Element covers the 2015 to 2023 planning period, focusing on ways to promote residential infill development, given land supply and cost constraints. The intent of this Element is to plan for an adequate variety of safe, appropriate and well-built housing for all residents of Santa Clara." Housing Element 8.12-1.1 (Introduction and Purpose). Approval of this high quality mixed-use residential project will provide 1,800 residential units to the City in an area surrounded by employment, and will provide a mix of unit types and affordability to ensure all residents of Santa Clara have appropriate housing within the City. In addition, the project voluntarily will provide affordable units within the City in accordance with the terms in the Development Agreement. Approval of the project is consistent with GP Policy 5.3.2-P8.

Policy 5.3.2-P9: Encourage senior and group residential facilities, and affordable housing developments near neighborhood retail, support services and transit facilities.	**Consistent.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The City has existing senior and group residential facilities, as well as affordable housing developments that are located near retail and transit services. http://santaclaraca.gov/government/departments/city-manager/housing-community-services-division/affordable-housing (e.g., Balmoral Apartments are located next to the Lawrence Caltrain station and includes 42 affordable units). The project provides a mix of unit types in a high density residential mixed use project that includes 40,000 square feet of neighborhood serving retail, and that is located adjacent to the previously approved Santa Clara Square Retail project. Approval of the project is consistent with GP Policy 5.3.2-P9.
Policy 5.3.2-P10: Create opportunities for affordable housing and housing to support special needs populations, including Extremely Low Income households.	**Consistent**. From 2007 to 2014, the City was able to construct or approve approximately 629 BMR units that are affordable to moderate, low and very low income residents. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. In collaboration with the City, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with GP Policy 5.3.2-P10.
Mixed Use Land Use Policies	
Policy 5.3.4-P2: Encourage mixed-use development in proximity to employment centers and residential neighborhoods throughout the City.	**Consistent.** The proposed project is a residential/mixed-use project and is located proximate to employment centers and residential neighborhoods. The area surrounding the project site consists mainly of office and light industrial uses. Single-family residential uses are located less than one mile to the northeast, northwest, and south of the project site.
Policy 5.3.4-P4: Require mixed-use development to meet the density and intensity specified in the land use classifications.	**Not Consistent**: The project applicant is requesting a General Plan Amendment (GPA) to change the land use designations for all project site parcels. If approved, the residential densities for parcels designated as Regional Mixed Use (APN 216-45-022 and portions of APN 216-45-011 and APN 216-45-028) would be consistent with the density specified in the land use classification. Commercial intensity for these parcels would be lower than the allowed minimum FAR of 0.15. General Plan Policy 5.5.1-P7 allows for a ten percent reduction in the minimum allowed non-residential square footage for mixed-use projects. However, the commercial intensity for these parcels would still be lower than the minimum adjusted FAR of 0.1425, and therefore the project would not be consistent with the intensity allowed under the General Plan. The remaining parcels would be designated High Density Residential and developed at approximately 55 du/ac (higher than the maximum allowed residential density of 50 du/ac). General Plan Policy 5.5.1-P6 allows for a ten percent increase in residential density for projects proposing a minimum LEED Gold or greater equivalent, provided that the increased density is compatible with planned uses on neighboring properties. The proposed project meets the minimum LEED standard (i.e., Gold) and is compatible with planned uses on neighboring properties. As a result, the adjusted density on these parcels would be 55 du/ac, which is equal to the density proposed for these parcels. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR.

Policy 5.3.4-P5: Encourage mixed-use development site planning and design to implement the elements illustrated in Figures 7.3-2 and 7.3-3, including street tree planting along all streets.	**Consistent.** Landscaping for the proposed project would include planting of new trees and shrubs. The project applicant would comply with the General Plan Policy 5.3.1-P10, which requires new development to "provide opportunities for increased landscaping and trees within the community, including requirements for new development to provide street trees at a minimum of 2:1 on or off-site replacement for trees removed as part of the project."
Policy 5.3.4-P7: Use design techniques, such as stepping down building heights, and siting incompatible activities, such as loading and unloading, away from residential uses.	**Consistent.** The project design includes architectural pauses, recessed building facades, and style transitions, including a variation in massing, roof forms, and wall planes. The architectural features would result in a project that is cohesive with the architectural style of the surrounding properties.
Policy 5.3.4-P8: Encourage building heights of up to five stories in large mixed-use developments along arterial street frontages, with the potential for taller buildings north of the Caltrain corridor.	**Consistent.** The project site is located approximately 0.5 miles northeast of the Caltrain corridor. The proposed project's retail uses would be located along the new street and a portion of Augustine Drive. The residential buildings would be approximately 75 feet tall (5 stories) with towers at building corners extending up to 85 feet tall.
Policy 5.3.4-P9: Encourage ground-level windows and building entries that support a visual connection to activities.	**Consistent.** The retail structures located along the new street and a portion of Augustine Drive would include street level windows and doors to support a visual connection to activities.
Policy 5.3.4-P10: Require parking to be substantially below-grade or in structures with active uses along streets.	**Consistent.** Although the project does not include below grade parking, the proposed project includes a central parking garage as part of each residential complex. This central parking facility would be located off of the primary streets. Residential units would be arranged around each central parking garage and the proposed retail uses would be located at street level along the new street frontage and a portion of Augustine Drive.
Policy 5.3.4-P11: Foster active, pedestrian-oriented uses at the ground level, such as retail shops, offices, restaurants with outdoor seating, public plazas or residential units with front stoops, in mixed-use development.	**Consistent**. The proposed mixed-use project includes approximately 40,000 gross square feet of ground floor retail uses, primarily along the new street frontage and a portion of Augustine Drive. Uses could include restaurants ranging from sit down to "fast casual," coffee shops, dessert stores, clothing, service retail, day spas, specialty retail, bicycle shops, and wellness centers. Outdoor seating areas could be developed along the new street or Augustine Drive. Amenities such as a promenade, linear park, courtyards, and seating areas, would encourage pedestrian activity throughout the project site.
Policy 5.3.4-P12: Prioritize pedestrian-oriented streetscape and building design in mixed-use development, including features such as wider sidewalks, street furniture, specialty planters, signage, public art, street trees, special paving materials, decorative awnings, enhanced entrances, colors, variety of materials and textures and distinctive building massing and articulation.	**Consistent.** The residential complexes would include landscaped walkways and paseos to encourage pedestrian activity within the planned development. As shown in **Figures 3.0-4** and **3.0-5**, retail structures would incorporate massing appropriate for the pedestrian scale and would be oriented to street level. Street trees would be provided throughout the project site. Entrances to the project site would be enhanced with landscape features and/or towers.
Policy 5.3.4-P13: Encourage pedestrian linkages in mixed-use areas through measures such as enhanced lighting, curb bulb-outs, mid-block pedestrian crossings, pedestrian "refuge" areas in planted medians and pedestrian-oriented building frontages.	**Consistent.** As described above, buildings would be oriented for pedestrian use by providing entrances at the ground level, safe crossings and pedestrian-scale lighting. Lighting would be installed along walkways and in parking lots to create a safe nighttime environment that is conducive to walking.

Future Focus Area ~~Policies and~~ Goals and Policies	
Goal 5.4.7 – G1: All applicable prerequisites are met, and a comprehensive plan is adopted, prior to implementation of any Future Focus Area.	**Not Consistent**. The project is not consistent with the current General Plan designation, but with the proposed GPA would be consistent. The project proposes residential use within the currently defined Central Avenue Expressway Future Focus Area and is designated for high density residential use in Phase III, or starting in 2023. Because the project site was slated in Phase III of the General Plan for future development as High Density Residential, the proposed project accelerates the City of Santa Clara's long term growth strategy as stated in Phase III (2023 2035) of the General Plan to develop new residential neighborhoods in conjunction with appropriate retail, parks, open space, and other public uses, along transit corridors. Changed circumstances necessitate a shift in both the timing and nature of redevelopment to reflect the development opportunities that are currently available, and to align growth and development with the new Santa Clara Square Retail and Office developments. The project proposes a GPA that will take the project site out of the future focus area, and would allow high density residential and commercial retail use on the project site. However, as explained below, the project meets the goals and purpose of the future focus area policies because it is planned to be integrated with adjacent office and retail development that is currently under construction, and will include construction of the infrastructure improvements needed to support the proposed new retail and residential development. The proposed mixed use project will also address public services such as police, fire, schools, libraries, and parks, and will contribute its fair share of fees to ensure the City and the future residents are adequately supported. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR.

Goal 5.4.7 – G2: Adequate infrastructure, services and funding are planned to support new development in Future Focus Areas.	**TRANSPORTATION** **Traffic Infrastructure Modifications** • Install a signal at the Montgomery Drive/Scott Boulevard intersection. • Signage, striping, and pavement upgrades to Octavius Drive. Upgrades include new pavement overlay, new striping that maintains the center two-way-left-turn-lane, bicycle lanes, vehicle parking, and pullouts for loading and unloading. • Signal upgrade modification at Octavius Drive / Scott Boulevard to include a protected left turn into the project site. • Add a private street between Apartment Buildings 1 and 2 that provides access between Montgomery Drive and new street (as yet unnamed). • Install signal interconnect along Scott Boulevard between Bowers Avenue and Octavius Drive (all current and future signals). **Transit Infrastructure Modifications** • Upgrade bus stop facilities on the north side of Scott Boulevard near the Octavius Drive intersection. Specific upgrades will be determined based on coordination with the City of Santa Clara and VTA. **Bicycle and Pedestrian Infrastructure Modifications** • Provide bicycle lanes along Octavius Drive. • Provide bicycle lanes along Montgomery Drive. • Provide high visibility crosswalks with Rapid Rectangular Flashing Beacons (RRFB) at the uncontrolled crossings on Augustine Drive and Octavius Drive ("knuckle") that provides access to the San Tomas Aquino Creek Trail. • Provide minimum six- to eight-foot sidewalks along all frontage roads adjacent to the Santa Clara Square Residential developments including Octavius Drive. An eight to ten-foot sidewalk will be built between Montgomery Drive and new street (as yet unnamed) on Augustine Drive and Scott Boulevard.

Goal 5.4.7 – G2: Adequate infrastructure, services and funding are planned to support new development in Future Focus Areas (continued)	**SERVICES** **Library**: The City's library system currently has 3.76 books per capita and 4.30 items per capita and therefore meets or exceeds the service goals of 3.0 volumes (books) per capita and 3.4 items (books and audio visual volumes) per capita. Even with the addition of project population, the City's library system would continue to meet or exceed its service goals and would not require new or physically altered facilities to accommodate a larger collection **Police**: To maintain the current officer-to-service population ratio, the City would need to add four to five officers to serve the residents and employees generated by the proposed project. Although additional officers would be required to maintain the existing officer-to-service population, the SCPD has indicated that there are no plans to expand the existing police facility at 601 El Camino Real at this time. As a result, the addition of four to five officers would not require the construction of any additional SCPD facilities or expansion of existing facilities, the construction of which could result in environmental impacts, as the increase in officers would not be substantial.at this time. **Fire and Life Safety**: The SCFD has indicated that the proposed project would not trigger the need for a new or expanded fire facility to maintain acceptable service ratios (Tomlin 2015). As a result, implementation of the proposed project would not require the construction of new or physically altered SCFD facilities. **Schools**: All of the schools that serve the project site are at or over capacity. As a result, the K-12 students associated with the proposed project would result in the overutilization of these schools. The SCUSD has plans to address this issue by building additional facilities elsewhere in the City. In accordance with SB 50, the project applicant would pay these fees to help mitigate impacts to the school district and provide funding for new facilities. In addition, the school district would receive a portion of the property taxes collected annually after the project is constructed as well as SCUSD General Obligation bond taxes that are collected annually concurrent with property taxes. The school district has indicated that these monies along with developer fees would fully mitigate the school impacts and help meet the school needs of the students associated with the proposed project. **Funding:** The project applicant prepared a Fiscal Impact Analysis for the entire Santa Clara Square area, and found that development of the Santa Clara Square area would result in a projected net recurring annual surplus to the City General Fund, and a payment of a one-time City development impact fees. The results of this analysis show that development of the project will have a positive effect on the City's budget.

Goal 5.4.7 – G3: New residential development that includes provisions for compatibility with surrounding nonresidential uses.	**Consistent.** The project is proposing a minimum LEED Gold or greater equivalent, and is compatible with planned uses on neighboring properties. It is located in close proximity to the Central Expressway transit corridor, and complements the approved neighboring Santa Clara Square Office and Retail developments by providing a diversity of housing types in mid-rise buildings that is contextually appropriate, both in land use as well as in scale and design. The proposed project accommodates anticipated market demand for housing in close proximity to these developments and will assist the City in improving its current jobs housing imbalance. With this project, the greater Santa Clara Square area will become a balanced, mixed-use neighborhood that a true activity center that will improve the quality, design and utility of the area along Scott Boulevard between Bowers Avenue and the Central Expressway and will reduce dependency on automobile transportation, in order to advance the City's progress in meeting its housing objectives with infill development. Because of the close proximity of the approved specialty retail center, and approved office campus, the neighborhood as a whole will provide more than the minimum required commercial uses. The proposed retail component of this mixed use project will link the residential units to the specialty retail center by creating a walking street for residents, nearby office employees, and others in Santa Clara
Policy 5.4.7 – P1: Implement development in Future Focus Areas in conformance with applicable General Plan policies for Neighborhood Compatibility, Mobility and Transportation, Public Services, and Environmental Quality.	**Not Consistent**. The project is not consistent with the current General Plan designation, but with the proposed GPA would be consistent. The project proposes a GPA that will take the project site out of the future focus area, and would allow high density residential and commercial retail use on the project site. With the GPA, the proposed project is consistent with this policy. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR. Because the project site was slated in Phase III of the General Plan for future development as High Density Residential, the proposed project accelerates the City of Santa Clara's long term growth strategy as stated in Phase III (2023-2035) of the General Plan to develop new residential neighborhoods in conjunction with appropriate retail, parks, open space, and other public uses, along transit corridors. Changed circumstances necessitate a shift in both the timing and nature of redevelopment to reflect the development opportunities that are currently available, and to align growth and development with the new Santa Clara Square Retail and Office developments. The project meets the goals and purpose of the future focus area policies because it is planned to be integrated with adjacent office and retail development that is currently under construction, and will include construction of the infrastructure improvements needed to support the proposed new retail and residential development. The proposed mixed use project will also address public services such as police, fire, schools, libraries, and parks, and will contribute its fair share of fees to ensure the City and the future residents are adequately supported.
Policy 5.4.7 – P3. Allow Future Focus Area plans to be initiated by one or more private parties who provide funding to the City for planning the entire Focus Area; the City may include a reimbursement program for the private parties as part of the Future Focus Area Plan.	This policy is designed to be implemented by the City.

Policy 5.4.7 – P4. Until such time as a comprehensive plan is adopted for a Future Focus Area, allow development in accordance with the land use designations on the Phase II General Plan Land Use Diagram.	**Not Consistent.** The project is not consistent with the current General Plan designation, but with the proposed GPA would be consistent. The project proposes a GPA that will take the project site out of the future focus area, and would allow high density residential and commercial retail use on the project site. With the GPA, the proposed project is consistent with this policy. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR. As explained above, the project meets the goals and purpose of the future focus area policies because it is planned to be integrated with adjacent office and retail development that is currently under construction, and will include construction of the infrastructure improvements needed to support the proposed new retail and residential development. The proposed mixed use project will also address public services such as police, fire, schools, libraries, and parks, and will contribute its fair share of fees to ensure the City and the future residents are adequately supported.
Policy 5.4.7 – P5. Discourage any new development that would preclude the implementation of the residential neighborhoods identified in the Future Focus Areas, Phases II and III, of the General Plan Land Use Diagrams.	**Consistent.** The proposed project would not in any way preclude the implementation of the residential neighborhoods identified in any other Future Focus Areas. Rather, the project, including the GPA, accelerates the City of Santa Clara's long term growth strategy as stated in Phase III (2023 -2035) of the General Plan to develop new residential neighborhoods in conjunction with appropriate retail, parks, open space, and other public uses, along transit corridors. Changed circumstances necessitate a shift in both the timing and nature of redevelopment to reflect the development opportunities that are currently available, and to align growth and development with the new Santa Clara Square Retail and Office developments.
Policy 5.4.7 – P6: Encourage new comprehensive plans for Future Focus Areas to provide a full complement of uses, including neighborhood-oriented retail and commercial activities, open space, and public facilities.	**Not Consistent.** The project is not consistent with the current General Plan designation, but with the proposed GPA would be consistent. The project proposes a GPA that will take the project site out of the future focus area, and would allow high density residential and commercial retail use on the project site. With the GPA, the proposed project is consistent with this policy. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR. With the addition of 1,800 high density residential units, the Santa Clara Square neighborhood provides a full complement of uses including over 1.86 million square feet of office that is currently under construction, and 125,000 square feet of specialty retail use. The proposed retail component of this mixed use project will link the residential units to the specialty retail center by creating a walking street for residents, nearby office employees, and others in Santa Clara.

Policy 5.4.7 – P7. Implement appropriate measures for new residential development to reduce any land use conflicts with surrounding non-residential uses.	**Consistent.** The residential development has been specifically designed to reduce conflicts with existing and planned surrounding office, retail, and light industrial uses. Notably, the project includes: 1. Mixed Use New Street – Where the retail center abuts the proposed apartment district, a pedestrian-scale, mixed-use 'downtown main street' is planned; characterized by restaurants, coffee shops, service retail, professional office, various hard/soft goods and rental apartments. The final ground floor tenant mix will vary over time and will be influenced by market demand and trending. Portions of the new street will have apartments or office over retail shops creating a distinct mixed use character. 2. Central Plaza – The focal area of the new street is planned to be a Central Plaza designed for various activities including dining, concerts, promotional events and other people gathering activities. The goal is to develop an active, public open space that brings office, retail and residential users together into one interactive people gathering place. 3. Public Park –A highly integrated and fine-grained public and private park system is being proposed. Unlike conventional parks, it addresses multi-dimensional aspects of daily leisure preferences (including creative, learning, diversionary, relaxation and athletic) as well as the needs of multiple age groups. A unique feature is the physical integration of the open space system into the neighborhood so all residents will experience and touch the system on a frequent, daily basis. 4. Central Promenade – In order to provide pedestrian connectivity between workplace, services and housing, a wide, uninterrupted Central Promenade will connect from the restaurant cluster (adjacent to Bowers) through the retail center, the new street/Central Plaza and the Public Park, ultimately connecting to the regional San Tomas Creek Trail. This promenade will encourage exercise, social interaction, people watching as well as encourage walking rather than driving to meet many daily needs. Finally, the project has been designed to place the parking garage on the parcels south of Scott Street adjacent to the existing light industrial uses and will provide a buffer for the residents at this location.
Policy 5.4.7 – P8. Require development of public amenities, including parks and open space, in the first phase of development for all Future Focus Areas.	**Not Consistent.** The project is not consistent with the current General Plan designation, but with the proposed GPA would be consistent. The project proposes a GPA that will take the project site out of the future focus area, and would allow high density residential and commercial retail use on the project site. With the GPA, the proposed project is consistent with this policy. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR. The proposed project will include extensive open space features including four parks, and public facilities including 38,000 SF of amenity space (including club rooms, pool lounges, fitness facilities, and game rooms), a network of pedestrian and bicycle trails as well as other bicycle features, and connections to the Tomas Aquino Creek Trail. In addition to the amenities described above, the project includes the following:

Policy 5.4.7 – P8. Require development of public amenities, including parks and open space, in the first phase of development for all Future Focus Areas (continued)	• Redwood Trail – Residential buildings have been carefully located to preserve a number of existing redwood trees. Adjacent to Augustine, Octavius and Scott, where preserved redwoods tend to be concentrated, a meandering walking and jogging trail is planned which will be flanked by activity nodes including barbeques, seating areas and par course exercise structures. The goal is to create a Redwood Linear Park around the periphery of the district that provides linkage to the San Tomas Creek regional trail as well as wellness and fitness opportunities for both residents and workers. • Activities for All Age Groups – Within both the public and private open spaces an effort is being made to provide for all age groups. Passive meeting and contemplative areas are sprinkled throughout the district, swimming pools and fitness centers will include all-age components and child play areas will be specifically designed for the three primary child age stages. Several areas will be designed for the teen age group allowing gathering and socialization with appropriate public visibility. In addition, the landscape plan has been carefully designed to support the open space concepts described above as well as the following design principles: • Incorporate preservation of many existing redwood trees on-site. Those requiring removal will be replaced at a 1:1 ratio. The redwood preservation concepts attempt to showcase the best and largest specimens in key open spaces within the apartment district as well as along streets where many of the best specimens are located. The redwood trees will provide the strongest visual landscape element within the overall district. • Provide landscape differentiation between areas within the overall district. Landscape and hardscape elements will help clarify various zones such as the mixed use character of the new street, the urban stoops of Robertson, the organic Redwood Trail along portions of Augustine and the corporate character of the office district. • Visually soften the massing of the architecture. Both redwood and other introduced tall-growing trees will be used to reduce the impact of apartment building scale and height. Lower pedestrian scale trees will be planted along walkways, plazas and entries to provide intimacy and direct views • Enhance sustainability. Shade trees will be introduced to reduce urban heat island effect during the summer as well as provide shade to encourage pedestrian activity. • Identify People Gathering Places. Accent tree plantings and enhanced hardscape elements will be used to help identify plazas, courtyards, seating/meeting areas and other special activity areas. Landscape color, special paving, lighting, banners and other techniques will be used to differentiate between primary active and secondary passive places.

Policy 5.4.7 – P9. Emphasize walkability and access to transit and existing roadways in Future Focus Area comprehensive plans.	**Not Consistent.** The project is not consistent with the current General Plan designation, but with the proposed GPA would be consistent. The project proposes a GPA that will take the project site out of the future focus area, and would allow high density residential and commercial retail use on the project site. With the GPA, the proposed project is consistent with this policy. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR. As explained above, the proposed project will create a highly walkable environment because it is a mixed use residential and commercial development that sites a pedestrian-oriented new street in close proximity to residential uses, includes an extensive system of pedestrian oriented walkways, paseos, and connections, and includes extensive open space and park areas. The proposed project will enhance connectivity to public transit by including upgrades to bus stop facilities on the north side of Scott Boulevard near the Octavius Drive intersection (specific upgrades will be determined based on coordination with the City and VTA), and will improve access to existing roadways by constructing a new north-south road that will run between and connect Augustine Drive and Scott Boulevard.
Policy 5.4.7 – P10. Provide access across expressways or major arterial streets so that new residential development in Future Focus Areas has adequate access to neighborhood retail, services and public facilities.	**Not Consistent.** The project is not consistent with the current General Plan designation, but with the proposed GPA would be consistent. The project proposes a GPA that will take the project site out of the future focus area, and would allow high density residential and commercial retail use on the project site. With the GPA, the proposed project is consistent with this policy. The proposed GPA is not expected to result in any physical environmental impacts that are not already addressed in other chapters of the Draft EIR. The proposed project is consistent with this policy because it includes within the development access to 40,000 SF of neighborhood retail and services, 38,000 SF of amenity space including public facilities, and is directly adjacent to the new Santa Clara Square Retail and Office developments. Based on its location and design, proposed project residents will not need to cross expressways or major arterial streets in order to meet these needs.

Table 4.8-3
General Plan Housing Element Consistency Analysis

Applicable Policies	Project Consistency
Goal C. Provide housing within the community for persons of all economic levels, regardless of religion, gender, sexual orientation, marital status, national origin, ancestry, familial status, source of income, or mental or physical disability.	**Consistent.** The project will provide a range of rental unit types (studio, 1-bedroom and 2-bedroom) that will accommodate persons of various economic levels, including those who could not afford alternate housing product types such as single family homes, condominiums or town homes. Additionally, the project will comply with all applicable non-discrimination requirements. Development of the project with or without affordable units is therefore consistent with this goal. The project will also provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Goal C.
Policy C-1. Construct and preserve affordable housing for lower and moderate income households through the use of public subsidies, regulatory incentives and flexible development standards.	**Consistent.** The project is replacing existing office buildings, and will not displace or impact existing affordable housing. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. Furthermore, and as explained above, the project will provide affordable units to the City in accordance with the terms in the Development Agreement. Approval of the project is therefore consistent with HE Policy C-1.
Policy C-2. Participate in local, regional, State and federal programs that support affordable, transitional, supportive and permanent housing.	**Consistent.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The City participates in the federal Community Development Block Grant (CDBG) and HOME Investment Partnerships Act Program (HOME) entitlement grant programs that support affordable, transitional, supportive and permanent housing. Approval of this higher density, market-rate rental project will help the City achieve its affordability goals by adding more "affordable-by-design" housing options to the City, as well as through the voluntary provision of affordable units in accordance with the terms in the Development Agreement, and is entirely consistent with HE Policy C-2.

Policy C-3. Create opportunities for affordable housing and housing to support special needs populations and extremely low income households.	**Consistent.** To ensure consistency with the 2010-2035 General Plan, the City of Santa Clara initiated an update to their Zoning Ordinance in 2014. Prior to the adoption of the updated Ordinance, the City has allowed developers to utilize the maximum residential densities based on the General Plan land use designations. While the Zoning Ordinance is being updated, the City has continued to approve development projects consistent with Chapter 18.54, Regulations for PD–Planned Development and Combined Zoning Districts. Based on the number of projects approved and proposed during the 2007 - 2014 Housing Element planning period and since the adoption of the 2010-2035 General Plan, the City feels that this process has not constrained the ability of developers to construct new housing. This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. In collaboration with the City, the project will provide rental units that will increase the affordability of housing options within the City, and also 100 new affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Policy C-3.
Policy C-4. Ensure equitable housing opportunities for all residents.	**Consistent.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The project includes a mix of multi-family rental unit types that are inherently more affordable that the dominant housing types within the City such as single family homes, and the project will also provide 100 affordable units in the City. Approval of the project is consistent with HE Policy C-4.
Goal D. Provide an adequate variety of individual choices of housing tenure, type and location, including higher density where possible, especially for low and moderate income and special needs households.	**Consistent.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The project will help the City implement this policy because the project is a high-density rental housing project that includes a mix of unit types, including studio, one-bedroom, and two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project, "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." In addition, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Goal D.

Policy D-1. Promote a variety of housing types, in different locations to maintain social and economic diversity in the City.	**Consistent.** This policy applies to the City generally, and development of the project with or without affordable units is consistent with this policy. The project adds higher-density rental units to the City's housing supply, which improves the affordability of market-based housing projects relative to more traditional for-sale products such as condominiums, townhomes and single-family homes. Within this "affordable-by-design" multi-family rental project design, the project also includes a variety of apartment sizes and unit types, including approximately 232 studio units, 880 one-bedroom units, and 688 two-bedroom units. As stated by the Santa Clara Valley Transportation Agency in its comment letter on the project "the development of high density residential in this area which has been historically dominated by employment uses will help balance out the mix of land uses and create opportunities for employees to live closer to work." Finally, as noted above, the project will provide affordable units in accordance with the terms in the Development Agreement. Approval of the project is consistent with HE Policy D-1.

4.11 Transportation and Traffic

The text describing the planned improvement at the intersection of San Tomas Expressway and Scott Boulevard (CMP) on page 4.11-53 has been corrected by the City to reflect the improvement that is planned for that intersection.

San Tomas Expressway and Scott Boulevard (CMP)

The intersection of San Tomas Expressway and Scott Boulevard would operate at LOS F during the AM peak hour and LOS E during the PM peak hour under Background (2020) conditions. As the addition of project traffic would increase the critical delay movement at the intersection by 8.8 seconds and would increase the critical V/C ratio by 0.011 during the AM peak hour, the impact of the proposed project at this intersection is considered significant.

~~An additional westbound right-turn lane, identified as a Tier 1C priority~~ An interchange is identified at the intersection of San Tomas Expressway and Scott Boulevard as a Tier 2 priority in the Santa Clara County *Comprehensive County Expressway Planning Study 2008 Update* (March 2009). Construction of a grade-separated interchange would ~~not~~ fully mitigate the project's impact at the intersection of San Tomas Expressway and Scott Boulevard. The timing, funding, and implementation of this improvement are controlled by Santa Clara County. Therefore, even if the project applicant paid the project's fair share of the cost of this improvement consistent with **Mitigation Measure TRANS-3**, the City cannot guarantee that this improvement will be made in a timely manner such that the project's impact is avoided or mitigated. As a result, the impact of the proposed project at this intersection is considered significant and unavoidable.

The text describing the planned improvement at the intersection of San Tomas Expressway and Scott Boulevard (CMP) on pages 4.11-66 and 4.11-67 has been corrected by the City to reflect the improvement that is planned for that intersection.

San Tomas Expressway and Scott Boulevard (CMP)

The intersection of San Tomas Expressway and Scott Boulevard would operate at LOS F during the AM and PM peak hours under Cumulative (2040) conditions. The addition of project traffic would increase the critical delay movement at the intersection by 22.7 seconds and would increase the critical V/C ratio at the intersection by 0.011 during the AM peak hour, and would increase the critical delay movement at the intersection by 34.5 seconds and would increase the critical V/C ratio at the intersection by 0.030 during the PM peak hour. For these reasons, the impact of the proposed project at this intersection is considered significant.

~~An additional westbound right-turn lane, identified as a Tier 1C priority~~ An interchange is identified at the intersection of San Tomas Expressway and Scott Boulevard as a Tier 2 priority in the Santa Clara County *Comprehensive County Expressway Planning Study 2008 Update* (March 2009)~~,~~. ~~would not~~ Construction of a grade-separated interchange would fully mitigate the project's contribution to the cumulative impact at the intersection. The timing, funding, and implementation of this improvement are controlled by Santa Clara County. Therefore, even if the project applicant paid the project's fair share of the cost of this improvement consistent with **Mitigation Measure TRANS-3**, the City cannot guarantee that this improvement will be made in a timely manner such that the project's impact is avoided or mitigated. As a result, the impact of the proposed project at this intersection is considered significant and unavoidable.

The text describing the planned improvement at the intersection of San Tomas Expressway and Scott Boulevard (CMP) on pages 4.11-80 has been corrected by the City to reflect the improvement that is planned for that intersection.

San Tomas Expressway and Scott Boulevard (CMP)

The intersection of San Tomas Expressway and Scott Boulevard would operate at LOS F during the AM and PM peak hours under City Place Cumulative (2040) conditions. As the addition of project traffic would increase the critical delay movement by 39.0 seconds and would increase the critical V/C ratio at the intersection by 0.028 during the PM peak hour, the cumulative impact of the proposed project at this intersection would be considered significant.

~~An additional westbound right-turn lane, identified as a Tier 1C priority~~ An interchange is identified at the intersection of San Tomas Expressway and Scott Boulevard as a Tier 2 priority in the Santa Clara County *Comprehensive County Expressway Planning Study 2008 Update* (March 2009)~~,~~. Construction of a grade-separated interchange would fully mitigate the project's contribution to the cumulative impact. The timing, funding, and implementation of this improvement are controlled by Santa Clara County. Therefore, even if the project applicant paid the project's fair share of the cost of this improvement consistent with **Mitigation Measure TRANS-3**, the City cannot guarantee that this improvement will be made in a timely manner such that the project's cumulative impact is avoided or mitigated. As a result, the cumulative impact of the proposed project at this intersection is considered significant and unavoidable.

4.0 REPORT PREPARATION

4.1 LEAD AGENCY

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APPENDIX 2.1

Fehr & Peers Responses to Comments Memorandum

FEHR PEERS

MEMORANDUM

Date: November 30, 2015

To: Yen Chen, City of Santa Clara, Planning Department

From: Ashley Brooks, Robert Eckols, Katy Cole, Fehr & Peers

Subject: Santa Clara Square Residential Draft EIR –Response to Comments

SJ15-1581

CALTRANS

The comments below were provided by Patricia Maurice, Caltrans District Branch Chief, Local Development – Intergovernmental Review on November 18, 2015 regarding the Santa Clara Square Residential Project. Below are the response to comments on behalf of Fehr & Peers for comments that are relevant to the Transportation Impact Analysis (TIA) and Transportation Section of the Draft Environmental Impact Report (EIR).

Comment Caltrans-3

The freeway and intersection level of service (LOS) should be based on the Highway Capacity Manual 2010 LOS, so please correct the LOS criteria table.

Response to Caltrans-3

Santa Clara Valley Transportation Authority (VTA) uses the 2000 Highway Capacity Manual for local intersection analysis and freeway segments within the County. Therefore, 2000 HCM level of service thresholds are considered state of the practice within Santa Clara County.

Comment Caltrans-4

The traffic models require demand volume inputs for project intersection LOS study. Please provide this information for our review.

Response to Caltrans-4

The volume inputs can be found in Appendix B of the Transportation Impact Analysis (Appendix 4.11 of the Draft EIR).

Comment Caltrans-5

Please provide queuing analysis on the US Highway (US) 101 on-and off-ramps, to determine whether the queuing could impact the traffic on the State Highway System (SHS).

Response to Caltrans-5

An analysis of the on-and off-ramp queuing can be found in Appendix 4.11 of the Draft EIR (Transportation Impact Analysis).

Comment Caltrans-6

The proposed plan is likely to have impacts on the operations of the following metered freeway on-ramps:

- Northbound (NB) US 101/Great America Parkway loop on-ramp (metered Monday through Friday 5:30 a.m. to 9:00 a.m.);
- NB US 101/Montague Expressway loop on-ramp (metered Monday through Friday 5:30 a.m. to 9:00 a.m.);
- Southbound (SB) US 101/Bowers Avenue diagonal on-ramp (metered Monday through Friday 3:00 p.m. to 7:00 p.m.);
- SB US 101/Montague Expressway diagonal on-ramp (metered Monday through Friday 3:00 p.m. to 7:00 p.m.); and
- SB US 101/De La Cruz Boulevard diagonal on-ramp (metered Monday through Friday 3:00 p.m. to 7:00 p.m.)

Response to Caltrans-6

The transportation impact analysis (Appendix 4.11 of the Draft EIR) evaluated the on-ramps at the US 101 and Montague Expressway/San Tomas Expressway interchange and the US 101 and Great America Parkway/Bower Avenue interchange. The southbound on-ramp was not evaluated at the US 101 and Trimble Road/De La Cruz Boulevard interchange. Due to the nature of this Project (residential), the development is attracting trips in the PM peak hour versus the current office land

use of dispersing trips. Therefore, the Project reduces the number of trips using the US 101 southbound ramp at De La Cruz Boulevard and additional analysis is not necessary.

Comment Caltrans-7

During ramp metering (metering hours maybe extended to both morning and afternoon peaks in the future), the on-ramp queues will likely be lengthened with the additional traffic demand by this project. Please provide additional storage on the on-ramps and the local streets for the freeway on-ramp traffic to avoid such impacts.

Response to Caltrans-7

The ramp queuing analysis was completed for the Project in accordance with VTA TIA guidelines and is provided in Chapter 13 and Appendix L of the Transportation Impact Analysis (Appendix 4.11 of the Draft EIR). This VTA guideline requires that this analysis be completed for informational purposes and does not have a significance threshold to determine impacts and mitigation measures under CEQA. The ramp metering queuing analysis is based on current, known conditions, including metering hours, and does not consider potential for increased metering hours.

Comment Caltrans-10

Please analyze secondary impacts on pedestrian and bicyclists that may result from any traffic impact mitigation measures. Please describe any pedestrian and bicycle mitigation measure and safety countermeasure that would therefore be needed as a means of maintaining and improving access to transit facilities and reducing the traffic impacts on the SHS.

Response to Caltrans-10

An analysis of the secondary impacts on pedestrian and bicyclists that may results from any traffic impact mitigation measures can be found in Appendix 4.11 of the Draft EIR (Transportation Impact Analysis).

Comment Caltrans-12

Please elaborate on which freeway project(s) the project applicant will voluntarily contribute toward to assist Santa Clara Valley Transportation Authority (VTA) with the development of these freeway improvements. The following projects have been submitted by VTA to MTC to be considered for the next round of Regional Transportation Plan (RTP) development. We request project applicant at minimum consider voluntary contributions toward these projects:

- US 101 Express lanes to Cochrane Road in Morgan Hill (already in the current RTP Plan Bay Area, RTP ID 240466, to be rolled into the next RTP);
- US 101/Moffett Boulevard Interchange Improvements; and
- US 101 SB Aux Lane: Great America Parkway to Lawrence Expressway (already in the current RTP Plan Bay Area, RTP ID 230410, to be rolled into the next RTP).

Response to Caltrans-12

The Project applicant will voluntarily contribute the VTA to assist with freeway improvements. The funds may be used by the VTA to make improvements at any of the Project-impacted facilities planned by the VTA. With respect to the three improvement projects lists, the Project would contribute traffic to two of the three facilities. Based on the characteristics of the Project and its trip distribution, the proposed Project would not contribute a substantial amount of traffic to US 101 / Moffett Boulevard interchange.

SANTA CLARA COUNTY

The comments below were provided by Dawn S. Cameron, County Transportation Planner on November 19, 2015 regarding the Santa Clara Square Residential Project. Below are the response to comments on behalf of Fehr & Peers for comments that are relevant to the Transportation Impact Analysis (TIA) and Transportation Section of the Draft Environmental Impact Report (EIR).

Comment County-1

Per VTA's TIA guidelines, if the proposed development project is expected to add 10 or more peak hour vehicles per lane to any intersection movement, that location should be included in the analysis. Please provide a traffic impact analysis for the intersections listed below or document it will add less than 10 trips. Should there be a significant impact, provide a mitigation measure.

- Intersections along Lawrence Expressway at Duane Avenue; Central Expressway at Mary Avenue; San Tomas Expressway at El Camino Real.

Response to County-1

The intersection of Lawrence Expressway at Duane Avenue has four lanes in each direction (not including turn pockets) and is expected to have Project traffic only under the City Place Cumulative Conditions. Traffic was assumed to use Great America Parkway to travel northbound under all conditions except under City Place Cumulative when Great America Parkway is assumed to be so congested that some Project traffic will use Lawrence Expressway to travel northbound. A total of

14 northbound and-6 southbound trips in the morning peak hour and-2 northbound and 14 southbound trips in the evening peak hour which results in a max of 3.5 trips per lane by direction in the AM and PM peak hour, both of which are less than the 10 trips per lane required by VTA.

For the intersection of Central Expressway at Mary Avenue, traffic along Central Expressway is expected to disperse as it travels westbound taking roads such as Wolfe Road and Mathilda Avenue. The number of Project trips using the Central Expressway at Mary Avenue intersection is expected to be less than 10 trips per lane.

Finally, the project would generate less than less than 10 trips per lane at San Tomas Expressway at El Camino Real. In the TIA, a small portion of the trips travelling south of the intersection at San Tomas Expressway and Cabrillo Avenue were assumed to travel towards Cabrillo Middle School, resulting in less than 10 trips per lane at San Tomas Expressway at El Camino Real. However, after a closer look at the access ways to Cabrillo Middle School, the only access ways to the middle school are located on Cabrillo Avenue and not on San Tomas Expressway. Fehr & Peers re-evaluated the intersection of San Tomas Expressway at Cabrillo Avenue assuming two percent turn onto Cabrillo Avenue and eight percent continue south on San Tomas Expressway under all conditions. The reallocation of traffic to Cabrillo Avenue results in less than 10 trips per lane at San Tomas Expressway and El Camino Real, and there remains no impact at San Tomas Expressway at Cabrillo Avenue (Appendix 2.1 in the Final EIR).

SAN TOMAS EXPRESSWAY AT CABRILLO AVENUE UPDATED LEVEL OF SERVICE RESULTS

Scenario	Peak Hour[1]	No Project		Project			
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Δ in Crit. V/C[4]	Δ in Crit. Delay[5]
Baseline	AM	29.1	C	28.7	C	0.007	-0.4
	PM	29.5	C	29.5	C	0.007	-0.4
Background (2020)	AM	57.1	E	55.1	E	-0.005	-2.4
	PM	33.4	C	33.4	C	0.007	-0.2
Cumulative (2040)	AM	**82.5**	**F**	**80.4**	**F**	-0.005	-2.7
	PM	35.9	D	35.9	D	0.007	-0.1
City Place Cumulative (2040)	AM	**99.2**	**F**	**97.0**	**F**	-0.005	-2.7
	PM	37.2	D	37.1	D	0.007	-0.1

Notes: **Bold text** indicates intersection operates at unacceptable level of service. **Bold and highlighted text** indicates a significant impact.

1. AM = morning peak hour, PM = evening peak hour.
2. Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 *Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. For side-street stop-controlled intersections, delay and LOS are reported for the worst-case approach.

3. LOS = Level of Service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 *Highway Capacity Manual*.

4. Change in critical volume to capacity ratio between Background (2020) and Background (2020) with Project Conditions. This ratio is not applicable for side-street stop controlled intersections.

5. Change in average critical movement delay between Background (2020) and Background (2020) with Project Conditions. This ratio is not applicable for side-street stop controlled intersections.

Source: Fehr & Peers, 2015.

Comment County-2

Table 4.11-5 (Page 4.11-15) of the DEIR presents the existing conditions level of service (LOS) results. For all the expressway intersections, LOS results presented in this table are not consistent with the County's and VTA's CMP analysis. The current existing traffic conditions must be used as it affects the results of the other scenarios and the identification of traffic impacts to expressway intersections. Please revise the Traffic Impact Analysis appropriately so that significant impacts can be properly identified and mitigated.

Response to County-2

The information used for the County expressway system and CMP intersections was obtained from the 2012 CMP Traffix Database and the Comprehensive County Expressway Planning Study 2040 Traffix computation sheets dated March 26, 2015. The 2012 CMP Traffix database was the most recent available database at the time of the NOP in March 2015.

Fehr & Peers received the 2014 CMP Traffix Database from VTA in October 2015 after the final Traffic Impact Analysis was prepared, and after the Draft EIR was circulated for public comment on October 4, 2015. Therefore, the TIA for this Project will not be revised.

Comment County-4

County requests that the fair share contributions be for the improvement projects identified in the preliminary Comprehensive County Expressway Planning Study 2040.

Response to County-4

As seen in Appendix G to the TIA (Appendix 4.11 of the DEIR), mitigation for each County intersection is based on improvement projects identified in the preliminary Comprehensive County Expressway Planning Study 2040, if available. The Project's fair share contribution was based on an estimated cost of each improvement project, and the Project's contribution to total traffic at the intersection.

MR. JAIN

The comments below were provided by Mr. Jain received by Fehr & Peers on November 20, 2015 regarding the Santa Clara Square Residential Project. Below are the response to comments on behalf of Fehr & Peers for comments that are relevant to the Transportation Impact Analysis (TIA) and Transportation Section of the Draft Environmental Impact Report (EIR).

Comment Jain-2

The ramps from Highway 101 onto Bowers are very congested. The Related CityPlace project has measures described to improve ramps from Highway 237. Clearly this project can commit resources to improving the exit ramps on Highway 101. There is space on the southbound side of 101 to add another exit lane. It seems that this project will severely exacerbate congestion on 101 and the project should be scaled down if more mitigation measures cannot be found.

Response to Jain-2

Due to the residential nature of the Santa Clara Square Project, traffic coming to and from the Project site will be in the opposite (off-peak) direction of majority of traffic at the US 101 / Bowers Avenue ramps (outbound in the AM peak hour and inbound in the PM peak hour). The only existing ramp metering location at US 101 / Bowers Avenue interchange is the southbound on-ramp which is expected to have no net new Project trips in the PM peak hour when the ramp is the most congested. Therefore, the Project will not contribute a large amount of traffic to the ramps that are already experiencing excessive congestion. In addition, there are multiple interchanges along US 101 that patrons and residents of this development may use and just a portion will use the US 101 / Bowers Avenue interchange.

Comment Jain-3

Scott is already a very congested road and there are already several large projects on Scott which are proposed or are in the process of being constructed. The Santa Clara Square EIR traffic study predicted 11,737 daily trips would be generated by the proposed project and this data was input to the CalEEMod model. With that many trips and the following road capacity it seems that there needs to be a very aggressive TDM: Scott Boulevard – This roadway, which is adjacent to the project site, is a high-volume local roadway. According to the traffic study, the roadway will carry about 19,000 average daily traffic (ADT) in the future with existing, plus background and plus project traffic projections (i.e., Background + Project).

If the capacity of Scott is 19,000 ADT, adding 11,737 additional trips (adding 61%) will completely jam the road. How can we allow this construction without a detailed mitigation plan (TDM) to prevent gridlock?

Response to Jain-3

The Project is estimated to contribute a total of 7,390 net new daily trips (see Table 4.11-10 of the Draft EIR). These trips are estimated to use Scott Boulevard and Bowers Avenue to access the site. Therefore, the Project is estimated to contribute roughly 4,000-4,500 daily trips on Scott Boulevard along the Project frontage. These daily trip estimates do not include the implementation of a TDM plan which is required for compliance with the City's Climate Action Plan.

Comment Jain-8

The EIR states the following:

"Transit Infrastructure Modifications

Upgrade bus stop facilities on the north side of Scott Boulevard near the Octavius Drive intersection. Specific upgrades will be determined based on coordination with the City of Santa Clara and VTA." P 3.0-10

The project should commit to providing bus shelters on BOTH the north and south side of Scott Boulevard.

The project should also allow for the placement of bus stops on Augustine or Octavia

Response to Jain-8

The Santa Clara Square Residential development will upgrade the two bus stop facilities on the north side of Scott Boulevard near Octavius Drive and at the new private street located to the west of Montgomery Drive. Although not a part of this Project, the Santa Clara Square Retail development (currently under construction) will provide a bus duck out with upgraded facilities will at the intersection of Scott Boulevard and Bowers Avenue. The bus stops provided on the south side of Scott Boulevard are not along the Project frontage. Future developments on the south side of Scott Boulevard will be required to upgrade these facilities.

There are no bus routes planned along Augustine Drive or Octavius Drive. Therefore, bus stops will not be provided on these streets.

Comment Jain-9

The EIR calls for:

All residential buildings will be equipped with secure bicycle storage rooms, and will provide a total of 727 bicycle parking spaces. P 4.5-41

This number is way too low. New York City requires one bicycle parking spot per two dwelling units but other cities require as many as one bicycle parking spot per dwelling unit and the City of Davis California goes as far as two bicycle parking spots per dwelling unit. The parking must be secure to prevent theft and vandalism.

The number of Class 1 and Class 2 bike parking spots need to be specified. There need to be outside bicycle parking for guests. Bicycle parking must also be provided for the 111 estimated employees.

Response to Jain-9

The bicycle parking provided by the Santa Clara Square Residential development meets the standards set forth by Santa Clara Valley Transportation Authority (VTA) Bicycle Technical Guidelines (2012). The recommendations are one Class I bicycle parking space for every three dwelling units and one Class II bicycle parking space for every 15 dwelling units. The number of Class I and Class II parking spots and the location of the parking facilities by building number are located in Transportation Impact Analysis (Appendix 4.11 of the Draft EIR). In addition to the residential bicycle parking provided, there will be 33 retail bike parking spaces adjacent to Buildings 1 and 2 of type and location to be determined at a later date.

SANTA CLARA UNIFIED SCHOOL DISTRICT (SCUSD)

The comments below were provided by Mark Allgire, CPA, Assistant Superintendent Business Services on October 15, 2015 regarding the Santa Clara Square Residential Project. Below are the response to comments on behalf of Fehr & Peers for comments that are relevant to the Transportation Impact Analysis (TIA) and Transportation Section of the Draft Environmental Impact Report (EIR).

Comment School-2, 3, & 6

The Santa Clara Square project is proposing high density residential units in the project. The Santa Clara Unified School District (SCUSD) does not have any schools within walking distance to the new development. This will cause additional vehicles trips to each of the three schools, Bracher

Elementary, Cabrillo Middle, and Wilcox High. The student generation rate of the residential housing can be estimated for the first few years and is anticipated to be low; however the SCUSF cannot accurately predict the amount of seats needed for future students.

The change in Santa Clara General Plan and current zoning, from Light Industrial to High Density Housing alters the SCUSD's approach to future needs at Bracher Elementary, Cabrillo Middle, and Wilcox High Schools and elsewhere within the District. The SCUSD cannot continue to house the students generated by new housing projects without additional help from the developers. The District requests all developments mitigate their impact on the District by, at a minimum, paying the full mitigation amount per square foot of residential and commercial construction as well as mitigating impacts to resources such as transportation and open space.

Response to School-2, 3, & 6

According to the ITE Trip Generation Handbook dated August 2014, trip generation estimates are determined by taking driveway counts configured around the designated land use to count vehicular traffic entering and exiting a site. Each departure from the residential development is considered a trip and each return to the residential development is likewise considered a trip. This includes home-based work, home-based-school, home-based shopping, etc. Therefore, trips to and from schools are accounted for in the trip generation rates for this Project. If additional trips are made to or from the land use by visitors, delivery vehicles, or other service personnel, these trips would also be considered trips generated by the land use.

VALLEY TRANSPORTATION AUTHORITY (VTA)

The comments below were provided by Roy Molseed, Senior Environmental Planner on November 19, 2015 regarding the Santa Clara Square Residential Project. Below are the response to comments on behalf of Fehr & Peers for comments that are relevant to the Transportation Impact Analysis (TIA) and Transportation Section of the Draft Environmental Impact Report (EIR).

Comment VTA-5

In addition, the existing intersections of Scott Boulevard with Octavius Drive and Montgomery Drive along the project frontage have wide right-turn radii which encourages higher auto speeds and reduces pedestrian comfort and safety. VTA recommends squaring off the corners or otherwise reducing the speed of right turns at these locations.

Response to VTA-5

The current corner radii on Scott Boulevard with Octavius and Montgomery Drive is proposed to remain in order to provide adequate turning radii for moving vans and other large trucks that will access the site.

Comment VTA-7

Auto Trip Reduction Statement (ATRS)-VTA notes that the TIA report did not include an Auto Trip Reduction Statement (ATRS) as required per Section 8.2 and Appendix C of the updated 2014 Transportation Impact Analysis (TIA) Guidelines. VTA notes that the ATRS is intended to highlight project features and efforts that improve the multimodal transportation system and reduce automobile trips, in addition to formal trip reductions assumed in the TIA analysis. VTA requests a revised TIA report or follow-up memo include the completed ATRS form.

Response to VTA-7

A follow-up memorandum will be provided with a completed ATRS form. See attached.

ATTACHMENTS

Santa Clara Square – Auto Trip Reduction Statement

APPENDIX 2.2

Auto Trip Reduction Statement - Fehr & Peers

FEHR PEERS

MEMORANDUM

Date: November 30, 2015

To: Yen Chen, City of Santa Clara, Planning Department

From: Ashley Brooks, Robert Eckols, Katy Cole, Fehr & Peers

Subject: Santa Clara Square - Auto Trip Reduction Statement

SJ15-1581

Per Comment VTA-7 in the memorandum titled "Santa Clara Square Residential Draft EIR – VTA Letter Response to Comments" dated November 30, 2015, below is a summary of the trip generation used for the Santa Clara Square Residential/Mixed-Use Development. The requested Auto Trip Reduction Statement form is attached.

Trip Generation

Because the Project site and surrounding area contains a mix of land uses, it is appropriate to determine the number of trips generated by the proposed Project and the existing office use by applying the MainStreet trip generation tool, developed by Fehr & Peers with the US Environmental Protection Agency (EPA). MainStreet incorporates research from the Federal Highway Administration (FHWA) about mixed-use developments and trips made by alternate modes and addresses concerns that typical trip generation rates, such as those published in the ITE *Trip Generation Manual,* over estimate trips for mixed use projects. Trip generation rates published by ITE are based on single-use sites and have been shown to overestimate peak traffic generation for mixed-use developments by an average of 35 percent. Unlike the ITE method, MainStreet takes into account development density, scale, design, accessibility, transit proximity, demographics, surrounding land use and mix of internal uses, all of which affect site traffic generation. MainStreet takes statistical mixed-use development research and applies a reduction to the Project trip generation rates, such as those from the ITE *Trip Generation Manual*, based on these site characteristics and the surrounding land use and infrastructure.

Vehicle trip generation for the Project was estimated using a combination of: 1) standard rates developed by the Institute of Transportation Engineers (ITE) and published in *Trip Generation*

Manual (9th Edition) and 2) trip generation reduction rates for mixed-use sites produced from the calibrated Fehr & Peers' MainStreet tool based on internal and surrounding land use. A summary of the data and its sources used to determine trip reduction rates can be found in **Table 1.**

TABLE 1: SUMMARY OF DATA SOURCES FOR SANTA CLARA SQUARE RESIDENTIAL TIA MIXED-USE REDUCTIONS (MAINSTREET TOOL)

Input Variable	Existing	Proposed	Source
Geographic			
Project Area (acres)	33.40	33.40	Site Plan
Intersections within or on the Perimeter of Project site	5	7	Existing (Under Construction) Area, Site Plan
Transit Available at Site	Bus	Bus	Existing (Under Construction) Area, Site Plan
Land Use – Surrounding Area			
Employment within One Mile of Project site	10,925	10,925	2010 U.S. Census
Employment within a 30 Minute Transit Trip	24,470	24,470	VTA 2013 Travel Model
Total Regional Employment	3,475,787	3,475,787	VTA 2013 Travel Model
Site Demographics			
Average Household Size near Project site	2.69	2.69	City of Santa Clara
Average Vehicle Ownership per Household near Site	1.657	1.657	American Community Survey 2012 – Five Year for Survey for Project Tract
Land Use Inputs			
Office (square feet)	419,000	0	Existing Area
Multi-Family Dwelling Units	0	1,800	Site Plan
Retail (square feet)	0	40,000	Site Plan

Source: Fehr & Peers, 2015.

In order to calculate the vehicle trip generation attributed to the Project, trip generation rates were first determined using standard ITE trip generation rates**.** Using only ITE trip generation rates, the Project would generate approximately 13,678 daily vehicle trips, 942 AM peak hour vehicle trips (198 inbound and 772 outbound) and 1,264 PM peak hour vehicle trips (796 inbound and 468 outbound).

Next, the MainStreet tool was used to determine the appropriate reductions to the standard trip generation rates for the Project due to its mixed-use nature and complementary land uses surrounding the Project site. Based on the inputs shown in **Table 1**, the MainStreet tool calculated a reduction of 14, 17, and 15 percent for daily, AM peak hour, and PM peak hour, respectively. Based on application of the MainStreet tool, the proposed Project is estimated to generate 11,737 daily trips, 797 net new AM peak hour trips (173 inbound trips and 624 outbound trips), and 1,072 net new PM peak hour trips (675 inbound trips and 397 outbound trips).

The existing land use was then accounted for in the Project trip generation. MainStreet was used to determine the trip reduction from the office land use trip generation and to maintain consistent trip generation methodologies between existing and Project land use. There are limited complementary land uses surrounding the existing office land use, with the exception of Santa Clara Square Retail development that will be completed under Baseline Conditions. Therefore, the MainStreet trip reduction from the existing land use is smaller than the proposed land use because there are fewer attractions within walking, bicycling, or transit distance.

The net new trip generation results are summarized in **Table 2.**

TABLE 2: TRIP GENERATION

ITE#	Land Use Type	Method[1]	Size	Type	Weekday Trips	AM Peak Hour Trips			PM Peak Hour Trips		
						Total	In	Out	Total	In	Out
Proposed Land Use											
220	Apartments	Average	1,800	du	11,970	918	184	734	1,116	725	391
820	Retail	Average	40	k.s.f.	1,708	38	24	14	148	71	77
				Subtotal:	*13,678*	*942*	*198*	*772*	*1,264*	*796*	*468*
				MainStreet Reduction Percentage[2]:	*14%*	*17%*	*17%*	*17%*	*15%*	*15%*	*15%*
				MainStreet Trip Reduction:	*(1,941)*	*(159)*	*(35)*	*(124)*	*(192)*	*(121)*	*(71)*
				Project Subtotal (A):	*11,737*	*797*	*173*	*624*	*1,072*	*675*	*397*
Existing Land Use[4]											
710	Office	Average	419	k.s.f.	4,622	654	576	78	624	106	518
				Subtotal:	*4,622*	*654*	*576*	*78*	*624*	*106*	*518*
				MainStreet Reduction Percentage[3]:	*6%*	*5%*	*5%*	*5%*	*6%*	*6%*	*6%*
				MainStreet Trip Reduction:	*(275)*	*(34)*	*(30)*	*(4)*	*(40)*	*(7)*	*(33)*
				Existing Subtotal (B):	*4,347*	*620*	*546*	*74*	*584*	*99*	*485*
				Net New Project Trip Generation (A-B):	**7,390**	**177**	**(373)**	**550**	**488**	**576**	**(88)**

Notes: du = dwelling units, k.s.f. = 1,000 square feet

1. ITE Trip Generation Manual (9th Edition) provides an average rate and a best fit curve equation for trip generation estimates.
2. MainStreet reductions for the Project were calculated to be 14 percent for total daily trips, 17 percent for AM peak hour trips, and 15 percent for PM peak hour trips.
3. MainStreet reductions for the existing office space were calculated to be six percent for total daily trips, five percent for AM peak hour trips, and six percent for PM peak hour trips.
4. Note that trip generation for existing land use assumes full occupancy of the existing office use on the Property. However when the existing traffic counts were taken (See Appendix A), the existing office use was not fully occupied because office leases are not being renewed as they expire in anticipation of this Project. Accordingly, trip counts at the four Project driveways (Intersections 9, 10, 11, 23) under the Existing Conditions scenario were approximately 20% below the trip generation shown in this table in the AM peak hour and approximately equal in the PM peak hour.

Source: ITE *Trip Generation Manual* (9th Edition); Fehr & Peers, 2015.

Attachments

Auto Trip Reduction Form

AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014

SANTA CLARA Valley Transportation Authority

PROJECT INFORMATION		Relevant TIA Section:	Chapter 1: Introduction
Project Name: Santa Clara Square Residential/Mixed-Use Development			
Location: Montgomery Drive, Augustine Drive, Octavius Drive, Scott Boulevard			
Description: The Project is a mixed-use, multi-family development on approximately 33.4 acres with 40,000 square feet of retail/restaurant development, public parks and open space, and 1,800 residential units. The Project will replace 419,405 square feet of office space.			
Size (net new):	1,800 *D.U. Residential*	40,000 *Sq. Ft. Comm.*	*Acres (Gr.)*
Density:	53.9 *D.U. / Acre*		*Floor Area Ratio (FAR)*
Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop? Yes/No			

PROJECT AUTO TRIP GENERATION		Relevant TIA Section:	Chapter 4: Project Traffic Estimates
Auto Trips Generated:	177 *AM Pk Hr*	488 *PM Pk Hr*	7,390 *Total Weekday*
Methodology (check one)	☐ **ITE**	☒ **Other** *(Please describe below)*	
MainStreet Trip Generation Tool developed by Fehr & Peers with the US Environmental Protection Agency incorporating research from the Federal Highway Administration about mixed-use developments.			

AUTO TRIP REDUCTION APPROACH	Relevant TIA Section:	Chapter 4: Project Traffic Estimates	
☐ **Standard** *Complete Table A below*	☒ **Peer/Study-Based** *Complete Table B below*	☐ **Target-Based** *Complete Table C below*	☐ **None Taken**

TRIP REDUCTION REQUIREMENTS	Relevant TIA Section:	Chapter 4: Project Traffic Estimates
Is the project required to meet any trip reduction requirements or targets? No	**If so, specify percent:**	
Reference code or requirement:		

TRIP REDUCTION APPROACHES

A. STANDARD APPROACH		Relevant TIA Section:			
Type of Reduction *Specify reduction. See Table 2 in TIA Guidelines*		**% Reduction from ITE Rates**	**Total Trips Reduced (AM/PM/Daily)**	**TOTAL REDUCTION CLAIMED**	
				%	**Trips**
Transit					
Mixed-Use					
Financial Incentives					
Shuttle					

B. PEER/STUDY-BASED APPROACH	Relevant TIA Section:	Chapter 4: Project Traffic Estimates	
Basis of Reduction		**TOTAL REDUCTION CLAIMED**	
		%	**Trips**
See Table 4-1 and Table 4-2 in Chapter 4 of the TIA (also attached to this form).		Daily - 14% AM - 17% PM - 15%	Daily - 1,941 AM - 159 PM - 192

Last updated 11/4/2014

C. TARGET-BASED APPROACH			Relevant TIA Section:		
Type of Reduction (check all that apply)				TOTAL REDUCTION CLAIMED	
❒ % Trip Reduction	❒ % SOV mode share	❒ Trip Cap		%	Trips
Description					
Time period for reduction	Peak Hour	Peak Period	Full Day		
	❒ AM/PM	❒ AM/PM	❒		

OTHER TDM/REDUCTION MEASURES			
Bicycle/Pedestrian	Yes	Relevant TIA Section:	Chapter 5: Baseline with Project Conditions
Enhancements that are part of the Project were included in the trip generation calculation.			
Parking Management	No	Relevant TIA Section:	
No parking management was assumed as a trip generation reduction.			
Transit	No	Relevant TIA Section:	
The Project will enhance bus stop facilities, however, the Project is not close enough to any major bus lines for a transit reduction to be taken.			
Site Planning and Design	Yes	Relevant TIA Section:	Chapter 5: Baseline with Project Conditions
Trip reductions for site features were taken into account in the trip generation. These site features include implementation of bicycle lanes, sidewalks, access to the San Tomas Creek Trail, and mixed-use developments on the Santa Clara Square site.			
TDM Program	Yes	Relevant TIA Section:	Chapter 11: TDM Measures
The Santa Clara Square Residential/Mixed-Use Development will implement a TDM Program as part of the Project. However, a TDM program was not assumed within the trip generation or throughout the analysis.			

IMPLEMENTATION	Relevant TIA Section:	
Have the project sponsor and Lead Agency agreed to any of the following measures?		
❒Monitoring		
❒Enforcement		
❒Data Sharing		

APPENDIX 2.3

Draft Response Plan

Response Plan Summary Provided by DTSC

"The recommended response action subject to the Department of Toxic Substances Control review and approval, to remediate soil contaminated with arsenic, lead, dieldrin, and dichlorodiphenyldichloroethylene , the contaminants of concern (COCs), is expected to include a combination of the following actions:

1. Using background concentrations for naturally occurring metals like arsenic as the remedial goals (RGs), and risk-based unrestricted use (residential) screening criteria as RGs for other chemicals. If a few sample locations do not meet unrestricted use criteria, statistical analyses , such as a 95% upper confidence level of the mean evaluation , may be conducted as a contingency option to demonstrate that soil in specific areas of the Site meets the RGs;

2. Excavating soil above a RG for placement and consolidation below a permanent cap such as pavement parking areas, buildings, and in landscaped areas, two feet of clean fill (with a marker material such as a geotextile (orange geogrid or similar) below the clean fill. Consolidation cells will be constructed no deeper than 2 feet above the historical high groundwater elevation;

3. In the utility corridors for main utility trunk lines, if present, soil with elevated COC concentrations will be removed as needed to ensure that residual COC concentrations in these utility corridors are protective of construction and maintenance worker health and safety;

4. Placing a cap over existing soil that exceeds an RG; or

5. Excavating soil above a RG for offsite disposal;

6. If potentially contaminated soil is encountered during slab and asphalt removal or soil excavation, or if an unknown underground container or structure that could have potentially hazardous materials is discovered, the protocols outlined in the Response Plan will be followed. However, if chemical concentrations in the evaluation soil samples and/or confirmation samples for this soil exceed screening criteria for residential, but are below screening criteria for commercial land use, it may be more feasible for such areas to be remediated only to commercial levels in public spaces.

7. After the response actions for the site have been completed, an Operations and Maintenance Plan will be prepared, and a Land Use Covenant will be recorded. The Operations and Maintenance Plan will include annual inspection requirements to verify that any consolidation cells are appropriately covered."

November 2015

DRAFT RESPONSE PLAN

Santa Clara Square Apartments
Santa Clara, California

Draft

Prepared for

3230 SCOTT BOULEVARD LLC,
3236 SCOTT BOULEVARD LLC,
3255 SCOTT BOULEVARD LLC,
3265 SCOTT BOULEVARD LLC, AND
AUGUSTINE BOWERS II LLC

ROUX ASSOCIATES, INC.

Environmental Consulting & Management

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2432.0002S002.113/CV

Draft Response Plan
SCS Apartments
Santa Clara, California

The material and data in this report were prepared under the supervision and direction of the undersigned.

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LIST OF ACRONYMS

AOC	Area of Contamination
ARARs	Applicable or Relevant and Appropriate Requirements
BAAQMD	Bay Area Air Quality Management District
bbr	below base rock
bgs	below ground surface
BMP	best management practices
Cal-EPA	California Environmental Protection Agency
Cal/OSHA	California Division Of Occupational Safety And Health Administration
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Level
CLRRA	California Land Reuse and Redevelopment Revitalization Act
COC	Contaminant of Concern
Contractor	Licensed remediation contractor
CSM	Conceptual Site Model
DBCP	1, 2-dibromo-3-chloropropane
DDD	4,4'-dichlorodiphenyldichloroethane
DDE	4,4'-dichlorodiphenyldichloroethylene
DDT	4,4'-dichlorodiphenyltrichloroethane
DTSC	California Environmental Protection Agency, Department of Toxic Substances Control
ESA	Environmental Site Assessment
ESL	San Francisco Regional Water Quality Control Board Environmental Screening Level

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LIST OF ACRONYMS

Freon 113	1,1,2-Trichloro-1,2,2-trifluoroethane
HASP	Health and Safety Plan
Impacted soil	Soil exceeding Numeric Remedial Goals
LUC	Land Use Covenant
MCL	Maximum Contaminant Level for Drinking Water
mg/kg	milligram per kilogram
MMRP	Mitigation, Monitoring, and Reporting Program
MSL	above mean sea level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NOI	Notice of Intent
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
PAMP	Perimeter Air Monitoring Plan
PCB	polychlorinated biphenyl
PCOC	potential contaminant of concern
RAO	Response Action Objective
REC	Recognized Environmental Condition
RGs	Numeric Remedial Goals
RSL	Regional Screening Level
RWQCB	Regional Water Quality Control Board
SCS	Santa Clara Square
SMP	Site Management Plan
SVOCs	Semi volatile organic compounds
SWPPP	Storm Water Pollution Prevention Plan

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LIST OF ACRONYMS

SWRCB	State Water Resources Control Board
TBC	to be considered
µg/kg	microgram per kilogram
µg/L	microgram per liter
U.S. EPA	United States Environmental Protection Agency
VOC	volatile organic compound

Draft

EXECUTIVE SUMMARY

Roux Associates, Inc. (Roux Associates) is pleased to present this Response Plan for the Santa Clara Square (SCS) Apartments Site, in Santa Clara, California (Figures 1 & 2). 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, and Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the SCS Apartments Site (Site). The Companies intend to develop the 33.4 acre SCS Apartment Site with 7 residential apartment buildings, including approximately 1,800 residential units and a fitness center, 40,000 square feet of retail use, and approximately 16 acres of public and private open space.

The California Department of Toxic Substances Control (DTSC) is overseeing the site mitigation under a voluntary oversight agreement pursuant to the California Land Reuse and Revitalization Act of 2004, California Health and Safety Code Section 25395.60 et seq. (CLRRA) program under five separate CLRRA Agreements. This Response Plan has been developed in accordance with CLRRA. Additionally, this Response Plan presents response actions consistent with actions previously approved by the DTSC and conducted at the SCS Office Phase I, Office Phase II & III and the SCS Retail sites.

Response Plan Objectives

This Response Plan has been prepared to address issues associated with Constituents of Concern (COCs) that have been identified in media at the Site. The objectives of this Response Plan are to:

1. Summarize the findings regarding Site conditions;
2. Identify occurrences of COCs in the subsurface that may create unacceptable human health risks;
3. Develop remedial goals (RGs) that are protective of future Site residents and workers;
4. Develop response actions to address the occurrences of COCs in the affected media that are above RGs;
5. Provide technical information for a public participation process; and
6. Allow the community to provide comments on technical decisions made regarding Site conditions.

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The intent of the response action is to reduce the potential for contact with impacted soil by Site users, including building occupants, subgrade utility workers, and post-remediation subgrade construction workers, by relocating and consolidating impacted soil beneath caps (primarily buildings and pavement) or properly disposing of impacted Site soils offsite. In the event that it is not practicable to meet unrestricted RGs in portions of the Site outside of potential consolidation cells, a contingency plan has been developed.

Site Description

The Site covered by this Response Plan comprises seven parcels[1]. Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted by Erler & Kalinowski, Inc. (EKI) at five of the seven Site parcels. The following is a summary of previous ESAs, Assessor's Parcel Numbers (APN), and associated addresses:

- APN: 216-29-112 (herein known as "3236 Scott Parcel")
  - The 3236 Scott Parcel comprises approximately 3 acres with one building. A Phase I ESA was completed by EKI in December 2014.
- APN: 216-29-053 (herein known as "3230 Scott Parcel")
  - The 3230 Scott Parcel comprises approximately 3 acres with one building. A Phase I and II ESA was completed by EKI in December 2014.
- APN: 216-45-022 (herein known as "3265 Scott Parcel")
  - The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard. A Phase I ESA was conducted by EKI in June 2013.
- APN: 216-45-023 and -024 (herein known as "3255 Scott Parcel")
  - The 3255 Scott Parcel comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255-5 Scott Boulevard). A Phase I and Phase II ESA was conducted by EKI in April 2013 and January 2014, respectively.

[1] The project site includes land described with seven unique Assessor Parcel Numbers. Because these seven APN parcels are owned by five different entities, the site description portion of this report is organized based on ownership entity, rather than by APN parcels.

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- Portions of APN: 216-45-011 and -028 (herein known as the Augustine Bowers II Parcel).
  - The Augustine Bowers II Parcel comprises approximately 2.6 acres. Two buildings (2620 Augustine Drive and 3281-3285 Scott Boulevard) were previously located on a portion of this parcel. Characterization of the site previously occurred and remediation of this parcel was originally proposed under the SCS Retail Response Plan (EKI, 2014e); however, the remediation will be completed under this Response Plan. An addendum will be submitted to DTSC for the SCS Retail Response Plan to document that the Augustine Bowers II LLC parcel will be remediated under this Response Plan.

Proposed Development

The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. As a voluntary, precautionary measure, vapor mitigation systems will be installed below Buildings 2, 5, 6, and 7. The development will include significant green space and bicycle trails connecting to community and regional trails. Figure 2 and 4 shows the proposed development plan. These voluntary, precautionary measures, in addition to the remedial measures described in this response plan, and the greenspace are also identified in the Environmental Impact Report developed for the SCS Apartment project.

Site Use History and Previous Investigations

The Site was developed in the late 1970s with the 14 buildings currently present at the Site, and two buildings formerly at the Augustine Bowers II Parcel which were demolished as part of the SCS Retail Site remediation and redevelopment. Records indicate that these buildings were built as commercial and office buildings and used in the past by various commercial, research and development, manufacturing and testing laboratory tenants. Prior to development in the mid to late 1970s, the Site and surrounding area was an orchard (EKI, 2013a-2014f). A number of structures were present adjacent to the Site, likely a farmhouse and support buildings, located along Saratoga Creek in the 1939, 1948, and 1956 aerial photographs (EKI, 2014b).

Based on EKI's Phase I and Phase II reports, the recognized environmental conditions (RECs) identified at all the Site parcels is the likely presence of lead, arsenic, and chlorinated pesticides

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in shallow soils due to the previous orchard use at the Site. This is consistent with RECs identified at the adjacent SCS Retail and Office sites.

Recent Site Characterization

As described in Roux Associates October 5, 2015 report titled *Results of Soil Characterization and Confirmation Sampling Program, Santa Clara Square Apartments Site, Santa Clara, California* (Roux 2015g), a total of 142 soil borings were advanced across the Site. One hundred and thirty-seven (137) soil borings were advanced at 120 feet intervals, representing a 14,400 square foot grid (Figure 3). Additional soil borings beyond the 120 foot intervals were added inside of buildings, in landscaping berms and in the vicinity of the former creek location. At the Augustine Bowers II Parcel five borings (Grids RG1-1, RG2-1, RG3-1, RG4-1, and RG5-2) were advanced at 140 foot intervals, representing 20,000 square foot grids (in accordance with the SCS Retail Response Plan), with one additional boring located within 3281-3285 Scott Boulevard (RG5-1) and two sidewall samples (SW-7 and SW-8), as described in Roux Associates October 10, 2014 letter (Roux, 2014a) (Figure 3).

Site Conceptual Model

The following conceptual site model (CSM) describes Roux Associates' conclusions regarding identified COCs, contaminant sources, potentially complete current and future exposure pathways, and potential receptors for the Site. These aspects of the CSM for the Site are summarized below:

<u>COCs</u>: Arsenic, lead, dieldrin, and 4,4'-dichlorodiphenyldichloroethylene (DDE) are the COCs in soil at the Site. No COCs were identified for groundwater or soil vapor.

<u>Contaminant Sources</u>: The presence of elevated arsenic, lead, dieldrin, and DDE in shallow soil on the Site is due to the application of lead-arsenate and organochlorine pesticides during the previous orchard use of the Site.

<u>Groundwater Protection</u>: Roux Associates has evaluated the mobility of each of the COCs identified at the Site. Arsenic, lead, and organochlorine pesticides have been present in shallow soil at and surrounding the Site for at least 40 years, and arsenic and lead, in particular, were

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likely applied to the soil more than 75 years ago during the widespread use of lead-arsenate pesticides. Lead-arsenate use was widespread until the mid-1960s when the use of DDT increased. Lead-arsenate use has been banned since 1988. Further, these compounds were used historically in orchards throughout the Santa Clara Valley, and the absence of arsenic, lead, and pesticide groundwater plumes from non-point source agricultural spraying in historical orchard settings is a significant indicator of the compounds' lack of mobility and transport to groundwater. Therefore, in the unlikely event that groundwater rises significantly and infiltrates the proposed consolidation cells, it is very unlikely that the Site COCs would result in a significant impact to groundwater.

Exposure Pathways and Potential Receptors: The Site is currently developed as an office park consisting of buildings, pavement, and landscaped areas. As the property nears development, occupancy of each of building is decreasing with total vacancy expected by mid to late 2016. As the Site is capped with asphalt and buildings and all potential exposure pathways are deemed incomplete, there are currently no potential receptors.

Future Exposure Pathways and Potential Receptors: Potential receptors include site visitors, tenants, construction workers, and landscape and maintenance workers. If the Response Plan is not implemented during Site redevelopment, complete exposure pathways for construction workers could include direct contact with and ingestion of impacted soil and inhalation of soil particulates during construction. Exposure pathways for landscape and maintenance workers and construction workers following redevelopment, including subgrade improvements, may include periodic direct contact with and ingestion of impacted soil and inhalation of particulates. Exposure for site visitors and tenants is unlikely even without implementation of the Response Plan as the development would largely serve as a cap across the Site, similar to current conditions.

Recommended Response Action & Implementation

The response action to remediate soil includes using a combination of the following actions:

1. Use background concentrations for naturally occurring metals like arsenic as the RGs, and risk-based unrestricted use (residential) screening criteria as RGs for other chemicals. If a few sample locations do not meet unrestricted use criteria, statistical analyses, such as

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a 95% upper confidence level of the mean evaluation, may be conducted as a contingency option to demonstrate that soil in specific areas of the Site meets the RGs;

2. Excavating soil above a RG for placement and consolidation below a permanent cap such as pavement parking areas, buildings, and in landscaped areas, two feet of clean fill (with a marker material such as a geotextile (orange geogrid or similar) below the clean fill. Consolidation cells will be constructed no deeper than 2 feet above the historical high groundwater elevation;

3. In the utility corridors for main utility trunk lines, if present, soil with elevated COC concentrations will be removed as needed to ensure that residual COC concentrations in these utility corridors are protective of construction and maintenance worker health and safety;

4. Placing a cap over existing soil that exceeds an RG; or

5. Excavating soil above a RG for offsite disposal.

This Response Plan includes instructions and guidance on implementing the response action.

California Environmental Quality Act (CEQA)

For the purposes of the California Environmental Quality Act (CEQA), the City of Santa Clara is the Lead Agency, and it has prepared an Environmental Impact Report (EIR), Office of Planning and Research State Clearinghouse No. 2015032075. The EIR discusses measures necessary to mitigate contamination at the project site to meet health based goals. The Response Plan will conform to the applicable mitigation measures of the final certified EIR. DTSC intends to use the final EIR in issuing its approval and will not approve the Response Plan until the City of Santa Clara has certified the Final EIR. DTSC will file a Notice of Determination with the State Clearinghouse upon the Response Plan approval.

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1.0 INTRODUCTION

Roux Associates, Inc. (Roux Associates) is pleased to present this Response Plan for the Santa Clara Square (SCS) Apartments Site (Site), in Santa Clara, California (Figures 1 & 2). 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, and Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the Site. The California Department of Toxic Substances Control (DTSC) is overseeing the site mitigation under a voluntary oversight agreement pursuant to the California Land Reuse and Revitalization Act of 2004, California Health and Safety Code Section 25395.60 et seq. (CLRRA) program under five separate CLRRA Agreements. The Apartments Site is under the CLRRA Agreements for 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, 3230 Scott Boulevard LLC, 3236 Scott Boulevard, and Augustine Bowers II LLC. An addendum will be submitted to DTSC for the SCS Retail Response Plan (EKI, 2014e) to document that the Augustine Bowers II LLC parcel will be remediated under this Response Plan.

The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings, including approximately 1,800 units and a fitness center, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. As a voluntary, precautionary measure, vapor mitigation systems will be installed below Buildings 2, 5, 6, and 7. The current and proposed Site configuration is presented on Figure 2.

1.1 CLRRA Agreement

The CLRRA Program provides immunity from liability to qualifying property owners or purchasers of brownfield sites. According to the CLRRA Agreements between the Companies and the DTSC, a Response Plan is required to be submitted to the DTSC for the Site. The CLRRA process includes a robust public notification and comment period on the response action. This Response Plan will also serve as a Site Management Plan (SMP) if required as part of a Mitigation Monitoring and Reporting Program by the City of Santa Clara.

The purpose of the Response Plan is to provide a response action that will prevent or eliminate an unacceptable risk to human health and the environment. This Response Plan presents response actions consistent with actions approved by the DTSC and conducted at the SCS Office

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Phase I, Office Phase II & III and the SCS Retail sites. The CLRRA also authorizes a response plan to require land use controls that impose appropriate conditions, restrictions, and obligations on land use or activities if, after completion of the response action specified in the response plan, hazardous substance materials remain at the Site at a level that is not suitable for the unrestricted use of the Site.

1.2 Response Plan Objectives

The objectives of this Response Plan are to:

1. Summarize the findings regarding Site conditions;
2. Identify occurrences of contaminants of concern (COCs) in the subsurface that may create unacceptable human health risks;
3. Develop remedial goals (RGs) that are protective of future Site residents and workers;
4. Develop response actions to address the occurrences of COCs in the affected media that are above RGs;
5. Provide technical information for a public participation process; and
6. Allow the community to provide comments on technical decisions made regarding Site conditions.

The intent of the response action is to reduce the potential for contact with soil above remedial goals (impacted soil) by Site users, including building occupants, subgrade utility workers, and post-remediation subgrade construction workers, by relocating and consolidating impacted soil beneath caps (primarily buildings and pavement) or properly disposing of impacted soils offsite. In the event that it is not practicable to meet unrestricted RGs in portions of the Site outside of potential consolidation cells, a contingency plan has been developed and is discussed in Section 6.12.

The Response Plan includes the following plans as appendices that describe procedures for proposed response actions:

- Decontamination Plan (Appendix A);
- Dust Control Plan (Appendix B);
- Perimeter Air Monitoring Plan (Appendix C);

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- Transportation Plan (Appendix D);
- Roux Associates Health and Safety Plan (Appendix E);
- Storm Water Pollution Prevention Plan (Appendix F);
- Quality Control/Quality Assurance Plan (Appendix G); and
- EKI Site Investigation Results (Appendix H).

1.3 Site Background

The Site comprises seven parcels, respectively. Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels prior to acquisition. Soil, soil vapor, and groundwater investigations were previously conducted by Erler & Kalinowski, Inc. (EKI) at the five of the seven Site parcels. Additional soil, soil vapor, and groundwater investigations, as discussed below, have been conducted by Roux Associates. The following is a summary of previous Site investigations, Assessor's Parcel Numbers (APN), and associated addresses:

- APN: 216-29-112 (herein known as "3236 Scott Parcel")
  - The 3236 Scott Parcel comprises approximately 3 acres with one building. A Phase I ESA was completed by EKI in December 2014.
- APN: 216-29-053 (herein known as "3230 Scott Parcel")
  - The 3230 Scott Parcel comprises approximately 3 acres with one building. A Phase I and II ESA was completed by EKI in December 2014.
- APN: 216-45-022 (herein known as "3265 Scott Parcel")
  - The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard. A Phase I ESA was conducted by EKI in June 2013.
- APN: 216-45-023 and -024 (herein known as "3255 Scott Parcel")
  - The two 3255 Scott Parcels comprise approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 and 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255-5 Scott Boulevard). A Phase I and Phase II ESA was conducted by EKI in April 2013 and January 2014, respectively.
- Portions of APN: 216-45-011 and -028 (herein known as "Augustine Bowers II Parcel")
  - The Augustine Bowers II Parcel comprises approximately 2.6 acres. Two buildings (2620 Augustine Drive and 3281-3285 Scott Boulevard) were previously located on a portion of this parcel. Remediation of this parcel was originally proposed under the SCS Retail Response Plan (EKI, 2014e); however, the remediation will be conducted

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under this Response Plan. An addendum will be submitted to DTSC for the SCS Retail Response Plan to document that the Augustine Bowers II LLC parcel will be remediated under this Response Plan. A Phase I ESA was conducted by AEC in July 2012, EKI in April 2014 and Roux Associates in October 2015. A Phase II investigation was conducted in March 2013 and additional characterization was performed by Roux Associates in July 2014 (Roux, 2014a).

1.4 Proposed Development

The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings, including approximately 1,800 units and a fitness center, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. As a voluntary, precautionary measure, vapor mitigation systems will be installed below Buildings 2, 5, 6, and 7. The development will include significant green space and bicycle trails connecting to community and regional trails. Figure 2 shows the proposed development plan.

1.5 Report Organization

The remainder of this Response Plan consists of the following major sections:

- Section 2: Description of the Site and background including Site use history, Site setting, and summary of historic investigations;
- Section 3: Results of the Site assessment and pre-excavation confirmation sampling, including screening of chemicals detected in soil, groundwater, and soil vapor;
- Section 4: Description of Site impacts and COCs including a description of the Site conceptual model;
- Section 5: Presentation of the justification for and elements of the proposed response action;
- Section 6: Description of the implementation of the response action including a contingency plan;
- Section 7: Post-remediation activities; and
- Section 8: Reference List.

1.6 Public Participation

This Response Plan will be made available for a 30-day public comment period. DTSC will prepare a fact sheet for the Site that will include information on the Site impacts and planned and

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the actions described in this Response Plan. Public participation notifications will include mailing the fact sheet, and publishing a public notice in the Santa Clara Weekly. The Response Plan will be available for public review in the Santa Clara Public Library at 2635 Homestead Road, Santa Clara, DTSC Regional Office at 700 Heinz Avenue, Berkeley and on the DTSC Envirostor website[2].

1.7 California Environmental Quality Act (CEQA)

For the purposes of the California Environmental Quality Act (CEQA), the City of Santa Clara is the Lead Agency, and it has prepared an Environmental Impact Report (EIR), Office of Planning and Research State Clearinghouse No. 2015032075. The EIR discusses measures necessary to mitigate contamination at the project site to meet health based goals. The Response Plan will conform to the applicable mitigation measures of the final certified EIR. Those mitigation measures include possible impacts to the following resource areas: Air Quality, Biological Resources, Cultural Resources, Noise, and Hazards and Hazardous Materials. These mitigation measures will be conducted under the oversight of the City of Santa Clara as the Lead Agency for CEQA. DTSC intends to use the final EIR in issuing its approval and will not approve the Response Plan until the City of Santa Clara has certified the Final EIR. DTSC will file a Notice of Determination with the State Clearinghouse upon the Response Plan approval.

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[2] http://www.envirostor.dtsc.ca.gov/public/

2.0 SITE BACKGROUND

The following sections describe the previous Site uses, regional setting, and summarize previous investigations.

2.1 Historical Site Uses

The Site was developed in the late 1970s with the 14 buildings currently present at the Site, and two buildings formerly at the Augustine Bowers II Parcel which were demolished for the SCS Retail Site remediation and redevelopment. Records indicate that these buildings were built as commercial and office buildings and used in the past by various commercial, research and development, manufacturing and testing laboratory tenants. Prior to development in the mid to late 1970s, the Site and surrounding area was an orchard (EKI, 2013a-2014f). Prior to redevelopment, a number of structures were present at the Site, likely a farmhouse and support buildings, located along Saratoga Creek in the 1939, 1948, and 1956 aerial photographs (EKI, 2014b).

2.2 Previous Investigations and Site Chemical Use

Based on EKI's Phase I and Phase II reports, the recognized environmental conditions (RECs) identified at all the SCS Apartments parcels was the confirmed or likely presence of lead, arsenic, and chlorinated pesticides in shallow soils due to the previous orchard use at the Site. This is consistent with RECs identified at the adjacent SCS Retail and Office I and Office II & III sites.

Several Phase II surface investigations have been performed at the Site. EKI conducted Phase II subsurface investigations at the 3230 and 3255 Scott Parcels and the Augustine Bowers II Parcel. Certified (1989) conducted a Phase II subsurface investigation at the 3265 Parcel, and Blackstone (2012) conducted a limited Phase II investigation at the 3236 Scott Parcel. The scope of these Phase II investigations included:

- Soil vapor sampling to assess potential vapor mitigation needs for future development;
- Collection and analysis of shallow grab groundwater samples to assess potential migration of chemicals onto or originating from the Site;
- Shallow soil sampling to assess the potential presence of residual agricultural chemicals in soil; and

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- Evaluation of base rock for the presence of serpentine rock, which could impact soil management costs during redevelopment.

Copies of pertinent tables and figures from previous investigations are included as Appendix H. The Phase I and II ESAs for each of the parcels identified the following:

2.2.1 3265 Scott Parcel

The 3265 Scott Parcel has been used as a business park since the mid-1970s when three buildings were constructed on the property. Various businesses operated on the parcel, mainly as office and laboratory space. Zeta Labs, a manufacturer of microwave communication components and printed circuit boards, occupied 3265 Scott Boulevard (southernmost building) from 1977 to 1987. In June 1987, Zeta Labs removed a 55-gallon plating rinse water underground storage tank (UST) without regulatory oversight. Horiba, a manufacturer of measurement and analysis instruments now occupies the 3265 Scott Parcel and stores compressed gases, such as nitrogen, helium, sulfur hexafluoride, and tetrafluoromethane. At 2600 Augustine Drive (northernmost building), 1-gallon cans of latex paint are used.

In 1989, groundwater monitoring wells were installed on the property to evaluate the potential release of chemicals to shallow groundwater from the former Zeta Laboratories facility. At that time volatile organic compounds (VOCs) including trichlorotrifluoroethane (Freon 113) and dichlorotrifluoroethane (Freon 123) were detected at low concentrations up to 18 and 9.5 micrograms per liter (µg/L), respectively. The current California Maximum Contaminant Level (MCLs) for Freon 113 is 1,200 µg/L. The groundwater concentrations detected during the 1989 investigation are well below the current MCLs which are shown in Table 3. In addition to groundwater, a low detection of dichlorodifluoromethane (Freon 12) was observed in one soil sample at a concentration of 3 micrograms per kilogram (µg/kg), well below the current residential EPA Regional Screening Levels (RSL) of 1,600 µg/kg. It was concluded by EKI that the soil and groundwater impacts were due to past site uses. Based on a site screening, DTSC concluded on May 16, 2012 that no further action was required at the site.

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2.2.2 3255 Scott Parcel

The 3255 Scott Parcel has been used as a business park since 1984. A file review of the City of Santa Clara Fire Department, Hazardous Materials Division Files, included records from 1988 and 1989 for Ion Implant Services (EKI 2013a). Ion Implant Services used a number of liquid and solid chemicals, as well as compressed gases: Freon 113, isopropanol, antimony trioxide, trimethyl antimony, arsine, boron trifluoride, and phosphine. Most recently at 3255-1 Scott Boulevard, Excel Precision Corp. stored small (<1 gallon) containers of lubricants and non-chlorinated solvents. At 3233 Scott Boulevard, between 2004 and 2005, Abmaxis Inc., a biotechnology research and development company, stored a variety of chemicals including acetone, xylenes, chloroform, trimethylamine chloroform, sodium hydroxide, hydrogen peroxide, cupric sulfate pentahydrate, cupric chloride, cobalt chloride, ferric citrate, liquid nitrogen, alcohols and acids, and assorted compressed gases. From 2006 through 2007, InnovaLight Inc. used and stored chlorobenzene, chloroform, tris(trimthyl)silylsilane, silicon powder, tetrahydrofuran, quaterthiophene, mesitylene, toluene, acetone, hexane, potassium bichromate, flushing fluid and pump oil, a variety of alcohols and acids, liquid nitrogen, and compressed gases. Precursor Energetics, a research and development company that develops LEDs and batteries, was the most recent tenant at the site. Precusor Energetics used alcohol- and hydrocarbon-based solvents, as well as decane, propane, liquid nitrogen, sodium acetate trihydrate, waste with trace cadmium, and compressed gases. General purpose transformers are also present at the site and may contain PCBs.

During the Phase I, it was identified that shallow groundwater was impacted with low concentrations of VOCs and thus considered a REC. In June 2013 during the Phase II investigation, VOCs identified in groundwater consisted of trichloroethylene (TCE) up to 4.1 µg/L, 1,1-dichloroethane (1,1-DCA) up to 15 µg/L, and 1,1-dichloroethene (1,1-DCE) up to 20 µg/L. Only 1,1-DCA and 1,1-DCE was found to exceed the MCLs (TCE: 5 µg/L, 1,1-DCA 5 µg/L, and 1,1-DCE 6 µg/L); however, no VOCs exceeded the San Francisco Bay Regional Water Quality Control Board (RWQCB) groundwater Environmental Screening Levels (ESLs) for evaluation of potential vapor intrusion (TCE: 130 µg/L, 1,1-DCA: No Screening Value, and 1,1-DCE 16,000 µg/L). Additionally, composite soil samples indicated the presence of dieldrin up to 910 micrograms per kilogram (µg/kg), DDE up to 2,600 µg/kg, arsenic up to 47 mg/kg, and lead up to 240 mg/kg due to the previous site use as an orchard. These

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concentrations are above the proposed remedial goals discussed in Section 5.3. EKI's soil sampling results are presented in Appendix H.

Four groundwater monitoring wells are located on the property to monitor the down gradient extent of the Synertek NPL site (RWQCB Global ID SL721241222, 3050 Coronado Drive). Data collected from these wells indicated that trichloroethylene, which is the chemical of concern at the Synertek site is below drinking water standards, and that other VOCs at low concentrations have migrated on to the site. The RWQCB and USEPA have approved the cessation of active remediation at the Synertek site due to low concentrations and currently only monitored natural attenuation (MNA) is being utilized. Based on this, it is expected that the concentrations of VOCs detected will gradually decrease and remain below the groundwater ESLs for evaluation of potential vapor intrusion. The Phase I concluded that the VOCs migrating on to the Site in groundwater do not present a significant vapor intrusion risk to building occupants.

In general, concentrations in the four onsite monitoring wells are low with only intermittent exceedances above the MCLs of 1,1-DCA and 1,1-DCE. Based on the 2014 Synertek Annual Groundwater Monitoring Report, VOC concentrations in the four onsite monitoring wells were below reporting limits for all constituents with the exception of Freon 113 in well MW-33A (8.5 µg/L, 11/10/14, MCL: 1,200 µg/L), 1,1-DCE in well MW-28A (0.6 µg/L, 5/15/14, MCL: 5 µg/L) and 1,1-DCA (4.4 µg/L, 11/10/14 MCL: 6 µg/L), 1,1-DCE (5.8 µg/L, 11/10/14), Freon 113 (4.4 µg/L, 11/10/14 MCL: 1,200 µg/L), and cis-1,2-DCE (0.6 µg/L, 11/10/14, MCL: 6 µg/L) in well MW-29A. TCE and vinyl chloride were not detected in wells MW-28A, MW-29A, MW-33A and MW-34A during the most recent sampling event and have never exceeded the MCL for TCE (5 µg/L) and have not exceed the MCL for vinyl chloride (0.5 µg/L) since November 1992 (MW-33A 0.8 µg/L). All concentrations, with the exception of 1,1-DCE in well MW-29A, were below the MCLs during the most recent sampling event (CH2MHILL, 2015).

Based on the previous EKI data and the recent Synertek sampling data, groundwater is impacted from low level VOC concentrations due to potential limited onsite releases and migration from offsite sources. Additionally, groundwater concentrations are generally low and are well below

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the groundwater ESLs for evaluation of potential vapor intrusion (TCE: 130 µg/L, 1,1-DCA: No Screening Value, 1,1-DCE 16,000 µg/L, and cis-1,2-DCE 3,100 µg/L).

To further investigate the potential of vapor intrusion from shallow VOCs in groundwater in June 2013, nine soil vapor samples were collected (EKI 2014b). Several chlorinated and petroleum related VOCs were detected in soil vapor; however, only one sample, PSSV-9 was found to contain vinyl chloride at (40.7 micrograms per cubic meter [µg/m^3]) exceeding 9.5 µg/m^3, the residential RSL with the appropriate attenuation factor (DTSC, 2011 [0.001])[3] located beneath 3233 Scott Boulevard. Figure 7 shows the June 2013 soil vapor locations and results. Figure 6 shows the groundwater sample locations and results.

2.2.3 3236 Scott Parcel

The 3236 Scott Parcel has one building that has served as office and laboratory space for several semiconductor businesses since the 1980s. City of Santa Clara Fire Department files included chemical use by previous tenants, including Integrated Device Technology (IDT), Mimix Broadband, Celeritek Inc., and Universal Semiconductor Technologies Inc. (USTI) (EKI 2014g). IDT used the facility between 1991 and 1994 to manufacture silicon wafers. Site closure documents mention the IDT facility included acid waste neutralization tanks (three 1,500- gallon tanks), a sodium hydroxide tank (1,000-gallon tank), waste hydrofluoric acid tanks (one 500-gallon tank, and one 4,000 gallon tank), four chemical storage bunkers, and a hydrofluoric acid treatment system. Between 2002 and 2003, Celeritek Inc. conducted fabrication operations and had a hazardous waste treatment system. Records from 2005 indicate that Mimix Broadband used the space to produce gallium arsenide wafers and stored hazardous waste. The most recent tenant, USTI, used the building as office space and for the fabrication of gallium arsenide chips. USTI also used an area south of the building to transfer arsenic-slurry waste. Between 2008 and 2011, USTI stored a variety of chemicals at the facility, including acetone, ethyl benzene, xylene, dichlorofluoroethane, petroleum products, alcohols, acids, bases,

[3] Soil gas screening levels were calculated by taking the California Modified RSLs presented in the DTSC's May 2015 HERO Note 3 (DTSC, 2015) and applying the recommended residential attenuation factor for future construction (DTSC, 2011). As an example, the soil gas screening level for vinyl chloride was calculated by the following equation: Indoor Air RSL / Attenuation Factor = Soil Gas Screening Level: (0.0095 µg/m^3) / 0.001 = 9.5 µg/m^3

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adhesives, resins, compressed gases, and metals (antimony, copper, lead, silver, thallium, and zinc).

In addition to previous orchard use, the property was listed as an open-inactive cleanup site by the Water Board at the time of the Phase I. Subsurface investigations conducted from 1993 to 1995 identified that soils and groundwater were impacted by low levels of chlorinated VOCs including 1,1,1-trichloroethane (1,1,1-TCA), 1,1-DCA, 1,1-DCE, TCE, and Freon 113 with only 1,1-DCA and 1,1-DCE exceeding the MCLs. All concentrations were below the groundwater ESLs for evaluation of potential vapor intrusion. The RWQCB determined in 1993 that the soils were not sufficiently impacted to warrant remediation, but recommended semi-annual groundwater monitoring. In August 2012, the four onsite monitoring wells were sampled for the final time with concentrations up to 0.53 µg/L TCE (MCL 5 µg/L) in well MW-5 and 1.0 µg/L 1,1,1-TCA (MCL 1,200 µg/L), 14 µg/L 1,1-DCA (MCL 5 µg/L), 0.5 µg/L 1,2-DCA (MCL 0.5 µg/L), and 20 µg/L 1,1-DCE (MCL 6 µg/L) in well MW-2. All groundwater concentrations were below the groundwater ESLs for evaluation of potential vapor intrusion (TCE: 130 µg/L, 1,1,1-TCA: 720,000 µg/L, 1,1-DCA: No Screening Value, 1,1-DCE 16,000 µg/L, and cis-1,2-DCE 3,100 µg/L). The RWQCB granted regulatory closure based on the RWQCB's Assessment Tool for Closure of Low-threat Solvent Sites on June 25, 2015 (RWQCB, 2015).

South of the building along the eastern property boundary, arsenic impacts in soil associated with waste arsenic-slurry had previously been detected and remediated and were considered a historical REC in the Phase I Report. Arsenic concentrations up to 140 milligrams per kilogram (mg/kg) were detected in soil along the eastern portion of the site just south of the hazardous material storage area. This soil was removed under the City of Santa Clara Fire Department oversight. Sidewall samples were collected to confirm that adequate soil was removed to meet the Fire Department approved cleanup level of 19 mg/kg arsenic. The Santa Clara Fire Department closed the facility on December 9, 2014 (SCFD, 2014).

2.2.4 3230 Scott Parcel

The 3230 Scott Parcel has one building and was occupied by Ultratech Stepper, a manufacturer of microlithography steppers, between 1979 and 1994. Ultratech Stepper operated a wastewater

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UST and vapor degreaser during their occupancy at 3230 Scott Boulevard. The company also stored and used solvents such as vinyl chloride, 1,1,1-TCA, Freon 113, methylene chloride, acetone, and alcohols, as well as other chemicals such as petroleum products, acids, and bases. Records show that Ultratech Stepper also installed a 500-gallon wastewater UST in 1979; however the location and present status of the UST is unknown. The current tenant, Skyworks Solutions Inc., does not store chemicals on site, other than small amounts of distilled water, oil, epoxies, isopropanol, and common cleaning products (EKI 2014f).

A Phase I ESA conducted for the 3230 Scott Boulevard site identified VOCs in groundwater that were migrating onsite from the west or southwest were a REC, and that the source of this contamination may be originating further upgradient to the southwest (EKI 2014f). In December 2014 a Phase II investigation was conducted to investigate this REC. Low concentrations of VOCs were detected in shallow grab groundwater samples collected from all four locations within the property. 1,1-DCA up to 8.92 µg/L and 1,1-DCE up to 12.0 µg/L were the only VOC concentrations exceeding their respective MCLs (1,1-DCA: 5 µg/L and 1,1-DCE: 6 µg/L), however the concentrations were well below the groundwater ESL for evaluation of potential vapor intrusion for 1,1-DCE (16,000 µg/L), and there is no 1,1-DCA groundwater ESL for evaluation of potential vapor intrusion. Figure 6 shows the December 2014 groundwater sample locations and results. Based on the groundwater flow direction and past groundwater data collected at the adjacent IDT property, it was concluded that the VOCs are likely migrating onsite from the west or southwest (EKI 2014f). Additionally, discrete soil samples indicated the presence of dieldrin up to 60.6 µg/kg, DDE up to 1,830 µg/kg, arsenic up to 56.1 mg/kg, and lead up to 402 mg/kg due to the site's previous use as an orchard. These concentrations, with the exception of DDE, are above the proposed remedial goals discussed in Section 5.3. EKI's soil sampling results are presented in Appendix H.

Based on the groundwater concentrations, eight soil vapor samples were collected across the property. Several VOCs were detected in soil vapor and all, except for vinyl chloride at SVP-07 were below their respective residential RSLs for indoor air calculated with the appropriate attenuation factor of 0.001 (DTSC, 2011). The vinyl chloride concentration in sample SVP-07 was 20.5 $\mu g/m^3$, exceeding the residential screening level of 9.5 $\mu g/m^3$. Figure 7 shows the December 2014 soil vapor sample locations and results.

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2.2.5 Augustine Bowers II Parcel

The approximately 2.6 acre Augustine Bowers II Parcel is located on the eastern border of the Santa SCS Retail Site (Figure 2). Remediation of this parcel was originally proposed under the SCS Retail Response Plan (EKI, 2014e); however, the remediation will be completed under this Response Plan. An addendum will be submitted to DTSC for the SCS Retail Response Plan to document that the Augustine Bowers II LLC Parcel will be remediated under this Response Plan.

The full SCS Retail Site (including the Augustine Bowers II Parcel) comprises approximately 14.18 acres with six buildings with the following addresses: 2620 and 2700 Augustine Drive, 3333 and 3399 Bowers Avenue, and 3281, 3283, 3285, and 3295 Scott Boulevard. A Phase I ESA was conducted by AEC in July 2012, EKI in April 2014 and Roux Associates in October 2015. A Phase II investigation was conducted in March 2013 and additional characterization of the site was performed by Roux Associates in July 2014 (Roux, 2014a). Two buildings partially resided on the Augustine Bowers II Parcel, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

Past tenants for the entire SCS Retail Site primarily used the site for office purposes. Available records indicated that several tenants used chemicals but based on the available information, the chemicals were of low toxicity (acetone, methanol and toluene) and of limited quantity. The eastern 140 feet of the SCS Retail Site that comprises the Augustine Bowers II parcel was used primarily for parking. The footprint of building 2620 Augustine Drive and the 3281-3285 Scott Boulevard buildings partially overlaps this area. As discussed in the SCS Retail Response Plan, a release of approximately 40 gallons of elevator hydraulic oil was documented inside the 2620 Augustine Drive building, just west of the Augustine Bowers II Parcel. Previous groundwater remediation included groundwater extraction and monitoring. Soil characterization and remediation of residual hydraulic oil was conducted in February and March 2015. This consisted of advancing four borings near the former hydraulic oil release area and excavating hydraulic oil impacted soil for offsite disposal.

To date, eight soil borings have been advanced within the eastern portion of the Augustine Bowers II Parcel. Results of this characterization were presented in Roux Associates October 10, 2014 letter (Roux, 2014a). During this investigation, five borings (RG1-1, RG2-1, RG3-1,

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RG4-1, and RG5-2) were advanced at 140 foot intervals, representing 20,000 square foot grids with one additional boring located within 3281-3285 Scott Boulevard (G5-1) and two sidewall samples (SW-7 and SW-8) (Figure 3). COC concentrations in these samples ranged from below RGs up to 33 mg/kg arsenic (RG5-1 [20-24]), 43 mg/kg lead (RG2-1[8-12]), 1,200 µg/kg DDE (RG4-1 [0-12] COMP), and 63 µg/kg dieldrin (RG5-1 [0-12] COMP). These results are similar to concentrations detected throughout the SCS Retail Site. From October 2014 to April 2015, the western approximate 40 feet of the Augustine Bowers II Parcel was remediated (Roux, 2015a). Figure 2 shows the Augustine Bowers II Parcel within the blue SCS Retail gridlines. The berm located in cell G1 along Augustine Drive was removed during the initial phase of remediation at the SCS Retail Site.

Although groundwater and soil vapor were not collected within the Augustine Bowers II Parcel, soil vapor and groundwater was adequately characterized on the adjacent site. For soil vapor samples were collected approximately 75 feet to the west in SSVP-1 and SSVP-13 (EKI, 2014a) and approximately 100 feet to the east on the 3265 Bowers Parcel in SSVA13-1, SSVA13-2, and SSVA10-1 (Roux, 2015a). No VOCs were detected above the RSLs with the appropriate attenuation factor. Groundwater samples were collected approximately 25 feet to the west in SGW-5 on the SCS Retail site (EKI, 2014a) and approximately 100 feet to the east in SGW-1 on the 3265 Bowers Parcel (Roux, 2015a). No constituents were detected above the MCLs in these groundwater samples.

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2.3 Regional Site Setting

The 33.4 acre Site is approximately 2.5 miles south of San Francisco Bay, and is located along the north and south sides Scott Boulevard and generally between Coronado Drive, Augustine Drive, Stender Way, and the San Tomas Aquino Creek Trail in Santa Clara, California (Figure 1). The area is generally developed with commercial and light industrial buildings.

2.4 Geology and Hydrogeology

The following sections summarize the regional geology and hydrogeology.

2.4.1 Regional Geology and Hydrogeology

The Site is underlain by alluvial sediments that have been derived from the nearby upland surfaces and were deposited in a series of coalescing alluvial fans. The sediments underlying this part of the Santa Clara Valley are divided into two units, based upon age (California Department of Water Resources, 1967). The younger alluvium is of Holocene to Pleistocene age and is composed primarily of unconsolidated sands, gravels, silts and clays and is up to 200 feet thick. Thick deposits of coarse grained alluvial deposits are found in the vicinity.

The Site is located in the confined portion of the Santa Clara Plain subarea, the surface of which slopes gently down toward San Francisco Bay. The Santa Clara Plain subarea is the northernmost of two groundwater management subareas of the Santa Clara Sub Basin, which itself is one of four subareas of the much larger Santa Clara Valley Basin (Santa Clara Valley Water District, 2012). The Santa Clara Plain subarea is considered a separate groundwater subarea because groundwater exists here under nearly completely confined conditions, which makes it unique from any other subarea of the Santa Clara Valley groundwater basin (Department of Water Resources, 1967). The confined area of the Santa Clara Plain subarea is characterized by upper and lower aquifers, divided by laterally extensive low permeability materials such as clays and silts, which restrict the vertical flow of groundwater. The Santa Clara Valley Water District (SCVWD) refers to these aquifers as the shallow and principal aquifer zones, with the latter defined as aquifer materials greater than 150-feet below ground surface (ft bgs). According to the SCVWD, principal aquifers are less vulnerable to contamination than shallow aquifers since the confining layers also restrict the movement of contaminants that may be present in migrating groundwater. Recharge occurs on three sides of the basin, and the total thickness of water-bearing sediments is greater than in any other portion of the basin (SCVWD, 2012).

2.4.2 Site Geology and Hydrogeology

Between December 2014 and August 2015, Roux Associates performed a subsurface investigation that included groundwater, shallow soil, and soil vapor sampling. The subsurface geology encountered during the drilling and grab groundwater sampling included a sequence of clays, silts, and silty sand layers in the upper 15 feet.

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Based on Roux Associates subsurface investigations at the Site and the geotechnical investigation conducted for the Companies at the SCS Apartments parcels (Langan, 2014, 2015a, and 2015b), the upper 7 to 18 ft bgs on the north of Scott Blvd parcels and 3.5 to 7.5 ft bgs on the south of Scott Blvd parcels consists of stiff to hard clay with a moderate to high expansion potential with plasticity indices ranging from 20 to 47. Medium stiff to stiff clay and sandy clay were encountered below the upper clay layer. This layer is approximately 12 to 27 feet thick and has interbedded layers of loose to medium dense sand, silty sand and clayey sand from approximately one to seven feet in thickness. Below these layers are stiff to very stiff clay with interbedded layers of sand and gravel to the maximum depths explored of 100 ft bgs. A relatively continuous medium dense to very dense sand and gravel layer was encountered at depths of 25 to 38 ft bgs during the geotechnical investigation. Groundwater was generally first encountered in a silty sand layer encountered between 9 (south of Scott Blvd) and 18 ft bgs (north of Scott Blvd).

San Tomas Creek borders the Site to the east and is channelized and concrete-lined. No other significant surface drainage features are present in the immediate vicinity of the Site that could impact groundwater elevations.

2.4.2.1 Groundwater Elevations at Site

The Site is located within the groundwater monitoring well network for the Synertek NPL site, which has years of data showing groundwater elevations, gradients and flow directions for the Synertek site (from September 1987 through October 2014). Consequently, very reliable information is available regarding current and historic elevations, gradients, and flow directions for the Site. Roux Associates and EKI previously evaluated this dataset and figures, tables and graphs showing the well locations and groundwater elevations prepared for the SCS Office Phase I/II/III and Retail sites are presented in Appendix I. A review of this same dataset along with more current data confirmed that the highest measured groundwater level in Well MW-33A, adjacent to the Site in Augustine Drive, was the same as previously identified at 19.27 feet above mean sea level (ft MSL); or 7.72 ft bgs, in March 2004 (CH2MHill, 2015). The most recent

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depth to groundwater in Well MW-33A was 16.75 ft MSL; or 10.24 ft bgs, 2.5 feet lower in elevation than the historic high groundwater elevation measured in 2004[4].

At the 3236 Scott Parcel, five groundwater monitoring wells were monitored on site in 1993, 1994, 1995, 2010 and 2012. The wells were abandoned in 2015. During these events, groundwater was typically encountered at approximately 8 to 11.5 ft bgs or 20.5 to 24 ft MSL and flowed in the northeast direction (Environ, 2014). This flow direction is consistent with the northeastern gradient observed in the Synertek wells. As groundwater was not monitored in 2004, a direct comparison of the regional high groundwater elevation observed in 2004 is not possible. However, depth to groundwater was measured on August 16, 1993, nine days before Synertek measurements on August 25, 1993. During this event, MW-28A, the closest well to the 3236 Scott Parcel groundwater elevation was 20.72 ft MSL and groundwater elevations at 3236 Scott Parcel ranged from 20.43 to 22.50 ft MSL. As MW-28A is downgradient, a lower groundwater elevation is expected. Therefore, it appears that the Synertek groundwater elevation and gradient data is consistent with the 3236 Scott Parcel.

CH2MHill determined that groundwater gradients have been relatively stable in the Site vicinity with groundwater flow direction generally to the north at a slope of 0.004 since groundwater monitoring began in 1987 (CH2MHill, 2014). Observed groundwater elevations in the Synertek wells located and calculated groundwater gradients indicate that the high groundwater levels have decreased from approximately 23 ft MSL at Scott Boulevard in wells MW-28A and MW-29A to 19.27 ft MSL at Augustine Drive in well MW-33A. Roux Associates has obtained a copy of the potentiometric surface map for the March 2004 event prepared by CH2MHill (CH2MHill, 2005) showing the groundwater elevation contours for this period (Appendix I). As shown on Appendix I, the groundwater contours are uniform from Scott Boulevard north towards the Site. Below Scott Boulevard, groundwater generally radiates outwards from the Synertek site where groundwater extraction wells have been operating for many years.

[4] Note: In May 2015, Synertek wells were resurveyed to the NAVD 88 datum. Elevations shown here are based on historic NGVD datum consistent with the Santa Clara Square Engineering drawings. These elevations were confirmed by a licensed land surveyor.

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To evaluate groundwater elevations across the Site, Roux Associates utilized March 2004 groundwater elevations from all Synertek wells to model the potentiometric surface. This modeling confirmed the CH2MHill groundwater contours were correct. Roux Associates then extrapolated this potentiometric surface to the east and west across the Site. The extrapolation is presented on Figure 4. As shown in Figure 4, the estimated high groundwater elevations at the Site varies from about 25 ft MSL in the southeast corner approximately 19 ft MSL in the northwest corner. This elevation analysis relies on a robust data set with over 25 years of monitoring data spanning both drought and wet years, and the data has shown that the gradients and elevations have been consistent over time. The groundwater elevations shown on Figure 4 will be used to determine the depths of consolidation cells. Additionally, this data is consistent with calculations used at the SCS Office Phase I/II/III and SCS Retail sites.

2.5 Adjacent Remedial Activities

Soil remediation has been completed and approved by the DTSC at the nearby SCS Office I Site. Remedial action has been completed at the adjacent portions of the SCS Retail Site and a completion report is currently being prepared. Soil remediation at the SCS Office II & III Site has recently begun. The remediation of each of these sites has been under the oversight of the DTSC.

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3.0 RECENT SUBSURFACE INVESTIGATION

This section describes the objectives, investigation activities and results of Roux Associates subsurface investigation at the Site that occurred between July 2014 and August 2015.

3.1 Subsurface Investigation Objectives

The primary objectives of this investigation were to:

- Investigate and characterize areas of concern identified in previous ESAs;
- Define the lateral and vertical extent of impacts and estimate potential soil excavation volumes and the scope of mitigation work for redevelopment; and
- Collect sufficient data so that confirmatory end point sampling (pre-excavation remediation confirmation samples) can be collected in a similar manner to how it has been collected at the SCS Retail and Office Phases II & III Site under DTSC oversight.

Pre-excavation confirmation sampling involves increasing Site characterization to a higher level of confidence prior to excavation by collecting sufficient soil samples which meet the remedial objectives and achieve or exceed typical post–excavation confirmation sampling and analytical densities. Once the extent of soil impacts is established, soil would be excavated to a depth at which soil sample locations meet the RGs. Proposed RGs are discussed in Section 5.3. Using pre-excavation confirmation sampling at the Site provides multiple benefits including being able to:

- Prepare more complete remedial planning documents and bid specification packages that accurately identify the proposed excavation areas, the mitigation soil volumes, and soil placement areas;
- Avoid delays associated with supplemental excavation and confirmation sample laboratory analyses; and
- Reduce the likelihood that the remedial objectives will not be met.

3.2 Subsurface Investigation Activities

As discussed in Roux Associates' October 10, 2014 and October 5, 2015 Characterization Reports, Roux Associates advanced 135 soil borings across the Site at 120 feet intervals, representing a 14,400 square foot grid, and five soil borings at 140 feet intervals representing a 20,000 square foot grid (on the Augustine Bowers II Parcel). Additional soil borings beyond the 120 and 140 foot intervals were added inside of buildings, in landscaping berms and in the

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vicinity of the former creek location. The data from these shallow soil investigations indicate that elevated concentrations of arsenic, lead, and several organochlorine pesticides were detected in shallow soil across much of the Site (Roux, 2015).

From July 21, 2014 to August 26, 2015, Roux Associates performed characterization activities at the Site. BKF Engineers (BKF) and Civil Engineers Association (CEA), performed the land survey of the Site to locate the proposed soil boring locations. All locations were surveyed to the precise longitude, latitude and elevation under the supervision of a California licensed land surveyor. Drilling services for soil and groundwater were provided by Cascade Drilling, L.P. (Cascade) of Richmond, California and the project laboratories were Curtis and Tompkins and Accutest West Coast Laboratory (Accutest), California state certified laboratories. For soil vapor sampling, installation, sampling, and analyses services in December 2014 were provided by TEG Northern California of Rancho Cordova, California a California certified mobile laboratory and C 57 driller (#706568). Soil vapor probe installation services in July and August 2015 were provided by Cascade Drilling, soil vapor sampling provided by Roux Associates and soil vapor analysis by Curtis and Tompkins Laboratories and McCampbell Analytical.

3.2.1 Soil Sampling Activities

From July 2014 to August 2015, Roux Associates advanced 142 soil borings on the Site as shown on Figure 3. Exterior soil borings were advanced five feet below base rock (ft bbr) to collect a continuous soil core in acetate liners. The acetate liners were cut at 4-inch increments for a total of 15 samples per boring location.

- A total of 79 exterior borings were completed and approximately 1,230 exterior soil samples were submitted to the laboratory.
- Interior soil borings were advanced up to eight ft bbr. A total of 41 interior borings were completed, with approximately 24 to 30 samples collected per boring, and approximately 1000 interior soil samples were submitted to the laboratory.
- The 16 berm soil borings were advanced to a depth equal to the height of each berm location. Three soil samples were collected by slide hammer at the top, middle, and bottom of each berm location in six-inch stainless steel sleeves and all three samples from each boring were composited into a single sample for laboratory analysis.
- Soil borings near a historic creek were advanced to depths of 13 to 20 ft bbr and samples were collected in 5-foot acetate liners. In the creek soil borings, the first 5 ft bbr were collected and sampled at 4-inch increments, and two 6-inch samples from 6.5 to 7 ft bbr

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and 10 to 10.5 ft bbr were additionally collected and submitted to the laboratory. A total of six creek borings were completed and 102 creek soil samples were submitted to the laboratory from these borings.

In locations where VOCs were collected, Terracores were utilized with soil samples placed in laboratory provided properly preserved bottle ware.

The sample analyses were conducted on a phased approach. First, select samples were analyzed for arsenic to determine the shallowest level meeting the proposed RG of 17 mg/kg. Once this depth was determined, the sample was analyzed for pesticides and lead. For the exterior, interior, and creek samples, the three samples from the first foot and three samples from the second foot were composited three to one by the laboratory and analyzed for pesticides. Additionally, vertical composite samples were analyzed at 23 borings for waste pre-characterization to evaluate offsite disposal options. These 23 borings were selected based on the proposed future building locations. Berm samples were analyzed for lead, arsenic, and pesticides in a 3:1 composite. Each soil sample was homogenized by the laboratory prior to analyses. Select soil samples were analyzed for the following:

- Title 22 Metals by EPA Method 6010B;
- Moisture Content by ASTM D2216/CLP;
- VOC's by EPA Method 8260B;
- SVOC's by EPA Method 8270C; and
- PCB's by EPA Method 8082.

This scope included approximately 884 analyses for arsenic, 209 for lead, and 423 for pesticides. A total of 23 waste samples were analyzed for VOC's, SVOC's, PCB's, and Title 22 Metals.

3.2.2 Groundwater Sampling Activities

On December 9, 2014 and July 23, 2015 Roux Associates collected grab groundwater samples at six locations (Figure 3).

Grab groundwater samples were collected following soil sampling by advancing a borehole to 20 ft bbr using direct push technology (DPT). Prior to removing the core barrel, a temporary

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one-inch screen and casing was placed in to the borehole to prevent sloughing. Each borehole was screened from 15 to 20 ft bbr. Boreholes were allowed to equilibrate for approximately 2 hours prior to groundwater sampling. During sampling, static groundwater levels were observed between 10 and 12 ft bbr. Grab groundwater samples were collected using a peristaltic pump and laboratory provided sampling containers. Groundwater samples were analyzed for VOC's by EPA Method 8260B.

Although groundwater samples were not collected within the Augustine Bowers II Parcel, groundwater was adequately characterized based on samples collected adjacent to this parcel. Samples were collected approximately 25 feet to the west in SGW-5 on the SCS Retail site (EKI, 2014a) and approximately 100 feet to the east in SGW-1 on the 3265 Bowers Parcel (Roux, 2015a).

3.2.3 Soil Vapor Sampling Activities

In a previous investigation, conducted by EKI, at the SCS Apartments Site (APN 216-45-024) north of Scott Boulevard, soil vapor sample PSSV-9, collected from native soil five feet below the 3233 Scott Boulevard building slab (Figure 7) contained a vinyl chloride concentration of 40.7 µg/m^3. This concentration is above the current residential RSL (9.5 µg/m^3), the residential ESL (16 µg/m^3) and the California Human Health Screening Level (CHHSL) for potential risk to indoor air (13 µg/m^3). These samples were below the commercial RSL (320 µg/m^3), the commercial ESL (160 µg/m^3) and the commercial CHHSL (45 µg/m^3). Several other chlorinated and petroleum-related volatile organic compounds (VOCs) were detected in soil vapor samples at low concentrations (EKI 2014) below the residential RSLs, ESLs and CHHSLs. Appendix H includes the January 2014 Table 1 and Figure 3 which summarize these results and sample locations.

A soil vapor investigation conducted at the SCS Apartments Site (APN: 216-29-053) south of Scott Boulevard in November 2014 had a soil vapor sample (3230-SVP07) containing a vinyl chloride concentration of 20.5 µg/m^3, which is above the in soil vapor above the residential RSL, ESL and CHHSL. Several other chlorinated and petroleum-related VOCs were detected in soil vapor samples which were all below the residential RSL, ESL and CHHSL. Appendix H

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includes the December 2014 Table 1 and Figure 3 which summarize the soil vapor results and show the sample locations.

Approximately 75 feet west of the Augustine Bowers II Parcel, two soil vapor probes SSVP-12 and SSVP-13 were advanced by EKI in March 2013.

To confirm and better characterize the previous soil vapor detections, in December 2014, 12 soil vapor probes (SVPs) and in July 2015 6 SVPs, were installed and sampled by Roux Associates. Soil vapor sampling was performed at six locations around the 3233 Scott Boulevard building, at three locations adjacent to 3255-2 Scott Boulevard, at three locations around the 3265 Scott Boulevard building, and six locations surrounding 3236 Scott Boulevard (Figure 3). Additional sampling surrounding the 3230 Scott parcel was not necessary due to a recent investigation conducted in November 2014 described above. In August 2015, seven additional SVPs were installed and sampled north of Scott Boulevard. These samples were located near previous soil vapor sample locations that had detection limits exceeding a current screening level (further discussed in Section 6.4). Installation, sampling, and analyses services in December 2014 were provided by TEG Northern California of Rancho Cordova, California a California certified mobile laboratory and C-57 driller (#706568). Installation services in July and August 2015 were provided by Cascade Drilling, sampling provided by Roux Associates and analysis by Curtis and Tompkins Laboratories and McCampbell Analytical.

SVPs were installed by advancing a two-inch boring five feet below grade using DPT. Temporary vapor probes were constructed using 1/8th-inch nylaflow tubing and a plastic air diffuser surrounded by a one foot sand pack (#3 Sand). Above the sand, 6-inches of dry bentonite was placed in the annular space followed by hydrated bentonite to the surface. After installation, borings were left to equilibrate for a minimum of two hours. After equilibration, the SVPs were purged to remove a minimum of three casing volumes prior to sampling. During purging and sampling a rigid container was placed over the boring and 1,1-difluoroethane or helium was introduced into the container as a leak detection tracer. The December 2014 samples were collected using a 50cc syringe and immediately analyzed using an onsite mobile lab. These samples were analyzed for VOCs using EPA method 8260B. Samples collected in July and August 2015 were collected using liter Summa canisters and analyzed for VOCs using EPA

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method TO-15. Upon completion of sampling, all SVPs were abandoned by removing the vapor probe materials and backfilling with cement grout.

3.3 Investigation Results

3.3.1 Soil Results

Roux Associates advanced 142 soil borings and collected and analyzed 1,150 soil samples. All soil samples were collected as discrete samples and samples selected for compositing were homogenized by Accutest. For the exterior, interior, and creek soil borings, the three samples collected from 0 to 12 inches were composited into a single sample and the three samples collected from 12 to 24 inches were composited into a single sample and both samples were analyzed for pesticides. For the berm soil borings, the three samples representing the height of the berm were composited and analyzed for pesticides, lead, and arsenic. Analytical results for soil are summarized in Table 1. Table 1 also shows the proposed 2015 RGs for each COC. Elevations for the borings and individual samples based on the surveyed results are summarized in Table 2 and presented on Figure 5 and 5A. The sample analytical data was compared to proposed remedial goals, which are described in Section 5.3, listed on Tables 1, and summarized in Table 6. Based on this data, soil has been adequately characterized at the Site. The following is a summary of our findings.

3.3.1.1 Exterior Borings

Thirty three exterior borings did not have any impacts above remedial goals (RGs), and the remaining 49 exterior borings had soil above RGs up to 52 inches below base rock (bbr) with an average depth of approximately 20 inches bbr.

3.3.1.2 Building Interior Borings

The deepest impacts overall were below the slabs of existing buildings. Three sub-slab borings did not have any impacts above RGs, and the remaining 40 sub-slab borings had soil above RGs up to 76 inches bbr to an average depth of approximately 43 inches bbr. All building pads were raised up higher than exterior areas and most of the soil used as fill below the buildings has COC concentrations above RGs.

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3.3.1.3 Berm Borings

Based on the elevated COC concentrations observed throughout landscaped berms at adjacent sites (SCS Office Phase I/II/III and SCS Retail), it was determined that that these berms were constructed by relocating native soils surface soil which tended to have the highest concentrations of COCs. It was also determined that soil in landscaping berms was mixed during construction, so the berms have similar COC concentrations throughout their depth, which is unrelated to underlying native soil they were built on top of. Consequently, 16 borings were advanced in landscaping berms at the Site.

The data confirmed that the berms at the Site were constructed with impacted soil, similar to what was observed at adjacent sites. All berm borings were impacted above proposed RGs to the full depth of the berms. Soil beneath berms is characterized by exterior soil borings collected near the berms within each cell the berm resides in. In SBMF15-1, SH15-1, and SBMI14-1, concentrations remained above the remedial goals below the base of the berms; however, soil excavation is not planned at this location because they are within tree protection zones, and therefore additional sampling below these berms is not planned.

3.3.1.4 Former Creek Borings

Six borings completed in the vicinity of a historic creek were advanced to depths of 13 to 20 ft bbr. All borings had some soil above RGs, up to a maximum depth of 40 inches bbr at one location and with an average depth of approximately 21 inches bbr. None of the samples collected below 40 inches was impacted above RGs. As the depths of impacts are similar to other exterior samples, the data do not indicate that the historic creek bed was filled with impacted soil.

3.3.1.5 California Hazardous Soil

The COCs that exceeded California hazardous waste (CalHaz) criteria are the sum of DDE, DDD, and DDT. Table 1 provides a sum of DDD, DDE and DDT concentrations for each sample and compares it to the CalHaz standard of 1,000 µg/kg (Total Threshold Limit Concentration from Title 22 California Code of Regulations, Section 66261.24). The highest observed concentration of the sum of DDE, DDD, and DDT was 1,872 µg/kg. This assessment resulted in samples from 10 of the 140 borings, representing eight areas, having soil samples

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above the CalHaz criteria: RG4, SM21, SBF13, SBG9, SBMD8, SCC10, SCC8, SL16, SBB8 and SJ10. It should be noted that the CalHaz standard is lower than residential screening levels for DDE, DDD, and DDT, and that this standard was only used to help evaluate soil management and disposal options, rather than evaluate potential health risks.

3.3.2 Groundwater Sampling Results

The groundwater sample from Boring SJ17-1 contained 6.5 µg/L of 1,1-DCA, which exceeds the California Maximum Contaminant Level for Drinking Water (MCL) of 5 µg/L. The groundwater samples from borings SJ17-1 and SJ20-1 contained detections of 1,1-DCE at 9.5 µg/L and 8.4 µg/L respectively, which exceeds the California MCL of 6 µg/L. No other VOCs were detected above MCLs.

All groundwater concentrations were below the San Francisco Bay Regional Water Quality Control Board (RWQCB) groundwater Environmental Screening Levels (ESLs) for evaluation of potential vapor intrusion (1,1-DCA: No Screening Value and 1,1-DCE 16,000 µg/L) and thus do not present a vapor intrusion concern. Groundwater analytical results are summarized in Table 3. Figure 6 shows the groundwater sampling results. Based on these data from the SCS Apartments Site, data from adjacent sites, and the lack of significant VOC concentrations detected in previous investigations at the SCS Apartments Site, groundwater concentrations at the site appear stable to decreasing and have been adequately characterized at the Site.

3.3.3 Soil Vapor Sampling Results

Soil vapor investigations were conducted in March 2013, December 2014, July 2015, and August 2015 at various parcels at and directly adjacent to the Site. Low detections of both petroleum and chlorinated VOCs were observed during all three of Roux Associates' sampling events (December 2014, July 2015, and August 2015) in 16 of the 26 soil vapor sample locations. The March 2013 data is presented in Appendix H and the December 2014, July 2015, and August 2015 data is presented in Table 4. Figure 7 shows the soil vapor sampling results.

Low concentrations of VOCs were detected at the two soil vapor sample locations approximately 75 feet west of the Augustine Bowers II Parcel in March 2013 (SSVP-12 and SSVP-13), but neither VOC detected (1-1-DCE and toluene) have an applicable RSL screening level. Appendix

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H includes Table 1 which summarizes the March 2013 soil vapor results and Figure 2 shows the sample locations.

Low detections of VOCs were observed at all seven soil vapor sample locations sampled during the July 2015 soil vapor investigation on the 3230 Scott and 3236 Scott properties, but all detections were well below their respective residential RSLs with the appropriate attenuation factor applied (DTSC, 2011 [0.001]). Low levels of VOCs were detected in 2 of the 12 soil vapor samples collected on the parcels north of Scott Boulevard in December 2014, but all detections were well below their respective residential RSLs with the appropriate attenuation factor applied (DTSC, 2011 [0.001]).

As shown in Table 4, laboratory reporting limits for the December 2014 soil vapor samples collected on the parcels north of Scott are elevated above residential screening levels. Roux Associates' collected additional samples in July 2015 to assess previous samples with reporting limits elevated above the residential screening levels. Reporting limits for PCE, TCE, and the associated breakdown products 1,1-DCE and 1,1-DCA, were all below the screening limits. On August 26, 2015, seven additional soil vapor probes were installed and sampled north of Scott Boulevard near previous soil vapor sample locations which had elevated detection limits in Roux Associates' sampling in December 2014. Reporting limits for vinyl chloride, PCE, TCE, and the associated breakdown products 1,1-DCE and 1,1-DCA, were all below the screening limits. A new soil vapor location (SSVK15-1) was also placed next to the one location (PSSV-9) where EKI had a screening level exceedance during their June 2013 soil vapor investigation in the 3233 Scott Boulevard building.

Low levels VOCs were detected in all seven soil vapor samples collected on the parcels north of Scott Boulevard in August 2015. Vinyl chloride was only detected in one sample (SSVK15-1) at a concentration of 1.1 micrograms per cubic meter (µg/m3) J, which is below the current residential screening level of 9.5 µg/m3. There were no detections of PCE, TCE, or associated breakdown products (i.e., 1,1-DCE and 1,1-DCA) above screening levels in any of the samples. In SSVK15-1, located inside of 3233 Scott Building, benzene was detected at 230 µg/m3, above the screening level of 97 µg/m3. Eight soil vapor samples have been collected around this building and one inside the building, and all were below the benzene screening level, and many

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samples were below detection limits. Additionally, three groundwater samples were previously collected on three sides of this building, and none of them contained any benzene. Based on this data, the elevated benzene detection appears to be anomalous, and not indicative of an environmental condition.

In SSVJ15-1, located just west of the 3233 Scott Building, DBCP was detected at 0.23 µg/m3, above the screening level of 0.17 µg/m3. DBCP was not detected at the SCS Apartments Site in any other samples in any media. Based on these data from the SCS Apartments Site, data from adjacent sites, and the lack of significant VOC or hydrocarbon concentrations in soil and groundwater detected in at the SCS Apartments Site, soil vapor at the SCS Apartments Site appears stable to decreasing and has been adequately characterized at the site.

Table 4 summarizes the data and Figure 7 shows the soil vapor sampling locations.

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4.0 SITE IMPACTS AND CONTAMINANTS OF CONCERN

This section:

1. Identifies the screening criteria used to evaluate chemical detections at the Site;
2. Summarizes all chemicals detected at the Site identified as potential contaminants of concern (PCOCs);
3. Compares PCOCs with risk-based screening levels to develop a list of COCs;
4. Presents a site conceptual model that includes potentially complete exposure pathways; and
5. Evaluates the potential for occurrences of COCs to create unacceptable human health risks after the planned redevelopment.

4.1 Risk-Based Screening Criteria

As indicated above, the planned development is residential, specifically an apartment complex. The objective of the response action is to reduce the potential for contact with impacted soil by future residents, tenants, utility workers, and subgrade construction workers by relocating and consolidating impacted soil beneath caps (buildings, pavement, or a sufficient depth of clean soil) or off-hauling and properly disposing of impacted soil. Analytical results for soil, groundwater, and soil vapor will be screened against residential (unrestricted use) criteria. A contingency remedy discussed in Section 6.12 below, allows for the placement of impacted materials beneath hardscape or clean soil caps.

Concentrations of chemicals detected in soil, other than arsenic, were compared with the following applicable screening criteria:

- Regional Screening Levels for Chemical Contaminants at Superfund Sites (U.S. EPA, 2015; DTSC, 2015). Regional Screening Level (RSLs) Residential Summary Tables (TR=1E-6, HQ=1) June 2015; with California-modified values per DTSC Office of Human and Ecological Risk ("HERO") Human Health Risk Assessment "(HHRA") Note Number 3, October 2015.
- The construction worker health and safety screening goal for arsenic is 47.7 mg/kg. The Site Specific Screen Level Calculations including all user inputs is presented as Appendix L.

The RSLs for arsenic are lower than naturally occurring background concentrations of arsenic in soil. It is not feasible or required to remediate soil to levels that are below background.

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Therefore, the screening level for arsenic in soil is its background concentration. Detected concentrations of arsenic at the Site were compared to a background level of 17 mg/kg. This background level was obtained from a DTSC- reviewed background arsenic concentration study (EKI, 2012) and has been approved by the DTSC for use to other sites within the development (SCS Office Phase I/II/III and SCS Retail).

The concentrations of chemicals detected in soil, soil vapor, and groundwater were compared to the applicable screening criteria. If any chemical exceeded its screening criteria in even a single sample it was retained for evaluation as a PCOCs as described below.

4.1.1 Soil Screening

Similar to previous investigations at the surrounding sites, the only chemicals observed in Site soils with any detection above screening levels were arsenic, lead, and dieldrin. Consequently, these chemicals were all retained for evaluation as PCOCs. Due to historic detections, DDE was also retained as a PCOC. The screening levels and analytical results for soil samples are provided in Table 1.

4.1.1.1 Arsenic

Analytical results of arsenic in soil samples are presented in Table 1. Analytical results from the previous EKI investigation are included in Appendix H. Detected concentrations of arsenic in soil ranged from 2.6 mg/kg to 165 mg/kg. Of the 884 soil samples analyzed for arsenic during the recent investigation, 385 samples contained concentrations above the natural background concentration level of 17 mg/kg. This distribution is similar to the EKI results. Therefore, arsenic in soil was retained as a PCOC for the Site.

4.1.1.2 Lead

Analytical results of lead in soil samples are presented in Table 1. Analytical results from the previous EKI investigation are included in Appendix H. Detected concentrations of lead in soil ranged from 4.4 mg/kg to 460 mg/kg. Of the 209 soil samples analyzed for lead during the recent investigation, 33 samples contained concentrations above the residential screening level of 80 mg/kg. This distribution is similar to the EKI results; however, as a two point composite

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from different locations were conducted, a direct comparison is not possible. Therefore, lead was retained as a PCOC for the Site.

4.1.1.3 Organochlorine Pesticides

Only two pesticides, dieldrin and DDE were detected above the screening criteria during the recent characterization and were retained for evaluation as PCOCs. One detection of chlordane was historically detected at 1,160 µg/kg above the RSL of 430 µg/kg in 3230-SVP05-1.5-2.0 on the 3230 Scott Boulevard Parcel in November 2014. However, of the 423 samples analyzed for organochlorine pesticides during the recent investigation, chlordane was not detected above the RSL. Therefore, this single detection of chlordane is considered an anomaly. Analytical results of organochlorine pesticides in soil samples are presented in Table 1. Analytical results from the previous EKI investigation are included in Appendix H.

<u>Dieldrin</u>

Detected concentrations of dieldrin in soil ranged from 0.59 J µg/kg to 312 µg/kg. Of the 423 soil samples analyzed for dieldrin during the recent investigation, 36 samples contained concentrations above the residential screening level of 34 µg/kg. The distribution of dieldrin is similar to the results obtained by EKI. On the basis of the number of screening level exceedances dieldrin is retained as a PCOC.

<u>DDE</u>

Detected concentrations of DDE in soil ranged from 0.74 J µg/kg to 1,480 µg/kg. Of the 423 soil samples analyzed for DDE during the recent investigation, no samples contained concentrations above the residential screening level of 2,000 mg/kg. In their previous investigation, EKI analyzed pesticides in 28 discrete samples and 14 composites samples, of which 4 samples exceeded the screening criteria for DDE. While the recent investigation included a significantly more robust assessment with no screening level exceedances, due to the exceedances during EKI assessment and as a conservative measure, DDE is retained as a PCOC for the Site.

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4.1.2 Groundwater Screening

Groundwater analytical results are presented in Table 3. Analytical results from the previous EKI investigation are included in Appendix H. The recent Synertek Groundwater data is presented in Appendix I. As previously discussed, two groundwater samples collected from within the 3236 Scott Parcel exceeded the MCLs at the Site (Figure 6) during the recent investigation. In addition to the recent data, Roux Associates reviewed the groundwater data collected from the Synertek plume monitoring wells. In general, concentrations from the Synertek plume are low with only intermittent exceedances of 1,1-DCA and 1,1-DCE. Based on the 2014 Synertek Annual Groundwater Monitoring Report, VOC concentrations were below reporting limits for all constituents with the exception of Freon 113 in well MW-33A (8.5 µg/L, 11/10/14), 1,1-DCE in well MW-28A (0.6 µg/L, 5/15/14) and 1,1-DCA (4.4 µg/L, 11/10/14), 1,1-DCE (5.8 µg/L, 11/10/14), Freon 113 (4.4 µg/L, 11/10/14), and cis-1,2-DCE (0.6 µg/L, 11/10/14) in well MW-29A. All concentrations, with the exception of 1,1-DCE in well MW-29A, were below the MCLs during this period (CH2MHILL, 2015). Based on the recently collected data, the previous EKI data, and the recent Synertek Sampling data, groundwater is impacted from low level VOC concentrations due to limited onsite releases and migration from offsite sources. The concentrations are low and generally below screening levels and thus do not present a vapor intrusion concern. Therefore, no PCOCs were retained as COCs for groundwater.

4.1.3 Soil Vapor Screening

Soil vapor analytical results are presented in Table 4. Analytical results from the previous EKI investigation are included in Appendix H. During EKI's investigation, two of seventeen soil vapor probes contained exceedances of vinyl chloride (Figure 7). To further investigate these results and to confirm if groundwater may be contributing to a potential vapor intrusion concern, additional vapor samples were collected. All detected VOCs were well below the RSLs with the soil gas attenuation factor (DTSC, 2011 [0.001]) for ambient air, with the exception of benzene located beneath the 3233 Scott Building (SSVK15-1) and DBCP in boring SSVJ15-1. In SSVK15-1, located inside of 3233 Scott Building[5], benzene was detected at 230 µg/m^3, above the screening level of 97 µg/m^3. Eight soil vapor samples have been collected around this

[5] SSVK15-1 was collected five feet below the building slab within native soils.

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building and one other inside of the building, and all were below the benzene screening level and many below detection limits. Additionally, three groundwater samples were previously collected on three sides of this building, and none of them contained any benzene. Based on this data, the elevated benzene detection appears to be anomalous. In SSVJ15-1, located just west of the 3233 Scott Building, DBCP was detected at 0.23 $\mu g/m^3$, above the screening level of 0.17 $\mu g/m^3$. DBCP was not detected at the SCS Apartments Site in any other samples in any media. Due to only a limited presence of VOCs in soil vapor, no PCOCs were retained as COCs for soil vapor.

4.2 Site Conceptual Model

The following conceptual site model (CSM) describes Roux Associates' current conclusions regarding identified COCs, contaminant sources, potentially complete current and future exposure pathways, and potential receptors for the Site. These aspects of the CSM for the Site are summarized below:

4.2.1 COCs

Arsenic, lead, dieldrin, and DDE are the COCs in soil at the Site. No COCs were identified for groundwater or soil vapor.

4.2.2 Contaminant Sources

The presence of elevated arsenic, lead, dieldrin, and DDE in shallow soil on the Site is due to the application of lead-arsenate and organochlorine pesticides during the previous orchard use of the Site. Due to the high organic content of the soil, the pesticides likely only infiltrated a few feet into the soils prior to becoming immobile and the application of these constituents to the soil ceased in the 1970s during Site redevelopment.

During Site redevelopment in the 1970s, relatively minor grading occurred in the current exterior areas to improve storm water drainage. This has increased or decreased the thickness of shallow impacted soil in some areas, but the depth of impacted soil materials based on mean sea level elevations is similar across the Site. When the current buildings were constructed, it appears that significant quantities of impacted soil shallow soil were relocated beneath the buildings, likely lime treated to address geotechnical issues and to raise the grade above the surrounding exterior

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elevations. This assumption is based on our recent investigation results and the use of this construction method at the adjacent SCS Retail Site and SCS Office Phase I/II/III Site. Additionally, due to elevated concentrations observed throughout landscaped berms it appears that the berms were constructed from relocating impacted surface soil which tended to have the highest concentrations of COC's. These observations are consistent with the investigation results that have identified impacts above proposed RGs within the berms and beneath existing buildings. These observations are consistent with the findings at the SCS Office Phase I/II/II Sites and the SCS Retail Site.

4.2.3 Groundwater Protection

Roux Associates has evaluated the mobility of each of the COCs identified at the Site. Based on this evaluation, arsenic was determined to potentially be the most mobile constituent in groundwater. Based on the geochemical properties of arsenic, mobility increases under reducing conditions caused by the desorption from and/or dissolution of iron oxides. Arsenic's mobility also increases under oxidizing conditions where groundwater pH is high (i.e., pH greater than 8) (Plant et al, 2005). Regional soils have been found to have a relatively neutral pH. In addition, carbonate has been found at concentrations ranging from 0.7 to 28% (Gardner, 1958), which has the effect of buffering the pH of water. This is verified by the neutral pH observed in the Synertek wells. If the soil is exposed to water, this may produce mildly reducing conditions. However, because of the soil's inherent buffering capacity, strongly reducing conditions are not likely.

As previously discussed, the Site and the surrounding properties were historically orchards until their development in the mid-1970s. Therefore, arsenic, lead, and organochlorine pesticides have been present in shallow soil at and surrounding the Site for at least 40 years, and arsenic and lead, in particular, were likely applied to the soil more than 75 years ago during the widespread use of lead-arsenate pesticides. Lead-arsenate use was widespread until the mid-1960s when the use of DDT increased. Lead-arsenate use has been banned since 1988. Therefore, in the unlikely event that groundwater rises significantly and infiltrates the proposed consolidation cells, it is very unlikely that the Site COCs would result in a significant impact to groundwater.

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4.2.4 Exposure Pathways and Potential Receptors

The Site is currently developed as an office park consisting of buildings, pavement, and landscaped areas. As the property nears development, occupancy of each of the buildings is decreasing with total vacancy expected by mid to late 2016. As the Site is capped with asphalt and buildings and all potential exposure pathways are deemed incomplete, there are currently no potential receptors.

4.2.5 Future Exposure Pathways and Potential Receptors:

The Site is planned to be developed as a 33.4-acre Site with 7 residential apartment buildings, a fitness center, 40,000 sq. ft. of retail and nearly 16-acres of public and private open space. Potential receptors include site visitors, tenants, construction workers, and landscape and maintenance workers. If the Response Plan is not implemented during Site redevelopment, complete exposure pathways for construction workers could include direct contact with and ingestion of impacted soil and inhalation of soil particulates during construction. Exposure pathways for landscape and maintenance workers and construction workers following redevelopment, including subgrade improvements, may include periodic direct contact with and ingestion of impacted soil and inhalation of particulates. Exposure for site visitors and tenants is unlikely even without implementation of the Response Plan as the development would largely serve as a cap across the Site, similar to current conditions.

The data collected by Roux Associates during environmental investigations are sufficient to develop the response action for the Site based on the CSM. After the Response Plan is implemented, there will be no complete exposure pathways for future Site occupants including landscape and maintenance workers. In the utility corridors for main utility trunk lines, if present, soil with elevated COC concentrations will be removed as needed to ensure that residual COC concentrations in these utility corridors are protective of construction and maintenance worker health and safety.

As arsenic poses the highest risk to construction worker health and safety of all site constituents, a screening goal was calculated using the USEPA's Supplemental Guidance for Developing Screening Levels for Superfund Sites, dated December 2002 (SSL Supplemental Guidance) (EPA, 2002). Theoretical exposure scenarios were developed for on-site construction workers

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for durations of 6 months. Because of the wide variety of reasonable construction worker exposure parameters (inhalation, dermal exposure and ingestion), USEPA does not provide generic SSLs for a construction worker exposure scenario. Therefore, it is necessary to calculate site-specific SSLs using reasonable exposure factors (inhalation, dermal exposure and ingestion) that are specific to this project. The parameter of interest here is the duration of the construction period.

Other site-specific parameters that are included in this exposure assessment include: number of days of exposure per year, soil ingestion rate, exposed skin surface area, soil adherence factor, dermal absorption fraction, and body weight. Values for these parameters were taken from various agency guidance documents, including the USEPA's SSL Supplemental Guidance (EPA 2002), USEPA's Update of Standard Default Exposure Factors (EPA 2014), and California Department of Toxic Substances Control Office of Human and Ecological Risk's Human Health Risk Assessment Note 1 (DTSC 2014). The construction worker screening level for arsenic, DDE and dieldrin in soil are calculated to be 47.7 mg/kg, 161.7 mg/kg and 13.5 mg/kg, respectively. These soil concentrations were used in calculating potential airborne concentrations for each chemical and then compared to the CalOSHA screening levels (Permissible Exposure Limits, PELs), which are based on short term inhalation exposure. The calculated airborne concentrations were below the PELs (Appendix L). The maximum DDE and dieldrin concentrations detected at the Site are well below the construction worker screening levels.

Additionally, soil adjacent to these utility corridors exceeding RGs, if present, will be demarcated with a marker geotextile (orange geogrid or similar), which will further limit the potential for exposure to impacted soil during utility repairs or subgrade tenant improvements. A minimum of two feet of clean fill in landscaped areas will limit potential exposure to landscape workers during routine gardening activities. Clean fill will consist of a minimum of two feet of soil with concentrations of COCs below the RGs demarcated from impacted layers (if present) with a marker such as a geotextile (orange geogrid or similar). Thus, the only potentially complete exposure pathway to future workers will occur if the cap is breached beyond clean utility corridors, clean soil layers, and the demarcation marker. As discussed in

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Section 7.2, a Soil Management Plan (SMP) will be prepared to address soil handling in the event the cap must be breached in the future.

Select trees on the Site will require protection during the redevelopment process. Excavation will not occur within the Tree Protection Zone as determined by a professional arborist. Where impacted soil cannot be excavated in a tree protection zone, a woven geogrid and a minimum of 3 inches of mulch will be placed above the geogrid to prevent future occupants from exposure to impacted soil. This is the same method used at the SCS Office Phase I/II/III and SCS Retail developments and approved by the DTSC.

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5.0 RECOMMENDED RESPONSE ACTION

Response action objectives (RAOs) were developed by considering, among other things, Applicable or Relevant and Appropriate Requirements (ARARs; Section 5.1). Proposed RGs are presented in Section 5.3. As described in Section 4.2, arsenic, lead, dieldrin and DDE were retained as COCs in soil. As such, potential ARARs have been considered and, RAOs, and RGs have been developed for these COCs in soil.

5.1 Applicable or Relevant and Appropriate Requirements

Among different considerations, ARARs (not specifically required by CLRRA) as described in 40 CFR Paragraph 300.430(e)(2)(i) were utilized in the development of the recommended response action. The definitions of ARARs shown below are presented by the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300).

Applicable Requirements are cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site.

Relevant and Appropriate Requirements and cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the Site that their use is well-suited to the particular Site.

ARARs are divided into the following three categories:

- Chemical-specific ARARs establish numerical values or provide methodologies that, when applied to site-specific conditions, result in the establishment of numerical values. They can provide cleanup and discharge levels that can determine site RGs. These ARARs are developed by identifying the contaminants at a site that pose a threat to human health and that must be remediated. Chemical-specific ARARs determine acceptable concentrations of specific hazardous substances, pollutants, and contaminants

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in the environment and establish the levels to which the soil or groundwater at the affected site must be cleaned or restored to protect human health and the environment.

- Location-specific ARARs can apply to natural site features, such as wetlands, or the presence of endangered species, or to anthropogenic features. Location-specific ARARs place restrictions on the concentrations of hazardous substances or the conduct of activities solely because the site occurs in, or may affect, a special location.

- Action-specific ARARs are technologically or activity-based requirements or limitations on the particular remedial actions at the site. Some examples include prohibitions or restrictions against the discharge of chemicals or contaminants to the air, water, or soil and the proper transfer, treatment, or storage of chemicals and contaminants. They specify permit requirements and engineering controls that must be instituted during site activities, or restrict particular activities.

While federal and state non-promulgated standards, policies, or guidance documents, and local requirements are not ARARs according to the NCP guidance, these items are also to be considered when evaluating and selecting removal actions necessary to protect human health and the environment. These non-promulgated, non-binding factors are designated "To Be Considered," or "TBCs."

Table 5 summarizes potential ARARs and TBCs for the Site. The table is organized by chemical-specific, location-specific, and action-specific ARARs and TBCs.

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5.2 Response Action Objective

The RAOs for this Site are to limit exposure risks to future Site users, including tenants, subgrade utility workers, and post-remediation subgrade construction workers from soil which exceeds a RG. This will be accomplished by using one or more of the following actions:

1. Excavating soil above a RG for placement and consolidation below a permanent cap (pavement parking areas, buildings, and/or two feet of clean fill consisting of soil with concentrations below RGs demarcated with a marker such as a geotextile (orange geogrid or similar) from impacted soil layers in landscaped areas);

2. Placing a cap over existing soil that exceeds an RG; or

3. Excavating soil above a RG for offsite disposal.

As previously described, after consolidation of impacted soil beneath a permanent cap (pavement parking areas, buildings, and/or two feet of clean fill consisting of soil with concentrations below

RGs demarcated with a marker such as a geotextile (orange geogrid or similar) from impacted soil layers in landscaped areas) or after impacted soil has been off-hauled, future tenants, onsite landscape and maintenance workers, and future subgrade construction workers will not be exposed to COCs in soil.

5.3 Proposed Remedial Goals

The proposed RGs were developed by considering regulatory requirements, risk based factors, and background concentrations. RGs were developed for the four COCs identified in soil (arsenic, lead, dieldrin, and DDE). Unrestricted land use RGs are based on residential screening criteria (Table 6). Similar to the adjacent SCS Retail and SCS Office Phase I/II/III Sites, the RGs for dieldrin and DDE are based on the summary RSLs for Residential Soil Tables (TR=1E-6, HQ=1) (EPA, 2015).

The arsenic RG was based on an upper-bound arsenic background concentration developed by EKI at a nearby site in Sunnyvale (approximately 2.3 miles from the Site; EKI, 2012). This method of determining a background arsenic concentration was approved for use by the DTSC and used at the SCS Office Phase I/II/III Sites and SCS Retail Site.

The lead RG for residential soil is based on the screening level from DTSC Office of Human and Ecological Risk (HERO) Assessment Note No. 3 (DTSC 2015). This RG was developed using a similar criteria approved by DTSC at the SCS Office Phase I and Office Phase II and II and SCS Retail sites.

The residential RGs will also be protective of construction workers developing the Site after completion of the response action. Once the impacted soil is either covered or removed from the Site, construction workers will not have a complete exposure pathway to the COCs if the capped soil is not disturbed. The RGs are protective of these workers as the RGs are based on exposure over a period of 30 years for the residential exposures, and the construction work is anticipated to be completed within one year.

For clean utility corridors, the construction worker health and safety screening goal for arsenic, 47.7 mg/kg, was calculated using the USEPA's Supplemental Guidance for Developing

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Screening Levels for Superfund Sites, dated December 2002 (SSL Supplemental Guidance) (EPA, 2002). Theoretical exposure scenarios were developed for on-site construction workers for durations of 6 months. Although, overall construction will take longer than six months, no construction worker is expected to work on tasks involving direct soil contact for periods longer than six months.

5.4 Recommended Response Action

5.4.1 Response Actions for Soil

The response action to remediate soil includes using a combination of the following actions:

1. Use background concentrations for naturally occurring metals like arsenic as the RGs, and risk-based unrestricted use (residential) screening criteria as RGs for other chemicals. If a few sample locations do not meet unrestricted use criteria, statistical analyses, such as a 95% upper confidence level of the mean evaluation, may be conducted as a contingency option to demonstrate that soil in specific areas of the Site meets the RGs;

2. Excavating soil above a RG for placement and consolidation below a permanent cap such as pavement parking areas, buildings, and in landscaped areas, two feet of clean fill (with a marker material such as a geotextile (orange geogrid or similar) below the clean fill. Consolidation cells will be constructed no deeper than 2 feet above the historical high groundwater elevation;

3. In the utility corridors for main utility trunk lines, if present, soil with elevated COC concentrations will be removed as needed to ensure that residual COC concentrations in these utility corridors are protective of construction and maintenance worker health and safety;

4. Placing a cap over existing soil that exceeds an RG; or

5. Excavating soil above a RG for offsite disposal.

5.4.2 Confirmation Sampling

Pre-excavation confirmation soil sampling was conducted during the July 2014 through July 2015 soil investigations discussed in Section 3.0. Depths of soil requiring excavation or capping in nearly all locations have been established and are shown in the Preliminary Rough Grading Plans included in Appendix J.

The proposed sidewall confirmation sampling (Figure 8) will be collected prior to the implementation of this Response Plan. As previously presented, sidewall samples will be

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collected between excavation areas where planned excavation areas are greater than 12 inches in elevation. The Preliminary Soil Plan will be modified based on the sidewall sampling program. Prior to implementing the response action, a final soil plan will be provided to the DTSC for approval. It is anticipated that the sidewall sampling and any other confirmation sampling will be conducted prior to implementation of the recommended response actions. If additional confirmation samples are necessary, they can also be collected post-excavation.

5.4.3 Clean Utility Corridors

To reduce construction worker exposure to COC's after the Response Plan implementation, clean utility corridors will be constructed along major utility lines (trunk lines), if such utilities are present. In the clean utility corridors soil with elevated COC concentrations will be removed as needed to ensure that residual COC concentrations in these utility corridors are protective of construction and maintenance worker health and safety. This will be evaluated using the site-specific construction worker health and safety screening goal calculated for arsenic as discussed in Section 5.3. For consolidation cells located beneath buildings with significant utilities, if present, a clean top layer of fill may be placed between the consolidation cell and the building slab to create a clean utility layer; clean utility layers may be constructed under all or portions of the proposed buildings.

This recommended response action is consistent with DTSC's Proven Technologies and Remedies Guidance documents for the remediation of metals and organochlorine pesticides in soil (DTSC, 2008, 2010). The remedy described is considered a "Consolidation and Capping" remedy or an "Excavation and Disposal" remedy and is an appropriate application of the Area of Contamination (AOC) approach described in the preamble to the National Contingency Plan (EPA 1990, DTSC 2008).

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6.0 RESPONSE ACTION IMPLEMENTATION

The recommended response action for the Site is to either cover the native soil with a suitable cap as described in Section 5.2, or excavate soil to the depths where the pre-excavation confirmation demonstrate that the RGs are met. Excavated soil will be consolidated onsite or disposed of offsite if the soil volume exceeds the consolidation capacity of the Site. It is estimated that there are approximately 117,590 cubic yards of soil onsite exceeding a RGs. The estimated thickness of impacted soil ranges from approximately 8 inches bbr to 6.6 ft bbr, as shown on Figure 5 and 5A. Deeper impacts are present primarily near the historic creek and within existing Site buildings. It is anticipated that the response action will occur in a phased approach. The timing and potential overlap of the phases has not yet been determined, but DTSC will be notified as construction plans are finalized.

The following sections describe implementation actions or summarize contents of plans attached to this Response Plan.

6.1 Pre-Implementation Activities

This section describes the activities that will be performed prior to earthwork and relocation of impacted soil.

6.1.1 Regulatory Approvals, Contractor Selection, and Permitting

The main tasks to be performed prior to commencement of Site cleanup are summarized below.

- Preparation of this Response Plan that describes the response. The Companies will submit a draft Response Plan to DTSC for review, the Response Plan will be released for public comment, and the Companies will submit a final Response Plan for DTSC approval after including any required modifications.

- Coordinating with the DTSC to prepare a fact sheet and notice regarding the 30-day public comment period. If sufficient public interest is present, a public meeting may occur.

- Selection of a California licensed remediation Contractor and completion of contract negotiation and award. Contractor procurement of necessary permits, and utility clearances prior to the commencement of excavation activities at the Site.

- Identification of trees within and surrounding the Site that will remain and will be protected during response plan implementation activities.

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The Contractor shall obtain permits and provide necessary notifications prior to implementation of the response action. Necessary Permits could include an excavation permit, submitting a notification form to the Bay Area Air Quality Management District (BAAQMD), and a city grading/excavation permit. To comply with the Construction Activities Storm Water General Permit (State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ including amendments from Order No. 2012-0006-DWQ), the Contractor will prepare and submit a Notice of Intent (NOI) to the SWRCB.

6.1.2 Utility Clearance

The Contractor will notify Underground Services Alert (USA) to clear excavation areas of utilities at least two working days in advance of initiating excavation activities. In addition, the planned excavation areas will be surveyed for the presence of existing utilities by a private utility locating service.

It should be noted that prior to the implementation of the Response Plan, select buildings may be demolished to the slabs and utility services may be shut down at the Site, except at the Site perimeter.

6.1.3 Site Preparation

Prior to implementation of the response action, the Contractor's will be conducting initial mobilization activities that are non-invasive. These activities include setting up field offices, constructing a decontamination pad or pads, underground utility line location, preparing dust control measures, building demolition including removal of building foundations, marking the excavation and consolidation areas, and other pre-excavation activities.

6.1.4 Site Security

Prior to initiating excavation, the Contractor will construct temporary perimeter fencing and lockable gates to restrict access. The Contractor will be responsible for maintaining Site security and shall promptly repair, maintain, or install new fencing, as needed, to maintain Site security at all times. It is anticipated that the perimeter fencing will be at least 6 feet high and will be fitted with a privacy screen to at least 6 feet, which will also serve as a wind screen. The Contractor will post signage complying with California Proposition 65 at each gated entrance to the Site.

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6.1.5 Excavation Surveying

During implementation of this Response Plan, the planned excavation locations will be surveyed and marked by a licensed surveyor. Licensed surveyors will also survey and place excavation grade markers showing MSL elevations at the excavation areas. To confirm that excavation elevations are met without over excavating soil, elevations in each excavation will be checked throughout the excavation process by the Companies' contractor. Following the completion of the response action, an excavation map showing the final depths of excavation will be prepared and included in the Response Plan Completion Report.

6.2 Additional Plans

The following plans are attached to this Response Plan to be used during implementation of the response action:

- Decontamination Plan (Appendix A);
- Dust Control and Monitoring Plan (Appendix B);
- Perimeter Air Monitoring Plan (Appendix C);
- Transportation Plan (Appendix D);
- Roux Associates Health and Safety Plan (Appendix E);
- Storm Water Pollution Prevention Plan (Appendix F); and
- Quality Control/Quality Assurance Plan (Appendix G).

The following subsections summarize each plan and describe requirements for the Contractor to prepare a Contractor Site-specific Health and Safety Plan (HASP), a project-specific Storm Water Pollution Prevention Plan (SWPPP), and addendums to the Decontamination Plan and Dust Control Plan. Copies of these plans will be kept onsite at all times during Site cleanup activities. The plans will assist in the management of the construction activities for Site cleanup by identifying techniques the Contractor should use to implement Site cleanup. The final plans and the Contractor plan addendums will be submitted as an amendment or addendum to the final Response Plan.

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6.2.1 Summary of Decontamination Plan

The Decontamination Plan (Appendix A) presents specific procedures for removal, collection, and containment of impacted soil and other potentially contaminated material from equipment, transportation vehicles, construction debris and trees. This plan additionally includes guidelines for construction of a decontamination pad, decontamination of personnel and tools, and methods for temporary storage, characterization, treatment, and offsite disposal of decontamination wastes generated during decontamination activities. The Contractor will be required to prepare an addendum to the Decontamination Plan if there are any proposed deviations from procedures specified in the Decontamination Plan. The Contractor will be responsible for implementing the Decontamination Plan.

6.2.2 Summary of Dust Control and Monitoring Plan

The Dust Control and Monitoring Plan (Appendix B) specifies measures that will be taken to limit generation of dust. Additionally, a perimeter air monitoring plan (PAMP) that will be followed to monitor the effectiveness of the dust control plan and to document the Site remains in compliance with applicable regulations will be utilized (Appendix C). The Contractor will be required to prepare an addendum to the Dust Control and Monitoring Plan if there are any proposed deviations from procedures specified in the Dust Control and Monitoring Plan. If phasing of the construction occurs and occupied buildings will remain on parcels where remediation is occurring, the PAMP will be modified to ensure that occupied buildings have appropriate dust monitoring. This may include modifying dust monitor locations and/or adding dust monitors. The Contractor will be responsible for implementing the Dust Control and Monitoring Plan as approved by DTSC.

6.2.3 Summary of Transportation Plan

Roux Associates has prepared a Transportation Plan, which is included in Appendix D. The Transportation Plan provides specific procedures for general handling, transportation, and disposal of excavated soil and traffic control issues at the Site during Site cleanup activities. This includes requiring manifesting any time any materials that are hazardous wastes (Class I), including impacted soil, are transported on public right of ways. Transport of soil not exceeding hazardous waste criteria may be transported between parcels including crossing public right of ways and will not require manifesting if the soil is to be re-used onsite. The Transportation Plan

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has been prepared following the DTSC guidance, Transportation Plan Guidance for Developing Transportation Plans for Removal or Remedial Actions (DTSC, 2001b) and the City's requirements.

Upon selection of a Contractor, the Contractor will prepare an addendum to the Transportation Plan that provides: the actual offsite disposal facilities and the transportation routes if actual disposal facilities vary from those facilities listed in the Transportation Plan; the Contractor's selected transportation company; and any proposed modifications to the procedures presented in the Transportation Plan. The Contractor will be responsible for implementing the Transportation Plan as approved by DTSC.

6.2.4 Summary of Storm Water Pollution Prevention Plan

A Storm Water Pollution Prevention Plan (SWPPP) (Appendix F) has been prepared in accordance with the regulatory requirements for construction storm water pollution management and best management practices (BMP) that will be implemented, such as those published by the California Department of Transportation (Caltrans, 2003). The SWPPP specifies measures to be undertaken to limit storm water impacts from the Site such as reducing the sediment load to the storm water runoff from the Site during Site cleanup activities and preventing accidental spills from impacting storm water. The Contractor will be required to file a NOI with the SWRCB prior to Site cleanup activities.

The Contractor will be required to prepare a project-specific SWPPP, which shall be prepared by a Qualified SWPPP Developer, in accordance with the General Permit requirements for the project Risk Level determined for the Site, that includes: (1) a copy of the NOI and receipt letter, (2) determination of the Risk Level for the Site, (3) storm water monitoring requirements, if any, (4) Material Safety Data Sheets for chemicals used or stored on the Site during construction, (5) an example BMP inspection form, (6) emergency contact information, and (7) any proposed deviations from the procedures specified in this SWPPP. The Contractor will be responsible for implementing the SWPPP as approved by DTSC.

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6.2.5 Site-Specific Health and Safety

From a Health & Safety standpoint, impacted material and any soil suspected to have impacts must be handled by workers with the appropriate OSHA training as described below. A Site-specific Health and Safety Plan (HASP) have been prepared for field activities related to the development of the Site in accordance with 29 CFR 1910.120 Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) and California Code of Regulations, Title 8, Section 5192. The HASP for Roux Associates personnel working at the Site is included in Appendix E.

The HASP addresses all activities related to subsurface investigation activities and soil, groundwater, and storm water management during development activities at the Site. Specifically, the HASP addresses the following:

- Subsurface investigation (i.e., direct-push soil vapor screening);
- Excavation, stockpiling, placement, and compaction of soil; and
- Groundwater and storm water management, as necessary.

The HASP establishes guidelines and general requirements for all workers performing the field activities during Site development. The HASP attempts to identify all potential hazards at the Site; however, Site conditions are dynamic and new hazards could appear. Therefore, this HASP shall serve as a general template for Contractors performing work related to subsurface investigation activities and soil, groundwater, and storm water management at the Site.

Each Contractor will be required to operate with an independent HASP that shall comply with 29 CFR 1910.120 OSHA HAZWOPER, California Code of Regulations, Title 8, Section 5192, and the Contractor's own health and safety SOPs. The Contractor will be responsible for health and safety of their employees and workers sub-contracted to them at the Site. The Contractor's HASP must be reviewed and signed by a certified industrial hygienist. The Contractor's HASP shall address site-specific issues, Site COCs, hazard communication, notification of workers, and other topics required by applicable laws and regulations. The Contractor's Site-specific HASP will specify employee training, personal protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan that conforms to the

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requirements of 29 CFR 1910.120 et seq and other applicable federal and state laws and regulations, including Title 8, CCR Section 5192. Subcontractors can operate under the independent HASPs of their general contractor.

6.2.6 Quality Assurance and Quality Control Plan

A Quality Assurance/Quality Control Plan (QA/QC Plan), included as Appendix G, has been prepared by Roux Associates and provides a description of field and laboratory procedures to be followed to ensure that samples collected from the Site yield representative data. Roux Associates will be responsible for implementing the QA/QC Plan as approved by DTSC.

6.2.7 Summary of Soil Sampling and Analysis Plan

Additional soil sampling that may occur prior to the implementation of this Response Plan will be conducted in accordance with the October 5, 2015 Initial Results of Soil Characterization and Confirmation Sampling Program letter, submitted to the DTSC (Roux Associates, 2015a). Any deviations from these sampling procedures will be conducted in accordance with soil sampling best practices under the oversight of a California Professional Geologist.

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6.3 Excavation Equipment and Methods

The equipment used to implement the response action will be selected by the Contractor in consultation with the Companies. It is anticipated that the response actions can be accomplished with standard excavation and backfill equipment. Some of the equipment expected to be used at the Site includes excavators, backhoes, water trucks, end dump trucks, bulldozers, and compactors.

6.4 Stockpile Management

Contractors shall use the following measures to manage onsite stockpiles:

- All soil excavation and handling needs to be performed to minimize dust generation in accordance with BAAQMD permits and as described in the Dust Control (Appendix B) and Monitoring Plan (Appendix C).

- Soil excavation should be staged to minimize stockpiling soil by placing excavated soil directly into consolidation areas. Soil excavation, handling, and stockpiling shall be performed in a manner which limits and controls the mixing of impacted material from non-impacted material. If stockpiling soil is necessary, soil above RGs should be stockpiled in areas where surface soil exceed RGs, and soil below RGs should be

stockpiled on surface soil also below the RGs to eliminate the need to for plastic sheeting below the stockpile and the chance of cross contamination. If impacted soil is stockpiled in areas where surface soil is below RGs, or if soil below RGs is stockpiled on impacted soil, the stockpiles must be placed on plastic sheeting to avoid cross contamination.

- During the Response Plan implementation, stockpiles of impacted soil will be securely covered with plastic sheeting (minimum 10-mil thickness) at the end of each work day during Site remediation. Soil stockpiles will be managed in accordance with procedures outlined in the Dust Control and Monitoring Plan and the SWPPP (Appendix B and F respectively). Covering of stockpiles of soil with COCs below the RGs may be required for dust and stormwater control as described in Appendix B and F.

- Silt fencing, hay bales, straw rolls, visqueen covers, or other BMPs shall be implemented and maintained as necessary to control storm water runon or runoff from all stockpiles, as specified in the Site Storm Water Pollution Prevention Plan (SWPPP). At a minimum, stockpiles of impacted material or soil suspected to be impacted shall be covered prior to inclement weather.

- Construction debris (if encountered) shall be removed from the excavated soil and stockpiled separately for offsite disposal.

6.5 Relocation and Consolidation of Impacted Soil

The Preliminary grading plans showing the proposed excavation (Remediation Cut-Fill Map) and consolidation cell construction are presented in Appendix J. The Remediation Cut-Fill Map is based on soil samples that contain COCs at concentrations above RGs for unrestricted land use (Table 1). Based on the depth and extent of impacted soil shown on Figure 5 and 5A, it is estimated that there is approximately 117,590 cubic yards of impacted soil at the Site. This impacted soil will be relocated and consolidated, capped onsite or removed and off-hauled. Impacted soil remaining onsite will either be covered in place or consolidated beneath the following caps: (1) hard scape such as paved parking areas and roads, (2) proposed buildings, and/or (3) two feet of clean fill consisting of soil with concentrations below RGs demarcated with a marker geotextile (orange geogrid or similar) from impacted soil layers in landscaped areas.

Soil below RGs within the footprint of the planned consolidation cell may be excavated to within 2 feet of historic high groundwater elevations (Figure 4) to increase capacity of the consolidation cell. Impacted soil will be excavated and then placed and compacted in the consolidation cells.

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Excavated soil below the RGs will be used to backfill and grade the Site if necessary (and in clean utility corridors or upper clean utility layers, if any).

The preliminary consolidation cell design is approximately five to six feet deep. The cells will slope at an angle equal to the slope of the groundwater gradient so that the bottom of the consolidation cell is maintained at least 2 feet higher than the highest groundwater elevations ever detected at the Site (Appendix I). The depth of the consolidation cell will be shallowest to the south and deepen to the north. This results in maximum consolidation cell bottom elevations ranging from approximately 27 ft MSL in the southern side of the Site to approximately 22 ft MSL in the northern part of the Site. Figure 4 shows the ground water elevations, which are 2 feet deeper than the consolidation cell elevations. Section 2.4.2 described the analysis performed to calculate these groundwater elevations, and explains why these results are consistent with groundwater elevations estimated at the SCS Office Phase Office I and Office II & III and SCS Retail Sites. In the unlikely event that future groundwater levels raise significantly above the historic high groundwater levels discussed in Section 2.4.2, impacted soil within the consolidation cells may be exposed to groundwater. However, in the event that groundwater is exposed to COCs in the consolidation cells, the Site COCs are not expected to mobilize and impact groundwater. Based on preliminary estimates, the consolidation cells below garages will have a capacity of nearly 50,460 cubic yards of impacted soil.

The consolidation cell excavations are not planned to be shored. The project geotechnical engineer should be consulted to determine if shoring or sidewall sloping is required. If utility trunk lines are present within consolidation cell areas, clean utility corridors will be constructed. Clean corridors will consist, if present, of soil below RGs placed around major utility lines (trunk lines). Clean utility layers will consist of a layer of soil below RGs typically one to three feet thick, placed above the consolidated impacted soil and beneath a building slab of all or portions of a given building. The boundaries of clean utility corridors or upper clean layers may be delineated by a geotextile or other visually distinct material.

Prior to capping, soil within the consolidation cells will be compacted in accordance with project geotechnical requirements, which may include lime treatment. Following the completion of

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consolidation cell construction and compaction, the consolidation cell boundaries and elevations will be surveyed by a California licensed land surveyor or their designee.

6.6 Dewatering

Dewatering is not anticipated during cleanup activities. Following cleanup activities, during the installation of swimming pools groundwater may be encountered. If water needs to be removed from excavations, it will be adequately characterized to determine if it is impacted with any COCs. The water will be transported and disposed of at a permitted offsite facility or facilities. Alternatively, water may be discharged under appropriate permits to storm drains or sanitary sewers, or reused onsite with DTSC approval.

6.7 Procedures if Previously Unknown Contamination is Encountered

Extensive investigations have occurred at the Site and COCs are well characterized. If potentially contaminated soil is encountered during slab and asphalt removal or soil excavation, the protocols summarized below will be followed:

- If visibly stained soil or soil with odors is encountered during the implementation of the response action, the Roux Associates Project Environmental Engineer or Geologist will be notified to inspect and evaluate the soil.
- If chemical concentrations in the soil samples are found to exceed the published screening criteria for residential land use (such as RSLs), impacted soil will be excavated to the extent feasible and stockpiled separately from soil below RGs. Such soil will be handled as potential hazardous waste until shown otherwise. If a remediation approach other than excavation and offsite disposal is considered for stained or odorous soil, such approach will be discussed with DTSC.

6.8 Management of Unknown Underground Structures Uncovered During Remediation Activities

In the event an unknown underground structure that could have potentially hazardous materials is discovered during Site remediation activities, such as an underground storage tank, all work in the vicinity of the underground container or structure will cease and the DTSC will be notified. If any piping or other potentially hazardous materials containing structures are encountered, they will be removed in accordance with applicable laws and regulations, the requirements in this Response Plan, and the management protocols described below:

- The Contractor will notify the Companies if a below-grade structure is discovered. The Companies or Roux Associates will be responsible for notifying DTSC.

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- If the structure is a former underground storage tank, such as the former 550-gallon wastewater UST that may remain at 3230 Scott Parcel (EKI, 2014e), the Companies or Roux Associates will notify the DTSC and the City of Santa Clara Fire Department (SCCFD). If required by DTSC a work plan will be developed and presented to the DTSC listing the procedures for tank removal. Following closure, the Companies will seek concurrence from the DTSC that no further action is necessary.

- If the structure is a pipe and does not contain hazardous material, it may not be necessary to remove the entire pipe, beyond what may be necessary to complete construction. Under these conditions, the pipe may be cut, removed, and the ends capped. If the pipe material contains asbestos, then the material will be handled in accordance with applicable air quality and hazardous waste management laws and regulations and appropriate protocols for handling asbestos materials. The pipe will be removed and underlying soil inspected for visible contamination or odors.

- If any of the four known monitoring wells require destruction or any previously unidentified groundwater wells are encountered, they will be destroyed in accordance with Department of Water Resources (DWR) and SCVWD requirements.

The above requirements do not apply to an encountered pipe if it is an active or abandoned utility, such as sanitary sewer, water, vapor, or steam lines.

6.9 Excavation Around Trees

Select trees on the Site will require protection throughout the redevelopment process. Excavation will not occur within the Tree Protection Zone as determined by a professional arborist. The tree protection zone will extend a minimum of 1.5 times the tree canopy width, the same criteria used at the SCS Office Phase I/II/III development. Appendix K shows the locations of the trees selected for protection. Where impacted soil cannot be excavated in a tree protection zone, a woven geogrid and clean soil or mulch will be placed above the geogrid to prevent future occupants from exposure to impacted soil. This is the same method used at the SCS Office Phase I/II/III and SCS Retail developments and approved by the DTSC.

6.10 Backfill

Import fill used as backfill at the Site will be sampled to adequately characterize it. The DTSC Imported Fill Material Information Advisory (DTSC, 2001a) will be used as guidance to characterize import fill material.

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6.11 Land Use Controls or Other Mitigation Measures

Land use controls, (in the form of a Land Use Covenant (LUC)) will be required for consolidation cells and landscaped areas where soil above RGs is left in place and the cap may require on-going monitoring, such as annual inspections, and maintenance, and these procedures will be addressed with an Operations and Maintenance (O&M) plan. The LUC, which may be limited to the areas of consolidated impacted soil and landscaped areas where soil above RGs was left in place, will include the following minimum provisions and restrictions: annual inspections and reporting to verify compliance with the restrictions and requirements of the LUC; prohibited uses; soil management procedures if the cap is breached, including restoration of the cap; and reasonable access for DTSC. Prohibited land uses in the consolidation cell areas are expected to be limited to at-grade residential units with yards, such as single-family detached houses. At-grade recreation areas overlying consolidation cells will be covered by asphalt, concrete, two feet of soil below the RGs, or other surfacing that prevents contact with soil which exceeds RGs. However, such land use controls will not be required in the areas outside of:

1. The consolidation cells; and
2. Areas where impacted soil was capped in place after remediation.

6.12 Contingency Remedy

Statistical analyses, such as a 95% upper confidence level evaluation, may be conducted to demonstrate that soil in specific areas of the Site meet the RGs. These statistical analyses are a commonly accepted procedure to determine if RGs have been met at remediation sites. If statistical analyses are required, the DTSC will be consulted.

6.13 Stained or Odorous Soil and Unknown Underground Structures

If potentially contaminated soil is encountered during slab and asphalt removal or soil excavation, or if an unknown underground container or structure that could have potentially hazardous materials is discovered, the protocols summarized in Sections 6.7 and 6.8 will be followed. However, if chemical concentrations in the evaluation soil samples and/ or confirmation samples for this soil exceed screening criteria for residential, but are below screening criteria for commercial land use, it may be more feasible for such areas to be remediated only to commercial levels in public spaces.

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7.0 POST-REMEDIATION ACTIVITIES

7.1 Completion Report

To allow for an expedited construction schedule, interim tables and figures documenting pre-excavation confirmation sampling results will be prepared and submitted to DTSC with a request for concurrence that RGs will be met for a given area prior to implementation of the response action. It is anticipated that the response action will be conducted at one time and that a single Response Action Completion Report will be prepared after completion of the responses action. However, if the response action activities for the Site occur in multiple phases, DTSC will be notified, and separate Response Action Completion Reports may be prepared for each phase. After each response action is completed, an O&M Plan will be prepared and a LUC will be recorded. The Completion Reports will provide a description of work completed, a summary of any deviations from this response plan, and verification that RGs were met where soil was removed. The Completion Reports will document the location of the consolidation cells, clean utility corridors, and clean utility layers. Each Completion Report will also include a request that DTSC issue a Certificate of Completion once the O&M Plan and LUC are in place.

7.2 Operations and Maintenance Plan

Following development activities at the Site, an O&M Plan will be prepared for future operation and maintenance activities at the Site. The purpose of the O&M Plan is to identify procedures for cap inspection, maintenance and repair. The O&M Plan will also provide best management practice work procedures and qualifications of Site workers when performing work at the Site which could breach caps and potentially expose workers to impacted materials at the Site.

This O&M Plan will provide future property managers with the necessary information regarding land use controls and to determine the appropriate steps to perform future work at the Site to minimize worker exposure to impacted material at the Site. The O&M Plan will also include documentation that will provide future management with post development areal layouts and associated depths and thicknesses of impacted material at the Site for future work planning purposes.

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The O&M Plan will include annual inspection requirements to verify that any consolidation cells are appropriately covered. This document will be submitted separately for DTSC review and approval.

7.3 Certification of Completion

DTSC will issue a Certificate of Completion for the Site after approval of the Response Action Completion Report and O&M Plan, and the recording of a LUC for the Site. If the project is completed in phases, Site Certifications (as that term is used within the meaning of the California Land Reuse and Revitalization Act) will be issued for each phase after approval of the Response Action Completion Report and O&M Plan, and the recording of a LUC for each phase.

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TABLES

1. Soil Sampling Analytical Results
2. Sample Elevation Summary
3. Groundwater Analytical Results
4. Soil Vapor Analytical Results
5. List of Potential ARARs and TBCs
6. Proposed Remedial Goals

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SA10-1(0-12)COMP	SA10-1	Composite	12/9/2014	7.8	16.7	168	0.80 J e	185.5	-	-	17.6
SA10-1(4-8)	SA10-1	Discrete	12/9/2014	-	-	-	-	-	23.7	-	16.8
SA10-1(8-12)	SA10-1	Discrete	12/9/2014	-	-	-	-	-	33.7	-	17.9
SA10-1(12-16)	SA10-1	Discrete	12/9/2014	-	-	-	-	-	34	-	15.9
SA10-1(12-24)COMP	SA10-1	Composite	12/9/2014	<0.74	2.8 J	36.4	0.72 J	39.92	-	-	19
SA10-1(16-20)	SA10-1	Discrete	12/9/2014	-	-	-	-	-	23.7	-	18.9
SA10-1(20-24)	SA10-1	**Discrete**	**12/9/2014**	**-**	**-**	**-**	**-**	**-**	**16.9**	**60.9**	**20.6**
SA11-1(0-12)COMP	SA11-1	Composite	12/9/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.3
SA11-1(4-8)	SA11-1	**Discrete**	**12/9/2014**	**-**	**-**	**-**	**-**	**-**	**2.8**	**7.1**	**19.8**
SA11-1(8-12)	SA11-1	Discrete	12/9/2014	-	-	-	-	-	3.5	-	19.8
SA11-1(12-16)	SA11-1	Discrete	12/9/2014	-	-	-	-	-	3.7	-	19.7
SA11-1(16-20)	SA11-1	Discrete	12/9/2014	-	-	-	-	-	4.7	-	19.4
SA11-1(20-24)	SA11-1	Discrete	12/9/2014	-	-	-	-	-	4.7	-	18.9
SA12-1(0-12)COMP	SA12-1	Composite	12/9/2014	<0.77	7.9	51.2	1.3 J	60.4	-	-	22.5
SA12-1(4-8)	SA12-1	Discrete	12/9/2014	-	-	-	-	-	16.2	-	22.7
SA12-1(8-12)	SA12-1	Discrete	12/9/2014	-	-	-	-	-	25.3	-	22.4
SA12-1(12-16)	SA12-1	Discrete	12/9/2014	-	-	-	-	-	14.5	85.2	21.9
SA12-1(12-24)COMP	SA12-1	Composite	12/9/2014	<0.76	<0.89	6.7	<0.64	6.7	-	-	21.4
SA12-1(16-20)	SA12-1	Discrete	12/9/2014	-	-	-	-	-	8.6	-	21.5
SA12-1(20-24)	SA12-1	Discrete	12/9/2014	-	-	-	-	-	6.9	-	21.3
SA13-1(0-12)COMP	SA13-1	Composite	12/9/2014	<0.75	<0.87	5.7	<0.62	5.7	-	-	19.8
SA13-1(4-8)	SA13-1	**Discrete**	**12/9/2014**	**-**	**-**	**-**	**-**	**-**	**7.2**	**19.6**	**20.4**
SA13-1(8-12)	SA13-1	Discrete	12/9/2014	-	-	-	-	-	5.9	-	20
SA13-1(12-16)	SA13-1	Discrete	12/9/2014	-	-	-	-	-	6.3	-	19.2
SA13-1(12-24)COMP	SA13-1	Composite	12/9/2014	<0.73	<0.86	<0.73	<0.61	ND	-	-	18.5
SA13-1(16-20)	SA13-1	Discrete	12/9/2014	-	-	-	-	-	5.9	-	18
SA13-1(20-24)	SA13-1	Discrete	12/9/2014	-	-	-	-	-	5.5	-	18.2

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SA8-1(0-12)COMP	SA8-1	Composite	12/9/2014	18.9	61.6	559	<6.1	620.6	-	-	17.9
SA8-1(4-8)	SA8-1	Discrete	12/9/2014	-	-	-	-	-	28.5	-	17.1
SA8-1(8-12)	SA8-1	Discrete	12/9/2014	-	-	-	-	-	19.9	-	21
SA8-1(12-16)	SA8-1	Discrete	12/9/2014	-	-	-	-	-	17.7	-	19.9
SA8-1(12-24)COMP	SA8-1	Composite	12/9/2014	<0.76	<0.88	2.4 J	<0.63	2.4	-	-	20.7
SA8-1(16-20)	SA8-1	**Discrete**	**12/9/2014**	**<0.7**	**<0.86**	**<0.74**	**<0.61 b**	**ND**	**11.3**	**22.8**	**18.8**
SA8-1(20-24)	SA8-1	Discrete	12/9/2014	-	-	-	-	-	6.4	-	21.9
SA9-1(0-12)COMP	SA9-1	Composite	12/9/2014	42.3	27.6	335	7.5 J	370.1	-	-	11.7
SA9-1(4-8)	SA9-1	Discrete	12/9/2014	-	-	-	-	-	71.8	-	16.5
SA9-1(8-12)	SA9-1	Discrete	12/9/2014	-	-	-	-	-	67.4	-	16.8
SA9-1(12-16)	SA9-1	Discrete	12/9/2014	-	-	-	-	-	44.1	-	11.2
SA9-1(12-24)COMP	SA9-1	Composite	12/9/2014	24.6	63.6 J	910	12.0 J	985.6	-	-	11.7
SA9-1(16-20)	SA9-1	Discrete	12/9/2014	-	-	-	-	-	43.8	-	8.9
SA9-1(20-24)	SA9-1	Discrete	12/9/2014	-	-	-	-	-	18.3	-	15.1
SA9-1(24-28)	SA9-1	**Discrete**	**12/9/2014**	**<0.74**	**<0.87**	**<0.74**	**<0.62 b**	**ND**	**6.2**	**14.4**	**19.3**
SA9-1(28-32)	SA9-1	Discrete	12/9/2014	-	-	-	-	-	5.8	-	18.8
SA9-1(32-36)	SA9-1	Discrete	12/9/2014	<0.74	<0.86	<0.74	<0.62 b	ND	5.5	-	18.9
SB10-1(0-12)COMP	SB10-1	Composite	12/9/2014	12.3	21.8	289	34.7	345.5	-	-	15.8
SB10-1(4-8)	SB10-1	Discrete	12/9/2014	-	-	-	-	-	32.2	-	16.6
SB10-1(8-12)	SB10-1	Discrete	12/9/2014	-	-	-	-	-	18.2	-	18.5
SB10-1(12-16)	SB10-1	**Discrete**	**12/9/2014**	**-**	**-**	**-**	**-**	**-**	**6.4**	**16**	**21.3**
SB10-1(12-24)COMP	SB10-1	Composite	12/9/2014	<0.76	<0.89	2.3 J	<0.63	2.3	-	-	21.4
SB10-1(16-20)	SB10-1	Discrete	12/9/2014	-	-	-	-	-	5.2	-	20.9
SB10-1(20-24)	SB10-1	Discrete	12/9/2014	-	-	-	-	-	4.5	-	21.1
SB11-1(0-12)COMP	SB11-1	Composite	12/12/2014	<0.74	<0.86	<0.74	<0.61	ND	-	-	19.6
SB11-1(4-8)	SB11-1	Discrete	12/12/2014	-	-	-	-	-	5.1	-	19.8
SB11-1(8-12)	SB11-1	Discrete	12/12/2014	-	-	-	-	-	4.6	-	20.1

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SB11-1(12-16)	SB11-1	Discrete	12/12/2014	-	-	-	-	-	19.7	-	20.3
SB11-1(12-24)COMP	SB11-1	Composite	12/12/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	20.3
SB11-1(16-20)	SB11-1	Discrete	12/12/2014	-	-	-	-	-	22.2	-	20.5
SB11-1(20-24)	SB11-1	**Discrete**	**12/12/2014**	**-**	**-**	**-**	**-**	**-**	**5.2**	**11.6**	**20.4**
SB14-1(0-12)COMP	SB14-1	Composite	12/9/2014	1.4	1.4 J	10.4 e	1.5 J	13.3	-	-	31.7
SB14-1(4-8)	SB14-1	Discrete	12/9/2014	-	-	-	-	-	18.8	-	43
SB14-1(8-12)	SB14-1	**Discrete**	**12/9/2014**	**-**	**-**	**-**	**-**	**-**	**8.8**	**18.4**	**20.5**
SB14-1(12-16)	SB14-1	Discrete	12/9/2014	-	-	-	-	-	12.1	-	19.3
SB14-1(12-24)COMP	SB14-1	Composite	12/9/2014	<0.77	<0.90	3.7 J	0.73 J	4.43	-	-	22.8
SB14-1(16-20)	SB14-1	Discrete	12/9/2014	-	-	-	-	-	7.9	-	23
SB14-1(20-24)	SB14-1	Discrete	12/9/2014	-	-	-	-	-	28.5	-	23.1
SB8-1(0-12)COMP	SB8-1	Composite	12/9/2014	9.4	19.9	160	8.5 J	188.4	-	-	21.5
SB8-1(4-8)	SB8-1	Discrete	12/9/2014	-	-	-	-	-	29.2	-	18.9
SB8-1(8-12)	SB8-1	Discrete	12/9/2014	-	-	-	-	-	69.6	-	19.6
SB8-1(12-16)	SB8-1	Discrete	12/9/2014	-	-	-	-	-	57.1	-	18.2
SB8-1(12-24)COMP	SB8-1	Composite	12/9/2014	30.5	89.1	222	8.7 J	319.8	-	-	14.8
SB8-1(16-20)	SB8-1	Discrete	12/9/2014	-	-	-	-	-	26.9	-	15.8
SB8-1(20-24)	SB8-1	Discrete	12/9/2014	-	-	-	-	-	18	-	18
SB8-1(24-28)	SB8-1	Discrete	12/9/2014	124	188	707	41.3	936.3	18	71.9	15.5
SB8-1(28-32)	SB8-1	Discrete	12/9/2014	-	-	-	-	-	77.8	207	15
SB8-1(32-36)	SB8-1	Discrete	12/9/2014	<0.72	<0.84	25.4	2.5 J	27.9	22.5	62.6	17.1
SB8-1(36-40)	SB8-1	**Discrete**	**12/9/2014**	**<0.73**	**<0.85**	**4.5**	**0.98 J**	**5.48**	**13.2**	**42.1**	**17.9**
SB8-1(40-44)	SB8-1	Discrete	12/9/2014	<0.75	<0.88	0.96 J	<0.63	0.96	4.9	11.6	20.6
SBA11-1(0-12)COMP	SBA11-1	Composite	12/6/2014	7.3	44.8	138	10.5	193.3	-	-	17
SBA11-1(4-8)	SBA11-1	Discrete	12/6/2014	-	-	-	-	-	13	-	24.4
SBA11-1(12-24)COMP	SBA11-1	Composite	12/6/2014	5.7	41.3	146	3.7 J	191	-	-	19.7
SBA11-1(16-20)	SBA11-1	Discrete	12/6/2014	-	-	-	-	-	25.8	-	20.1

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBA11-1(28-32)	SBA11-1	Discrete	12/6/2014	-	-	-	-	-	23.1	-	19.3
SBA11-1(32-36)	SBA11-1	**Discrete**	**12/6/2014**	**<0.7**	**<0.87**	**7.3**	**<0.62**	**7.3**	**7.9**	**14.8**	**-**
SBA11-1(36-40)	SBA11-1	Discrete	12/6/2014	-	-	-	-	-	5.8	-	20.9
SBA11-1(40-44)	SBA11-1	Discrete	12/6/2014	-	-	-	-	-	8.3	-	20.1
SBA11-1(52-56)	SBA11-1	Discrete	12/6/2014	-	-	-	-	-	5.2	-	19
SBA13-1(0-12)COMP	SBA13-1	Composite	12/7/2014	<3.6	<4.2	41.7	7.1 J	48.8	-	-	17
SBA13-1(4-8)	SBA13-1	Discrete	12/7/2014	-	-	-	-	-	22.2	-	16.8
SBA13-1(12-24)COMP	SBA13-1	Composite	12/7/2014	7.4	33.5	182	6.3 J	221.8	-	-	18.4
SBA13-1(16-20)	SBA13-1	Discrete	12/7/2014	-	-	-	-	-	31.9	-	18.7
SBA13-1(20-24)	SBA13-1	Discrete	12/7/2014	3.7	68.8	416	9	493.8	25.7	-	19.3
SBA13-1(24-28)	SBA13-1	**Discrete**	**12/7/2014**	**<0.76**	**9**	**71.8**	**3.1 J**	**83.9**	**12.3**	**47.2**	**20.9**
SBA13-1(28-32)	SBA13-1	Discrete	12/7/2014	<0.7	1.7 J	16.9	1.2 J	19.8	7.9	-	21
SBA13-1(40-44)	SBA13-1	Discrete	12/7/2014	-	-	-	-	-	6.1	-	19.7
SBA13-1(52-56)	SBA13-1	Discrete	12/7/2014	-	-	-	-	-	6.1	-	18.7
SBA8-1(0-12)COMP	SBA8-1	Composite	12/5/2014	<0.75	<0.87	1.4 J	<0.62	1.4	-	-	20.3
SBA8-1(4-8)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	5.5	-	19.8
SBA8-1(12-24)COMP	SBA8-1	Composite	12/5/2014	<0.76	<0.89	0.91 J	<0.63	0.91	-	-	21.2
SBA8-1(16-20)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	5.9	-	20.6
SBA8-1(28-32)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	19.9	-	14.2
SBA8-1(40-44)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	35.5	-	17.1
SBA8-1(52-56)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	33.5	-	14.9
SBA8-1(56-60)	SBA8-1	**Discrete**	**12/5/2014**	**<0.7**	**<0.88**	**5.9**	**<0.63**	**5.9**	**5.5**	**11.6**	**20.3**
SBA8-1(60-64)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	5.2	-	18.7
SBA8-1(64-68)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	3.5	-	19
SBA8-1(68-72)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	3.8	-	18.4
SBA8-1(72-76)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	3.9	-	17.7
SBA8-1(76-80)	SBA8-1	Discrete	12/5/2014	-	-	-	-	-	4.1	-	18.8

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Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBB13-1(0-12)COMP	SBB13-1	Composite	12/7/2014	12.9	33.7	88	3.1 J	124.8	-	-	14.6
SBB13-1(4-8)	SBB13-1	Discrete	12/7/2014	-	-	-	-	-	26.9	-	21.6
SBB13-1(12-24)COMP	SBB13-1	Composite	12/7/2014	13.3	68.5	139	4.7 J	212.2	-	-	18.5
SBB13-1(16-20)	SBB13-1	Discrete	12/7/2014	-	-	-	-	-	20.3	-	19.8
SBB13-1(28-32)	SBB13-1	Discrete	12/7/2014	-	-	-	-	-	26.7	-	13.6
SBB13-1(32-36)	SBB13-1	Discrete	12/7/2014	<0.76	<0.89	7.8	1.0 J	8.8	10.9	-	21.3
SBB13-1(36-40)	SBB13-1	Discrete	12/7/2014	<0.75	2.4 J	37.7	2.4 J	42.5	-	-	20.4
SBB13-1(40-44)	SBB13-1	**Discrete**	**12/7/2014**	**<0.7**	**<0.87**	**9.9**	**0.75 J**	**10.65**	**13.2**	**39.8**	**20.1**
SBB13-1(52-56)	SBB13-1	Discrete	12/7/2014	-	-	-	-	-	6.3	-	20.6
SBB8-1(0-12)COMP	SBB8-1	Composite	12/5/2014	10.2	29.8	73	2.1 J	104.9	-	-	15.2
SBB8-1(4-8)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	32.9	-	18.8
SBB8-1(8-12)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	24.6	-	18
SBB8-1(12-16)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	24.4	-	16.1
SBB8-1(12-24)COMP	SBB8-1	Composite	12/5/2014	82	290	595	23.7 J	908.7	-	-	16.6
SBB8-1(16-20)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	29.6	-	18.9
SBB8-1(20-24)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	17.6	-	11.6
SBB8-1(28-32)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	67	-	89.7
SBB8-1(32-36)	SBB8-1	**Discrete**	**12/5/2014**	**17**	**38.5**	**102**	**4**	**144.5**	**9.9**	**36.3**	**13.7**
SBB8-1(36-40)	SBB8-1	Discrete	12/5/2014	0.87	1.2 J	3.6 J	<0.59	4.8	6.9	-	16.5
SBB8-1(40-44)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	6.1	-	23.1
SBB8-1(52-56)	SBB8-1	Discrete	12/5/2014	-	-	-	-	-	7	-	23.1
SBB8-1(WASTE)	SBB8-1	Waste	12/5/2014	93	322	675	26.5 J	1023.5	23	37	16.6
SBE10-1(0-12)COMP	SBE10-1	Composite	12/12/2014	32.4	49.5	126	2.9 J	178.4	-	-	20
SBE10-1(4-8)	SBE10-1	Discrete	12/12/2014	-	-	-	-	-	87.7	-	18.8
SBE10-1(12-24)COMP	SBE10-1	Composite	12/12/2014	7	9.2	31.3	0.94 J	41.44	-	-	20.7
SBE10-1(16-20)	SBE10-1	Discrete	12/12/2014	-	-	-	-	-	12.1	-	20.7
SBE10-1(28-32)	SBE10-1	Discrete	12/12/2014	-	-	-	-	-	28.7	-	21.1

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U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBE10-1(32-36)	SBE10-1	Discrete	12/12/2014	-	-	-	-	-	44.6	-	19.8
SBE10-1(36-40)	SBE10-1	Discrete	12/12/2014	-	-	-	-	-	24.2	-	22.6
SBE10-1(40-44)	SBE10-1	**Discrete**	**12/12/2014**	**<0.7**	**<0.88**	**<0.75**	**<0.63**	**ND**	**11.1**	**14.7**	**20.9**
SBE10-1(52-56)	SBE10-1	Discrete	12/12/2014	-	-	-	-	-	4.9	-	20.4
SBE11-1(0-12)COMP	SBE11-1	Composite	12/5/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.8
SBE11-1(4-8)	SBE11-1	**Discrete**	**12/5/2014**	**-**	**-**	**-**	**-**	**-**	**7**	**12.9**	**20.2**
SBE11-1(12-24)COMP	SBE11-1	Composite	12/5/2014	<0.73	<0.85	<0.73	<0.61	ND	-	-	18.8
SBE11-1(16-20)	SBE11-1	Discrete	12/5/2014	-	-	-	-	-	5.8	-	19.1
SBE11-1(28-32)	SBE11-1	Discrete	12/5/2014	-	-	-	-	-	5.5	-	17.8
SBE11-1(40-44)	SBE11-1	Discrete	12/5/2014	-	-	-	-	-	5.4	-	16.8
SBE11-1(52-56)	SBE11-1	Discrete	12/5/2014	-	-	-	-	-	7.1	-	19.5
SBE12-1(0-12)COMP	SBE12-1	Composite	12/11/2014	3.2	4.4	69.4	25.3	99.1	-	-	13.3
SBE12-1(4-8)	SBE12-1	Discrete	12/11/2014	-	-	-	-	-	14.8	-	14.9
SBE12-1(12-24)COMP	SBE12-1	Composite	12/11/2014	48.4	14.2 J	329	109	452.2	-	-	15.5
SBE12-1(16-20)	SBE12-1	Discrete	12/11/2014	-	-	-	-	-	40.8	-	14.9
SBE12-1(20-24)	SBE12-1	Discrete	12/11/2014	68.7	26.5	446	161	633.5	21.8	-	12.9
SBE12-1(24-28)	SBE12-1	**Discrete**	**12/11/2014**	**2.4**	**3.0 J**	**42.8 c**	**10.6**	**56.4**	**9.5**	**15.9**	**18.5**
SBE12-1(28-32)	SBE12-1	Discrete	12/11/2014	-	-	-	-	-	7.5	-	18.2
SBE12-1(40-44)	SBE12-1	Discrete	12/11/2014	-	-	-	-	-	5.4	-	18.2
SBE12-1(52-56)	SBE12-1	Discrete	12/11/2014	-	-	-	-	-	4	-	18.5
SBE12-1(WASTE)	SBE12-1	Waste	12/11/2014	55.8	24.2 J	387	113	524.2	33.8	102	17.2
SBE13-1(0-12)COMP	SBE13-1	Composite	12/4/2014	43.8	81.7	257	13.5 J	352.2	-	-	9.6
SBE13-1(4-8)	SBE13-1	Discrete	12/4/2014	-	-	-	-	-	26.7	-	13.7
SBE13-1(12-24)COMP	SBE13-1	Composite	12/4/2014	59.4	86.1	360	13.4 J	459.5	-	-	14.5
SBE13-1(16-20)	SBE13-1	Discrete	12/4/2014	-	-	-	-	-	54.6	-	14.5
SBE13-1(28-32)	SBE13-1	Discrete	12/4/2014	-	-	-	-	-	39.3	-	13.7
SBE13-1(32-36)	SBE13-1	Discrete	12/4/2014	-	-	-	-	-	38.4	-	12.9

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBE13-1(36-40)	SBE13-1	Discrete	12/4/2014	-	-	-	-	-	16.9	81.7	18.9
SBE13-1(40-44)	SBE13-1	**Discrete**	**12/4/2014**	**<0.7**	**1.6 J**	**2.7 J**	**<0.61**	**4.3**	**5.6**	**12.2**	**19.2**
SBE13-1(52-56)	SBE13-1	Discrete	12/4/2014	-	-	-	-	-	5.5	-	18.7
SBF10-1(0-12)COMP	SBF10-1	Composite	12/12/2014	78.8	56.8	329	43.8	429.6	-	-	11.5
SBF10-1(4-8)	SBF10-1	Discrete	12/12/2014	-	-	-	-	-	33.2	-	18.4
SBF10-1(12-24)COMP	SBF10-1	Composite	12/12/2014	115	100	502	33.9	635.9	-	-	17.5
SBF10-1(16-20)	SBF10-1	Discrete	12/12/2014	-	-	-	-	-	48.3	-	16.5
SBF10-1(28-32)	SBF10-1	Discrete	12/12/2014	-	-	-	-	-	57.2	-	16.4
SBF10-1(32-36)	SBF10-1	Discrete	12/12/2014	-	-	-	-	-	93	-	17.5
SBF10-1(36-40)	SBF10-1	Discrete	12/12/2014	-	-	-	-	-	41.8	-	19.3
SBF10-1(40-44)	SBF10-1	**Discrete**	**12/12/2014**	**<0.7**	**<0.88**	**1.5 J**	**<0.63**	**1.5**	**8.5**	**24.4**	**20.5**
SBF10-1(52-56)	SBF10-1	Discrete	12/12/2014	-	-	-	-	-	8.4	-	19.5
SBF12-1(0-12)COMP	SBF12-1	Composite	12/5/2014	<0.75	<0.88	<0.75	<0.63	ND	-	-	21
SBF12-1(4-8)	SBF12-1	**Discrete**	**12/5/2014**	**-**	**-**	**-**	**-**	**-**	**6**	**9.3**	**20.1**
SBF12-1(12-24)COMP	SBF12-1	Composite	12/5/2014	<0.72	<0.85	<0.72	<0.60	ND	-	-	17.8
SBF12-1(16-20)	SBF12-1	Discrete	12/5/2014	-	-	-	-	-	6.4	-	18.2
SBF12-1(28-32)	SBF12-1	Discrete	12/5/2014	-	-	-	-	-	5.6	-	17.8
SBF12-1(40-44)	SBF12-1	Discrete	12/5/2014	-	-	-	-	-	4.6	-	15.2
SBF12-1(52-56)	SBF12-1	Discrete	12/5/2014	-	-	-	-	-	3.8	-	16.6
SBF12-1(WASTE)	SBF12-1	Waste	12/5/2014	<0.73	<0.85	<0.73	<0.61	ND	5.6	6.6	18.2
SBF13-1(0-12)COMP	SBF13-1	Composite	12/11/2014	25	53.5	129	8.7	191.2	-	-	15.5
SBF13-1(4-8)	SBF13-1	Discrete	12/11/2014	-	-	-	-	-	35.5	-	15.8
SBF13-1(12-24)COMP	SBF13-1	Composite	12/11/2014	43.2	57.5	195	10.5	263	-	-	17.1
SBF13-1(16-20)	SBF13-1	Discrete	12/11/2014	-	-	-	-	-	19.9	-	17
SBF13-1(28-32)	SBF13-1	Discrete	12/11/2014	-	-	-	-	-	45.1	-	13.8
SBF13-1(32-36)	SBF13-1	Discrete	12/11/2014	16	8.3	57.8 c	5.5	71.6	34.9	-	17
SBF13-1(36-40)	SBF13-1	**Discrete**	**12/11/2014**	**<0.7**	**<0.86**	**0.78 J c**	**<0.61**	**0.78**	**6.9**	**14.2**	**18.4**

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBF13-1(40-44)	SBF13-1	Discrete	12/11/2014	-	-	-	-	-	5.7	-	17.8
SBF13-1(52-56)	SBF13-1	Discrete	12/11/2014	-	-	-	-	-	5.9	-	18.7
SBF13-2(0-12)COMP	SBF13-2	Composite	12/4/2014	3.9	5.9	50.4	12.8	69.1	-	-	13.8
SBF13-2(4-8)	SBF13-2	Discrete	12/4/2014	-	-	-	-	-	32	-	15.4
SBF13-2(12-24)COMP	SBF13-2	Composite	12/4/2014	174	89	903	51.2 J	1043.2	-	-	14.3
SBF13-2(16-20)	SBF13-2	Discrete	12/4/2014	-	-	-	-	-	57.2	-	15.3
SBF13-2(28-32)	SBF13-2	Discrete	12/4/2014	-	-	-	-	-	56.7	-	13.1
SBF13-2(32-36)	SBF13-2	Discrete	12/4/2014	-	-	-	-	-	67.2	-	13.5
SBF13-2(36-40)	SBF13-2	**Discrete**	**12/4/2014**	**<0.7**	**<0.85**	**<0.73**	**<0.61**	**ND**	**5.4**	**13.2**	**18.6**
SBF13-2(40-44)	SBF13-2	Discrete	12/4/2014	-	-	-	-	-	5	-	18.8
SBF13-2(52-56)	SBF13-2	Discrete	12/4/2014	-	-	-	-	-	4.5	-	19.3
SBF9-1(0-12)COMP	SBF9-1	Composite	12/12/2014	44.1	41.9	215	23.5	280.4	-	-	11.5
SBF9-1(4-8)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	53.6	-	12
SBF9-1(12-24)COMP	SBF9-1	Composite	12/12/2014	144	114	742	31.1	887.1	-	-	16.4
SBF9-1(16-20)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	34.1	-	17.8
SBF9-1(28-32)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	55.4	-	14.7
SBF9-1(32-36)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	26.7	-	18.4
SBF9-1(36-40)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	72.3	-	14.6
SBF9-1(40-44)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	8.5	-	19.2
SBF9-1(52-56)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	64.7	-	19.1
SBF9-1(56-60)	SBF9-1	**Discrete**	**12/12/2014**	**<0.7**	**<0.86**	**<0.74**	**<0.62**	**ND**	**6.2**	**11**	**19.2**
SBF9-1(60-64)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	6.3	-	19.7
SBF9-1(64-68)	SBF9-1	Discrete	12/12/2014	-	-	-	-	-	5.6	-	19.5
SBF9-1(68-72)	SBF9-1	Discrete	12/12/2014	<0.7	<0.86 b	<0.74 b	<0.61 b	ND	4.1	-	19.3
SBF9-1(76-80)	SBF9-1	Discrete	12/12/2014	<0.7	<0.85 b	1.0 J b	<0.61 b	1	4.1	-	18.5
SBG10-1(0-12)COMP	SBG10-1	Composite	12/6/2014	34.3	50.7	186	7.1	243.8	-	-	14.2
SBG10-1(4-8)	SBG10-1	Discrete	12/6/2014	-	-	-	-	-	21	-	16.5

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBG10-1(12-24)COMP	SBG10-1	Composite	12/6/2014	24.1	70.1	351	8.6 J	429.7	-	-	21.1
SBG10-1(16-20)	SBG10-1	Discrete	12/6/2014	-	-	-	-	-	33.3	-	22.2
SBG10-1(32-36)	SBG10-1	Discrete	12/6/2014	-	-	-	-	-	35.8	-	22.4
SBG10-1(44-48)	SBG10-1	Discrete	12/6/2014	-	-	-	-	-	43.9	-	19.4
SBG10-1(48-52)	SBG10-1	**Discrete**	**12/6/2014**	**<0.7**	**<0.87**	**0.94 J**	**<0.62**	**0.94**	**7.3**	**11.3**	**19.6**
SBG10-1(52-56)	SBG10-1	Discrete	12/6/2014	-	-	-	-	-	6.1	-	16.8
SBG13-1(0-12)COMP	SBG13-1	Composite	12/4/2014	7.2	3.2 J	69.8	15.4	88.4	-	-	12.7
SBG13-1(4-8)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	20.9	-	14.5
SBG13-1(12-24)COMP	SBG13-1	Composite	12/4/2014	15.4	7.1 J	111	28.7	146.8	-	-	16.4
SBG13-1(16-20)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	34	-	14.3
SBG13-1(28-32)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	25.5	-	18.7
SBG13-1(40-44)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	21.9	-	19.5
SBG13-1(52-56)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	24.6	-	15.4
SBG13-1(56-60)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	25.6	-	19.8
SBG13-1(60-64)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	8.5	-	18.7
SBG13-1(64-68)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	26.4	-	20.2
SBG13-1(68-72)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	29.8	-	20.3
SBG13-1(72-76)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	31.1	-	19.6
SBG13-1(76-80)	SBG13-1	Discrete	12/4/2014	<0.7	<0.84	6.5	0.82 J	7.32	12.3	-	16.6
SBG13-1(80-84)	SBG13-1	**Discrete**	**12/4/2014**	**<0.7**	**<0.82**	**<0.70**	**<0.59**	**ND**	**4**	**6.2**	**14.8**
SBG13-1(84-88)	SBG13-1	Discrete	12/4/2014	<0.7	<0.82	<0.70	<0.59	ND	4.4	-	14.8
SBG13-1(88-92)	SBG13-1	Discrete	12/4/2014	-	-	-	-	-	4.6	-	14.6
SBG13-1(92-96)	SBG13-1	Discrete	12/4/2014	<0.7	<0.81	<0.70	<0.58	ND	3.1	-	13.9
SBG9-1(0-12)COMP	SBG9-1	Composite	12/6/2014	77.7	41.6	502	229	772.6	-	-	11.5
SBG9-1(4-8)	SBG9-1	Discrete	12/6/2014	-	-	-	-	-	49.1	-	15.4
SBG9-1(12-24)COMP	SBG9-1	Composite	12/6/2014	46.5	44.2	581	347	972.2	-	-	19.2
SBG9-1(16-20)	SBG9-1	Discrete	12/6/2014	-	-	-	-	-	27.5	-	19.6

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBG9-1(28-32)	SBG9-1	Discrete	12/6/2014	-	-	-	-	-	55.8	-	18.3
SBG9-1(40-44)	SBG9-1	Discrete	12/6/2014	-	-	-	-	-	33.4	-	16.6
SBG9-1(44-48)	SBG9-1	Discrete	12/6/2014	-	-	-	-	-	87.5	-	15.8
SBG9-1(48-52)	SBG9-1	Discrete	12/6/2014	-	-	-	-	-	44.5	-	20
SBG9-1(52-56)	SBG9-1	**Discrete**	**12/6/2014**	**<0.7**	**<0.84**	**<0.72**	**<0.60**	**ND**	**8.3**	**10.8**	**16.7**
SBG9-2(0-12)COMP	SBG9-2	Composite	12/6/2014	66.1	57	373	8.9 J	438.9	-	-	11.3
SBG9-2(4-8)	SBG9-2	Discrete	12/6/2014	-	-	-	-	-	32	-	16.4
SBG9-2(12-24)COMP	SBG9-2	Composite	12/6/2014	177	109	946	14.4 J	1069.4	-	-	17.6
SBG9-2(16-20)	SBG9-2	Discrete	12/6/2014	-	-	-	-	-	59.4	-	12.7
SBG9-2(28-32)	SBG9-2	Discrete	12/6/2014	-	-	-	-	-	44.8	-	12.9
SBG9-2(40-44)	SBG9-2	Discrete	12/6/2014	-	-	-	-	-	26.2	-	18.2
SBG9-2(44-48)	SBG9-2	**Discrete**	**12/6/2014**	**<0.7**	**<0.85**	**<0.73**	**<0.61**	**ND**	**7.4**	**11.5**	**18**
SBG9-2(48-52)	SBG9-2	Discrete	12/6/2014	-	-	-	-	-	6.3	-	17.9
SBG9-2(52-56)	SBG9-2	Discrete	12/6/2014	-	-	-	-	-	5.9	-	15.8
SBH10-1(0-12)COMP	SBH10-1	Composite	12/13/2014	5.9	10.3	22.5	0.87 J	33.67	-	-	16.7
SBH10-1(4-8)	SBH10-1	Discrete	12/13/2014	-	-	-	-	-	3.9	-	9.2
SBH10-1(12-24)COMP	SBH10-1	Composite	12/13/2014	81.3	117	310	8.8	435.8	-	-	27.6
SBH10-1(16-20)	SBH10-1	Discrete	12/13/2014	-	-	-	-	-	34.7	-	26.7
SBH10-1(28-32)	SBH10-1	Discrete	12/13/2014	-	-	-	-	-	67.1	-	20
SBH10-1(40-44)	SBH10-1	Discrete	12/13/2014	-	-	-	-	-	60.5	-	18.6
SBH10-1(44-48)	SBH10-1	Discrete	12/13/2014	-	-	-	-	-	50	-	25.2
SBH10-1(48-52)	SBH10-1	Discrete	12/13/2014	-	-	-	-	-	33.4	-	21.4
SBH10-1(52-56)	SBH10-1	**Discrete**	**12/13/2014**	**18.9**	**18.8 b**	**43.6 b**	**2.2 J b**	**64.6**	**12.3**	**22.3**	**20.5**
SBH11-1(0-12)COMP	SBH11-1	Composite	12/13/2014	40.9	57.8	141	4.0 J	202.8	-	-	21.9
SBH11-1(4-8)	SBH11-1	Discrete	12/13/2014	-	-	-	-	-	40	-	25.5
SBH11-1(12-24)COMP	SBH11-1	Composite	12/13/2014	49.7	110	244	8.6	362.6	-	-	22.3
SBH11-1(16-20)	SBH11-1	Discrete	12/13/2014	-	-	-	-	-	44.1	-	18.9

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBH11-1(28-32)	SBH11-1	Discrete	12/13/2014	-	-	-	-	-	40.9	-	20.9
SBH11-1(40-44)	SBH11-1	Discrete	12/13/2014	-	-	-	-	-	31	-	26
SBH11-1(44-48)	SBH11-1	Discrete	12/13/2014	-	-	-	-	-	39	-	26.4
SBH11-1(48-52)	SBH11-1	Discrete	12/13/2014	-	-	-	-	-	32.4	-	26.1
SBH11-1(52-56)	SBH11-1	**Discrete**	**12/13/2014**	**<0.7**	**<0.87 b**	**<0.75 b**	**<0.62 b**	**ND**	**11.3**	**11.1**	**20**
SBH11-2(0-12)COMP	SBH11-2	Composite	12/13/2014	43.5	73.5	144	5.9	223.4	-	-	21.4
SBH11-2(4-8)	SBH11-2	Discrete	12/13/2014	-	-	-	-	-	63.7	-	23
SBH11-2(12-24)COMP	SBH11-2	Composite	12/13/2014	56.4	146	498	8.7	652.7	-	-	19.5
SBH11-2(16-20)	SBH11-2	Discrete	12/13/2014	-	-	-	-	-	38.3	-	16
SBH11-2(28-32)	SBH11-2	Discrete	12/13/2014	-	-	-	-	-	40.6	-	18.2
SBH11-2(40-44)	SBH11-2	Discrete	12/13/2014	-	-	-	-	-	39	-	17.7
SBH11-2(44-48)	SBH11-2	**Discrete**	**12/13/2014**	**<0.7**	**<0.86 b**	**1.7 J b**	**<0.62 b**	**1.7**	**15.8**	**17.9**	**19.2**
SBH11-2(48-52)	SBH11-2	Discrete	12/13/2014	-	-	-	-	-	7.4	-	18.7
SBH11-2(52-56)	SBH11-2	Discrete	12/13/2014	-	-	-	-	-	6.5	-	17.9
SBH12-1(0-12)COMP	SBH12-1	Composite	12/4/2014	4.8	6.4	44.1	6.5	57	-	-	13.6
SBH12-1(4-8)	SBH12-1	Discrete	12/4/2014	-	-	-	-	-	24.2	-	15.7
SBH12-1(12-24)COMP	SBH12-1	Composite	12/4/2014	10.2	13.4	56.9	14.3	84.6	-	-	15.7
SBH12-1(16-20)	SBH12-1	Discrete	12/4/2014	-	-	-	-	-	21.7	-	18.2
SBH12-1(28-32)	SBH12-1	Discrete	12/4/2014	-	-	-	-	-	20.3	-	18.7
SBH12-1(40-44)	SBH12-1	Discrete	12/4/2014	-	-	-	-	-	34.6	-	13.5
SBH12-1(44-48)	SBH12-1	Discrete	12/4/2014	-	-	-	-	-	42.5	-	18.7
SBH12-1(48-52)	SBH12-1	Discrete	12/4/2014	-	-	-	-	-	20.4	-	18.9
SBH12-1(52-56)	SBH12-1	**Discrete**	**12/4/2014**	**3**	**3.1 J**	**34.6**	**6.8**	**44.5**	**7.1**	**18.7**	**17.8**
SBH12-1(WASTE)	SBH12-1	Waste	12/4/2014	10.7	10.4	59.1	5.8	75.3	21.1	54.4	15.7
SBH13-1(0-12)COMP	SBH13-1	Composite	12/4/2014	<0.70	<0.82	6.7	1.8 J	8.5	-	-	14.9
SBH13-1(4-8)	SBH13-1	Discrete	12/4/2014	-	-	-	-	-	14.8	-	20.4
SBH13-1(12-24)COMP	SBH13-1	Composite	12/4/2014	136	184	499	20.6 J	703.6	-	-	16.9

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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBH13-1(16-20)	SBH13-1	Discrete	12/4/2014	-	-	-	-	-	27.4	-	15
SBH13-1(28-32)	SBH13-1	Discrete	12/4/2014	-	-	-	-	-	75.9	-	16.8
SBH13-1(32-36)	SBH13-1	Discrete	12/4/2014	-	-	-	-	-	54.3	-	16.3
SBH13-1(36-40)	SBH13-1	Discrete	12/4/2014	-	-	-	-	-	61.5	-	15.3
SBH13-1(40-44)	SBH13-1	**Discrete**	**12/4/2014**	**6.2**	**20.7**	**169**	**58.3**	**248**	**6.9**	**12.5**	**17.1**
SBH13-1(52-56)	SBH13-1	Discrete	12/4/2014	-	-	-	-	-	5.4	-	18.7
SBI10-1(0-12)COMP	SBI10-1	Composite	12/11/2014	16	17.5	76.5	2.6 J	96.6	-	-	13.7
SBI10-1(4-8)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	49	-	20.8
SBI10-1(12-24)COMP	SBI10-1	Composite	12/11/2014	127	176	653	8.0 J	837	-	-	12.4
SBI10-1(16-20)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	65.3	-	13.4
SBI10-1(28-32)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	54.1	-	16.4
SBI10-1(40-44)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	44.3	-	18.2
SBI10-1(52-56)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	79.7	-	15
SBI10-1(56-60)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	90.1	-	15
SBI10-1(60-64)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	59.3	-	15.7
SBI10-1(64-68)	SBI10-1	**Discrete**	**12/11/2014**	**<0.7**	**<0.85**	**<0.73**	**<0.60**	**ND**	**10.3**	**13.3**	**18**
SBI10-1(68-72)	SBI10-1	Discrete	12/11/2014	-	-	-	-	-	10.4	-	17.6
SBI10-1(72-76)	SBI10-1	Discrete	12/11/2014	<0.7	<0.85	<0.73	<0.61	ND	10.2	-	18.1
SBI10-1(76-80)	SBI10-1	Discrete	12/11/2014	<0.7	<0.83	2.0 J	<0.60	2	9.4	-	16.7
SBI9-1(0-12)COMP	SBI9-1	Composite	12/11/2014	34.9	71.8	120	3.6 J	195.4	-	-	14.5
SBI9-1(4-8)	SBI9-1	Discrete	12/11/2014	-	-	-	-	-	28.2	-	17.6
SBI9-1(12-24)COMP	SBI9-1	Composite	12/11/2014	111	166	660	13.9 J	839.9	-	-	17.8
SBI9-1(16-20)	SBI9-1	Discrete	12/11/2014	-	-	-	-	-	52.9	-	17.2
SBI9-1(28-32)	SBI9-1	Discrete	12/11/2014	-	-	-	-	-	98.4	-	16.4
SBI9-1(40-44)	SBI9-1	Discrete	12/11/2014	-	-	-	-	-	71.6	-	16
SBI9-1(44-48)	SBI9-1	Discrete	12/11/2014	-	-	-	-	-	35	-	19.1
SBI9-1(48-52)	SBI9-1	**Discrete**	**12/11/2014**	**<0.7**	**1.5 J**	**4.9**	**<0.62**	**6.4**	**10.9**	**15**	**19.8**

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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBI9-1(52-56)	SBI9-1	Discrete	12/11/2014	<0.7	<0.86	<0.74	<0.62	ND	5.3	-	18.9
SBI9-2(0-12)COMP	SBI9-2	Composite	12/11/2014	41	143	229	10.5 J	382.5	-	-	16
SBI9-2(4-8)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	25.3	-	19
SBI9-2(12-24)COMP	SBI9-2	Composite	12/11/2014	108	132	592	<5.9	724	-	-	16.5
SBI9-2(16-20)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	60.5	-	18
SBI9-2(28-32)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	88.6	-	15.4
SBI9-2(40-44)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	53.2	-	16.4
SBI9-2(52-56)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	54.5	-	17.5
SBI9-2(56-60)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	23.9	-	18.5
SBI9-2(60-64)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	8	-	18.3
SBI9-2(64-68)	SBI9-2	**Discrete**	**12/11/2014**	**<0.7**	**<0.86**	**<0.74**	**<0.62**	**ND**	**5.7**	**10.8**	**19**
SBI9-2(68-72)	SBI9-2	Discrete	12/11/2014	-	-	-	-	-	6.9	-	18.5
SBI9-2(72-76)	SBI9-2	Discrete	12/11/2014	<0.7	<0.86	<0.74	<0.61	ND	5.1	-	18.6
SBI9-2(76-80)	SBI9-2	Discrete	12/11/2014	<0.7	<0.85	<0.72	<0.60	ND	6.2	-	17.4
SBJ19(0-12)COMP	SBJ19-1	Composite	7/23/2015	12.5	111	349	13.2 b	473.2	-	-	15.2
SBJ19(4-8)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	20.4	-	14.9
SBJ19(8-12)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	29.4	-	16.1
SBJ19(12-16)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	41.1	-	16.9
SBJ19(12-24)COMP	SBJ19-1	Composite	7/23/2015	<5.4	14.0 J	291	<7.4	305	-	-	17
SBJ19(16-20)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	49.2	-	17
SBJ19(20-24)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	44.6	-	17.2
SBJ19(24-28)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	60.6	-	18.2
SBJ19(28-32)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	52.1	-	17.5
SBJ19(32-36)	SBJ19-1	**Discrete**	**7/23/2015**	**<0.2**	**<0.25**	**1.1 J**	**<0.36**	**1.1**	**9.4**	**13.9**	**15.4**
SBJ19(36-40)	SBJ19-1	Discrete	7/23/2015	-	-	-	-	-	6.2	-	16.4
SBK14-1(0-12)COMP	SBK14-1	Composite	12/3/2014	10.2	7.1 J	102	17.9 J	127	-	-	8.9
SBK14-1(4-8)	SBK14-1	Discrete	12/3/2014	-	-	-	-	-	31.2	-	3.9

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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBK14-1(12-24)COMP	SBK14-1	Composite	12/3/2014	<3.6	4.4 J	89	16.7 J	110.1	-	-	18
SBK14-1(16-20)	SBK14-1	Discrete	12/3/2014	-	-	-	-	-	9.8	-	18.6
SBK14-1(28-32)	SBK14-1	Discrete	12/3/2014	-	-	-	-	-	43.3	-	12.8
SBK14-1(40-44)	SBK14-1	Discrete	12/3/2014	-	-	-	-	-	35.8	-	19.3
SBK14-1(44-48)	SBK14-1	Discrete	12/3/2014	<0.7	<0.87	<0.75	<0.62	ND	11	-	19.6
SBK14-1(48-52)	SBK14-1	**Discrete**	**12/3/2014**	**<0.7**	**<0.85**	**<0.73**	**<0.61**	**ND**	**4.3**	**10.8**	**19.9**
SBK14-1(52-56)	SBK14-1	Discrete	12/3/2014	-	-	-	-	-	4.8	-	18.4
SBK15-1(0-12)COMP	SBK15-1	Composite	12/3/2014	8.3	4.2 J	89.4	20.3	113.9	-	-	4
SBK15-1(0-6)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	<1.9	-	3.9
SBK15-1(12-18)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	25	-	9
SBK15-1(12-24)COMP	SBK15-1	Composite	12/3/2014	38.3	64.9	424	18.6 J	507.5	-	-	11.8
SBK15-1(28-32)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	22	-	15.3
SBK15-1(40-44)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	51.2	-	16.2
SBK15-1(52-56)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	26.9	-	15
SBK15-1(56-60)	SBK15-1	**Discrete**	**12/3/2014**	**<0.7**	**<0.86**	**<0.73**	**<0.61**	**ND**	**5.5**	**9.8**	**18.3**
SBK15-1(60-64)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	5.7	-	17.8
SBK15-1(64-68)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	3	-	16.9
SBK15-1(68-72)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	4.2	-	17.2
SBK15-1(72-76)	SBK15-1	Discrete	12/3/2014	-	-	-	-	-	5.2	-	17.2
SBK18-1(00-12)COMP	SBK18-1	Composite	7/23/2015	9.4	30	235	11.7	276.7	-	-	14.2
SBK18-1(4-8)	SBK18-1	Discrete	7/23/2015	-	-	-	-	-	74.3	-	17.6
SBK18-1(12-24)COMP	SBK18-1	Composite	7/23/2015	6.8	33	222	7	262	-	-	17.9
SBK18-1(16-20)	SBK18-1	Discrete	7/23/2015	-	-	-	-	-	46.1	-	18.1
SBK18-1(28-32)	SBK18-1	Discrete	7/23/2015	-	-	-	-	-	70.8	-	18.6
SBK18-1(40-44)	SBK18-1	Discrete	7/23/2015	-	-	-	-	-	127	-	18.8
SBK18-1(44-48)	SBK18-1	Discrete	7/23/2015	-	-	-	-	-	34.1	-	18.4
SBK18-1(48-52)	SBK18-1	Discrete	7/23/2015	-	-	-	-	-	30.4	-	16.5

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U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBK18-1(52-56)	SBK18-1	**Discrete**	**7/23/2015**	**<0.2**	**<0.25**	**<0.26**	**<0.37**	**ND**	**6.7**	**12.4**	**16.2**
SBK19-1(0-12)COMP	SBK19-1	Composite	7/23/2015	<2.7	10 J	158	24.7	182.7	-	-	16.4
SBK19-1(4-8)	SBK19-1	Discrete	7/23/2015	-	-	-	-	-	56.3	-	16.1
SBK19-1(12-24)COMP	SBK19-1	Composite	7/23/2015	<2.7	5.2 J	97.1	7.3 J	109.6	-	-	16.3
SBK19-1(16-20)	SBK19-1	Discrete	7/23/2015	-	-	-	-	-	31.6	-	16.4
SBK19-1(28-32)	SBK19-1	Discrete	7/23/2015	-	-	-	-	-	23.5	-	14.6
SBK19-1(40-44)	SBK19-1	Discrete	7/23/2015	-	-	-	-	-	20.8	-	18.4
SBK19-1(44-48)	SBK19-1	Discrete	7/23/2015	-	-	-	-	-	42.5	-	12.5
SBK19-1(48-52)	SBK19-1	**Discrete**	**7/23/2015**	**<0.2**	**<0.26**	**<0.26**	**<0.38**	**ND**	**6.6**	**11.5**	**18**
SBK19-1(52-56)	SBK19-1	Discrete	7/23/2015	-	-	-	-	-	7	-	17.4
SBL13-1(0-12)COMP	SBL13-1	Composite	12/3/2014	20.6	31.5	101	5.0 J	137.5	-	-	14.1
SBL13-1(4-8)	SBL13-1	Discrete	12/3/2014	-	-	-	-	-	25.2	-	16.9
SBL13-1(12-24)COMP	SBL13-1	Composite	12/3/2014	43.5	59.9	232	6.0 J	297.9	-	-	17.9
SBL13-1(16-20)	SBL13-1	Discrete	12/3/2014	-	-	-	-	-	37.3	-	18.2
SBL13-1(28-32)	SBL13-1	Discrete	12/3/2014	-	-	-	-	-	22.8	-	17.5
SBL13-1(40-44)	SBL13-1	Discrete	12/3/2014	-	-	-	-	-	40.5	-	18.1
SBL13-1(44-48)	SBL13-1	Discrete	12/3/2014	-	-	-	-	-	65.4	-	18.7
SBL13-1(48-52)	SBL13-1	Discrete	12/3/2014	-	-	-	-	-	57.6	-	19
SBL13-1(52-56)	SBL13-1	**Discrete**	**12/3/2014**	**<0.7**	**<0.86**	**1.4 J**	**<0.61**	**1.4**	**10.8**	**11.8**	**18.5**
SBL13-2(0-12)COMP	SBL13-2	Composite	12/3/2014	29.8	29.9	206	21.9	257.8	-	-	10.7
SBL13-2(4-8)	SBL13-2	Discrete	12/3/2014	-	-	-	-	-	<2.0	-	4.7
SBL13-2(12-24)COMP	SBL13-2	Composite	12/3/2014	35.2	36.2	206	25.8	268	-	-	17.5
SBL13-2(16-20)	SBL13-2	Discrete	12/3/2014	-	-	-	-	-	26.3	-	17.1
SBL13-2(28-32)	SBL13-2	Discrete	12/3/2014	-	-	-	-	-	20	-	16.5
SBL13-2(40-44)	SBL13-2	Discrete	12/3/2014	-	-	-	-	-	72.5	-	18.1
SBL13-2(44-48)	SBL13-2	Discrete	12/3/2014	-	-	-	-	-	72.3	-	18.7
SBL13-2(48-52)	SBL13-2	Discrete	12/3/2014	-	-	-	-	-	45.7	-	18.3

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBL13-2(52-56)	SBL13-2	**Discrete**	**12/3/2014**	**<0.7**	**<0.85**	**<0.73**	**<0.61**	**ND**	**8.3**	**11.2**	**18.2**
SBL18-1(0-12)COMP	SBL18-1	Composite	7/21/2015	<13	<13	51.0 J	<18	51	-	-	16.1
SBL18-1(04-08)	SBL18-1	Discrete	7/21/2015	13.4	7.7 J	88.3	4.1 J	100.1	-	-	-
SBL18-1(4-8)	SBL18-1	**Discrete**	**7/21/2015**	**-**	**-**	**-**	**-**	**-**	**9.5**	**57.6**	**15.9**
SBL18-1(12-24)COMP	SBL18-1	Composite	7/21/2015	<14	<13	53.3 J	<18	53.3	-	-	16.6
SBL18-1(16-20)	SBL18-1	Discrete	7/21/2015	-	-	-	-	-	11	-	16.7
SBL18-1(28-32)	SBL18-1	Discrete	7/21/2015	-	-	-	-	-	7.7	-	15.3
SBL18-1(40-44)	SBL18-1	Discrete	7/21/2015	-	-	-	-	-	12.7	-	14
SBL18-1(52-56)	SBL18-1	Discrete	7/21/2015	-	-	-	-	-	<2.0	-	6.3
SBL19-1(0-12)COMP	SBL19-1	Composite	7/21/2015	<14	<13	23.9 J	<19	23.9	-	-	17.3
SBL19-1(4-8)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	18.8	-	18
SBL19-1(12-24)COMP	SBL19-1	Composite	7/21/2015	<26	<25	<25	<36	ND	-	-	14.4
SBL19-1(16-20)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	6.5	-	13
SBL19-1(28-32)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	15.7	-	17.3
SBL19-1(40-44)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	37.4	-	20
SBL19-1(52-56)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	103	-	17.3
SBL19-1(56-60)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	63.2	-	17.9
SBL19-1(60-64)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	27.1	-	17.6
SBL19-1(64-68)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	11.5	-	16.4
SBL19-1(68-72)	SBL19-1	**Discrete**	**7/21/2015**	**<0.2**	**<0.27**	**<0.27**	**<0.39**	**ND**	**4.6**	**11.4**	**20.4**
SBL19-1(76-80)	SBL19-1	Discrete	7/21/2015	-	-	-	-	-	3	-	20.7
SBL20-1(0-12)COMP	SBL20-1	Composite	7/21/2015	20.4	<13	58.6 J	<18	58.6	-	-	15.8
SBL20-1(4-8)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	10	-	11.5
SBL20-1(12-24)COMP	SBL20-1	Composite	7/21/2015	57.8	52.6 J	59.5 J	<35	112.1	-	-	13.5
SBL20-1(16-20)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	9.2	-	13.6
SBL20-1(28-32)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	16.9	-	17.5
SBL20-1(40-44)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	28.7	-	19.6

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBL20-1(52-56)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	17.6	-	20.2
SBL20-1(56-60)	SBL20-1	**Discrete**	**7/21/2015**	**<0.2**	**0.44 J**	**1.3 J**	**<0.39**	**1.74**	**11.8**	**11.3**	**21.1**
SBL20-1(60-64)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	11	-	21.5
SBL20-1(64-68)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	9.1	-	20.6
SBL20-1(68-72)	SBL20-1	Discrete	7/21/2015	-	-	-	-	-	7.9	-	20.6
SBM20-1(0-12)COMP	SBM20-1	Composite	7/21/2015	<14	<13	32.0 J	<19	32	-	-	17.9
SBM20-1(4-8)	SBM20-1	Discrete	7/21/2015	-	-	-	-	-	9.6	-	19.1
SBM20-1(12-24)COMP	SBM20-1	Composite	7/21/2015	41.2	59.9 J	81.1 J	<36	141	-	-	14.8
SBM20-1(16-20)	SBM20-1	Discrete	7/21/2015	-	-	-	-	-	10.2	-	14.6
SBM20-1(28-32)	SBM20-1	Discrete	7/21/2015	-	-	-	-	-	13.3	-	16
SBM20-1(40-44)	SBM20-1	Discrete	7/21/2015	-	-	-	-	-	17.8	-	14.5
SBM20-1(44-48)	SBM20-1	Discrete	7/21/2015	-	-	-	-	-	10.7	-	12.7
SBM20-1(48-52)	SBM20-1	Discrete	7/21/2015	-	-	-	-	-	4.8	-	17.9
SBM20-1(52-56)	SBM20-1	Discrete	7/21/2015	<0.2	<0.26	<0.27	<0.38	ND	4.5	10.8	19.1
SBMC14-1(0-24)COMP	SBMC14-1	Composite	12/8/2014	24.7	4.7 J	131	23.2	158.9	-	-	14.7
SBMC14-1(0-6)	SBMC14-1	Discrete	12/8/2014	-	-	-	-	-	27	99.2	32
SBMC14-1(9-15)	SBMC14-1	Discrete	12/8/2014	-	-	-	-	-	34.8	111	19.1
SBMC14-1(18-24)	SBMC14-1	Discrete	12/8/2014	-	-	-	-	-	10.4	27.5	18
SBMD8-1(0-24)COMP	SBMD8-1	Composite	12/8/2014	106	53.3 J	872	183	1108.3	-	-	20.1
SBMD8-1(0-6)	SBMD8-1	Discrete	12/8/2014	-	-	-	-	-	57.6	185	21
SBMD8-1(9-15)	SBMD8-1	Discrete	12/8/2014	-	-	-	-	-	48.9	161	21.5
SBMD8-1(18-24)	SBMD8-1	Discrete	12/8/2014	-	-	-	-	-	63.5	219	17.8
SBMF15-1(0-6)	SBMF15-1	Discrete	12/8/2014	-	-	-	-	-	96.6	293	12.2
SBMF15-1(0-60)COMP	SBMF15-1	Composite	12/8/2014	11.4	67	500	186	753	-	-	18.5
SBMF15-1(27-33)	SBMF15-1	Discrete	12/8/2014	-	-	-	-	-	6.2	14.8	20.8
SBMF15-1(54-60)	SBMF15-1	Discrete	12/8/2014	-	-	-	-	-	36.6	126	19.2
SBMG8-1(0-24)COMP	SBMG8-1	Composite	12/8/2014	184	186	1220	466	1872	-	-	17.4

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Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBMG8-1(0-6)	SBMG8-1	Discrete	12/8/2014	-	-	-	-	-	49.9	171	20.9
SBMG8-1(9-15)	SBMG8-1	Discrete	12/8/2014	-	-	-	-	-	28.1	299	15.6
SBMG8-1(18-24)	SBMG8-1	Discrete	12/8/2014	-	-	-	-	-	82.6	335	14.4
SBMI14-1(0-24)COMP	SBMI14-1	Composite	12/8/2014	13.3	12.4 J	228	44.2	284.6	-	-	25.8
SBMI14-1(0-6)	SBMI14-1	Discrete	12/8/2014	-	-	-	-	-	59.2	181	20.2
SBMI14-1(9-15)	SBMI14-1	Discrete	12/8/2014	-	-	-	-	-	29.7	112	31.2
SBMI14-1(18-24)	SBMI14-1	Discrete	12/8/2014	-	-	-	-	-	23.5	91.6	24.9
SBMI15-1(0-30)COMP	SBMI15-1	Composite	12/10/2014	12.4	8.7	121	10.5	140.2	-	-	19.7
SBMI15-1(0-6)	SBMI15-1	Discrete	12/10/2014	-	-	-	-	-	37.4	143	17.8
SBMI15-1(12-18)	SBMI15-1	Discrete	12/10/2014	-	-	-	-	-	27.4	61.6	17.9
SBMI15-1(24-30)	SBMI15-1	Discrete	12/10/2014	-	-	-	-	-	27.3	96.8	20.9
SBMI8-1(0-24)COMP	SBMI8-1	Composite	12/8/2014	18	20.0 J	245	50.2	315.2	-	-	19.9
SBMI8-1(0-4)	SBMI8-1	Discrete	12/8/2014	-	-	-	-	-	41.8	129	19.8
SBMI8-1(9-15)	SBMI8-1	Discrete	12/8/2014	-	-	-	-	-	58.5	197	18.8
SBMI8-1(18-24)	SBMI8-1	Discrete	12/8/2014	-	-	-	-	-	48.6	170	18.6
SBMJ11-1(0-24)	SBMJ11-1	Discrete	12/8/2014	56.7	16.7 J	455	83.1	554.8	-	-	18.2
SBMJ11-1(0-6)	SBMJ11-1	Discrete	12/8/2014	-	-	-	-	-	26.5	63.3	17.1
SBMJ11-1(9-15)	SBMJ11-1	Discrete	12/8/2014	-	-	-	-	-	61.2	236	21.6
SBMJ11-1(18-24)	SBMJ11-1	Discrete	12/8/2014	-	-	-	-	-	42.8	129	16.9
SBMJ17-1COMPOSITE	SBMJ17-1	Composite	7/23/2015	<1.3	<1.2	8.7 J	<1.8	8.7	4.8	15.4	13.3
SBMJ9-1(0-24)COMP	SBMJ9-1	Composite	12/8/2014	65.6	22.3 J	381	92.7	496	-	-	19.7
SBMJ9-1(0-6)	SBMJ9-1	Discrete	12/8/2014	-	-	-	-	-	27.9	51.5	18.5
SBMJ9-1(9-15)	SBMJ9-1	Discrete	12/8/2014	-	-	-	-	-	28.6	72.3	21.1
SBMJ9-1(18-24)	SBMJ9-1	Discrete	12/8/2014	-	-	-	-	-	48.8	160	14.2
SBMK16-1(0-30)COMP	SBMK16-1	Composite	12/10/2014	12.8	12.0 J	272	89.1	373.1	-	-	17.5
SBMK16-1(0-6)	SBMK16-1	Discrete	12/10/2014	-	-	-	-	-	25.8	96.9	16.8
SBMK16-1(12-18)	SBMK16-1	Discrete	12/10/2014	-	-	-	-	-	44.5	273	17.4

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SBMK16-1(24-30)	SBMK16-1	Discrete	12/10/2014	-	-	-	-	-	48.5	174	19.2
SBMK17-1COMPOSITE	SBMK17-1	Composite	7/23/2015	2	2.5 J a	94.4	9.8	106.7	19.2	72.4	14.1
SBML16-1(0-30)COMP	SBML16-1	Composite	12/10/2014	12.4	7.4 J	186	24.9	218.3	-	-	18.9
SBML16-1(0-6)	SBML16-1	Discrete	12/10/2014	-	-	-	-	-	46.9	170	19.6
SBML16-1(12-18)	SBML16-1	Discrete	12/10/2014	-	-	-	-	-	25.7	68	19.9
SBML16-1(24-30)	SBML16-1	Discrete	12/10/2014	-	-	-	-	-	29	89.3	20.4
SBML17-1(00-24)COMP	SBML17-1	Composite	7/21/2015	<2.7	<2.6	116	12.6 J	128.6	19.6	86	17.6
SBMM18-1(0-24)COMP	SBMM18-1	Composite	7/21/2015	<2.7	<2.5	62.7	9.2 J	71.9	17.8	65.7	15.1
SCC10-1(0-12)COMP	SCC10-1	Composite	12/10/2014	57.5	50.5 J	813	149	1012.5	-	-	16.5
SCC10-1(0-4)	SCC10-1	Discrete	12/10/2014	-	-	-	-	-	45.9	-	17.6
SCC10-1(4-8)	SCC10-1	Discrete	12/10/2014	-	-	-	-	-	43.8	-	14.4
SCC10-1(8-12)	SCC10-1	Discrete	12/10/2014	-	-	-	-	-	53.9	-	15.5
SCC10-1(12-16)	SCC10-1	Discrete	12/10/2014	-	-	-	-	-	48.8	-	14.9
SCC10-1(12-24)COMP	SCC10-1	Composite	12/10/2014	66.2	17.5 J	363	52.1	432.6	-	-	8.2
SCC10-1(16-20)	SCC10-1	Discrete	12/10/2014	-	-	-	-	-	28.2	-	9.9
SCC10-1(20-24)	SCC10-1	**Discrete**	**12/10/2014**	**0.95**	**<0.72**	**3.5**	**0.68 J**	**4.18**	**3.2**	**9.9**	**5.1**
SCC10-1(24-28)	SCC10-1	Discrete	12/10/2014	<0.6	<0.78	<0.66	<0.55	ND	4.7	-	9.8
SCC11-1(0-12)COMP	SCC11-1	Composite	12/9/2014	26.1	30.9 J	531	64.5	626.4	-	-	16.5
SCC11-1(0-4)	SCC11-1	Discrete	12/9/2014	-	-	-	-	-	63.5	-	16.5
SCC11-1(4-8)	SCC11-1	Discrete	12/9/2014	-	-	-	-	-	45.2	-	17.2
SCC11-1(8-12)	SCC11-1	Discrete	12/9/2014	-	-	-	-	-	42.1	-	16.7
SCC11-1(12-16)	SCC11-1	Discrete	12/9/2014	0.98	2.3 J	64.3	7.5	74.1	10.4	-	14.8
SCC11-1(12-24)COMP	SCC11-1	Composite	12/9/2014	<1.4	2.3 J	66.7	5.5 J	74.5	-	-	14.8
SCC11-1(16-20)	SCC11-1	Discrete	12/9/2014	-	-	-	-	-	7.9	-	14.5
SCC11-1(20-24)	SCC11-1	Discrete	12/9/2014	-	-	-	-	-	8.1	-	22.2
SCC12-1(0-12)COMP	SCC12-1	Composite	12/10/2014	13.2	18.0 J	236	48.6	302.6	-	-	19.1
SCC12-1(0-4)	SCC12-1	Discrete	12/10/2014	-	-	-	-	-	46.1	-	17.1

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Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SCC12-1(4-8)	SCC12-1	Discrete	12/10/2014	-	-	-	-	-	23.2	-	17.2
SCC12-1(8-12)	SCC12-1	Discrete	12/10/2014	-	-	-	-	-	10.7	-	20.9
SCC12-1(12-16)	SCC12-1	Discrete	12/10/2014	-	-	-	-	-	22.2	-	22
SCC12-1(12-24)COMP	SCC12-1	Composite	12/10/2014	<7.4	44.5	348	13.5 J	406	-	-	19.2
SCC12-1(16-20)	SCC12-1	Discrete	12/10/2014	-	-	-	-	-	100	-	22.6
SCC12-1(20-24)	SCC12-1	Discrete	12/10/2014	-	-	-	-	-	32.8	-	17.6
SCC12-1(24-28)	SCC12-1	**Discrete**	**12/10/2014**	**2.2**	**16.6**	**52.3**	**6.8**	**75.7**	**12.9**	**27**	**12.6**
SCC12-1(28-32)	SCC12-1	Discrete	12/10/2014	<0.6	<0.81	<0.69	<0.58	ND	6.5	-	14.6
SCC12-1(32-36)	SCC12-1	Discrete	12/10/2014	<0.7	<0.83	1.9 J	<0.59	1.9	5	-	16.5
SCC12-1(36-40)	SCC12-1	Discrete	12/10/2014	<0.7	<0.86 d	<0.73	<0.61	ND	4.5	-	18.3
SCC13-1(0-12)COMP	SCC13-1	Composite	12/9/2014	<7.8	83	514	21.0 J	618	-	-	23.8
SCC13-1(0-4)	SCC13-1	Discrete	12/9/2014	-	-	-	-	-	23.7	-	23.8
SCC13-1(4-8)	SCC13-1	Discrete	12/9/2014	-	-	-	-	-	28.7	-	19.9
SCC13-1(8-12)	SCC13-1	Discrete	12/9/2014	-	-	-	-	-	48.7	-	20.5
SCC13-1(12-16)	SCC13-1	Discrete	12/9/2014	-	-	-	-	-	76.5	-	21.1
SCC13-1(12-24)COMP	SCC13-1	Composite	12/9/2014	<1.5	8.0 J	71.1	2.7 J	81.8	-	-	22
SCC13-1(16-20)	SCC13-1	**Discrete**	**12/9/2014**	**-**	**-**	**-**	**-**	**-**	**5.6**	**15**	**28.5**
SCC13-1(20-24)	SCC13-1	Discrete	12/9/2014	-	-	-	-	-	6.2	-	23.3
SCC8-1(0-12)COMP	SCC8-1	Composite	12/10/2014	183	83.6	1240	347	1670.6	-	-	17.6
SCC8-1(0-4)	SCC8-1	Discrete	12/10/2014	-	-	-	-	-	51	-	20.6
SCC8-1(4-8)	SCC8-1	Discrete	12/10/2014	-	-	-	-	-	64	-	14.8
SCC8-1(8-12)	SCC8-1	Discrete	12/10/2014	-	-	-	-	-	68.3	-	14.6
SCC8-1(12-16)	SCC8-1	Discrete	12/10/2014	-	-	-	-	-	56.2	-	17.9
SCC8-1(12-24)COMP	SCC8-1	Composite	12/10/2014	51.3	30.3	286	79.9	396.2	-	-	20.4
SCC8-1(16-20)	SCC8-1	**Discrete**	**12/10/2014**	**2**	**<0.90**	**12.2**	**3.0 J**	**15.2**	**10.9**	**24**	**22.8**
SCC8-1(20-24)	SCC8-1	Discrete	12/10/2014	<0.7	<0.88	3.0 J	1.1 J	4.1	7.2	-	22.7
SCC8-1(24-28)	SCC8-1	Discrete	12/10/2014	<0.7	<0.89	<0.76	<0.63	ND	7.7	-	21.6

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SCC9-1(0-12)COMP	SCC9-1	Composite	12/9/2014	3.3	8.5 J	146	21.4	175.9	-	-	20
SCC9-1(0-4)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	17.1	-	16
SCC9-1(4-8)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	22.3	-	24
SCC9-1(8-12)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	37.1	-	19
SCC9-1(12-16)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	43	-	20.6
SCC9-1(12-24)COMP	SCC9-1	Composite	12/9/2014	9	28.8 J	359	25.1 J	412.9	-	-	17.8
SCC9-1(16-20)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	59.6	-	22.9
SCC9-1(20-24)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	43.2	-	19.3
SCC9-1(24-28)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	47.4	-	18.6
SCC9-1(28-32)	SCC9-1	Discrete	12/9/2014	10.6	101	526	32.8 b	659.8	39.1	-	17.7
SCC9-1(32-36)	SCC9-1	Discrete	12/9/2014	-	-	-	-	-	27.9	-	17.3
SCC9-1(36-40)	SCC9-1	Discrete	12/9/2014	82.1	90.7 b	342 b	35.0 b	467.7	14.5	-	9.6
SCC9-1(40-44)	SCC9-1	**Discrete**	**12/9/2014**	**13**	**94.1**	**432**	**40.5 b**	**566.6**	**14.3**	**56.8**	**14.1**
SD10-1(0-12)COMP	SD10-1	Composite	12/8/2014	21.8	34.9	386	4.6 J	425.5	-	-	14.3
SD10-1(4-8)	SD10-1	Discrete	12/8/2014	-	-	-	-	-	41.5	-	17.5
SD10-1(8-12)	SD10-1	Discrete	12/8/2014	-	-	-	-	-	73.6	-	15.7
SD10-1(12-16)	SD10-1	Discrete	12/8/2014	-	-	-	-	-	18.3	-	17.4
SD10-1(12-24)COMP	SD10-1	Composite	12/8/2014	<0.71	<0.83	6.2	<0.60	6.2	-	-	16.9
SD10-1(16-20)	SD10-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**9.4**	**12.5**	**13.9**
SD10-1(20-24)	SD10-1	Discrete	12/8/2014	-	-	-	-	-	7.2	-	16.9
SD11-1(0-12)COMP	SD11-1	Composite	12/8/2014	<0.75	<0.87	0.90 J	<0.62	0.9	-	-	20.7
SD11-1(4-8)	SD11-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**5**	**10.8**	**19.6**
SD11-1(8-12	SD11-1	Discrete	12/8/2014	-	-	-	-	-	5.3	-	20.3
SD11-1(12-16)	SD11-1	Discrete	12/8/2014	-	-	-	-	-	5.1	-	19.7
SD11-1(12-24)COMP	SD11-1	Composite	12/8/2014	<0.74	<0.86	<0.74	<0.61	ND	-	-	18.9
SD11-1(16-20)	SD11-1	Discrete	12/8/2014	-	-	-	-	-	4.6	-	18.8
SD11-1(20-24)	SD11-1	Discrete	12/8/2014	-	-	-	-	-	4.5	-	18.7

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SD11-1(WASTE)	SD11-1	Waste	12/8/2014	<0.74	<0.86	<0.74	<0.61	ND	4.8	10.2	18.9
SD12-1(0-12)COMP	SD12-1	Composite	12/8/2014	5.5	6.7	40.6	0.76 J e	48.06	-	-	20.7
SD12-1(4-8)	SD12-1	Discrete	12/8/2014	-	-	-	-	-	31.3	-	21.5
SD12-1(8-12)	SD12-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**9.8**	**11**	**20.7**
SD12-1(12-16)	SD12-1	Discrete	12/8/2014	-	-	-	-	-	6.6	-	19.5
SD12-1(12-24)COMP	SD12-1	Composite	12/8/2014	<0.74	<0.86	<0.74	<0.61	ND	-	-	19.4
SD12-1(16-20)	SD12-1	Discrete	12/8/2014	-	-	-	-	-	4.3	-	19.7
SD12-1(20-24)	SD12-1	Discrete	12/8/2014	-	-	-	-	-	5.7	-	19.4
SD12-1(WASTE)	SD12-1	Waste	12/8/2014	<0.74	<0.86	<0.74	<0.61	ND	4.4	7.3	19.4
SD13-1(0-12)COMP	SD13-1	Composite	12/8/2014	<3.7	<4.3	10.8 J	<3.1	10.8	-	-	19.8
SD13-1(4-8)	SD13-1	Discrete	12/8/2014	-	-	-	-	-	18.2	-	18.7
SD13-1(8-12)	SD13-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**4.8**	**10.8**	**21.8**
SD13-1(12-16)	SD13-1	Discrete	12/8/2014	-	-	-	-	-	4.5	-	19.7
SD13-1(12-24)COMP	SD13-1	Composite	12/8/2014	<0.73	<0.85	<0.73	<0.61	ND	-	-	19
SD13-1(16-20)	SD13-1	Discrete	12/8/2014	-	-	-	-	-	4.5	-	18.9
SD13-1(20-24)	SD13-1	Discrete	12/8/2014	-	-	-	-	-	4.7	-	18.3
SD14-1(0-12)COMP	SD14-1	Composite	12/8/2014	<3.7	<4.3	16.5 J	<3.1	16.5	-	-	19.2
SD14-1(4-8)	SD14-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**6.8**	**11**	**20**
SD14-1(8-12)	SD14-1	Discrete	12/8/2014	-	-	-	-	-	6	-	21.2
SD14-1(12-16)	SD14-1	Discrete	12/8/2014	-	-	-	-	-	4.9	-	19.5
SD14-1(12-24)COMP	SD14-1	Composite	12/8/2014	<0.70	<0.82	<0.70	<0.58	ND	-	-	15.1
SD14-1(16-20)	SD14-1	Discrete	12/8/2014	-	-	-	-	-	4.1	-	19.5
SD14-1(20-24)	SD14-1	Discrete	12/8/2014	-	-	-	-	-	5	-	18.3
SD14-1(WASTE)	SD14-1	Waste	12/8/2014	<0.70	<0.81	<0.70	<0.58	ND	5.3	9.5	14.8
SD8-1(0-12)COMP	SD8-1	Composite	12/8/2014	<3.6	<4.2	<3.6	<3.0	ND	-	-	17.3
SD8-1(4-8)	SD8-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**6**	**11.2**	**16.9**
SD8-1(8-12)	SD8-1	Discrete	12/8/2014	-	-	-	-	-	6	-	17.2

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SD8-1(12-16)	SD8-1	Discrete	12/8/2014	-	-	-	-	-	5.3	-	16.2
SD8-1(12-24)COMP	SD8-1	Composite	12/8/2014	<0.71	<0.83	<0.71	<0.59	ND	-	-	16.9
SD8-1(16-20)	SD8-1	Discrete	12/8/2014	-	-	-	-	-	5.9	-	16.5
SD8-1(20-24)	SD8-1	Discrete	12/8/2014	-	-	-	-	-	5.8	-	16.8
SD8-1(WASTE)	SD8-1	Waste	12/8/2014	<0.71	<0.83	<0.71	<0.59	ND	5.2	9.4	16.9
SD9-1(0-12)COMP	SD9-1	Composite	12/8/2014	52.9	64	549	6.4 J	619.4	-	-	14.8
SD9-1(4-8)	SD9-1	Discrete	12/8/2014	-	-	-	-	-	72	-	16.8
SD9-1(8-12)	SD9-1	**Discrete**	**12/8/2014**	**<0.7**	**<0.84**	**1.9 J**	**<0.60**	**1.9**	**7.6**	**18.2**	**18.2**
SD9-1(12-16)	SD9-1	Discrete	12/8/2014	-	-	-	-	-	6.1	-	17.2
SD9-1(12-24)COMP	SD9-1	Composite	12/8/2014	<0.72	<0.84	2.1 J	<0.60	2.1	-	-	16.9
SD9-1(16-20)	SD9-1	Discrete	12/8/2014	-	-	-	-	-	7	-	17
SD9-1(20-24)	SD9-1	Discrete	12/8/2014	-	-	-	-	-	6.9	-	16.5
SD9-1(WASTE)	SD9-1	Waste	12/8/2014	<0.72	<0.84	1.9 J	1.7 J	3.6	6.3	11.4	16.9
SE13-1(0-12)COMP	SE13-1	Composite	12/8/2014	<0.71	<0.83	1.0 J	<0.59	1	-	-	16.7
SE13-1(4-8)	SE13-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**5.1**	**10.9**	**16.6**
SE13-1(8-12)	SE13-1	Discrete	12/8/2014	-	-	-	-	-	5.2	-	16.9
SE13-1(12-16)	SE13-1	Discrete	12/8/2014	-	-	-	-	-	5.4	-	16.8
SE13-1(12-24)COMP	SE13-1	Composite	12/8/2014	<0.72	<0.84	<0.72	<0.60	ND	-	-	16.8
SE13-1(16-20)	SE13-1	Discrete	12/8/2014	-	-	-	-	-	5.1	-	16.4
SE13-1(20-24)	SE13-1	Discrete	12/8/2014	-	-	-	-	-	4.3	-	16.4
SE14-1(0-12)COMP	SE14-1	Composite	12/8/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.7
SE14-1(4-8)	SE14-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**4.7**	**10.5**	**22.1**
SE14-1(8-12)	SE14-1	Discrete	12/8/2014	-	-	-	-	-	3.8	-	19.2
SE14-1(12-16)	SE14-1	Discrete	12/8/2014	-	-	-	-	-	4.9	-	19.3
SE14-1(12-24)COMP	SE14-1	Composite	12/8/2014	<0.74	<0.86	<0.74	<0.62	ND	-	-	18.9
SE14-1(16-20)	SE14-1	Discrete	12/8/2014	-	-	-	-	-	6.5	-	19.1
SE14-1(20-24)	SE14-1	Discrete	12/8/2014	-	-	-	-	-	5.3	-	18.4

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SE14-1(WASTE)	SE14-1	Waste	12/8/2014	<0.74	<0.86	<0.74	<0.62	ND	7.4	11.4	18.9
SE8-1(0-12)COMP	SE8-1	Composite	12/8/2014	<0.75	<0.88	3.9 J	<0.63	3.9	-	-	21.5
SE8-1(4-8)	SE8-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**10**	**14.7**	**21.5**
SE8-1(8-12)	SE8-1	Discrete	12/8/2014	-	-	-	-	-	8.6	-	21.7
SE8-1(12-16)	SE8-1	Discrete	12/8/2014	-	-	-	-	-	7.2	-	20
SE8-1(12-24)COMP	SE8-1	Composite	12/8/2014	<0.74	<0.86	<0.74	<0.61	ND	-	-	19.5
SE8-1(16-20)	SE8-1	Discrete	12/8/2014	-	-	-	-	-	7.6	-	19
SE8-1(20-24)	SE8-1	Discrete	12/8/2014	-	-	-	-	-	5.2	-	18.8
SE9-1(0-12)COMP	SE9-1	Composite	12/8/2014	<0.71	<0.83	<0.71	<0.60	ND	-	-	17.3
SE9-1(4-8)	SE9-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**4.1**	**7**	**17.5**
SE9-1(8-12)	SE9-1	Discrete	12/8/2014	-	-	-	-	-	4.6	-	16.9
SE9-1(12-16)	SE9-1	Discrete	12/8/2014	-	-	-	-	-	3.3	-	15.9
SE9-1(12-24)COMP	SE9-1	Composite	12/8/2014	<0.71	<0.83	<0.71	<0.59	ND	-	-	16.6
SE9-1(16-20)	SE9-1	Discrete	12/8/2014	-	-	-	-	-	4.5	-	17.5
SE9-1(20-24)	SE9-1	Discrete	12/8/2014	-	-	-	-	-	2.6	-	20.8
SE9-1(WASTE)	SE9-1	Waste	12/8/2014	<0.71	<0.83	5.8	<0.60	5.8	13.3	14.4	16.9
SF14-1(0-12)COMP	SF14-1	Composite	12/10/2014	<0.74	2.8 J	33.3	9.3	45.4	-	-	19.3
SF14-1(4-8)	SF14-1	Discrete	12/10/2014	-	-	-	-	-	10.6	-	31.6
SF14-1(8-12)	SF14-1	Discrete	12/10/2014	-	-	-	-	-	18.4	-	14.5
SF14-1(12-16)	SF14-1	Discrete	12/10/2014	-	-	-	-	-	11.9	-	21.8
SF14-1(12-24)COMP	SF14-1	Composite	12/10/2014	25	26.1	185	43.2	254.3	-	-	18.8
SF14-1(16-20)	SF14-1	Discrete	12/10/2014	-	-	-	-	-	31.9	-	19.1
SF14-1(20-24)	SF14-1	Discrete	12/10/2014	-	-	-	-	-	41.1	-	17.2
SF14-1(24-28)	SF14-1	**Discrete**	**12/10/2014**	**4.1**	**2.1 J**	**55**	**7.2**	**64.3**	**9.1**	**14.6**	**22.4**
SF14-1(28-32)	SF14-1	Discrete	12/10/2014	<0.7	<0.88	1.2 J	0.80 J	2	6.6	-	21.5
SF14-1(32-36)	SF14-1	Discrete	12/10/2014	<0.7	<0.86 d	<0.74	<0.62	ND	5.8	-	21.3
SF14-1(36-40)	SF14-1	Discrete	12/10/2014	<0.7	<0.88 d	<0.75	<0.63	ND	6	-	21

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SF15-1(0-12)COMP	SF15-1	Composite	12/10/2014	23.6	28.2 J	329	52.6	409.8	-	-	16.8
SF15-1(4-8)	SF15-1	Discrete	12/10/2014	-	-	-	-	-	37.5	-	16.5
SF15-1(8-12)	SF15-1	Discrete	12/10/2014	-	-	-	-	-	37.7	-	17
SF15-1(12-16)	SF15-1	Discrete	12/10/2014	-	-	-	-	-	27.3	-	19.7
SF15-1(12-24)COMP	SF15-1	Composite	12/10/2014	1.4	2.8 J	22	5.8	30.6	-	-	20
SF15-1(16-20)	SF15-1	Discrete	12/10/2014	-	-	-	-	-	19.3	-	21.9
SF15-1(20-24)	SF15-1	**Discrete**	**12/10/2014**	**-**	**-**	**-**	**-**	**-**	**5.8**	**10.5**	**19.8**
SF8-1(0-12)COMP	SF8-1	Composite	12/8/2014	<0.75	<0.88	<0.75	<0.63	ND	-	-	20.4
SF8-1(4-8)	SF8-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**6.9**	**10.6**	**20.6**
SF8-1(8-12)	SF8-1	Discrete	12/8/2014	-	-	-	-	-	3.6	-	19.6
SF8-1(12-16)	SF8-1	Discrete	12/8/2014	-	-	-	-	-	4.8	-	18.5
SF8-1(12-24)COMP	SF8-1	Composite	12/8/2014	<0.73	<0.85	<0.73	<0.61	ND	-	-	18.2
SF8-1(16-20)	SF8-1	Discrete	12/8/2014	-	-	-	-	-	6.4	-	18.1
SF8-1(20-24)	SF8-1	Discrete	12/8/2014	-	-	-	-	-	4.9	-	16.8
SF8-1(WASTE)	SF8-1	Waste	12/8/2014	<0.73	<0.85	<0.73	<0.61	ND	4.4	6.8	18.2
SG11-1(0-12)COMP	SG11-1	Composite	12/8/2014	8.6	12.2	44.6	96.5	153.3	-	-	16
SG11-1(4-8)	SG11-1	Discrete	12/8/2014	-	-	-	-	-	7.1	-	15.8
SG11-1(8-12)	SG11-1	Discrete	12/8/2014	-	-	-	-	-	5.1	-	13.7
SG11-1(12-16)	SG11-1	Discrete	12/8/2014	-	-	-	-	-	12.6	-	16.3
SG11-1(12-24)COMP	SG11-1	Composite	12/8/2014	4.5	14.7	27.3	3.3 J	45.3	-	-	20.1
SG11-1(16-20)	SG11-1	Discrete	12/8/2014	-	-	-	-	-	29.9	-	20.9
SG11-1(20-24)	SG11-1	Discrete	12/8/2014	-	-	-	-	-	19.6	-	21.5
SG11-1(24-28)	SG11-1	Discrete	12/8/2014	<0.7	<0.90	4.3	<0.64	4.3	18.1	-	-
SG11-1(28-32)	SG11-1	**Discrete**	**12/8/2014**	**<0.7**	**<0.87**	**<0.74**	**<0.62**	**ND**	**5.8**	**11.4**	**19.7**
SG11-1(32-36)	SG11-1	Discrete	12/8/2014	<0.7	<0.85	<0.73	<0.61	ND	5.6	-	19.4
SG11-1(36-40)	SG11-1	Discrete	12/8/2014	<0.7	<0.85	<0.73	<0.61	ND	5.1	-	18.3
SG12-1(0-12)COMP	SG12-1	Composite	12/8/2014	99.4	<4.1	163	52	215	-	-	17.2

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SG12-1(4-8)	SG12-1	Discrete	12/8/2014	312	31.3	413	223	667.3	6.5	-	17.2
SG12-1(8-12)	SG12-1	Discrete	12/8/2014	62.6	6.1	138	38	182.1	5.8	-	15.1
SG12-1(12-16)	SG12-1	Discrete	12/8/2014	-	-	-	-	-	5.3	14.8	14.3
SG12-1(12-24)COMP	SG12-1	Composite	12/8/2014	21.5	11.0 J	76.3	7.4 J	94.7	-	-	15.7
SG12-1(16-20)	SG12-1	**Discrete**	**12/8/2014**	**15.2**	**9.6**	**64.6**	**6.9**	**81.1**	**5.9**	**16.6**	**15.6**
SG12-1(20-24)	SG12-1	Discrete	12/8/2014	-	-	-	-	-	5	-	14.8
SG14-1(0-12)COMP	SG14-1	Composite	12/10/2014	<0.74	<0.86	<0.74	<0.61	ND	-	-	18.8
SG14-1(4-8)	SG14-1	**Discrete**	**12/10/2014**	**-**	**-**	**-**	**-**	**-**	**7.4**	**11.4**	**18**
SG14-1(8-12)	SG14-1	Discrete	12/10/2014	-	-	-	-	-	7.3	-	17.8
SG14-1(12-16)	SG14-1	Discrete	12/10/2014	-	-	-	-	-	5.5	-	17.4
SG14-1(12-24)COMP	SG14-1	Composite	12/10/2014	<0.72	<0.84	<0.72	<0.60	ND	-	-	17.2
SG14-1(16-20)	SG14-1	Discrete	12/10/2014	-	-	-	-	-	5.3	-	17.1
SG14-1(20-24)	SG14-1	Discrete	12/10/2014	-	-	-	-	-	4.8	-	16.4
SG15-1(0-12)COMP	SG15-1	Composite	12/10/2014	0.98	<0.86	5.1	<0.61	5.1	-	-	18.8
SG15-1(4-8)	SG15-1	**Discrete**	**12/10/2014**	**-**	**-**	**-**	**-**	**-**	**7.4**	**12.8**	**19.3**
SG15-1(8-12)	SG15-1	Discrete	12/10/2014	-	-	-	-	-	7	-	18.1
SG15-1(12-16)	SG15-1	Discrete	12/10/2014	-	-	-	-	-	6.3	-	16.7
SG15-1(12-24)COMP	SG15-1	Composite	12/10/2014	<0.71	<0.83	<0.71	<0.59	ND	-	-	16.4
SG15-1(16-20)	SG15-1	Discrete	12/10/2014	-	-	-	-	-	6.7	-	16.6
SG15-1(20-24)	SG15-1	Discrete	12/10/2014	-	-	-	-	-	5.6	-	16.6
SG15-1(WASTE)	SG15-1	Waste	12/10/2014	-	-	-	-	-	5.3	10.5	17.7
SG8-1(0-12)COMP	SG8-1	Composite	12/8/2014	<0.72	<0.84	<0.72	<0.60	ND	-	-	16.7
SG8-1(4-8)	SG8-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**6**	**7.3**	**15.3**
SG8-1(8-12)	SG8-1	Discrete	12/8/2014	-	-	-	-	-	4.8	-	14.6
SG8-1(12-16)	SG8-1	Discrete	12/8/2014	-	-	-	-	-	3.1	-	16.7
SG8-1(12-24)COMP	SG8-1	Composite	12/8/2014	<0.70	<0.82	<0.70	<0.59	ND	-	-	15.6
SG8-1(16-20)	SG8-1	Discrete	12/8/2014	-	-	-	-	-	4.6	-	15.4

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SG8-1(20-24)	SG8-1	Discrete	12/8/2014	-	-	-	-	-	4.3	-	14.3
SH10-1(0-12)COMP	SH10-1	Composite	12/8/2014	39.9	36.4 J	234	8.2 J	278.6	-	-	17.6
SH10-1(4-8)	SH10-1	Discrete	12/8/2014	-	-	-	-	-	63.8	-	20.9
SH10-1(8-12)	SH10-1	**Discrete**	**12/8/2014**	**<0.7**	**<0.87**	**1.1 J**	**<0.62**	**1.1**	**13.1**	**11.1**	**21.2**
SH10-1(12-16)	SH10-1	Discrete	12/8/2014	-	-	-	-	-	6.8	-	19.6
SH10-1(12-24)COMP	SH10-1	Composite	12/8/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.5
SH10-1(16-20)	SH10-1	Discrete	12/8/2014	-	-	-	-	-	6.5	-	19.7
SH10-1(20-24)	SH10-1	Discrete	12/8/2014	-	-	-	-	-	5.1	-	19.2
SH10-1(WASTE)	SH10-1	Waste	12/8/2014	<0.74	<0.87	<0.74	<0.62	ND	6.6	9.8	19.5
SH12-1(0-12)COMP	SH12-1	Composite	12/8/2014	32.4	23.9	168	<3.0	191.9	-	-	17.2
SH12-1(4-8)	SH12-1	Discrete	12/8/2014	-	-	-	-	-	22.2	-	16.6
SH12-1(8-12)	SH12-1	Discrete	12/8/2014	-	-	-	-	-	129	-	18.7
SH12-1(12-16)	SH12-1	Discrete	12/8/2014	-	-	-	-	-	52	-	18.6
SH12-1(12-24)COMP	SH12-1	Composite	12/8/2014	27.9	13.5 J	178	<6.1	191.5	-	-	18.9
SH12-1(16-20)	SH12-1	Discrete	12/8/2014	-	-	-	-	-	10.6	-	20.5
SH12-1(20-24)	SH12-1	Discrete	12/8/2014	-	-	-	-	-	18.7	-	20.1
SH12-1(24-28)	SH12-1	**Discrete**	**12/8/2014**	**<3.7**	**<4.3**	**<3.7**	**<3.0**	**ND**	**5.4**	**9.8**	**18.7**
SH12-1(28-32)	SH12-1	Discrete	12/8/2014	<0.7	<0.85	<0.73	<0.60	ND	7.4	13.7	17.8
SH12-1(32-36)	SH12-1	Discrete	12/8/2014	<0.7	<0.85	<0.73	<0.61	ND	5.5	-	17.5
SH14-1(0-12)COMP	SH14-1	Composite	12/10/2014	119	18.2 e	196	68.6	282.8	-	-	19
SH14-1(4-8)	SH14-1	Discrete	12/10/2014	-	-	-	-	-	42.5	-	17.5
SH14-1(8-12)	SH14-1	Discrete	12/10/2014	-	-	-	-	-	54.7	-	16.4
SH14-1(12-16)	SH14-1	Discrete	12/10/2014	-	-	-	-	-	43.3	-	16.6
SH14-1(12-24)COMP	SH14-1	Composite	12/10/2014	7.6	6.6	69.2	15.2	91	-	-	18.9
SH14-1(16-20)	SH14-1	**Discrete**	**12/10/2014**	**<0.7**	**<0.85**	**1.6 J**	**<0.61**	**1.6**	**9.9**	**14.1**	**19.7**
SH14-1(20-24)	SH14-1	Discrete	12/10/2014	-	-	-	-	-	6	-	19.6
SH15-1(0-4)	SH15-1	Discrete	12/10/2014	-	-	-	-	-	9	48.4	19.5

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SH15-1(0-4)(28-32)(56-60)COMP	SH15-1	Composite	12/10/2014	8.1	19.6	72.2	11.1	102.9	-	-	20.1
SH15-1(28-32)	SH15-1	Discrete	12/10/2014	-	-	-	-	-	43.2	136	13.4
SH15-1(56-60)	SH15-1	Discrete	12/10/2014	-	-	-	-	-	22	11.3	20.2
SH8-1(0-12)COMP	SH8-1	Composite	12/10/2014	<0.73	<0.86	<0.73	<0.61	ND	-	-	18.8
SH8-1(4-8)	SH8-1	**Discrete**	**12/10/2014**	**-**	**-**	**-**	**-**	**-**	**6.8**	**8.3**	**18.5**
SH8-1(8-12)	SH8-1	Discrete	12/10/2014	-	-	-	-	-	4.7	-	17.4
SH8-1(12-16)	SH8-1	Discrete	12/10/2014	-	-	-	-	-	4.2	-	16.3
SH8-1(12-24)COMP	SH8-1	Composite	12/10/2014	<0.71	<0.83	<0.71	<0.59	ND	-	-	15.7
SH8-1(16-20)	SH8-1	Discrete	12/10/2014	-	-	-	-	-	4.2	-	15
SH8-1(20-24)	SH8-1	Discrete	12/10/2014	-	-	-	-	-	4.8	-	15.4
SH9-1(0-12)COMP	SH9-1	Composite	12/8/2014	<1.5	<1.7	3.2 J	<1.2	3.2	-	-	18.9
SH9-1(4-8)	SH9-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**9.1**	**11.2**	**18.6**
SH9-1(8-12)	SH9-1	Discrete	12/8/2014	-	-	-	-	-	6.1	-	17.5
SH9-1(12-16)	SH9-1	Discrete	12/8/2014	-	-	-	-	-	5.8	-	16.8
SH9-1(12-24)COMP	SH9-1	Composite	12/8/2014	<7.1	<8.2	<7.1	<5.9	ND	-	-	16.3
SH9-1(16-20)	SH9-1	Discrete	12/8/2014	-	-	-	-	-	5.2	-	16.8
SH9-1(20-24)	SH9-1	Discrete	12/8/2014	-	-	-	-	-	4.5	-	15.9
SI11-1(0-12)COMP	SI11-1	Composite	12/2/2014	<0.75	<0.87	11.3	1.6 J	12.9	-	-	20.1
SI11-1(4-8)	SI11-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**16.7**	**26.3**	**20.4**
SI11-1(12-16)	SI11-1	Discrete	12/2/2014	-	-	-	-	-	7.1	-	19.6
SI11-1(12-24)COMP	SI11-1	Composite	12/2/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.7
SI11-1(16-20)	SI11-1	Discrete	12/2/2014	-	-	-	-	-	5.6	-	19.4
SI11-1(WASTE)	SI11-1	Waste	12/2/2014	<0.74	<0.87	<0.74	<0.62	ND	6	11.1	19.7
SI12-1(0-12)COMP	SI12-1	Composite	12/2/2014	10.1	<4.3	87.6	5.8 J	93.4	-	-	18.9
SI12-1(4-8)	SI12-1	Discrete	12/2/2014	-	-	-	-	-	33.7	-	20.2
SI12-1(8-12)	SI12-1	Discrete	12/2/2014	<0.7	<0.86	0.74 J	<0.62	0.74	9	-	19.3
SI12-1(12-16)	SI12-1	Discrete	12/2/2014	<0.7	<0.86	<0.73	<0.61	ND	7	-	18.3

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SI12-1(12-24)COMP	SI12-1	Composite	12/2/2014	<0.73	<0.85	<0.73	<0.60	ND	-	-	17.5
SI12-1(16-20)	SI12-1	Discrete	12/2/2014	-	-	-	-	-	6.3	-	17.5
SI12-1(20-24)	SI12-1	Discrete	12/2/2014	-	-	-	-	-	5.9	-	16.5
SI13-1(0-12)COMP	SI13-1	Composite	12/2/2014	<0.72	<0.84	0.81 J	<0.60	0.81	-	-	17
SI13-1(4-8)	SI13-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**6.8**	**15**	**14.7**
SI13-1(12-24)COMP	SI13-1	Composite	12/2/2014	<0.70	<0.82	<0.70	<0.59	ND	-	-	14.9
SI13-1(16-20)	SI13-1	Discrete	12/2/2014	-	-	-	-	-	4.9	-	14.2
SI13-1(20-24)	SI13-1	Discrete	12/2/2014	-	-	-	-	-	4	-	14.7
SI14-1(0-12)COMP	SI14-1	Composite	12/2/2014	<2.2	<2.5	3.4 J	<1.8	3.4	-	-	17.3
SI14-1(4-8)	SI14-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**7.7**	**12.7**	**17.5**
SI14-1(12-24)COMP	SI14-1	Composite	12/2/2014	<0.70	<0.82	<0.70	<0.59	ND	-	-	14.9
SI14-1(32-36)	SI14-1	Discrete	12/2/2014	-	-	-	-	-	5	7.7	9.5
SI14-1(36-40)	SI14-1	Discrete	12/2/2014	-	-	-	-	-	4.9	8.6	11.8
SI14-1(WASTE)	SI14-1	Waste	12/2/2014	<0.70	<0.82	<0.70	<0.59	ND	5.9	9.5	15.1
SI15-1(0-12)COMP	SI15-1	Composite	12/8/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	20
SI15-1(4-8)	SI15-1	**Discrete**	**12/8/2014**	**-**	**-**	**-**	**-**	**-**	**8.9**	**12.1**	**20.6**
SI15-1(8-12)	SI15-1	Discrete	12/8/2014	-	-	-	-	-	7.5	-	20.4
SI15-1(12-16)	SI15-1	Discrete	12/8/2014	-	-	-	-	-	6.7	-	19
SI15-1(12-24)COMP	SI15-1	Composite	12/8/2014	<0.73	<0.85	<0.73	<0.61	ND	-	-	18
SI15-1(16-20)	SI15-1	Discrete	12/8/2014	-	-	-	-	-	7.9	-	17.9
SI15-1(20-24)	SI15-1	Discrete	12/8/2014	-	-	-	-	-	10.6	-	17.5
SI8-1(0-12)COMP	SI8-1	Composite	12/10/2014	58.3	26.6	194	<3.0	220.6	-	-	18.6
SI8-1(4-8)	SI8-1	Discrete	12/10/2014	-	-	-	-	-	51.3	-	19.1
SI8-1(8-12)	SI8-1	Discrete	12/10/2014	-	-	-	-	-	31.9	-	20.6
SI8-1(12-16)	SI8-1	Discrete	12/10/2014	-	-	-	-	-	4.8	-	20
SI8-1(12-24)COMP	SI8-1	Composite	12/10/2014	<0.74	<0.86	1.7 J	<0.62	1.7	-	-	19.5
SI8-1(16-20)	SI8-1	Discrete	12/10/2014	-	-	-	-	-	7.9	12.5	20.2

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SI8-1(20-24)	SI8-1	Discrete	12/10/2014	<0.7	<0.88	<0.76	<0.63	ND	21.4	15.8	21.3
SI8-1(24-28)	SI8-1	**Discrete**	**12/10/2014**	**<0.74**	**<0.87**	**<0.74**	**<0.62**	**ND**	**4.5**	**9.7**	**19.8**
SI8-1(28-32)	SI8-1	Discrete	12/10/2014	<0.73	<0.86	<0.73	<0.61	ND	4.8	7.9	19.3
SI8-1(WASTE)	SI8-1	Waste	12/10/2014	-	-	-	-	-	14.1	13.2	19.5
SJ10-1(0-12)COMP	SJ10-1	Composite	12/2/2014	49.7	93.8	319	<6.1 e	412.8	-	-	18.9
SJ10-1(4-8)	SJ10-1	Discrete	12/2/2014	-	-	-	-	-	45	-	17.8
SJ10-1(8-12)	SJ10-1	Discrete	12/2/2014	106	130	880	13.7 g	1023.7	57.1	-	17.3
SJ10-1(12-16)	SJ10-1	Discrete	12/2/2014	1.8	3.7 J	18.2	0.79 J	22.69	32.7	-	19.4
SJ10-1(12-24)COMP	SJ10-1	Composite	12/2/2014	0.75	0.88 J	4.5	<0.62	5.38	-	-	19.2
SJ10-1(16-20)	SJ10-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**12.5**	**42.2**	**20.1**
SJ10-1(20-24)	SJ10-1	Discrete	12/2/2014	-	-	-	-	-	6.4	-	18.1
SJ11-1(0-12)COMP	SJ11-1	Composite	12/2/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.5
SJ11-1(4-8)	SJ11-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**6.5**	**11.8**	**19.2**
SJ11-1(12-24)COMP	SJ11-1	Composite	12/2/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.4
SJ11-1(20-24)	SJ11-1	Discrete	12/2/2014	-	-	-	-	-	5.3	-	18.5
SJ11-1(24-28)	SJ11-1	Discrete	12/2/2014	-	-	-	-	-	4.9	-	18
SJ12-1(0-12)COMP	SJ12-1	Composite	12/2/2014	<0.71	<0.83	<0.71	<0.59	ND	-	-	16.3
SJ12-1(4-8)	SJ12-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**5.3**	**7.5**	**16.6**
SJ12-1(12-24)COMP	SJ12-1	Composite	12/2/2014	<0.71	<0.83	<0.71	<0.59	ND	-	-	15.9
SJ12-1(44-48)	SJ12-1	Discrete	12/2/2014	-	-	-	-	-	5.7	-	15.8
SJ12-1(48-52)	SJ12-1	Discrete	12/2/2014	-	-	-	-	-	6.2	-	16.9
SJ12-1(WASTE)	SJ12-1	Waste	12/2/2014	<0.71	<0.83	<0.71	<0.59	ND	3.9	5.7	15.9
SJ13-1(0-12)COMP	SJ13-1	Composite	12/2/2014	<0.70	<0.82	<0.70	<0.59	ND	-	-	15.1
SJ13-1(4-8)	SJ13-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**6.5**	**11.1**	**15.2**
SJ13-1(8-12)	SJ13-1	Discrete	12/2/2014	-	-	-	-	-	4.9	-	14.9
SJ13-1(12-16)	SJ13-1	Discrete	12/2/2014	-	-	-	-	-	5.2	-	13.7
SJ13-1(12-24)COMP	SJ13-1	Composite	12/2/2014	<0.68	<0.80	<0.68	<0.57	ND	-	-	12.9

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SJ13-1(16-20)	SJ13-1	Discrete	12/2/2014	-	-	-	-	-	4	-	12
SJ13-1(20-24)	SJ13-1	Discrete	12/2/2014	-	-	-	-	-	4.6	-	13.2
SJ14-2(0-12)COMP	SJ14-2	Composite	12/2/2014	30.2	22.3 J	229	<12	251.3	-	-	17.3
SJ14-2(4-8)	SJ14-2	Discrete	12/2/2014	-	-	-	-	-	31.4	-	15.5
SJ14-2(8-12)	SJ14-2	Discrete	12/2/2014	5.5	<4.3	31.2	<3.0	31.2	27.1	-	17.8
SJ14-2(12-16)	SJ14-2	**Discrete**	**12/2/2014**	**<0.7**	**<0.83**	**0.89 J**	**<0.59**	**0.89**	**6.5**	**10.8**	**15.7**
SJ14-2(12-24)COMP	SJ14-2	Composite	12/2/2014	<0.71	<0.82	<0.71	<0.59	ND	-	-	15.6
SJ14-2(16-20)	SJ14-2	Discrete	12/2/2014	<0.7	<0.83	0.80 J	<0.60	0.8	5.7	-	16.2
SJ14-2(20-24)	SJ14-2	Discrete	12/2/2014	-	-	-	-	-	6	-	15.3
SJ14-2(24-28)	SJ14-2	Discrete	12/2/2014	-	-	-	-	-	5	-	14.8
SJ15-1(0-12)COMP	SJ15-1	Composite	12/2/2014	<0.74	<0.86	<0.74	<0.61	ND	-	-	19.6
SJ15-1(4-8)	SJ15-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**6.1**	**9.5**	**21**
SJ15-1(12-24)COMP	SJ15-1	Composite	12/2/2014	<0.71	<0.83	<0.71	<0.59	ND	-	-	16.4
SJ15-1(36-40)	SJ15-1	Discrete	12/2/2014	-	-	-	-	-	3.2	-	15.1
SJ15-1(40-44)	SJ15-1	Discrete	12/2/2014	-	-	-	-	-	2.7	-	15.5
SJ17-1(0-12)COMP	SJ17-1	Composite	7/23/2015	<0.28	<0.26	<0.27	<0.38	ND	-	-	18.9
SJ17-1(04-08)	SJ17-1	**Discrete**	**7/23/2015**	**<0.2**	**<0.27**	**<0.27**	**<0.39**	**ND**	**4.4**	**10.8**	**20**
SJ17-1(8-12)	SJ17-1	Discrete	7/23/2015	-	-	-	-	-	4.8	-	18.6
SJ17-1(12-16)	SJ17-1	Discrete	7/23/2015	-	-	-	-	-	4	-	17.1
SJ17-1(12-24)COMP	SJ17-1	Composite	7/23/2015	<0.27	<0.25	<0.26	<0.37	ND	-	-	16.3
SJ17-1(16-20)	SJ17-1	Discrete	7/23/2015	-	-	-	-	-	3.7	-	17.7
SJ17-1(20-24)	SJ17-1	Discrete	7/23/2015	-	-	-	-	-	4.5	-	15.6
SJ18-1(0-12)COMP	SJ18-1	Composite	7/22/2015	2.9	6.8 J	41.2	<1.9 b	48	-	-	17
SJ18-1(4-8)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	24.5	-	17.1
SJ18-1(8-12)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	36	-	19.1
SJ18-1(12-16)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	18.9	-	17.4
SJ18-1(12-24)COMP	SJ18-1	Composite	7/22/2015	<2.8	7.4 J	164	<3.8	171.4	-	-	19.2

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Table 1.
Soil Sampling Analytical Data
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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SJ18-1(16-20)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	50.4	-	20
SJ18-1(20-24)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	30.2	-	21.4
SJ18-1(24-28)	SJ18-1	**Discrete**	**7/22/2015**	**<2.8**	**<2.6**	**<2.7**	**<3.8**	**ND**	**8.9**	**13**	**19.1**
SJ18-1(28-32)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	6.4	-	18.7
SJ18-1(32-36)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	6.2	-	18.9
SJ18-1(36-40)	SJ18-1	Discrete	7/22/2015	-	-	-	-	-	5.6	-	18.3
SJ19-1(0-12)COMP	SJ19-1	Composite	7/21/2015	<2.7	4.5 J	125	<3.7	129.5	-	-	16.7
SJ19-1(4-8)	SJ19-1	Discrete	7/21/2015	-	-	-	-	-	30	-	17.1
SJ19-1(08-12)	SJ19-1	Discrete	7/21/2015	<0.0027	<0.0026	<0.0026	<0.0037	ND	-	-	-
SJ19-1(8-12)	SJ19-1	**Discrete**	**7/21/2015**	**-**	**-**	**-**	**-**	**-**	**11.3**	**14.3**	**16.6**
SJ19-1(12-16)	SJ19-1	Discrete	7/21/2015	-	-	-	-	-	6.9	-	16.5
SJ19-1(12-24)COMP	SJ19-1	Composite	7/21/2015	<1.3	<1.3	<1.3	<1.8	ND	-	-	15.5
SJ19-1(16-20)	SJ19-1	Discrete	7/21/2015	-	-	-	-	-	7.7	-	15.4
SJ19-1(20-24)	SJ19-1	Discrete	7/21/2015	-	-	-	-	-	7.9	-	14.4
SJ20-1(0-12)COMP	SJ20-1	Composite	7/23/2015	<5.4	<5.1	<5.2	<7.4	ND	-	-	16.8
SJ20-1(04-08)	SJ20-1	**Discrete**	**7/23/2015**	**<0.2**	**<0.26**	**1.3 J**	**<0.38**	**1.3**	**12.7**	**13**	**18.6**
SJ20-1(8-12)	SJ20-1	Discrete	7/23/2015	-	-	-	-	-	6.9	-	18.1
SJ20-1(12-16)	SJ20-1	Discrete	7/23/2015	-	-	-	-	-	5.6	-	14.4
SJ20-1(12-24)COMP	SJ20-1	Composite	7/23/2015	<0.27	<0.25	<0.25	<0.36	ND	-	-	14.5
SJ20-1(16-20)	SJ20-1	Discrete	7/23/2015	-	-	-	-	-	5.3	-	14
SJ20-1(20-24)	SJ20-1	Discrete	7/23/2015	-	-	-	-	-	4.2	-	13.4
SJ21-1(0-12)COMP	SJ21-1	Composite	7/23/2015	<1.3	<1.3	8.2 J	<1.8	8.2	-	-	16.5
SJ21-1(04-08)	SJ21-1	**Discrete**	**7/23/2015**	**<0.2**	**<0.26**	**<0.26**	**<0.37**	**ND**	**6.5**	**11.6**	**17.2**
SJ21-1(8-12)	SJ21-1	Discrete	7/23/2015	-	-	-	-	-	5.6	-	16.2
SJ21-1(12-16)	SJ21-1	Discrete	7/23/2015	-	-	-	-	-	4.5	-	13.6
SJ21-1(12-24)COMP	SJ21-1	Composite	7/23/2015	<0.26	<0.25	<0.25	<0.36	ND	-	-	14.2
SJ21-1(16-20)	SJ21-1	Discrete	7/23/2015	-	-	-	-	-	4.1	-	14.6

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Table 1.
Soil Sampling Analytical Data
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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SJ21-1(20-24)	SJ21-1	Discrete	7/23/2015	-	-	-	-	-	4.8	-	15.4
SJ8-1(0-12)COMP	SJ8-1	Composite	12/10/2014	<3.7	22.9	184	40.6	247.5	-	-	19.2
SJ8-1(4-8)	SJ8-1	Discrete	12/10/2014	-	-	-	-	-	44.9	-	18.8
SJ8-1(8-12)	SJ8-1	**Discrete**	**12/10/2014**	**<0.7**	**<0.86**	**<0.74**	**<0.62**	**ND**	**13.6**	**11.9**	**19**
SJ8-1(12-16)	SJ8-1	Discrete	12/10/2014	-	-	-	-	-	11.8	-	19.8
SJ8-1(12-24)COMP	SJ8-1	Composite	12/10/2014	<0.74	<0.86	<0.74	<0.62	ND	-	-	19.7
SJ8-1(16-20)	SJ8-1	Discrete	12/10/2014	-	-	-	-	-	6.3	-	19.5
SJ8-1(20-24)	SJ8-1	Discrete	12/10/2014	-	-	-	-	-	5.5	-	18.2
SJ9-1(0-12)COMP	SJ9-1	Composite	12/2/2014	<0.76	<0.89	<0.76	<0.63	ND	-	-	21.3
SJ9-1(4-8)	SJ9-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**5.4**	**11.4**	**21.5**
SJ9-1(12-24)COMP	SJ9-1	Composite	12/2/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	19.9
SJ9-1(32-36)	SJ9-1	Discrete	12/2/2014	-	-	-	-	-	4.4	-	18.6
SJ9-1(36-40)	SJ9-1	Discrete	12/2/2014	-	-	-	-	-	3.5	-	18.1
SJ9-1(WASTE)	SJ9-1	Waste	12/2/2014	<0.75	<0.87	<0.75	<0.62	ND	4.7	10.2	20.4
SK12-1(0-12)COMP	SK12-1	Composite	12/1/2014	9.5	<4.0	42.6	<2.9	42.6	-	-	14.1
SK12-1(4-8)	SK12-1	Discrete	12/1/2014	-	-	-	-	-	33.7	-	15.6
SK12-1(8-12)	SK12-1	Discrete	12/1/2014	-	-	-	-	-	18.6	-	16
SK12-1(12-16)	SK12-1	**Discrete**	**12/1/2014**	**<0.7**	**<0.85**	**0.78 J**	**<0.60**	**0.78**	**13.8**	**19.3**	**17.5**
SK12-1(12-24)COMP	SK12-1	Composite	12/1/2014	<0.69	<0.80	<0.69	<0.57	ND	-	-	13.3
SK12-1(16-20)	SK12-1	Discrete	12/1/2014	-	-	-	-	-	9	-	14.9
SK12-1(20-24)	SK12-1	Discrete	12/1/2014	-	-	-	-	-	7.5	-	11.8
SK12-1(WASTE)	SK12-1	Waste	12/1/2014	3.1	<0.80	<0.69	<0.57	ND	8	10.2	13.3
SK13-1(0-12)COMP	SK13-1	Composite	12/1/2014	32.7	34.2	195	12	241.2	-	-	21.6
SK13-1(4-8)	SK13-1	Discrete	12/1/2014	-	-	-	-	-	26.7	-	21
SK13-1(8-12)	SK13-1	Discrete	12/1/2014	-	-	-	-	-	79.5	-	21.5
SK13-1(12-16)	SK13-1	Discrete	12/1/2014	-	-	-	-	-	46.4	-	21
SK13-1(12-24)COMP	SK13-1	Composite	12/1/2014	37.4	22.5	195	11.1	228.6	-	-	23.4

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SK13-1(16-20)	SK13-1	Discrete	12/1/2014	2.6	4.4 J	43.8	9	57.2	25	-	30.6
SK13-1(20-24)	SK13-1	Discrete	12/1/2014	-	-	-	-	-	26.4	-	22.1
SK13-1(24-28)	SK13-1	**Discrete**	**12/1/2014**	**<0.7**	**<0.89**	**<0.76**	**<0.63**	**ND**	**7.6**	**10.6**	**21.1**
SK13-1(28-32)	SK13-1	Discrete	12/1/2014	-	-	-	-	-	4.7	-	21.4
SK16-1(0-12)COMP	SK16-1	Composite	12/2/2014	<0.74	<0.87	<0.74	<0.62	ND	-	-	20
SK16-1(4-8)	SK16-1	**Discrete**	**12/2/2014**	**-**	**-**	**-**	**-**	**-**	**5.2**	**10.3**	**20.1**
SK16-1(12-24)COMP	SK16-1	Composite	12/2/2014	<0.73	<0.85	<0.73	<0.60	ND	-	-	18.5
SK16-1(28-32)	SK16-1	Discrete	12/2/2014	-	-	-	-	-	4.9	-	16.8
SK16-1(32-36)	SK16-1	Discrete	12/2/2014	-	-	-	-	-	4.4	-	16.3
SK17-1(0-12)COMP	SK17-1	Composite	7/22/2015	<1.3	12.5	138	<1.8 b	150.5	-	-	16.4
SK17-1(4-8)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	22.1	-	16.8
SK17-1(8-12)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	26.7	-	18.4
SK17-1(12-16)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	51.6	-	18.1
SK17-1(12-24)COMP	SK17-1	Composite	7/22/2015	<1.4	5.1 J	76.9	<1.9	82	-	-	19.7
SK17-1(16-20)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	49	-	20.1
SK17-1(20-24)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	36	-	19.5
SK17-1(24-28)	SK17-1	**Discrete**	**7/22/2015**	**<0.2**	**<0.26**	**<0.27**	**<0.38**	**ND**	**11.8**	**11.7**	**18.8**
SK17-1(28-32)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	11.7	-	18.3
SK17-1(32-36)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	7.2	-	18.1
SK17-1(36-40)	SK17-1	Discrete	7/22/2015	-	-	-	-	-	6.9	-	17.1
SK20-1(0-12)COMP	SK20-1	Composite	7/22/2015	<13	<12	105	<18 b	105	-	-	12.4
SK20-1(4-8)	SK20-1	Discrete	7/22/2015	-	-	-	-	-	41.9	-	17.1
SK20-1(8-12)	SK20-1	Discrete	7/22/2015	-	-	-	-	-	47	-	18.2
SK20-1(12-16)	SK20-1	Discrete	7/22/2015	-	-	-	-	-	22.4	-	18.1
SK20-1(12-24)COMP	SK20-1	Composite	7/22/2015	<1.4	<1.3	74.3	<1.9	74.3	-	-	17.9
SK20-1(16-20)	SK20-1	Discrete	7/22/2015	-	-	-	-	-	45.3	-	18.9
SK20-1(20-24)	SK20-1	**Discrete**	**7/22/2015**	**<0.2**	**<0.25**	**<0.26**	**<0.37**	**ND**	**7.7**	**11.1**	**16.1**

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SK21-1(0-12)COMP	SK21-1	Composite	7/22/2015	<1.3	2.3 J	40.7	<1.8 b	43	-	-	14.7
SK21-1(4-8)	SK21-1	Discrete	7/22/2015	-	-	-	-	-	10.4	-	15
SK21-1(8-12)	SK21-1	Discrete	7/22/2015	-	-	-	-	-	8.2	-	14.7
SK21-1(12-16)	SK21-1	Discrete	7/22/2015	-	-	-	-	-	5.7	-	15
SK21-1(12-24)COMP	SK21-1	Composite	7/22/2015	<0.26	<0.25	<0.25	<0.36	ND	-	-	14
SK21-1(16-20)	SK21-1	Discrete	7/22/2015	-	-	-	-	-	6.2	-	21.6
SK21-1(20-24)	SK21-1	**Discrete**	**7/22/2015**	**<0.2**	**<0.25**	**<0.25**	**<0.36**	**ND**	**5.9**	**8.3**	**14**
SL12-1(0-12)COMP	SL12-1	Composite	12/1/2014	<0.71	<0.82	1.1 J	<0.59	1.1	-	-	15.9
SL12-1(4-8)	SL12-1	Discrete	12/1/2014	-	-	-	-	-	20.4	-	15.5
SL12-1(8-12)	SL12-1	**Discrete**	**12/1/2014**	**-**	**-**	**-**	**-**	**-**	**12.3**	**7.1**	**15.7**
SL12-1(12-16)	SL12-1	Discrete	12/1/2014	-	-	-	-	-	6.4	-	15.2
SL12-1(12-24)COMP	SL12-1	Composite	12/1/2014	<0.69	<0.81	<0.69	<0.58	ND	-	-	13.5
SL12-1(16-20)	SL12-1	Discrete	12/1/2014	-	-	-	-	-	3.8	-	14.1
SL12-1(20-24)	SL12-1	Discrete	12/1/2014	-	-	-	-	-	4	-	13.8
SL12-1(WASTE)	SL12-1	Waste	12/1/2014	<0.69	<0.80	<0.69	<0.57	ND	5.8	6.5	13.5
SL15-1(0-12)COMP	SL15-1	Composite	12/1/2014	49.8	90.3	366	23.9	480.2	-	-	17.6
SL15-1(4-8)	SL15-1	Discrete	12/1/2014	-	-	-	-	-	42	-	17.2
SL15-1(8-12)	SL15-1	Discrete	12/1/2014	-	-	-	-	-	29.2	-	14.8
SL15-1(12-16)	SL15-1	Discrete	12/1/2014	-	-	-	-	-	32.8	-	16.3
SL15-1(12-24)COMP	SL15-1	Composite	12/1/2014	4.8	4.5	18.7	1.7 J	24.9	-	-	16.4
SL15-1(16-20)	SL15-1	**Discrete**	**12/1/2014**	**<0.7**	**<0.84**	**1.3 J**	**<0.60**	**1.3**	**8.5**	**11**	**16.7**
SL15-1(20-24)	SL15-1	Discrete	12/1/2014	-	-	-	-	-	4.3	-	16.6
SL15-1(24-28)	SL15-1	Discrete	12/1/2014	-	-	-	-	-	4.3	-	16
SL15-1(28-32)	SL15-1	Discrete	12/1/2014	-	-	-	-	-	3.8	-	15.5
SL15-1(WASTE)	SL15-1	Waste	12/1/2014	4.7	4.6	23.8	1.7 J	30.1	15	23.8	16.4
SL16-1(0-12)COMP	SL16-1	Composite	12/1/2014	<3.8	<4.5	20.1 J	<3.2	20.1	-	-	21.7
SL16-1(4-8)	SL16-1	Discrete	12/1/2014	-	-	-	-	-	3.5	-	3.8

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SL16-1(12-16)	SL16-1	Discrete	12/1/2014	-	-	-	-	-	28.4	-	16.2
SL16-1(12-24)COMP	SL16-1	Composite	12/1/2014	97	56.2	946	<3.0	1002.2	-	-	17.2
SL16-1(16-20)	SL16-1	Discrete	12/1/2014	-	-	-	-	-	45	-	17.5
SL16-1(20-24)	SL16-1	Discrete	12/1/2014	-	-	-	-	-	62.8	-	17.2
SL16-1(24-28)	SL16-1	Discrete	12/1/2014	-	-	-	-	-	55.2	-	18.6
SL16-1(28-32)	SL16-1	**Discrete**	**12/1/2014**	**<0.7**	**<0.87**	**6.4**	**<0.62**	**6.4**	**14.2**	**18.2**	**19.2**
SL16-1(36-40)	SL16-1	Discrete	12/1/2014	-	-	-	-	-	8.1	-	17.8
SL16-1(40-44)	SL16-1	Discrete	12/1/2014	-	-	-	-	-	4.7	-	17.2
SL16-1(WASTE)	SL16-1	Waste	12/1/2014	46	22.5 J	469	<5.9	491.5	37.3	168	17.2
SL17-1(0-12)COMP	SL17-1	Composite	7/20/2015	<10	<9.8	62.4 J	<14	62.4	-	-	14.1
SL17-1(4-8)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	55.5	-	23.9
SL17-1(8-12)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	16.3	-	18.9
SL17-1(12-16)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	6.7	-	5.3
SL17-1(12-24)COMP	SL17-1	Composite	7/20/2015	<5.5	13.0 J	98.6	<7.5	111.6	-	-	18.4
SL17-1(16-20)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	33.5	-	25.5
SL17-1(20-24)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	32.4	-	24.1
SL17-1(24-28)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	36	-	21.6
SL17-1(28-32)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	10.4	-	20.2
SL17-1(32-36)	SL17-1	**Discrete**	**7/20/2015**	**<5.6**	**<5.2**	**<5.3**	**<7.6**	**ND**	**10.3**	**10.6**	**19.2**
SL17-1(40-44)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	7.4	-	19
SL17-1(48-52)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	15.4	-	18.4
SL17-1(56-60)	SL17-1	Discrete	7/20/2015	-	-	-	-	-	7.2	-	17.1
SL18-1(0-12)COMP	SL18-1	Composite	7/20/2015	<5.4	<5.1	41.1	<7.4	41.1	-	-	17.3
SL18-1(04-08)	SL18-1	**Discrete**	**7/20/2015**	**5.7**	**13.6**	**59.3**	**<1.9**	**72.9**	**15.3**	**40.3**	**18.5**
SL18-1(8-12)	SL18-1	Discrete	7/20/2015	-	-	-	-	-	12.8	-	18.3
SL18-1(12-16)	SL18-1	Discrete	7/20/2015	-	-	-	-	-	15.2	-	16.8
SL18-1(12-24)COMP	SL18-1	Composite	7/20/2015	<11	<10	54.7 J	<15	54.7	-	-	19

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Table 1.
Soil Sampling Analytical Data
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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SL18-1(16-20)	SL18-1	Discrete	7/20/2015	-	-	-	-	-	13.5	-	18.7
SL18-1(20-24)	SL18-1	Discrete	7/20/2015	-	-	-	-	-	12.7	-	19.5
SL19-1(0-12)COMP	SL19-1	Composite	7/20/2015	<5.5	12.2 J	63.5	<7.6	75.7	-	-	18.5
SL19-1(4-8)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	17.9	-	19.8
SL19-1(8-12)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	16.1	-	18
SL19-1(12-16)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	18.9	-	18.2
SL19-1(12-24)COMP	SL19-1	Composite	7/20/2015	<5.6	13.2 J	109	<7.6	122.2	-	-	19.5
SL19-1(16-20)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	33.6	-	21.1
SL19-1(20-24)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	27.5	-	18.5
SL19-1(24-28)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	44.8	-	20.2
SL19-1(28-32)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	32.4	-	21.4
SL19-1(32-36)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	39.9	-	13.9
SL19-1(36-40)	SL19-1	Discrete	7/20/2015	-	-	-	-	-	71.3	-	20.4
SL19-1(40-44)	SL19-1	Discrete	7/20/2015	0.59	5.1	42.8	0.62 J a	48.52	31.1	29.9	21
SL19-1(44-48)	SL19-1	Discrete	7/20/2015	<0.2	<0.27	<0.27	<0.39	ND	22.8	15.9	20.2
SL19-1(48-52)	SL19-1	**Discrete**	**7/20/2015**	**<11**	**<10**	**<10**	**<15**	**ND**	**13.6**	**11.1**	**17.4**
SL19-1(52-56)	SL19-1	Discrete	7/20/2015	<28	<26	<27	<38	ND	12.2	11.1	19.8
SL20-1(0-12)COMP	SL20-1	Composite	7/20/2015	<11	<10	76.2 J	<15	76.2	-	-	18.4
SL20-1(4-8)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	16.7	-	20.2
SL20-1(8-12)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	16.5	-	18.7
SL20-1(12-16)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	49.1	-	23.4
SL20-1(12-24)COMP	SL20-1	Composite	7/20/2015	<5.5	24.2 J	154	<7.5	178.2	-	-	17.7
SL20-1(16-20)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	20.9	-	13.3
SL20-1(20-24)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	25.3	-	13.2
SL20-1(24-28)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	41.8	-	18.3
SL20-1(28-32)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	29.6	-	17.8
SL20-1(32-36)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	22.5	-	20.9

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Table 1.
Soil Sampling Analytical Data
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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SL20-1(36-40)	SL20-1	Discrete	7/20/2015	-	-	-	-	-	18	-	21.2
SL20-1(40-44)	SL20-1	**Discrete**	**7/20/2015**	**<11**	**29.5 J**	**136**	**<16**	**165.5**	**12.2**	**11.9**	**20.3**
SL20-1(44-48)	SL20-1	Discrete	7/20/2015	<5.7	38.3 J	245	<7.8	283.3	9.1	11.4	20
SL20-1(48-52)	SL20-1	Discrete	7/20/2015	<0.2	<0.26	<0.26	<0.38	ND	6.5	9.5	17.9
SL21-1(0-12)COMP	SL21-1	Composite	7/20/2015	<2.7	<2.5	<2.5	<3.6	ND	-	-	15.1
SL21-1(04-08)	SL21-1	**Discrete**	**7/20/2015**	**<0.2**	**<0.25**	**<0.25**	**<0.36**	**ND**	**5.3**	**10.4**	**15.4**
SL21-1(8-12)	SL21-1	Discrete	7/20/2015	-	-	-	-	-	5	-	15.4
SL21-1(12-16)	SL21-1	Discrete	7/20/2015	-	-	-	-	-	5.5	-	15.4
SL21-1(12-24)COMP	SL21-1	Composite	7/20/2015	<2.7	<2.5	<2.5	<3.6	ND	-	-	15.1
SL21-1(16-20)	SL21-1	Discrete	7/20/2015	-	-	-	-	-	5.2	-	15.5
SL21-1(20-24)	SL21-1	Discrete	7/20/2015	-	-	-	-	-	6	-	13.8
SM12-1(0-12)COMP	SM12-1	Composite	12/1/2014	29	15.4 J	179	<11	194.4	-	-	8.9
SM12-1(4-8)	SM12-1	Discrete	12/1/2014	-	-	-	-	-	26.4	-	11.1
SM12-1(8-12)	SM12-1	Discrete	12/1/2014	-	-	-	-	-	20.1	-	12.3
SM12-1(12-16)	SM12-1	Discrete	12/1/2014	-	-	-	-	-	57.6	-	13.6
SM12-1(12-24)COMP	SM12-1	Composite	12/1/2014	156	59.7	635	12.6 J	707.3	-	-	14.6
SM12-1(16-20)	SM12-1	Discrete	12/1/2014	-	-	-	-	-	64.4	-	14.9
SM12-1(20-24)	SM12-1	**Discrete**	**12/1/2014**	**<0.7**	**<0.83**	**3.2 J**	**<0.60**	**3.2**	**9.5**	**22.4**	**16**
SM12-1(24-28)	SM12-1	Discrete	12/1/2014	-	-	-	-	-	4.6	-	15.2
SM12-1(28-32)	SM12-1	Discrete	12/1/2014	-	-	-	-	-	4.8	-	15.3
SM13-1(0-12)COMP	SM13-1	Composite	12/1/2014	<3.6	<4.2	21.9	<3.0	21.9	-	-	16.6
SM13-1(4-8)	SM13-1	**Discrete**	**12/1/2014**	**-**	**-**	**-**	**-**	**-**	**16**	**22.5**	**18.8**
SM13-1(12-24)COMP	SM13-1	Composite	12/1/2014	7.6	18.0 J	48	<12	66	-	-	14.3
SM13-1(24-28)	SM13-1	Discrete	12/1/2014	-	-	-	-	-	9.7	-	20.4
SM13-1(28-32)	SM13-1	Discrete	12/1/2014	-	-	-	-	-	5.5	-	19.7
SM14-1(0-12)COMP	SM14-1	Composite	12/1/2014	7.3	9.2 J	86.9	<2.9	96.1	-	-	14.4
SM14-1(4-8)	SM14-1	Discrete	12/1/2014	-	-	-	-	-	11.2	-	17.4

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Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SM14-1(8-12)	SM14-1	Discrete	12/1/2014	-	-	-	-	-	21.9	-	17.3
SM14-1(12-16)	SM14-1	**Discrete**	**12/1/2014**	**-**	**-**	**-**	**-**	**-**	**7.2**	**12.6**	**16.3**
SM14-1(12-24)COMP	SM14-1	Composite	12/1/2014	<0.72	<0.83	1.7 J	<0.60	1.7	-	-	16.3
SM15-1(0-12)COMP	SM15-1	Composite	12/1/2014	10.6	12.4 J	251	<3.1	263.4	-	-	20.7
SM15-1(4-8)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	42.1	-	20.5
SM15-1(8-12)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	21.1	-	21
SM15-1(12-16)	SM15-1	**Discrete**	**12/1/2014**	**<0.7**	**<0.88**	**<0.76**	**<0.63**	**ND**	**10.3**	**11**	**20.8**
SM15-1(12-24)COMP	SM15-1	Composite	12/1/2014	<0.75	<0.87	1.1 J	<0.62	1.1	-	-	20.1
SM15-1(16-20)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	6.6	-	20.4
SM15-1(20-24)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	4.5	-	19.2
SM15-1(24-28)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	6.2	-	19.1
SM15-1(28-32)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	12.6	-	19.1
SM15-1(32-36)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	8.2	-	18.3
SM15-1(36-40)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	6.5	-	17.3
SM15-1(40-44)	SM15-1	Discrete	12/1/2014	-	-	-	-	-	4.4	-	17.6
SM16-1(0-12)COMP	SM16-1	Composite	12/2/2014	12.2	<8.6	153	17.9 J	170.9	-	-	19.9
SM16-1(4-8)	SM16-1	Discrete	12/2/2014	-	-	-	-	-	31	-	19.1
SM16-1(8-12)	SM16-1	Discrete	12/2/2014	7.7	17.1	139	11.6	167.7	26.1	-	17.1
SM16-1(12-16)	SM16-1	Discrete	12/2/2014	6.2	13.9	155	22.3	191.2	20.5	-	19.4
SM16-1(12-24)COMP	SM16-1	Composite	12/2/2014	5	9.8 J	125	11.0 J	145.8	-	-	17.5
SM16-1(16-20)	SM16-1	Discrete	12/2/2014	7.2	36.4	198	49.7	284.1	25.4	-	16.4
SM16-1(20-24)	SM16-1	Discrete	12/2/2014	0.76	10.1	74.4	22.2	106.7	28	-	15.1
SM16-1(24-28)	SM16-1	Discrete	12/2/2014	<0.7	9.2	48.2	13.3	70.7	25.8	-	16.4
SM16-1(28-32)	SM16-1	Discrete	12/2/2014	<0.6	<0.78	19.8	1.4 J	21.2	24.8	-	11.1
SM16-1(32-36)	SM16-1	Discrete	12/2/2014	-	-	-	-	-	71.5	-	13.9
SM16-1(36-40)	SM16-1	Discrete	12/2/2014	-	-	-	-	-	110	-	15.4
SM16-1(40-44)	SM16-1	Discrete	12/2/2014	-	-	-	-	-	132	-	19.6

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U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SM16-1(44-48)	SM16-1	Discrete	12/2/2014	-	-	-	-	-	36.9	-	18.1
SM16-1(48-52)	SM16-1	**Discrete**	**12/2/2014**	**<0.7**	**<0.84**	**<0.72**	**<0.60 b**	**ND**	**6.1**	**11.3**	**17.5**
SM16-1(52-56)	SM16-1	Discrete	12/2/2014	-	-	-	-	-	5.8	-	17.3
SM17-1(0-12)COMP	SM17-1	Composite	7/22/2015	<5.8	<5.5	340	29.1 J b	369.1	-	-	23.1
SM17-1(4-8)	SM17-1	Discrete	7/22/2015	-	-	-	-	-	44.1	-	17.4
SM17-1(8-12)	SM17-1	Discrete	7/22/2015	-	-	-	-	-	90	-	11.5
SM17-1(12-16)	SM17-1	Discrete	7/22/2015	-	-	-	-	-	27	-	14
SM17-1(12-24)COMP	SM17-1	Composite	7/22/2015	<2.6	7.3 J	176	15.7 J	199	-	-	13
SM17-1(16-20)	SM17-1	Discrete	7/22/2015	-	-	-	-	-	29.5	-	13.4
SM17-1(20-24)	SM17-1	**Discrete**	**7/22/2015**	**<5.1**	**<4.8**	**129**	**11.0 J**	**140**	**13.4**	**25.5**	**11.7**
SM18-1(0-12)COMP	SM18-1	Composite	7/20/2015	<5.6	8.5 J	13.1 J	<7.7	21.6	-	-	19.5
SM18-1(4-8)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	12.9	-	18.5
SM18-1(8-12)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	8.8	-	19.6
SM18-1(12-16)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	9.5	-	17
SM18-1(12-24)COMP	SM18-1	Composite	7/20/2015	<1.4	3.0 J	11.6	<1.9	14.6	-	-	19.6
SM18-1(16-20)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	28	-	18.6
SM18-1(20-24)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	25.7	-	21.9
SM18-1(24-28)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	15.6	-	14.9
SM18-1(28-32)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	13	-	11.1
SM18-1(32-36)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	21	-	17.7
SM18-1(36-40)	SM18-1	Discrete	7/20/2015	-	-	-	-	-	37.2	-	23.4
SM18-1(40-44)	SM18-1	Discrete	7/20/2015	<0.2	<0.25	<0.25	<0.36	ND	98.5	460	14.6
SM18-1(44-48)	SM18-1	Discrete	7/20/2015	<0.2	<0.23	<0.24	<0.34	ND	2.9	4.4	9
SM18-1(48-52)	SM18-1	Discrete	7/20/2015	<2.8	<2.6	<2.6	<3.8	ND	22.4	10.9	18
SM18-1(52-56)	SM18-1	**Discrete**	**7/20/2015**	**<0.2**	**<0.27**	**0.79 J**	**<0.39**	**0.79**	**14.5**	**11.4**	**20.1**
SM19-1(0-12)COMP	SM19-1	Composite	7/20/2015	<5.4	18.9 J	39.1	<7.3	58	-	-	15.7
SM19-1(04-08)	SM19-1	**Discrete**	**7/20/2015**	**<1.3**	**20.5**	**54.7**	**<1.8**	**75.2**	**12.2**	**43**	**15.2**

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SM19-1(8-12)	SM19-1	Discrete	7/20/2015	-	-	-	-	-	14.3	-	12.9
SM19-1(12-16)	SM19-1	Discrete	7/20/2015	-	-	-	-	-	9.1	-	14.2
SM19-1(12-24)COMP	SM19-1	Composite	7/20/2015	<5.3	17.3 J	44.6	<7.2	61.9	-	-	14.1
SM19-1(16-20)	SM19-1	Discrete	7/20/2015	-	-	-	-	-	8.8	-	17.3
SM19-1(20-24)	SM19-1	Discrete	7/20/2015	-	-	-	-	-	14.4	-	14.1
SM20-1(0-12)COMP	SM20-1	Composite	7/20/2015	<11	<11	51.0 J	27.2 J	78.2	-	-	19.9
SM20-1(4-8)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	47.3	-	17.1
SM20-1(8-12)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	43.1	-	18.3
SM20-1(12-16)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	165	-	19.1
SM20-1(12-24)COMP	SM20-1	Composite	7/20/2015	10.1	85.5	284	<7.7	369.5	-	-	19.5
SM20-1(16-20)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	106	-	18.5
SM20-1(20-24)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	22.5	-	21.1
SM20-1(24-28)	SM20-1	**Discrete**	**7/20/2015**	**<0.2**	**<0.26**	**<0.27**	**<0.38**	**ND**	**6.2**	**10.3**	**19.8**
SM20-1(32-36)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	4.1	-	17.8
SM20-1(40-44)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	5.6	-	16.7
SM20-1(48-52)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	6.1	-	15
SM20-1(56-60)	SM20-1	Discrete	7/20/2015	-	-	-	-	-	6.7	-	15.3
SM21-1(0-12)COMP	SM21-1	Composite	7/20/2015	45.1	103	1060	23.8 J	1186.8	-	-	12.7
SM21-1(4-8)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	48	-	11.5
SM21-1(8-12)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	106	-	11.7
SM21-1(12-16)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	112	-	11.7
SM21-1(12-24)COMP	SM21-1	Composite	7/20/2015	<10	119	1480	126	1725	-	-	12.1
SM21-1(16-20)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	119	-	11.8
SM21-1(20-24)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	129	-	11.6
SM21-1(24-28)	SM21-1	**Discrete**	**7/20/2015**	**<5.1**	**9.4 J**	**140**	**<7.0**	**149.4**	**14**	**60.2**	**10.8**
SM21-1(32-36)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	4.5	-	8.7
SM21-1(40-44)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	3.2	-	15.3

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
SM21-1(48-52)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	3.3	-	10.4
SM21-1(56-60)	SM21-1	Discrete	7/20/2015	-	-	-	-	-	4.7	-	9.1
RG1-1(0-12) COMP	G1-1	Composite	7/22/2014	<1.7	<3.3	6.1	<3.3	6.1	--	--	--
RG1-1(12 - 24) COMP	G1-1	Composite	7/22/2014	34	80	340	<9.9	420	--	--	--
RG1-1(16 - 20)	G1-1	Discrete	7/22/2014	--	--	--	--	--	6.2	--	--
RG1-1(24 - 28)	**G1-1**	**Discrete**	**7/22/2014**	**<6.5**	**<13**	**<13**	**<13**	**<13**	**7.6**	**12**	**20**
RG1-1(32 - 36)	G1-1	Discrete	7/22/2014	--	--	--	--	--	4.8	--	--
RG1-1(8 - 12)	G1-1	Discrete	7/22/2014	--	--	--	--	--	16	--	--
RG2-1(0-12) COMP	**G2-1**	**Composite**	**7/22/2014**	**<6.0**	**23**	**280**	**<12**	**303**	**--**	**--**	**15**
RG2-1(12-24) COMP	G2-1	Composite	7/22/2014	<5.1	<10	<10	<10	<10	--	--	--
RG2-1(16 - 20)	G2-1	Discrete	7/22/2014	--	--	--	--	--	9.8	--	23
RG2-1(24 - 28)	G2-1	Discrete	7/22/2014	--	--	--	--	--	4.3	--	--
RG2-1(32 - 36)	G2-1	Discrete	7/22/2014	--	--	--	--	--	6	--	--
RG2-1(8 - 12)	**G2-1**	**Discrete**	**7/22/2014**	**<5.5**	**33**	**330**	**<11**	**363**	**16**	**43**	**6**
RG3-1(0-12) COMP	G3-1	Composite	7/22/2014	<5.9	52	880	14	946	--	--	15
RG3-1(12 - 16)	**G3-1**	**Discrete**	**7/22/2014**	**12**	**22**	**330**	**<12**	**352**	**13**	**16**	**18**
RG3-1(12-24) COMP	G3-1	Composite	7/22/2014	<5.1	15	200	<9.8	215	--	--	--
RG3-1(16 - 20)	G3-1	Discrete	7/22/2014	<6.3	<12	18	<12	18	6.1	13	18
RG3-1(24 - 28)	G3-1	Discrete	7/22/2014	--	--	--	--	--	5.1	--	--
RG3-1(32 - 36)	G3-1	Discrete	7/22/2014	--	--	--	--	--	4.5	--	--
RG3-1(8 - 12)	G3-1	Discrete	7/22/2014	--	--	--	--	--	**23**	--	--
RG4-1(0-12) COMP	G4-1	Composite	7/21/2014	12	91	1200	15	1306	--	--	--
RG4-1(12 - 16)	G4-1	Discrete	7/21/2014	<6.5	<13	41	<13	41	**19**	13	21
RG4-1(12 - 24) COMP	G4-1	Composite	7/21/2014	<5.1	<9.9	19	<9.9	19	--	--	--
RG4-1(16 - 20)	**G4-1**	**Discrete**	**7/21/2014**	**<6.6**	**<13**	**<13**	**<13**	**<13**	**13**	**8**	**21**
RG4-1(24 - 28)	G4-1	Discrete	7/21/2014	--	--	--	--	--	4.5	--	--
RG4-1(32 - 36)	G4-1	Discrete	7/21/2014	--	--	--	--	--	6.5	--	--

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Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
			UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%
RG4-1(8 - 12)	G4-1	Discrete	7/21/2014	--	--	--	--	--	**26**	--	--
RG5-1(0-12) COMP	G5-1	Composite	7/21/2014	63	95	300	<3.3	395	--	--	--
RG5-1(12 - 16)	G5-1	Discrete	7/21/2014	--	--	--	--	--	**22**	--	--
RG5-1(20 - 24)	G5-1	Discrete	7/21/2014	--	--	--	--	--	**33**	--	--
RG5-1(28 - 32)	G5-1	Discrete	7/21/2014	--	--	--	--	--	**25**	--	--
RG5-1(32 - 36)	G5-1	Discrete	7/21/2014	--	--	--	--	--	**26**	--	--
RG5-1(36 - 40)	**G5-1**	**Discrete**	**7/21/2014**	**<6.5**	**<13**	**<13**	**<13**	**<13**	**12**	**8.6**	**21**
RG5-1(4 - 8)	G5-1	Discrete	7/21/2014	--	--	--	--	--	**26**	--	--
RG5-1(40 - 44)	G5-1	Discrete	7/21/2014	--	--	--	--	--	6.7	--	--
RG5-2(0-12) COMP	G5-2	Composite	7/21/2014	<5.9	63	160	<11	223	--	--	15
RG5-2(12 - 16)	**G5-2**	**Discrete**	**7/21/2014**	**<6.8**	**<13**	**<13**	**<13**	**<13**	**12**	**11**	**25**
RG5-2(12-24) COMP	G5-2	Composite	7/21/2014	<5.1	<10	<10	<10	<10	--	--	--
RG5-2(16 - 20)	G5-2	Discrete	7/21/2014	<6.5	<13	<13	<13	<13	6.9	9.8	22
RG5-2(24 - 28)	G5-2	Discrete	7/21/2014	--	--	--	--	--	4.1	--	--
RG5-2(32 - 36)	G5-2	Discrete	7/21/2014	--	--	--	--	--	5.4	--	--
RG5-2(8 - 12)	G5-2	Discrete	7/21/2014	--	--	--	--	--	**19**	--	--

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Footnotes:
ND indicates that concentration was not detected
J flag indicates an estimated value
[a] CCV outside of control limits (biased high); not detected in sample.
[b] Result from signal #2.
[c] Result reported from signal #2.
[d] Result from signal 2.
[e] Quantitation between primary and confirmation differed by >40%. Lower value reported.
[f] Quantitation between primary and confirmation differed by >40% possibly due to matrix interference. Lower value reported.
[g] Quantitation between primary and confirmation differed by >40% RPD. Lower value reported.

Table 1.
Soil Sampling Analytical Data
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Date Sampled	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Sum DDD, DDE, DDT	Arsenic	Lead	Moisture, Percent
U.S. EPA RSL, Residential Land Use (Revised Jun 2015)				34	2,300	2,000	1,900	--	17 (background)	80	
U.S. EPA RSL, Industrial Land Use (Revised Jun 2015)				140	9,600	9,300	8,500	--	17 (background)	320	
California Hazardous Waste				8,000	NA	NA	NA	1,000	500	1,000	
UNITS				ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	%

[h] Quantitation between primary and confirmation differed by >40%. Higher value reported. Result from signal #2.

4',4'-DDD	Dichlorodiphenyldichloroethane
4',4'-DDE	Dichlorodiphenyldichloroethylene
4',4'-DDT	Dichlorodiphenyltrichloroethane
Yellow Cells	Above U.S. EPA, Residential Land Use Remedial Goals or background concentrations
Orange Cells	Above California Hazardous Waste Concentrations
Blue Cells	Samples located on a Berm
Light Red Cells	Building sub-slab samples
White Cells	Exterior boring locations
Olive Cells	Borings in the vicinity of the former creek

Bold value represents depth meeting remedial goals.

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Table 2.
Sample Elevation Summary
Santa Clara Square Apartments
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SA10-1(0-12)COMP	SA10-1	Composite	6	30.15	0	12	29.65	28.65
SA10-1(12-16)	SA10-1	Discrete	6	30.15	12	16	28.65	28.31
SA10-1(12-24)COMP	SA10-1	Composite	6	30.15	12	16	28.65	28.31
SA10-1(16-20)	SA10-1	Discrete	6	30.15	16	20	28.31	27.98
SA10-1(20-24)	**SA10-1**	**Discrete**	**6**	**30.15**	**20**	**24**	**27.98**	**27.65**
SA10-1(4-8)	SA10-1	Discrete	6	30.15	4	8	29.31	28.98
SA10-1(8-12)	SA10-1	Discrete	6	30.15	8	12	28.98	28.65
SA11-1(0-12)COMP	SA11-1	Composite	6	30.23	0	12	29.73	28.73
SA11-1(12-16)	SA11-1	Discrete	6	30.23	12	16	28.73	28.40
SA11-1(12-24)COMP	SA11-1	Composite	6	30.23	12	24	28.73	27.73
SA11-1(16-20)	SA11-1	Discrete	6	30.23	16	20	28.40	28.06
SA11-1(20-24)	SA11-1	Discrete	6	30.23	20	24	28.06	27.73
SA11-1(4-8)	**SA11-1**	**Discrete**	**6**	**30.23**	**4**	**8**	**29.40**	**29.06**
SA11-1(8-12)	SA11-1	Discrete	6	30.23	8	12	29.06	28.73
SA12-1(0-12)COMP	SA12-1	Composite	5	30.60	0	12	30.19	29.19
SA12-1(12-16)	**SA12-1**	**Discrete**	**5**	**30.60**	**12**	**16**	**29.19**	**28.85**
SA12-1(12-24)COMP	SA12-1	Composite	5	30.60	12	24	29.19	28.19
SA12-1(16-20)	SA12-1	Discrete	5	30.60	16	20	28.85	28.52
SA12-1(20-24)	SA12-1	Discrete	5	30.60	20	24	28.52	28.19
SA12-1(4-8)	SA12-1	Discrete	5	30.60	4	8	29.85	29.52
SA12-1(8-12)	SA12-1	Discrete	5	30.60	8	12	29.52	29.19
SA13-1(0-12)COMP	SA13-1	Composite	6	29.83	0	12	29.33	28.33
SA13-1(12-16)	SA13-1	Discrete	6	29.83	12	16	28.33	28.00
SA13-1(12-24)COMP	SA13-1	Composite	6	29.83	12	24	28.33	27.33
SA13-1(16-20)	SA13-1	Discrete	6	29.83	16	20	28.00	27.67
SA13-1(20-24)	SA13-1	Discrete	6	29.83	20	24	27.67	27.33
SA13-1(4-8)	**SA13-1**	**Discrete**	**6**	**29.83**	**4**	**8**	**29.00**	**28.67**

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Table 2.
Sample Elevation Summary
Santa Clara Square Apartments
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SA13-1(8-12)	SA13-1	Discrete	6	29.83	8	12	28.67	28.33
SA8-1(0-12)COMP	SA8-1	Composite	6	29.08	0	12	28.58	27.58
SA8-1(12-16)	SA8-1	Discrete	6	29.08	12	16	27.58	27.25
SA8-1(12-24)COMP	SA8-1	Composite	6	29.08	12	24	27.58	26.58
SA8-1(16-20)	**SA8-1**	**Discrete**	**6**	**29.08**	**16**	**20**	**27.25**	**26.92**
SA8-1(20-24)	SA8-1	Discrete	6	29.08	20	24	26.92	26.58
SA8-1(4-8)	SA8-1	Discrete	6	29.08	4	8	28.25	27.92
SA8-1(8-12)	SA8-1	Discrete	6	29.08	8	12	27.92	27.58
SA9-1(0-12)COMP	SA9-1	Composite	6	29.84	0	12	29.34	28.34
SA9-1(12-16)	SA9-1	Discrete	6	29.84	12	16	28.34	28.01
SA9-1(12-24)COMP	SA9-1	Composite	6	29.84	12	24	28.34	27.34
SA9-1(16-20)	SA9-1	Discrete	6	29.84	16	20	28.01	27.67
SA9-1(20-24)	SA9-1	Discrete	6	29.84	20	24	27.67	27.34
SA9-1(24-28)	**SA9-1**	**Discrete**	**6**	**29.84**	**24**	**28**	**27.34**	**27.01**
SA9-1(28-32)	SA9-1	Discrete	6	29.84	28	32	27.01	26.67
SA9-1(32-36)	SA9-1	Discrete	6	29.84	32	36	26.67	26.34
SA9-1(4-8)	SA9-1	Discrete	6	29.84	4	8	29.01	28.67
SA9-1(8-12)	SA9-1	Discrete	6	29.84	8	12	28.67	28.34
SB10-1(0-12)COMP	SB10-1	Composite	6	29.93	0	12	29.43	28.43
SB10-1(12-16)	**SB10-1**	**Discrete**	**6**	**29.93**	**12**	**16**	**28.43**	**28.10**
SB10-1(12-24)COMP	SB10-1	Composite	6	29.93	12	24	28.43	27.43
SB10-1(16-20)	SB10-1	Discrete	6	29.93	16	20	28.10	27.76
SB10-1(20-24)	SB10-1	Discrete	6	29.93	20	24	27.76	27.43
SB10-1(4-8)	SB10-1	Discrete	6	29.93	4	8	29.10	28.76
SB10-1(8-12)	SB10-1	Discrete	6	29.93	8	12	28.76	28.43
SB11-1(0-12)COMP	SB11-1	Composite	6	30.59	0	12	30.09	29.09
SB11-1(12-16)	SB11-1	Discrete	6	30.59	12	16	29.09	28.76
SB11-1(12-24)COMP	SB11-1	Composite	6	30.59	12	24	29.09	28.09

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Table 2.
Sample Elevation Summary
Santa Clara Square Apartments
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SB11-1(16-20)	SB11-1	Discrete	6	30.59	16	20	28.76	28.42
SB11-1(20-24)	**SB11-1**	**Discrete**	**6**	**30.59**	**20**	**24**	**28.42**	**28.09**
SB11-1(4-8)	SB11-1	Discrete	6	30.59	4	8	29.76	29.42
SB11-1(8-12)	SB11-1	Discrete	6	30.59	8	12	29.42	29.09
SB14-1(0-12)COMP	SB14-1	Composite	0	32.80	0	12	32.80	31.80
SB14-1(12-16)	SB14-1	Discrete	0	32.80	12	16	31.80	31.47
SB14-1(12-24)COMP	SB14-1	Composite	0	32.80	12	24	31.80	30.80
SB14-1(16-20)	SB14-1	Discrete	0	32.80	16	20	31.47	31.13
SB14-1(20-24)	SB14-1	Discrete	0	32.80	20	24	31.13	30.80
SB14-1(4-8)	SB14-1	Discrete	0	32.80	4	8	32.47	32.13
SB14-1(8-12)	**SB14-1**	**Discrete**	**0**	**32.80**	**8**	**12**	**32.13**	**31.80**
SB8-1(0-12)COMP	SB8-1	Composite	6	30.30	0	12	29.80	28.80
SB8-1(12-16)	SB8-1	Discrete	6	30.30	12	16	28.80	28.46
SB8-1(12-24)COMP	SB8-1	Composite	6	30.30	12	24	28.80	27.80
SB8-1(16-20)	SB8-1	Discrete	6	30.30	16	20	28.46	28.13
SB8-1(20-24)	SB8-1	Discrete	6	30.30	20	24	28.13	27.80
SB8-1(24-28)	SB8-1	Discrete	6	30.30	24	28	27.80	27.46
SB8-1(28-32)	SB8-1	Discrete	6	30.30	28	32	27.46	27.13
SB8-1(32-36)	SB8-1	Discrete	6	30.30	32	36	27.13	26.80
SB8-1(36-40)	**SB8-1**	**Discrete**	**6**	**30.30**	**36**	**40**	**26.80**	**26.46**
SB8-1(40-44)	SB8-1	Discrete	6	30.30	40	44	26.46	26.13
SB8-1(4-8)	SB8-1	Discrete	6	30.30	4	8	29.46	29.13
SB8-1(8-12)	SB8-1	Discrete	6	30.30	8	12	29.13	28.80
SBA11-1(0-12)COMP	SBA11-1	Composite	6	31.17	0	12	30.67	29.67
SBA11-1(12-24)COMP	SBA11-1	Composite	6	31.17	12	24	29.67	28.67
SBA11-1(16-20)	SBA11-1	Discrete	6	31.17	16	20	29.34	29.01
SBA11-1(28-32)	SBA11-1	Discrete	6	31.17	28	32	28.34	28.01
SBA11-1(32-36)	**SBA11-1**	**Discrete**	**6**	**31.17**	**32**	**36**	**28.01**	**27.67**

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SBA11-1(36-40)	SBA11-1	Discrete	6	31.17	36	40	27.67	27.34
SBA11-1(40-44)	SBA11-1	Discrete	6	31.17	40	44	27.34	27.01
SBA11-1(4-8)	SBA11-1	Discrete	6	31.17	4	8	30.34	30.01
SBA11-1(52-56)	SBA11-1	Discrete	6	31.17	52	56	26.34	26.01
SBA13-1(0-12)COMP	SBA13-1	Composite	6	32.21	0	12	31.71	30.71
SBA13-1(12-24)COMP	SBA13-1	Composite	6	32.21	12	24	30.71	29.71
SBA13-1(16-20)	SBA13-1	Discrete	6	32.21	16	20	30.38	30.05
SBA13-1(20-24)	SBA13-1	Discrete	6	32.21	20	24	30.05	29.71
SBA13-1(24-28)	**SBA13-1**	**Discrete**	**6**	**32.21**	**24**	**28**	**29.71**	**29.38**
SBA13-1(28-32)	SBA13-1	Discrete	6	32.21	28	32	29.38	29.05
SBA13-1(40-44)	SBA13-1	Discrete	6	32.21	40	44	28.38	28.05
SBA13-1(4-8)	SBA13-1	Discrete	6	32.21	4	8	31.38	31.05
SBA13-1(52-56)	SBA13-1	Discrete	6	32.21	52	56	27.38	27.05
SBA8-1(0-12)COMP	SBA8-1	Composite	6	30.55	0	12	30.05	29.05
SBA8-1(12-24)COMP	SBA8-1	Composite	6	30.55	12	24	29.05	28.05
SBA8-1(16-20)	SBA8-1	Discrete	6	30.55	16	20	28.71	28.38
SBA8-1(28-32)	SBA8-1	Discrete	6	30.55	28	32	27.71	27.38
SBA8-1(40-44)	SBA8-1	Discrete	6	30.55	40	44	26.71	26.38
SBA8-1(4-8)	SBA8-1	Discrete	6	30.55	4	8	29.71	29.38
SBA8-1(52-56)	SBA8-1	Discrete	6	30.55	52	56	25.71	25.38
SBA8-1(56-60)	**SBA8-1**	**Discrete**	**6**	**30.55**	**56**	**60**	**25.38**	**25.05**
SBA8-1(60-64)	SBA8-1	Discrete	6	30.55	60	64	25.05	24.71
SBA8-1(64-68)	SBA8-1	Discrete	6	30.55	64	68	24.71	24.38
SBA8-1(68-72)	SBA8-1	Discrete	6	30.55	68	72	24.38	24.05
SBA8-1(72-76)	SBA8-1	Discrete	6	30.55	72	76	24.05	23.71
SBA8-1(76-80)	SBA8-1	Discrete	6	30.55	76	80	23.71	23.38
SBB13-1(0-12)COMP	SBB13-1	Composite	6	32.17	0	12	31.67	30.67
SBB13-1(12-24)COMP	SBB13-1	Composite	6	32.17	12	24	30.67	29.67

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SBB13-1(16-20)	SBB13-1	Discrete	6	32.17	16	20	30.34	30.00
SBB13-1(28-32)	SBB13-1	Discrete	6	32.17	28	32	29.34	29.00
SBB13-1(32-36)	SBB13-1	Discrete	6	32.17	32	36	29.00	28.67
SBB13-1(36-40)	SBB13-1	Discrete	6	32.17	36	40	28.67	28.34
SBB13-1(40-44)	**SBB13-1**	**Discrete**	**6**	**32.17**	**40**	**44**	**28.34**	**28.00**
SBB13-1(4-8)	SBB13-1	Discrete	6	32.17	4	8	31.34	31.00
SBB13-1(52-56)	SBB13-1	Discrete	6	32.17	52	56	27.34	27.00
SBB8-1(0-12)COMP	SBB8-1	Composite	6	30.49	0	12	29.99	28.99
SBB8-1(12-16)	SBB8-1	Discrete	6	30.49	12	16	28.99	28.65
SBB8-1(12-24)COMP	SBB8-1	Composite	6	30.49	12	24	28.99	27.99
SBB8-1(16-20)	SBB8-1	Discrete	6	30.49	16	20	28.65	28.32
SBB8-1(20-24)	SBB8-1	Discrete	6	30.49	20	24	28.32	27.99
SBB8-1(28-32)	SBB8-1	Discrete	6	30.49	28	32	27.65	27.32
SBB8-1(32-36)	**SBB8-1**	**Discrete**	**6**	**30.49**	**32**	**36**	**27.32**	**26.99**
SBB8-1(36-40)	SBB8-1	Discrete	6	30.49	36	40	26.99	26.65
SBB8-1(40-44)	SBB8-1	Discrete	6	30.49	40	44	26.65	26.32
SBB8-1(4-8)	SBB8-1	Discrete	6	30.49	4	8	29.65	29.32
SBB8-1(52-56)	SBB8-1	Discrete	6	30.49	52	56	25.65	25.32
SBB8-1(8-12)	SBB8-1	Discrete	6	30.49	8	12	29.32	28.99
SBB8-1(WASTE)	SBB8-1	Waste	6	30.49	12	24	28.99	27.99
SBE10-1(0-12)COMP	SBE10-1	Composite	7	31.54	0	12	30.96	29.96
SBE10-1(12-24)COMP	SBE10-1	Composite	7	31.54	12	24	29.96	28.96
SBE10-1(16-20)	SBE10-1	Discrete	7	31.54	16	20	29.63	29.29
SBE10-1(28-32)	SBE10-1	Discrete	7	31.54	28	32	28.63	28.29
SBE10-1(32-36)	SBE10-1	Discrete	7	31.54	32	36	28.29	27.96
SBE10-1(36-40)	SBE10-1	Discrete	7	31.54	36	40	27.96	27.63
SBE10-1(40-44)	**SBE10-1**	**Discrete**	**7**	**31.54**	**40**	**44**	**27.63**	**27.29**
SBE10-1(4-8)	SBE10-1	Discrete	7	31.54	4	8	30.63	30.29

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SBE10-1(52-56)	SBE10-1	Discrete	7	31.54	52	56	26.63	26.29
SBE11-1(0-12)COMP	SBE11-1	Composite	36	31.50	0	12	28.50	27.50
SBE11-1(12-24)COMP	SBE11-1	Composite	36	31.50	12	24	27.50	26.50
SBE11-1(16-20)	SBE11-1	Discrete	36	31.50	12	24	27.50	26.50
SBE11-1(28-32)	SBE11-1	Discrete	36	31.50	28	32	26.17	25.83
SBE11-1(40-44)	SBE11-1	Discrete	36	31.50	40	44	25.17	24.83
SBE11-1(4-8)	**SBE11-1**	**Discrete**	**36**	**31.50**	**4**	**8**	**28.17**	**27.83**
SBE11-1(52-56)	SBE11-1	Discrete	36	31.50	52	56	24.17	23.83
SBE12-1(0-12)COMP	SBE12-1	Composite	8	31.55	0	12	30.88	29.88
SBE12-1(12-24)COMP	SBE12-1	Composite	8	31.55	12	24	29.88	28.88
SBE12-1(16-20)	SBE12-1	Discrete	8	31.55	16	20	29.55	29.21
SBE12-1(20-24)	SBE12-1	Discrete	8	31.55	20	24	29.21	28.88
SBE12-1(24-28)	**SBE12-1**	**Discrete**	**8**	**31.55**	**24**	**28**	**28.88**	**28.55**
SBE12-1(28-32)	SBE12-1	Discrete	8	31.55	28	32	28.55	28.21
SBE12-1(40-44)	SBE12-1	Discrete	8	31.55	40	44	27.55	27.21
SBE12-1(4-8)	SBE12-1	Discrete	8	31.55	4	8	30.55	30.21
SBE12-1(52-56)	SBE12-1	Discrete	8	31.55	52	56	26.55	26.21
SBE12-1(WASTE)	SBE12-1	Waste	8	31.55	12	24	29.88	28.88
SBE13-1(0-12)COMP	SBE13-1	Composite	7	32.64	0	12	32.06	31.06
SBE13-1(12-24)COMP	SBE13-1	Composite	7	32.64	12	24	31.06	30.06
SBE13-1(16-20)	SBE13-1	Discrete	7	32.64	16	20	30.73	30.39
SBE13-1(28-32)	SBE13-1	Discrete	7	32.64	28	32	29.73	29.39
SBE13-1(32-36)	SBE13-1	Discrete	7	32.64	32	36	29.39	29.06
SBE13-1(36-40)	SBE13-1	Discrete	7	32.64	36	40	29.06	28.73
SBE13-1(40-44)	**SBE13-1**	**Discrete**	**7**	**32.64**	**40**	**44**	**28.73**	**28.39**
SBE13-1(4-8)	SBE13-1	Discrete	7	32.64	4	8	31.73	31.39
SBE13-1(52-56)	SBE13-1	Discrete	7	32.64	52	56	27.73	27.39
SBF10-1(0-12)COMP	SBF10-1	Composite	6	31.46	0	12	30.96	29.96

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SBF10-1(12-24)COMP	SBF10-1	Composite	6	31.46	12	24	29.96	28.96
SBF10-1(16-20)	SBF10-1	Discrete	6	31.46	16	20	29.62	29.29
SBF10-1(28-32)	SBF10-1	Discrete	6	31.46	28	32	28.62	28.29
SBF10-1(32-36)	SBF10-1	Discrete	6	31.46	32	36	28.29	27.96
SBF10-1(36-40)	SBF10-1	Discrete	6	31.46	36	40	27.96	27.62
SBF10-1(40-44)	**SBF10-1**	**Discrete**	**6**	**31.46**	**40**	**44**	**27.62**	**27.29**
SBF10-1(4-8)	SBF10-1	Discrete	6	31.46	4	8	30.62	30.29
SBF10-1(52-56)	SBF10-1	Discrete	6	31.46	52	56	26.62	26.29
SBF12-1(0-12)COMP	SBF12-1	Composite	36	31.52	0	12	28.52	27.52
SBF12-1(12-24)COMP	SBF12-1	Composite	36	31.52	12	24	27.52	26.52
SBF12-1(16-20)	SBF12-1	Discrete	36	31.52	16	20	27.18	26.85
SBF12-1(28-32)	SBF12-1	Discrete	36	31.52	28	32	26.18	25.85
SBF12-1(40-44)	SBF12-1	Discrete	36	31.52	40	44	25.18	24.85
SBF12-1(4-8)	**SBF12-1**	**Discrete**	**36**	**31.52**	**4**	**8**	**28.18**	**27.85**
SBF12-1(52-56)	SBF12-1	Discrete	36	31.52	52	56	24.18	23.85
SBF12-1(WASTE)	**SBF12-1**	**Waste**	**36**	**31.52**	**12**	**24**	**27.52**	**26.52**
SBF13-1(0-12)COMP	SBF13-1	Composite	8	32.64	0	12	31.97	30.97
SBF13-1(12-24)COMP	SBF13-1	Composite	8	32.64	12	24	30.97	29.97
SBF13-1(16-20)	SBF13-1	Discrete	8	32.64	16	20	30.64	30.31
SBF13-1(28-32)	SBF13-1	Discrete	8	32.64	28	32	29.64	29.31
SBF13-1(32-36)	SBF13-1	Discrete	8	32.64	32	36	29.31	28.97
SBF13-1(36-40)	**SBF13-1**	**Discrete**	**8**	**32.64**	**36**	**40**	**28.97**	**28.64**
SBF13-1(40-44)	SBF13-1	Discrete	8	32.64	40	44	28.64	28.31
SBF13-1(4-8)	SBF13-1	Discrete	8	32.64	4	8	31.64	31.31
SBF13-1(52-56)	SBF13-1	Discrete	8	32.64	52	56	27.64	27.31
SBF13-2(0-12)COMP	SBF13-2	Composite	6	32.64	0	12	32.14	31.14
SBF13-2(12-24)COMP	SBF13-2	Composite	6	32.64	12	24	31.14	30.14
SBF13-2(16-20)	SBF13-2	Discrete	6	32.64	16	20	30.81	30.48

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SBF13-2(28-32)	SBF13-2	Discrete	6	32.64	28	32	29.81	29.48
SBF13-2(32-36)	SBF13-2	Discrete	6	32.64	32	36	29.48	29.14
SBF13-2(36-40)	**SBF13-2**	**Discrete**	**6**	**32.64**	**36**	**40**	**29.14**	**28.81**
SBF13-2(40-44)	SBF13-2	Discrete	6	32.64	40	44	28.81	28.48
SBF13-2(4-8)	SBF13-2	Discrete	6	32.64	4	8	31.81	31.48
SBF13-2(52-56)	SBF13-2	Discrete	6	32.64	52	56	27.81	27.48
SBF9-1(0-12)COMP	SBF9-1	Composite	6	31.53	0	12	31.03	30.03
SBF9-1(12-24)COMP	SBF9-1	Composite	6	31.53	12	24	30.03	29.03
SBF9-1(16-20)	SBF9-1	Discrete	6	31.53	16	20	29.70	29.36
SBF9-1(28-32)	SBF9-1	Discrete	6	31.53	28	32	28.70	28.36
SBF9-1(32-36)	SBF9-1	Discrete	6	31.53	32	36	28.36	28.03
SBF9-1(36-40)	SBF9-1	Discrete	6	31.53	36	40	28.03	27.70
SBF9-1(40-44)	SBF9-1	Discrete	6	31.53	40	44	27.70	27.36
SBF9-1(4-8)	SBF9-1	Discrete	6	31.53	4	8	30.70	30.36
SBF9-1(52-56)	SBF9-1	Discrete	6	31.53	52	56	26.70	26.36
SBF9-1(56-60)	**SBF9-1**	**Discrete**	**6**	**31.53**	**56**	**60**	**26.36**	**26.03**
SBF9-1(60-64)	SBF9-1	Discrete	6	31.53	60	64	26.03	25.70
SBF9-1(64-68)	SBF9-1	Discrete	6	31.53	64	68	25.70	25.36
SBF9-1(68-72)	SBF9-1	Discrete	6	31.53	68	72	25.36	25.03
SBF9-1(76-80)	SBF9-1	Discrete	6	31.53	76	80	24.70	24.36
SBG10-1(0-12)COMP	SBG10-1	Composite	6	31.09	0	12	30.59	29.59
SBG10-1(12-24)COMP	SBG10-1	Composite	6	31.09	12	24	29.59	28.59
SBG10-1(16-20)	SBG10-1	Discrete	6	31.09	16	20	29.25	28.92
SBG10-1(32-36)	SBG10-1	Discrete	6	31.09	32	36	27.92	27.59
SBG10-1(44-48)	SBG10-1	Discrete	6	31.09	44	48	26.92	26.59
SBG10-1(4-8)	SBG10-1	Discrete	6	31.09	4	8	30.25	29.92
SBG10-1(48-52)	**SBG10-1**	**Discrete**	**6**	**31.09**	**48**	**52**	**26.59**	**26.25**
SBG10-1(52-56)	SBG10-1	Discrete	6	31.09	52	56	26.25	25.92

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SBG13-1(0-12)COMP	SBG13-1	Composite	6	33.19	0	12	32.69	31.69
SBG13-1(12-24)COMP	SBG13-1	Composite	6	33.19	12	24	31.69	30.69
SBG13-1(16-20)	SBG13-1	Discrete	6	33.19	16	20	31.36	31.02
SBG13-1(28-32)	SBG13-1	Discrete	6	33.19	28	32	30.36	30.02
SBG13-1(40-44)	SBG13-1	Discrete	6	33.19	40	44	29.36	29.02
SBG13-1(4-8)	SBG13-1	Discrete	6	33.19	4	8	32.36	32.02
SBG13-1(52-56)	SBG13-1	Discrete	6	33.19	52	56	28.36	28.02
SBG13-1(56-60)	SBG13-1	Discrete	6	33.19	56	60	28.02	27.69
SBG13-1(60-64)	SBG13-1	Discrete	6	33.19	60	64	27.69	27.36
SBG13-1(64-68)	SBG13-1	Discrete	6	33.19	64	68	27.36	27.02
SBG13-1(68-72)	SBG13-1	Discrete	6	33.19	68	72	27.02	26.69
SBG13-1(72-76)	SBG13-1	Discrete	6	33.19	72	76	26.69	26.36
SBG13-1(76-80)	**SBG13-1**	**Discrete**	**6**	**33.19**	**76**	**80**	**26.36**	**26.02**
SBG13-1(80-84)	SBG13-1	Discrete	6	33.19	80	84	26.02	25.69
SBG13-1(84-88)	SBG13-1	Discrete	6	33.19	84	88	25.69	25.36
SBG13-1(88-92)	SBG13-1	Discrete	6	33.19	88	92	25.36	25.02
SBG13-1(92-96)	SBG13-1	Discrete	6	33.19	92	96	25.02	24.69
SBG9-1(0-12)COMP	SBG9-1	Composite	6	31.09	0	12	30.59	29.59
SBG9-1(12-24)COMP	SBG9-1	Composite	6	31.09	12	24	29.59	28.59
SBG9-1(16-20)	SBG9-1	Discrete	6	31.09	16	20	29.26	28.92
SBG9-1(28-32)	SBG9-1	Discrete	6	31.09	28	32	28.26	27.92
SBG9-1(40-44)	SBG9-1	Discrete	6	31.09	40	44	27.26	26.92
SBG9-1(44-48)	SBG9-1	Discrete	6	31.09	44	48	26.92	26.59
SBG9-1(4-8)	SBG9-1	Discrete	6	31.09	4	8	30.26	29.92
SBG9-1(48-52)	SBG9-1	Discrete	6	31.09	48	52	26.59	26.26
SBG9-1(52-56)	**SBG9-1**	**Discrete**	**6**	**31.09**	**52**	**56**	**26.26**	**25.92**
SBG9-2(0-12)COMP	SBG9-2	Composite	6	31.10	0	12	30.60	29.60
SBG9-2(12-24)COMP	SBG9-2	Composite	6	31.10	12	24	29.60	28.60

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SBG9-2(16-20)	SBG9-2	Discrete	6	31.10	16	20	29.27	28.94
SBG9-2(28-32)	SBG9-2	Discrete	6	31.10	28	32	28.27	27.94
SBG9-2(40-44)	SBG9-2	Discrete	6	31.10	40	44	27.27	26.94
SBG9-2(44-48)	**SBG9-2**	**Discrete**	**6**	**31.10**	**44**	**48**	**26.94**	**26.60**
SBG9-2(4-8)	SBG9-2	Discrete	6	31.10	4	8	30.27	29.94
SBG9-2(48-52)	SBG9-2	Discrete	6	31.10	48	52	26.60	26.27
SBG9-2(52-56)	SBG9-2	Discrete	6	31.10	52	56	26.27	25.94
SBH10-1(0-12)COMP	SBH10-1	Composite	6	32.12	0	12	31.62	30.62
SBH10-1(12-24)COMP	SBH10-1	Composite	6	32.12	12	24	30.62	29.62
SBH10-1(16-20)	SBH10-1	Discrete	6	32.12	16	20	30.29	29.95
SBH10-1(28-32)	SBH10-1	Discrete	6	32.12	28	32	29.29	28.95
SBH10-1(40-44)	SBH10-1	Discrete	6	32.12	40	44	28.29	27.95
SBH10-1(44-48)	SBH10-1	Discrete	6	32.12	44	48	27.95	27.62
SBH10-1(4-8)	SBH10-1	Discrete	6	32.12	4	8	31.29	30.95
SBH10-1(48-52)	SBH10-1	Discrete	6	32.12	48	52	27.62	27.29
SBH10-1(52-56)	**SBH10-1**	**Discrete**	**6**	**32.12**	**52**	**56**	**27.29**	**26.95**
SBH11-1(0-12)COMP	SBH11-1	Composite	5	32.10	0	12	31.68	30.68
SBH11-1(12-24)COMP	SBH11-1	Composite	5	32.10	12	24	30.68	29.68
SBH11-1(16-20)	SBH11-1	Discrete	5	32.10	16	20	30.35	30.01
SBH11-1(28-32)	SBH11-1	Discrete	5	32.10	28	32	29.35	29.01
SBH11-1(40-44)	SBH11-1	Discrete	5	32.10	40	44	28.35	28.01
SBH11-1(44-48)	SBH11-1	Discrete	5	32.10	44	48	28.01	27.68
SBH11-1(4-8)	SBH11-1	Discrete	5	32.10	4	8	31.35	31.01
SBH11-1(48-52)	SBH11-1	Discrete	5	32.10	48	52	27.68	27.35
SBH11-1(52-56)	**SBH11-1**	**Discrete**	**5**	**32.10**	**52**	**56**	**27.35**	**27.01**
SBH11-2(0-12)COMP	SBH11-2	Composite	6	32.14	0	12	31.64	30.64
SBH11-2(12-24)COMP	SBH11-2	Composite	6	32.14	12	24	30.64	29.64
SBH11-2(16-20)	SBH11-2	Discrete	6	32.14	16	20	30.30	29.97

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SBH11-2(28-32)	SBH11-2	Discrete	6	32.14	28	32	29.30	28.97
SBH11-2(40-44)	SBH11-2	Discrete	6	32.14	40	44	28.30	27.97
SBH11-2(44-48)	**SBH11-2**	**Discrete**	**6**	**32.14**	**44**	**48**	**27.97**	**27.64**
SBH11-2(4-8)	SBH11-2	Discrete	6	32.14	4	8	31.30	30.97
SBH11-2(48-52)	SBH11-2	Discrete	6	32.14	48	52	27.64	27.30
SBH11-2(52-56)	SBH11-2	Discrete	6	32.14	52	56	27.30	26.97
SBH12-1(0-12)COMP	SBH12-1	Composite	6	33.14	0	12	32.64	31.64
SBH12-1(12-24)COMP	SBH12-1	Composite	6	33.14	12	24	31.64	30.64
SBH12-1(16-20)	SBH12-1	Discrete	6	33.14	16	20	31.31	30.98
SBH12-1(28-32)	SBH12-1	Discrete	6	33.14	28	32	30.31	29.98
SBH12-1(40-44)	SBH12-1	Discrete	6	33.14	40	44	29.31	28.98
SBH12-1(44-48)	SBH12-1	Discrete	6	33.14	44	48	28.98	28.64
SBH12-1(4-8)	SBH12-1	Discrete	6	33.14	4	8	32.31	31.98
SBH12-1(48-52)	SBH12-1	Discrete	6	33.14	48	52	28.64	28.31
SBH12-1(52-56)	**SBH12-1**	**Discrete**	**6**	**33.14**	**52**	**56**	**28.31**	**27.98**
SBH12-1(WASTE)	SBH12-1	Waste	6	33.14	12	24	31.64	30.64
SBH13-1(0-12)COMP	SBH13-1	Composite	6	33.16	0	12	32.66	31.66
SBH13-1(12-24)COMP	SBH13-1	Composite	6	33.16	12	24	31.66	30.66
SBH13-1(16-20)	SBH13-1	Discrete	6	33.16	16	20	31.32	30.99
SBH13-1(28-32)	SBH13-1	Discrete	6	33.16	28	32	30.32	29.99
SBH13-1(32-36)	SBH13-1	Discrete	6	33.16	32	36	29.99	29.66
SBH13-1(36-40)	SBH13-1	Discrete	6	33.16	36	40	29.66	29.32
SBH13-1(40-44)	**SBH13-1**	**Discrete**	**6**	**33.16**	**40**	**44**	**29.32**	**28.99**
SBH13-1(4-8)	SBH13-1	Discrete	6	33.16	4	8	32.32	31.99
SBH13-1(52-56)	SBH13-1	Discrete	6	33.16	52	56	28.32	27.99
SBI10-1(0-12)COMP	SBI10-1	Composite	6	31.12	0	12	30.62	29.62
SBI10-1(12-24)COMP	SBI10-1	Composite	6	31.12	12	24	29.62	28.62
SBI10-1(16-20)	SBI10-1	Discrete	6	31.12	16	20	29.28	28.95

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SBI10-1(28-32)	SBI10-1	Discrete	6	31.12	28	32	28.28	27.95
SBI10-1(40-44)	SBI10-1	Discrete	6	31.12	40	44	27.28	26.95
SBI10-1(4-8)	SBI10-1	Discrete	6	31.12	4	8	30.28	29.95
SBI10-1(52-56)	SBI10-1	Discrete	6	31.12	52	56	26.28	25.95
SBI10-1(56-60)	SBI10-1	Discrete	6	31.12	56	60	25.95	25.62
SBI10-1(60-64)	SBI10-1	Discrete	6	31.12	60	64	25.62	25.28
SBI10-1(64-68)	**SBI10-1**	**Discrete**	**6**	**31.12**	**64**	**68**	**25.28**	**24.95**
SBI10-1(68-72)	SBI10-1	Discrete	6	31.12	68	72	24.95	24.62
SBI10-1(72-76)	SBI10-1	Discrete	6	31.12	72	76	24.62	24.28
SBI10-1(76-80)	SBI10-1	Discrete	6	31.12	76	80	24.28	23.95
SBI9-1(0-12)COMP	SBI9-1	Composite	6	31.06	0	12	30.56	29.56
SBI9-1(12-24)COMP	SBI9-1	Composite	6	31.06	12	24	29.56	28.56
SBI9-1(16-20)	SBI9-1	Discrete	6	31.06	16	20	29.23	28.90
SBI9-1(28-32)	SBI9-1	Discrete	6	31.06	28	32	28.23	27.90
SBI9-1(40-44)	SBI9-1	Discrete	6	31.06	40	44	27.23	26.90
SBI9-1(44-48)	SBI9-1	Discrete	6	31.06	44	48	26.90	26.56
SBI9-1(4-8)	SBI9-1	Discrete	6	31.06	4	8	30.23	29.90
SBI9-1(48-52)	**SBI9-1**	**Discrete**	**6**	**31.06**	**48**	**52**	**26.56**	**26.23**
SBI9-1(52-56)	SBI9-1	Discrete	6	31.06	52	56	26.23	25.90
SBI9-2(0-12)COMP	SBI9-2	Composite	6	31.08	0	12	30.58	29.58
SBI9-2(12-24)COMP	SBI9-2	Composite	6	31.08	12	24	29.58	28.58
SBI9-2(16-20)	SBI9-2	Discrete	6	31.08	16	20	29.24	28.91
SBI9-2(28-32)	SBI9-2	Discrete	6	31.08	28	32	28.24	27.91
SBI9-2(40-44)	SBI9-2	Discrete	6	31.08	40	44	27.24	26.91
SBI9-2(4-8)	SBI9-2	Discrete	6	31.08	4	8	30.24	29.91
SBI9-2(52-56)	SBI9-2	Discrete	6	31.08	52	56	26.24	25.91
SBI9-2(56-60)	SBI9-2	Discrete	6	31.08	56	60	25.91	25.58
SBI9-2(60-64)	SBI9-2	Discrete	6	31.08	60	64	25.58	25.24

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SBI9-2(64-68)	**SBI9-2**	**Discrete**	**6**	**31.08**	**64**	**68**	**25.24**	**24.91**
SBI9-2(68-72)	SBI9-2	Discrete	6	31.08	68	72	24.91	24.58
SBI9-2(72-76)	SBI9-2	Discrete	6	31.08	72	76	24.58	24.24
SBI9-2(76-80)	SBI9-2	Discrete	6	31.08	76	80	24.24	23.91
SBJ19-1(00-12)COMP	SBJ19	Composite	12	34.16	0	12	33.16	32.16
SBJ19-1(04-08)	SBJ19	Discrete	12	34.16	4	8	32.83	32.49
SBJ19-1(08-12)	SBJ19	Discrete	12	34.16	8	12	32.49	32.16
SBJ19-1(12-16)	SBJ19	Discrete	12	34.16	12	16	32.16	31.83
SBJ19-1(12-24)COMP	SBJ19	Composite	12	34.16	12	24	32.16	31.16
SBJ19-1(16-20)	SBJ19	Discrete	12	34.16	16	20	31.83	31.49
SBJ19-1(20-24)	SBJ19	Discrete	12	34.16	20	24	31.49	31.16
SBJ19-1(24-28)	SBJ19	Discrete	12	34.16	24	28	31.16	30.83
SBJ19-1(28-32)	SBJ19	Discrete	12	34.16	28	32	30.83	30.49
SBJ19-1(32-36)	**SBJ19**	**Discrete**	**12**	**34.16**	**32**	**36**	**30.49**	**30.16**
SBJ19-1(36-40)	SBJ19	Discrete	12	34.16	36	40	30.16	29.83
SBK14-1(0-12)COMP	SBK14-1	Composite	6	32.52	0	12	32.02	31.02
SBK14-1(12-24)COMP	SBK14-1	Composite	6	32.52	12	24	31.02	30.02
SBK14-1(16-20)	SBK14-1	Discrete	6	32.52	16	20	30.69	30.36
SBK14-1(28-32)	SBK14-1	Discrete	6	32.52	28	32	29.69	29.36
SBK14-1(40-44)	SBK14-1	Discrete	6	32.52	40	44	28.69	28.36
SBK14-1(44-48)	**SBK14-1**	**Discrete**	**6**	**32.52**	**44**	**48**	**28.36**	**28.02**
SBK14-1(4-8)	SBK14-1	Discrete	6	32.52	4	8	31.69	31.36
SBK14-1(48-52)	SBK14-1	Discrete	6	32.52	48	52	28.02	27.69
SBK14-1(52-56)	SBK14-1	Discrete	6	32.52	52	56	27.69	27.36
SBK15-1(0-12)COMP	SBK15-1	Composite	6	32.42	0	12	31.92	30.92
SBK15-1(0-6)	SBK15-1	Discrete	6	32.42	0	6	31.92	31.42
SBK15-1(12-18)	SBK15-1	Discrete	6	32.42	12	18	30.92	30.42
SBK15-1(12-24)COMP	SBK15-1	Composite	6	32.42	12	24	30.92	29.92

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SBK15-1(28-32)	SBK15-1	Discrete	6	32.42	28	32	29.59	29.26
SBK15-1(40-44)	SBK15-1	Discrete	6	32.42	40	44	28.59	28.26
SBK15-1(52-56)	SBK15-1	Discrete	6	32.42	52	56	27.59	27.26
SBK15-1(56-60)	**SBK15-1**	**Discrete**	**6**	**32.42**	**56**	**60**	**27.26**	**26.92**
SBK15-1(60-64)	SBK15-1	Discrete	6	32.42	60	64	26.92	26.59
SBK15-1(64-68)	SBK15-1	Discrete	6	32.42	64	68	26.59	26.26
SBK15-1(68-72)	SBK15-1	Discrete	6	32.42	68	72	26.26	25.92
SBK15-1(72-76)	SBK15-1	Discrete	6	32.42	72	76	25.92	25.59
SBK18-1(00-12)COMP	SBK18-1	Composite	12	34.19	0	12	33.19	32.19
SBK18-1(04-08)	SBK18-1	Discrete	12	34.19	4	8	32.85	32.52
SBK18-1(12-24)COMP	SBK18-1	Composite	12	34.19	12	24	32.19	31.19
SBK18-1(16-20)	SBK18-1	Discrete	12	34.19	16	20	31.85	31.52
SBK18-1(28-32)	SBK18-1	Discrete	12	34.19	28	32	30.85	30.52
SBK18-1(40-44)	SBK18-1	Discrete	12	34.19	40	44	29.85	29.52
SBK18-1(44-48)	SBK18-1	Discrete	12	34.19	44	48	29.52	29.19
SBK18-1(48-52)	SBK18-1	Discrete	12	34.19	48	52	29.19	28.85
SBK18-1(52-56)	**SBK18-1**	**Discrete**	**12**	**34.19**	**52**	**56**	**28.85**	**28.52**
SBK19-1(00-12)COMP	SBK19-1	Composite	12	34.24	0	12	33.24	32.24
SBK19-1(04-08)	SBK19-1	Discrete	12	34.24	4	8	32.91	32.58
SBK19-1(12-24)COMP	SBK19-1	Composite	12	34.24	12	24	32.24	31.24
SBK19-1(16-20)	SBK19-1	Discrete	12	34.24	16	20	31.91	31.58
SBK19-1(28-32)	SBK19-1	Discrete	12	34.24	28	32	30.91	30.58
SBK19-1(40-44)	SBK19-1	Discrete	12	34.24	40	44	29.91	29.58
SBK19-1(44-48)	SBK19-1	Discrete	12	34.24	44	48	29.58	29.24
SBK19-1(48-52)	**SBK19-1**	**Discrete**	**12**	**34.24**	**48**	**52**	**29.24**	**28.91**
SBK19-1(52-56)	SBK19-1	Discrete	12	34.24	52	56	28.91	28.58
SBL13-1(0-12)COMP	SBL13-1	Composite	6	32.51	0	12	32.01	31.01
SBL13-1(12-24)COMP	SBL13-1	Composite	6	32.51	12	24	31.01	30.01

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SBL13-1(16-20)	SBL13-1	Discrete	6	32.51	16	20	30.67	30.34
SBL13-1(28-32)	SBL13-1	Discrete	6	32.51	28	32	29.67	29.34
SBL13-1(40-44)	SBL13-1	Discrete	6	32.51	40	44	28.67	28.34
SBL13-1(44-48)	SBL13-1	Discrete	6	32.51	44	48	28.34	28.01
SBL13-1(4-8)	SBL13-1	Discrete	6	32.51	4	8	31.67	31.34
SBL13-1(48-52)	SBL13-1	Discrete	6	32.51	48	52	28.01	27.67
SBL13-1(52-56)	**SBL13-1**	**Discrete**	**6**	**32.51**	**52**	**56**	**27.67**	**27.34**
SBL13-2(0-12)COMP	SBL13-2	Composite	6	32.49	0	12	31.99	30.99
SBL13-2(12-24)COMP	SBL13-2	Composite	6	32.49	12	24	30.99	29.99
SBL13-2(16-20)	SBL13-2	Discrete	6	32.49	16	20	30.66	30.33
SBL13-2(28-32)	SBL13-2	Discrete	6	32.49	28	32	29.66	29.33
SBL13-2(40-44)	SBL13-2	Discrete	6	32.49	40	44	28.66	28.33
SBL13-2(44-48)	SBL13-2	Discrete	6	32.49	44	48	28.33	27.99
SBL13-2(4-8)	SBL13-2	Discrete	6	32.49	4	8	31.66	31.33
SBL13-2(48-52)	SBL13-2	Discrete	6	32.49	48	52	27.99	27.66
SBL13-2(52-56)	**SBL13-2**	**Discrete**	**6**	**32.49**	**52**	**56**	**27.66**	**27.33**
SBL18-1(00-12)COMP	SBL18-1	Composite	6	35.82	0	12	35.82	34.82
SBL18-1(04-08)	**SBL18-1**	**Discrete**	**6**	**35.82**	**4**	**8**	**35.48**	**35.15**
SBL18-1(12-24)COMP	SBL18-1	Composite	6	35.82	12	24	34.82	33.82
SBL18-1(16-20)	SBL18-1	Discrete	6	35.82	16	20	34.48	34.15
SBL18-1(28-32)	SBL18-1	Discrete	6	35.82	28	32	33.48	33.15
SBL18-1(40-44)	SBL18-1	Discrete	6	35.82	40	44	32.48	32.15
SBL18-1(52-56)	SBL18-1	Discrete	6	35.82	52	56	31.48	31.15
SBL19-1(00-12)COMP	SBL19-1	Composite	6	35.92	0	12	35.92	34.92
SBL19-1(04-08)	SBL19-1	Discrete	6	35.92	4	8	35.59	35.26
SBL19-1(12-24)COMP	SBL19-1	Composite	6	35.92	12	24	34.92	33.92
SBL19-1(16-20)	SBL19-1	Discrete	6	35.92	16	20	34.59	34.26
SBL19-1(28-32)	SBL19-1	Discrete	6	35.92	28	32	33.59	33.26

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SBL19-1(40-44)	SBL19-1	Discrete	6	35.92	40	44	32.59	32.26
SBL19-1(52-56)	SBL19-1	Discrete	6	35.92	52	56	31.59	31.26
SBL19-1(56-60)	SBL19-1	Discrete	6	35.92	56	60	31.26	30.92
SBL19-1(60-64)	SBL19-1	Discrete	6	35.92	60	64	30.92	30.59
SBL19-1(64-68)	SBL19-1	Discrete	6	35.92	64	68	30.59	30.26
SBL19-1(68-72)	**SBL19-1**	**Discrete**	6	**35.92**	**68**	**72**	**30.26**	**29.92**
SBL19-1(76-80)	SBL19-1	Discrete	6	35.92	76	80	29.59	29.26
SBL20-1(00-12)COMP	SBL20-1	Composite	6	35.87	0	12	35.37	34.37
SBL20-1(04-08)	SBL20-1	Discrete	6	35.87	4	8	35.04	34.70
SBL20-1(12-24)COMP	SBL20-1	Composite	6	35.87	12	24	34.37	33.37
SBL20-1(16-20)	SBL20-1	Discrete	6	35.87	16	20	34.04	33.70
SBL20-1(28-32)	SBL20-1	Discrete	6	35.87	28	32	33.04	32.70
SBL20-1(40-44)	SBL20-1	Discrete	6	35.87	40	44	32.04	31.70
SBL20-1(52-56)	SBL20-1	Discrete	6	35.87	52	56	31.04	30.70
SBL20-1(56-60)	**SBL20-1**	**Discrete**	**6**	**35.87**	**56**	**60**	**30.70**	**30.37**
SBL20-1(60-64)	SBL20-1	Discrete	6	35.87	60	64	30.37	30.04
SBL20-1(64-68)	SBL20-1	Discrete	6	35.87	64	68	30.04	29.70
SBL20-1(68-72)	SBL20-1	Discrete	6	35.87	68	72	29.70	29.37
SBM20-1(00-12)COMP	SBM20-1	Composite	6	35.73	0	12	35.23	34.23
SBM20-1(04-08)	SBM20-1	Discrete	6	35.73	4	8	34.90	34.57
SBM20-1(12-24)COMP	SBM20-1	Composite	6	35.73	12	24	34.23	33.23
SBM20-1(16-20)	SBM20-1	Discrete	6	35.73	16	20	33.90	33.57
SBM20-1(28-32)	SBM20-1	Discrete	6	35.73	28	32	32.90	32.57
SBM20-1(40-44)	SBM20-1	Discrete	6	35.73	40	44	31.90	31.57
SBM20-1(44-48)	SBM20-1	Discrete	6	35.73	44	48	31.57	31.23
SBM20-1(48-52)	SBM20-1	Discrete	6	35.73	48	52	31.23	30.90
SBM20-1(52-56)	**SBM20-1**	**Discrete**	**6**	**35.73**	**52**	**56**	**30.90**	**30.57**
SBMC14-1(0-24)COMP	SBMC14-1	Composite	0	32.17	0	24	32.17	30.17

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SBMC14-1(0-6)	SBMC14-1	Discrete	0	32.17	0	6	32.17	31.67
SBMC14-1(18-24)	SBMC14-1	Discrete	0	32.17	18	24	30.67	30.17
SBMC14-1(9-15)	SBMC14-1	Discrete	0	32.17	9	15	31.42	30.92
SBMD8-1(0-24)COMP	SBMD8-1	Composite	0	28.26	0	24	28.26	26.26
SBMD8-1(0-6)	SBMD8-1	Discrete	0	28.26	0	6	28.26	27.76
SBMD8-1(18-24)	SBMD8-1	Discrete	0	28.26	18	24	26.76	26.26
SBMD8-1(9-15)	SBMD8-1	Discrete	0	28.26	9	15	27.51	27.01
SBMF15-1(0-6)	SBMF15-1	Discrete	0	33.37	0	6	33.37	32.87
SBMF15-1(0-60)COMP	SBMF15-1	Composite	0	33.37	0	60	33.37	28.37
SBMF15-1(27-33)	SBMF15-1	Discrete	0	33.37	27	33	31.12	30.62
SBMF15-1(54-60)	SBMF15-1	Discrete	0	33.37	54	60	28.87	28.37
SBMG8-1(0-24)COMP	SBMG8-1	Composite	0	28.47	0	24	28.47	26.47
SBMG8-1(0-6)	SBMG8-1	Discrete	0	28.47	0	6	28.47	27.97
SBMG8-1(18-24)	SBMG8-1	Discrete	0	28.47	18	24	26.97	26.47
SBMG8-1(9-15)	SBMG8-1	Discrete	0	28.47	9	15	27.72	27.22
SBMI14-1(0-24)COMP	SBMI14-1	Composite	0	31.60	0	24	31.60	29.60
SBMI14-1(0-6)	SBMI14-1	Discrete	0	31.60	0	6	31.60	31.10
SBMI14-1(18-24)	SBMI14-1	Discrete	0	31.60	18	24	30.10	29.60
SBMI14-1(9-15)	SBMI14-1	Discrete	0	31.60	9	15	30.85	30.35
SBMI15-1(0-30)COMP	SBMI15-1	Composite	0	33.02	0	30	33.02	30.52
SBMI15-1(0-6)	SBMI15-1	Discrete	0	33.02	0	6	33.02	32.52
SBMI15-1(12-18)	SBMI15-1	Discrete	0	33.02	12	18	32.02	31.52
SBMI15-1(24-30)	SBMI15-1	Discrete	0	33.02	24	30	31.02	30.52
SBMI8-1(0-24)COMP	SBMI8-1	Composite	0	29.47	0	24	29.47	27.47
SBMI8-1(0-4)	SBMI8-1	Discrete	0	29.47	0	4	29.47	29.14
SBMI8-1(18-24)	SBMI8-1	Discrete	0	29.47	18	24	27.97	27.47
SBMI8-1(9-15)	SBMI8-1	Discrete	0	29.47	9	15	28.72	28.22
SBMJ11-1(0-24)COMP	SBMJ11-1	Discrete	0	30.44	0	24	30.44	28.44

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SBMJ11-1(0-6)	SBMJ11-1	Discrete	0	30.44	0	6	30.44	29.94
SBMJ11-1(18-24)	SBMJ11-1	Discrete	0	30.44	18	24	28.94	28.44
SBMJ11-1(9-15)	SBMJ11-1	Discrete	0	30.44	9	15	29.69	29.19
SBMJ17-1(00-30)COMP	SBMJ17-1	Composite	0	33.14	0	30	33.14	30.64
SBMJ9-1(0-24)COMP	SBMJ9-1	Composite	0	29.73	0	24	29.73	27.73
SBMJ9-1(0-6)	SBMJ9-1	Discrete	0	29.73	0	6	29.73	29.23
SBMJ9-1(18-24)	SBMJ9-1	Discrete	0	29.73	18	24	28.23	27.73
SBMJ9-1(9-15)	SBMJ9-1	Discrete	0	29.73	9	15	28.98	28.48
SBMK16-1(0-30)COMP	SBMK16-1	Composite	0	32.48	0	30	32.48	29.98
SBMK16-1(0-6)	SBMK16-1	Discrete	0	32.48	0	6	32.48	31.98
SBMK16-1(12-18)	SBMK16-1	Discrete	0	32.48	12	18	31.48	30.98
SBMK16-1(24-30)	SBMK16-1	Discrete	0	32.48	24	30	30.48	29.98
SBMK17-1(00-24)COMP	SBMK17-1	Composite	0	31.97	0	24	31.97	29.97
SBML16-1(0-30)COMP	SBML16-1	Composite	0	34.83	0	30	34.83	32.33
SBML16-1(0-6)	SBML16-1	Discrete	0	34.83	0	6	34.83	34.33
SBML16-1(12-18)	SBML16-1	Discrete	0	34.83	12	18	33.83	33.33
SBML16-1(24-30)	SBML16-1	Discrete	0	34.83	24	30	32.83	32.33
SBML17-1(00-24)COMP	SBML17-1	Composite	0	34.75	0	24	34.75	32.75
SBMM18-1(00-24)COMP	SBMM18-1	Composite	0	35.90	0	24	35.90	33.90
SCC10-1(0-12)COMP	SCC10-1	Composite	0	30.90	0	12	30.90	29.90
SCC10-1(0-4)	SCC10-1	Discrete	0	30.90	0	4	30.90	30.56
SCC10-1(12-16)	SCC10-1	Discrete	0	30.90	12	16	29.90	29.56
SCC10-1(12-24)COMP	SCC10-1	Composite	0	30.90	12	24	29.90	28.90
SCC10-1(16-20)	SCC10-1	Discrete	0	30.90	16	20	29.56	29.23
SCC10-1(20-24)	**SCC10-1**	**Discrete**	**0**	**30.90**	**20**	**24**	**29.23**	**28.90**
SCC10-1(24-28)	SCC10-1	Discrete	0	30.90	24	28	28.90	28.56
SCC10-1(4-8)	SCC10-1	Discrete	0	30.90	4	8	30.56	30.23
SCC10-1(8-12)	SCC10-1	Discrete	0	30.90	8	12	30.23	29.90

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SCC11-1(0-12)COMP	SCC11-1	Composite	0	31.34	0	12	31.34	30.34
SCC11-1(0-4)	SCC11-1	Discrete	0	31.34	0	4	31.34	31.01
SCC11-1(12-16)	**SCC11-1**	**Discrete**	**0**	**31.34**	**12**	**16**	**30.34**	**30.01**
SCC11-1(12-24)COMP	SCC11-1	Composite	0	31.34	12	24	30.34	29.34
SCC11-1(16-20)	SCC11-1	Discrete	0	31.34	16	20	30.01	29.68
SCC11-1(20-24)	SCC11-1	Discrete	0	31.34	20	24	29.68	29.34
SCC11-1(4-8)	SCC11-1	Discrete	0	31.34	4	8	31.01	30.68
SCC11-1(8-12)	SCC11-1	Discrete	0	31.34	8	12	30.68	30.34
SCC12-1(0-12)COMP	SCC12-1	Composite	0	30.37	0	12	30.37	29.37
SCC12-1(0-4)	SCC12-1	Discrete	0	30.37	0	4	30.37	30.04
SCC12-1(12-16)	SCC12-1	Discrete	0	30.37	12	16	29.37	29.04
SCC12-1(12-24)COMP	SCC12-1	Composite	0	30.37	12	24	29.37	28.37
SCC12-1(16-20)	SCC12-1	Discrete	0	30.37	16	20	29.04	28.71
SCC12-1(20-24)	SCC12-1	Discrete	0	30.37	20	24	28.71	28.37
SCC12-1(24-28)	**SCC12-1**	**Discrete**	**0**	**30.37**	**24**	**28**	**28.37**	**28.04**
SCC12-1(28-32)	SCC12-1	Discrete	0	30.37	28	32	28.04	27.71
SCC12-1(32-36)	SCC12-1	Discrete	0	30.37	32	36	27.71	27.37
SCC12-1(36-40)	SCC12-1	Discrete	0	30.37	36	40	27.37	27.04
SCC12-1(4-8)	SCC12-1	Discrete	0	30.37	4	8	30.04	29.71
SCC12-1(8-12)	SCC12-1	Discrete	0	30.37	8	12	29.71	29.37
SCC13-1(0-12)COMP	SCC13-1	Composite	0	31.94	0	12	31.94	30.94
SCC13-1(0-4)	SCC13-1	Discrete	0	31.94	0	4	31.94	31.61
SCC13-1(12-16)	SCC13-1	Discrete	0	31.94	12	16	30.94	30.61
SCC13-1(12-24)COMP	SCC13-1	Composite	0	31.94	12	24	30.94	29.94
SCC13-1(16-20)	**SCC13-1**	**Discrete**	**0**	**31.94**	**16**	**20**	**30.61**	**30.28**
SCC13-1(20-24)	SCC13-1	Discrete	0	31.94	20	24	30.28	29.94
SCC13-1(4-8)	SCC13-1	Discrete	0	31.94	4	8	31.61	31.28
SCC13-1(8-12)	SCC13-1	Discrete	0	31.94	8	12	31.28	30.94

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SCC8-1(0-12)COMP	SCC8-1	Composite	0	27.95	0	12	27.95	26.95
SCC8-1(0-4)	SCC8-1	Discrete	0	27.95	0	4	27.95	27.62
SCC8-1(12-16)	SCC8-1	Discrete	0	27.95	12	16	26.95	26.62
SCC8-1(12-24)COMP	SCC8-1	Composite	0	27.95	12	24	26.95	25.95
SCC8-1(16-20)	**SCC8-1**	**Discrete**	**0**	**27.95**	**16**	**20**	**26.62**	**26.29**
SCC8-1(20-24)	SCC8-1	Discrete	0	27.95	20	24	26.29	25.95
SCC8-1(24-28)	SCC8-1	Discrete	0	27.95	24	28	25.95	25.62
SCC8-1(4-8)	SCC8-1	Discrete	0	27.95	4	8	27.62	27.29
SCC8-1(8-12)	SCC8-1	Discrete	0	27.95	8	12	27.29	26.95
SCC9-1(0-12)COMP	SCC9-1	Composite	0	32.09	0	12	32.09	31.09
SCC9-1(0-4)	SCC9-1	Discrete	0	32.09	0	4	32.09	31.76
SCC9-1(12-16)	SCC9-1	Discrete	0	32.09	12	16	31.09	30.76
SCC9-1(12-24)COMP	SCC9-1	Composite	0	32.09	12	24	31.09	30.09
SCC9-1(16-20)	SCC9-1	Discrete	0	32.09	16	20	30.76	30.42
SCC9-1(20-24)	SCC9-1	Discrete	0	32.09	20	24	30.42	30.09
SCC9-1(24-28)	SCC9-1	Discrete	0	32.09	24	28	30.09	29.76
SCC9-1(28-32)	SCC9-1	Discrete	0	32.09	28	32	29.76	29.42
SCC9-1(32-36)	SCC9-1	Discrete	0	32.09	32	36	29.42	29.09
SCC9-1(36-40)	SCC9-1	Discrete	0	32.09	36	40	29.09	28.76
SCC9-1(40-44)	**SCC9-1**	**Discrete**	**0**	**32.09**	**40**	**44**	**28.76**	**28.42**
SCC9-1(4-8)	SCC9-1	Discrete	0	32.09	4	8	31.76	31.42
SCC9-1(8-12)	SCC9-1	Discrete	0	32.09	8	12	31.42	31.09
SD10-1(0-12)COMP	SD10-1	Composite	6	29.27	0	12	28.77	27.77
SD10-1(12-16)	SD10-1	Discrete	6	29.27	12	16	27.77	27.44
SD10-1(12-24)COMP	SD10-1	Composite	6	29.27	12	24	27.77	26.77
SD10-1(16-20)	**SD10-1**	**Discrete**	**6**	**29.27**	**16**	**20**	**27.44**	**27.10**
SD10-1(20-24)	SD10-1	Discrete	6	29.27	20	24	27.10	26.77
SD10-1(4-8)	SD10-1	Discrete	6	29.27	4	8	28.44	28.10

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SD10-1(8-12)	SD10-1	Discrete	6	29.27	8	12	28.10	27.77
SD11-1(0-12)COMP	SD11-1	Composite	6	28.75	0	12	28.25	27.25
SD11-1(12-16)	SD11-1	Discrete	6	28.75	12	16	27.25	26.92
SD11-1(12-24)COMP	SD11-1	Composite	6	28.75	12	24	27.25	26.25
SD11-1(16-20)	SD11-1	Discrete	6	28.75	16	20	26.92	26.58
SD11-1(20-24)	SD11-1	Discrete	6	28.75	20	24	26.58	26.25
SD11-1(4-8)	**SD11-1**	**Discrete**	**6**	**28.75**	**4**	**8**	**27.92**	**27.58**
SD11-1(8-12	SD11-1	Discrete	6	28.75	8	12	27.58	27.25
SD11-1(WASTE)	SD11-1	Waste	6	28.75	12	24	27.25	26.25
SD12-1(0-12)COMP	SD12-1	Composite	6	26.58	0	12	26.08	25.08
SD12-1(12-16)	SD12-1	Discrete	6	26.58	12	16	25.08	24.75
SD12-1(12-24)COMP	SD12-1	Composite	6	26.58	12	24	25.08	24.08
SD12-1(16-20)	SD12-1	Discrete	6	26.58	16	20	24.75	24.41
SD12-1(20-24)	SD12-1	Discrete	6	26.58	20	24	24.41	24.08
SD12-1(4-8)	SD12-1	Discrete	6	26.58	4	8	25.75	25.41
SD12-1(8-12)	**SD12-1**	**Discrete**	**6**	**26.58**	**8**	**12**	**25.41**	**25.08**
SD12-1(WASTE)	SD12-1	Waste	6	26.58	12	24	25.08	24.08
SD13-1(0-12)COMP	SD13-1	Composite	6	28.75	0	12	28.25	27.25
SD13-1(12-16)	SD13-1	Discrete	6	28.75	12	16	27.25	26.92
SD13-1(12-24)COMP	SD13-1	Composite	6	28.75	12	24	27.25	26.25
SD13-1(16-20)	SD13-1	Discrete	6	28.75	16	20	26.92	26.58
SD13-1(20-24)	SD13-1	Discrete	6	28.75	20	24	26.58	26.25
SD13-1(4-8)	SD13-1	Discrete	6	28.75	4	8	27.92	27.58
SD13-1(8-12)	**SD13-1**	**Discrete**	**6**	**28.75**	**8**	**12**	**27.58**	**27.25**
SD14-1(0-12)COMP	SD14-1	Composite	6	29.66	0	12	29.16	28.16
SD14-1(12-16)	SD14-1	Discrete	6	29.66	12	16	28.16	27.82
SD14-1(12-24)COMP	SD14-1	Composite	6	29.66	12	24	28.16	27.16
SD14-1(16-20)	SD14-1	Discrete	6	29.66	16	20	27.82	27.49

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SD14-1(20-24)	SD14-1	Discrete	6	29.66	20	24	27.49	27.16
SD14-1(4-8)	**SD14-1**	**Discrete**	**6**	**29.66**	**4**	**8**	**28.82**	**28.49**
SD14-1(8-12)	SD14-1	Discrete	6	29.66	8	12	28.49	28.16
SD14-1(WASTE)	SD14-1	Waste	6	29.66	12	24	28.16	27.16
SD8-1(0-12)COMP	SD8-1	Composite	5	26.23	0	12	25.82	24.82
SD8-1(12-16)	SD8-1	Discrete	5	26.23	12	16	24.82	24.48
SD8-1(12-24)COMP	SD8-1	Composite	5	26.23	12	24	24.82	23.82
SD8-1(16-20)	SD8-1	Discrete	5	26.23	16	20	24.48	24.15
SD8-1(20-24)	SD8-1	Discrete	5	26.23	20	24	24.15	23.82
SD8-1(4-8)	**SD8-1**	**Discrete**	**5**	**26.23**	**4**	**8**	**25.48**	**25.15**
SD8-1(8-12)	SD8-1	Discrete	5	26.23	8	12	25.15	24.82
SD8-1(WASTE)	SD8-1	Waste	5	26.23	12	24	24.82	23.82
SD9-1(0-12)COMP	SD9-1	Composite	5	27.66	0	12	27.24	26.24
SD9-1(12-16)	SD9-1	Discrete	5	27.66	12	16	26.24	25.91
SD9-1(12-24)COMP	SD9-1	Composite	5	27.66	12	24	26.24	25.24
SD9-1(16-20)	SD9-1	Discrete	5	27.66	16	20	25.91	25.57
SD9-1(20-24)	SD9-1	Discrete	5	27.66	20	24	25.57	25.24
SD9-1(4-8)	SD9-1	Discrete	5	27.66	4	8	26.91	26.57
SD9-1(8-12)	**SD9-1**	**Discrete**	**5**	**27.66**	**8**	**12**	**26.57**	**26.24**
SD9-1(WASTE)	SD9-1	Waste	5	27.66	12	24	26.24	25.24
SE13-1(0-12)COMP	SE13-1	Composite	6	29.29	0	12	28.79	27.79
SE13-1(12-16)	SE13-1	Discrete	6	29.29	12	16	27.79	27.46
SE13-1(12-24)COMP	SE13-1	Composite	6	29.29	12	24	27.79	26.79
SE13-1(16-20)	SE13-1	Discrete	6	29.29	16	20	27.46	27.12
SE13-1(20-24)	SE13-1	Discrete	6	29.29	20	24	27.12	26.79
SE13-1(4-8)	**SE13-1**	**Discrete**	**6**	**29.29**	**4**	**8**	**28.46**	**28.12**
SE13-1(8-12)	SE13-1	Discrete	6	29.29	8	12	28.12	27.79
SE14-1(0-12)COMP	SE14-1	Composite	5	29.78	0	12	29.36	28.36

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SE14-1(12-16)	SE14-1	Discrete	5	29.78	12	16	28.36	28.03
SE14-1(12-24)COMP	SE14-1	Composite	5	29.78	12	24	28.36	27.36
SE14-1(16-20)	SE14-1	Discrete	5	29.78	16	20	28.03	27.69
SE14-1(20-24)	SE14-1	Discrete	5	29.78	20	24	27.69	27.36
SE14-1(4-8)	**SE14-1**	**Discrete**	**5**	**29.78**	**4**	**8**	**29.03**	**28.69**
SE14-1(8-12)	SE14-1	Discrete	5	29.78	8	12	28.69	28.36
SE14-1(WASTE)	SE14-1	Waste	5	29.78	12	24	28.36	27.36
SE8-1(0-12)COMP	SE8-1	Composite	7	27.26	0	12	26.68	25.68
SE8-1(12-16)	SE8-1	Discrete	7	27.26	12	16	25.68	25.35
SE8-1(12-24)COMP	SE8-1	Composite	7	27.26	12	24	25.68	24.68
SE8-1(16-20)	SE8-1	Discrete	7	27.26	16	20	25.35	25.01
SE8-1(20-24)	SE8-1	Discrete	7	27.26	20	24	25.01	24.68
SE8-1(4-8)	**SE8-1**	**Discrete**	**7**	**27.26**	**4**	**8**	**26.35**	**26.01**
SE8-1(8-12)	SE8-1	Discrete	7	27.26	8	12	26.01	25.68
SE9-1(0-12)COMP	SE9-1	Composite	6	27.95	0	12	27.45	26.45
SE9-1(12-16)	SE9-1	Discrete	6	27.95	12	16	26.45	26.11
SE9-1(12-24)COMP	SE9-1	Composite	6	27.95	12	24	26.45	25.45
SE9-1(16-20)	SE9-1	Discrete	6	27.95	16	20	26.11	25.78
SE9-1(20-24)	SE9-1	Discrete	6	27.95	20	24	25.78	25.45
SE9-1(4-8)	**SE9-1**	**Discrete**	**6**	**27.95**	**4**	**8**	**27.11**	**26.78**
SE9-1(8-12)	SE9-1	Discrete	6	27.95	8	12	26.78	26.45
SE9-1(WASTE)	SE9-1	Waste	6	27.95	12	24	26.45	25.45
SF14-1(0-12)COMP	SF14-1	Composite	0	31.98	0	12	31.98	30.98
SF14-1(12-16)	SF14-1	Discrete	0	31.98	12	16	30.98	30.65
SF14-1(12-24)COMP	SF14-1	Composite	0	31.98	12	24	30.98	29.98
SF14-1(16-20)	SF14-1	Discrete	0	31.98	16	20	30.65	30.31
SF14-1(20-24)	SF14-1	Discrete	0	31.98	20	24	30.31	29.98
SF14-1(24-28)	**SF14-1**	**Discrete**	**0**	**31.98**	**24**	**28**	**29.98**	**29.65**

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SF14-1(28-32)	SF14-1	Discrete	0	31.98	28	32	29.65	29.31
SF14-1(32-36)	SF14-1	Discrete	0	31.98	32	36	29.31	28.98
SF14-1(36-40)	SF14-1	Discrete	0	31.98	36	40	28.98	28.65
SF14-1(4-8)	SF14-1	Discrete	0	31.98	4	8	31.65	31.31
SF14-1(8-12)	SF14-1	Discrete	0	31.98	8	12	31.31	30.98
SF15-1(0-12)COMP	SF15-1	Composite	0	31.29	0	12	31.29	30.29
SF15-1(12-16)	SF15-1	Discrete	0	31.29	12	16	30.29	29.96
SF15-1(12-24)COMP	SF15-1	Composite	0	31.29	12	24	30.29	29.29
SF15-1(16-20)	SF15-1	Discrete	0	31.29	16	20	29.96	29.62
SF15-1(20-24)	**SF15-1**	**Discrete**	**0**	**31.29**	**20**	**24**	**29.62**	**29.29**
SF15-1(4-8)	SF15-1	Discrete	0	31.29	4	8	30.96	30.62
SF15-1(8-12)	SF15-1	Discrete	0	31.29	8	12	30.62	30.29
SF8-1(0-12)COMP	SF8-1	Composite	6	26.57	0	12	26.07	25.07
SF8-1(12-16)	SF8-1	Discrete	6	26.57	12	16	25.07	24.73
SF8-1(12-24)COMP	SF8-1	Composite	6	26.57	12	24	25.07	24.07
SF8-1(16-20)	SF8-1	Discrete	6	26.57	16	20	24.73	24.40
SF8-1(20-24)	SF8-1	Discrete	6	26.57	20	24	24.40	24.07
SF8-1(4-8)	**SF8-1**	**Discrete**	**6**	**26.57**	**4**	**8**	**25.73**	**25.40**
SF8-1(8-12)	SF8-1	Discrete	6	26.57	8	12	25.40	25.07
SF8-1(WASTE)	SF8-1	Waste	6	26.57	12	24	25.07	24.07
SG11-1(0-12)COMP	SG11-1	Composite	0	30.01	0	12	30.01	29.01
SG11-1(12-16)	SG11-1	Discrete	0	30.01	12	16	29.01	28.67
SG11-1(12-24)COMP	SG11-1	Composite	0	30.01	12	24	29.01	28.01
SG11-1(16-20)	SG11-1	Discrete	0	30.01	16	20	28.67	28.34
SG11-1(20-24)	SG11-1	Discrete	0	30.01	20	24	28.34	28.01
SG11-1(24-28)	SG11-1	Discrete	0	30.01	24	28	28.01	27.67
SG11-1(28-32)	**SG11-1**	**Discrete**	**0**	**30.01**	**28**	**32**	**27.67**	**27.34**
SG11-1(32-36)	SG11-1	Discrete	0	30.01	32	36	27.34	27.01

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SG11-1(36-40)	SG11-1	Discrete	0	30.01	36	40	27.01	26.67
SG11-1(4-8)	SG11-1	Discrete	0	30.01	4	8	29.67	29.34
SG11-1(8-12)	SG11-1	Discrete	0	30.01	8	12	29.34	29.01
SG12-1(0-12)COMP	SG12-1	Composite	0	34.14	0	12	34.14	33.14
SG12-1(12-16)	SG12-1	Discrete	0	34.14	12	16	33.14	32.80
SG12-1(12-24)COMP	SG12-1	Composite	0	34.14	12	24	33.14	32.14
SG12-1(16-20)	**SG12-1**	**Discrete**	**0**	**34.14**	**16**	**20**	**32.80**	**32.47**
SG12-1(20-24)	SG12-1	Discrete	0	34.14	20	24	32.47	32.14
SG12-1(4-8)	SG12-1	Discrete	0	34.14	4	8	33.80	33.47
SG12-1(8-12)	SG12-1	Discrete	0	34.14	8	12	33.47	33.14
SG14-1(0-12)COMP	SG14-1	Composite	6	29.94	0	12	29.44	28.44
SG14-1(12-16)	SG14-1	Discrete	6	29.94	12	16	28.44	28.11
SG14-1(12-24)COMP	SG14-1	Composite	6	29.94	12	24	28.44	27.44
SG14-1(16-20)	SG14-1	Discrete	6	29.94	16	20	28.11	27.78
SG14-1(20-24)	SG14-1	Discrete	6	29.94	20	24	27.78	27.44
SG14-1(4-8)	**SG14-1**	**Discrete**	**6**	**29.94**	**4**	**8**	**29.11**	**28.78**
SG14-1(8-12)	SG14-1	Discrete	6	29.94	8	12	28.78	28.44
SG15-1(0-12)COMP	SG15-1	Composite	5	31.76	0	12	31.34	30.34
SG15-1(12-16)	SG15-1	Discrete	5	31.76	12	16	30.34	30.01
SG15-1(12-24)COMP	SG15-1	Composite	5	31.76	12	24	30.34	29.34
SG15-1(16-20)	SG15-1	Discrete	5	31.76	16	20	30.01	29.68
SG15-1(20-24)	SG15-1	Discrete	5	31.76	20	24	29.68	29.34
SG15-1(4-8)	**SG15-1**	**Discrete**	**5**	**31.76**	**4**	**8**	**31.01**	**30.68**
SG15-1(8-12)	SG15-1	Discrete	5	31.76	8	12	30.68	30.34
SG15-1(WASTE)	SG15-1	Waste	5	31.76	12	24	30.34	29.34
SG8-1(0-12)COMP	SG8-1	Composite	6	26.31	0	12	25.81	24.81
SG8-1(12-16)	SG8-1	Discrete	6	26.31	12	16	24.81	24.47
SG8-1(12-24)COMP	SG8-1	Composite	6	26.31	12	24	24.81	23.81

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SG8-1(16-20)	SG8-1	Discrete	6	26.31	16	20	24.47	24.14
SG8-1(20-24)	SG8-1	Discrete	6	26.31	20	24	24.14	23.81
SG8-1(4-8)	**SG8-1**	**Discrete**	**6**	**26.31**	**4**	**8**	**25.47**	**25.14**
SG8-1(8-12)	SG8-1	Discrete	6	26.31	8	12	25.14	24.81
SH10-1(0-12)COMP	SH10-1	Composite	6	28.58	0	12	28.08	27.08
SH10-1(12-16)	SH10-1	Discrete	6	28.58	12	16	27.08	26.74
SH10-1(12-24)COMP	SH10-1	Composite	6	28.58	12	24	27.08	26.08
SH10-1(16-20)	SH10-1	Discrete	6	28.58	16	20	26.74	26.41
SH10-1(20-24)	SH10-1	Discrete	6	28.58	20	24	26.41	26.08
SH10-1(4-8)	SH10-1	Discrete	6	28.58	4	8	27.74	27.41
SH10-1(8-12)	**SH10-1**	**Discrete**	**6**	**28.58**	**8**	**12**	**27.41**	**27.08**
SH10-1(WASTE)	SH10-1	Waste	6	28.58	12	24	27.08	26.08
SH12-1(0-12)COMP	SH12-1	Composite	6	30.71	0	12	30.21	29.21
SH12-1(12-16)	SH12-1	Discrete	6	30.71	12	16	29.21	28.87
SH12-1(12-24)COMP	SH12-1	Composite	6	30.71	12	24	29.21	28.21
SH12-1(16-20)	SH12-1	Discrete	6	30.71	16	20	28.87	28.54
SH12-1(20-24)	SH12-1	Discrete	6	30.71	20	24	28.54	28.21
SH12-1(24-28)	**SH12-1**	**Discrete**	**6**	**30.71**	**24**	**28**	**28.21**	**27.87**
SH12-1(28-32)	SH12-1	Discrete	6	30.71	28	32	27.87	27.54
SH12-1(32-36)	SH12-1	Discrete	6	30.71	32	36	27.54	27.21
SH12-1(4-8)	SH12-1	Discrete	6	30.71	4	8	29.87	29.54
SH12-1(8-12)	SH12-1	Discrete	6	30.71	8	12	29.54	29.21
SH14-1(0-12)COMP	SH14-1	Composite	0	31.13	0	12	31.13	30.13
SH14-1(12-16)	SH14-1	Discrete	0	31.13	12	16	30.13	29.80
SH14-1(12-24)COMP	SH14-1	Composite	0	31.13	12	24	30.13	29.13
SH14-1(16-20)	**SH14-1**	**Discrete**	**0**	**31.13**	**16**	**20**	**29.80**	**29.46**
SH14-1(20-24)	SH14-1	Discrete	0	31.13	20	24	29.46	29.13
SH14-1(4-8)	SH14-1	Discrete	0	31.13	4	8	30.80	30.46

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SH14-1(8-12)	SH14-1	Discrete	0	31.13	8	12	30.46	30.13
SH15-1(0-4)	SH15-1	Discrete	0	35.25	0	4	35.25	34.91
SH15-1(0-4)(28-32)(56-60)COMP	SH15-1	Composite	0	35.25	0	60	35.25	30.25
SH15-1(28-32)	SH15-1	Discrete	0	35.25	28	32	32.91	32.58
SH15-1(56-60)	SH15-1	Discrete	0	35.25	56	60	30.58	30.25
SH8-1(0-12)COMP	SH8-1	Composite	8	26.08	0	12	25.42	24.42
SH8-1(12-16)	SH8-1	Discrete	8	26.08	12	16	24.42	24.08
SH8-1(12-24)COMP	SH8-1	Composite	8	26.08	12	24	24.42	23.42
SH8-1(16-20)	SH8-1	Discrete	8	26.08	16	20	24.08	23.75
SH8-1(20-24)	SH8-1	Discrete	8	26.08	20	24	23.75	23.42
SH8-1(4-8)	**SH8-1**	**Discrete**	**8**	**26.08**	**4**	**8**	**25.08**	**24.75**
SH8-1(8-12)	SH8-1	Discrete	8	26.08	8	12	24.75	24.42
SH9-1(0-12)COMP	SH9-1	Composite	6	27.46	0	12	26.96	25.96
SH9-1(12-16)	SH9-1	Discrete	6	27.46	12	16	25.96	25.62
SH9-1(12-24)COMP	SH9-1	Composite	6	27.46	12	24	25.96	24.96
SH9-1(16-20)	SH9-1	Discrete	6	27.46	16	20	25.62	25.29
SH9-1(20-24)	SH9-1	Discrete	6	27.46	20	24	25.29	24.96
SH9-1(4-8)	**SH9-1**	**Discrete**	**6**	**27.46**	**4**	**8**	**26.62**	**26.29**
SH9-1(8-12)	SH9-1	Discrete	6	27.46	8	12	26.29	25.96
SI11-1(0-12)COMP	SI11-1	Composite	6	29.78	0	12	29.28	28.28
SI11-1(12-16)	SI11-1	Discrete	6	29.78	12	16	28.28	27.95
SI11-1(12-24)COMP	SI11-1	Composite	6	29.78	12	24	28.28	27.28
SI11-1(16-20)	SI11-1	Discrete	6	29.78	16	20	27.95	27.61
SI11-1(4-8)	**SI11-1**	**Discrete**	**6**	**29.78**	**4**	**8**	**28.95**	**28.61**
SI11-1(WASTE)	**SI11-1**	**Waste**	**6**	**29.78**	**12**	**24**	**28.28**	**27.28**
SI12-1(0-12)COMP	SI12-1	Composite	6	29.17	0	12	28.67	27.67
SI12-1(12-16)	SI12-1	Discrete	6	29.17	12	16	27.67	27.34
SI12-1(12-24)COMP	SI12-1	Composite	6	29.17	12	24	27.67	26.67

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SI12-1(16-20)	SI12-1	Discrete	6	29.17	16	20	27.34	27.01
SI12-1(20-24)	SI12-1	Discrete	6	29.17	20	24	27.01	26.67
SI12-1(4-8)	SI12-1	Discrete	6	29.17	4	8	28.34	28.01
SI12-1(8-12)	**SI12-1**	**Discrete**	**6**	**29.17**	**8**	**12**	**28.01**	**27.67**
SI13-1(0-12)COMP	SI13-1	Composite	5	29.17	0	12	28.75	27.75
SI13-1(12-24)COMP	SI13-1	Composite	5	29.17	12	24	27.75	26.75
SI13-1(16-20)	SI13-1	Discrete	5	29.17	16	20	27.42	27.08
SI13-1(20-24)	SI13-1	Discrete	5	29.17	20	24	27.08	26.75
SI13-1(4-8)	**SI13-1**	**Discrete**	**5**	**29.17**	**4**	**8**	**28.42**	**28.08**
SI14-1(0-12)COMP	SI14-1	Composite	6	30.48	0	12	29.98	28.98
SI14-1(12-24)COMP	SI14-1	Composite	6	30.48	12	24	28.98	27.98
SI14-1(32-36)	SI14-1	Discrete	6	30.48	32	36	27.31	26.98
SI14-1(36-40)	SI14-1	Discrete	6	30.48	36	40	26.98	26.64
SI14-1(4-8)	**SI14-1**	**Discrete**	**6**	**30.48**	**4**	**8**	**29.64**	**29.31**
SI14-1(WASTE)	SI14-1	Waste	6	30.48	12	24	28.98	27.98
SI15-1(0-12)COMP	SI15-1	Composite	5	30.45	0	12	30.03	29.03
SI15-1(12-16)	SI15-1	Discrete	5	30.45	12	16	29.03	28.70
SI15-1(12-24)COMP	SI15-1	Composite	5	30.45	12	24	29.03	28.03
SI15-1(16-20)	SI15-1	Discrete	5	30.45	16	20	28.70	28.36
SI15-1(20-24)	SI15-1	Discrete	5	30.45	20	24	28.36	28.03
SI15-1(4-8)	**SI15-1**	**Discrete**	**5**	**30.45**	**4**	**8**	**29.70**	**29.36**
SI15-1(8-12)	SI15-1	Discrete	5	30.45	8	12	29.36	29.03
SI8-1(0-12)COMP	SI8-1	Composite	6	27.95	0	12	27.45	26.45
SI8-1(12-16)	SI8-1	Discrete	6	27.95	12	16	26.45	26.11
SI8-1(12-24)COMP	SI8-1	Composite	6	27.95	12	24	26.45	25.45
SI8-1(16-20)	SI8-1	Discrete	6	27.95	16	20	26.11	25.78
SI8-1(20-24)	SI8-1	Discrete	6	27.95	20	24	25.78	25.45
SI8-1(24-28)	**SI8-1**	**Discrete**	**6**	**27.95**	**24**	**28**	**25.45**	**25.11**

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SI8-1(28-32)	SI8-1	Discrete	6	27.95	28	32	25.11	24.78
SI8-1(4-8)	SI8-1	Discrete	6	27.95	4	8	27.11	26.78
SI8-1(8-12)	SI8-1	Discrete	6	27.95	8	12	26.78	26.45
SI8-1(WASTE)	SI8-1	Waste	6	27.95	12	24	26.45	25.45
SJ10-1(0-12)COMP	SJ10-1	Composite	6	28.47	0	12	27.97	26.97
SJ10-1(12-16)	SJ10-1	Discrete	6	28.47	12	16	26.97	26.64
SJ10-1(12-24)COMP	SJ10-1	Composite	6	28.47	12	24	26.97	25.97
SJ10-1(16-20)	**SJ10-1**	**Discrete**	**6**	**28.47**	**16**	**20**	**26.64**	**26.30**
SJ10-1(20-24)	SJ10-1	Discrete	6	28.47	20	24	26.30	25.97
SJ10-1(4-8)	SJ10-1	Discrete	6	28.47	4	8	27.64	27.30
SJ10-1(8-12)	SJ10-1	Discrete	6	28.47	8	12	27.30	26.97
SJ11-1(0-12)COMP	SJ11-1	Composite	6	28.85	0	12	28.35	27.35
SJ11-1(12-24)COMP	SJ11-1	Composite	6	28.85	12	24	27.35	26.35
SJ11-1(20-24)	SJ11-1	Discrete	6	28.85	20	24	26.69	26.35
SJ11-1(24-28)	SJ11-1	Discrete	6	28.85	24	28	26.35	26.02
SJ11-1(4-8)	**SJ11-1**	**Discrete**	**6**	**28.85**	**4**	**8**	**28.02**	**27.69**
SJ12-1(0-12)COMP	SJ12-1	Composite	6	27.60	0	12	27.10	26.10
SJ12-1(12-24)COMP	SJ12-1	Composite	6	27.60	12	24	26.10	25.10
SJ12-1(44-48)	SJ12-1	Discrete	6	27.60	44	48	23.43	23.10
SJ12-1(4-8)	**SJ12-1**	**Discrete**	**6**	**27.60**	**4**	**8**	**26.77**	**26.43**
SJ12-1(48-52)	SJ12-1	Discrete	6	27.60	48	52	23.10	22.77
SJ12-1(WASTE)	SJ12-1	Waste	6	27.60	12	24	26.10	25.10
SJ13-1(0-12)COMP	SJ13-1	Composite	5	28.33	0	12	27.91	26.91
SJ13-1(12-16)	SJ13-1	Discrete	5	28.33	12	16	26.91	26.58
SJ13-1(12-24)COMP	SJ13-1	Composite	5	28.33	12	24	26.91	25.91
SJ13-1(16-20)	SJ13-1	Discrete	5	28.33	16	20	26.58	26.25
SJ13-1(20-24)	SJ13-1	Discrete	5	28.33	20	24	26.25	25.91
SJ13-1(4-8)	**SJ13-1**	**Discrete**	**5**	**28.33**	**4**	**8**	**27.58**	**27.25**

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SJ13-1(8-12)	SJ13-1	Discrete	5	28.33	8	12	27.25	26.91
SJ14-2(0-12)COMP	SJ14-2	Composite	5	29.97	0	12	29.56	28.56
SJ14-2(12-16)	**SJ14-2**	**Discrete**	**5**	**29.97**	**12**	**16**	**28.56**	**28.22**
SJ14-2(12-24)COMP	SJ14-2	Composite	5	29.97	12	24	28.56	27.56
SJ14-2(16-20)	SJ14-2	Discrete	5	29.97	16	20	28.22	27.89
SJ14-2(20-24)	SJ14-2	Discrete	5	29.97	20	24	27.89	27.56
SJ14-2(24-28)	SJ14-2	Discrete	5	29.97	24	28	27.56	27.22
SJ14-2(4-8)	SJ14-2	Discrete	5	29.97	4	8	29.22	28.89
SJ14-2(8-12)	SJ14-2	Discrete	5	29.97	8	12	28.89	28.56
SJ15-1(0-12)COMP	SJ15-1	Composite	5	29.14	0	12	28.72	27.72
SJ15-1(12-24)COMP	SJ15-1	Composite	5	29.14	12	24	27.72	26.72
SJ15-1(36-40)	SJ15-1	Discrete	5	29.14	36	40	25.72	25.39
SJ15-1(40-44)	SJ15-1	Discrete	5	29.14	40	44	25.39	25.05
SJ15-1(4-8)	**SJ15-1**	**Discrete**	**5**	**29.14**	**4**	**8**	**28.39**	**28.05**
SJ17-1(00-12)COMP	SJ17-1	Composite	12	30.60	0	12	29.60	28.60
SJ17-1(04-08)	**SJ17-1**	**Discrete**	**12**	**30.60**	**4**	**8**	**29.26**	**28.93**
SJ17-1(08-12)	SJ17-1	Discrete	12	30.60	8	12	28.93	28.60
SJ17-1(12-16)	SJ17-1	Discrete	12	30.60	12	16	28.60	28.26
SJ17-1(12-24)COMP	SJ17-1	Composite	12	30.60	12	24	28.60	27.60
SJ17-1(16-20)	SJ17-1	Discrete	12	30.60	16	20	28.26	27.93
SJ17-1(20-24)	SJ17-1	Discrete	12	30.60	20	24	27.93	27.60
SJ18-1(00-12)COMP	SJ18-1	Composite	12	33.41	0	12	32.41	31.41
SJ18-1(04-08)	SJ18-1	Discrete	12	33.41	4	8	32.08	31.74
SJ18-1(08-12)	SJ18-1	Discrete	12	33.41	8	12	31.74	31.41
SJ18-1(12-16)	SJ18-1	Discrete	12	33.41	12	16	31.41	31.08
SJ18-1(12-24)COMP	SJ18-1	Composite	12	33.41	12	24	31.41	30.41
SJ18-1(16-20)	SJ18-1	Discrete	12	33.41	16	20	31.08	30.74
SJ18-1(20-24)	SJ18-1	Discrete	12	33.41	20	24	30.74	30.41

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SJ18-1(24-28)	**SJ18-1**	**Discrete**	**12**	**33.41**	**24**	**28**	**30.41**	**30.08**
SJ18-1(28-32)	SJ18-1	Discrete	12	33.41	28	32	30.08	29.74
SJ18-1(32-36)	SJ18-1	Discrete	12	33.41	32	36	29.74	29.41
SJ18-1(36-40)	SJ18-1	Discrete	12	33.41	36	40	29.41	29.08
SJ19-1(00-12)COMP	SJ19-1	Composite	12	32.99	0	12	31.99	30.99
SJ19-1(04-08)	SJ19-1	Discrete	12	32.99	4	8	31.66	31.32
SJ19-1(08-12)	**SJ19-1**	**Discrete**	**12**	**32.99**	**8**	**12**	**31.32**	**30.99**
SJ19-1(12-16)	SJ19-1	Discrete	12	32.99	12	16	30.99	30.66
SJ19-1(12-24)COMP	SJ19-1	Composite	12	32.99	12	24	30.99	29.99
SJ19-1(16-20)	SJ19-1	Discrete	12	32.99	16	20	30.66	30.32
SJ19-1(20-24)	SJ19-1	Discrete	12	32.99	20	24	30.32	29.99
SJ20-1(00-12)COMP	SJ20-1	Composite	12	32.59	0	12	31.59	30.59
SJ20-1(04-08)	**SJ20-1**	**Discrete**	**12**	**32.59**	**4**	**8**	**31.26**	**30.92**
SJ20-1(08-12)	SJ20-1	Discrete	12	32.59	8	12	30.92	30.59
SJ20-1(12-16)	SJ20-1	Discrete	12	32.59	12	16	30.59	30.26
SJ20-1(12-24)COMP	SJ20-1	Composite	12	32.59	12	24	30.59	29.59
SJ20-1(16-20)	SJ20-1	Discrete	12	32.59	16	20	30.26	29.92
SJ20-1(20-24)	SJ20-1	Discrete	12	32.59	20	24	29.92	29.59
SJ21-1(00-12)COMP	SJ21-1	Composite	12	32.24	0	12	31.24	30.24
SJ21-1(04-08)	**SJ21-1**	**Discrete**	**12**	**32.24**	**4**	**8**	**30.90**	**30.57**
SJ21-1(08-012)	SJ21-1	Discrete	12	32.24	8	12	30.57	30.24
SJ21-1(12-16)	SJ21-1	Discrete	12	32.24	12	16	30.24	29.90
SJ21-1(12-24)COMP	SJ21-1	Composite	12	32.24	12	24	30.24	29.24
SJ21-1(16-20)	SJ21-1	Discrete	12	32.24	16	20	29.90	29.57
SJ21-1(20-24)	SJ21-1	Discrete	12	32.24	20	24	29.57	29.24
SJ8-1(0-12)COMP	SJ8-1	Composite	6	27.14	0	12	26.64	25.64
SJ8-1(12-16)	SJ8-1	Discrete	6	27.14	12	16	25.64	25.30
SJ8-1(12-24)COMP	SJ8-1	Composite	6	27.14	12	24	25.64	24.64

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SJ8-1(16-20)	SJ8-1	Discrete	6	27.14	16	20	25.30	24.97
SJ8-1(20-24)	SJ8-1	Discrete	6	27.14	20	24	24.97	24.64
SJ8-1(4-8)	SJ8-1	Discrete	6	27.14	4	8	26.30	25.97
SJ8-1(8-12)	**SJ8-1**	**Discrete**	**6**	**27.14**	**8**	**12**	**25.97**	**25.64**
SJ9-1(0-12)COMP	SJ9-1	Composite	6	27.56	0	12	27.06	26.06
SJ9-1(12-24)COMP	SJ9-1	Composite	6	27.56	12	24	26.06	25.06
SJ9-1(32-36)	SJ9-1	Discrete	6	27.56	32	36	24.40	24.06
SJ9-1(36-40)	SJ9-1	Discrete	6	27.56	36	40	24.06	23.73
SJ9-1(4-8)	**SJ9-1**	**Discrete**	**6**	**27.56**	**4**	**8**	**26.73**	**26.40**
SJ9-1(WASTE)	SJ9-1	Waste	6	27.56	12	24	26.06	25.06
SK12-1(0-12)COMP	SK12-1	Composite	7	29.49	0	12	28.91	27.91
SK12-1(12-16)	**SK12-1**	**Discrete**	**7**	**29.49**	**12**	**16**	**27.91**	**27.58**
SK12-1(12-24)COMP	SK12-1	Composite	7	29.49	12	24	27.91	26.91
SK12-1(16-20)	SK12-1	Discrete	7	29.49	16	20	27.58	27.24
SK12-1(20-24)	SK12-1	Discrete	7	29.49	20	24	27.24	26.91
SK12-1(4-8)	SK12-1	Discrete	7	29.49	4	8	28.58	28.24
SK12-1(8-12)	SK12-1	Discrete	7	29.49	8	12	28.24	27.91
SK12-1(WASTE)	**SK12-1**	**Waste**	**7**	**29.49**	**12**	**24**	**27.91**	**26.91**
SK13-1(0-12)COMP	SK13-1	Composite	0	31.62	0	12	31.62	30.62
SK13-1(12-16)	SK13-1	Discrete	0	31.62	12	16	30.62	30.29
SK13-1(12-24)COMP	SK13-1	Composite	0	31.62	12	24	30.62	29.62
SK13-1(16-20)	SK13-1	Discrete	0	31.62	16	20	30.29	29.96
SK13-1(20-24)	SK13-1	Discrete	0	31.62	20	24	29.96	29.62
SK13-1(24-28)	**SK13-1**	**Discrete**	**0**	**31.62**	**24**	**28**	**29.62**	**29.29**
SK13-1(28-32)	SK13-1	Discrete	0	31.62	28	32	29.29	28.96
SK13-1(4-8)	SK13-1	Discrete	0	31.62	4	8	31.29	30.96
SK13-1(8-12)	SK13-1	Discrete	0	31.62	8	12	30.96	30.62
SK16-1(0-12)COMP	SK16-1	Composite	6	30.33	0	12	29.83	28.83

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SK16-1(12-24)COMP	SK16-1	Composite	6	30.33	12	24	28.83	27.83
SK16-1(28-32)	SK16-1	Discrete	6	30.33	28	32	27.49	27.16
SK16-1(32-36)	SK16-1	Discrete	6	30.33	32	36	27.16	26.83
SK16-1(4-8)	**SK16-1**	**Discrete**	**6**	**30.33**	**4**	**8**	**29.49**	**29.16**
SK17-1(00-12)COMP	SK17-1	Composite	12	31.81	0	12	30.81	29.81
SK17-1(04-08)	SK17-1	Discrete	12	31.81	4	8	30.48	30.14
SK17-1(08-12)	SK17-1	Discrete	12	31.81	8	12	30.14	29.81
SK17-1(12-16)	SK17-1	Discrete	12	31.81	12	16	29.81	29.48
SK17-1(12-24)COMP	SK17-1	Composite	12	31.81	12	24	29.81	28.81
SK17-1(16-20)	SK17-1	Discrete	12	31.81	16	20	29.48	29.14
SK17-1(20-24)	SK17-1	Discrete	12	31.81	20	24	29.14	28.81
SK17-1(24-28)	**SK17-1**	**Discrete**	**12**	**31.81**	**24**	**28**	**28.81**	**28.48**
SK17-1(28-32)	SK17-1	Discrete	12	31.81	28	32	28.48	28.14
SK17-1(32-36)	SK17-1	Discrete	12	31.81	32	36	28.14	27.81
SK17-1(36-40)	SK17-1	Discrete	12	31.81	36	40	27.81	27.48
SK20-1(00-12)COMP	SK20-1	Composite	12	33.27	0	12	32.27	31.27
SK20-1(04-08)	SK20-1	Discrete	12	33.27	4	8	31.94	31.61
SK20-1(08-12)	SK20-1	Discrete	12	33.27	8	12	31.61	31.27
SK20-1(12-16)	SK20-1	Discrete	12	33.27	12	16	31.27	30.94
SK20-1(12-24)COMP	SK20-1	Composite	12	33.27	12	24	31.27	30.27
SK20-1(16-20)	SK20-1	Discrete	12	33.27	16	20	30.94	30.61
SK20-1(20-24)	**SK20-1**	**Discrete**	**12**	**33.27**	**20**	**24**	**30.61**	**30.27**
SK21-1(00-12)COMP	SK21-1	Composite	12	33.25	0	12	32.25	31.25
SK21-1(04-08)	SK21-1	Discrete	12	33.25	4	8	31.92	31.59
SK21-1(08-12)	SK21-1	Discrete	12	33.25	8	12	31.59	31.25
SK21-1(12-16)	SK21-1	Discrete	12	33.25	12	16	31.25	30.92
SK21-1(12-24)COMP	SK21-1	Composite	12	33.25	12	24	31.25	30.25
SK21-1(16-20)	SK21-1	Discrete	12	33.25	16	20	30.92	30.59

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SK21-1(20-24)	**SK21-1**	**Discrete**	**12**	**33.25**	**20**	**24**	**30.59**	**30.25**
SL12-1(0-12)COMP	SL12-1	Composite	7	27.72	0	12	27.13	26.13
SL12-1(12-16)	SL12-1	Discrete	7	27.72	12	16	26.13	25.80
SL12-1(12-24)COMP	SL12-1	Composite	7	27.72	12	24	26.13	25.13
SL12-1(16-20)	SL12-1	Discrete	7	27.72	16	20	25.80	25.47
SL12-1(20-24)	SL12-1	Discrete	7	27.72	20	24	25.47	25.13
SL12-1(4-8)	SL12-1	Discrete	7	27.72	4	8	26.80	26.47
SL12-1(8-12)	**SL12-1**	**Discrete**	**7**	**27.72**	**8**	**12**	**26.47**	**26.13**
SL12-1(WASTE)	**SL12-1**	**Waste**	**7**	**27.72**	**12**	**24**	**26.13**	**25.13**
SL15-1(0-12)COMP	SL15-1	Composite	0	31.97	0	12	31.97	30.97
SL15-1(12-16)	SL15-1	Discrete	0	31.97	12	16	30.97	30.63
SL15-1(12-24)COMP	SL15-1	Composite	0	31.97	12	24	30.97	29.97
SL15-1(16-20)	**SL15-1**	**Discrete**	**0**	**31.97**	**16**	**20**	**30.63**	**30.30**
SL15-1(20-24)	SL15-1	Discrete	0	31.97	20	24	30.30	29.97
SL15-1(24-28)	SL15-1	Discrete	0	31.97	24	28	29.97	29.63
SL15-1(28-32)	SL15-1	Discrete	0	31.97	28	32	29.63	29.30
SL15-1(4-8)	SL15-1	Discrete	0	31.97	4	8	31.63	31.30
SL15-1(8-12)	SL15-1	Discrete	0	31.97	8	12	31.30	30.97
SL15-1(WASTE)	**SL15-1**	**Waste**	**0**	**31.97**	**12**	**24**	**30.97**	**29.97**
SL16-1(0-12)COMP	SL16-1	Composite	6	31.64	0	12	31.14	30.14
SL16-1(12-16)	SL16-1	Discrete	6	31.64	12	16	30.14	29.80
SL16-1(12-24)COMP	SL16-1	Composite	6	31.64	12	24	30.14	29.14
SL16-1(16-20)	SL16-1	Discrete	6	31.64	16	20	29.80	29.47
SL16-1(20-24)	SL16-1	Discrete	6	31.64	20	24	29.47	29.14
SL16-1(24-28)	SL16-1	Discrete	6	31.64	24	28	29.14	28.80
SL16-1(28-32)	**SL16-1**	**Discrete**	**6**	**31.64**	**28**	**32**	**28.80**	**28.47**
SL16-1(36-40)	SL16-1	Discrete	6	31.64	36	40	28.14	27.80
SL16-1(40-44)	SL16-1	Discrete	6	31.64	40	44	27.80	27.47

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SL16-1(4-8)	SL16-1	Discrete	6	31.64	4	8	30.80	30.47
SL16-1(WASTE)	SL16-1	Waste	6	31.64	12	24	30.14	29.14
SL17-1(00-12)COMP	SL17-1	Composite	12	34.15	0	12	33.15	32.15
SL17-1(04-08)	SL17-1	Discrete	12	34.15	4	8	32.81	32.48
SL17-1(08-12)	SL17-1	Discrete	12	34.15	8	12	32.48	32.15
SL17-1(12-16)	SL17-1	Discrete	12	34.15	12	16	32.15	31.81
SL17-1(12-24)COMP	SL17-1	Composite	12	34.15	12	24	32.15	31.15
SL17-1(16-20)	SL17-1	Discrete	12	34.15	16	20	31.81	31.48
SL17-1(20-24)	SL17-1	Discrete	12	34.15	20	24	31.48	31.15
SL17-1(24-28)	SL17-1	Discrete	12	34.15	24	28	31.15	30.81
SL17-1(28-32)	SL17-1	Discrete	12	34.15	28	32	30.81	30.48
SL17-1(32-36)	**SL17-1**	**Discrete**	**12**	**34.15**	**32**	**36**	**30.48**	**30.15**
SL17-1(40-44)	SL17-1	Discrete	12	34.15	40	44	29.81	29.48
SL17-1(48-52)	SL17-1	Discrete	12	34.15	48	52	29.15	28.81
SL17-1(56-60)	SL17-1	Discrete	12	34.15	56	60	28.48	28.15
SL18-1(00-12)COMP	SL18-1	Composite	12	34.88	0	12	33.88	32.88
SL18-1(04-08)	**SL18-1**	**Discrete**	**12**	**34.88**	**4**	**8**	**33.55**	**33.22**
SL18-1(08-12)	SL18-1	Discrete	12	34.88	8	12	33.22	32.88
SL18-1(12-16)	SL18-1	Discrete	12	34.88	12	16	32.88	32.55
SL18-1(12-24)COMP	SL18-1	Composite	12	34.88	12	24	32.88	31.88
SL18-1(16-20)	SL18-1	Discrete	12	34.88	16	20	32.55	32.22
SL18-1(20-24)	SL18-1	Discrete	12	34.88	20	24	32.22	31.88
SL19-1(00-12)COMP	SL19-1	Composite	12	34.99	0	12	33.99	32.99
SL19-1(04-08)	SL19-1	Discrete	12	34.99	4	8	33.66	33.32
SL19-1(08-12)	SL19-1	Discrete	12	34.99	8	12	33.32	32.99
SL19-1(12-16)	SL19-1	Discrete	12	34.99	12	16	32.99	32.66
SL19-1(12-24)COMP	SL19-1	Composite	12	34.99	12	24	32.99	31.99
SL19-1(16-20)	SL19-1	Discrete	12	34.99	16	20	32.66	32.32

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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SL19-1(20-24)	SL19-1	Discrete	12	34.99	20	24	32.32	31.99
SL19-1(24-28)	SL19-1	Discrete	12	34.99	24	28	31.99	31.66
SL19-1(28-32)	SL19-1	Discrete	12	34.99	28	32	31.66	31.32
SL19-1(32-36)	SL19-1	Discrete	12	34.99	32	36	31.32	30.99
SL19-1(36-40)	SL19-1	Discrete	12	34.99	36	40	30.99	30.66
SL19-1(40-44)	SL19-1	Discrete	12	34.99	40	44	30.66	30.32
SL19-1(44-48)	SL19-1	Discrete	12	34.99	44	48	30.32	29.99
SL19-1(48-52)	**SL19-1**	**Discrete**	**12**	**34.99**	**48**	**52**	**29.99**	**29.66**
SL19-1(52-56)	SL19-1	Discrete	12	34.99	52	56	29.66	29.32
SL20-1(00-12)COMP	SL20-1	Composite	12	35.05	0	12	34.05	33.05
SL20-1(04-08)	SL20-1	Discrete	12	35.05	4	8	33.71	33.38
SL20-1(08-12)	SL20-1	Discrete	12	35.05	8	12	33.38	33.05
SL20-1(12-16)	SL20-1	Discrete	12	35.05	12	16	33.05	32.71
SL20-1(12-24)COMP	SL20-1	Composite	12	35.05	12	24	33.05	32.05
SL20-1(16-20)	SL20-1	Discrete	12	35.05	16	20	32.71	32.38
SL20-1(20-24)	SL20-1	Discrete	12	35.05	20	24	32.38	32.05
SL20-1(24-28)	SL20-1	Discrete	12	35.05	24	28	32.05	31.71
SL20-1(28-32)	SL20-1	Discrete	12	35.05	28	32	31.71	31.38
SL20-1(32-36)	SL20-1	Discrete	12	35.05	32	36	31.38	31.05
SL20-1(36-40)	SL20-1	Discrete	12	35.05	36	40	31.05	30.71
SL20-1(40-44)	**SL20-1**	**Discrete**	**12**	**35.05**	**40**	**44**	**30.71**	**30.38**
SL20-1(44-48)	SL20-1	Discrete	12	35.05	44	48	30.38	30.05
SL20-1(48-52)	SL20-1	Discrete	12	35.05	48	52	30.05	29.71
SL21-1(00-12)COMP	SL21-1	Composite	12	33.84	0	12	32.84	31.84
SL21-1(04-08)	**SL21-1**	**Discrete**	**12**	**33.84**	**4**	**8**	**32.50**	**32.17**
SL21-1(08-12)	SL21-1	Discrete	12	33.84	8	12	32.17	31.84
SL21-1(12-16)	SL21-1	Discrete	12	33.84	12	16	31.84	31.50
SL21-1(12-24)COMP	SL21-1	Composite	12	33.84	12	24	31.84	30.84

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Table 2.
Sample Elevation Summary
Santa Clara Square Apartments
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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SL21-1(16-20)	SL21-1	Discrete	12	33.84	16	20	31.50	31.17
SL21-1(20-24)	SL21-1	Discrete	12	33.84	20	24	31.17	30.84
SM12-1(0-12)COMP	SM12-1	Composite	7	30.01	0	12	29.43	28.43
SM12-1(12-16)	SM12-1	Discrete	7	30.01	12	16	28.43	28.09
SM12-1(12-24)COMP	SM12-1	Composite	7	30.01	12	24	28.43	27.43
SM12-1(16-20)	SM12-1	Discrete	7	30.01	16	20	28.09	27.76
SM12-1(20-24)	**SM12-1**	**Discrete**	**7**	**30.01**	**20**	**24**	**27.76**	**27.43**
SM12-1(24-28)	SM12-1	Discrete	7	30.01	24	28	27.43	27.09
SM12-1(28-32)	SM12-1	Discrete	7	30.01	28	32	27.09	26.76
SM12-1(4-8)	SM12-1	Discrete	7	30.01	4	8	29.09	28.76
SM12-1(8-12)	SM12-1	Discrete	7	30.01	8	12	28.76	28.43
SM13-1(0-12)COMP	SM13-1	Composite	5	30.98	0	12	30.57	29.57
SM13-1(12-24)COMP	SM13-1	Composite	5	30.98	12	24	29.57	28.57
SM13-1(24-28)	SM13-1	Discrete	5	30.98	24	28	28.57	28.23
SM13-1(28-32)	SM13-1	Discrete	5	30.98	28	32	28.23	27.90
SM13-1(4-8)	**SM13-1**	**Discrete**	**5**	**30.98**	**4**	**8**	**30.23**	**29.90**
SM14-1(0-12)COMP	SM14-1	Composite	5	29.55	0	12	29.13	28.13
SM14-1(12-16)	**SM14-1**	**Discrete**	**5**	**29.55**	**12**	**16**	**28.13**	**27.80**
SM14-1(12-24)COMP	SM14-1	Composite	5	29.55	12	24	28.13	27.13
SM14-1(4-8)	SM14-1	Discrete	5	29.55	4	8	28.80	28.47
SM14-1(8-12)	SM14-1	Discrete	5	29.55	8	12	28.47	28.13
SM15-1(0-12)COMP	SM15-1	Composite	6	30.88	0	12	30.38	29.38
SM15-1(12-16)	**SM15-1**	**Discrete**	**6**	**30.88**	**12**	**16**	**29.38**	**29.05**
SM15-1(12-24)COMP	SM15-1	Composite	6	30.88	12	24	29.38	28.38
SM15-1(16-20)	SM15-1	Discrete	6	30.88	16	20	29.05	28.71
SM15-1(20-24)	SM15-1	Discrete	6	30.88	20	24	28.71	28.38
SM15-1(24-28)	SM15-1	Discrete	6	30.88	24	28	28.38	28.05
SM15-1(28-32)	SM15-1	Discrete	6	30.88	28	32	28.05	27.71

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Table 2.
Sample Elevation Summary
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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SM15-1(32-36)	SM15-1	Discrete	6	30.88	32	36	27.71	27.38
SM15-1(36-40)	SM15-1	Discrete	6	30.88	36	40	27.38	27.05
SM15-1(40-44)	SM15-1	Discrete	6	30.88	40	44	27.05	26.71
SM15-1(4-8)	SM15-1	Discrete	6	30.88	4	8	30.05	29.71
SM15-1(8-12)	SM15-1	Discrete	6	30.88	8	12	29.71	29.38
SM16-1(0-12)COMP	SM16-1	Composite	0	33.02	0	12	33.02	32.02
SM16-1(12-16)	SM16-1	Discrete	0	33.02	12	16	32.02	31.69
SM16-1(12-24)COMP	SM16-1	Composite	0	33.02	12	24	32.02	31.02
SM16-1(16-20)	SM16-1	Discrete	0	33.02	16	20	31.69	31.35
SM16-1(20-24)	SM16-1	Discrete	0	33.02	20	24	31.35	31.02
SM16-1(24-28)	SM16-1	Discrete	0	33.02	24	28	31.02	30.69
SM16-1(28-32)	SM16-1	Discrete	0	33.02	28	32	30.69	30.35
SM16-1(32-36)	SM16-1	Discrete	0	33.02	32	36	30.35	30.02
SM16-1(36-40)	SM16-1	Discrete	0	33.02	36	40	30.02	29.69
SM16-1(40-44)	SM16-1	Discrete	0	33.02	40	44	29.69	29.35
SM16-1(44-48)	SM16-1	Discrete	0	33.02	44	48	29.35	29.02
SM16-1(4-8)	SM16-1	Discrete	0	33.02	4	8	32.69	32.35
SM16-1(48-52)	**SM16-1**	**Discrete**	**0**	**33.02**	**48**	**52**	**29.02**	**28.69**
SM16-1(52-56)	SM16-1	Discrete	0	33.02	52	56	28.69	28.35
SM16-1(8-12)	SM16-1	Discrete	0	33.02	8	12	32.35	32.02
SM17-1(00-12)COMP	SM17-1	Composite	0	36.90	0	12	36.90	35.90
SM17-1(04-08)	SM17-1	Discrete	0	36.90	4	8	36.56	36.23
SM17-1(08-12)	SM17-1	Discrete	0	36.90	8	12	36.23	35.90
SM17-1(12-16)	SM17-1	Discrete	0	36.90	12	16	35.90	35.56
SM17-1(12-24)COMP	SM17-1	Composite	0	36.90	12	24	35.90	34.90
SM17-1(16-20)	SM17-1	Discrete	0	36.90	16	20	35.56	35.23
SM17-1(20-24)	**SM17-1**	**Discrete**	**0**	**36.90**	**20**	**24**	**35.23**	**34.90**
SM18-1(00-12)COMP	SM18-1	Composite	12	35.04	0	12	34.04	33.04

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Table 2.
Sample Elevation Summary
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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SM18-1(04-8)	SM18-1	Discrete	12	35.04	4	8	33.71	33.38
SM18-1(08-12)	SM18-1	Discrete	12	35.04	8	12	33.38	33.04
SM18-1(12-16)	SM18-1	Discrete	12	35.04	12	16	33.04	32.71
SM18-1(12-24)COMP	SM18-1	Composite	12	35.04	12	24	33.04	32.04
SM18-1(16-20)	SM18-1	Discrete	12	35.04	16	20	32.71	32.38
SM18-1(20-24)	SM18-1	Discrete	12	35.04	20	24	32.38	32.04
SM18-1(24-28)	SM18-1	Discrete	12	35.04	24	28	32.04	31.71
SM18-1(28-32)	SM18-1	Discrete	12	35.04	28	32	31.71	31.38
SM18-1(32-36)	SM18-1	Discrete	12	35.04	32	36	31.38	31.04
SM18-1(36-40)	SM18-1	Discrete	12	35.04	36	40	31.04	30.71
SM18-1(40-44)	SM18-1	Discrete	12	35.04	40	44	30.71	30.38
SM18-1(44-48)	SM18-1	Discrete	12	35.04	44	48	30.38	30.04
SM18-1(48-52)	SM18-1	Discrete	12	35.04	48	52	30.04	29.71
SM18-1(52-56)	**SM18-1**	**Discrete**	**12**	**35.04**	**52**	**56**	**29.71**	**29.38**
SM19-1(00-12)COMP	SM19-1	Composite	12	34.61	0	12	33.61	32.61
SM19-1(04-08)	**SM19-1**	**Discrete**	**12**	**34.61**	**4**	**8**	**33.27**	**32.94**
SM19-1(08-12)	SM19-1	Discrete	12	34.61	8	12	32.94	32.61
SM19-1(12-16)	SM19-1	Discrete	12	34.61	12	16	32.61	32.27
SM19-1(12-24)COMP	SM19-1	Composite	12	34.61	12	24	32.61	31.61
SM19-1(16-20)	SM19-1	Discrete	12	34.61	16	20	32.27	31.94
SM19-1(20-24)	SM19-1	Discrete	12	34.61	20	24	31.94	31.61
SM20-1(00-12)COMP	SM20-1	Composite	12	34.22	0	12	33.22	32.22
SM20-1(04-08)	SM20-1	Discrete	12	34.22	4	8	32.89	32.56
SM20-1(08-12)	SM20-1	Discrete	12	34.22	8	12	32.56	32.22
SM20-1(12-16)	SM20-1	Discrete	12	34.22	12	16	32.22	31.89
SM20-1(12-24)COMP	SM20-1	Composite	12	34.22	12	24	32.22	31.22
SM20-1(16-20)	SM20-1	Discrete	12	34.22	16	20	31.89	31.56
SM20-1(20-24)	SM20-1	Discrete	12	34.22	20	24	31.56	31.22

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Table 2.
Sample Elevation Summary
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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
SM20-1(24-28)	**SM20-1**	**Discrete**	**12**	**34.22**	**24**	**28**	**31.22**	**30.89**
SM20-1(32-36)	SM20-1	Discrete	12	34.22	32	36	30.56	30.22
SM20-1(40-44)	SM20-1	Discrete	12	34.22	40	44	29.89	29.56
SM20-1(48-52)	SM20-1	Discrete	12	34.22	48	52	29.22	28.89
SM20-1(56-60)	SM20-1	Discrete	12	34.22	56	60	28.56	28.22
SM21-1(00-12)COMP	SM21-1	Composite	12	33.93	0	12	32.93	31.93
SM21-1(04-08)	SM21-1	Discrete	12	33.93	4	8	32.59	32.26
SM21-1(08-12)	SM21-1	Discrete	12	33.93	8	12	32.26	31.93
SM21-1(12-16)	SM21-1	Discrete	12	33.93	12	16	31.93	31.59
SM21-1(12-24)COMP	SM21-1	Composite	12	33.93	12	24	31.93	30.93
SM21-1(16-20)	SM21-1	Discrete	12	33.93	16	20	31.59	31.26
SM21-1(20-24)	SM21-1	Discrete	12	33.93	20	24	31.26	30.93
SM21-1(24-28)	**SM21-1**	**Discrete**	**12**	**33.93**	**24**	**28**	**30.93**	**30.59**
SM21-1(32-36)	SM21-1	Discrete	12	33.93	32	36	30.26	29.93
SM21-1(40-44)	SM21-1	Discrete	12	33.93	40	44	29.59	29.26
SM21-1(48-52)	SM21-1	Discrete	12	33.93	48	52	28.93	28.59
SM21-1(56-60)	SM21-1	Discrete	12	33.93	56	60	28.26	27.93
RG1-1(0-12) COMP	G1-1	Composite	12	28.72	0	12	27.72	26.72
RG1-1(12 - 24) COMP	G1-1	Composite	12	28.72	12	24	26.72	25.72
RG1-1(16 - 20)	G1-1	Discrete	12	28.72	16	20	26.38	26.05
RG1-1(24 - 28)	**G1-1**	**Discrete**	12	28.72	24	28	25.72	25.38
RG1-1(32 - 36)	G1-1	Discrete	12	28.72	32	36	25.05	24.72
RG1-1(8 - 12)	G1-1	Discrete	12	28.72	8	12	27.05	26.72
RG2-1(0-12) COMP	**G2-1**	**Composite**	15	29.08	0	12	27.83	26.83
RG2-1(12-24) COMP	G2-1	Composite	15	29.08	12	16	26.83	26.50
RG2-1(16 - 20)	G2-1	Discrete	15	29.08	16	20	26.50	26.17
RG2-1(24 - 28)	G2-1	Discrete	15	29.08	24	28	25.83	25.50
RG2-1(32 - 36)	G2-1	Discrete	15	29.08	32	36	25.17	24.83

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Table 2.
Sample Elevation Summary
Santa Clara Square Apartments
Santa Clara, California

Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
RG2-1(8 - 12)	**G2-1**	**Discrete**	15	29.08	8	12	27.17	26.83
RG3-1(0-12) COMP	G3-1	Composite	11.5	29.80	0	12	28.84	27.84
RG3-1(12 - 16)	**G3-1**	**Discrete**	11.5	29.80	12	16	27.84	27.51
RG3-1(12-24) COMP	G3-1	Composite	11.5	29.80	12	24	27.84	26.84
RG3-1(16 - 20)	G3-1	Discrete	11.5	29.80	16	20	27.51	27.18
RG3-1(24 - 28)	G3-1	Discrete	11.5	29.80	24	28	26.84	26.51
RG3-1(32 - 36)	G3-1	Discrete	11.5	29.80	32	36	26.18	25.84
RG3-1(8 - 12)	G3-1	Discrete	11.5	29.80	8	12	28.18	27.84
RG4-1(0-12) COMP	G4-1	Composite	14	30.65	0	12	29.49	28.49
RG4-1(12 - 16)	G4-1	Discrete	14	30.65	12	16	28.49	28.15
RG4-1(12 - 24) COMP	G4-1	Composite	14	30.65	12	24	28.49	27.49
RG4-1(16 - 20)	**G4-1**	**Discrete**	14	30.65	16	20	28.15	27.82
RG4-1(24 - 28)	G4-1	Discrete	14	30.65	24	28	27.49	27.15
RG4-1(32 - 36)	G4-1	Discrete	14	30.65	32	36	26.82	26.49
RG4-1(8 - 12)	G4-1	Discrete	14	30.65	8	12	28.82	28.49
RG5-1(0-12) COMP	G5-1	Composite	11	32.07	0	12	31.15	30.15
RG5-1(12 - 16)	G5-1	Discrete	11	32.07	12	16	30.15	29.82
RG5-1(20 - 24)	G5-1	Discrete	11	32.07	20	24	29.48	29.15
RG5-1(28 - 32)	G5-1	Discrete	11	32.07	28	32	28.82	28.48
RG5-1(32 - 36)	G5-1	Discrete	11	32.07	32	36	28.48	28.15
RG5-1(36 - 40)	**G5-1**	**Discrete**	**11**	**32.07**	**36**	**40**	**28.15**	**27.82**
RG5-1(4 - 8)	G5-1	Discrete	11	32.07	4	8	30.82	30.48
RG5-1(40 - 44)	G5-1	Discrete	11	32.07	40	48	27.82	27.15
RG5-2(0-12) COMP	G5-2	Composite	10	30.74	0	12	29.91	28.91
RG5-2(12 - 16)	**G5-2**	**Discrete**	10	30.74	12	16	28.91	28.58
RG5-2(12-24) COMP	G5-2	Composite	10	30.74	12	24	28.91	27.91
RG5-2(16 - 20)	G5-2	Discrete	10	30.74	16	20	28.58	28.24
RG5-2(24 - 28)	G5-2	Discrete	10	30.74	24	28	27.91	27.58

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Table 2.
Sample Elevation Summary
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Client Sample ID	Boring ID	Sample Type	Concrete and Baserock (in)	Ground Elevation (ft-msl)	Sample Top Depth (in)	Sample Bottom Depth (in)	Sample Top Elevation (ft-msl)	Sample Bottom Elevation (ft-msl)
RG5-2(32 - 36)	G5-2	Discrete	10	30.74	32	36	27.24	26.91
RG5-2(8 - 12)	G5-2	Discrete	10	30.74	8	12	29.24	28.91

Notes

White Cells	Exterior boring samples
Blue Cells	Boring located on a berm
Light Red Cells	Building sub-slab samples.
Olive Cells	Borings in the vicinity of the former creek

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Table 3.
Groundwater Analytical Results
Santa Clara Square Apartment
Santa Clara, California

Client Sample ID:		CA Modified Maximum Contaminant Levels	RWQCB ESLs for Potential Vapor Intrusion Concerns (Table E-1)	SCC13-1 (WATER)	SGW-1 (WATER)	SGWK20-1	SJ17-1GW	SJ20-1GW	SJ21-1GW	TRIP BLANKS	FB12092014
Lab Sample ID:				C37529-214	C37529-154	C40897-55	C40897-53	C40897-54	C40897-56	C37529-156	C37529-155
Date Sampled:				12/9/2014	12/9/2014	7/23/2015	7/23/2015	7/23/2015	7/23/2015	12/9/2014	12/9/2014
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Trip Blank	Field Blank
Acetone	ug/l	-	130,000,000	<4.0	<4.0	**15.5 J**	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	ug/l	1	27	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromobenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromochloromethane	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	ug/l	80	No Value	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromoform	ug/l	80	-	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
n-Butylbenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
sec-Butylbenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
tert-Butylbenzene	ug/l	-	-	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28
Chlorobenzene	ug/l	-	Sample Soil Gas	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroethane	ug/l	-	2,300,000	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	ug/l	80	170	<0.20	<0.20	**0.29 J**	<0.20	<0.20	<0.20	<0.20	<0.20
o-Chlorotoluene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
p-Chlorotoluene	ug/l	-	-	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Carbon tetrachloride	ug/l	0.5	4.8	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	ug/l	5	No Value	<0.20	<0.20	**0.98 J**	**6.5**	**4.9**	**1.8**	<0.20	<0.20
1,1-Dichloroethylene	ug/l	6	16,000	<0.20	<0.20	**1.7**	**9.5**	**8.4**	**2.7**	<0.20	<0.20
1,1-Dichloropropene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dibromo-3-chloropropane	ug/l	0.2	No Value	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
1,2-Dibromoethane	ug/l	-	77	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	ug/l	0.5	100	<0.20	<0.20	<0.20	<0.20	**0.23 J**	<0.20	<0.20	<0.20
1,2-Dichloropropane	ug/l	5	140	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,3-Dichloropropane	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Di-Isopropyl ether	ug/l	-	-	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
2,2-Dichloropropane	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	ug/l	80	No Value	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichlorodifluoromethane	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
cis-1,2-Dichloroethylene	ug/l	6	3,100	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
m-Dichlorobenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
o-Dichlorobenzene	ug/l	75	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
p-Dichlorobenzene	ug/l	5	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
trans-1,2-Dichloroethylene	ug/l	100	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
trans-1,3-Dichloropropene	ug/l	-	-	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	ug/l	300	310	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethyl Alcohol	ug/l	-	-	<21	<21	<21	<21	<21	<21	<21	<21
Ethyl Tert Butyl Ether	ug/l	-	-	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
2-Hexanone	ug/l	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Hexachlorobutadiene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Isopropylbenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
p-Isopropyltoluene	ug/l	-	-	<0.20	<0.20	**0.82 J**	<0.20	<0.20	<0.20	<0.20	<0.20
4-Methyl-2-pentanone	ug/l	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl bromide	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl chloride	ug/l	5	-	<0.30	<0.30	<0.30 a	<0.30 a	<0.30 a	<0.30 a	<0.30	<0.30
Methylene bromide	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methylene chloride	ug/l	-	2,600	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl ethyl ketone	ug/l	-	23,000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl Tert Butyl Ether	ug/l	13	9,900	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Naphthalene	ug/l	-	160	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Styrene	ug/l	100	Sample Soil Gas	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Tert-Amyl Methyl Ether	ug/l	-	-	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Tert-Butyl Alcohol	ug/l	-	No Value	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4
1,1,1,2-Tetrachloroethane	ug/l	-	No Value	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
1,1,1-Trichloroethane	ug/l	200	722,000	<0.20	<0.20	**0.39 J**	**1.1**	**0.76 J**	**0.75 J**	<0.20	<0.20
1,1,2,2-Tetrachloroethane	ug/l	1	No Value	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	ug/l	5	No Value	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
1,2,3-Trichlorobenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2,3-Trichloropropane	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2,4-Trichlorobenzene	ug/l	5	7,300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2,4-Trimethylbenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,3,5-Trimethylbenzene	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Tetrachloroethylene	ug/l	5	63	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Toluene	ug/l	150	95,000	<0.20	**0.21 J**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	ug/l	5	130	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	ug/l	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride	ug/l	0.5	1.8	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Xylene (total)	ug/l	1,750	37,000	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46

Notes:
ug/m3 = micrograms per cubic
[a] CCV outside of control limits
Yellow Cells Above California State Regional Water Quality Control Board's Modified Maximum Contaminant Levels (MCLs) August 2015

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Table 4.
Soil Vapor Analytical Results
Santa Clara Square Apartments
Santa Clara, California

Client Sample ID:		EPA Region 9 Regional Screening Level Carcinogenic SL	Probe Blank	Probe Blank	SSVA13-1	SSVB11-1	SSVB14-1	SSVBD14-1	SSVBE14-1	SSVBG15-1	SSVI15-1	SSVI15-1 dup	SSVJ14-1
Lab Sample ID:			-	-	-	-	-	-	-	-	-	-	-
Date Sampled:			12/22/2014	12/23/2014	12/23/2014	12/23/2014	12/23/2014	12/23/2014	12/23/2014	12/23/2014	12/22/2014	12/22/2014	12/22/2014
1, 1, 1, 2-Tetrachloroethane	ug/m^3	380	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 1, 1-Trichloroethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 1, 2, 2-Tetrachloroethane	ug/m^3	48	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 1, 2-Trichloroethane	ug/m^3	180	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 1-Dichloropropene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 1-Dichloroethane	ug/m^3	1,800	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 1-Dichloroethene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2, 3-Trichloropropane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2, 3-Trichlorobenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2, 4-Trimethylbenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2, 4-Trichlorobenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2-Dibromo-3-chloropropane	ug/m^3	0.17	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1, 2-Dibromoethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2-Dichlorobenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2-Dichloroethane	ug/m^3	110	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 2-Dichloropropane	ug/m^3	280	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 3-Dichlorobenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 3-Dichloropropane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1, 4-Dichlorobenzene	ug/m^3	260	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,3, 5-Trimethylbenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
2, 2-Dichloropropane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
2-Chlorotoluene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
4-Chlorotoluene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/m^3	97	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Bromobenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Bromomethane	ug/m3	--	--	--	--	--	--	--	--				
Bromochloromethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Bromodichloromethane	ug/m^3	76	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Bromoform	ug/m^3	2,600	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Tetrachloride	ug/m^3	67	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Chlorobenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Chloroethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Chloroform	ug/m^3	120	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Chloromethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
cis-1, 2-Dichloroethene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
cis-1, 3-Dichloropropene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dibromochloromethane	ug/m^3	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dibromomethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dichlorodifluoromethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Diisopropyl ether (DIPE)	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Ethanol	ug/m3	--	--	--	--	--	--	--	--				
Ethyl benzene	ug/m^3	1,100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Ethyl-t-butyl ether (EtBE)	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Hexachlorobutadiene	ug/m^3	130	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Isopropylbenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
m,p-Xylene	ug/m^3	--	<200	<200	<200	<200	210	<200	<200	<200	<200	<200	<200
Methylene Chloride	ug/m^3	1,000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Methyl-t-butyl ether (MtBE)	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Naphthalene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
n-Butylbenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
n-propylbenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
o-Xylene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Total Xylenes	ug/m3	--	--	--	--	--	--	--	--				
p-isopropyltoluene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
sec-Butyl benzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Styrene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Tert-amyl methyl ether (TAME)	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
tert-Butanol (TBA)	ug/m^3	--	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000
tert-Butylbenzene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Tetrachloroethene	ug/m^3	480	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Toluene	ug/m^3	--	<200	<200	<200	220	200	<200	<200	<200	<200	<200	<200
trans-1, 2-Dichloroethene	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
trans-1, 3-Dichloropropene	ug/m^3	700	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Trichloroethene	ug/m^3	480	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Trichlorofluoromethane	ug/m^3	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Vinyl Chloride	ug/m^3	9.5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,3-Butadiene	ug/m3	17	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
4-Ethyltoluene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl Acetate	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
Isopropanol	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
n-Hexane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--
1, 1 Difluoroethane (leak check)	ug/m^3	--	<10000	<10000	<10000	<10000	<10000	<10000	<10000	<10000	<10000	<10000	<10000
Helium (leak check)	mol %	--	--	--	--	--	--	--	--	--	--	--	--

U.S. EPA RSLs for indoor air were adjusted to a soil gas screening level using an attenuation factor of 0.001 for residential land use (DTSC, 2011; U.S. EPA, 2015).
California-modified values were used when lower than EPA RSL values per DTSC (2015).
B Analyte detected in the associated Method Blank and in the sample
J Result is less than the reporting limit but greater than the minimum detection limit. Concentration is estimated.
Reporting Limit Exceeds RSL
Detected Concentration Exceeds RSL

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Table 4.
Soil Vapor Analytical Results
Santa Clara Square Apartments
Santa Clara, California

Client Sample ID:		EPA Region 9 Regional Screening Level Carcinogenic SL	SSVK16-1	SSVL15-1	SSVM13-1	SSVM14-1	SSVK20-3	SSVK19-2	SSVK19-1	SSVK20-2	SSVJ19-1	SSVJ17-1	SSVK20-1
Lab Sample ID:			-	-	-	-	268416-001	268416-002	268416-003	268392-001	268392-002	268392-003	268392-004
Date Sampled:			12/22/2014	12/22/2014	12/22/2014	12/22/2014	7/23/2015	7/23/2015	7/23/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015
1, 1, 1, 2-Tetrachloroethane	ug/m^3	380	<100	<100	<100	<100	--	--	--	--	--	--	--
1, 1, 1-Trichloroethane	ug/m^3	--	<100	<100	<100	<100	<4.9	17	21	25	55	25	220
1, 1, 2, 2-Tetrachloroethane	ug/m^3	48	<100	<100	<100	<100	<6.1	<5.9	<5.8	<6.1	<6.2	<7.0	<7.0
1, 1, 2-Trichloroethane	ug/m^3	180	<100	<100	<100	<100	<4.9	<4.7	<4.6	<4.8	<5.0	<5.5	<5.5
1, 1-Dichloropropene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
1, 1-Dichloroethane	ug/m^3	1,800	<100	<100	<100	<100	<3.6	<3.5	15	<3.6	<3.7	37	30
1, 1-Dichloroethene	ug/m^3	--	<100	<100	<100	<100	<3.5	<3.4	31	<3.5	<3.6	200	1,100
1, 2, 3-Trichloropropane	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
1, 2, 3-Trichlorobenzene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
1, 2, 4-Trimethylbenzene	ug/m^3	--	<100	<100	<100	<100	<4.4	<4.3	<4.1	5.7	<4.5	12	<10.0
1, 2, 4-Trichlorobenzene	ug/m^3	--	<100	<100	<100	<100	<6.6	<6.4	<6.2	<6.6	<6.8	<7.5	<7.5
1, 2-Dibromo-3-chloropropane	ug/m^3	0.17	<200	<200	<200	<200	--	--	--	--	--	--	--
1, 2-Dibromoethane	ug/m^3	--	<100	<100	<100	<100	<6.8	<6.6	<6.5	<6.8	<7.0	<7.8	<7.8
1, 2-Dichlorobenzene	ug/m^3	--	<100	<100	<100	<100	<5.4	<5.2	<5.1	<5.3	<5.5	<6.1	<6.1
1, 2-Dichloroethane	ug/m^3	110	<100	<100	<100	<100	<3.6	<3.5	<3.4	<3.6	<3.7	<4.1	<4.1
1, 2-Dichloropropane	ug/m^3	280	<100	<100	<100	<100	<4.1	<4.0	<3.9	<4.1	<4.2	<4.7	<4.7
1, 3-Dichlorobenzene	ug/m^3	--	<100	<100	<100	<100	<5.4	<5.2	<5.1	<5.3	<5.5	<6.1	<6.1
1, 3-Dichloropropane	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
1, 4-Dichlorobenzene	ug/m^3	260	<100	<100	<100	<100	<5.4	<5.2	<5.1	<5.3	<5.5	<6.1	<6.1
1,3, 5-Trimethylbenzene	ug/m^3	--	<100	<100	<100	<100	<4.4	<4.3	<4.1	<4.4	<4.5	<5.0	<5.0
2, 2-Dichloropropane	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
2-Chlorotoluene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
4-Chlorotoluene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Benzene	ug/m^3	97	<80	<80	<80	<80	<2.8	<2.8	<2.7	23	14	23	5.8
Bromobenzene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Bromomethane	ug/m3	--											
Bromochloromethane	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Bromodichloromethane	ug/m^3	76	<100	<100	<100	<100	<6.0	<5.8	<5.6	<5.9	<6.1	<6.8	<6.8
Bromoform	ug/m^3	2,600	<100	<100	<100	<100	<9.2	<8.9	<8.7	<9.1	<9.4	<10.0	<10.0
Carbon Tetrachloride	ug/m^3	67	<100	<100	<100	<100	<5.6	<5.4	<5.3	<5.6	<5.7	<6.4	<6.4
Chlorobenzene	ug/m^3	--	<100	<100	<100	<100	<4.1	<4.0	<3.9	<4.1	<4.2	<4.7	<4.7
Chloroethane	ug/m^3	--	<100	<100	<100	<100	<2.3	<2.3	<2.2	<2.3	<2.4	8.8	<2.7
Chloroform	ug/m^3	120	<100	<100	<100	<100	<4.3	<4.2	<4.1	<4.3	<4.4	<5.0	<5.0
Chloromethane	ug/m^3	--	<100	<100	<100	<100	<1.8	<1.8	<1.7	<1.8	<1.9	<2.1	<2.1
cis-1, 2-Dichloroethene	ug/m^3	--	<100	<100	<100	<100	<3.5	<3.4	<3.3	<3.5	<3.6	<4.0	<4.0
cis-1, 3-Dichloropropene	ug/m^3	--	<100	<100	<100	<100	<4.0	<3.9	<3.8	<4.0	<4.1	<4.6	<4.6
Dibromochloromethane	ug/m^3	100	<100	<100	<100	<100	<7.6	<7.4	<7.2	<7.5	<7.8	<8.6	<8.6
Dibromomethane	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Dichlorodifluoromethane	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Ethanol	ug/m3	--											
Ethyl benzene	ug/m^3	1,100	<100	<100	<100	<100	<3.9	<3.8	6.4	6.9	<4.0	8.1	<4.4
Ethyl-t-butyl ether (EtBE)	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Hexachlorobutadiene	ug/m^3	130	<100	<100	<100	<100	<9.5	<9.2	<9.0	<9.4	<9.7	<11.0	<11.0
Isopropylbenzene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
m,p-Xylene	ug/m^3	--	<200	<200	<200	<200	<3.9	<3.8	<3.6	18	8.3	32	6.8
Methylene Chloride	ug/m^3	1,000	<100	<100	<100	<100	<3.1	<3.0	<2.9	<3.1	<3.2	<3.5	<3.5
Methyl-t-butyl ether (MtBE)	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Naphthalene	ug/m^3	--	<100	<100	<100	<100	<19.0	<18.0	<3.4	<19.0	<19.0	<21.0	<21.0
n-Butylbenzene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
n-propylbenzene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
o-Xylene	ug/m^3	--	<100	<100	<100	<100	<3.9	<3.8	<3.6	6.7	<4.0	9.3	<4.4
Total Xylenes	ug/m3	--											
p-isopropyltoluene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
sec-Butyl benzene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Styrene	ug/m^3	--	<100	<100	<100	<100	<3.8	<3.7	<3.6	<3.8	<3.9	<4.3	<4.3
Tert-amyl methyl ether (TAME)	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
tert-Butanol (TBA)	ug/m^3	--	<1000	<1000	<1000	<1000	--	--	--	--	--	--	--
tert-Butylbenzene	ug/m^3	--	<100	<100	<100	<100	--	--	--	--	--	--	--
Tetrachloroethene	ug/m^3	480	<100	<100	<100	<100	12	22	<5.7	<6.0	<6.2	<6.9	<6.9
Toluene	ug/m^3	--	<200	<200	<200	<200	4.2	<3.3	<3.2	39	26	39	8.2
trans-1, 2-Dichloroethene	ug/m^3	--	<100	<100	<100	<100	<3.5	<3.4	<3.3	<3.5	<3.6	<4.0	<4.0
trans-1, 3-Dichloropropene	ug/m^3	700	<100	<100	<100	<100	<4.0	<3.9	<3.8	<4.0	<4.1	<4.6	<4.6
Trichloroethene	ug/m^3	480	<100	<100	<100	<100	<4.8	<4.6	<4.5	<4.8	<4.9	16	7
Trichlorofluoromethane	ug/m^3	--	<100	<100	<100	<100	<5.0	<4.9	<4.7	<5.0	<5.1	<5.7	<5.7
Vinyl Chloride	ug/m^3	9.5	<100	<100	<100	<100	<2.3	<2.2	<2.1	<2.3	<2.3	<2.6	<2.6
1,3-Butadiene	ug/m3	17	--	--	--	--	<2.0	<1.9	<1.9	2.9	3.4	7	2.3
2-Butanone	ug/m3	--	--	--	--	--	<2.6	<2.6	3.5	68	72	30	6.5
2-Hexanone	ug/m3	--	--	--	--	--	<3.6	<3.5	<3.4	9.2	14	15	15
4-Ethyltoluene	ug/m3	--	--	--	--	--	<4.4	<4.3	<4.1	4.7	<4.5	<5.0	<5.0
4-Methyl-2-Pentanone	ug/m3	--	--	--	--	--	4.3	<3.5	<3.4	15	22	13	6.4
Acetone	ug/m3	--	--	--	--	--	31	30	15	190	160	58	15
Carbon Disulfide	ug/m3	--	--	--	--	--	4.6	<2.7	<2.6	21	56	330	37
Cyclohexane	ug/m3	--	--	--	--	--	4.7	<3.0	<2.9	18	27	150	15
Ethyl Acetate	ug/m3	--	--	--	--	--	<3.2	<3.1	<3.0	<3.2	7	<3.7	4
Freon 113	ug/m3	--	--	--	--	--	9.2	29	<6.4	90	7.7	200	940
Isopropanol	ug/m3	--	--	--	--	--	40	52	<8.3	<8.7	<8.9	<10.0	<10.0
n-Heptane	ug/m3	--	--	--	--	--	3.9	<3.5	<3.4	61	84	350	52
n-Hexane	ug/m3	--	--	--	--	--	15	10	<3.0	77	26	340	36
1, 1 Difluoroethane (leak check)	ug/m^3	--	<10000	<10000	<10000	<10000	--	--	--	--	--	--	--
Helium (leak check)	mol %	--	--	--	--	--	0.76	<0.17	<0.17	2.3	0.4	0.89	0.21

U.S. EPA RSLs for indoor air were adjusted to a soil gas screening level using an attenuation factor of 0.001 for residential land use (DTSC, 2011; U.S. EPA, 2015).
California-modified values were used when lower than EPA RSL values per DTSC (2015).
B Analyte detected in the associated Method Blank and in the sample
J Result is less than the reporting limit but greater than the minimum detection limit. Concentration is estimated.
Reporting Limit Exceeds RSL
Detected Concentration Exceeds RSL

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Table 4.
Soil Vapor Analytical Results
Santa Clara Square Apartments
Santa Clara, California

Client Sample ID:		EPA Region 9 Regional Screening Level Carcinogenic SL	SSVJ14-1	SSVK15-1	SSVG14-1	SSVD14-2	SSVB11-1	SSVA10-1	SSVA13-2
Lab Sample ID:			1508930-001A	1508930-002A	1508930-003A	1508930-004A	1508930-005A	1508930-006A	1508930-007A
Date Sampled:			8/26/2015	8/26/2015	8/26/2015	8/26/2015	8/26/2015	8/26/2015	8/26/2015
1, 1, 1, 2-Tetrachloroethane	ug/m^3	380	<3.5	1.0 J	<3.5	<3.5	<4.5	<3.9	<5.1
1, 1, 1-Trichloroethane	ug/m^3	--	32	4.4 J	<2.8	<2.8	<3.5	<3.1	<4.0
1, 1, 2, 2-Tetrachloroethane	ug/m^3	48	<3.5	<35	<3.5	<3.5	<4.5	<3.9	<5.1
1, 1, 2-Trichloroethane	ug/m^3	180	<2.8	<28	<2.8	<2.8	<3.5	<3.1	<4.0
1, 1-Dichloropropene	ug/m^3	--	--	--	--	--	--	--	--
1, 1-Dichloroethane	ug/m^3	1,800	<2.0	58	<2.0	<2.0	<2.6	<2.3	<3.0
1, 1-Dichloroethene	ug/m^3	--	8.5	91	<2.0	<2.0	<2.6	<2.3	<2.9
1, 2, 3-Trichloropropane	ug/m^3	--	--	--	--	--	--	--	--
1, 2, 3-Trichlorobenzene	ug/m^3	--	--	--	--	--	--	--	--
1, 2, 4-Trimethylbenzene	ug/m^3	--	17	160	20	18	22	34	14
1, 2, 4-Trichlorobenzene	ug/m^3	--	<3.8	<38	<3.8	<3.8	<4.8	<4.2	<5.4
1, 2-Dibromo-3-chloropropane	ug/m^3	0.17	0.23	<1.2	<0.12	<0.12	<0.16	<0.14	<0.18
1, 2-Dibromoethane	ug/m^3	--	<3.9	0.55 J	<3.9	<3.9	<5.0	<4.4	<5.7
1, 2-Dichlorobenzene	ug/m^3	--	<3.0	<3	<3.0	<3.0	<3.9	<3.4	<4.4
1, 2-Dichloroethane	ug/m^3	110	<2.0	<20	<2.0	<2.0	<2.6	<2.3	<3.0
1, 2-Dichloropropane	ug/m^3	280	<2.4	<24	<2.4	<2.4	<3.0	<2.6	<3.4
1, 3-Dichlorobenzene	ug/m^3	--	<3.0	2.8 J	<3.0	<3.0	<3.9	<3.4	<4.4
1, 3-Dichloropropane	ug/m^3	--	--	--	--	--	--	--	--
1, 4-Dichlorobenzene	ug/m^3	260	<3.0	<30	<3.0	<3.0	<3.9	<3.4	<4.4
1,3, 5-Trimethylbenzene	ug/m^3	--	6.6	100	9.9	9.8	11	23	6.3
2, 2-Dichloropropane	ug/m^3	--	--	--	--	--	--	--	--
2-Chlorotoluene	ug/m^3	--	--	--	--	--	--	--	--
4-Chlorotoluene	ug/m^3	--	--	--	--	--	--	--	--
Benzene	ug/m^3	97	16	230	35	72	19	60	60
Bromobenzene	ug/m^3	--	--	--	--	--	--	--	--
Bromomethane	ug/m3	--	<2.0	<20	9.3	15	5.3	<2.2	12
Bromochloromethane	ug/m^3	--	--	--	--	--	--	--	--
Bromodichloromethane	ug/m^3	76	<3.5	<35	<3.5	<3.5	<4.5	<3.9	<5.1
Bromoform	ug/m^3	2,600	<5.2	<52	<5.2	<5.2	<6.7	<5.9	<7.6
Carbon Tetrachloride	ug/m^3	67	<3.2	6.6 J	<3.2	<3.2	<4.1	<3.6	<4.6
Chlorobenzene	ug/m^3	--	<2.4	16 J	<2.4	<2.4	<3.0	<2.6	<3.4
Chloroethane	ug/m^3	--	<1.3	<13	<1.3	<1.3	<1.7	<1.5	<1.9
Chloroform	ug/m^3	120	<2.4	12 J	<2.4	3.5	<3.1	<2.8	<3.6
Chloromethane	ug/m^3	--	<1.0	<10	<1.0	<1.0	2.3	<1.2	<1.5
cis-1, 2-Dichloroethene	ug/m^3	--	<2.0	<20	<2.0	<2.0	<2.6	<2.3	<2.9
cis-1, 3-Dichloropropene	ug/m^3	--	<2.3	<23	<2.3	<2.3	<2.9	<2.6	<3.3
Dibromochloromethane	ug/m^3	100	<4.4	<44	<4.4	<4.4	<5.6	<4.9	<6.3
Dibromomethane	ug/m^3	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	ug/m^3	--	2.6	<25	<2.5	<2.5	5.2	<2.8	3.8
Diisopropyl ether (DIPE)	ug/m^3	--	<2.1	8.8J	<2.1	<2.1	<2.7	<2.4	<3.0
Ethanol	ug/m3	--	<1.8	190 JB	<96	<96	<120	<110	<140
Ethyl benzene	ug/m^3	1,100	15	91	20	23	24	34	23
Ethyl-t-butyl ether (EtBE)	ug/m^3	--	<2.1	<21	<2.1	<2.1	<2.7	<2.4	<3.0
Hexachlorobutadiene	ug/m^3	130	<5.4	4.0 J	<5.4	<5.4	<6.9	<6.1	<7.8
Isopropylbenzene	ug/m^3	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m^3	--	--	--	--	--	--	--	--
Methylene Chloride	ug/m^3	1,000	<8.8	14 JB	<8.8	<8.8	<11	<9.9	<13
Methyl-t-butyl ether (MtBE)	ug/m^3	--	<1.8	<18	<1.8	<1.8	<2.4	<2.1	<2.7
Naphthalene	ug/m^3	--	<5.3	20 JB	<5.3	<5.3	<6.8	<6.0	<7.7
n-Butylbenzene	ug/m^3	--	--	--	--	--	--	--	--
n-propylbenzene	ug/m^3	--	--	--	--	--	--	--	--
o-Xylene	ug/m^3	--	--	--	--	--	--	--	--
Total Xylenes	ug/m3	--	73	600	100	110	110	190	100
p-isopropyltoluene	ug/m^3	--	--	--	--	--	--	--	
sec-Butyl benzene	ug/m^3	--	--	--	--	--	--	--	--
Styrene	ug/m^3	--	<2.2	8.9 JB	<2.2	<2.2	<2.7	<2.4	<3.1
Tert-amyl methyl ether (TAME)	ug/m^3	--	<2.1	14 J	<2.1	<2.1	<2.7	<2.4	<3.0
tert-Butanol (TBA)	ug/m^3	--	<31	410	41	<31	<40	230	<45
tert-Butylbenzene	ug/m^3	--	--	--	--	--	--	--	--
Tetrachloroethene	ug/m^3	480	<3.4	4.0 J	<3.4	<3.4	<4.4	<3.9	<5.0
Toluene	ug/m^3	--	67	570	110	170	86	170	140
trans-1, 2-Dichloroethene	ug/m^3	--	<2.0	<20	<2.0	<2.0	<2.6	<2.3	<2.9
trans-1, 3-Dichloropropene	ug/m^3	700	<2.3	<23	<2.3	<2.3	<2.9	<2.6	<3.3
Trichloroethene	ug/m^3	480	<2.8	2.3 J	<2.8	<2.8	<3.5	<3.1	<4.0
Trichlorofluoromethane	ug/m^3	--	<2.8	<29	<2.8	<2.8	<3.6	<3.2	<4.1
Vinyl Chloride	ug/m^3	9.5	<1.3	1.1 J	<1.3	<1.3	<1.7	<1.5	<1.9
1,3-Butadiene	ug/m3	17	<1.1	<11	<1.1	1.1	<1.4	<1.2	<1.6
2-Butanone	ug/m3	--	<75	270 J	<75	230	96	170	130
2-Hexanone	ug/m3	--	3.4	<21	<2.1	<2.1	3.9	<2.4	<3.0
4-Ethyltoluene	ug/m3	--	7	56	8.8	7.5	10	18	13
4-Methyl-2-Pentanone	ug/m3	--	11	360	19	14	16	38	26
Acetone	ug/m3	--	<60	600 J	190	700	130	390	270
Carbon Disulfide	ug/m3	--	3.8	850	26	34	11	88	95
Cyclohexane	ug/m3	--	73	2,700	270	960	52	1,100	300
Ethyl Acetate	ug/m3	--	5.6	<18	<1.8	<1.8	11	<2.1	<2.7
Freon 113	ug/m3	--	<3.9	3.3J	<3.9	<3.9	<5.0	<4.4	<5.7
Isopropanol	ug/m3	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	--	110	6,000	510	2,100	140	2,200	650
n-Hexane	ug/m3	--	150	6,500	630	2,100	130	2,700	870
1, 1 Difluoroethane (leak check)	ug/m^3	--	--	--	--	--	--	--	--
Helium (leak check)	mol %	--	<0.050	<0.050	0.28	<0.050	0.082	1.1	1.4

U.S. EPA RSLs for indoor air were adjusted to a soil gas screening level using an attenuation factor of 0.001 for residential land use (DTSC, 2011; U.S. EPA, 2015).
California-modified values were used when lower than EPA RSL values per DTSC (2015).
B Analyte detected in the associated Method Blank and in the sample
J Result is less than the reporting limit but greater than the minimum detection limit. Concentration is estimated.
Reporting Limit Exceeds RSL
Detected Concentration Exceeds RSL

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Table 5.
List of Potential ARARs and TBCs
Santa Clara Square Apartments
Santa Clara, California

Requirement	Description	ARAR or TBC
Potential Chemical-Specific ARARs and TBCs		
Resource Conservation and Recovery Act ("RCRA"), as amended by the Hazardous and Solid Waste Amendments (40 CFR 260 to 299, 42 USC 7401-7642)	Federal act that classifies and regulates hazardous waste and facilities that treat, store and dispose of hazardous waste. These regulations define RCRA hazardous waste if “listed” or “characteristically” hazardous. TCLP criteria classify RCRA hazardous wastes for on-site or off-site disposal of excavated Site soil and extracted groundwater.	ARAR (a)
RCRA Land Disposal Restrictions (40 CFR Part 268)	RCRA hazardous wastes are potentially subject to land disposal restrictions. Land disposal restrictions can set performance requirements on treatment of the wastes for identified chemical constituents before land disposal. If chemical-specific universal treatment standards are exceeded, material must be treated prior to land disposal.	ARAR (a)
Hazardous Waste Control Act (Chapter 6.5, section 25100 , 22 CCR 66260.1)	Establishes criteria for determining waste classification for the purposes of transportation and land disposal of wastes in California. Regulates treatment, storage, transportation and disposal of substances identified as hazardous.	ARAR (a)
Hazardous Waste Generator Requirements (22 CCR 66262.1)	Establishes standards applicable to generators of hazardous waste.	ARAR (a)
California Hazardous Substances Account Act (Section 25340-25392)	Establishes fees regarding disposal of hazardous substances and outlines process for cleanup of hazardous substance release sites.	ARAR (a)
San Francisco Regional Water Quality Control Board ("RWQCB") Environmental Screening Levels ("ESLs")	The ESLs were developed by RWQCB to address environmental protection goals presented in the Basin Plan. These goals include protection of surface water, groundwater, soil, and soil vapor for human health, drinking water and non-drinking water resources, aquatic and terrestrial biota, and nuisance conditions.	TBC
Federal Drinking Water Standards (40 CFR Part 141) and California Drinking Water Standards (22 CCR Section 64431, 64444, & 64449)	Chemical-specific drinking water standards are promulgated under the federal Safe Drinking Water Act as Maximum Contaminant Levels (“MCLs”). California has also promulgated drinking water standards, “California MCLs”. Shallow groundwater in the vicinity of the Site is not currently used for potable water supply and is not likely to be used as a drinking water source in the future.	ARAR
California State Water Resources Control Board - 1) Sources of Drinking Water Resolution 88-63, 2) Nondegradation Policy Resolution 68-16, and 3)	These promulgated State policies address water quality objectives for the State of California.	ARAR
Safe Drinking Water and Toxic Enforcement Act of 1986 (“Proposition 65”) (22 CCR section 12000)	Proposition 65 prohibits the discharge, into a source of drinking water, of chemicals listed in 22 CCR Section 12000. The statute also requires that a reasonable warning be given to individuals who may be exposed to listed substances at levels posing an unacceptable risk.	ARAR
Porter Cologne Water Quality Act (23 CCR Chapter 3, Subchapter 15, WC section 13000)	Establishes the authority of the State Water Resources Control Board and Regional Water Quality Control Boards to protect water quality by identifying beneficial uses of the waters of the State, establishing water quality objectives, and regulating discharges to waters of the state.	ARAR

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Table 5.
List of Potential ARARs and TBCs
Santa Clara Square Apartments
Santa Clara, California

Requirement	Description	ARAR or TBC
Potential Chemical-Specific ARARs and TBCs		
San Francisco Bay Basin Water Quality Control Plan ("Basin Plan"), dated December 2006	Adopts narrative standards and permissible concentrations of organic and inorganic chemicals for surface water, groundwater, point sources and non-point sources. Establishes beneficial uses of surface waters and groundwater.	ARAR
Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (40 CFR Section 131.38)	The Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (40 CFR Section 131.38) promulgates criteria for priority toxic pollutants in the State of California for inland surface waters and enclosed bays and estuaries.	ARAR
Regional Screening Levels (“RSLs”)	RSLs published and updated by the USEPA in June 2015 combine current USEPA toxicity values with standardized exposure factors to estimate constituent concentrations in soil and groundwater that are protective of humans, including sensitive groups, over a lifetime on a screening-level basis.	TBC
DTSC Office of Human and Ecological Risk (“HERO”) Human Health Risk Assessment (“HHRA”) Note Number 3	DTSC HERO HHRA Note Number 3 outlines the most recent HERO review of the soil, tap water, and ambient air RSLs released in October 2015. HHRA Note 3 presents recommended screening levels (derived using DTSC-modified exposure and toxicity factors) for constituents in soil and tap water for which the DTSC-SL is at least three-fold more protective than the corresponding RSL. For ambient air, HHRA Note 3 presents screening levels for volatile compounds with a DTSC-SL that is more protective than the corresponding RSL, regardless of degree.	TBC
NPDES Permit	The State Water Resources Control Board ("SWRCB"), as part of the National Pollutant Discharge Elimination System ("NPDES"), has adopted a statewide NPDES General Permit for Stormwater Discharges Associated with Construction Activity (General Permit) to address discharges of storm water runoff from construction projects that encompass one acre or more in total acreage of soil disturbances.	ARAR
Potential Location-Specific ARARs and TBCs		
National Archeological and Historic Preservation Act (16 USC Section 469- 470, 36 CFR 800 and Part 65)	If significant scientific, pre-historic, or historic artifacts are found at the Site, provisions of this Act may require implementation.	ARAR
RCRA Treatment Standards (40 CFR 268.40-49)	RCRA treatment standards for disposal of hazardous waste include total waste standards, waste extract standards, and treatment technology standards.	ARAR (a)
RCRA Treatment Standards (40 CFR 268.40-49)	RCRA treatment standards for disposal of hazardous waste include total waste standards, waste extract standards, and treatment technology standards.	ARAR (a)
Federal Clean Air Act (42 USC Section 7401-7642, 40 CFR 50 – 69)	Identifies categories of industrial sources and treatment standards. Establishes primary and secondary ambient air standards. States develop implementation plans for attainment of the standards. The Bay Area Air Quality Management District ("BAAQMD") is the local implementing agency. Where BAAQMD requirements have been incorporated into the State Implementation Plan ("SIP") and approved by USEPA, they are federally-enforceable. Where BAAQMD requirements have not been incorporated into the SIP and approved by USEPA, they are not federally-enforceable.	ARAR

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Table 5.
List of Potential ARARs and TBCs
Santa Clara Square Apartments
Santa Clara, California

Requirement	Description	ARAR or TBC
Potential Action-Specific ARARs and TBCs		
Preamble to the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 50 FR 8758- 8760	Allows for the establishment of an Area of Contamination ("AOC") in which a hazardous waste can be placed. Consolidation of soil into an AOC does not constitute a release of a hazardous substance.	ARAR
Bay Area Air Quality Management District ("BAAQMD") Rules and Regulations	Applicable BAAQMD rules and regulations for remedial actions may include: a) Particulate Matter and Visible Emissions (Regulation 6) - limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions and opacity; b) Odorous Substances (Regulation 7) - establishes general limitations on odorous substances and specific emission limitations on certain odorous compounds; c) Hazardous Pollutants such as lead, vinyl chloride, and benzene (Regulation 11) - sets emission and/or performance standards for hazardous pollutants to limit the emissions of volatile organic compounds.	ARAR
Hazardous Waste Manifest System, Recordkeeping, and Reporting(40 CFR Parts 262, 263 & 264 and 22 CCR Sections 66262, 66263 & 66264, CHSC Sections 25160-25166.5)	Applicable for RCRA and non-RCRA classified hazardous waste that may be transported off-site for treatment and disposal. Standards applicable to generators and transporters of hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities that include manifest, transport, recordkeeping, and reporting requirements.	ARAR (a)
Hazardous Materials Transportation Regulations (49 CFR Parts 107, 171- 177)	Federal regulations were established for the safe and secure transportation of hazardous materials in commerce under the federal hazardous materials transportation law (49 USC 5101). These regulations are applicable to those who cause hazardous materials to be transported and to those who manufacture or maintain a packaging or a component of a packaging qualified for use in the transportation of a hazardous material.	ARAR (a)
California Hazardous Waste Haulers Act (22 CCR Chapter 30)	State regulations concerning the transportation of hazardous waste, including all inspection, licensing, and registration of trucks, trailers, semi trailers, vacuum tanks, cargo tanks, and containers used to transport all types of hazardous wastes. No state or local agency, including, but not limited to, a chartered city or county, shall adopt or enforce any ordinance or regulation which is inconsistent with the rules and regulations adopted by the Department of Toxic Substances Control, the Department of the California Highway Patrol, or the State Fire Marshal pursuant to this article.	ARAR (a)
Requirements for Land Use Covenants (22 CCR Section 67391.1)	Requirement to establish a land use covenant to provide for long-term management at a site with residual chemicals at a level of concern. The regulation also specifies procedures that must be followed when entering into a land use covenant.	ARAR
Regulatory Oversight - Soil Excavation and Handling (CHSC 25356.1 and 25358.9)	Addresses permitting and oversight regarding excavation and handling of soil. Excludes on-site work from certain permitting requirements by the DTSC if the work is being conducted pursuant to the Response Plan and the cleanup complies with all applicable laws, rules, regulations, standards, and requirements.	ARAR

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Table 5.
List of Potential ARARs and TBCs
Santa Clara Square Apartments
Santa Clara, California

Requirement	Description	ARAR or TBC
Potential Action-Specific ARARs and TBCs		
Occupational Safety and Health Administration (29 CFR Part 1910.120)	Requirements for health and safety for on-site workers involved in hazardous waste operations and emergency response that are applicable to clean-up operations at sites recognized by governmental bodies as hazardous waste sites. Identifies permissible exposure limits (PELs) for inhalation or dermal exposure of workers to chemicals. When PELs are exceeded, OSHA requires the use of personal protective equipment or other methods to limit exposure.	ARAR
California Occupational Health and Safety (8 CCR 5192)	Requires workers involved in hazardous substance operations associated with cleanup of sites perform the cleanup operations in accordance with Cal OSHA health and safety requirements.	ARAR
California Environmental Quality Act ("CEQA") (Public Resources Code, Division 13, Section 21000)	Unless an exemption applies, CEQA requires completion of an Environmental Impact Report (“EIR”) or issuance of a Negative or Mitigated Negative Declaration before implementation of a project (such as redevelopment or remedial actions) that have the potential to have a physical impact on the environment. The purpose of an EIR is to provide State and local agencies and the general public with detailed information on the potentially significant environmental effects which a proposed project is likely to have and to list ways which the significant environmental effects may be minimized and indicate alternatives to the project.	ARAR

Notes:

(a) Only applicable if future sampling indicates that the soil is a RCRA hazardous waste if excavated or if soil is to be disposed of off-site at a permitted landfill.

Abbreviations:

AOC - Area of Contamination
ARARs - Applicable or Relevant and Appropriate Requirements
BAAQMD - Bay Area Air Quality Management District
CCR - California Code of Regulations
CEQA - California Environmental Quality Act
CFR - Code of Federal Regulations
CHSC - California Health and Safety Code
DTSC - California Department of Toxic Substances Control
ESL - Environmental Screening Level
HERO - Office of Human and Ecological Risk Assessment
HHRA - Human Health Risk Assessment
MCLs - Maximum Contaminant Levels
NCP - National Oil and Hazardous Substances Pollution Contingency Plan

Draft

Table 5.
List of Potential ARARs and TBCs
Santa Clara Square Apartments
Santa Clara, California

Abbreviations: (continued)

PRG - Preliminary Remediation Goal
RCRA - Resource Conservation and Recovery Act
RSL - Regional Screening Level
RWQCB - Regional Water Quality Control Board
SIP - State Implementation Plan
STLCs - Soluble Threshold Limit Concentrations
SWRCB - California State Water Resources Control Board
TBCs - To Be Considered
TCLP - Toxicity Characteristic Leaching Procedure
TTLCs - Total Threshold Limit Concentrations
USC - United States Code
USEPA - U.S. Environmental Protection Agency

Draft

Table 6.
Proposed Remedial Goals
Santa Clara Square Apartments
Santa Clara, California

Contaminant of Concern	U.S. EPA Regional Screening Levels (2015) Residential	Background Concentration	units
Arsenic	-	17	mg/kg
Lead[1]	80	-	mg/kg
Dieldrin	34	-	µg/kg
4,4-DDE	2,000	-	µg/kg

Notes:

4',4'-DDE: Dichlorodiphenyldichloroethylene
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram

[1] Lead Screening Criteria based on DTSC Human Health Risk Assessment Note 3

Draft

FIGURES

1. Site Location Map
2. Current Site Configuration and Proposed Site Development
3. Soil, Soil Vapor, and Groundwater Sampling Locations
4. 2004 Inferred Groundwater Elevation
5. Results of Soil Sampling to Depth of Soil Exceeding Remedial Goals, SCS Apartments

5A. Results of Soil Sampling to Depth of Soil Exceeding Remedial Goals, SCS Apartments - South

6. Results of Groundwater Sampling
7. Results of Vapor Sampling

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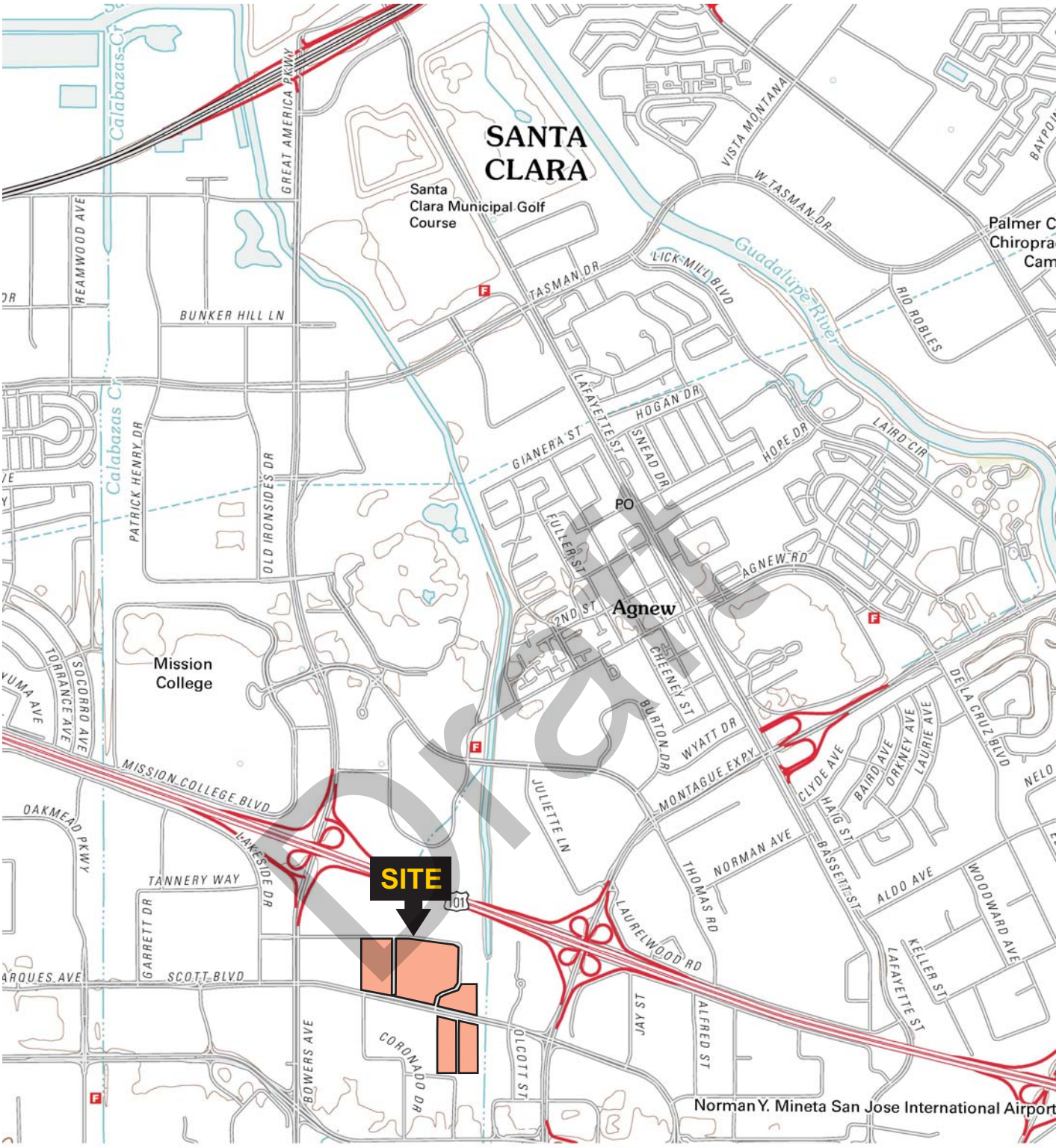

QUADRANGLE LOCATION

N

0 6 Miles

SOURCE: 2012, Milpitas, CA
7.5 Minute USGS Topographic Quadrangle

Title:

SITE LOCATION MAP

SANTA CLARA SQUARE APARTMENTS

Prepared for:

THE COMPANIES

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: D.G.	Date: 30OCT15	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	1
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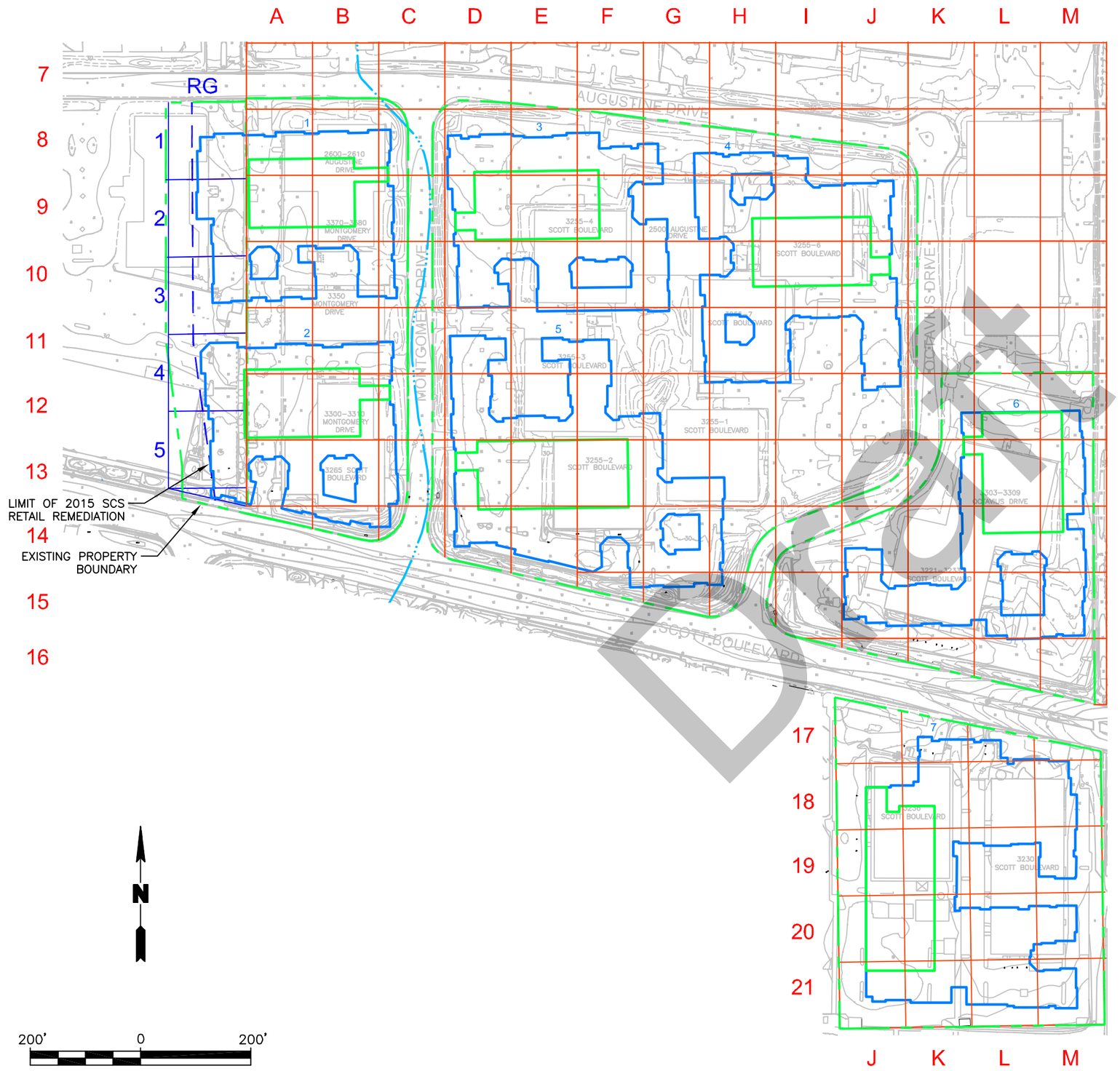

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LEGEND

- PROPOSED BUILDING AND NUMBER
- PROPOSED GARAGE
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- FORMER CREEK
- 120' X 120' GRID LINES
- 140' X 140' GRID LINES (SCS RETAIL GRID)
- EXISTING BUILDING

Title:

CURRENT SITE CONFIGURATION AND PROPOSED SITE DEVELOPMENT SCS APARTMENTS

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	
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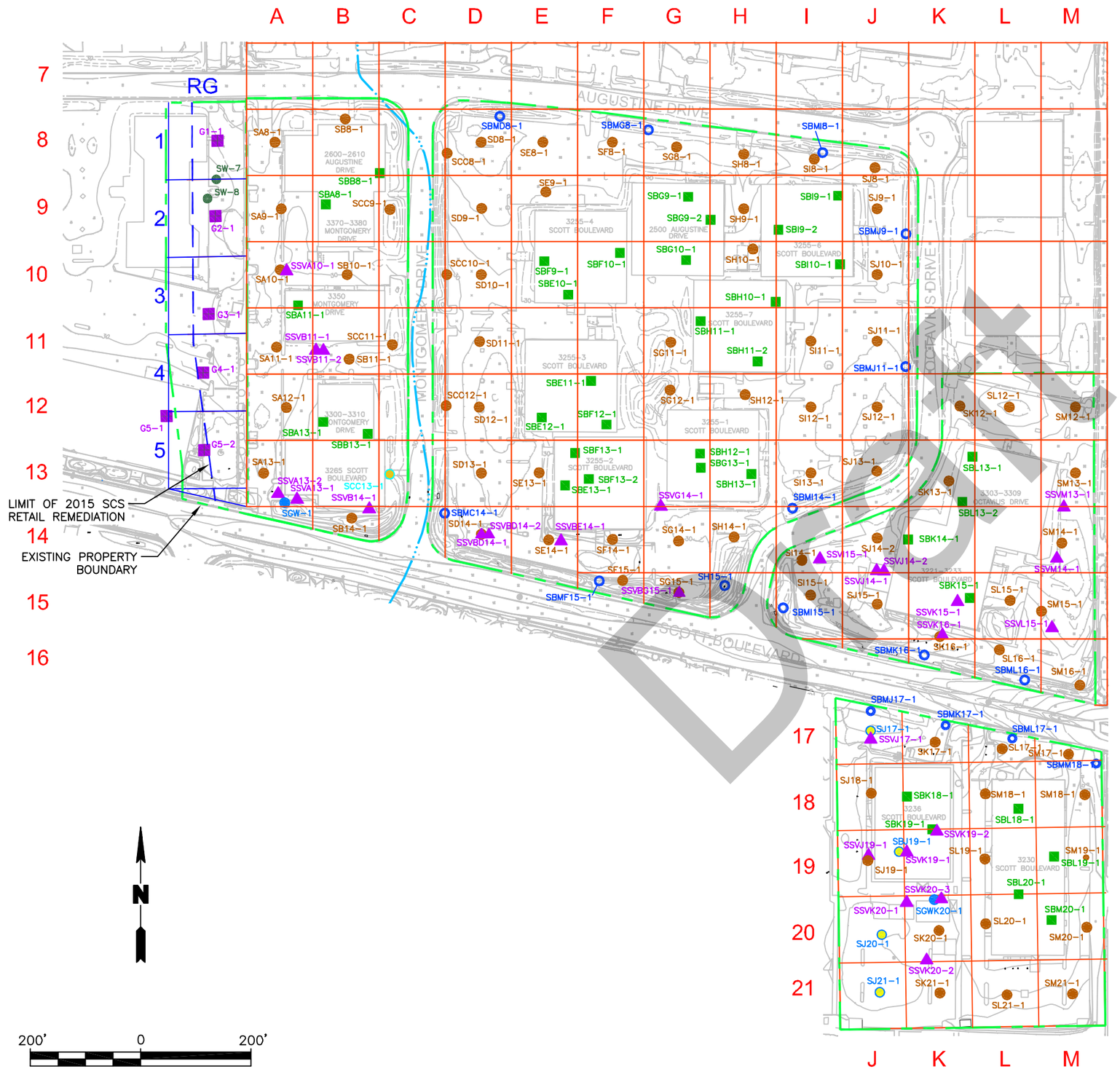

LEGEND

- BERM SAMPLE LOCATION
- EXTERIOR SAMPLE LOCATION
- EXTERIOR/GROUNDWATER SAMPLE LOCATION
- INTERIOR SAMPLE LOCATION
- SOIL/GROUNDWATER SAMPLE LOCATION
- GROUNDWATER SAMPLE LOCATION
- ROUX ASSOCIATES SAMPLING LOCATION, JULY 2014
- ROUX ASSOCIATES SIDEWALL SAMPLE LOCATION
- SOIL VAPOR SAMPLE LOCATION
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- FORMER CREEK
- A 1 — 120' X 120' GRID LINES
- RG 1 — 140' X 140' GRID LINES (SCS RETAIL GRID)
- EXISTING BUILDING

Title:

SOIL, SOIL VAPOR AND GROUNDWATER SAMPLING LOCATIONS SCS APARTMENTS

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	3
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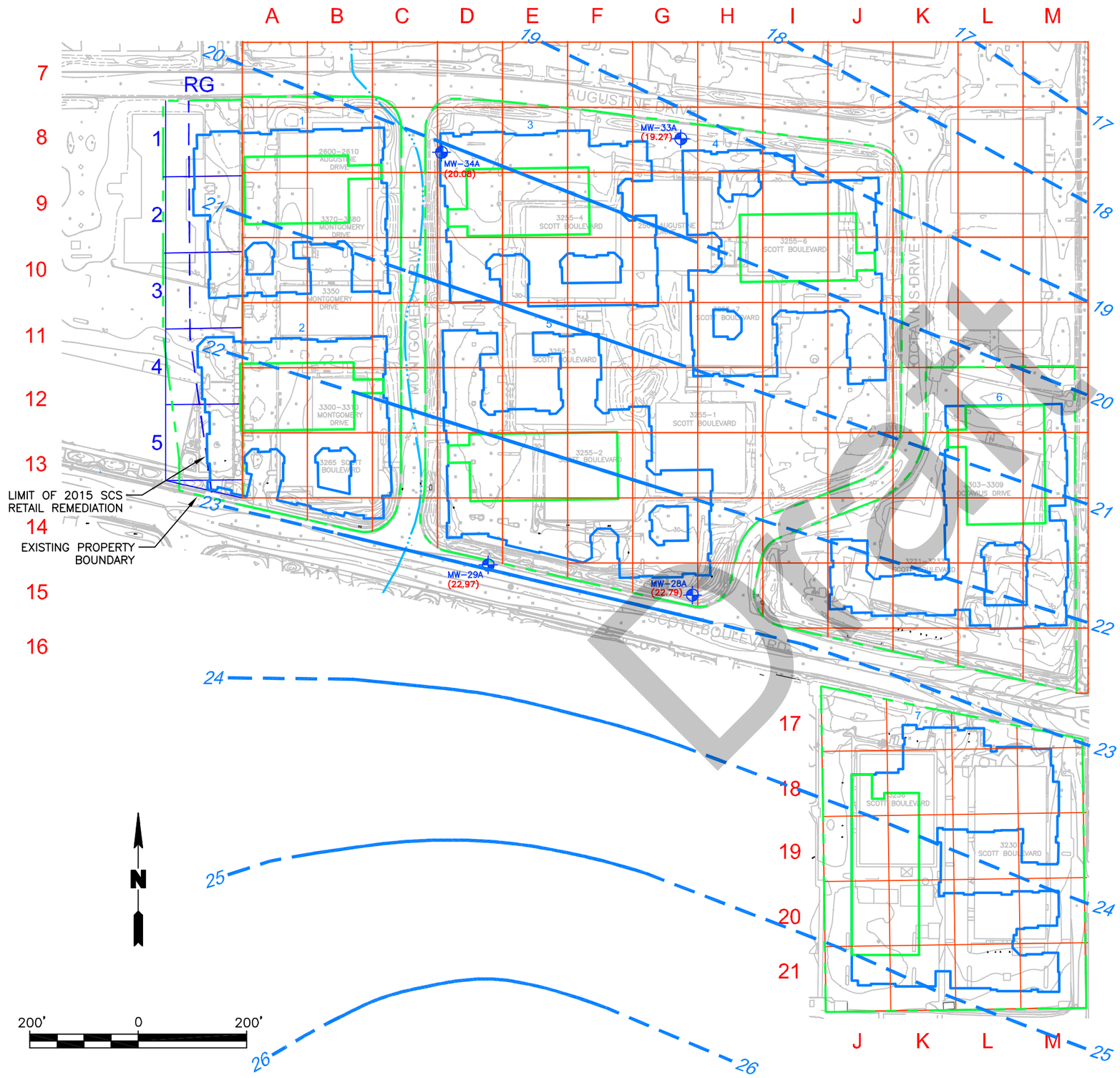

LEGEND

- MARCH 2004 GROUNDWATER ELEVATION CONTOURS IN ft–msl (CH2MHill, 2004, DASHED LINES WHERE INFERRED BY ROUX ASSOCIATES)
- MW-33A (28.76) — SYNERTEK MONITORING WELL (MARCH 2004 GW ELEVATION ft–msl)
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- FORMER CREEK
- A / 1 — 120' X 120' GRID LINES
- RG / 1 — 140' X 140' GRID LINES (SCS RETAIL GRID)
- EXISTING BUILDING

SOURCE

MONITORED NATURAL ATTENUATION INVESTIGATION 2004 SEMIANNUAL SUMMARY REPORT, SYNERTEK BUILDING NO. 1, 3050 CORONADO DR, SANTA CLARA, CA, CH2MHill, DEC 2004

Draft

Title:

2004 INFERRED GROUNDWATER ELEVATION SCS APARTMENTS

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
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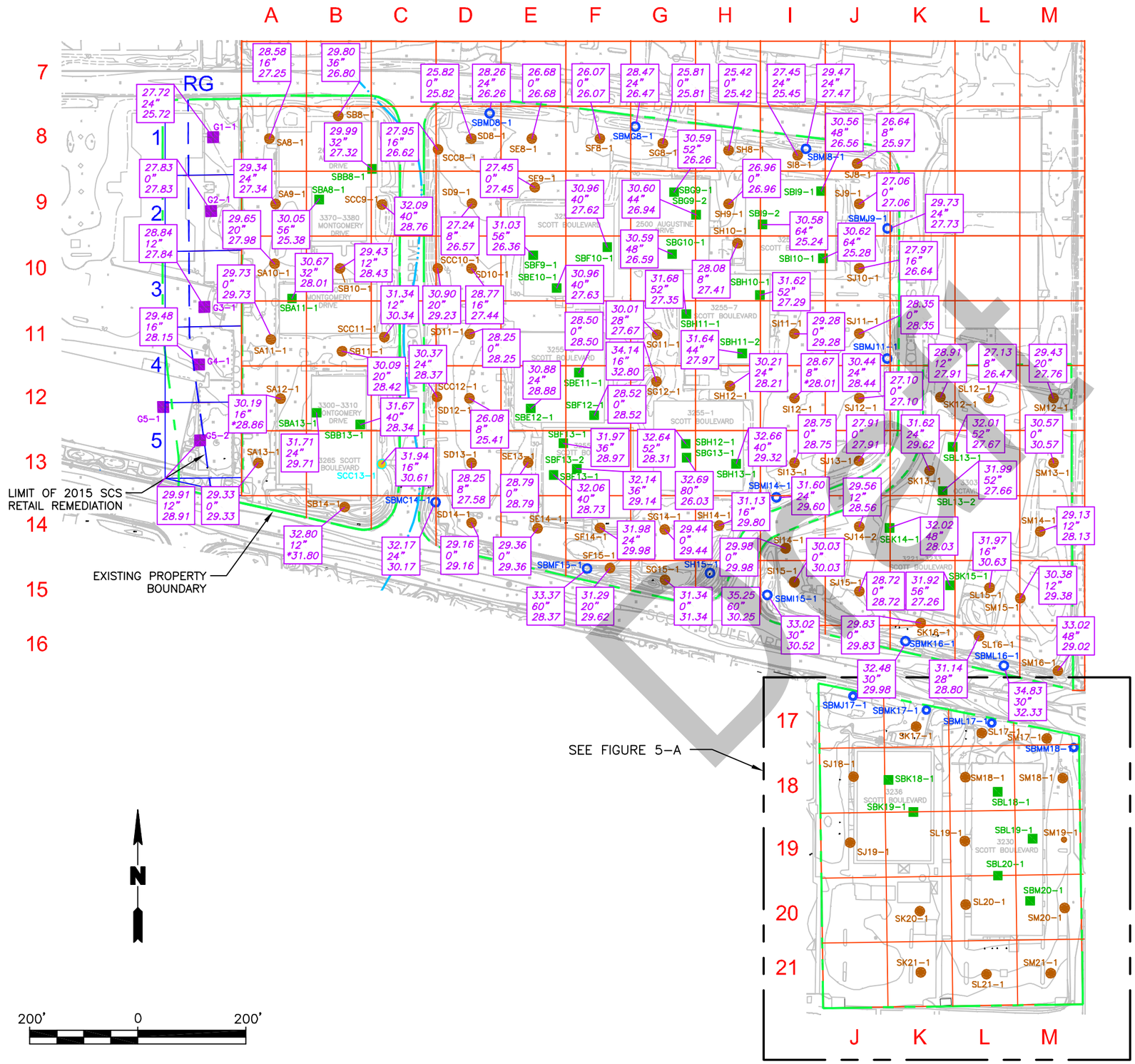

LEGEND

- BERM SAMPLE LOCATION
- EXTERIOR SAMPLE LOCATION
- EXTERIOR/GROUNDWATER SAMPLE LOCATION
- INTERIOR SAMPLE LOCATION
- ROUX ASSOCIATES SAMPLING LOCATION, JULY 2014
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- FORMER CREEK
- A 1 — 120' X 120' GRID LINES
- RG 1 — 140' X 140' GRID LINES (SCS RETAIL GRID)
- EXISTING BUILDING
- 30.74 12" 28.91 — ELEVATION TOP OF SOIL (BELOW CONCRETE/BASE ROCK); SOIL EXCAVATION DEPTH BELOW BASE ROCK; PROPOSED FINISHED GRADE AFTER EXCAVATING SOIL GREATER THAN REMEDIAL GOALS OR TOP OF SOIL BELOW BASE ROCK IF NO EXCAVATION (* INDICATES TENTATIVE DEPTH PENDING ADDITIONAL DATA)

Title:

SOIL SAMPLING RESULTS
SCS APARTMENTS

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
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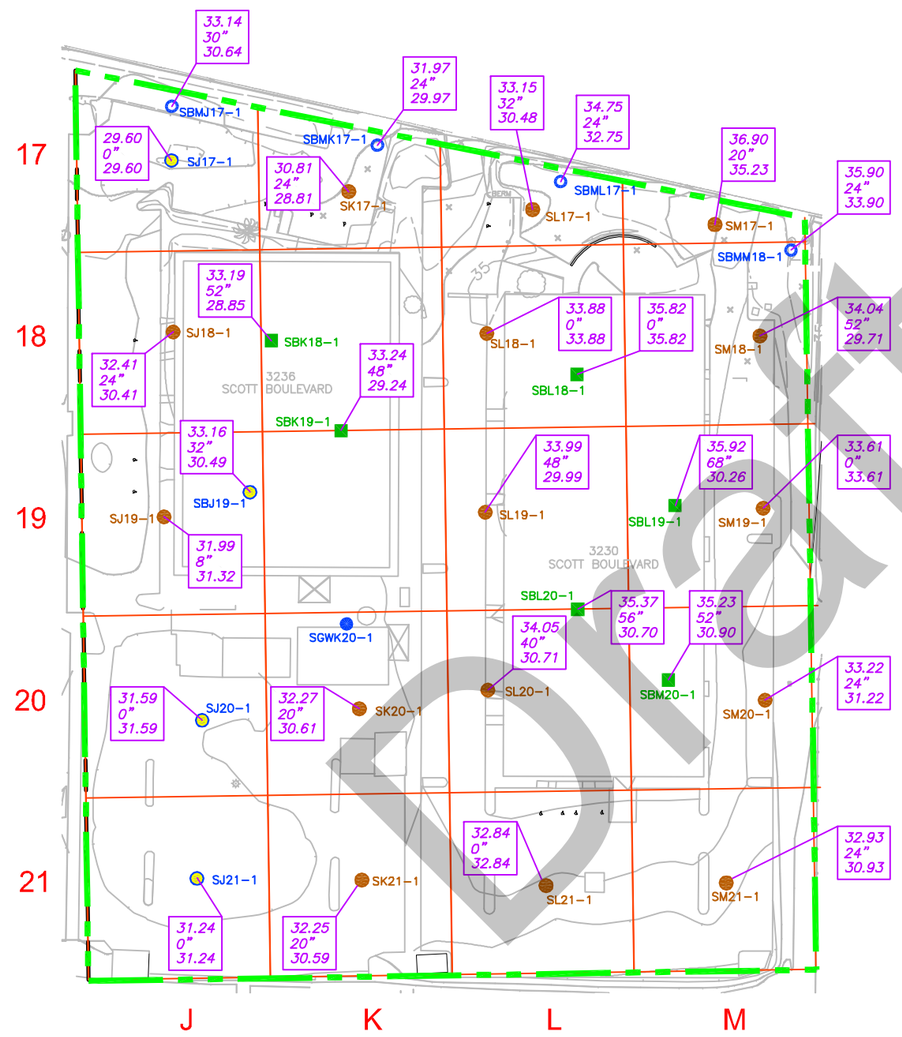

LEGEND

- BERM SAMPLE LOCATION
- EXTERIOR SAMPLE LOCATION
- INTERIOR SAMPLE LOCATION
- SOIL/GROUNDWATER SAMPLE LOCATION
- GROUNDWATER SAMPLE LOCATION
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- A / 1 — 120' X 120' GRID LINES
- EXISTING BUILDING
- 30.74 / 12" / 28.91
  - ELEVATION TOP OF SOIL (BELOW CONCRETE/BASE ROCK)
  - SOIL EXCAVATION DEPTH BELOW BASE ROCK
  - PROPOSED FINISHED GRADE AFTER EXCAVATING SOIL GREATER THAN REMEDIAL GOALS OR TOP OF SOIL BELOW BASE ROCK IF NO EXCAVATION

N

100' 0 100'

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Title:

SOIL SAMPLING RESULTS
SCS APARTMENTS - SOUTH

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
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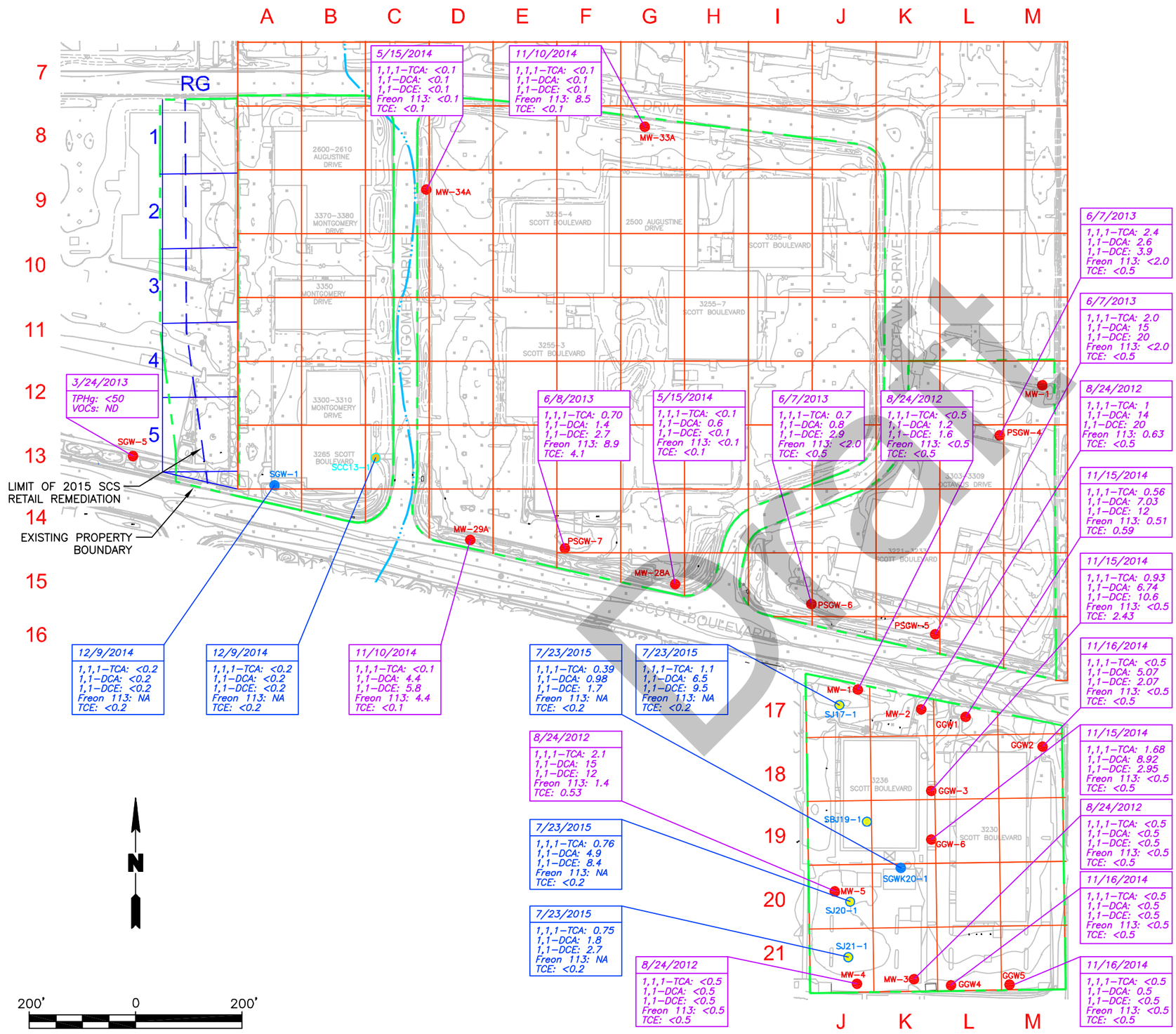

LEGEND

- EXTERIOR/GROUNDWATER SAMPLE LOCATION
- SOIL/GROUNDWATER SAMPLE LOCATION
- GROUNDWATER SAMPLE LOCATION
- HISTORICAL GROUNDWATER SAMPLE LOCATION
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- FORMER CREEK
- A / 1 — 120' X 120' GRID LINES
- RG / 1 — 140' X 140' GRID LINES (SCS RETAIL GRID)
- EXISTING BUILDING
- VOCs: ND — HISTORICAL GROUNDWATER RESULTS IN µg/L
- VOCs: ND — GROUNDWATER RESULTS IN µg/L
- ND — NOT ANALYZED

Title:

RESULTS OF GROUNDWATER SAMPLING SCS APARTMENTS

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
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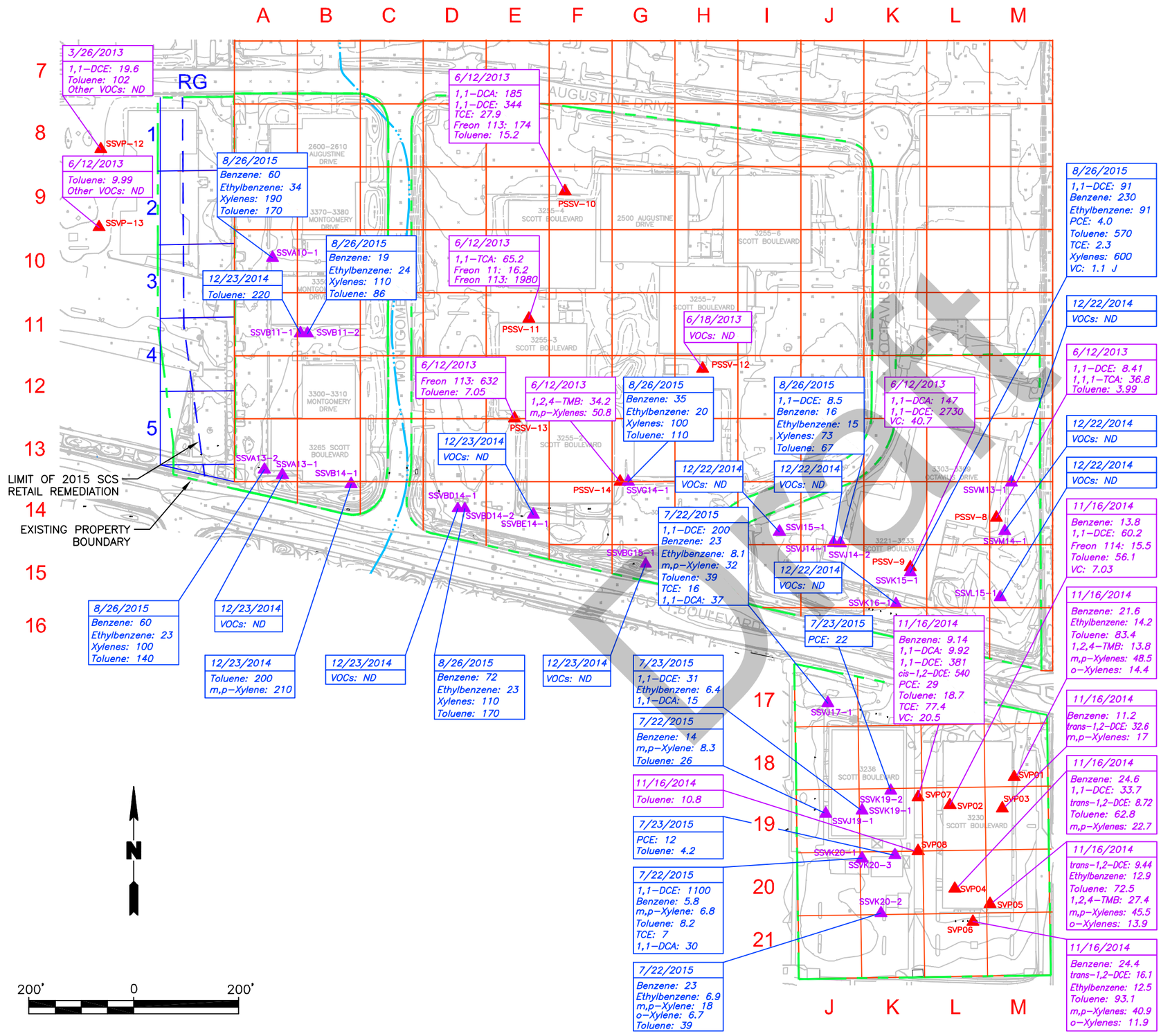

LEGEND

- SOIL VAPOR SAMPLE LOCATION
- HISTORICAL SOIL VAPOR SAMPLE LOCATION
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- FORMER CREEK
- A / 1 — 120' X 120' GRID LINES
- RG / 1 — 140' X 140' GRID LINES (SCS RETAIL GRID)
- EXISTING BUILDING
- VOCs: ND — HISTORICAL GROUNDWATER RESULTS IN µg/L
- VOCs: ND — GROUNDWATER RESULTS IN µg/L
- ND — NOT ANALYZED

Title:

RESULTS OF SOIL VAPOR SAMPLING SCS APARTMENTS

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
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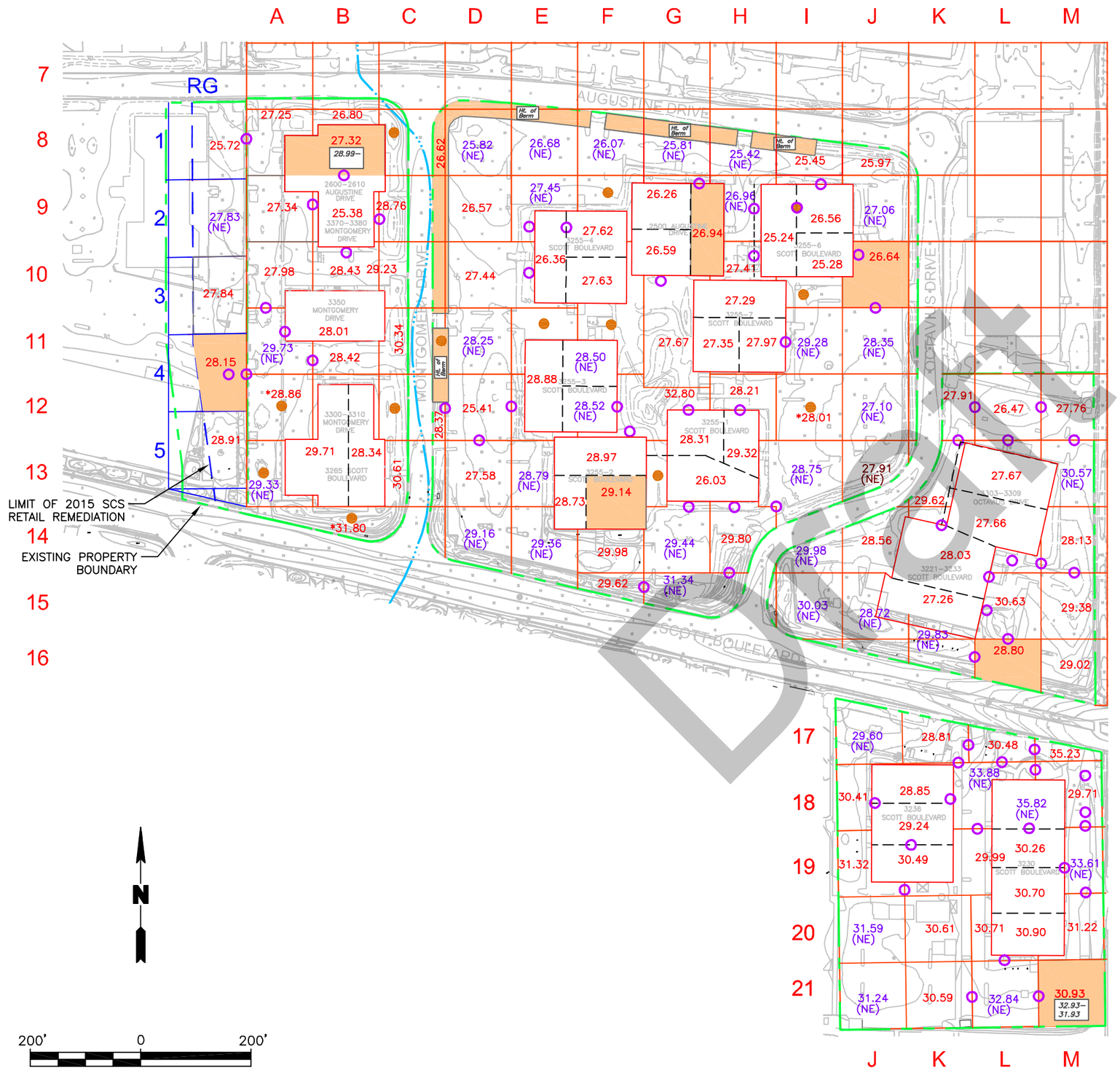

LEGEND

- PROPOSED EXTERIOR SAMPLE LOCATION
- PROPOSED SIDEWALL SAMPLE LOCATION
- CLASS I (CAL HAZ)
- 31.32 — PROPOSED EXCAVATION DEPTHS (* INDICATES TENTATIVE DEPTH PENDING ADDITIONAL DATA)
- 31.32 (NE) — NO EXCAVATION NECESSARY
- SPOT ELEVATION (FT)
- TOPOGRAPHIC CONTOUR (FT) (DASHED WHERE INFERRED)
- ESTIMATED SCS APARTMENTS–PROPERTY BOUNDARY
- FORMER CREEK
- A / 1 — 120' X 120' GRID LINES
- RG / 1 — 140' X 140' GRID LINES (SCS RETAIL GRID)
- EXISTING BUILDING

Title:

PROPOSED SIDEWALL SAMPLING LOCATIONS SCS APARTMENTS

SANTA CLARA SQUARE APARTMENTS

Prepared For:

THE COMPANIES

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: U.P.	Date: 10NOV15	FIGURE
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APPENDICES

Draft

Decontamination Plan

Draft

November 2015

DECONTAMINATION PLAN

Santa Clara Square Apartments
Santa Clara, California

Draft

Prepared for

3230 SCOTT BOULEVARD LLC,
3236 SCOTT BOULEVARD LLC,
3255 SCOTT BOULEVARD LLC,
3265 SCOTT BOULEVARD LLC, AND
AUGUSTINE BOWERS II LLC

ROUX ASSOCIATES, INC.

Environmental Consulting & Management

ROUX *555 12th Street, Suite 1725, Oakland, California 94607 ♦ 415-967-6000*

2432.0002S002.113/APA-CV

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1.0 INTRODUCTION 1
1.1 Site Description and History 1
1.2 Regulatory Status 2
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1.0 INTRODUCTION

Roux Associates, Inc., (Roux Associates) has prepared this Decontamination Plan for the Santa Clara Square development (SCS) Apartments development, referred to as the "SCS Apartments Site" (Site), in Santa Clara, California. The SCS Apartments Site comprises seven parcels, respectively. 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, and Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the SCS Apartments Site. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. The recommended response action in the Response Plan entails off hauling, relocation, consolidation, and capping of impacted shallow soils. The Companies will select a licensed remediation contractor (Contractor) to implement the Response Plan.

If the Contractor proposes to deviate from the procedures specified in this Decontamination Plan, the Contractor will be required to prepare an addendum to this Plan and obtain approval. The Contractor will implement the procedures documented in this Decontamination Plan and any additional addendum to this Plan. The Companies or their representative (Roux Associates or other selected representative) will verify that the Contractor implements this Decontamination Plan and the Contractor's addendum to this Plan.

1.1 Site Description and History

The SCS Apartments Site comprises the following seven parcels, respectively:

- The 3236 Scott Parcel comprises approximately 3 acres with one building.
- The 3230 Scott Parcel comprises approximately 3 acres with one building.
- The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard.
- The 3255 Scott Parcels comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255 5 Scott Boulevard).

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- The Augustine Bowers II LLC Parcel comprises approximately 2.6 acres with only a partial portion of two buildings, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted at five of the seven SCS Apartments Site parcels (EKI 2013, EKI 2014a, EKI 2014b, EKI 2014d, EKI 2014e, EKI 2014f). Roux Associates conducted additional characterization to prepare the response plan as described in the Site characterization report (Roux 2015a).

The Site is bound in the north by the SCS Office Phase II/III Development (currently under construction); to the east by the San Tomas Aquino Creek Trail; to the west by the Santa Clara Square Retail Development (currently under construction) to the south and west by office and light industrial buildings. The surrounding area comprises of mostly commercial/retail establishments and offices, including restaurants. The Site and the surrounding properties were used as orchards prior to its development as an office complex in the 1970s. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space.

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1.2 Regulatory Status

The Response Plan has been developed pursuant to the California Land Reuse and Revitalization Act of 2004, California Health and Safety Code Section 25395.60 et seq. (CLRRA). The DTSC is the designated lead agency responsible for oversight of the cleanup of soil at the Site. The Companies or their representative will confer with DTSC for review and approval of this Decontamination Plan and the Contractor's Site-specific addendum.

1.3 Objective

This Decontamination Plan aims to establish the project-specific minimum requirements for the decontamination of equipment (1) as it exits a contaminated work area and enters a clean[1] area and (2) before it is transported off- Site. All equipment used on the Site is subject to the procedures

[1] The term "clean" used in this report refers to soil below applicable remedial goals and does not necessarily indicate no site contaminants are present in the subject area.

contained in this Decontamination Plan, including earth moving equipment and any trucks entering or exiting the Site.

Personnel decontamination procedures will be addressed in the Site-specific Health and Safety Plan (HASP) prepared by the Contractor. At a minimum and assuming work is being performed in Level D protection, the personnel decontamination procedures should include protocol for decontamination of boots and hands.

1.4 Nature and Extent of Contamination

Previous environmental investigations have found that the chemicals of concern (COCs) in soil at the Site are arsenic, lead, DDE and dieldrin. The maximum arsenic and lead concentrations detected in soil are 165 milligrams per kilogram (mg/kg) in sample SM20-1 (12-16), and 460 mg/kg in sample SM18-1 (40-44) respectively. The maximum DDE and dieldrin concentrations detected in soil are 1,480 micrograms per kilogram (µg/kg) in sample SM21-1 (12-24) COMP, and 312 µg/kg in sample SG12-1 (4-8), respectively. The Roux Associates Site-specific Health and Safety Plan (HASP) in Appendix E of the Response Plan describes the potential chemical hazards of the COCs.

2.0 DECONTAMINATION PROCEDURES

2.1 General

Decontamination work will be conducted, at a minimum, in accordance with the methodologies provided in this Decontamination Plan. Decontamination personnel will be equipped with personnel protective equipment (PPE) in accordance with the Contractor's HASP. At a minimum, PPE will consist of high visibility clothing, a hard hat, eye protection, impermeable gloves, safety footwear, and if necessary, respiratory protection.

The Contractor will decontaminate all field equipment used at the Site prior to (1) exiting a contaminated work area and entering a clean area and (2) before transporting the equipment off-Site. Trucks and earth moving equipment will be inspected for signs of visible contamination upon entering and exiting the Site, or exiting a contaminated work area and entering a clean area. Sediment tracking due to tires and treads will be minimized to the maximum extent possible. Decontamination of tucks and equipment will include removal of visible soil or mud and will

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occur on the decontamination pad. Decontamination of trucks will be performed on truck tires, the inside of fenders, tailgates, wheel wells, mud flaps, the outsides of the truck bed, and other areas where significant accumulations of dirt may occur. Decontamination of construction equipment will be performed on treads, and any other surface that touches soil.

Procedures for constructing and decommissioning the decontamination pad are described in Section 3.0. During periods of weather stoppage or if rain is forecast at the end of the work day, the decontamination pad will be covered with water-resistant tarpaulins.

Compressed air will not be used for decontamination or cleaning of any equipment.

2.2 Decontamination Before Entering Clean Zones

All vehicles and equipment will be decontaminated as described in Sections 2.3 and 2.4 prior to entering a clean zone from a contaminated zone. Personnel will be decontaminated in accordance with the Contractor's HASP. Precautions will be taken to ensure that the area is not re-contaminated once an area is confirmed to be clean.

2.3 Dry Weather Decontamination

2.3.1 General

In dry weather conditions, any construction equipment or trucks (1) exiting an impacted area and entering a clean zone or (2) being transported off-Site will be decontaminated using brushes, brooms, shovels, and plastic scrapers. Loose dirt will be scraped or swept off tires, treads, fenders, mud flaps, and other accessible areas.

2.3.2 Vehicle Tires and Treads

Pressure washers will be used to remove dirt if it cannot be readily removed from tires and treads using dry methods. Precautions to prevent overspray by pressure washers are described in Section 2.4.1 below will be followed. Wash water will be contained by the decontamination pad as described in Section 3.2 below. Before the vehicle is allowed to enter a clean zone or exit the Site, the entire circumference of the vehicle's tires and treads will be inspected by the inspector/decontamination technician. Upon completing the inspection, the operator will move the

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vehicle forward such that the areas of the tires or treads previously in contact with the decontamination pad can be inspected and decontaminated, as necessary.

2.4 Wet Weather Decontamination

2.4.1 General

In wet weather conditions, mops and soapy water will be used. Under time restrictions, pressure washers may be substituted in place of mops to remove surface material from construction equipment and. Pressure washers will be limited to 3,200 psi maximum pressure. Non-phosphate detergents will be used if detergent is required. Pressure washer operators will be instructed to not spray their wands into truck beds where the spray might impact bed liners. Overspray and backsplash from pressure washing will be captured by setting up screens within the decontamination pad. All wash water will be contained by the decontamination pad, as described in Section 3.2 below.

2.4.2 Vehicle Tires and Treads

The entire circumference of vehicle tires and treads will be inspected by the inspector/decontamination technician before the vehicle is allowed to enter a clean zone or exit the Site, and after the initial decontamination. Upon completing the inspection, the operator will move the vehicle forward such that the areas of the tires or treads previously in contact with the decontamination pad can be inspected and decontaminated, as necessary.

2.5 Demolition Material in Contact with Soil

Demolition material in contact with impacted soil (i.e., concrete footings) will be decontaminated by dry brushing or scraping to remove loose soil. After decontamination, the demolition material will be transported offsite for proper disposal, recycling, or in the case of concrete, it may be recycled onsite. Decontaminated concrete without coatings, such as paint or waterproofing, may be recycled onsite into an aggregate base construction material for onsite use. If concrete planned for onsite recycling has coatings, those coating will be sampled and analyzed to confirm if they contain hazardous materials, and if the concrete is suitable for recycling. While it is not practical to remove all traces of soil from concrete, it is not planned to sample decontaminated concrete without coatings, because the mass of potential COCs in soil will have a negligible impact on the much greater mass of concrete.

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2.6 Roots in Contact with Soil

Roots of trees being removed from the Site will be decontaminated by dry brushing or scraping to remove remaining soil. Roots will be chipped and stockpiled onsite. After chipping, a representative sample of the wood chips will be collected and analyzed for Site COCs. Based on analytical results, the chips will either be reused onsite or transported offsite for appropriate reuse or disposal.

3.0 DECONTAMINATION PAD AND ACCESS ROAD

To allow for wet decontamination of trucks and equipment, a decontamination pad will be constructed to capture wash water. Based on staging of earth-moving activities, the Contractor will determine the location of the decontamination pad and access road, if needed. The decontamination pad will likely be placed on Site, but the actual location will be determined by the Contractor based on the anticipated Site staging and sequencing.

3.1 Access Road

If needed, the Contractor will construct a temporary access road of gravel or crushed rock between work areas, the decontamination pad, and the Site exit. The access road would keep vehicles as clean as possible and provide access for the construction equipment and trucks in all weather conditions. If any gravel or crushed rock comes in contact with contaminated soils, it will be handled as contaminated material.

3.2 Decontamination Pad Construction

The decontamination pad will be constructed by the Contractor so construction equipment and trucks can be decontaminated prior to entering a clean zone from a contaminated zone or exiting the Site. The Contractor will design the decontamination pad to capture wash water, regardless of whether wet decontamination is expected.

The decontamination pad will be constructed as a bermed, plastic lined area, large enough to contain the largest piece of equipment used on-Site. The foundation beneath the pad will be clean fill; berms will be constructed using clean fill, sand bags, or asphalt curb; the pad will be sloped towards a collection point, and lined with 10-mil plastic sheeting, or a favorably reviewed

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equivalent. Above the plastic liner, a protective geotextile will be laid before placing a layer of gravel at least 4-inches thick on top of the liner.

Wash water will be transferred from the decontamination pad by sump pumps or an equivalent liquid transfer system and into 55-gallon drums or holding tanks. The sump and decontamination pad will be inspected and maintained on a daily basis or as determined necessary during the construction period work.

3.3 Routine Maintenance

Water level monitoring of the sump for the decontamination pad will occur at the beginning and end of the work day and hourly during rainfall events. Water will be pumped out of the sump when the water level rises to within 2 inches of the top of the low end of the decontamination pad and before every significant rainfall event. Water removed from the sump should be transferred to 55-gallon drums or a holding tank with secondary containment.

Loose dirt left on the surface of the pad at the end of the day will be removed. If excessive soil is visible on the pad, the surface of the gravel will be cleaned with pressure washers. The sump will be checked for sediment on a daily basis and emptied as needed.

3.4 Decontamination Pad Decommissioning

After earthwork at the Site is completed, the decontamination pad will be decommissioned by removing water transfer equipment, the plastic liners, gravel, berms, and the underlying fill used to create the foundation for the pad. The plastic liner will be properly of along with other construction debris/contaminated soil sent to an appropriate landfill. After it is collected and placed in transport vehicles, the fill material and gravel will also be sent to an appropriate landfill for disposal.

4.0 WATER CHARACTERIZATION AND DISPOSAL

Based on soil analytical data for the Site, it is anticipated that all of the soil collected as part of decontamination would be disposed of as non-hazardous waste, and disposed of off-Site at the selected disposal facility by the Contractor.

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55-gallon drums or a holding tank will be used to hold wash and rinse water collected from the decontamination pad. After earth-moving activities have ceased, a composite sample of the drums and/or holding tank contents will be collected and analyzed for arsenic, lead, and organochlorine pesticides. An appropriate disposal facility for liquid wastes will be selected based on the profile sample analytical results. The selected disposal facility may require additional analyses to accept the wastes.

It is not anticipated that excavation dewatering will be required to complete the recommended response action. However, if field conditions require excavation dewatering, the water will be characterized, transported, and disposed of at an approved off-Site disposal facility.

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5.0 REFERENCES

Roux Associates, 2015a. Initial Results of Soil Characterization and Confirmation Sampling Program Santa Clara Square Apartments Site, Santa Clara, California. Dated October 2015.

Roux Associates, 2015b. Draft Response Plan, Santa Clara Square Apartments, Santa Clara, California. Dated October 2015.

Roux Associates, 2015c. Final Response Plan, Santa Clara Square Office Phase II and Phase III, Santa Clara, California. Dated June 2015.

Erler & Kalinowski, Inc. (EKI), 2013. Phase I Environmental Site Assessment, Montgomery Research Park, Santa Clara, California. June 2013.

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EKI, 2014c. Final Response Plan, Santa Clara Square Retail, Santa Clara, California. July 24, 2014.

EKI, 2014d. Phase I Environmental Site Assessment, Santa Clara Square Retail, Santa Clara, California. April 2014.

EKI, 2014e. Phase I and Phase II Environmental Site Assessment, 3230 Scott Boulevard, Santa Clara, California. December 19, 2014.

EKI, 2014f. Phase I Environmental Site Assessment, 3236 Scott Boulevard, Santa Clara, California. December 19, 2014.

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Dust Control Plan

Draft

November 2015

DUST CONTROL PLAN

Santa Clara Square Apartments
Santa Clara, California

Draft

Prepared for

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3236 SCOTT BOULEVARD LLC,
3255 SCOTT BOULEVARD LLC,
3265 SCOTT BOULEVARD LLC, AND
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1.0 INTRODUCTION

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If the Contractor proposes to deviate from the procedures specified in this Dust Control Plan, the Contractor will be required to prepare an addendum to this Plan and obtain approval. The Contractor will implement the procedures documented in this Dust Control Plan and any additional addendum to this Plan. The Companies or their representative (Roux Associates or other selected representative) will verify that the Contractor implements this Dust Control Plan and the Contractor's addendum to this Plan.

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1.1 Site Description and History

The SCS Apartments Site comprises the following seven parcels, respectively:

- The 3236 Scott Parcel comprises approximately 3 acres with one building.
- The 3230 Scott Parcel comprises approximately 3 acres with one building.
- The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard.
- The 3255 Scott Parcel comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255 5 Scott Boulevard).
- The Augustine Bowers II LLC Parcel comprises approximately 2.6 acres with only a partial portion of two buildings, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted at five of the seven SCS Apartments Site parcels (EKI 2013, EKI 2014a, EKI 2014b, EKI 2014d, EKI 2014e, EKI 2014f). Roux Associates conducted additional characterization to prepare the response plan as described in the Site characterization report (Roux 2015a).

The Site is bound in the north by the SCS Office Phase II/III Development (currently under construction); to the east by the San Tomas Aquino Creek Trail; to the west by the Santa Clara Square Retail Development (currently under construction); to the south and west by office and light industrial buildings.

The surrounding area comprises of mostly commercial/retail establishments and offices, including restaurants. The Site and the surrounding properties were used as orchards prior to its development as an office complex in the 1970s. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space.

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1.2 Regulatory Status

The Response Plan has been developed pursuant to the California Land Reuse and Revitalization Act of 2004, California Health and Safety Code Section 25395.60 et seq. (CLRRA). The DTSC is the designated lead agency responsible for oversight of the cleanup of soil at the Site. The Companies or their representative will confer with DTSC for review and approval of this Dust Control Plan and the Contractor's Site-specific addendum.

1.3 Objective

Response actions at the Site that may contribute to dust emission, such as soil relocation, backfilling, grading operations, stockpiling soil, construction vehicle traffic, and wind flowing over disturbed soil, will be addressed in this Plan. It is the objective of this Dust Control Plan to establish the project-specific requirements for control of dust emissions during response actions at the Site.

1.4 Nature and Extent of Contamination

Previous environmental investigations have found that the chemicals of concern (COCs) in soil at the Site are arsenic, lead, DDE and dieldrin. The maximum arsenic and lead concentrations detected in soil are 165 milligrams per kilogram (mg/kg)in sample SM20-1 (12-16), and 460 mg/kg in sample SM18-1 (40-44) respectively. The maximum DDE and dieldrin concentrations detected in soil are 1,480 micrograms per kilogram (µg/kg) in sample SM21-1 (12-24) COMP, and 312 µg/kg in sample SG12-1 (4-8), respectively. The Roux Associates Site-specific Health and Safety Plan (HASP) in Appendix E of the Response Plan describes the potential chemical hazards of the COCs.

1.5 Regulatory Requirement

Work activities at the Site must comply with the Bay Area Air Quality Management District (BAAQMD) and the California Code of Regulations requirements. Specifically, all response actions must comply with BAAQMD Regulation 6, regulating visible particulate matter. Section 6-1-305 of BAAQMD Regulation 6 states that "A person shall not emit particles from any operation in sufficient number to cause annoyance to any other person, which particles are large enough to be visible as individual particles at the emission point or of such size and nature as to be visible individually as incandescent particles." Section 6-1-305 shall only apply if such particles fall on real property other than that of the person responsible for the emission. Additionally, Action Levels for airborne dust are presented in the Perimeter Air Monitoring Plan (PAMP) presented in Appendix C of the Response Plan.

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2.0 DUST CONTROL PROCEDURES

Each day (including weekends and holidays) that response actions are conducted, dust control procedures must be implemented.

2.1 Dust Control Measures During Response Plan Implementation

Dust control measures will be implemented by the Contractor throughout the remediation portion of the project. At a minimum, the contractor must meet all applicable dust emission regulations and the project 8-hour time weighted average and 5-minute instantaneous dust monitoring criteria identified in the perimeter Air Monitoring Plan in Appendix C. The following sections present minimum dust control requirements.

2.1.1 General Dust Control Measures

- During response actions, the site will be misted or sprayed with water by a water truck as often as needed to prevent formation of dust.
- A speed limit of no more than 10 miles per hour will be used on the Site.
- Drop heights of soil will be kept to a minimum. As soil is loaded in trucks and stockpiled, water will be applied if minimizing the drop heights does not prevent the formation of dust.
- Decontamination of vehicle tires that come into contact with contaminated soil will be performed prior to exiting the Site or entering a clean[1] zone. See Appendix A for decontamination procedures.
- Throughout soil off-hauling activities adjacent streets, both on-Site and off-Site, will be inspected at least three times per day including once at the end of the shift and, if necessary, will be swept using a vacuum street sweeper.
- If wind speeds exceed 20 miles per hour for more than 15 minutes or if dust control measures are not able to prevent visible dust emissions, soil moving activities will be ceased until wind speeds decrease and no visible emissions are observed.
- To minimize dust emissions, water or soil stabilizers will be applied to all unpaved access roads, parking areas, and staging areas at the Site as needed.
- All bins of impacted soil will be covered with weighted plastic sheeting or tarp at the end of each work day and on days, such as weekends and holidays, when excavating and backfilling activities are not being conducted.
- Trucks off-hauling impacted soil will be covered with tarps prior to departure to prevent the release of dust once the trucks exit the Site. All non-hazardous waste (e.g., general trash, concrete, asphalt, rock, etc.) will be transported and disposed of in accordance with all applicable laws and regulations.
- A stabilized construction entrance/exit will be constructed and used for any unpaved access.

2.1.2 Stockpile Dust Control Measures

Contractors shall use the following measures to manage on-Site stockpiles:

- Soil excavation should be staged to minimize stockpiling soil by placing excavated soil directly onto consolidation areas. Soil excavation, handling, and stockpiling shall be performed in a manner which limits and controls the mixing of impacted material from non-impacted material.

[1] The term "clean" used in this report refers to soil below applicable remedial goals and does not necessarily indicate no site contaminants are present in the subject area.

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- If stockpiling soil is necessary, soil above RGs should be stockpiled in areas where surface soil exceed RGs, and soil below RG should be stockpiled on surface soil also below the RGs to eliminate the need to for plastic sheeting below the stockpile and the chance of cross contamination. If soil above RGs is stockpiled in areas where surface soil is below RGs, or if soil below RGs is stockpiled on surface soil above RGs, the stockpiles must be placed on plastic sheeting to avoid cross contamination.

- During the Response Plan implementation, stockpiles of soil that contain detectable concentrations of COC's will be securely covered with plastic sheeting (minimum 10-mil thickness) at the end of each work day during Site remediation. Alternatively, stockpiles can be sprayed with a non-toxic chemical soil binder acceptable to DTSC. Soil stockpiles will be managed in accordance with procedures outlined in this plan and the SWPPP (Appendix F).

- Silt fencing, hay bales, straw rolls, visqueen covers, or other BMPs shall be implemented and maintained as necessary to control storm water run-on or runoff from all stockpiles, as specified in the Site Storm Water Pollution Prevention Plan (SWPPP). At a minimum, stockpiles shall be covered or stabilized with a non-toxic chemical soil binder acceptable to DTSC prior to inclement weather.

- Construction debris (if encountered) shall be removed from the excavated soil and stockpiled separately for off-Site disposal.

2.2 Dust Control Measures for Stockpiled Soil Following Remediation Phase of Project

All impacted soil across the Site is addressed in the remediation phase. Additional dust control measures and stockpile inspections are listed below and will be implemented to address stockpiles in the event that impacted soil is stored on-Site following the completion of remediation, or if soil needs to be excavated during landscaping and building foundation excavation:

- Stockpiled soil will be securely covered with weighted plastic sheeting or tarps.

- In the event that the stockpile covering deteriorates or sustains damage during storage, the Contractor will be responsible for recovering and securing the stockpiles.

- Every month, the Client Representative will inspect soil stockpiles and record the condition of the stockpiles with photo documentation.

- DTSC may inspect the stockpiles at any time during the storage period.

In the event that stockpiles remain after the buildings are open and in use due to phasing of construction, the following additional measures will be implemented:

- A fence will be constructed around the stockpile to prevent exposure to contaminated soil.

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- The fence shall be constructed prior to granting public access to the Site. Signs will be posted, and will be legible from a distance of at least 25 feet away. The signs will read, "Caution: Environmentally Restricted Area, Unauthorized Persons Keep Out", in both the English and Spanish. Also, international symbol signs for "Do not enter" will be attached to each side of the fence to provide notice to individuals who cannot read the signs.
- The signs shall be visible from the area surrounding the contaminated stockpile area.
- Regular maintenance of the fence and signs will be implemented to minimize the risk of unauthorized entry. The signs will be made of weather resistant materials.

Stockpiled soil generated at the Site after completion of the Site remediation will be managed under the Site SWPPP and the post development Operation & Maintenance Plan.

3.0 CONTINGENCY MEASURES FOR DUST CONTROL

Upon observation of visible dust at the Site perimeter, the Contractor will immediately cease dust generating activities. Before resuming work, the Contractor must increase and/or revise dust control measures to the satisfaction of the Companies' Representative. These measures may include: increasing the magnitude and frequency of dust control measures, the addition of a favorable reviewed dust reducing compound, and/or to use water to control dust. If weather conditions warrant further dust control measures, the Contractor may employ additional dust control fabrics, windscreens, and enclosures for transport loading operations.

4.0 CONTINGENCY MEASURES FOR ODOR CONTROL

Odorous soil is not anticipated to be present at the Site based on the known conditions of the Site. However, if such odorous soil is encountered, or complaints by the Contractor, The Companies' Representative, regulatory agencies, air pollution control authorities, or nearby commercial occupants indicate the need for odor control measures, the Contractor will implement odor control measures. Odor control measures employed by the Contractor may include:

- Applying water containing an odor suppressant as needed.
- Using plastic sheeting or soil to cover odorous open pits, exposed sidewalls, or stockpiles to prevent further release of odors.

5.0 REFERENCES

Roux Associates, 2015a. Initial Results of Soil Characterization and Confirmation Sampling Program Santa Clara Square Apartments Site, Santa Clara, California. Dated October 2015.

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Roux Associates, 2015b. Draft Response Plan, Santa Clara Square Apartments, Santa Clara, California, dated October 2015.

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Perimeter Air Monitoring Plan

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Perimeter Air Monitoring Plan
Soil Excavation and Site Preparation

Santa Clara Square Apartments
Santa Clara, CA

October 2015

Draft

Acumen Project No. RXA 1507

Prepared For:

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Paul M. Spillane, CIH (October 15, 2015)

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Air Monitoring Plan
Soil Excavation and Site Preparation

Santa Clara Square Apartments
Santa Clara, CA

October 2015

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1.0 Introduction

The purpose of this Perimeter Air Monitoring Plan (PAMP) is to provide the consulting team (Roux Associates, Inc.), and their subcontractor (Acumen Industrial Hygiene, Inc.) with guidelines for monitoring of offsite dust emission of potentially contaminated soil (and non-contaminated soil) found at the Santa Clara Square ("SCS") Development at the Apartments portion of the project ("Site").

The SCS Apartments Site comprises seven parcels, respectively. 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, and Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the SCS Apartments Site. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space.

Monitoring for dust will be conducted at three stations, for the first four weeks of earthwork and remediation activities at the Site. This is expected to occur following the demolition and removal of the building slabs. If measured 8-hour TWA dust concentrations are consistently below the Action Level of 0.11 mg/m^3 (Section 2.0) during this four-week period, air monitoring for dust at the Site will be discontinued. If the Action Level is consistently exceeded during this period, air monitoring for dust will continue and its termination will be evaluated in consultation with the California Department of Toxic Substances Control (DTSC).

If the Companies selected remediation contractor (Contractor) proposes to deviate from the procedures specified in this plan, the Contractor will be required to prepare a letter for the Companies approval that will be attached to this Plan. At this time, a Contractor has not been selected to complete this work. If phasing of the construction occurs and occupied buildings will remain on parcels where remediation is occurring, the PAMP will be modified to ensure that occupied buildings have appropriate dust monitoring. This may include modifying dust monitor locations and/or adding dust monitors. The Contractor will implement the procedures documented in this Plan and any additional addendum to this Plan. The Companies' and their representative (Roux Associates or other selected representative) will verify that the Contractor implements this Plan and the Contractor's addendum to this Plan.

1.1 Site Location and Physical Description

The SCS Apartments Site comprises five parcels, respectively. Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted by Erler & Kalinowski, Inc. (EKI) at the three of the seven SCS Apartments Site parcels. The following is a summary of previous Site investigations: Assessor's Parcel Numbers (APN) and associated addresses are listed below.

- APN: 216-29-112 (herein known as "3236 Scott Parcel")

The 3236 Scott Parcel comprises approximately 3 acres with one building. A Phase I ESA was completed by EKI in December 2014.

- APN: 216-29-053 (herein known as "3230 Scott Parcel")
    - The 3230 Scott Parcel comprises approximately 3 acres with one building. A Phase I and II ESA was completed by EKI in December 2014.
- APN: 216-45-022 (herein known as "3265 Scott Parcel")
    - The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360,

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3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard. A Phase I ESA was conducted by EKI in June 2013.

- APN: 216-45-023 and -024 (herein known as "3255 Scott Parcels")
  - The 3255 Scott Parcel comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255 5 Scott Boulevard).
  -
- Portions of APN: 216-45-011, -and -028 (herein known as "Augustine Bowers II LLC Parcel")
  - The Augustine Bowers II LLC Parcel comprises approximately 2.6 acres with only a partial portion of two buildings, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

The Site is bound in the north by the SCS Office Phase II/III Development (currently under construction); to the east by the San Tomas Aquino Creek Trail; to the west by the SCS Retail Development (currently under construction); to the south and west by office and light industrial buildings. The surrounding area comprises of mostly commercial/retail establishments and offices, including restaurants. Prevailing wind direction is typically from south east. Neighboring properties generally include office and retail buildings in the surrounding 1,000 feet radius. There are several restaurants and one church, but residential housing, parks or childcare are not noted within a 1,000 feet radius of the site (Figure 2).

1.2 Site History

The Site and the surrounding area, prior to its initial development, was an orchard. The Site was first developed in the 1970's and its thirteen buildings have been used as industrial and office workspaces by multiple tenants. The SCS Apartments Site was developed in the late 1970s with the 14 buildings currently present.

Records indicate that these buildings were built as industrial and office buildings and used in the past by various industrial, research and development, and testing laboratory tenants. Prior to development in the mid to late 1970s, the Site and surrounding area was an orchard. A number of structures were present at the SCS Apartments Site, likely a farmhouse and support buildings, located along Saratoga Creek in the 1939, 1948, and 1956 aerial photographs .

At the adjacent Office I Site and SCS Retail Site, soil remediation has been completed and at the SCS Office Phase II/III Site located to the north, soil remediation is currently in progress. At these sites the remediation is being conducted under the oversight of the DTSC.

1.3 Soil Contamination

Roux Associates advanced 142 soil borings and submitted 1,230 soil samples for laboratory analysis. All soil samples were collected as discrete samples and samples selected for compositing were Homogenized by Accutest (*Results of Soil Characterization and Confirmation Sampling Program Santa Clara, California*, Roux Associates, Inc., October 5, 2015). Subsurface sampling did not identify the presence of naturally occurring asbestos. The Site was found to have elevated concentrations of arsenic, lead, dieldrin, and 4,4'-dichlorodiphenyldichloroethylene (DDE) and they have been identified as primary contaminants of concern (COCs) in soil exceeding the remedial goals.

Based on the observed COCs, arsenic is likely the compound driving the remediation at the Site based on exposure risks. Therefore, Action Levels that are protective of receptors for exposure to arsenic are also

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expected to be protective of exposure to lead, DDE and dieldrin. The California Air Resources Board (CARB) has set an 8-hour and chronic Reference Exposure Level (REL) of 0.015 µg/m^3 for arsenic.

1.4 Groundwater and Soil Vapor Contamination

According to recent investigations, limited impacts in groundwater and soil vapor were detected at the across the site. With exception of two vinyl chloride detections (PSSV-9 and (SVP-07), one benzene detection (SSVK15-1) and one detection of 1,2-Dibromo-3-chloropropane (SSVAB-2), all soil vapor samples were detected below screening criteria for both residential and commercial/industrial land uses.

2.0 Action Limits for Offsite Emission

The California Air Resources Board (CARB) has set a standard for arsenic at 0.015 µg/m^3 for both the 8-hour and chronic exposure REL for arsenic. Given a maximum soil concentration of 165 milligrams/kilogram (Max arsenic concentration for Site), we propose an action limit of 0.11 mg/m^3 net total dust (downwind average subtracted from upwind).

Using a dust model equation this will assure that arsenic concentration will not exceed 0.015 µg/m^3 (the CARB REL):

$$X \text{ mg/kg} \div 10^6 \text{mg/kg} \times 0.11 \text{ mg/m}^3 \times 1{,}000 \text{ µg/mg} = Y \text{ µg/m}^3$$

$$143 \text{ mg/kg} \div 10^6 \text{mg/kg} \times 0.11 \text{ mg/m}^3 \times 1{,}000 \text{ µg/mg} = 0.015 \text{ µg/m}^3$$

Where X is soil concentration of contaminant of concern (COC, i.e. arsenic), and Y is predicted airborne concentration of COC, not to exceed 0.015 µg/m^3. A Site maximum short-term (5 minute) dust criteria level of 0.25 mg/m^3 will give a level of confidence that the daily 8-hour dust limit of 0.11 mg/m^3 level will not be exceeded.

The environmental consultant (Roux Associates) will report levels daily to the owner's representative and contractor including 1) maximum 5 minute average dust levels, 2) daily average net dust (not to exceed 0.11 mg/m^3 during soils disturbance). At the end of dust monitoring, data will be downloaded, presented and discussed in a formal report.

3.0 Air Monitoring and Record Keeping

A perimeter dust-monitoring program will be established for the Site, and conducted by the environmental consultant (Roux Associates) for at least four weeks and until at least one entire work-week with no exceedances of the dust action level has occurred. The air monitoring will be performed for three (3) days prior to site activities to establish a background. Air monitoring will then be conducted during major soil disturbing activities, during initial excavation, clearing and off-haul. The consultant will use a wind-vane digital recorder to be used for tracking wind speed.

The consultant will collect daily samples for total respirable dust (PM10). The purpose of the air monitoring will be to provide real time information that will be used to evaluate effectiveness of dust control procedures being implemented by the contractor using ambient dust air levels at the perimeter fence line. Three (3) perimeter dust monitoring locations will be established and the consultant will collect approximately 8-hour (full shift) samples, using three (3) pDR-1000 monitors (MIE Inc., Bedford, MA) (or equivalent equipment) for total dust. The consultant will calibrate each device in accordance with the manufacturer's instruction.

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The samplers will be placed at the property perimeters in the following locations: at least one upwind location at a property boundary (typically at the western boundary of the site); at least two (2) locations downwind and nearest to the active soils work site (Figure 3).

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Time Average	Total Dust	Action
5 minute average	0.25 mg/m^3	Notify Contractor/Increase dust control
8-hour net average	0.11 mg/m^3	Contractor will briefly stop work and re-assess activities and dust control measures on-site.

To account for short-term variations in dust emissions, an equivalent 5-minute average of approximately 1 mg/m^3 is recommended as an airborne Action Level for temporarily stopping work to re-assess Site activities and dust suppression efforts. It is noted that 1 mg/m^3 of dust generally corresponds to the presence of visible airborne soil particulates.

The consultant will report levels daily to the owner's representative and contractor including 1) maximum 5 minute average dust levels and 2) daily averages. At the end of dust monitoring, data will be downloaded, presented and discussed in a formal report.

Air monitoring will be conducted throughout the grading phase of the project. The environmental consultant (Roux Associates) will conduct observations to document wind direction, wind speed, contractor activities and other pertinent information.

The contractor will ensure visual observation at the Site for visible dust during active work. Dust management "best management practices" are to be verified at the end of each day. Any occurrence of observed visible dust on-site shall lead to more aggressive application of dust control measures. Persistent visible dust from work activities for greater than one hour will require that work cease. Any occurrence of visible dust from active work crossing the Site boundary for greater than five minutes shall require that the work cease until effective dust control measures are applied. If visible dust is noted, the contractor shall apply additional dust control as required.

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4.0 Signage and Notifications

As required by state law, the contractor shall post the Proposition 65 warning sign at entrances to the Site.

PROPOSITION 65 WARNING!

WARNING: This Site Contains Chemicals
Known to the State of California to Cause Cancer or Birth Defects

These notifications should be large enough to read from 20 feet away. The contractor shall also make the Dust Control Plan (Response Plan, Appendix B) known to subcontractors entering the Site until soils are capped. This Dust Control Plan shall be provided to them, if their work would likely disturb soils, or if requested.

5.0 References

Information reviewed and referenced in this report includes the following document(s):

- EKI, "Final Response Plan, Santa Clara Technology Campus 1, Santa Clara, California" January 2014.
- EKI, "Response Plan, Santa Clara Square Retail, Santa Clara, California" July 24, 2014.

- Roux Associates, Inc. “Final Response Plan, Santa Clara Square Office, Phase II and III Development, Santa Clara, California” June 2015.
- Roux Associates, Inc. “Final Response Plan, Santa Clara Square Apartments Development, Santa Clara, California” August 2015.
- Roux Associates, Inc. “Draft Response Plan, Santa Clara Square Office, Apartments Development, Santa Clara, California” October 2015.
- Inorganic Arsenic Reference Exposure Levels, OEHHA, 2008.

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Figures

Santa Clara Square Apartments
Santa Clara, CA

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Acumen Project No. RXA 1407

Prepared For:

Roux Associates, Inc.
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Figure 1

Location Map
Santa Clara Square Apartments

October 2015

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Figure 2

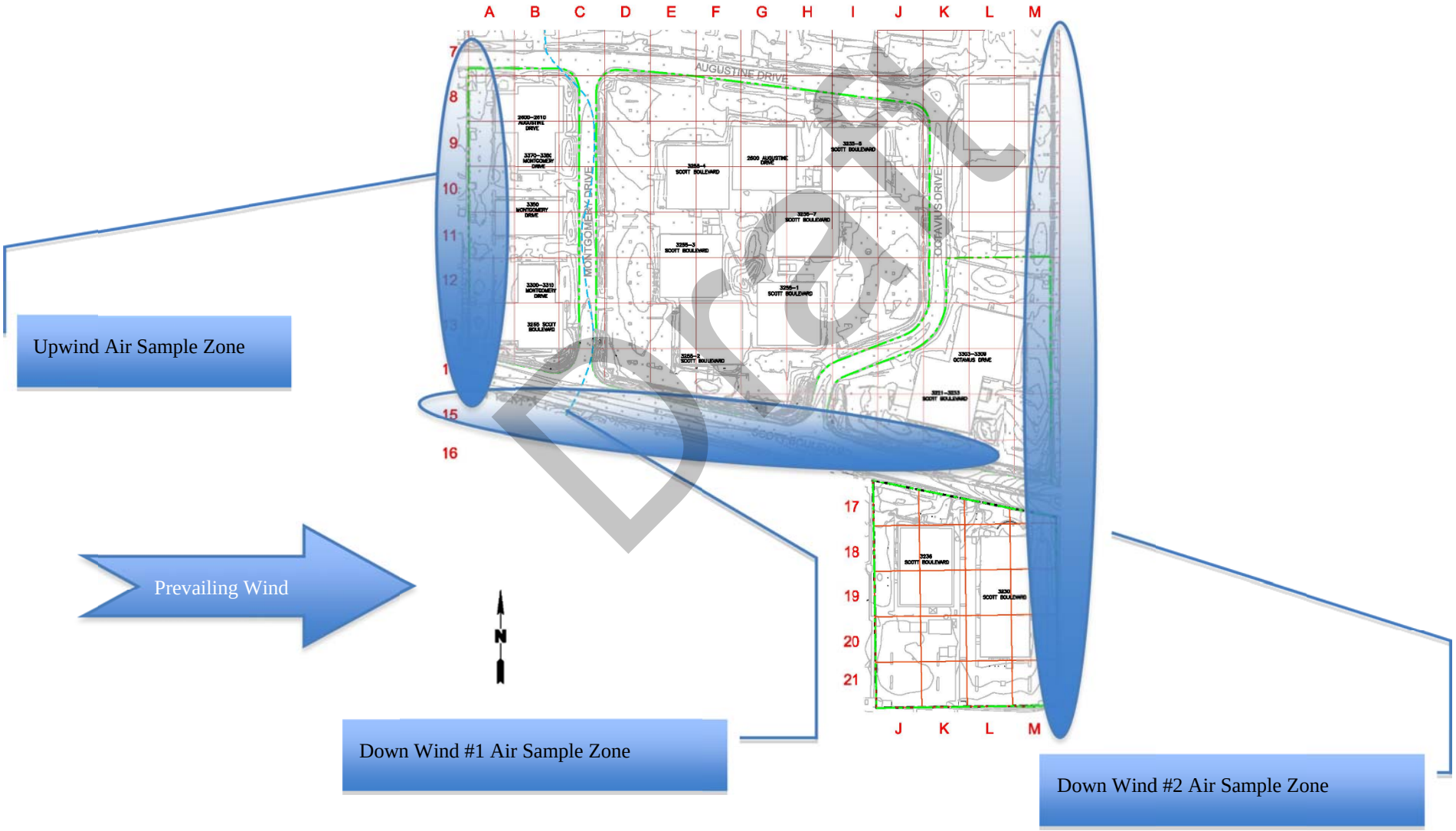
Site Map Indicating Sensitive Receptors
Santa Clara Square Apartments
October 2015 *

Note that the prevailing wind direction is generally from the west.

Figure 3

Air Sample Location Map
Santa Clara Square Apartments

October 2015



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APPENDIX D

Transportation Plan

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November 2015

TRANSPORTATION PLAN

Santa Clara Square Apartments
Santa Clara, California

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Prepared for

3230 SCOTT BOULEVARD LLC,
3236 SCOTT BOULEVARD LLC,
3255 SCOTT BOULEVARD LLC,
3265 SCOTT BOULEVARD LLC, AND
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D-2. Local Transportation Routes
D-3. Routes to California Disposal Facilities

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1.0 INTRODUCTION

Roux Associates, Inc., (Roux Associates) has prepared this Transportation Plan for the Santa Clara Square development (SCS) Apartments development, referred to as the “SCS Apartments Site” (Site), in Santa Clara, California. The SCS Apartments Site comprises seven parcels, respectively. 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, and Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the SCS Apartments Site. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. The recommended response action in the Response Plan entails off hauling, relocation, consolidation, and capping of impacted shallow soils. The Companies will select a licensed remediation contractor (Contractor) to implement the Response Plan.

This Plan describes the general traffic control and waste transportation procedures that will be employed during implementation of the Response Plan (Roux Associates, 2015b) for the Santa Clara Square Apartments site. The recommended response action in the Response Plan entails off hauling, relocation, consolidation, and capping of impacted shallow soils. The Companies will select a licensed remediation contractor (Contractor) to implement the Response Plan. This Plan is prepared in accordance with the California State (DTSC) Guidance Document, Transportation Plan – Preparation Guidance for Site Remediation (DTSC Guidance Document Cal-EPA, 2001).

The Contractor selected by The Companies to perform the soil relocation, consolidation, and excavation activities at the Site will be required to prepare a letter to be attached to this Transportation Plan that specifies: (1) the actual off-Site disposal facility and the transportation routes if the actual disposal facility(ies) vary from facilities listed in this Transportation Plan, (2) the Contractor’s selected transportation company, and (3) any proposed deviations from procedures specified in this Transportation Plan.

If the Contractor proposes to deviate from the procedures specified in this Transportation Plan, the Contractor will be required to prepare an addendum to this Plan and obtain approval. The Contractor will implement the procedures documented in this Transportation Plan and any additional addendum to this Plan. The Companies or their representative (Roux Associates or

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other selected representative) will verify that the Contractor implements this Transportation Plan and the Contractor's addendum to this Plan.

1.1 Site Description and History

The SCS Apartments Site comprises the following seven parcels, respectively:

- The 3236 Scott Parcel comprises approximately 3 acres with one building.
- The 3230 Scott Parcel comprises approximately 3 acres with one building.
- The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard.
- The 3255 Scott Parcel comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255 5 Scott Boulevard).
- The Augustine Bowers II LLC Parcel comprises approximately 2.6 acres with only a partial portion of two buildings, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted at five of the seven SCS Apartments Site parcels (EKI 2013, EKI 2014a, EKI 2014b, EKI 2014d, EKI 2014e, EKI 2014f). Roux Associates conducted additional characterization to prepare the response plan as described in the Site characterization report (Roux 2015a).

The Site is bound in the north by the SCS Office Phase II/III Development (currently under construction); to the east by the San Tomas Aquino Creek Trail; to the west by the Santa Clara Square Retail Development (currently under construction); to the south and west by office and light industrial buildings. The surrounding area comprises of mostly commercial/retail establishments and offices, including restaurants. The Site and the surrounding properties were used as orchards prior to its development as an office complex in the 1970s. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space.

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1.2 Regulatory Status

The Response Plan has been developed pursuant to the California Land Reuse and Revitalization Act of 2004, California Health and Safety Code Section 25395.60 et seq. (CLRRA). The DTSC is the designated lead agency responsible for oversight of the cleanup of soil at the Site. The Companies or their representative will confer with DTSC for review and approval of this Transportation Plan and the Contractor's Site-specific addendum.

1.3 Objective

The objective of the Transportation Plan is to describe the general procedures and protocols to minimize potential health, safety, and environmental risks resulting from the transportation of material and/or equipment to off-Site disposal facilities during soil excavation activities at the Site.

1.4 Nature and Extent of Contamination

Previous environmental investigations have found that the chemicals of concern (COCs) in soil at the Site are arsenic, lead, DDE and dieldrin. The maximum arsenic and lead concentrations detected in soil are 165 milligrams per kilogram (mg/kg)in sample SM20-1 (12-16), and 460 mg/kg in sample SM18-1 (40-44) respectively. The maximum DDE and dieldrin concentrations detected in soil are 1,480 micrograms per kilogram (µg/kg) in sample SM21-1 (12-24) COMP, and 312 µg/kg in sample SG12-1 (4-8), respectively. The Roux Associates Site-specific Health and Safety Plan (HASP) in Appendix E of the Response Plan describes the potential chemical hazards of the COCs.

2.0 CHARACTERISTICS OF MATERIAL TO BE TRANSPORTED

This section describes the waste characteristics of materials to be disposed of by the Contractor during implementation of the Response Plan.

2.1 Excavated Soil Characteristics

During construction, the Companies may opt to dispose of a portion of the arsenic-, lead-, and dieldrin-impacted soil off-Site, if it is not feasible to accommodate such soil in on-Site consolidation cells. Any such soil that is not accommodated on-Site may be stockpiled prior to off-haul.

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The soil that may be stockpiled was sampled in-situ between December 2014 and August 2015. Based on the available analytical data for shallow soils on-Site, soils are classified as non-hazardous Class II waste or non-Resource Conservation and Recovery Act ("non-RCRA") California hazardous waste based on the location investigated. The nature of contaminants in Site soil is described above in Section 1.4.

2.2 Liquid Waste Characteristics

The liquid waste to be transported from the Site may include water from decontamination activities, captured storm water, or groundwater if encountered during excavation. Decontamination water may include some or all of the compounds found in soil. Liquid wastes will be characterized for disposal prior to off-Site transportation and disposal. It is not anticipated that the Contractor will need to dewater the excavations. It is also possible that accumulated storm water could be included as a liquid waste transported off-Site for disposal. Accumulated liquid wastes, if any, from the temporary on-Site sanitation facilities will also be periodically removed from the Site.

2.3 Other Waste Characteristics

Other waste generated at the Site may include hardscape demolition debris such as concrete, asphalt, rock, and incidental debris from removal of the Site features remaining after demolition of the existing buildings. Demolition debris will be disposed of at an off-Site non-hazardous disposal facility. If applicable, concrete, asphalt, and other demolition debris will be recycled at an off-Site recycling facility proposed by the Contractor and accepted by the Companies. Vegetation debris will be disposed of as non-hazardous municipal waste. Other demolition debris will be disposed of at an off-Site non-hazardous disposal recycling facility. Trash resulting from the soil excavation activities will be accumulated on-Site and periodically removed as non-hazardous municipal waste.

3.0 DESTINATION OF MATERIAL TO BE TRANSPORTED

This section describes where the material generated during implementation of the Response Plan at the Site could potentially be disposed. The actual selected off-Site disposal facilities will be provided by the Contractor in a Site-specific addendum.

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3.1 Soil Management

If possible, using existing data, the contractor will select a landfill and obtain pre-approval from the facility accepting the soil for disposal. The Companies will approve the selected landfills from the options provided in the Contractor's proposal.

Soil characterized as non-hazardous Class II waste, if any, may be disposed of at the following off-Site disposal facilities or another permitted off-Site disposal facility as proposed by the Contractor:

1. Allied Waste Keller Canyon Disposal Facility (U.S. EPA ID 110001163053)
   901 Bailey Road, Pittsburg, California, 94565 (925) 625-4711

2. Waste Management, Inc. Altamont Landfill (U.S. EPA ID 110000831404)
   10840 Altamont Pass Rd, Livermore, California, 94551 (800) 449-6349

3. Republic Vasco Road Landfill (U.S. EPA ID 110009544671)
   4001 North Vasco Road, Livermore, CA 94551 (925) 4470491

4. Allied Waste Forward Inc. Landfill (U.S. EPA ID 110000610116)
   1145 W. Charter Way, Stockton, CA 95206 (800) 204-4242

5. Waste Management, Inc. Kirby Canyon Landfill (U.S. EPA ID CAC002582774)
   910 Coyote Creek Golf Drive, Morgan Hill, California, 95037

6. International Disposal Corp. Newby Island Landfill (U.S. EPA ID 110006533117)
   1601 Dixon Landing Road, Milpitas, CA 95035

Any waste characterized as non-RCRA California hazardous waste or RCRA hazardous waste will be disposed of at the following off-site Class I hazardous waste disposal facility, or another permitted off-Site disposal facility as proposed by the Contractor:

1. Clean Harbors Buttonwillow Landfill (U.S. EPA ID CAD980675276)
   2500 West Lokern Road, Buttonwillow, California 93206 (661)762-7681

2. U.S. Ecology Beatty Nevada Facility (U.S. EPA ID NVT330010000)
   11 miles S on Highway 95, Beatty, Nevada 89003

Prior to performing the soil excavation work, the Contractor will confirm the waste classifications and profiles with the facilities that will be accepting the soil for disposal.

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3.2 Liquid Waste Management

Any groundwater, decontamination water, and storm water generated at the Site will be collected in appropriate holding tanks and sampled to evaluate the appropriate subsequent management. Liquid wastes will be trucked to permitted off-Site disposal facilities.

Wastewater characterized as non-hazardous Class II waste may be disposed of at the following off-Site disposal facilities or another permitted off-Site disposal facility as proposed by the Contractor:

1. Seaport Environmental
   700 Seaport Blvd, Redwood City, California, 94063 (650) 264-1024

2. San José-Santa Clara Regional Wastewater Facility
   700 Los Esteros Road, San Jose, CA 95134 (408) 945-5300

The on-Site temporary sanitation facilities will be periodically evacuated and the removed materials transported to the local wastewater treatment facility or other appropriate disposal facility for portable toilet wastes.

3.3 Other Waste Management

Non-hazardous waste such as general trash, concrete, asphalt, rock, and other non- hazardous demolition debris may be disposed of at a local municipal waste landfill as proposed by the Contractor or if applicable, may be recycled at an off-Site recycling facility as proposed by the Contractor.

4.0 TRUCK TRANSPORTATION

This section describes how material generated during implementation of the Response Plan for the Site will be transported from the Site to the off-Site disposal location.

4.1 Idling Restrictions

Any diesel fueled commercial vehicle with a gross vehicle weight of greater than 10,000 pounds will abide by California Air Resources Board's Heavy-Duty Diesel Vehicle Idling Regulations. This regulation requires all applicable vehicles will not idle longer than 5 minutes unless stopped in traffic, during service and maintenance, when operating auxiliary devices, when stopped due to

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bad weather conditions or mechanical difficulty, or if at least 100 feet from a school or residence and the vehicle meets California's idling emission standards.

4.2 Transportation of Soil

Excavated soil will be loaded into trucks, such as end dump trucks, and will be transported to the appropriate off-Site disposal facility via surface streets and highways. The Contractor will select the transporter for excavated soil. The Contractor will be required to submit proof of the transporter's valid hauler registration. The Contractor will ensure that all vehicles utilized for transport of hazardous waste are properly registered, operated, and placarded (if necessary) in compliance with local, state, and federal requirements. All drivers shall be required to be able to provide proof of a valid driver's license. Hazardous waste (if any) will be accompanied by federal Uniform Hazardous Waste Manifests. Any off haul of excess arsenic-, lead-, and dieldrin impacted soil would be determined during earthwork activities. As such, the quantities cannot be estimated at this time. Any soil transported between parcels across public right of ways will not require manifesting unless the soil is considered Hazardous.

4.3 Transportation of Liquid Waste

Wastewater will be transported to the appropriate off-Site disposal facility via surface streets and highways in 5,000-gallon tanker trucks, or other appropriately sized vehicle for transportation of liquid waste. The Contractor will select the transporter for wastewater.

4.4 Transportation of Other Waste

All non-hazardous waste (e.g., general trash, concrete, asphalt, rock, etc.) will be transported in appropriate transfer trucks and disposed off-Site at a local municipal waste landfill or, if applicable, will be recycled at an off-Site recycling facility as proposed by the Contractor.

5.0 TRANSPORTATION ROUTES

This section describes the routes that material generated during implementation of the Response Plan for the Site may take during transportation from the Site to the off-Site disposal locations. As discussed in Section 3.0, the actual selected off-Site disposal facilities will be provided by the Contractor. If the Contractor's selected disposal facilities vary from those listed in Section 3.0, the

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Contractor will also provide transportation route maps to the selected disposal facilities in the Site-specific addendum, as described in Section 1.0.

The trucking around the Site would likely be conducted between the hours of 7:00 am and 5:00 pm. A list of emergency service organizations is included in the table below.

Emergency Contact Agencies along Transportation Routes

Agency	Contact Phone Number
California Highway Patrol	911 (on cellular phone)
City of Santa Clara Police	(408) 615-5580
Santa Clara County Sheriff	(408) 808-4400
California Department of Transportation	(510) 286-4444 District 4 (Bay Area) (209) 948-7543 District 10 (Stockton) (559) 488-4348 District 6 (Fresno)

5.1 Local Transportation Routes

The proposed local transportation routes from and to the Site are shown on Figure D-2 and described below. There are no known schools or other sensitive use sites between the site and the freeways used to transport these wastes.

<u>Route from the Site to California State Route 237 East</u>:

- Head west on either Augustine Drive; or head south on either Montgomery Drive or Octavius Drive, then turn right on Scott Boulevard
- Turn right onto Bowers Avenue
- Continue onto Great America Parkway
- Turn right onto the California 237 East ramp

<u>Route from the Site to Highway 101 North</u>:

- Head west on either Augustine Drive; or head south on either Montgomery Drive or Octavius Drive, then turn right on Scott Boulevard
- Turn right onto Bowers Avenue
- Merge right onto Highway 101 North via the ramp toward San Francisco

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Route from the Site to Highway 101 South:

- Head west on either Augustine Drive; or head south on either Montgomery Drive or Octavius Drive, then turn right on Scott Boulevard
- Turn right onto Bowers Avenue
- Slight right to merge onto Highway 101 South toward San Jose

Route from California State Route 237 West to the Site:

- Take the Great America Parkway exit
- Turn left onto Great America Parkway
- Continue onto Great America Parkway
- Continue onto Bowers Avenue
- Turn left onto Augustine Drive; or turn left on Scott Boulevard, then turn left on Octavius Drive

Route from Highway 101 North to the Site:

- Take Great America Parkway exit towards Bowers Avenue
- Turn left onto Great America Parkway
- Continue onto Bowers Avenue
- Turn left onto Augustine Drive; or turn left on Scott Boulevard, then turn left on Octavius Drive

Route from the Highway 101 South to Site:

- Take Bowers Avenue exit toward Great America Parkway
- Keep right at the fork, follow signs for Bowers Avenue
- Merge onto Bowers Avenue
- Turn left onto Augustine Drive; or turn left on Scott Boulevard, then turn left on Octavius Drive

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5.2 Route to Disposal Facilities

The following are possible routes to the California disposal facilities from the Site:

- Allied Waste's Forward Landfill – From California State Route 237 East, take Interstate 880 North, take Interstate 680 North, East to Interstate 580 to Stockton.
- Allied Waste's Keller Canyon Landfill – From California State Route 237 East, take Interstate 880 North, take Interstate 680 North and Highway 4 to Pittsburg.
- Clean Harbor's Buttonwillow Landfill – From 101 South, take California State Route 152 to Interstate 5 South, take the California Route 41 exit, turn right onto Old State Highway.
- Republic Vasco Road Landfill – From California State Route 237 East, take Interstate 880 North, take Interstate 680 North, and Interstate 580 East to Stockton.
- San José-Santa Clara Regional Wastewater Facility – From 237 East, take the Zanker Road way exit, turn left onto Zanker Road and continue on to Los Esteros Road.
- Seaport Environmental – From 101 North, take the Seaport Boulevard exit in Redwood City.
- Waste Management's Altamont Disposal Facility –From California State Route 237 East, take Interstate 880 North, take Interstate 680 North, East to Interstate 580 to Livermore.
- Waste Management Kirby Canyon Landfill – From 101 South, take Coyote Creek Golf Drive exit, make a left onto Coyote Creek Golf Drive to Landfill facility.

Potential routes to the possible disposal facilities in California are shown on Figure D-3.

6.0 TRAFFIC CONTROL AND LOADING PROCEDURES

This section describes the traffic control and loading procedures to be carried out by the Contractor during implementation of the Response Plan for the Site. The Contractor shall comply with all local sound control and voice level rules, regulations and ordinances which apply to any work performed.

6.1 Traffic Control On- and Off-Site

The Contractor will be required to provide a safe and convenient passage of public traffic in the vicinity of the Site during soil excavation activities. At a minimum, the Contractor will take the following steps before initiating the soil excavation:

- Determine the location and type of signage before work begins for the project;

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- Determine methods and equipment the Contractor will use for closing lanes and for flagging and controlling one-way traffic, as necessary;
- Note the various traffic control devices specified to be used – some of these devices will require certificates of compliance; and
- Ensure flaggers are trained in accordance with the Manual on Uniform Traffic Control Devoces ("MUTCD") and MUTCD CA *Supplement* and the *Construction Safety Orders*.

Traffic control procedures that may be used during vehicle entrance to and exit from the Site include signs and a flag person. As appropriate, the flag person will slow or stop traffic on Augustine Drive or Octavius Drive as trucks exit the Site. The Contractor will close lanes in a manner that conforms to California Department of Transportation and the City of Santa Clara's ("the City's) requirements.

Trucks are anticipated to be staged onsite and will enter and exit the Site from either Augustine Drive, Montgomery, Scott Drive or Octavius Drive. In the event that trucks must be staged off-site, trucks may be staged on Augustine Drive. The Contractor will call the trucks from the designated truck staging area as needed for loading.

6.2 Traffic Control During Loading

The Contractor will control work area entry of unauthorized personnel. All visitors to the Site who enter the defined work areas will be requested to sign the daily log maintained by the Contractor and will be advised of the potential health hazards associated with the excavation activities. Non-essential and non-certified individuals will be directed away from the work areas. The work zone boundary will be demarcated with orange cones or other visible delineation, such as fencing.

The degree of traffic control along the streets surrounding the Site will depend on Site conditions encountered at the time of soil off-haul. If traffic along the streets presents a problem as determined by the Contractor or the Companies' Representatives, flagmen will be used to ensure safety and to regulate flow of trucks. Traffic control will comply with the City and Santa Clara County requirements, as well as the current version of the California MUTCD, prepared by the California Department of Transportation.

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Soil will be loaded into trucks using an excavator, backhoe, or front-end loader. Loading will occur adjacent to the excavation area (or stockpile, if present). Although groundwater is not expected to be encountered, in loading the trucks for off-Site transportation of excavated soil, control measures will be employed as necessary to prevent the generation of free water during transport. Soil excavated from the saturated zone, if any, will be drained to the greatest extent feasible within the excavation prior to loading the soil for off-Site transportation, and if necessary, adsorbent material such as kitty litter will be added to reduce the overall moisture content prior to departure from the Site.

Prior to departure, trucks containing contaminated soil will be covered with tarps to prevent the release of dust once the trucks leave the Site. After loading, all impacted materials will be removed prior to the trucks leaving the work area following the procedures established in the Decontamination Plan (see Appendix A). The actual loading, turn around, and decontamination locations will be determined by the Contractor in the field based on Site conditions at the time of the work. While on-truck axle scales may be used as an indication of truck weight capacity, all trucks conveying impacted soil will be weighed on certified scales at the off-Site disposal facility. In addition, trucks will stop, as required, at any and all state-operated weigh stations en route to their designated off-Site disposal facility.

After covering the load, the trucks will proceed to the decontamination pad and following decontamination, they will exit the Site on either Augustine Drive or Octavius Drive. The location of the decontamination pad will be determined by the Contractor based on staging of excavation activities.

The following control measures that will be addressed by the Contractor are described below. Specific means and methods will be determined by the Contractor within the guidance of the specifications, and may be adjusted in the field to address unforeseen conditions.

- Traffic control will comply with City requirements, as well as the current version of the California Manual on Uniform Traffic Control Devices, prepared by the California Department of Transportation;
- Loading will occur adjacent to the stockpile area, (or excavation area if direct- loading is feasible);

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- Prior to entering the decontamination area, the loads will be covered with tarps by personnel with appropriate health and safety training;
- Decontamination will be conducted on-Site in accordance with the Decontamination Plan (Appendix A of the Response Plan);
- Tarps will be employed to seal/cover cargo containers prior to departure from the Site to prevent the release of dust, debris, or hazardous wastes/substances during transport; and
- Prior to leaving the Site, the Contractor will inspect each vehicle to ensure proper loading, covering/sealing, decontamination, placarding (if required), and manifesting has been implemented.

7.0 WORKER VEHICLE PARKING

In order to minimize the impact on parking availability in the vicinity of the Site, an area on site will be designated for worker vehicle parking. The parking location will be determined by the Contractor based on the anticipated excavation staging and sequencing.

8.0 RECORD KEEPING

The Contractor will maintain daily field logs. Each daily log will include the date, time, weight/volume, waste/material, trucking company, driver, and vehicles used for each trip. Daily field logs will be prepared by hand or on laptop computer in the field at the time of performance, showing:

- Truck Identification and Company.
- Time scheduled in, or arrival upon return.
- Manifest Number.
- Waste type loaded and area removed from.
- Estimated waste quantity entered on manifest.
- Time departed from the Site.

Soil that is classified as non-hazardous waste will be accompanied by a bill of lading to track shipment. If any soils are classified as RCRA hazardous waste or non-RCRA California hazardous waste, such soils will be accompanied by a Uniform Hazardous Waste Manifest that will be signed by both the transporter and a representative of the Companies that is authorized to sign hazardous waste manifests.

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All manifests and shipping documents will be carried in the truck cab within reach of the driver in accordance with U.S. Department of Transportation regulations. Other documents furnished to the driver with each load will include either a map or driving directions specifying the approved transportation routes. Upon arrival at the Site, new drivers will be furnished a check-list summary of this Transportation Plan and will receive a health and safety briefing as described in Section 9.0. A copy of the Transportation Plan will also be available at the Site.

9.0 HEALTH AND SAFETY

The Contractor shall implement a Site-specific health and safety plan (HASP), as applicable to transportation personnel. At a minimum, the HASP will include the following:

- State the type of health and safety training that will be provided to Site personnel and vehicle operators;
- Describe what the transportation personnel will and will not be permitted to do, based on training, during loading;
- Discuss how the health and safety plan will be communicated to drivers (e.g., tailgate meetings) and how the plan will be enforced; and
- Describe notification procedures and contingency plans for accidents or breakdowns en route.

Site personnel will be qualified and trained in accordance with the requirements of the Contractor's Site--specific HASP. All personnel will receive a Site-specific orientation on the physical and chemical hazards anticipated to be present in the wastes they may be potentially exposed to or work with in the course of assigned job duties.

10.0 CONTINGENCY PLAN

This contingency plan is prepared for chemical spills and other accidents that may occur with transport vehicles on-Site or in transport between the Site and off-Site disposal facilities. It is also applicable for vehicles delivering construction material, outside services, and supplies. It addresses the steps that need to be followed for all accidents as well as several accident-specific steps. For informational purposes, copies of this plan will be provided to drivers carrying hazardous waste (if any) excavated from the Site.

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It is the responsibility of the transportation contractor to notify the appropriate emergency service organizations prior to the transportation of hazardous wastes through their areas.

Due to the different factors that could impact any off-Site spill scenario, it is not appropriate to describe specific spill mitigation procedures in this document. The following is a list of possible steps that should be taken in the event of an off-Site release:

- If possible, stop vehicle safely, move off roadway, and isolate vehicle and load (place traffic cones and keep observers from the area) to prevent additional accidents.
- Survey the situation, identify any injured parties, and determine immediate cause and potential implications (e.g., wind direction, potential receptors, etc.).
- Call for emergency assistance by dialing 911.
- Report incident using the 24-hour emergency contact information included on the hazardous waste manifest.
- Report incident to State of California Office of Emergency Services by contacting the California State Warning Center (800-852-7550).
- Assist any injured personnel.
- If possible, contain spills of contaminated material.
- Contact the Companies' construction manager.
- Complete incident report.

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10.1 Steps Required For All Accidents

- Secure the area of vehicles and spill, if appropriate. If possible, stop vehicle safely off roadway to avoid additional accidents.
- Assist any injured personnel.
- Assess severity of accident and call 911 for emergency assistance as appropriate.
- Pursuant to U.S. Department of Transportation Regulations 392.22 to 392.25, place at appropriate location(s) traffic control device(s). It is recommended that flame-producing signals not be used. Keep fire, flames, lighted cigarettes, cigars, and pipes away from the scene.
- Notify the Contractor and the transportation company's operations manager or designee. The transportation company's operations manager or designee will communicate with Contractor and coordinate response with appropriate agencies.

10.2 Steps for Spills of Diesel Fuel, Hydraulic Fluid, or Other Automotive Fluid(s)

- Contain the spill and prevent liquid from draining onto roadways, sewers, storm drain, or streams.
- If needed, add protection around drains and sewer inlets.
- Notify Contractor Site Superintendent and transportation company supervisors.
- The transportation company supervisor will provide guidance on the notification of:
  - California Highway Patrol
  - Local Police and Fire Departments
  - Local Consolidated Unified Permitting Agency ("CUPA")
  - U.S. Coast Guard and other spill notification agencies
- If on the work site, Contractor will implement cleanup procedures; subcontractors and suppliers must follow their own procedures regarding conducting cleanup for spills on public roads and non-Site private properties.
- Wear personal protective equipment as outlined in the Contractor's Site-specific HSP (Section 8.0).

10.3 Steps for Spills of Other Chemicals

- Contain the spill, prevent liquid from draining onto roadways, sewers, storm drain, or streams.
- If needed, add protection around drains and sewer inlets.
- Notify Contractor Site Superintendent and transportation company supervisors.
- The supervisor will provide guidance on the notification of:
  - California Highway Patrol
  - Local Police and Fire Departments
  - Local CUPA
  - U.S. Coast Guard and other spill notification agencies
- Refer to shipping papers to determine the name and hazard classes of the chemicals. Give this information to any first responders. Advise fire department if the chemical is water reactive.

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- Where appropriate, Contractor employees may conduct cleanups. This will be done using personal protective equipment as outlined in the Contractor's Site-specific HASP (Section 8.0).

10.4 Loading and Unloading

The vehicle driver is responsible for ensuring that materials are safely loaded and unloaded from the driver's vehicle. This responsibility will include, but is not limited to:

- Making certain that the loading and dumping conditions are safe.
- Ensuring that each load is evenly distributed through the trailer.
- Determining that the ground for loading and unloading is stable and do not unload on uneven or unstable ground.
- Determining that the wind conditions and vehicle direction relative to the wind are appropriate and do not dump during heavy crosswinds.
- Ensuring that there are no obstacles at the dump locations and do not dump when adjacent to another vehicle.
- Ensuring that locks on tailgates have been released prior to dumping and suspensions are set properly. Pay close attention to the vehicles and pedestrians at all locations.

Draft

11.0 REFERENCES

Cal-EPA, 2001. Transportation Plan - Preparation Guidance for Site Remediation, Interim Final, California Environmental Protection Agency, Department of Toxic Substance Control, December 2001, available at: www.dtsc.ca.gov/HazardousWaste/Transporters/upload/SMB_Transportation-Plan.pdf.

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EKI, 2014e. Phase I and Phase II Environmental Site Assessment, 3230 Scott Boulevard, Santa Clara, California. December 19, 2014.

EKI, 2014f. Phase I Environmental Site Assessment, 3236 Scott Boulevard, Santa Clara, California. December 19, 2014.

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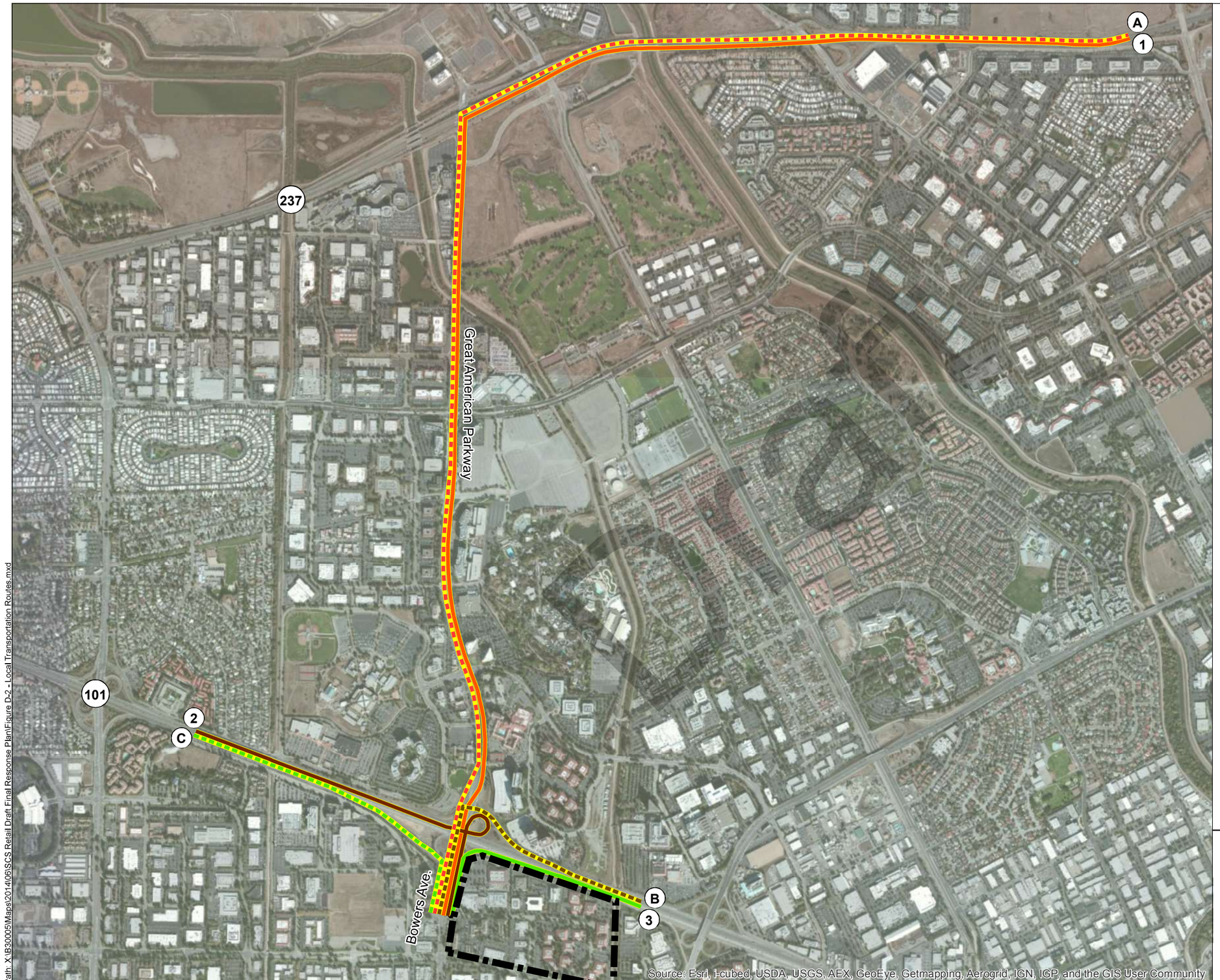
FIGURES

D-2. Local Transportation Routes
D-3. Routes to California Disposal Facilities

Draft



N

0 1,500 3,000

(Approximate Scale in Feet)

Legend

- Site Boundary
- 1 Truck Route from Site to Highway 237 East
- 2 Truck Route from Site to Highway 101 North
- 3 Truck Route from Site to Highway 101 South
- A Truck Route from Highway 237 West to Site
- B Truck Route from Highway 101 North to Site
- C Truck Route from Highway 101 South to Site

Notes

1. All locations are approximate.

Sources

1. Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer

Local Transportation Routes

Santa Clara Square
Santa Clara, CA

Figure D-2

Path: X:\B30005\Maps\2014\06\SCS Retail Draft Final Response Plan\Figure D-2 - Local Transportation Routes.mxd

Notes
1. All locations are approximate.

Routes to California Disposal Facilities

Santa Clara Square
Santa Clara, CA

Figure D-3

Path: X:\B30005\Maps\2014\06\SCS Retail Draft Final Response Plan\Figure D-3 - Local Transportation Routes.mxd

Roux Associates Health and Safety Plan

Draft

November 2015

HEALTH AND SAFETY PLAN

SCS Apartments Development Site
Santa Clara, California

Draft

Prepared for

3230 SCOTT BOULEVARD LLC,
3236 SCOTT BOULEVARD LLC,
3255 SCOTT BOULEVARD LLC,
3265 SCOTT BOULEVARD LLC, AND
AUGUSTINE BOWERS II LLC

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2432.0002S002.113/HSP-CV

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F. Acord Form
G. OSHA 300
H. CAL/OSHA Job Safety and Health Protection Poster

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APPROVALS

By their signature, the undersigned certify that this Health and Safety Plan (HASP) is approved and will be utilized at the project site located at Augustine Drive, between Montgomery Drive and Octavius Drive, Santa Clara, California.

Bjorn Wespestad, P.E. Office Health and Safety Manager Roux Associates, Inc.	September 10, 2015 Date
David G. Dixon, P.G. Project Principal Roux Associates, Inc.	September 10, 2015 Date

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1.0 INTRODUCTION

This Site-specific Health and Safety Plan (HASP) has been prepared in accordance with 29 CFR 1910.120 Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) and Roux Associates, Inc. (Roux Associates) Standard Operating Procedures (SOPs). This HASP has also been prepared to meet the requirements of California Code of Regulations, Title 8, Section 5192. It addresses all activities related to subsurface investigation activities and the management of impacted soil, groundwater and storm water during development activities at Santa Clara Square's Apartments Site (SCS Apartments Site) in Santa Clara, California (Figure 1). The HASP establishes guidelines and general requirements for all workers performing intrusive activities related to subsurface investigation activities and the management of impacted soil, groundwater and storm water, which may expose or potentially expose workers to hazardous substances and health hazards during site development activities. Specific training requirements for all workers which may be exposed or potentially exposed to hazardous substances and health hazards shall be in accordance with 29 CFR 1910.120(e).

This HASP will be required to be adhered to by all Roux Associates field personnel and Roux's subcontractors.

This HASP shall serve as a template for all contractors (not contracted to Roux) performing work related to subsurface investigation activities and soil, groundwater and storm water management at the Site; however, said contractors are required to prepare an independent HASP. Independent HASPs prepared by each contractor (not subcontracted to Roux Associates) shall comply with 29 CFR 1910.120 OSHA HAZWOPER and the contractor's own health and safety SOPs. In addition, the contractor's HASP shall include an independent evaluation of Site hazards and mitigative actions prior to the commencement of field activities at the Site.

This HASP attempts to identify all potential hazards at the Site; however, Site conditions are dynamic and new hazards may appear constantly. Personnel must remain alert to existing and potential hazards as Site conditions change and protect themselves accordingly. The contents of each independent HASP prepared by each contractor may require revisions based upon additional

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information made available to health and safety personnel, monitoring results, or changes in the technical scope of work throughout the duration of the project.

1.1 Scope of Work

The general scope of work activities will include the following:

1. Excavation, stockpiling and grading of impacted and clean soil cover material across the Site;
2. Groundwater and storm water management, as necessary; and
3. Additional subsurface investigation activities, as necessary.

1.2 Emergency Numbers

1.2.1 Emergency Phone Numbers

Emergency Medical Service: 911

Police: 911

Fire: 911

Occupational Health Clinic: Concentra Urgent Care.....510-351-3553

Hospital: Regional Medical Center of San Jose 408-259-5000

National Response Center: 800-424-8802

California Poison Control Center: 800-222-1222

Center for Disease Control: 800-311-3435

1.2.2 Key Site Project Management Personnel

Personnel	Company	Title	Telephone/Cell
Steve Bull	The Companies.	Project Manager (PM)	408-957-1226/ 925-895-1681
David Dixon	Roux Associates	Project Principal/ Project Manager	415-967-6000/ 415-599-5863
TBD	General Contractor	Project Manager	TBD
Jayantha Randeni	DTSC	DTSC Project Manager	510-540-3806

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1.2.3 Key Roux Health and Safety Management Personnel

Personnel	Title	Telephone/Cell
Joseph Gentile	Corporate Health and Safety Manager	856-832-3768/610-844-6911
David Dixon	Project Principal/Project Manager	415-967-6000/415-599-5863
TBD	Site Health and Safety Officer (Roux SHSO)	TBD

1.2.4 Key General Contractor Health and Safety Management Personnel

Personnel	Title	Telephone/Cell
TBD	Corporate Health and Safety Manager	TBD
TBD	Superintendent	TBD
TBD	Site Health and Safety Officer (HD SHSO)	TBD

1.2.5 Directions to Regional Medical Center of San Jose

225 N Jackson Avenue
San Jose, California 95116

See Figure 2 for street map

- Head west on Augustine Drive toward Bowers Avenue
- Take the first right onto Bowers Avenue
- Slight right to merge onto US-101 South for 6.5 miles
- Take the McKee Road exit toward Julian Street
- Turn right onto McKee Road
- Turn Right onto N Jackson Avenue
- Arrive at Regional Medical Center of San Jose on your right

1.2.6 Directions to Concentra Urgent Care

2587 Merced Street
San Leandro, California 94577

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See Figure 3 for street map

- Head west on Augustine Drive toward Bowers Avenue
- Take the first right onto Bowers Ave
- Slight right to merge onto US-101 South
- Merge onto Montague Expressway for 4.1 miles
- Slight right to merge onto I-880 North toward Oakland for 26 miles
- Take the Marina Boulevard West Exit
- Turn left onto Merced Street
- Arrive at Concentra Urgent Care on your right

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2.0 HEALTH AND SAFETY STAFF

This section briefly describes key site personnel and their health and safety responsibilities for the work to be performed at the Site. The SCS Apartments Site comprises seven parcels, respectively. 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, and Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the SCS Apartments Site. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. The recommended response action in the Response Plan entails off hauling, relocation, consolidation, and capping of impacted shallow soils. The Companies will select a licensed remediation contractor (Contractor) to implement the Response Plan. The overall project manager for development of the SCS Apartments Site is Mr. Steven Bull. Roux Associates and the general contractor will be directly contracted to the Companies for performing all intrusive activities to be performed at the Site for the redevelopment of the SCS Apartments Site.

Roux Associates is the environmental consultant at the Site and will work with the general contractor during the implementation and management of field activities associated with the Response Plan. Roux Associates and its subcontractors will perform field activities in accordance with this HASP. In the event of an emergency, Roux Associates field personnel shall serve as primary points of contact in the event of an emergency involving Roux Associates' field personnel or its subcontractors.

The general contractor and will hire the necessary contractors to perform soil, groundwater and storm water management activities at the Site. The general contractor will prepare their own Health & Safety Plan for the Site. In the event of an emergency, general contractor shall serve as primary points of contact in the event of an emergency involving the general contractor's subcontractors.

Below is a summary of the responsibilities for key <u>Roux Associates Health and Safety Staff when Roux Associates and its subcontractors are performing work on-site</u>.

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2.1 Corporate Health and Safety Manager – Joseph Gentile, CIH

- Implements the HASP for Roux Associates and its subcontractors;
- Performs or oversees site-specific training and approves revised or new safety protocols or field operations for Roux Associates and its subcontractors;
- Coordinates revisions of this HASP with Project Principal/Project Manager;
- Responsible for the development of new task safety protocols and procedures and resolution of any outstanding safety issues which may arise during the conduction of site work; and
- Review and approve all health and safety training and medical surveillance records for personnel and subcontractors.

2.2 Project Principal/Project Manager – David Dixon, PG

- Has the overall responsibility for the health and safety of Roux Associates field personnel and Roux Associates' subcontractors; and
- Ensures that adequate resources are provided to the field health and safety staff to carry out their responsibilities as outlined below.

2.3 Site Health and Safety Officer (SHSO) -TBD

- Directs and coordinates health and safety monitoring activities associated with Roux Associates' field activities;
- Ensures that Roux Associates and its subcontractors utilize proper personal protective equipment;
- Conducts initial onsite review of HASP and site specific hazards with Roux Associates field personnel and its subcontractors prior the commencement of work;
- Conducts and documents periodic safety briefings;
- Ensures that Roux Associates field personnel and its subcontractors comply with this HASP;
- Completes and maintains Accident Report and Investigation Forms associated with Roux Associates field personnel and its subcontractors;
- Notifies Project Manager and Corporate Health And Safety Manager of all accident/ incidents associated with Roux Associates field personnel and its subcontractors;
- Change in level of personal protective equipment (PPE);
- Maintains contact with Contractors;

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- Determines upgrade or downgrade of personal protective equipment (PPE) based on Site conditions and/or real time monitoring results;

- Ensures that monitoring instruments are calibrated daily or as manufacturer's suggested instructions determine; and

- Submits and maintains health and safety field log books, daily safety logs.

2.4 Subcontractors (Contracted to Roux Associates)

- Report any unsafe or potentially hazardous conditions to the SSO, correcting those conditions within their capability;

- Maintain knowledge of the information, instructions, and emergency response actions contained in the HASP;

- Comply with rules, regulations, and procedures as set forth in this HASP and any revisions, which are instituted; and

- Prevent admittance to work Site by unauthorized personnel.

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3.0 SITE LOCATION, DESCRIPTION, AND HISTORY

Descriptions of the SCS Apartment Site and surrounding property usage are included in the following sections. The location of the Site is presented in Figure 1.

The SCS Apartments Site comprises the following seven parcels, respectively:

- The 3236 Scott Parcel comprises approximately 3 acres with one building.
- The 3230 Scott Parcel comprises approximately 3 acres with one building.
- The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard.
- The 3255 Scott Parcel comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255 5 Scott Boulevard).
- The Augustine Bowers II Parcel comprises approximately 2.6 acres with only a partial portion of two buildings, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted at five of the seven SCS Apartments Site parcels (EKI 2013, EKI 2014a, EKI 2014b, EKI 2014d, EKI 2014e, EKI 2014f). Roux Associates conducted additional characterization to prepare the response plan as described in the Site characterization report (Roux 2015a).

The Site is bound in the north by the SCS Office Phase II/III Development (currently under construction); to the east by the San Tomas Aquino Creek Trail; to the west by the SCS Retail Development (currently under construction); to the south and west by office and light industrial buildings. The surrounding area comprises of mostly commercial/retail establishments and offices, including restaurants. The Site and the surrounding properties were used as orchards prior to its development as an office complex in the 1970s. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space.

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4.0 WASTE DESCRIPTION/CHARACTERIZATION

4.1 General

The following information is presented in order to identify the types of materials that may be encountered at the Site. The detailed information on these materials was obtained from:

- SAX's Dangerous Properties of Industrial Materials – Lewis Eight Edition;
- Chemical Hazards of the Workplace – Proctor/Hughes;
- Condensed Chemical Dictionary – Hawley;
- Rapid Guide to Hazardous Chemical in the Workplace – Lewis 1990;
- NIOSH Pocket Guide to Chemical Hazards – 2005;
- Material Safety Data Sheets (MSDSs);
- ACGIH TLV® Values and Biological Exposure Indices; and
- OSHA 29 CFR 1910.1000.

4.2 Chemical/Constituents of Concern

At the nearby Office Phase I Site and Retail Site, soil remediation has been completed and at the SCS Office Phase II/III, soil remediation is currently in progress. Based on the similar past orchard uses at these sites and the SCS Apartments Site, it is anticipated that the constituents of concern (COCs) and their corresponding remedial goals (RGs) will be derived from the same sources. The anticipated COCs are arsenic, lead, 4,4' dichlorodiphenyldichloroethylene (DDE), and dieldrin.

The presence of elevated arsenic, lead, DDE, and dieldrin in shallow soil on the Site are likely due to the previous orchard use of the Site (e.g., application of lead arsenate and organochlorine pesticides). Additional contaminants from previous industrial and laboratory site use may be present including chlorinated petroleum hydrocarbons.

Subsurface investigation activities conducted by Roux Associates from July 2014 to August 2015 confirmed that concentrations associated with the COCs listed above exceeded the RGs in soil at the SCS Apartments Site.

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Constituents of concern (COCs) in soil may be encountered during excavation, stockpiling and grading activities include both organic and inorganic compounds.

Subsurface investigation activities indicated that only low concentrations of chlorinated petroleum hydrocarbons are present in groundwater and soil vapor. However, due to the low concentrations these were not considered significant and were not retained as a COC for the Site..

A summary of toxicological data for chemicals/constituents that may be encountered during field activities is provided in Table 1. Specifically, the summary of toxicological data in Table 1 includes characteristics, health hazards, protection, and exposure limits for each chemical/constituent that may be encountered at the Site.

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5.0 HAZARD ASSESSMENT

The potential exposure to chemical hazards is dependent upon the work activity performed (intrusive versus non-intrusive), and the duration and location of the work activity. Chemical hazards associated with COCs known to be present at the Site include inhalation, dermal contact, ingestion and/or eye contact that could cause: respiratory damage, being overcome by vapors or asphyxiation, dermatitis, skin burns or irritation or damage to the eyes.

Physical hazards that may be encountered during Site work include; working around heavy equipment and motor vehicle operation (i.e., earth moving equipment, subsurface investigation equipment, construction vehicles, etc.), heat stress, exposure to excessive noise, punctures, cuts, falls, electrocution, bruises and other physical hazards associated with the use of power tools.

Biological hazards may exist during Site activities. These hazards include exposure to insect bites/stings, animals and animal wastes and bloodborne pathogens.

5.1 Chemical Hazards

The potential for personnel and subcontractors to contact chemical hazards may occur during the following tasks:

- Subsurface investigation activities;
- Excavation, stockpiling or grading activities; and
- Groundwater/storm water management activities.

For chronic and acute toxicity data, refer to Table 1 for further details on chemical compound and constituent characteristics.

5.1.1 Exposure Pathways

Exposure to these compounds during ongoing activities may occur through inhalation of contaminated dust particles, dermal absorption, and accidental ingestion from either direct or indirect cross-contamination activities.

Inhalation of potentially contaminated dust particles (lead, arsenic, DDE, and dieldrin) can occur during adverse weather conditions (high or changing wind directions) or during intrusive activities

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that may generate airborne dust (i.e., excavation, stockpiling and grading, etc.). Dust control measures such as applying water to exposed areas shall be implemented where visible dust is generated. In addition to the "visible dust" trigger point, dust control shall also be implemented in accordance with the Dust Control Plan (DCP) provided in Appendix B of the Response Plan. The inhalation potential for workers is anticipated to be low if the DCP is implemented at the Site.

Dermal contact with arsenic impacted soils may cause dermatitis. Dermal contact with dieldrin can cause skin irritation. Prolonged dermal contact with skin may cause temporary irritation. Dermal protection shall be utilized when handling arsenic, DDE, and dieldrin-impacted soil to minimize skin contact and prevent any adverse effects. Dermal contact with inorganic lead does not represent a significant dermal hazard since it is not readily dermally adsorbed. Ingestion of potentially contaminated dust particles for workers is very low. Ingestion hazards can be avoided through the restriction of eating, drinking and smoking in designated non-impacted areas and through good personal hygiene practices. Decontamination procedures shall be followed when exiting contaminated areas for eating, drinking, smoking, utilizing the sanitary facilities or for leaving work at the end of the day.

The eyes are susceptible to damage from potential dust generated at the Site; however, the potential exposure of dust to eyes is considered to be low due to the required dust control measures specified herein and within the DCP. In addition, eye protection (i.e., safety glasses, safety goggles) shall be employed by all workers while on-site.

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5.1.2 Operational Action Levels

A decision-making protocol for an upgrade in levels of protection and/or withdrawal of personnel from an area is discussed in Section 9 of this HASP and within the DCP prepared for soil management activities at the Site by Roux Associates.

5.2 Physical Hazards

A variety of physical hazards may be present during Site activities, which include hazards associated with typical earth moving equipment. These activities include the operation of motor vehicles and heavy equipment, the use of power and hand tools, contact with construction materials, working in areas which have the potential to promote falling, skin burns, crushing of

fingers, toes, limbs, head injuries caused by falling objects, temporary loss of one's hearing and/or eyesight. The referenced hazards are not unique and are generally familiar to most site workers at construction sites.

5.2.1 Vehicular/Equipment Traffic

On-site traffic consists of cars, work trucks and heavy equipment and can vary at the site and is generally related to the varying on-site construction activities. Vehicle speed within the Site area is typically low but may be hazardous due to vision limitations caused by miscellaneous obstructions.

When performing field work at locations where the possibility of vehicular traffic exists, the following traffic safety procedures must be followed:

- High visibility clothing or fluorescent vests, as well as any other applicable PPE specified in the HASP, must be worn at all times; and
- Daily safety briefings should include a discussion of traffic safety as it relates to the activities planned for that day.

5.2.2 Heavy Equipment Safety

The SHSO will be present onsite during all intrusive operations and will provide health and safety monitoring to ensure that appropriate levels of protection and safety procedures are followed by all Site workers. The proximity of chemical, water, sewer, and electrical lines will be identified by a utility mark-out service before any subsurface activity or sampling is attempted. The SHSO shall confirm that the utility mark-out service has been notified at least 72 hours prior to earth disturbing activities and that the mark-out was completed for the exact address before conducting earth disturbing activities.

Construction activities at the Site will likely utilize all of the mechanical equipment used on any major construction site. Typical mechanical equipment to be found includes excavators, front end loaders, bulldozers, direct-push rigs, drilling rigs, pumps, compressors, generators, portable lighting systems, pneumatic tools (drum openers), hydraulic drum crushers, forklifts and trucks. From a safety standpoint, it is always important to be continually aware of the equipment around you. It poses a serious hazard if not operated properly, or if operators cannot see personnel near

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machinery. In particular, the following heavy equipment hazards are common at the Site and need to be considered from a safety standpoint:

- Interaction/contact with heavy equipment contractors - heavy equipment (e.g., excavators, front end loaders, bulldozers, direct-push rigs, etc.) operators may not be aware of your presence.
- Be sure that the operator is aware of your presence before approaching any heavy equipment.
- When possible, inform operators of your planned activities in the area prior to them beginning their activities.

For the above reasons it is necessary to have an established heavy equipment exclusion zone policy in effect, the purpose of which is to clearly separate workers from the heavy equipment. Roux Associates' corporate Heavy Equipment Exclusion Zone Policy, (Corporate Health and Safety Standard Operating Procedure, 1.13), attached as Appendix D, shall be implemented.

5.2.2.1 Equipment Inspection

Each piece of heavy equipment will be inspected for proper and safe operation prior to its use.

- All mechanical equipment and hydraulic hoses will be inspected by the operators prior to beginning this work effort, and at least daily thereafter to ensure proper operating capability. Defective equipment must be repaired or replaced prior to continued use/operation.
- Inspect all cables, sheaves, slings, chains, hooks, and eyes prior to use.
- Secure equipment firmly or be sure it is supported.
- Be sure all power lines are inactivated, removed, or at a safe distance.
- Keep all equipment lubricated and maintained.
- Employ signal persons whenever needed.
- Make certain that signals are understood and observed.

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5.2.3 Overhead/Underground Power Lines

The positioning or operation of heavy equipment in the vicinity of utility services will not be initiated until the activities have been coordinated with the SHSO. Operation of equipment adjacent to or under overhead power lines in such a manner that encroaches said overhead power line will not take place unless one of the following is satisfied:

- Power has been shut off and positive steps are taken to prevent the lines from being energized;
- The equipment does not have the ability to move laterally or horizontally within the minimum clearance specified in the table below from energized power lines; or
- The equipment has been positioned and blocked to allow no part, including cables, to come within the minimum clearance specified in the table below.

Minimum Required Clearances for Energized Overhead Power Lines

Nominal System Voltage of Power Line (KV)	Minimum Required Clearance (feet)
0-50	10
100	30
200	70
300	110

1 kilovolt (KV) = 1,000 volts

Underground service alert shall be notified prior to performing any excavation activities on-site. In addition, when excavating on private property and underground utility locating service shall be locate utilities on-site to the extent possible. If excavation activities are within the vicinity of underground power lines or any other underground utilities, the contractor shall locate the utility using hand tools prior to continuing with excavation using mechanical equipment.

5.2.4 Noise

Noise is a potential hazard associated with operation of heavy equipment, power tools, pumps, and generators. High noise equipment operators will be evaluated at the discretion of the Project and Construction Managers. Employees with an 8-hour time weighted average exposure exceeding 85 decibels (dBA) will be included in the hearing conservation program in accordance with 29 CFR 1910.95 and 1926.52.

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It is mandated that employees working around heavy equipment or using power tools that produce noise levels exceeding 90 dBA wear hearing protection that shall consist of earplugs or protective earmuffs.

5.2.5 Heat Stress

Heat stress is a significant potential hazard, associated with the use of protective equipment in a hot weather environment. The human body is designed to function at a certain internal temperature. When metabolism or external sources (fire or hot summer day) cause the body temperature to rise, the body seeks to protect itself by triggering cooling mechanisms. The Project and Construction Managers shall monitor the air temperature (as described later in this section) to determine potential adverse effects the weather can cause onsite personnel. Excess heat is dissipated by two means:

- Changes in blood flow to dissipate heat by convection, which can be seen as "flushing" or reddening of the skin in extreme cases.
- Perspiration, the release of water through skin and sweat glands. While working in hot environments, evaporation of perspiration is the primary cooling mechanism.

Protective clothing worn to guard against chemical contact effectively stops the evaporation of perspiration. Thus the use of protective clothing increases heat stress concerns.

The major disorders due to heat stress are heat cramps, heat exhaustion, and heat stroke. Heat cramps are painful spasms, which occur in the skeletal muscles of workers who sweat profusely in the heat and drink large quantities of water but fail to replace the bodies lost salts or electrolytes. Drinking water while continuing to lose salt tends to dilute the body's extracellular fluids. Soon water seeps by osmosis into active muscles and causes pain. Muscles fatigued from work are usually those most susceptible to cramps.

Extreme weakness or fatigue, dizziness, nausea, and headache characterize heat exhaustion. In serious cases, a person may vomit or lose consciousness. The skin is clammy and moist, complexion pale or flushed, and body temperature normal or slightly higher than normal. First aid treatment is rest in a cool place and replacement of body water lost by perspiration. Mild cases may recover spontaneously with this treatment; severe cases may require care for several days. There are no permanent effects.

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Heat stroke is a very serious condition caused by the breakdown of the body's temperature-regulating mechanisms. The skin is very dry and hot with red mottled or bluish appearance. Unconsciousness, mental confusion, or convulsions may occur. Without quick and adequate medical treatment, the result can be death or permanent brain damage. As first aid treatment, the person should be moved to a cool place. Body heat should be reduced artificially, but not too rapidly, by soaking the person's clothes in water and fanning them. This stage of heat stress is considered a medical emergency. 911 should be called and the individual transported to and treated in an emergency room.

Steps that can be taken to reduce heat stress are:

- Acclimate the body. Allow a period of adjustment to make further heat exposure endurable.
- Drink more liquids to replace the body water lost during sweating.
- Rest is necessary and should be conducted under the direction of the SSO.
- Wear personal cooling devices. These are two basic designs; units with pockets for holding frozen packets and units that circulate fluid from a reservoir through tubes to different parts of the body. Both designs can be in the form of a vest, jacket, or coverall. Some circulating units also have a cap for cooling the head.
- Wear long cotton underwear under chemical protective clothing. The cotton will absorb perspiration and will hold it close to the skin. This will provide the body with the maximum cooling available from the limited evaporation that takes place beneath chemical resistant clothing. It also allows for rapid cooling of the body when the protective clothing is removed.

Heat stress is a significant hazard associated with using protective equipment in hot weather environments. Local weather conditions may produce conditions which will require restricted work schedules in order to protect employees.

Appendix B contains procedures for heat stress; these will be used as a guideline and to provide additional information.

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5.2.6 Lockout/Tagout

In the event of the repair of electrical, pneumatic, hydraulic, mechanical systems on-site, all repair work, when necessary, will be performed in accordance with the lockout/tagout procedures per OSHA requirements under 29 CFR 1910.147.

5.3 Biological Hazards

The biological hazards, which have the potential to cause adverse health effects, are from exposure to domestic flies, mosquitoes, insects, animals and animal wastes and bloodborne pathogens.

5.3.1 Insect Stings

Stings from insects are often painful, cause swelling and can be fatal if a severe allergic reaction such as anaphylactic shock occurs. If a sting occurs, the stinger should be scraped out of the skin, opposite of the sting direction. The area should be washed with soap and water followed by application of an ice pack.

If the victim has a history of allergic reaction, s/he should be taken to the nearest medical facility. If the victim has medication to reverse the effects of the sting, it should be taken immediately.

If the victim experiences a severe reaction, a constricting band should be placed between the sting and the heart. The bitten area should be kept below the heart if possible. A physician should be contacted immediately for further instructions.

5.3.2 Animals and Animal Wastes

Certain animals can represent significant sources (vectors) of disease transmission. Precautions to avoid or minimize potential contact with (biting) animals or animal waste and/or deceased animals should be considered prior to all field activities. Rats, squirrels, raccoons, feral cats, and other wild animals can inflict painful bites which can also cause disease (as in the case of rabid animals). Site personnel should avoid contact with any of the above.

If contact occurs, be sure to clean the area thoroughly with soap and water as soon as possible. If a bite occurs, the area should be cleaned thoroughly immediately with soap and water and the PP/PC and CHSM contacted immediately to discuss any necessary medical follow-up.

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5.3.3 Bloodborne Pathogens

The majority of the occupational tasks onsite will not involve a significant risk of exposure to blood, blood components or body fluids. The highest risk of acquiring any bloodborne pathogen for employees onsite will be following an injury. When administering first aid care, there are potential hazards associated with bloodborne pathogens that cause diseases such as Human Immunodeficiency Virus (HIV), Hepatitis B (HBV), Hepatitis A (HAV), Hepatitis C (HCV), or the Herpes Simplex Virus (HSV). An employee who has not received the appropriate certifications and bloodborne pathogens training should never perform first aid and/or CPR.

In order to minimize any potential pathogen exposure, all employees should use the hand washing facilities on a regular basis. Additionally, the following universal precautions should be followed to prevent further potential risk:

- Direct skin or mucous membrane contact with blood should be avoided.
- Open skin cuts or sores should be covered to prevent contamination from infectious agents.
- Body parts should be washed immediately after contact with blood or body fluids that might contain blood, even when gloves or other barriers have been used.
- Gloves and disposable materials used to clean spilled blood shall be properly disposed of in an approved hazardous waste container.
- First aid responders shall wear latex or thin mil nitrile gloves when performing any procedure risking contact with blood or body substances.
- Safety glasses will be worn to protect the eyes from splashing or aerosolization of body fluids.
- A CPR mask will be worn when performing CPR to avoid mouth-to-mouth contact.
- Work gloves will be worn to minimize the risk of injury to the hands and fingers when working on all equipment with sharp or rough edges.
- Never pick up broken glass or possible contaminated material with your unprotected hands.
- Never handle wildlife (living or deceased) encountered onsite.

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5.4 Hazard Assessment

Task	Exposure Type	Risk of Exposure
Excavation/Stockpiling/ Grading	Inhalation/Dermal Contact	Low
	Heat Stress	Low
	Physical Injury	Moderate
	Noise	Moderate/High
	Ingestion	Low
	Eye Contact	Low
Storm water/Groundwater Management	Inhalation/Dermal Contact	Low
	Heat Stress	Low
	Physical Injury	Moderate
	Noise	Low
	Ingestion	Low
	Eye Contact	Low
Subsurface Investigation	Inhalation/Dermal Contact	Low
	Heat Stress	Low
	Physical Injury	Moderate
	Noise	Moderate
	Ingestion	Low
	Eye Contact	Low

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6.0 TRAINING

6.1 General Health and Safety Training

Pursuant to 29 CFR 1910.120, general site workers engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards shall receive a minimum of 40 hours of instruction off the site. As a minimum, the training shall have consisted of instruction in the topics outlined in the above reference. Personnel who have not met the requirements for initial training will not be allowed to work in any Site activities in which they may be exposed to hazards (chemical or physical).

Completion of a 40-hour Health and Safety Training Course for Hazardous Waste Operations or an approved equivalent will fulfill the requirements of this section. The Roux SHSO and General Contractor SHSO has the responsibility of ensuring that personnel assigned to this project provide documentation to demonstrate compliance with these requirements.

In certain unique situations (e.g., mechanical failure of equipment), the non-trained individual/subcontractor performing work at the Site (e.g., emergency repairs) may be allowed, at the discretion of the Roux SHSO or General Subcontractor SHSO, to conduct work activities at the Site when no intrusive activities are being performed, and provisions have been made to mitigate potential exposure.

6.2 Annual Eight-Hour Refresher Training

Annual 8-hour refresher training will be required of all hazardous waste site field personnel in order to maintain their qualifications for fieldwork. The following topics, as applicable, will be reviewed; toxicology, respiratory protection, including air purifying devices and self-contained breathing apparatus (SCBA), medical surveillance, decontamination procedures, and personal protective clothing. In addition, topics deemed necessary by Contractor Health and Safety Officer, Project Manager and/or the SHSO, may be added to the above list.

6.3 Site-Specific Training

The Roux SHSO and General Contractor SHSO will review the site-specific activities, procedures, monitoring, and equipment for Site operations with all contracted field personnel performing work at the Site. This review will include Site and facility layout, hazards, first aid equipment locations and emergency services at the Site, and will highlight all provisions contained within this HASP.

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This training will also allow field workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

6.4 Onsite Safety Meetings

Daily safety meetings will be presented each morning to discuss potential safety concerns for the upcoming activities. The briefings will also provide a forum to facilitate conformance with safety requirements and to identify performance deficiencies related to safety during daily activities or as a result of safety audits.

6.5 Additional Training

The Contractor Health and Safety Officer, Project Manager and/or the SHSO may require additional or specialized training throughout the project. Such training may be in the safe operation of heavy or power tool equipment or hazard communication training or other topic deemed Site appropriate.

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7.0 MEDICAL SURVEILLANCE PROCEDURES

Medical surveillance examinations shall be performed by each individual employer in accordance with 29 CFR 1910.120(f). When medical surveillance examinations are necessary for site work, a physician's medical release for work will be confirmed by the Roux SHSO or General Subcontractor SHSO by documentation supplied by the subcontractor before an employee can begin Site activities. Such examinations shall include a statement as to the worker's present health status, the ability to work in a hazardous environment (including any required PPE, which may be used during temperature extremes), and the worker's ability to wear respiratory protection.

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8.0 SITE CONTROL, PERSONAL PROTECTIVE EQUIPMENT, AND COMMUNICATIONS

8.1 Site Control

Upon entering the Site, all Site workers and visitors are required to sign in. All visitors entering the work zone will be required to read and comply with the provisions of this HASP. In the event that a visitor does not adhere to the provisions of this HASP, he or she will be required to leave the Site.

If previously uncharacterized soil is encountered which is suspected to be impacted, or groundwater or potentially impacted storm water is present, the area shall be demarcated. The Project Environmental Engineer or Geologist should be notified to inspect and characterize the soil or water. The soil and water must be inspected and characterized in accordance with the *Sampling and Analysis Plan* provided in the Appendix H of the Response Plan.

8.2 Personal Protective Equipment

8.2.1 General

The level of protection worn by field personnel will be overseen by the Roux SHSO and/or General Contractor SHSO. Levels of protection for general operations are provided below and are defined in this section. Levels of protection may be upgraded at the discretion of the Roux SHSO and/or General Contractor SHSO. All decisions on the level of protection will be based upon a conservative interpretation by the Roux SHSO and/or General Contractor SHSO of the information provided by air monitoring results, environmental results and other appropriate information. Any changes in the level of protection shall be recorded in the health and safety field logbook with upgrades communicated to the Contractor Health and Safety Officer, Project Manager and/or the SHSO.

8.2.2 Personal Protective Equipment Specifications

The initial level of personal protective equipment for all field activities described in Section 1.1 is Level D. <u>It is not anticipated that either Level B or Level C protection will be necessary</u>. The Minimum level of PPE for entry onto the Site is Level D PPE. The following equipment shall be used:

- Work uniform;
- Hard hat;

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- Steel toe work boots;
- Safety glasses;
- Boot covers (as needed);
- Hearing protection (as needed); and
- Reflective safety vest (as needed).

Modified Level D PPE consists of the following:

- Regular Tyvek coveralls (Poly-coated Tyvek as required);
- Outer gloves: leather, cotton, neoprene or nitrile (as required);
- Inner gloves: latex or nitrile (doubled) as required;
- Chemical resistant boots over steel toe work boots (as required);
- Steel toe work boots;
- Hard hat;
- Safety glasses;
- Hearing protection as needed; and
- Reflective safety vest.

For tasks requiring Level C PPE, the following equipment may be used in any combination:

- Full-face, air purifying, cartridge respirators (NIOSH approved) utilizing Organic Vapor/Acid Gas cartridges and P-100 filters (half-face if approved by SSO);
- Disposable coveralls (Tyvek, Poly-coated Tyvek, or Saranex) as required;
- Gloves, inner: latex or nitrile as required;
- Gloves, outer: nitrile or neoprene as required;
- Chemical resistant boots over the steel toe work boots as required;
- Steel toe work boots;
- Hard hat;
- Hearing protection (as needed);
- Safety glasses (if half-mask is utilized); and

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- Boot covers (as needed).

Although not anticipated, any tasks requiring Level B personal protective equipment (PPE), will utilize the following equipment:

- Positive pressure, full facepiece, self-contained breathing apparatus (SCBA) or positive pressure, supplied air respirator with escape SCBA (NIOSH approved);
- Disposable coveralls (Tyvek, Poly-coated Tyvek, or Saranex);
- Gloves, inner: latex or nitrile;
- Gloves, outer: nitrile or neoprene;
- Chemical resistant boots over the steel toe work boots;
- Steel toe work boots;
- Hard hat;
- Hearing protection (as needed); and
- Boot cover (as needed).

Activities performed in Level B PPE will be only those necessary to return operations to normal (i.e., Level D) conditions. If work in Level B becomes necessary, this HASP will be revised.

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8.2.3 Initial Levels of Protection

Levels of protection for the proposed scope of work may be upgraded or downgraded (to a minimum Level D) depending on the results of direct-reading instruments or personal monitoring. The following are the initial levels of protection that shall be used for each planned RI field activity:

Activity	Initial level of PPE
Mobilization/Demobilization	D
Site Inspection	D
Excavation, Stockpiling and Grading	D
Storm water/Groundwater Management	D
Decontamination	D

8.3 Communications

If working in level C/B respiratory protection is required, personnel may find that communication becomes a more difficult task. Distance and space further complicate this. In order to address this problem, electronic instruments, mechanical devices, or hand signals will be used as follows:

Telephones — Mobile telephones will be carried by designated personnel for communication with emergency support services/facilities.

Radios — Two-way radios will be utilized onsite for communications between field personnel in areas where visual contact cannot be maintained and where hand signals cannot be employed.

Air Horn — Available as posted in the Site trailer or support zone to alert field personnel to an emergency situation. The emergency signal will be the sharp blasts of the air horn.

Hand Signals — This communication method will be employed by members of the field team along with use of the buddy system. Signals become especially important when in the vicinity of heavy moving equipment and when using Level B respiratory equipment. The signals shall become familiar to the entire field team before Site operations commence, and will be reinforced and reviewed during site-specific training.

Signal	Meaning
Hand gripping throat	Out of air; can't breathe
Grip partner's wrist	Leave area immediately; no debate
Hands on top of head	Need assistance
Thumbs up	OK; I'm all right; I understand
Thumbs down	No; Unable to understand you, I'm not all right

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9.0 WORK ZONE MONITORING PROCEDURES

The following sections summarize the air monitoring activities to be performed at the Site. Monitoring activities will be performed at the perimeter of the work zone. Specifically, real-time continuous dust monitoring will be performed at the perimeter of the work zone as detailed within the DCP.

9.1 Instrumentation

The following monitoring instruments will be available for use during field operations as necessary:

- Photoionization Detector (PID) with 10.6 EV probe or Flame Ionization Detector (FID) or equivalent.

A PID organic vapor meter may be used, if necessary, when uncharacterized soil or groundwater is encountered and is suspected to be impacted. If uncharacterized material is confirmed to be impacted with VOCs, this HASP will be updated to provided action levels for breathing zone monitoring when working in and/or adjacent to an area with confirmed VOCs.

Calibration/calibration check records shall be documented and recorded daily and included in the daily Health and Safety Briefing Form (Appendix C) or Site designated field notebook.

Dust monitoring instrumentation used at the Site shall be in accordance with the DCP. In addition, all calibration records shall be document and recorded in accordance with the DCP or the manufacturer's recommendations.

9.2 Action Levels

Action levels for upgrading of PPE requirements in the HASP will apply to all Site work during investigation and remediation activities at the Site. Action levels are provided in the DCP.

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10.0 SAFETY CONSIDERATIONS

10.1 General

In addition to the specific requirements of this HASP, common sense should be used at all times.

The following general safety rules and practices will be in effect at the site.

- All open holes, trenches, and obstacles will be properly barricaded in accordance with local Site needs and requirements. Proximity to traffic ways, both pedestrian and vehicular, and location of the open hole, trench, or obstacle will determine these needs (e.g., wearing of traffic safety vests).

- All excavation and other Site work will be planned and performed with consideration for underground lines.

- Smoking and ignition sources in the vicinity of potentially flammable or contaminated material are strictly prohibited.

- Excavation, stockpiling, grading, direct push soil gas screening activities, movement of vehicles and equipment, and other activities will be planned and performed with consideration for the location, height, and relative position of aboveground utilities and fixtures, including signs; lights; canopies; buildings and other structures and construction; and natural features such as trees, boulders, bodies of water, and terrain.

- When working in areas where flammable vapors may be present, particular care shall be exercised with tools and equipment that may be sources of ignition. All tools and equipment provided must be properly bonded and/or grounded.

- Approved and appropriate safety equipment (as specified in this HASP), such as eye protection, hard hats, hand protection (nitrile, leather and/or cut resistant gloves as necessary), foot protection, and respirators, must be worn in areas where required.

- All site personnel may be called upon to use respiratory protection in some situations. Documentation of fit testing, respiratory protection program training and medical clearance for the use of the respiratory protection will be necessary for all persons prior to the use of respirators. The criteria for facial hair will be determined by the SHSO. In general, the guideline is that facial hair cannot impede the fit of the respirator.

- No smoking, eating, chewing tobacco, gum chewing or drinking or applying of cosmetics will be allowed within the exclusion zone.

- Contaminated tools and hands must be kept away from the face.

- Personnel must use personal hygiene safe guards (washing up) at the end of the shift.

- Each sample must be treated and handled as though it were contaminated.

- Persons with long hair and/or loose-fitting clothing that could become entangled in power equipment must take adequate precautions.

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- Work while under the influence of intoxicants, narcotics, or controlled substances is strictly prohibited.

10.2 Sample Handling

Personnel responsible for handling of samples (when necessary for collection) will wear the prescribed level of protection. Samples are to be identified as to their hazard and packaged as to prevent spillage or breakage. Any unusual sample conditions shall be noted. Laboratory personnel and all field personnel shall be advised of sample hazard levels and the potential constituents present. This can be accomplished by a phone call to the lab coordinator and/or including a written statement with the samples reviewing lab safety procedures in handling in order to assure that the practices are appropriate for the suspected constituents in the sample.

10.3 Hazard Communication

Personnel working at the Site have the right to know about the chemical hazards associated with hazardous materials used and stored onsite. This information will be readily available to all site workers as required by OSHA's Hazard Communication Standard (29 CFR 1910.1200). This information will be communicated to personnel through the maintenance of a chemical inventory system, chemical labeling, safety data sheets (SDSs), and hazard communication training.

Chemicals imported to the site will bear the original Department of Transportation (DOT) required labeling on the chemical's container. In addition, a new label will be affixed to the original containers, if necessary, and to a new container to which the chemical is dispensed providing the chemical name and specific hazard warnings (e.g., flammability, health, reactivity). Hazard warnings will follow either the National Fire Protection Association (NFPA) format or the Hazardous Material Information System (HMIS) format. Both systems are easy to use and rely on numerically ranking hazards on a 0 to 4 scale. Most chemicals used onsite which are subject to the Hazard Communication Standard are related to sampling activities. These chemicals may include hexane, methanol and nitric and hydrochloric acid.

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11.0 DECONTAMINATION AND DISPOSAL PROCEDURES

11.1 Contamination Prevention

Contamination prevention should minimize worker exposure. In addition, contamination prevention will help ensure valid sample results by precluding cross-contamination. Procedures for contamination avoidance include:

Personnel

- Do not walk through areas of obvious or known contamination.
- Do not directly handle or touch contaminated materials.
- Make sure that there are no cuts or tears on PPE.
- Fasten all closures in suits; cover with tape, if necessary.
- Particular care should be taken to protect any skin injuries.
- Stay upwind of airborne constituents.
- Do not carry cigarettes, cosmetics, gum, etc., into the exclusion zone.

Sampling/Monitoring

- When required by the SHSO, cover instruments with clear plastic, leaving openings for sampling ports.
- Bag sample containers prior to emplacement of sample material.

11.2 Personnel Decontamination

Personnel shall wear appropriate PPE associated with each field activity to prevent exposure to chemicals/constituents at the Site. All PPE shall be disposed of in accordance with the disposal procedures discussed Section 11.5.

A field wash area for equipment and PPE shall be set up and maintained for all persons exiting the work area. Equipment and facilities shall also be available for personnel to wash their hands, arms, neck, and face.

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12.0 EMERGENCY PLAN

Should an emergency situation occur, the emergency plan, outlined in this section, shall be known by the Contractor Health and Safety Officer, Project Manager and/or the Roux SHSO and General Contractor SHSO and all subcontractors prior to the start of work. The emergency plan will be available for use at all times during Site work. The plan provides the phone numbers for the fire, police, ambulance, hospital, poison control centers, and directions to the hospital from the Site. This information is to be found in Section 1.2 of the HASP, a copy of which will be posted in the site trailer.

Various individual Site characteristics will determine preliminary actions taken to assure that this emergency plan is successfully implemented in the event of a Site emergency. Careful consideration must be given to the proximity of neighborhood housing or places of employment, and to the relative possibility of Site release of vapors, which could affect the surrounding community.

The emergency coordinator (Project Manager) shall implement the emergency plan whenever conditions at the Site warrant such action. The emergency coordinator will be responsible for coordination of the evacuation, emergency treatment and transport of Site personnel as necessary, and notification of emergency response units and the appropriate management staff.

In cases where the project manager is not available, the General Contractor SHSO shall serve as the emergency coordinator.

During an emergency, the Roux SHSO or the General Contractor SHSO will perform air monitoring, as needed, as well as lend assistance and provide health and safety information to responding emergency personnel.

Site Personnel will endeavor to keep non-essential personnel away from the incident until the appropriate emergency resources arrive. At that time, the responders will take control of the Site. Site personnel may be asked to lend assistance to emergency personnel such as during evacuations, help with the injured, etc.

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12.1 Evacuation

Evacuation procedures will be discussed prior to the start of work and periodically during safety meetings. In the event of an emergency situation, such as fire, or explosion, an air horn, automobile horn, or other appropriate device will be sounded for three (3) sharp blasts indicating the initiation of evacuation procedures. The emergency evacuation route shall be known by all site workers. Under no circumstances will incoming personnel or visitors be allowed to proceed into the area once the emergency signal has been given. The SHSO or project manager must ensure that access for emergency equipment is provided and that all spark-producing devices have been shut down once the alarm has been sounded. All Site personnel will assemble in the designated nearest safe location. Once the safety of all personnel is established, the fire department, other emergency response groups, the Site Owner and any other relevant agencies will be notified by telephone of the emergency.

12.2 Personnel Injury

Emergency first aid shall be applied onsite as appropriate. A first aid kit and an eye wash bottle will be kept on-site at all times for use in the event of an emergency. If necessary, the individual shall be decontaminated and transported to the nearest hospital. The Roux SHSO or the General Contractor SHSO will coordinate obtaining of personal medical information if requested by the treating physician / medical professional and complete the accident/incident reports in accordance with Section 13.4 of the HASP.

The ambulance/rescue squad shall be contacted for transport as necessary in an emergency. However, since some situations may require transport of an injured party by other means, the injured person shall be escorted to the occupational health clinic or hospital. Maps to these facilities are shown in Figures 2 and 3.

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12.3 Accident/Incident Reporting

As soon as first aid and/or emergency response needs for Roux Associates field personnel or its subcontractor have been met, the following parties are to be contacted by telephone: (Direct contact, no phone messages).

1. Project Principal/Project Manager:	David Dixon	415-967-6012 (office) 415-599-5863 (cell)
2. Site Health and Safety Officer:	TBD	TBD TBD
3. Corporate Health and Safety Manager:	Joseph Gentile	856-832-3768 (office) 610-844-6911 (cell)

Written confirmation of verbal reports is to be submitted within 24 hours. The report form entitled "Accident Report and Investigation Form" (Appendix E) is to be used for this purpose. All representatives contacted by telephone are to receive a copy of this report. The employer of the employee involved shall also receive a copy of the report.

For reporting purposes, the term accident refers to fatalities, lost time injuries, medical treatment cases, first aid treatment cases, spill or exposure to hazardous materials (radioactive materials, toxic materials, explosive or flammable materials), fire, explosion, property damage, or potential occurrences (i.e., near misses) of the above.

Any information released from the health care provider, which is not deemed confidential patient information, is to be attached to the appropriate form. Any medical information, which is released by patient consent, is to be filed in the individual's medical record and treated as confidential.

12.4 Personnel Exposure

Skin Contact:	Use copious amounts of soap and water. Wash/rinse affected area thoroughly, then provide appropriate medical attention. Eyes should be rinsed for 15 minutes upon chemical contamination.
Inhalation:	Move to fresh air and/or, if necessary, transport to occupational health clinic or hospital, depending on severity.
Ingestion:	Transport to emergency medical facility.
Puncture Wound or Laceration:	Transport to occupational health clinic or emergency medical facility, depending on severity.

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12.5 Adverse Weather Conditions

In the event of adverse weather conditions, the General Contractor Superintendent or SHSO will determine if work can continue without sacrificing the health and safety of all field workers. Some of the items to be considered prior to determining if work should continue are:

- Potential for heat stress and heat-related injuries.
- Potential for cold stress and cold-related injuries.
- Treacherous weather-related conditions.
- Limited visibility.
- Electrical storm potential.

Site activities will be limited to daylight hours and acceptable weather conditions. The SHSO will observe daily weather reports and evacuate if necessary in case of inclement weather conditions. Inclement working conditions include heavy rain, fog, high winds, and lightning.

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13.0 LOGS, REPORTS AND RECORD KEEPING

The following is a summary of required health and safety logs, reports, and record keeping for this project.

13.1 Medical and Training Records

The employer keeps medical and training records. The subcontractor employer must provide verification of training and medical qualifications to the SHSO. The SHSO will keep a log of personnel meeting appropriate training and medical qualifications for Site work. The log will be kept in the project file.

13.2 Onsite Log

The SHSO or project manager will keep a log of onsite personnel daily in the designated field book.

13.3 Exposure Records

Any personal monitoring results, laboratory reports, calculations, and personal monitoring data sheets are part of an employee exposure record. These records will be kept by each employer in accordance with 29 CFR 1910.20.

13.4 Accident/Incident Reports

An accident/incident report must be completed following procedures given in Appendix E. Copies will be distributed as stated. A copy of the forms will be kept in the project file.

13.5 Daily Safety Logs

The Daily Safety Log form in Appendix D will be completed daily by the SHSO and submitted to the project manager.

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14.0 FIELD TEAM REVIEW

Each employee or subcontractor shall sign this section after site-specific training is completed and before being permitted to work at the Site.

I have read and reviewed the Site Health and Safety Plan prepared for this Site. I understand and will comply with the provisions contained therein.

Site/Project: SCS Apartments Site

Santa Clara, California

Date	Name	Signature	Company

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Roux Subsurface

Utility Clearance Checklist

Work site set-up and work execution

ACTIVITY	Yes	No	N/A	COMMENTS INCLUDING JUSTIFICATION IF RESPONSE IS NO OR NOT APPLICABLE
Daily site safety meeting conducted, SPSAs performed, JSAs reviewed, appropriate work permits obtained				
HASP is available and reviewed by site workers / visitors				
Subsurface Utility Clearance Procedure has been reviewed with all site workers				
Work area secured; traffic control established as needed. Emergency shut-off switch located. Fire extinguishers / other safety equipment available as needed				

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Utility mark-outs (public / private) clear and visible. Provide Excavator's Stake-Out Reference Number / Request Date / Time				
Tolerance zone work identified				
Work execution plan reviewed and adhered to (ground disturbance methods, clearance depths, any special utility protection requirements, or any other execution requirements; especially for Tolerance Zone work)				
Verbal endorsement received from Roux PM for any required field deviations to work execution plan				

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Key reminders for execution:

The Subsurface Utility Clearance Protocol should be referenced to determine all requirements while executing subsurface work. The bullet points below are intended as general reminders only and should not be solely relied upon.

- Tolerance zone is defined as two feet plus half of the diameter or half of the greatest dimension (for elliptical sewers, duct banks and other non-cylindrical utilities) of a utility and two feet from the outside of any subsurface structure.
- Install Pre-Clearance exploratory test holes (e.g., hand-dug test holes or vacuum excavation) must be performed for the first five feet below land surface (BLS) at each location prior to conducting mechanized intrusive activities. The size of the pre-clearance exploratory test hole should be at a minimum twice the diameter of any downhole tool or boring device. (Note: Pre-clearance exploratory test holes should be

defined in the SOW/proposal as being provided to the client to prevent project delays and to allow adequate time for PM and PP to evaluate alternative approaches for the project. Alternate approaches will need to be pre-approved by the OM.

- For excavations, all utilities need to be marked and then exposed by hand following the protocols in this SOP. Pre-clearing for excavations may be performed by the "moat" technique (i.e., soft digging around the perimeter). In these cases, dig in small lifts (<12" for first five feet) using a dedicated spotter.) For Tolerance Zone work, unless otherwise agreed upon with the Utility Operator, work within the tolerance zone requires verification by means of hand-dug test holes to expose the utility. Once structures have been verified a minimum clearance of two feet must be maintained between the utility and any powered equipment.

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Utility Verification / Site Walkthrough Record

Employee Name: _____

Date: _____

Instructions: For each utility suspected at the job site, indicate its location on the job site, approximate burial depth, and means of detecting the utility. Leave blank if that utility is not believed to be present.

Utility	Description of Utility Location Identified On-site	Approx. Depth (bls)	Method / Instrumentation used to Determine Utility Location	Utility Owner Response (Date/Time)	Mark Out Indicates (Clear or Conflict)
Electrical Lines					
Gas Lines					
Pipelines					
Steam Lines					
Water Lines					
Sanitary & Storm-water Sewer lines					
Pressured Air-Lines					
Tank Vent Lines					
Fiber Optic Lines					

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Underground Storage Tanks					
Phone Lines/ Other					

bls - Below land surface

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Site Sketch Showing Utilities:

Other Comments / Findings:

Completed by: _____

Signature: _____ Date: _____

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TABLE

1. Toxicological, Physical and Chemical Properties of Constituents Potentially Present at the Site

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Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at the SCS Office Site, Santa Clara, California

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	CAL/OSHA	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
Benzene	71-43-2	TWA 0.5 ppm STEL = 2.5 ppm	Ca TWA 0.1 ppm STEL 1 ppm	TWA 1 ppm ST 5 ppm	1 ppm STEL 5 ppm	Ca [500 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen], leukemia	Eyes, skin, respiratory system, blood, central nervous system, bone marrow	Colorless to light yellow liquid with an aromatic odor [Note: Solid below 42 °F] BP: 176°F Fl.Pt. = 12°F LEL: 1.2% UEL: 7.8% Class B Flammable liquid
Ethylbenzene	100-41-4	TWA 20 ppm	TWA 100 ppm (435 mg/m^3) STEL 125 ppm (545 mg/m^3)	TWA 100 ppm (435 mg/m^3)	100 ppm (435 mg/m^3) STEL 125 ppm (545 mg/m^3)	800 ppm [10%LEL]	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma	Eyes, skin, respiratory system, central nervous system, kidney damage, cochlear impair	Colorless liquid with an aromatic odor. BP: 277°F Fl.P: 55°F UEL: 6.7% LEL: 0.8% Class IB Flammable Liquid
Gasoline	8006-61-9	TWA 300 ppm STEL 500 ppm	Carcinogen	None established	300 ppm (900 mg/m^3) STEL 500 ppm (1500 mg/m^3)	Ca [IDLH value has not been determined]	Skin absorption; inhalation; ingestion; skin and/or eye contact	Eyes and skin irritation, mucous membrane; dermatitis; headache; listlessness, blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis; possible liver, kidney damage [Potential occupational carcinogen]	Eyes, skin, respiratory system, CNS, Liver, Kidneys	Clear liquid with a characteristic odor, aromatic Fl.Pt. = -45°F LEL = 1.4% UEL = 7.6% Class 1B Flammable Liquid
Lead	7439-92-1	TWA 0.05 mg/m^3	TWA (8-hour) 0.050 mg/m^3	TWA 0.050 mg/m^3	TWA 0.050 mg/m^3	100 mg/m^3 (as Pb)	inhalation, ingestion, skin and/or eye contact	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension	Eyes, gastrointestinal tract, central nervous system, PNS impair, kidneys, blood, gingival tissue	A heavy, ductile, soft, gray solid. BP: 3164°F Noncombustible Solid in bulk form
Petroleum hydrocarbons(Petroleum distillates)	8002-05-9	None established	TWA 350 mg/m^3 C 1800 mg/m^3 [15 min]	TWA 500 ppm (2000 mg/m^3)	None established	1,100 [10% LEL]	Inhalation; ingestion; skin and/or eye contact	Irritation eyes, skin, nose, throat; dizziness, drowsiness, headache, nausea; dried/cracked skin; chemical pneumonitis	CNS, eyes, respiratory system, skin	Colorless liquid with a gasoline or kerosene-like odor BP: 86-460°F Fl. Pt = -40 to -86°F UEL: 5.9% LEL: 1.1% Flammable liquid
Toluene	108-88-3	TWA 20 ppm	TWA 100 ppm (375 mg/m^3) STEL 150 ppm (560 mg/m^3)	TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak)	10 ppm (37 mg/m^3) 500 ppm C STEL 150 ppm (560 mg/m^3)	500 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage	Eyes, skin, respiratory system, central nervous system, liver, kidneys, female repro., pregnancy loss	Colorless liquid with a sweet, pungent, benzene-like odor. BP: 232°F Fl.P: 40°F UEL: 7.1% LEL: 1.1% Class IB Flammable Liquid
Vinyl Chloride	75-01-4	TWA 1 ppm	Carcinogen	TWA 1 ppm C 5 ppm [15-minute]	1 ppm	Ca [IDLH value has not been determined]	inhalation, skin, and/or eye contact (liquid)	Lassitude (weakness, exhaustion); abdominal pain, gastrointestinal bleeding; enlarged liver; pallor or cyanosis of extremities; liquid: frostbite; [potential occupational carcinogen]	Liver cancer, central nervous system, blood, respiratory system, lymphatic system	Colorless gas or liquid (below 7°F) with a pleasant odor at high concentrations. BP: 7°F UEL: 33.0% LEL: 3.6% Flammable Gas
Xylene (m, o & p isomers)	108-38-3, 95-47-6, 106-42-3	TWA 100 ppm (435 mg/m^3) STEL 150 ppm	TWA 100 ppm (435 mg/m^3)	TWA 100 ppm (435 mg/m^3)	TWA 100 ppm (435 mg/m^3) STEL 150 ppm (655 mg/m^3)	900 ppm	Skin absorption, inhalation, ingestion, skin, and/or eye contact	Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis	Eyes, skin, respiratory system, central nervous system, gastrointestinal tract, blood, liver, kidneys	Colorless liquid with an aromatic odor BP: 282°F, 292°F, 281°F Fl. Pt. 82°F, 90°F, 81°F LEL: 1.1%, 0.9%, 1.1% UEL: 7.0%, 6.7%, 7.0% Class C Flammable Liquid
1,2,4-Trimethylbenzene	95-63-6	TWA 25 ppm	TWA 25 ppm (125mg/m^3)	None established	None established	None established	Inhalation; ingestion; skin and/or eye contact	Eye, skin, nose, and throat, resp syst irritation; bronchitis; hypochromic anemia; headache, drowsiness, weakness, dizziness, nausea, incoordination, vomit, confusion; chemical pneumonitis	Eyes, skin, resp sys, CNS, blood, asthma	Clear, colorless liquid with a distinctive, aromatic odor BP: 337°F FL.P: 112°F UEL: 6.4% LEL: 0.9% Class II Flammable liquid
1,3,5-Trimethylbenzene	108-67-8	TWA 25 ppm	TWA 25 ppm (125mg/m^3)	None established	None established	None established	Inhalation; ingestion; skin and/or eye contact	Eye, skin, nose, and throat, resp syst irritation; bronchitis; hypochromic anemia; headache, drowsiness, weakness, dizziness, nausea, incoordination, vomit, confusion; chemical pneumonitis	Eyes, skin, resp sys, CNS, blood	Clear, colorless liquid with a distinctive, aromatic odor BP: 329°F FL.P: 122°F Class II Flammable liquid
Arsenic (inorganic)	7440-38-2 (metal)	TWA 0.01 mg/m3	Ca C 0.002 mg/m3 [15-min]	TWA 0.010 mg/m3	0.01 mg/m^3	Ca [5 mg/m3 (as As)]	Inhalation; ingestion; skin absorption; skin and/or eye contact	Ulceration of nasal septum, dermatitis, GI disturbances, peripheral neuropathy, resp irritation, hyperpigmentation of skin, [potential occupational carcinogen]	Liver, kidneys, skin, lung cancer, lymphatic sys	Metal: sliver-gray or tin-white, brittle, odorless solid BP: sublimes
1,1,1-Trichloroethane (Methyl Chloroform)	71-55-6	TWA 350 ppm STEL 450 ppm	C 350 ppm (1900 mg/m^3) [15-minute]	TWA 350 ppm (1900 mg/m^3)	350 ppm (1900 mg/m^3) 800 ppm C STEL 450 ppm (2450 mg/m^3)	700 ppm	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin; headache, lassitude (weakness, exhaustion), central nervous system depression, poor equilibrium; dermatitis; cardiac arrhythmias; liver damage	Eyes, skin, central nervous system, cardiovascular system, liver	Colorless liquid with a mild, chloroform-like odor. BP: 165°F UEL: 12.5% LEL: 7.5%

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Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at the SCS Office Site, Santa Clara, California

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	CAL/OSHA	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
1,1,2-Trichloroethane	79-00-5	TWA 10 ppm	Ca TWA 10 ppm (45 mg/m^3) [skin]	TWA 10 ppm (45 mg/m^3)	10 ppm (45 mg/m^3)	Ca [100 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, nose; central nervous system depression; liver, kidney damage; dermatitis; [potential occupational carcinogen]	Eyes, respiratory system, central nervous system, liver, kidneys	Colorless liquid with a sweet, chloroform-like odor. BP: 237°F UEL: 15.5% LEL: 6%
1,1-Dichloroethane	75-34-3	TWA 100 ppm	TWA 100 ppm (400 mg/m^3)	TWA 100 ppm (400 mg/m^3)	100 ppm (400 mg/m^3)	3000 ppm	inhalation, ingestion, skin and/or eye contact	Irritation skin; central nervous system depression; liver, kidney, lung damage	Skin, liver, kidneys, lungs, central nervous system	Colorless, oily liquid with a chloroform-like odor. BP: 135°F Fl.P: 2°F UEL: 11.4% LEL: 5.4%
1,1-Dichloroethene (Vinylidene Chloride)	75-35-4	TWA 5 ppm	Ca (lowest feasible concentration)	None established	1 ppm (4 mg/m^3)	Ca [N.D.]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, throat; dizziness, headache, nausea, dyspnea (breathing difficulty); liver, kidney disturbance; pneumonitis; [potential occupational carcinogen]	Eyes, skin, respiratory system, central nervous system, liver, kidneys	Colorless liquid or gas (above 89°F) with a mild, sweet, chloroform-like odor. BP: 89°F Fl.P: -2°F UEL: 15.5% LEL: 6.5% Class IA Flammable Liquid
1,2,4-Trimethylbenzene	95-63-6	TWA 25 ppm (125 mg/m^3)	TWA 25 ppm (125 mg/m^3)	None established	None established	None established	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, fatigue, dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eyes, skin, respiratory system, central nervous system, blood	Clear, colorless liquid with a distinctive, aromatic odor. BP: 337°F Fl.P: 112°F UEL: 6.4% LEL: 0.9% Class II Flammable Liquid
1,2-Dichlorobenzene	95-50-1	TWA 25 ppm STEL 50 ppm	C 50 ppm (300 mg/m^3)	C 50 ppm (300 mg/m^3)	25 ppm (150 mg/m^3) 50 ppm C	200 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, nose; liver, kidney damage; skin blisters	Eyes, skin, respiratory system, liver, kidneys	Colorless to pale-yellow liquid with a pleasant, aromatic odor. [herbicide] BP: 357°F Fl.P: 151°F UEL: 9.2% LEL: 2.2% Class IIIA Combustible Liquid
1,2-Dichloroethane (Ethylene Dichloride)	107-06-2	TWA 10 ppm	Ca TWA 1 ppm (4 mg/m^3) STEL 2 ppm (8 mg/m^3)	TWA 50 ppm C 100 ppm 200 ppm [5-minute maximum peak in any 3 hours]	1 ppm (4 mg/m^3) 200 ppm C STEL 2 ppm (8 mg/m^3)	Ca [50 ppm]	inhalation, ingestion, skin absorption, skin and/or eye contact	Irritation eyes, corneal opacity; central nervous system depression; nausea, vomiting; dermatitis; liver, kidney, cardiovascular system damage; [potential occupational carcinogen]	Eyes, skin, kidneys, liver, central nervous system, cardiovascular system	Colorless liquid with a pleasant, chloroform-like odor. [Note: Decomposes slowly, becomes acidic & darkens in color.] BP: 182°F Fl.P: 56°F UEL: 16% LEL: 6.2% Class IB Flammable Liquid
1,2-Dichloroethene	540-59-0	TWA 200 ppm (790 mg/m^3)	TWA 200 ppm (790 mg/m^3)	TWA 200 ppm (790 mg/m^3)	200 ppm (790 mg/m^3)	1000 ppm	inhalation, ingestion, skin and/or eye contact	Irritation eyes, respiratory system; central nervous system depression	Eyes, respiratory system, central nervous system	Colorless liquid (usually a mixture of the cis & trans isomers) with a slightly acrid, chloroform-like odor BP: 118-140°F Fl.P: 36-39°F UEL: 12.8% LEL: 5.6% Class IB Flammable Liquid
1,3,5-Trimethylbenzene	108-67-8	TWA 25 ppm (125 mg/m^3)	TWA 25 ppm (125 mg/m^3)	None established	None established	None established	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eyes, skin, respiratory system, central nervous system, blood	Clear, colorless liquid with a distinctive, aromatic odor. BP: 329°F Fl.P: 122°F Class II Flammable Liquid
1,4-Dichlorobenzene	106-46-7	TWA 10 ppm	Ca	TWA 75 ppm (450 mg/m^3)	10 ppm (60 mg/m^3) 200 ppm C STEL 110 ppm (675 mg/m^3)	Ca [150 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Eye irritation, swelling periorbital (situated around the eye); profuse rhinitis; headache, anorexia, nausea, vomiting; weight loss, jaundice, cirrhosis; in animals: liver, kidney injury; [potential occupational carcinogen]	Liver, respiratory system, eyes, kidneys, skin	Colorless or white crystalline solid with a mothball-like odor. [insecticide] BP: 345°F Fl.P: 150°F LEL: 2.5% Combustible Solid
Chloroethane (Ethyl Chloride)	75-00-3	TWA 100ppm	Handle with caution in the workplace	TWA 1000 ppm (2600 mg/m^3)	100 ppm (264 mg/m^3)	3800 ppm [10%LEL]	inhalation, skin absorption (liquid), ingestion (liquid), skin and/or eye contact	Incoordination, inebriation; abdominal cramps; cardiac arrhythmias, cardiac arrest; liver, kidney damage	Liver, kidneys, respiratory system, cardiovascular system, central nervous system	Colorless gas or liquid (below 54°F) with a pungent, ether-like odor. BP: 54°F Fl.P: NA (Gas) -58°F (Liquid) UEL: 15.4% LEL: 3.8% Flammable Gas
Tetrachloroethene	127-18-4	TWA 25 ppm STEL 100 ppm (STEL) listed as A3, animal carcinogen	Ca Minimize workplace exposure concentrations 2 ppm (60-minute ceiling) as an anesthetic agent 25 ppm (as a 10-hour TWA) during all other exposures	TWA 100 ppm C 200 ppm C 300 ppm (for 5 minutes in any 3-hour period)	25 ppm (170 mg/m^3) 300 ppm C STEL 100 ppm (685 mg/m^3)	Ca [150 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]	Eyes, skin, respiratory system, liver, kidneys, central nervous system	Colorless liquid with a mild, chloroform-like odor. BP: 250°F Noncombustible Liquid

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Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at the SCS Office Site, Santa Clara, California

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	CAL/OSHA	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
Trichloroethene	79-01-6	TWA 10 ppm STEL 25 ppm	Ca	TWA 100 ppm C 200 ppm C 300 ppm (5-minute maximum peak in any 2 hours)	25 ppm (135 mg/m^3) 300 ppm C STEL 100 ppm (537 mg/m^3)	Ca [1000 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]	Eyes, skin, respiratory system, heart, liver, kidneys, central nervous system	Colorless liquid (unless dyed blue) with a chloroform-like odor. BP: 189°F UEL(77°F): 10.5% LEL(77°F): 8%
DDT Total	50-29-3	TWA = 1 mg/m^3	Ca TWA 0.5 mg/m^3 (See Appendix A)	TWA 1 mg/m^3	TWA = 1 mg/m^3	Ca [500 mg/m^3]	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation eyes, skin; parathesia tongue, lips, face; tremor; anxiety, dizziness, confusion, malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); convulsions; paresis hands; vomiting; [potential occupational carcinogen]	eyes, skin, central nervous system, kidneys, liver, peripheral nervous system	Colorless crystals or off-white powder with a slight, aromatic odor [pesticide]. BP: 230 °F Fl.P: 162-171 °F
Dieldrin	60-57-1	TWA = 0.1 mg/m^3	Ca TWA 0.25 mg/m^3 [skin]	TWA 0.25 mg/m^3 [skin]	0.25 mg/m^3	Ca (50 mg/m^3)	inhalation, skin absorption, ingestion, skin and/or eye contact	Headache, dizziness, nausea, vomiting, malaise (vague feeling of discomfort); myoclonic jerks of limbs; clonic, tonic convulsions; coma; [potential occupational carcnogen]	Central nervous system, liver, kidneys, skin	Colorless to light-tan crystals with a mild, chemical odor. BP: Decomposes FLP: NA UEL: NA LEL: NA

References

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Proctor, N.H., J.P. Hughes and M.L. Fischman, 1989. Chemical Hazards of the Workplace. Van Nostrand Reinhold. New York.
Sax, N.I. and R.J. Lewis. 1989. Dangerous Properties of Industrial Materials. 7th Edition. Van Nostrand Reinhold. New York.
2012 TLVs® and BEIs®. American Conference of Governmental Industrial Hygienists (ACGIH).
Applicable Material Safety Data Sheets

Abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists.
BP – boiling point at 1 atmosphere, °F
C – Ceiling, is a concentration that should not be exceeded during and part of the working exposure.
Ca - NIOSH considers substance to be a potential occupational carcinogen
CAL/OSHA - California Occupational Safety and Health Administration
CAS# Chemical Abstracts Service registry number which is unique for each chemical.
Ft Pt. – Flash point
IDLH Immediately Dangerous to Life and Health concentrations represent the maximum concentration from which, in the event of respirator failure, one could escape within 30 minutes without a respirator and without experiencing any escape-impairing or irreversible health effects.
LEL – Lower explosive (flammable) limit in air, % by volume (at room temperature)
MP - Melting Point
mg/m^3 – Milligrams of substance per cubic meter of air
NIOSH - National Institute for Occupational Safety and Health.
OSHA – Occupational Safety and Health Administration
PEL - OSHA Permissible Exposure Limit (usually) a time weighted average concentration that must not be exceeded during any 8 hour work shift of a 40 hr work week.
ppm – parts per million
REL – NIOSH Recommended Limit indicated a time weighted average concentration that must not be exceeded during any 10 hour work shift of a 40 hr work week
STEL – Short-term exposure limit (ST)
TLV - ACGIH Threshold Limit Values (usually 8 hour time weighted average concentrations).
TWA – 8-hour, time-weighted average
UEL – Upper explosive (flammable) limit in air, % by volume (at room temperature)

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FIGURES

1. Site Location Map
2. Hospital Route Map
3. Occupation Health Clinic Map

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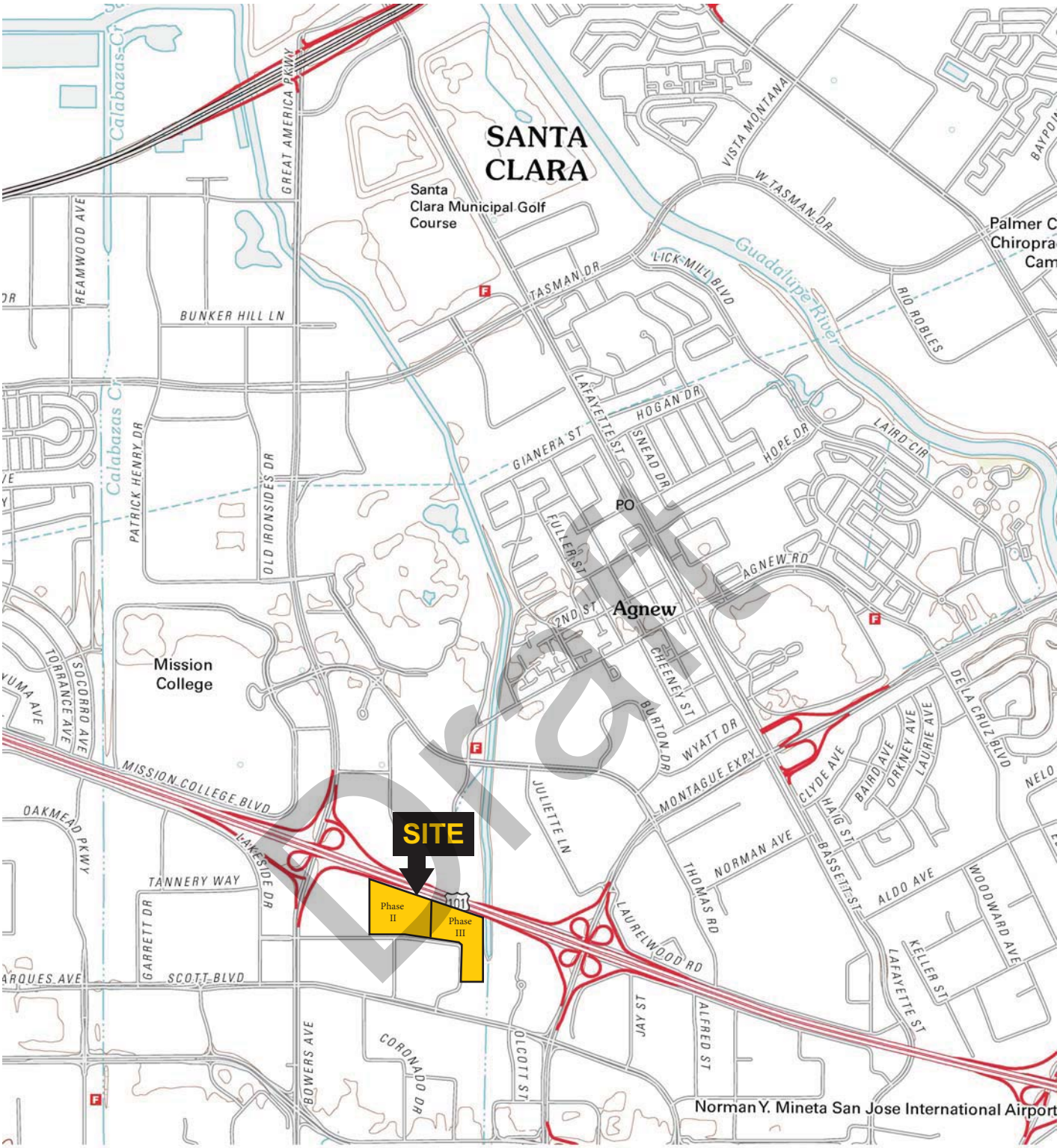

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QUADRANGLE LOCATION

N

0 6 Miles

SOURCE: 2012, Milpitas, CA
7.5 Minute USGS Topographic Quadrangle

Title:

SITE LOCATION MAP
SCS Office Phases II & III

Prepared for:

The Companies

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: D.F.	Date: 10DEC14	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	1
Project Mgr.: D.G.	Project No.: 2328.0001S000	
File: 2328.0001S100.01.CDR		

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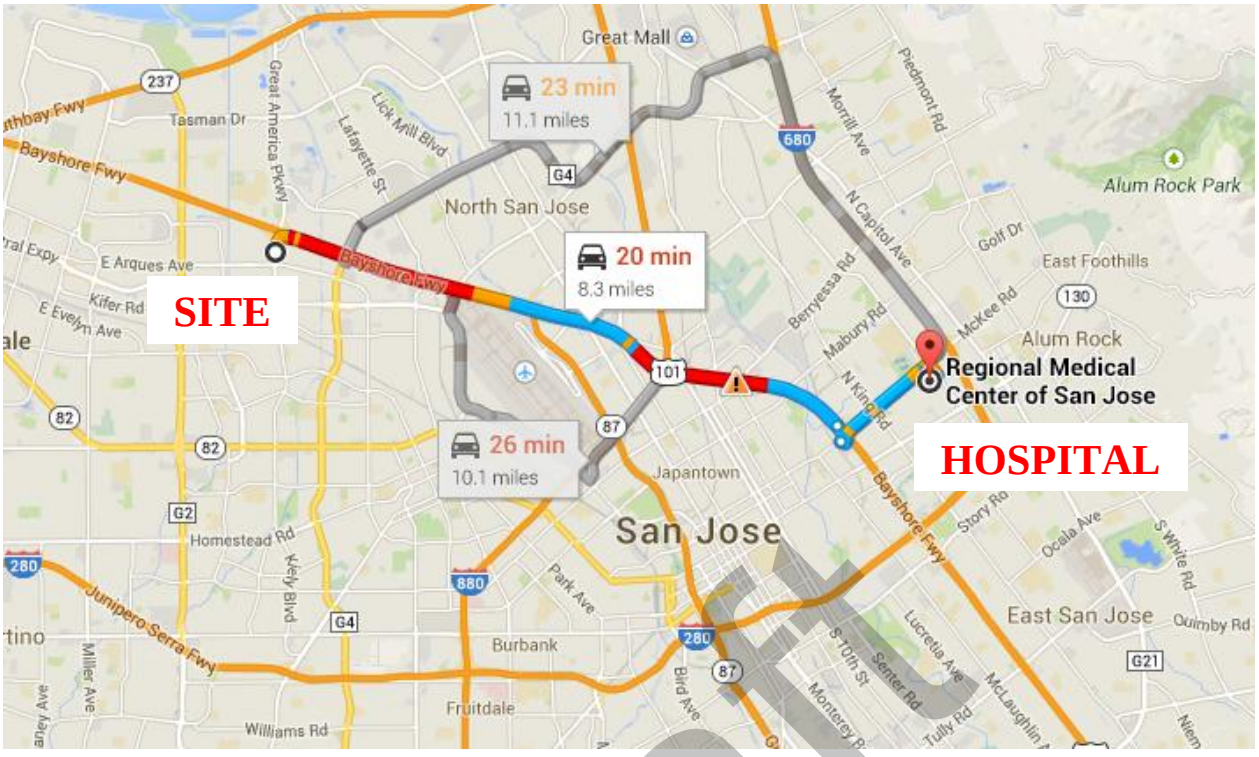

Figure 2. Directions to Regional Medical Center of San Jose

225 North Jackson Avenue
San Jose, California 95116

See Figure 2 for street map

- Head west on Augustine Drive toward Bowers Avenue
- Take the first right onto Bowers Avenue
- Slight right to merge onto US-101 South for 6.5 miles
- Take the McKee Road exit toward Julian Street
- Turn right onto McKee Road
- Turn Right onto North Jackson Avenue
- Arrive at Regional Medical Center of San Jose on your right

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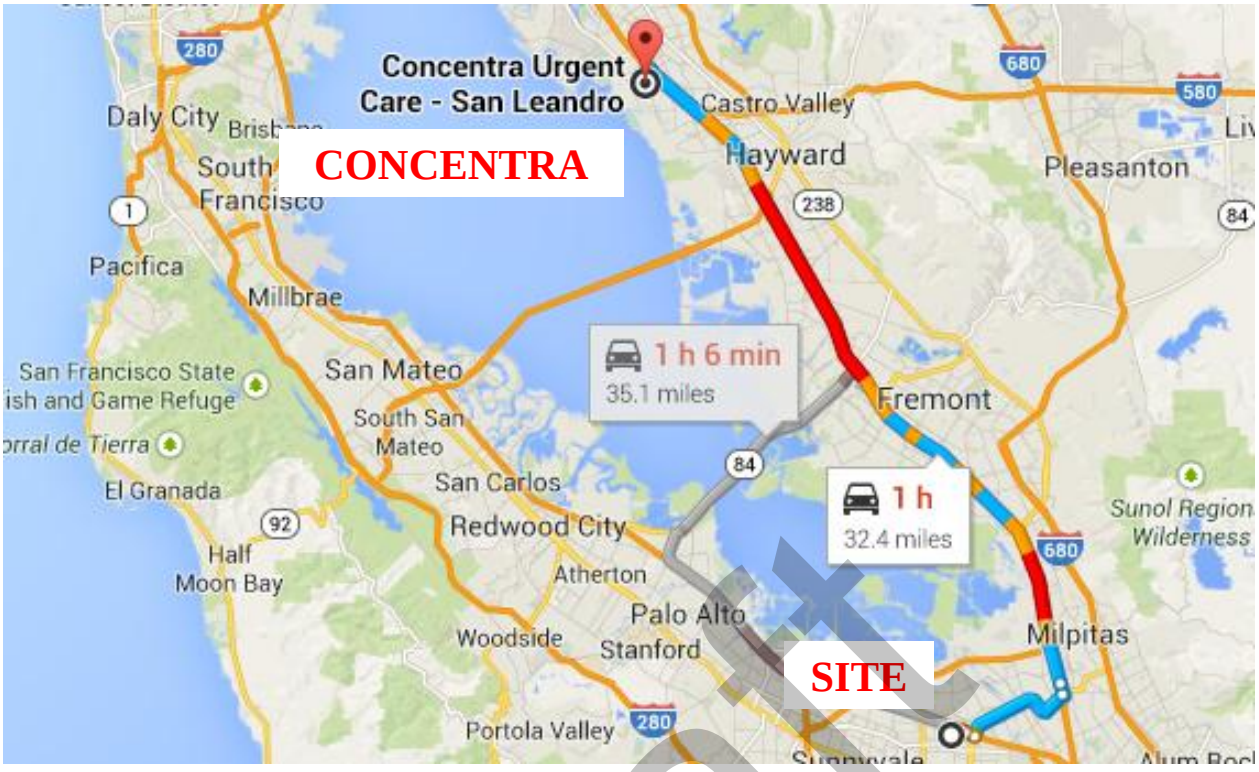

Figure 3. Directions to Concentra Urgent Care

2587 Merced Street
San Leandro, California 94577

See Figure 3 for street map

- Head west on Augustine Drive toward Bowers Avenue
- Take the first right onto Bowers Ave
- Slight right to merge onto US-101 South
- Merge onto Montague Expressway for 4.1 miles
- Slight right to merge onto I-880 North toward Oakland for 26 miles
- Take the Marina Boulevard West Exit
- Turn left onto Merced Street
- Arrive at Concentra Urgent Care on your right

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APPENDICES

A. Job Safety Analyses
B. Heat Stress Guidelines
C. Health and Safety Briefing/Tailgate Meeting Form
D. Heavy Equipment Exclusion Zone Policy
E. Accident Report and Investigation Form
F. Acord Form
G. OSHA 300
H. CAL/OSHA Job Safety and Health Protection Poster

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APPENDIX A

Job Safety Analysis

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JOB SAFETY ANALYSIS	**Ctrl. No. GEN-004**	DATE 12/6/2012	☐ NEW ☒ REVISED	PAGE 1 of 2

JSA TYPE CATEGORY: **Generic**	WORK TYPE: **Drilling**	WORK ACTIVITY (Description): **Direct Push Soil Borings / Well Installation**	
DEVELOPMENT TEAM	**POSITION / TITLE**	**REVIEWED BY:**	**POSITION / TITLE**
Jeffrey Wills	Project Hydrogeologist	Curtis Taylor	Health and Safety Officer
		Michael Ritorto	Project Hydrogeologist

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST ☒ HARD HAT ☐ LIFELINE / BODY HARNESS ☒ SAFETY GLASSES	☐ GOGGLES ☐ FACE SHIELD ☒ HEARING PROTECTION: (as needed) ☒ SAFETY SHOES: Composite-toe or steel toe boots	☐ AIR PURIFYING RESPIRATOR ☐ SUPPLIED RESPIRATOR ☒ PPE CLOTHING: Fluorescent reflective vest or high visibility clothing, Long Sleeve Shirt	☒ GLOVES: Leather, Nitrile and cut resistant ☒ OTHER: Insect Repellant, sunscreen (as needed)

REQUIRED AND / OR RECOMMENDED EQUIPMENT

Geoprobe or Truck-Mounted Direct Push Drill Rig, Hand Tools, Photoionization Detector, Multi-Gas Meter (or equivalent), Macrocore liners, Liner Opening Tool, 20 lb. Fire Extinguisher, 42" Cones & Flags, "Work Area" Signs, Water

COMMITMENT TO LPS - All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

Exclusion Zone Policy – All non-essential personnel will maintain a distance of 10' feet from drilling equipment while moving/engaged.

"SHOW ME YOUR HANDS"
Driller and helper should show that hands are clear from controls and moving parts

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Mobilization of drilling rig (ensure the Subsurface Clearance Protocol and Drill Rig Checklist are completed)	1a. **CONTACT**: Equipment/property damage. 1b. **FALL**: Slip/trip/fall hazards.	1a. The drill rig's tower/derrick will be lowered and secured prior to mobilization. 1a. A spotter should be utilized while moving the drill rig. If personnel move into the path of the drill rig, the drill rig will be stopped until the path is again clear. Use a spotter for all required backing operations. 1a. Set-up the work area and position equipment in a manner that eliminates or reduces the need for backing of support trucks and trailers. 1a. When backing up truck rig with an attached trailer use a second spotter if there is tight clearance simultaneously on multiple sides of the equipment or if turning angles limit driver visibility. 1a. Inspect the driving path for uneven terrain. Level or avoid if needed. 1a. Drill rig should have a minimum **exclusion zone of 10 feet** for non-essential personnel (i.e., driller helper, geologist) when the rig is moving/ in operation. 1b Inspect walking path for uneven terrain, weather-related hazards (i.e., ice, puddles, snow, etc.), and obstructions prior to mobilizing equipment. 1b. Do not climb over stored materials/equipment; walk around. Practice good housekeeping. 1b. Use established pathways and walk on stable, secure ground.
2. Raising tower/derrick of drill rig	2a. **CONTACT**: Overhead hazards. 2b. **CONTACT**: Pinch Points when raising the rig and instability of rig	2a. Prior to raising the tower/derrick, the area above the drilling rig will be inspected for wires, tree limbs, piping, or other structures, that could come in contact with the rig's tower and/or drilling rods or tools. 2a. Maintain a safe distance from overhead structures. 2b. Inspect the equipment prior to use and avoid pinch points. 2b. Lower out riggers on rig to ensure stability prior to raising rig tower/derrick. 2b. If the rig needs to be mounted, be sure to use three points of contact.
3. Advancement of drilling equipment and well installation	3a. **CONTACT**: Flying debris	3a. Be aware of and avoid potential lines of fire and wear required PPE such as eye, ear, and hand protection.

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[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

3. Advancement of drilling equipment and well installation (Continued)	3b. **EXPOSURE**: Noise and dust.	3b. Wet borehole area with sprayer to minimize dust. 3b. Stand upwind and keep body away from rig. 3b. Dust mask should be worn if conditions warrant. 3b. Wear hearing protection when the drill rig is in operation.
	3c. **CAUGHT**: Limb/extremity pinching; abrasion/crushing.	3c. Always wear leather gloves when making connections and using hand tools; wear cut-resistant (i.e., Kevlar) gloves when handling cutting tools. 3c. Inspect the equipment prior to use for potential pinch points. Keep hands away from being between pinch points and use of tools is preferable compared to fingers and hands. 3c. Inspect drill head for worn surface or missing teeth; replace if damaged or blunt. 3c. Ensure all jewelry is removed, loose clothing is secured, and PPE is secured close to the body. 3c. All non-essential personnel should stay away from the immediate work area; position body out of the line-of-fire of equipment. 3c. Drillers and helpers will understand and use the "Show Me Your Hands" Policy. 3c. Spinning rods/casing have an **exclusion zone of 10 feet** while in operation.
	3d. **CONTACT**: Equipment imbalance during advancement of drill equipment.	3d. Drillers will advance the borehole with caution to avoid causing the rig to become imbalanced and/or tip. 3d. The blocking and leveling devices used to secure the rig will be inspected by drillers and Roux personnel regularly to see if shifting has occurred. 3d. In addition, personnel and equipment that are non-essential to the advancement of the borehole will be positioned away from the rig at a distance that is at least as far as the boom is high (**minimum exclusion zone of 10 feet**).
	3e. **EXPOSURE**: Inhalation of contamination/vapors.	3e. Air monitoring using a calibrated photoionization detector (PID) will be used to periodically to monitor the breathing zone of the work area. 3e. If a reading of >5ppm is recorded, the Roux field personnel must temporarily cease work, instruct all Site personnel to step away from the area of elevated readings and inform the Roux PM of the condition. The Roux PM will then recommend additional precautions in accordance with the site specific health and safety plan.
	3f. **FALL**: Slip/trip/fall hazards.	3f. Contain drill cuttings and drilling water to prevent fall hazards from developing in work area. 3f. See 1b.
	3g. **EXERTION**: Potential for muscle strain/injury while lifting and installing well casings, lifting sand bags, and/or lifting rods.	3g. Keep back straight and bend at the knees. 3g. Utilize team lifting for objects over 50lbs. 3g. Use mechanical lifting device for odd shaped objects.
4. Decontaminate equipment.	4a. **EXPOSURE/CONTACT**: To contamination (e.g., Separate Phase Hydrocarbons (SPH), contaminated groundwater, vapors).	4a. Wear chemical-resistant disposable gloves and safety glasses. 4a. Contain decontamination water so that it does not spill. 4a. Use an absorbent pad to clean spills, if necessary. 4a. See 3b.
	4b. **EXPOSURE:** To chemicals in cleaning solution including ammonia.	4b. See 4a. Review MSDS to ensure appropriate precautions are taken and understood.

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[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

JOB SAFETY ANALYSIS Ctrl. No. GEN-005	DATE 12/~~10/2012~~10/20 13	☐ NEW ☒ REVISED	PAGE 1 of 2

JSA TYPE CATEGORY	WORK TYPE:	WORK ACTIVITY (Description):
Generic	**Gauging and Sampling**	**Gauging and Sampling**

DEVELOPMENT TEAM	POSITION / TITLE	REVIEWED BY:	POSITION / TITLE
Gina Masciello	Project Scientist	Curtis Taylor	SHSM
Louis Goldstein	Staff Engineer	Michael Ritorto	Project Hydrogeologist

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST	☐ GOGGLES	☐ AIR PURIFYING RESPIRATOR	☒ GLOVES: Leather, Nitrile and cut resistant
☒ HARD HAT	☐ FACE SHIELD	☐ SUPPLIED RESPIRATOR	☒ OTHER: Knee pads, Insect Repellant, sunscreen (as needed)
☐ LIFELINE / BODY HARNESS	☐ HEARING PROTECTION	☒ PPE CLOTHING: Fluorescent reflective vest or high visibility clothing	
☒ SAFETY GLASSES	☒ SAFETY SHOES: Composite-toe or steel toe boots		

REQUIRED AND / OR RECOMMENDED EQUIPMENT

42 inch Safety Cones, Caution Tape, Interface Probe and/or Water Level Meter, 20 lb. Fire Extinguisher, Buckets. Tools as needed: Socket Wrench, Screw Driver, Crow Bar, Mallet, and Wire Brush.

Commitment to LPS – All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Mobilization to monitoring well(s).	1a. **FALL:** Personal injury from slip/trip/fall due to uneven terrain and/or obstructions. 1b. **CONTACT:** With traffic/third parties. 1c. **EXPOSURE:** To biological hazards.	1a. Inspect pathway and plan for most suitable designated pathway prior to mobilization. 1a. Use established pathways, walk and/or drive on stable, secure, ground and avoid steep hills or uneven terrain. 1b. Identify potential traffic sources and delineate work area with 42 inch traffic safety cones. Position vehicle to protect against oncoming traffic. Use caution tape to provide a more visible delineation of the work area if necessary. 1b. Wear appropriate PPE including high visibility clothing or reflective vest. 1b. Face traffic, maintain eye contact with oncoming vehicles, and establish a safe exit route. 1c. Inspect work area for bees and insects. 1c. Use insect/tick repellent as necessary.
2. Open/close well.	2a. **OVEREXERTION:** Muscle strain. 2b. **CAUGHT:** Pinch points associated with removing/replacing manholes and working with hand tools. 2c. **CAUGHT:** Pinch points associated with placing J-plug back onto PVC pipe. 2d. **EXPOSURE:** To potential hazardous vapors.	2a. Use proper lifting techniques; keep back straight, lift with legs and bend knees when reaching to open/close well. 2b. Wear leather gloves or cut resistant gloves when working with well cover and hand tools. 2b. Use proper tools (ratchet and pry bar for well cover) and inspect before use. 2b. Do not put fingers under well cover. 2c. See 2b. 2c. Keep fingers out of line-of-fire when securing cap 2d. No open flames/heat sources. 2d. To minimize exposure to vapors allow well to vent after opening it and before sampling activities begin. 2d. Stand up-wind, if possible, to avoid vapors.
3. Gauge well.	3a. **CONTACT:** With contamination (e.g. contaminated groundwater). 3b. **CONTACT:** With traffic.	3a. Wear chemical-resistant disposable gloves and safety glasses when gauging well. 3a. Insert and remove probe slowly to avoid splashing. 3a. Use an absorbent pad to clean probe. 3b. See 1b.
4. Purge and sample well.	4a. **EXPOSURE/CONTACT:** To contamination (e.g., SPH, contaminated groundwater, vapors) and/or sample preservatives.	4a. Open and fill sample jars slowly to avoid splashing and contact with preservatives. 4a. Wear cut-resistant gloves and chemical-resistant disposable gloves when sampling. 4a. Fill sample containers over purge container to avoid spilling water onto the ground. 4a. Use an absorbent pad to clean spills. 4a. When using a bailer to purge a well, pull the bailer slowly from the well to avoid splash hazards. 4a. When sampling or purging the water using a bailer, pour out water slowly to reduce the potential for splash hazards with groundwater. 4a. When using a tubing valve always remove the valve slowly after sample

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Draft

		collection to release any pressure and avoid pressurized splash hazards 4a. When collecting a groundwater sample always point sampling apparatus (tubing, bailer, etc.)away from face and body
Assess **[1]JOB STEPS**	**Analyze** **[2]POTENTIAL HAZARDS**	**Act** **[3]CRITICAL ACTIONS**
4. Purge and sample well (Continued).	4b. **CONTACT:** Personal injury from cuts, abrasions, or punctures by glassware or sharp objects. 4c. **EXERTION:** Muscle strain while carrying equipment. 4d. **CONTACT:** With traffic. 4e. CONTACT: Pinch points with groundwater pump components (i.e. wheel, line, clamps) 4f. EXERTION: Muscle strain from repetitive motion of bailing and sampling a well	4b. To avoid spills or breakage, place sample ware on even surface. 4b. Do not over tighten caps on glass sample ware. 4b. ~~Wear cut-resistant (i.e., Kevlar) gloves and chemical-resistant disposable gloves~~ Wear chemical-resistant nitrile disposable gloves over cut-resistant (i.e. Kevlar) gloves when sampling and handling glassware (i.e., VOA vials) or when using cutting tools. 4c. Use proper lifting techniques when handling/moving equipment; bend knees and keep back straight. 4c. Use mechanical assistance or team lifting techniques when equipment is 50lbs or heavier. 4c. Make multiple trips to carry equipment. 4d. See 1b. 4e. Wear leather gloves when working with groundwater pumps 4e. Never place hands on or near pinch points such as the wheel, clamps or other moving parts during pump operations 4e. Use correct the correct mechanisms, such as a pump reel, to lower pump into well 4e. Never attempt to manually stop any moving part of equipment including hose reels and/or tubing. 4f. See 4c. 4f. Include a stretch break when repetitive motions are part of the task.
5. Management of purge water.	5a. **EXPOSURE/CONTACT:** To contamination (e.g., SPH, contaminated groundwater, vapors). 5b. **EXERTION:** Muscle strain from lifting/carrying and moving containers.	5a. Do not overfill container and pour liquids in such a manner that they do not splash. 5a. Properly dispose of used materials/PPE in appropriate container in designated storage area. 5b. Use proper lifting techniques when lifting / carrying or moving container(s) (see 4c.). 5b. Do not overfill container(s).
6. Decontaminate equipment.	6a. **EXPOSURE/CONTACT:** To contamination (e.g., SPH, contaminated groundwater, vapors). 6b. **CAUGHT:** Pinch points associated with handling hand tools	6a. Work on the upwind side, where possible, of decon area. 6a. Wear chemical-resistant disposable gloves and safety glasses. 6a. Use an absorbent pad to clean spills. 6b. See 2b. 6b. Inspect hand tools for sharp edges before decontaminating

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JOB SAFETY ANALYSIS	**Cntrl. No. GEN-012**	DATE: 4/29/2013	☐NEW ☒REVISED	PAGE 1 of 2

JSA TYPE CATEGORY: **GENERIC**	WORK TYPE: **Gauging & Sampling**	WORK ACTIVITY (Description): **Soil Sampling**	
DEVELOPMENT TEAM	**POSITION / TITLE**	**REVIEWED BY:**	**POSITION / TITLE**
Sydney Ward	Staff Scientist	Bjorn Wespestad	Health and Safety Officer
		Eric Deratzian	Project Geologist

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST ☒ HARD HAT ☐ LIFELINE / BODY HARNESS ☒ SAFETY GLASSES ☒ FLAME RESISTANT CLOTHING (as needed)	☐ GOGGLES ☐ FACE SHIELD: ☒ HEARING PROTECTION: (as needed) ☒ SAFETY SHOES: Composite-toe or steel toe boots	☐ AIR PURIFYING RESPIRATOR ☐ SUPPLIED RESPIRATOR ☒ PPE CLOTHING: Fluorescent reflective vest or high visibility clothing	☒ GLOVES: Leather, Nitrile and cut resistant ☒ OTHER: Insect Repellant, sunscreen (as needed)

REQUIRED AND / OR RECOMMENDED EQUIPMENT

Recommended Equipment; 42" traffic cones, caution tape, trowel

All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

EXCLUSION ZONE: A minimum 10' exclusion zone will be maintained around moving equipment, if present.

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Secure location	1a. **CONTACT:** Personnel and vehicular traffic may enter the work area.	1a. If in an area with foot or vehicle traffic, delineate the work area with 42" traffic cones and/or caution tape to prevent exposure to traffic and inform others of work activity. 1a. Wear reflective vest and/or fluorescent clothing. 1a. Face the direction of any vehicular traffic. Position vehicle to protect worker from traffic. 1a. Communicate work activity with adjacent work areas.
	1b. **FALL:** Tripping/falling due to uneven terrain or entry/exit from excavations.	1b. Inspect pathways and work area for uneven terrain, weather-related hazards (i.e., ice, puddles, snow, etc.), and obstructions. 1b. Use established pathways and walk on stable, secure ground. 1b. Stage equipment and tools will in a convenient, stable, and orderly manner. Store equipment at lowest potential energy. 1b. Roux employees should stay 5 feet from in-progress excavations and trenches. Should entry to an excavation be appropriate (when stabilization is complete), ladders must be employed for steep embankments, excavations, pits, and trenches.
	1c. **EXPOSURE:** Exposure to sun and excessive heat, possibly causing sunburn, heat exhaustion or heat stroke, Exposure to cold temperatures possibly causing cold stress. Skin burn as a result of fire if occurred. Exposure to explosive vapors due to tank farm operations, Biological hazards - ticks, bees/wasps, poison ivy, thorns, insects, etc.	1c. Wear sunscreen with an SPF 15 or greater whenever 30 minutes or more of exposure is expected. 1c. Use a tent to shade the work area from direct sunlight particularly when warm temperatures are also expected. 1c. Be aware of the location of all Site personnel. 1c. Watch for heat stress symptoms (muscle cramping, exhaustion, dizziness, rapid and shallow breathing). 1c. Watch for cold stress symptoms (severe shivering, slowing of body movement, weakness, stumbling or inability to walk, collapse). 1c. Take breaks for rest and water as necessary. Move to an area that is well shaded or an area with air conditioning (i.e., car, site trailer, etc.). Move to an area that is warm. 1c. No open flames/heat sources. 1c. Flame resistant clothing must be worn when specified by Site policy. 1c. Cell phones should be disabled when specified by Site policy. 1c. Pre-treat field clothing with Permethrin prior to site visit to kill/repel ticks and insects. 1c. Wear long sleeved shirts and tuck in (or tape) pant legs into socks or boots to prevent ticks from reaching skin. 1c. Spray insect repellant containing DEET on exposed skin when working in overgrown areas of the Site. 1c. Inspect area to avoid contact with biological hazards. 1c. Wear cut-resistant gloves when handling branches, shrubs, etc. that may lie within the walking path. 1c. Personnel shall examine themselves and co-worker's outer clothing for ticks periodically when onsite. 1c. If skin comes in contact with poison ivy, wash skin thoroughly with soap and water.

Draft

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[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
2. Collect Soil Sample	2a. **CONTACT:** Personal injury from pinch points, cuts, and abrasions from sampling equipment tools, and material within soil sample. Personal injury from contact with moving equipment while sampling.	2a. Wear cut-resistant (i.e., Kevlar) gloves under chemical-resistant disposable gloves when handling soil samples and sampling jars. 2a. Where possible, use trowel or equivalent tool to avoid contact with soil. 2a. If sampling from bucket of heavy equipment, ensure all equipment is off and operator utilizes the "show me your hands" policy. 2a. See 1a.
	2b. EXPOSURE: Exposure to contamination (impacted soil) and/or lab preservatives.	2b. Wear chemical-resistant disposable gloves over cut resistant gloves to protect hands when handling samples; use containment material or plastic sheeting to protect surrounding areas. 2b. When collecting soil sample from hand auger, put large zip lock bag over entire auger to prevent spillage of soil on to the ground. 2b. Open sample jars slowly and fill carefully to avoid contact with preservatives.
3. Decontaminate equipment	3a. **EXPOSURE/CONTACT:** Contamination (e.g., Separate Phase Hydrocarbons (SPH), contaminated vapors and/or soil).	3a. Wear chemical-resistant disposable gloves and safety glasses. 3a. Use an absorbent pad to clean spills. 3a. Properly dispose of used materials/PPE in provided drums in designated drum storage area.
	3b. **EXPOSURE:** Chemicals in cleaning solution including ammonia.	3b. Wear chemical-resistant disposable gloves and safety glasses. 3b. Work on the upwind side of decon area. 3b. Use an absorbent pad to clean spills. 3b. Properly dispose of used materials/PPE in provided drums in designated drum storage area.

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[2] A hazard is a potential danger. Break hazards into five types: Contact - victim is struck by or strikes an object; Caught - victim is caught on, caught in or caught between objects; Fall - victim falls to ground or lower level (includes slips and trips); Exertion - excessive strain or stress / ergonomics / lifting techniques; Exposure - inhalation/skin hazards; Energy Source – electricity, pressure, compression/tension.

[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

JOB SAFETY ANALYSIS	Ctrl. No. GEN-013	DATE: 4/29/2013	☐ NEW ☒ REVISED	PAGE 1 of 2

JSA TYPE CATEGORY:	WORK TYPE	WORK ACTIVITY (Description)
GENERIC	**Gauging and Sampling**	**Soil Vapor Sampling (Temporary/Permanent Monitoring Points)**

DEVELOPMENT TEAM	POSITION / TITLE	REVIEWED BY:	POSITION / TITLE
Sydney Ward	Staff Scientist	Bjorn Wespestad	Health and Safety Officer
		Eric Deratzian	Project Geologist

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST	☐ GOGGLES	☐ AIR PURIFYING RESPIRATOR	☒ GLOVES: Cut-resistant & Nitriles
☒ HARD HAT	☐ FACE SHIELD	☐ SUPPLIED RESPIRATOR	☒ OTHER: Bug Spray, Sun Screen, Knee Pads or kneeling pad
☐ LIFELINE / BODY HARNESS	☐ HEARING PROTECTION	☒ PPE CLOTHING: Fluorescent reflective vest or high visibility clothing	
☒ SAFETY GLASSES	☒ SAFETY SHOES: Steel-toe boots		

REQUIRED AND / OR RECOMMENDED EQUIPMENT

9/16" Socket and Wrench, Non-Toxic Clay, Teflon-Lined Tubing, Masterflex Tubing, 3-Way Stopcock, Air Pump with Low Flow, Dry Cal, Enclosure (Bucket), Helium Gas Canister, Summa Canisters and Flow Controllers, MultiRae Gas Meters, CO2/O2 Meters, Helium Detector, Tubing Cutter, 42-inch Safety Cones, Caution Tape or Retractable Cone Bars

All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

Exclusion Zone: Maintain a 5-Foot Exclusion Zone for Non-Essential Personnel

ACCESS [1]JOB STEPS	ANALYZE [2]POTENTIAL HAZARDS	ACT [3]CRITICAL ACTIONS
1. Define and secure work area.	1a. **FALL:** Potential tripping hazards.	1a. Ensure work area is secure and inform others (third party) of work activity. 1a. Remove tripping hazards and inspect walking path for uneven terrain, weather-related hazards (i.e., ice, puddles, snow, etc.), and obstructions prior to mobilizing equipment.
	1b. **CONTACT:** Potential contact with moving vehicles or pedestrians.	1b. If working alongside roads, look both ways before entering roadways, face traffic, and utilize work vehicle to protect employees. 1b. Delineate work area (including vehicles) with traffic safety cones and caution tape or retractable cone bars. 1b. Maintain a 5 foot exclusion zone. 1b. Wear high visibility clothing or reflective safety vest.
	1c. **OVEREXERTION:** Muscle strain while lifting and carrying equipment.	1c. When carrying equipment to/from work area, keep back straight, lift with legs, keep load close to body, never reach with a load. Ensure that loads are balanced. Use mechanical assistance/make multiple trips to carry equipment.
2. Remove well cover / close well cover.	2a. **CONTACT/CAUGHT:** Pinch points and scrapes associated with hand tools and well covers.	2a. Keep hands away from pinch points. 2a. Use hand tools to remove and replace well covers. 2a. Wear cut-resistant gloves. 2a. Use knee pads or kneeling mat when repetitive kneeling on rough ground is anticipated.
	2b. **FALL:** Potential tripping hazards associated with installing bolts.	2b. Place security bolts in secure location so not to create tripping hazards. Replace security bolts so that they fit flush with monitoring well covers.
	2c. **OVEREXERTION:** Physical exertion to remove bolts that were over torque or stripped.	2c. Replace any security bolts that show signs of stripping. Do not over tighten. 2c. Use body positioning and bending techniques that minimize muscle strain; keep back straight, bend at the knees. 2c. See 2a.
3. Remove / replace brass caps at the end of the sample tubing.	3a. **CONTACT:** Pinch points associated with hand tools and brass caps.	3a. Use wrench to remove and replace brass caps. 3a. Wear cut-resistant gloves to protect against pinch points and scrapes.
	3b. **EXPOSURE:** Potential pathway for vapors to migrate to land surface.	3b. Replace brass caps immediately upon completion to avoid soil vapors migrating to the surface through sample tubing. 3b. Stand up wind of sample point location.

Draft

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[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

ACCESS [1]JOB STEPS	ANALYZE [2]POTENTIAL HAZARDS	ACT [3]CRITICAL ACTIONS
4. Set up soil vapor sampling equipment and calibration of meters.	4a. **FALL:** Potential tripping hazards associated with equipment and tubing. 4b. **CONTACT:** Pinch points associated with handling equipment. 4c. **EXPOSURE:** Inhalation of calibration gas and helium.	4a. Place equipment in one area close to the sampling location. 4a. Keep tubing slack to a minimum and locate the summa canister as close to the sampling location as possible. 4a. Avoid stepping over equipment and tubing. 4b. Do not place fingers/hands under sampling equipment. 4b. Make multiple trips when unloading equipment in work area. 4b. Wear cut-resistant gloves to protect against pinch points while handling sampling equipment. 4c. Review MSDS for each type of calibration gas used before calibrating. 4c. Calibrate meters in a well vented area and keep air flow regulator away from face. 4c. Close valve on canisters after use to avoid inhalation of excess helium or calibration gas. 4c. Stand up wind of bucket during helium tracer gas test.
5. Screen sample tubing with multiple gas and CO_2/O_2 meters.	5a. **FALL:** Potential tripping hazards associated with equipment. 5b. **EXPOSURE:** Inhalation of soil vapor	5a. See 4a 5a. Identify area where equipment is to be stored within the work area (away from main walking path). 5a. Don't leave equipment on the ground. Return equipment to storage area between uses. 5b. See 3b. 5b. Use master flex to connect tubing to meter. 5b. Stand on opposite side of meter vent and upwind soil vapor point during screening activities.
6. Cleaning Work Area.	6a. **FALL:** Potential tripping hazards associated with equipment and tubing. 6b. **CONTACT:** Storing and transport of equipment in car.	6a. See 4a. 6a. See 5a. 6b. Ensure that equipment is placed securely in the vehicle. Do not stack equipment on top of each other. Secure equipment so that it will not slide while being transported. 6b. Wear cut-resistant gloves while handling/loading equipment.

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APPENDIX B

Heat Stress Guidelines

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Heat Stress

Heat stress is a significant potential hazard and can be associated with heavy physical activity and/or the use of personal protective equipment (PPE) in hot weather environments.

Heat cramps are brought on by prolonged exposure to heat. As an individual sweats, water and salts are lost by the body resulting in painful muscle cramps. The signs and symptoms of heat cramps are as follows:

- severe muscle cramps, usually in the legs and abdomen;
- exhaustion, often to the point of collapse; and
- dizziness or periods of faintness.

First aid treatment includes moving to a shaded area, rest, and fluid intake. Normally, the individual should recover within one-half hour. If the individual has not recovered within 30 minutes and the temperature has not decreased, the individual should be transported to a hospital for medical attention.

Heat exhaustion may occur in a healthy individual who has been exposed to excessive heat. The circulatory system of the individual fails as blood collects near the skin in an effort to rid the body of excess heat. The signs and symptoms of heat exhaustion are as follows:

- rapid and shallow breathing;
- weak pulse;
- cold and clammy skin with heavy perspiration;
- skin appears pale;
- fatigue and weakness;
- dizziness; and
- elevated body temperature.

First aid treatment includes cooling the victim, elevating the feet, and replacing fluids and electrolytes. If the individual has not recovered within 30 minutes and the temperature has not decreased, the individual should be transported to the hospital for medical attention.

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Heat stroke occurs when an individual is exposed to excessive heat and stops sweating. This condition is classified as a **MEDICAL EMERGENCY**, requiring immediate cooling of the victim and transport to a medical facility. The signs and symptoms of heat stroke are as follows:

- dry, hot, red skin;
- body temperature approaching or above 105°F;
- large (dilated) pupils; and
- loss of consciousness - the individual may go into a coma.

First aid treatment requires immediate cooling and transportation to a medical facility.

Heat stress (heat cramps, heat exhaustion, and heat stroke) is a significant hazard if any type of protective equipment (semi-permeable or impermeable) which prevents evaporative cooling is worn in hot weather environments. Local weather conditions may require restricted work schedules in order to adequately protect personnel. The use of work/rest cycles (including working in the cooler periods of the day or evening) and training on the signs and symptoms of heat stress should help prevent heat-related illnesses from occurring. Work/rest cycles will depend on the work load required to perform each task, type of protective equipment, temperature, and humidity. In general, when the temperature exceeds 88°F, a 15 minute rest cycle will be initiated once every two hours. In addition, potable water and fluids containing electrolytes (e.g., Gatorade) will be available to replace lost body fluids.

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APPENDIX C

Health and Safety
Briefing/Tailgate Meeting Form

Draft

HEALTH & SAFETY BRIEFING / TAILGATE MEETING FORM

Site Name / Location _____

Date: _____ Weather Forecast: _____

Names of Personnel Attending Briefing

_____ _____ _____

_____ _____ _____

_____ _____ _____

Planned Work

_____

_____

_____

Instrument Calibration: Instrument/Time/Cal. Gas/Cal. Concentration/Actual Concentration

_____

_____

_____

Items Discussed

_____

_____

_____

_____

_____

Work Permit Type and Applicable Restrictions

_____

_____

_____

Signatures of Attending Personnel

_____ _____ _____

_____ _____ _____

_____ _____ _____

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Heavy Equipment Exclusion Zone Policy

Draft

FINAL

STANDARD OPERATING PROCEDURE 1.13

HEAVY EQUIPMENT EXCLUSION ZONE POLICY

CORPORATE HEALTH AND SAFETY MANAGER	:	Joseph W. Gentile
EFFECTIVE DATE	:	February 2014
REVISION NUMBER	:	1

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Objective

The purpose of the Exclusion Zone Policy is to establish the minimum clearance distance that must be maintained between workers and heavy equipment while equipment is in operation (i.e., engaged or moving). The intent is to have no personnel or other equipment entering the Exclusion Zone while the equipment is in operation/moving to ensure that Roux and Subcontractor employees are not unnecessarily exposed to the hazards of the equipment.

A. Definition

For the purpose of this policy, heavy equipment includes, but is not necessarily limited to: excavation equipment, drill rigs, vacuum trucks, forklifts, lull telehandlers, man lifts, bobcats, delivery trucks, etc.

B. Requirements

1. Exclusion Zones must be established and maintained during activities involving the movement/operation of heavy equipment. The Exclusion Zone requirements apply to all personnel on the site but are primarily focused on those personnel who are required to be working in the vicinity of the equipment. The exclusion zone is in effect when heavy equipment is moving or engaged (ex. movement of an arm or bucket of an excavator, rotation of an auger, lifting of a load with a forklift, raising/lowering of a man lift, etc.).

2. The Exclusion Zone must meet the following minimum requirements:

- A minimum distance of 10 feet from all heavy equipment and loads being moved by the equipment; and
- Greater than the swing/reach radius of any moving part on the heavy equipment (i.e., for large equipment this may mean an exclusion zone distance larger than 20 feet);
- Greater than the tip-over distance of the heavy equipment; and
- Greater than the radius of blind spots.

3. The size of the Exclusion Zone will need to be determined on a task-specific basis considering the size of the heavy equipment in use and the task being performed. Prior to all heavy equipment operations, the Exclusion Zone(s) distance must be specifically identified in the Job Safety Analysis (JSA).

4. The spotter (or another individual) should be assigned responsibility for enforcing the Exclusion Zone. This spotter should be positioned immediately outside of the Exclusion Zone within a clear line of sight of the equipment operator. The spotter must signal the operator to stop work if anyone or anything has the potential to enter or compromise the Exclusion Zone. The operator should stop work if the spotter is not within his/her line of sight. If multiple pieces of equipment are being used, each piece of equipment must have its own Exclusion Zone and spotter. For large excavation and demolition projects the spotter should be in constant radio contact (not cell phone) with the machine driver.

5. If an individual must enter the Exclusion Zone, the designated Spotter must signal the Equipment Operator to stop the equipment. Once the equipment is no longer moving (ex. movement of an arm of an excavator is

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STOPPED, lifting of a load with a forklift STOPPED, raising/lowering of a man lift is STOPPED, etc.), the operator must **DISENGAGE THE CONTROLS and STOP and SIGNAL BY "SHOWING HIS HANDS"**. This signal will indicate that it is safe for the personnel to enter the limits of the Exclusion Zone to perform the required activity. The equipment must remain completely stopped/disengaged until all personnel have exited the limits of the Exclusion Zone and the designated Spotter has signaled by "SHOWING HIS HANDS" to the Equipment Operator that it is safe to resume.

6. When entering the limits of the Exclusion Zone, personnel must at a minimum:
   - Establish eye contact with the operator and approach the heavy equipment in a manner that is in direct line of sight to the Equipment Operator;
   - Never walk under any suspended loads or raised booms/arms of the heavy equipment; and
   - Identify a travel path that is free of Slip/Trip/Fall hazards.

7. The Exclusion Zone should be delineated using cones with orange snow fence or solid poles between the cones, barrels, tape or other measures. For work in rights-of-way rigid barriers, such as Jersey barriers or temporary chain link fence should be used. For certain types of wide-spread or moving/mobile equipment operations, such delineation may not be practicable around pieces of equipment or individual work areas. In such instances it is expected that the entire operation will be within a larger secure work area or that additional means will be utilized to ensure security of the work zone.

C. Exceptions

It is recognized that certain heavy equipment activities may require personnel to work within the limits of the Exclusion Zone as specified in this policy. Such activities may include certain excavation clearance tasks, drill crew activities or construction tasks. However, any such activity must be pre-planned with emphasis on limiting the amount and potential exposure of any activity required within the zone. The critical safety steps to mitigate the hazards associated with working within the Exclusion Zone must be defined in the JSA and potentially other project-specific plans (i.e., critical lift plans, etc.), and approved by the Roux Project Principal and client representative, if required, prior to implementation.

D. Responsibilities

1. Corporate Health and Safety Manager

   Overall responsibility for administration, implementation and auditing of this policy.

2. Office Managers

   Responsible for communicating this policy to all of their employees who perform or may perform field work involving heavy equipment.

3. Office Health and Safety Managers

   Providing training to office field staff in this policy.

4. Project Principals

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a. Responsible for ensuring their projects address heavy equipment exclusion zones.

b. Approving exceptions to this policy.

5. Project Managers

a. Responsible for incorporating this policy into their project HASPs and applicable procedures to include JSAs.

b. Communicating to and enforcing the policy requirements for subcontractors who work on their projects.

6. Field Workers

a. Attending training in the policy.

b. Following the requirements of the policy.

E. Project and Site-Specific Orientation and Training

Many Roux projects have different requirements that are client-specific or site-specific in nature. It is the responsibility of the Project Principal (or Project Manager if delegated this responsibility by the Project Principal) to ensure that the workers assigned to his/her projects are provided orientation and training with respect to these client and/or site-specific requirements.

F. Subcontractors

All subcontractors who provide heavy equipment operations to field projects must implement a policy that meets or exceeds the expectations described above as well as any additional requirements that may be required on a client or site-specific basis.

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Accident Report and Investigation Form

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☐ **Roux Associates, Inc.** ☐ **Remedial Engineering, P.C.**
(Check applicable company name)

ACCIDENT REPORT

Joe Gentile, Corporate Health and Safety Manager
Cell: (610) 844-6911; Office: (856) 423-8800; Office FAX: (856) 423-3220; Home: (484) 373-0953

PART 1: ADMINISTRATIVE INFORMATION

Project #: 1575.0002y
Project Name: Kristal Auto Mall
Project Location (street address/city/state)**:**
5200 Kings Highway, Brooklyn, New York

Client Corporate Name / Contact / Address / Phone #:

Immediate Verbal Notifications Given To:

Corporate Health & Safety	☐Yes	☐No
Office Health & Safety	☐Yes	☐No
Office Manager	☐Yes	☐No
Project Principal	☐Yes	☐No
Project Manager	☐Yes	☐No
Client Contact	☐Yes	☐No

REPORT STATUS (time due):
☐ Initial (24 hr) Date: _____ ☐ Final (5-10 days) Date: _____

Accident Report Delivered To:

Corporate Health & Safety	☐Yes	☐No
Office Health & Safety	☐Yes	☐No
Office Manager	☐Yes	☐No
Project Principal	☐Yes	☐No
Project Manager	☐Yes	☐No

REPORT TYPE: ☐ Loss ☐ Near Loss Estimated Costs: $ _____

OSHA CASE # Assigned by Corporate Health & Safety if Applicable: _____

Corporate Health & Safety Confirmed Final Accident Report ☐Yes ☐No

DATE OF INCIDENT: _____

TIME INCIDENT OCCURRED: _____ ☐AM ☐PM

INCIDENT LOCATION – City, State, and Country (If outside U.S.A.)

INCIDENT TYPES: (Select most appropriate if Loss occurred.)
From lists below, please select the option that best categories the incident. When selecting an injury or illness, also indicate the severity level.

☐**INJURY** ☐**ILLNESS**

----------Severity Level----------

☐Fatality ☐First Aid ☐Medical Treatment
☐Restricted Work ☐Lost Time

OTHER INCIDENT TYPES

☐Spill / Release
Material involved:_____
Quantity (U.S. Gallons): _____

☐Misdirected Waste ☐Consent Order ☐NOV
☐Property Damage ☐Exceedance
☐Motor Vehicle ☐Fine / Penalty

ACTIVITY TYPE (Check most appropriate one.)

☐Decommissioning	☐Geoprobe	☐Sampling
☐Demolition	☐Motor Vehicle	☐System Start-up
☐Dewatering	☐Operations/ Maintenance	☐Trenching
☐Drilling		☐AST/UST Removal
☐Excavation	☐Pump/Pilot Test	☐Other_____
☐Gauging	☐Rigging/Lifting	

INJURY TYPE (Check all applicable.)

☐Abrasion	☐Occupational Illness
☐Amputation	☐Puncture
☐Burn	☐Rash
☐Cold/Heat Stress	☐Repetitive Motion
☐Inflammation	☐Sprain/Strain
☐Laceration	☐Other_____

BODY PART AFFECTED (Check all applicable.)

☐Respiratory	☐Shoulder	☐Face
☐Neck	☐Arm	☐Leg
☐Chest	☐Wrist	☐Knee
☐Abdomen	☐Hand/Fingers	☐Ankle
☐Groin	☐Eye	☐Foot/Toes
☐Back	☐Head	☐Other_____

I. PERSON(S) DIRECTLY / INDIRECTLY INVOLVED IN INCIDENT (Attach additional information as necessary/applicable.)

Name/Phone # of Each Person Directly/Indirectly Involved in Incident:	Designate: Roux/Remedial Employee Roux/Remedial Subcontractor Client Employee Client Contractor Third Party	As applicable, Current Occupation; Yrs in Current Occupation; Current Position; and Yrs in Current Position:	As applicable, Employer Name; Address; and Phone #:	As applicable, Supervisor Name; and Phone #:
1)				
2)				

II. PERSONS INJURED IN INCIDENT (Attach additional information as necessary/applicable.)

Name/Phone # of Each Person Injured in Incident:	Designate: Roux/Remedial Employee Roux/Remedial Subcontractor Client Employee Client Contractor Third Party	As applicable, Current Occupation; Yrs in Current Occupation; Current Position; and Yrs in Current Position:	As applicable, Employer Name; Address; and Phone #:	As applicable, Supervisor Name; and Phone #:	Description of Injury:
1)					
2)					

III. PROPERTY DAMAGED IN INCIDENT (Attach additional information as necessary/applicable.)

Property Damaged:	Property Location:	Owner Name, Address & Phone #:	Description of Damage:	Estimated Cost:
1)				$

Draft

2)				$

IV. WITNESSES TO INCIDENT (Attach additional information as necessary/applicable.)

Witness Name:	Address:	Phone #:
1)		
2)		

PART 2: WHAT HAPPENED AND INCIDENT DETAILS

PROVIDE FACTUAL DESCRIPTION OF INCIDENT (e.g., describe loss/near loss, injury, response / treatment).

I. AUTHORITIES/GOVERNMENTAL AGENCIES NOTIFIED (Attach additional information as necessary/applicable.)

Authority/Agency Notified:	Name/Phone #/Fax # of Person Notified:	Address of Person Notified:	Date & Time of Notification:	Exact Information Reported/Provided:

II. PUBLIC RESPONSES TO INCIDENT (if applicable)

Response/Inquiry By: (check one)	Entity Name:	Name/Phone # of Respondent/ Inquirer:	Address of Entity/Person:	Date & Time of Response/Inquiry:
☐Newspaper ☐Television ☐Community Group ☐Neighbors ☐Other _____				

Describe Response/Inquiry:

Roux/Remedial Response:

(Check all that apply.) (Attach photos, drawings, etc. to help illustrate the incident.)
ATTACHED INFORMATION: ☐Photo ☐Sketches ☐Vehicle Acord Form ☐Police Report ☐Other

Name(s) of person(s) who prepared Initial and Final Report:	**Title(s):**	**Phone number(s):**

PART 3: INVESTIGATION TEAM ANALYSIS

CONCLUSION: WHY IT HAPPENED (LIST CAUSAL FACTORS AND CORRESPONDING ROOT CAUSES)

(Root Causes: Lack of knowledge or skill, Doing the task according to procedures or acceptable practices takes more time or effort, Short-cuts or not following acceptable practices is reinforced or tolerated, Not following procedures or acceptable practices did not result in an accident, Lack of or inadequate procedures, Inadequate communications of expectations regarding procedures or acceptable practices, Inadequate tools or equipment, External Factors)

ROOT CAUSE(S) AND SOLUTION(S): HOW TO PREVENT INCIDENT FROM RECURRING

CAUSAL FACTOR	ROOT CAUSE		SOLUTION(S) [Must Match Root Cause(s)] #	Solution(s)	PERSON RESPONSIBLE	AGREED DUE DATE	ACTUAL COMPLETION DATE
			1				
			2				
			3				

INVESTIGATION TEAM:

PRINT NAME	JOB POSITION	DATE	SIGNATURE

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APPENDIX F

Acord Form

Draft

ACORD™ AUTOMOBILE LOSS NOTICE

DATE

PRODUCER	PHONE (A/C, No, Ext):	COMPANY	NAIC CODE: 25224	MISCELLANEOUS INFO (Site & location code)
The Treiber Group, AJ Gallagher Risk Mgt. Svc. 377 Oak Street Garden City, NY 11530		Great Divide Insurance Company		
		POLICY NUMBER BAP1549799-10	REFERENCE NUMBER	CAT #

CODE:	SUB CODE:	EFFECTIVE DATE	EXPIRATION DATE	DATE OF ACCIDENT AND TIME	AM / PM	PREVIOUSLY REPORTED YES / NO
AGENCY CUSTOMER ID:		06/01/12	06/01/13			

INSURED

NAME AND ADDRESS	SOC SEC # OR FEIN: 11-2579482
Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749	
RESIDENCE PHONE (A/C, No) NA	BUSINESS PHONE (A/C, No, Ext) 631-232-2600

CONTACT

CONTACT INSURED

NAME AND ADDRESS		WHERE TO CONTACT
Susan Sullivan, General Counsel Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749		Fax Notice: 631-232-1525
RESIDENCE PHONE (A/C, No)	BUSINESS PHONE (A/C, No, Ext) 631-232-2600	WHEN TO CONTACT

LOSS

LOCATION OF ACCIDENT (Include city & state)	AUTHORITY CONTACTED: REPORT #:	VIOLATIONS/CITATIONS
DESCRIPTION OF ACCIDENT (Use separate sheet, if necessary)		

POLICY INFORMATION

BODILY INJURY (Per Person)	BODILY INJURY (Per Accident)	PROPERTY DAMAGE	SINGLE LIMIT	MEDICAL PAYMENT	OTC DEDUCTIBLE	OTHER COVERAGE & DEDUCTIBLES (UM, no-fault, towing, etc)
LOSS PAYEE					COLLISION DED	

UMBRELLA/ EXCESS	UMBRELLA	EXCESS	CARRIER:	LIMITS:	AGGR	PER CLAIM/OCC	SIR/ DED

INSURED VEHICLE

VEH #	YEAR	MAKE:	BODY TYPE:	PLATE NUMBER	STATE
		MODEL:	V.I.N.:		

OWNER'S NAME & ADDRESS	RESIDENCE PHONE (A/C, No): BUSINESS PHONE (A/C, No, Ext):
DRIVER'S NAME & ADDRESS (Check if same as owner)	RESIDENCE PHONE (A/C, No): BUSINESS PHONE (A/C, No, Ext):

RELATION TO INSURED (Employee, family, etc.)	DATE OF BIRTH	DRIVER'S LICENSE NUMBER	STATE	PURPOSE OF USE	USED WITH PERMISSION? YES / NO
Employee					

DESCRIBE DAMAGE	ESTIMATE AMOUNT	WHERE CAN VEHICLE BE SEEN?	WHEN CAN VEH BE SEEN?	OTHER INSURANCE ON VEHICLE

PROPERTY DAMAGED

DESCRIBE PROPERTY (If auto, year, make, model, plate #)	OTHER VEH/PROP INS? YES / NO	COMPANY OR AGENCY NAME: POLICY #:
OWNER'S NAME & ADDRESS		RESIDENCE PHONE (A/C, No): BUSINESS PHONE (A/C, No, Ext):
OTHER DRIVER'S NAME & ADDRESS (Check if same as owner)		RESIDENCE PHONE (A/C, No): BUSINESS PHONE (A/C, No, Ext):

DESCRIBE DAMAGE	ESTIMATE AMOUNT	WHERE CAN DAMAGE BE SEEN?

INJURED

NAME & ADDRESS	PHONE (A/C, No)	PED	INS VEH	OTH VEH	AGE	EXTENT OF INJURY

WITNESSES OR PASSENGERS

NAME & ADDRESS	PHONE (A/C, No)	INS VEH	OTH VEH	OTHER (Specify)

REMARKS (Include adjuster assigned)

REPORTED BY	REPORTED TO	SIGNATURE OF INSURED	SIGNATURE OF PRODUCER

© ACORD CORPORATION 1988

Draft

Applicable in Arizona

For your protection, Arizona law requires the following statement to appear on this form. Any person who knowingly presents a false or fraudulent claim for payment of a loss is subject to criminal and civil penalties.

Applicable in Arkansas, District of Columbia, Kentucky, Louisiana, Maine, Michigan, New Jersey, New Mexico, Pennsylvania and Virginia

Any person who knowingly and with intent to defraud any insurance company or another person, files a statement of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact, material thereto, commits a fraudulent insurance act, which is a crime, subject to criminal prosecution and civil penalties. In D.C., LA, ME and VA insurance benefits may also be denied.

Applicable in California

Any person who knowingly files a statement of claim containing any false or misleading information is subject to criminal and civil penalties.

Applicable in Colorado

It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance, and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policy holder or claimant for the purpose of defrauding or attempting to defraud the policy holder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado Division of Insurance within the Department of Regulatory Agencies.

Applicable in Florida and Idaho

Any person who knowingly and with the intent to injure, Defraud, or Deceive any Insurance Company Files a Statement of Claim Containing any False, Incomplete or Misleading information is Guilty of a Felony.*

* In Florida - Third Degree Felony

Applicable in Hawaii

For your protection, Hawaii law requires you to be informed that presenting a fraudulanet claim for payment of a loss or benefit is a crime punishable by fines or imprisonment , or both.

Applicable in Indiana

A person who knowingly and with intent to defraud an insurer files a statement of claim containing any false, incomplete, or misleading information commits a felony.

Applicable in Minnesota

A person who files a claim with intent to defraud or helps commit a fraud against an insurer is guilty of a crime.

Applicable in Nevada

Pursuant to NRS 686A.291, any person who knowingly and willfully files a statement of claim that contains any false, incomplete or misleading information concerning a material fact is guilty of a felony.

Applicable in New Hampshire

Any person who, with purpose to injure, defraud or deceive any insurance company, files a statement of claim containing any false, incomplete or misleading information is subject to prosecution and punishment for insurance fraud, as provided in RSA 638:20.

Applicable in New York

Any person who knowingly makes or knowingly assists, abets, solicits or conspires with another to make a false report of the theft, destruction, damage or conversion of any motor vehicle to a law enforcement agency, the Department of Motor Vehicles or an insurance company, commits a fraudulent insurance act, which is a crime, and shall also be subject to a civil penalty not to exceed five thousand dollars and the value of the subject motor vehicle or stated claim for each violation.

Applicable in Ohio

Any person who, with intent to defraud or knowing that he/she is facilitating a fraud against an insurer, submits an application or files a claim containing a false or deceptive statement is guilty of insurance fraud.

Applicable in Oklahoma

WARNING: Any person who knowingly and with intent to injure, defraud or deceive any insurer, makes any claim for the proceeds of an insurance policy containing any false, incomplete or misleading information is guilty of a felony.

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APPENDIX G

OSHA 300

Draft

OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year _____

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name _____

City _____ State _____

Identify the person			Describe the case			Classify the case											
(A) Case No.	(B) Employee's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g. Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch)	**CHECK ONLY ONE** box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness:					
						Death	Days away from work	Remained at work		Away From Work (days)	On job transfer or restriction (days)	(M) Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss	All other illnesses
								Job transfer or restriction	Other record-able cases								
						(G)	(H)	(I)	(J)	(K)	(L)	(1)	(2)	(3)	(4)	(5)	(6)
					Page totals	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss	All other illnesses
(1)	(2)	(3)	(4)	(5)	(6)

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Draft

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year _____

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	0	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
0	0
(K)	(L)

Injury and Illness Types

Total number of…

	(M)		
(1) Injury	0	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name _____

Street _____

City _____ State _____ Zip _____

Industry description (e.g., Manufacture of motor truck trailers)

_____

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

___ ___ ___ ___

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

___ ___ ___ ___ ___ ___

Employment information

Annual average number of employees _____

Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

_____ Company executive

_____ Title

_____ Phone

_____ Date

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OSHA's Form 301
Injuries and Illnesses Incident Report

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Repor* t is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by _____

Title _____

Phone _____ Date _____

Information about the employee

1) Full Name _____

2) Street _____

City _____ State _____ Zip _____

3) Date of birth _____

4) Date hired _____

5) ☐ Male
☐ Female

Information about the physician or other health care professional

6) Name of physician or other health care professional

_____

_____

7) If treatment was given away from the worksite, where was it given?

Facility _____

Street _____

City _____ State _____ Zip _____

8) Was employee treated in an emergency room?
☐ Yes
☐ No

9) Was employee hospitalized overnight as an in-patient?
☐ Yes
☐ No

Information about the case

10) Case number from the Log _____ *(Transfer the case number from the Log after you record the case.)*

11) Date of injury or illness _____

12) Time employee began work _____ AM/PM

13) Time of event _____ AM/PM ☐ Check if time cannot be determined

14) **What was the employee doing just before the incident occurred?** Describe the activity, as well as the tools, equipment or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

15) **What happened?** Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

16) **What was the injury or illness?** Tell us the part of the body that was affected and how it was affected; be more specific than "hurt", "pain", or "sore." Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

17) **What object or substance directly harmed the employee?** Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.

18) **If the employee died, when did death occur?** Date of death

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Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

APPENDIX H

CAL/OSHA Job Safety and Health Protection Poster

Draft

SAFETY AND HEALTH PROTECTION ON THE JOB

State of California
Department of Industrial Relations

California law provides job safety and health protection for workers under the Cal/OSHA program. This poster explains the basic requirements and procedures for compliance with the state's job safety and health laws and regulations. The law requires that this poster be displayed. (Failure to do so could result in a penalty of up to $7,000.)

WHAT AN EMPLOYER MUST DO:

All employers must provide work and workplaces that are safe and healthful. In other words, as an employer, you must follow state laws governing job safety and health. Failure to do so can result in a threat to the life or health of workers, and substantial monetary penalties.

You must display this poster so everyone on the job can be aware of basic rights and responsibilities.

You must have a written and effective injury and illness prevention program for your employees to follow.

You must be aware of hazards your employees face on the job and keep records showing that each employee has been trained in the hazards unique to each job assignment.

You must correct any hazardous condition that you know may result in serious injury to employees. Failure to do so could result in criminal charges, monetary penalties, and even incarceration.

You must notify the nearest Cal/OSHA office of any serious injury or fatality occurring on the job. Be sure to do this immediately after calling for emergency help to assist the injured employee. Failure to report a serious injury or fatality within 8 hours can result in a minimum civil penalty of $5,000.

WHAT AN EMPLOYER MUST NEVER DO:

Never permit an employee to do work that violates Cal/OSHA law.

Never permit an employee to be exposed to harmful substances without providing adequate protection.

Never allow an untrained employee to perform hazardous work.

EMPLOYEES HAVE CERTAIN RIGHTS IN WORKPLACE SAFETY & HEALTH:

As an employee, you (or someone acting for you) have the right to file a complaint and request an inspection of your workplace if conditions there are unsafe or unhealthful. This is done by contacting the local district office of the Division of Occupational Safety and Health (see list of offices). Your name is not revealed by Cal/OSHA, unless you request otherwise.

You also have the right to bring unsafe or unhealthful conditions to the attention of the Cal/OSHA investigator making an inspection of your workplace. Upon request, Cal/OSHA will withhold the names of employees who submit or make statements during an inspection or investigation.

Any employee has the right to refuse to perform work that would violate a Cal/OSHA or any occupational safety or health standard or order where such violation would create a real and apparent hazard to the employee or other employees.

You may not be fired or punished in any way for filing a complaint about unsafe or unhealthful working conditions, or using any other right given to you by Cal/OSHA law. If you feel that you have been fired or punished for exercising your rights, you may file a complaint about this type of discrimination by contacting the nearest office of the Department of Industrial Relations, Division of Labor Standards Enforcement (State Labor Commissioner) or the San Francisco office of the U.S. Department of Labor, Occupational Safety and Health Administration. (Employees of state or local government agencies may only file these complaints with the State Labor Commissioner.) Consult your local telephone directory for the office nearest you.

EMPLOYEES ALSO HAVE RESPONSIBILITIES:

To keep the workplace and your coworkers safe, you should tell your employer about any hazard that could result in an injury or illness to people on the job.

While working, you must always obey state job safety and health laws.

SPECIAL RULES APPLY IN WORK AROUND HAZARDOUS SUBSTANCES:

Employers who use any substance listed as a hazardous substance in Section 339 of Title 8 of the California Code of Regulations, or subject to the Federal Hazard Communications Standard (29 CFR 1910.1200), must provide employees with information on the contents on Material Safety Data Sheets (MSDS), or equivalent information about the substance that trains employees to use the substance safely.

Employers shall make available on a timely and reasonable basis a Material Safety Data Sheet on each hazardous substance in the workplace upon request of an employee, an employee collective bargaining representative, or an employee's physician.

Employees have the right to see and copy their medical records and records of exposure to potentially toxic materials or harmful physical agents.

Employers must allow access by employees or their representatives to accurate records of employee exposures to potentially toxic materials or harmful physical agents, and notify employees of any exposures in concentration or levels exceeding the exposure limits allowed by Cal/OSHA standards.

Any employee has the right to observe monitoring or measuring of employee exposure to hazards conducted pursuant to Cal/OSHA regulations.

WHEN CAL/OSHA COMES TO THE WORKPLACE:

A trained Cal/OSHA safety engineer or industrial hygienist may periodically visit the workplace to make sure your company is obeying job safety and health laws.

An inspection will also be conducted when a legitimate complaint is filed by an employee with the Division of Occupational Safety and Health.

Cal/OSHA also goes to the workplace to investigate a serious injury or fatality.

When an inspection begins, the Cal/OSHA investigator will show official identification from the Division of Occupational Safety and Health.

The employer, or someone the employer chooses, will be given an opportunity to accompany the investigator during the inspection. A representative of the employees will be given the same opportunity. Where there is no authorized employee representative, the investigator will talk to a reasonable number of employees about safety and health conditions at the workplace.

VIOLATIONS, CITATIONS & PENALTIES:

If the investigation shows that the employer has violated a safety and health standard or order, then the Division of Occupational Safety and Health issues a citation. Each citation specifies a date by which the violation must be abated. A notice, which carries no monetary penalty, may be issued in lieu of a citation for certain non-serious violations.

Citations carry penalties of up to $7,000 for each regulatory or general violation and up to $25,000 for each serious violation. Additional penalties of up to $7,000 per day for regulatory or general violations and up to $15,000 per day for serious violations may be proposed for each failure to correct a violation by the abatement date shown on the citation. A penalty of not less than $5,000 nor more than $70,000 may be assessed an employer who willfully violates any occupational safety and health standard or order. The maximum civil penalty that can be assessed for each repeat violation is $70,000. A willful violation that causes death or permanent impairment of the body of any employee results,upon conviction, in a fine of not more than $250,000, or imprisonment up to three years, or both and if the employer is a corporation or limited liability company the fine may not exceed $1.5 million.

The law provides that employers may appeal citations within 15 working days of receipt to the Occupational Safety and Health Appeals Board.

An employer who receives a citation, Order to Take Special Action, or Special Order must post it prominently at or near the place of the violation for three working days, or until the unsafe condition is corrected, whichever is longer, to warn employees of danger that may exist there. Any employee may protest the time allowed for correction of the violation to the Division of Occupational Safety and Health or the Occupational Safety and Health Appeals Board.

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HELP IS AVAILABLE:

To learn more about job safety rules, you may contact the Cal/OSHA Consultation Service for free information, required forms and publications. You can also contact a local district office of the Division of Occupational Safety and Health. If you prefer, you may retain a competent private consultant, or ask your workers' compensation insurance carrier for guidance in obtaining information.

Call the FREE Worker Information Hotline - 1-866-924-9757

OFFICES OF THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

HEADQUARTERS: 1515 Clay Street, Ste. 1901, Oakland, CA 94612 — Telephone (510) 286-7000

District Offices

Bakersfield	7718 Meany Avenue, Bakersfield 93308	(661) 588-6400
Concord	1450 Enea Circle Suite 525, Concord 94520	(925) 602-6517
Foster City	1065 East Hillsdale Blvd. Suite 110, Foster City 94404	(650) 573-3812
Fremont/San Jose	39141 Civic Center Dr. Suite 310, Fremont 94538	(510) 794-2521
Fresno	2550 Mariposa St. Room 4000, Fresno 93721	(559) 445-5302
Los Angeles	320 West Fourth St. Room 670, Los Angeles 90013	(213) 576-7451
Modesto	4206 Technology Dr. Suite 3, Modesto 95356	(209) 545-7310
Oakland	1515 Clay St. Suite 1301, Oakland 94612	(510) 622-2916
Sacramento	2424 Arden Way Suite 165, Sacramento 95825	(916) 263-2800
San Bernardino	464 West Fourth St. Suite 332, San Bernardino 92401	(909) 383-4321
San Diego	7575 Metropolitan Dr. Suite 207, San Diego 92108	(619) 767-2280
San Francisco	455 Golden Gate Ave. Rm. 9516, San Francisco 94105	(415) 557-0100
Santa Ana	2000 E. McFadden Ave, Ste. 122, Santa Ana 92705	(714) 558-4451
Santa Rosa	1221 Farmers Lane Suite 300, Santa Rosa 95405	(707) 576-2388
Torrance	680 Knox St. Suite 100, Torrance 90502	(310) 516-3734
Van Nuys	6150 Van Nuys Blvd. Suite 405, Van Nuys 91401	(818) 901-5403
West Covina	1906 West Garvey Ave. S. Suite 200, West Covina 91790	(626) 472-0046

Regional Offices

Oakland	1515 Clay Street, Ste. 16-22A, Oakland 94612	(510) 286-1066
Sacramento	2424 Arden Way Suite 300, Sacramento 95825	(916) 263-2803
Santa Ana	2000 E. McFadden Ave. Ste. 119, Santa Ana 92705	(714) 558-4300
Monrovia	750 Royal Oaks Drive, Ste 104, Monrovia 91016	(626) 471-9122

Cal/OSHA Consultation Service

Headquarters: 2000 E. McFadden Ave. #214, Santa Ana, CA 92705 (714) 558-4411

Area & Field Offices

• Fresno/Central Valley	1901 North Gateway Blvd. Suite 102, Fresno 93727	(559) 454-1295
• Oakland/Bay Area	1515 Clay St. Suite 1103 Oakland 94612	(510) 622-2891
• Sacramento/Northern CA	2424 Arden Way Suite 410 Sacramento 95825	(916) 263-0704
• San Bernardino	464 West Fourth St. Suite 339 San Bernardino 92401	(909) 383-4567
• San Diego/Imperial Counties	7575 Metropolitan Dr. Suite 204 San Diego 92108	(619) 767-2060
• San Fernando Valley	6150 Van Nuys Blvd. Suite 307 Van Nuys 91401	(818) 901-5754
• Santa Fe Springs/Los Angeles/Orange County	1 Centerpointe Suite 150 La Palma 90623	(714) 562-5525

Enforcement of Cal/OSHA job safety and health standards is carried out by the Division of Occupational Safety and Health, under the California Department of Industrial Relations, which has primary responsibility for administering the Cal/OSHA program. Safety and health standards are promulgated by the Occupational Safety and Health Standards Board. Anyone desiring to register a complaint alleging inadequacy in the administration of the California Occupational Safety and Health Plan may do so by contacting the San Francisco Regional Office of the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor (Tel: 415-975-4310). OSHA monitors the operation of state plans to assure that continued approval is merited.

April 2013

Storm Water Pollution Prevention Plan

Draft

STORMWATER POLLUTION PREVENTION PLAN

SCS Apartments

Prepared For:

3230 Scott Boulevard LLC
3236 Scott Boulevard LLC
3255 Scott Boulevard LLC
3265 Scott Boulevard LLC
Augustine Bowers II LLC

Draft

SWPPP Requirements Prepared by:

SWIMS INC.
350 Camino Diablo
Brentwood CA 94513
David C. Koffman, QSD #24540

Preparation Date:

10/1515

APPENDIX F
SCS Apartments
Santa Clara, California

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Draft

Introduction

- This general Stormwater Pollution Prevention Plan (SWPPP) guideline has been prepared by SWIMS INC. to describe the general storm water pollution prevention procedures and protocols that will be employed throughout the implementation of the Response Plan (Roux, 2015). These procedures and protocols are 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). The contractor selected shall prepare the project SWPPP in accordance with the General Permit, Section XIV, and shall be 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;
- Site BMPs that 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;

The contractor selected to implement the Response Plan will be required to have a Qualified SWPPP developer (QSD) prepare a site-specific SWPPP that meets all requirements presented herein and the requirements described in the General Permit. The project SWPPP shall include, but is not limited to, a notice of intent (NOI), Risk Level determination based on sediment erosivity index, and receiving water body risk. Due to the time sensitivity of the R factor, the Permit's Risk Level Determination must be evaluated by the contractor just prior to the start of the project when the start and finish dates are better understood.

Permit Registration Documents

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

SWPPP Availability

The contractor shall make both the general and site-specific SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the SWPPPs are retained by a crewmember and are not at the construction site, current copies of the BMPs and maps/drawings will be left with the field crew and the original SWPPPs shall be made available via a request by radio/telephone. (CGP Section XIV.C)

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

SWPPP Amendments

The SWPPPs should be revised:

- 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 Qualified SWPPP Practitioner (QSP). All other changes shall be made by the QSD as formal amendments to the SWPPP.

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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.

All amendments shall be logged by the contractors QSD and kept at the front of the SWPPP. 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 unless 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.

Site Description

The SCS Apartments Site comprises seven parcels, respectively. 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the SCS Apartments Site. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. The recommended response action in the Response Plan entails off hauling, relocation, consolidation, and capping of impacted shallow soils. The Companies will select a licensed remediation contractor (Contractor) to implement the Response Plan.

Site History

The SCS Apartments Site comprises five parcels, respectively. Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted by Erler & Kalinowski, Inc. (EKI) at the five of the seven SCS Apartments Site parcels. The following is a summary of previous Site investigations: Assessor's Parcel Numbers (APN) and associated addresses are listed below.

- APN: 216-29-112 (herein known as "3236 Scott Parcel")
    - The 3236 Scott Parcel comprises approximately 3 acres with one building. A Phase I ESA was completed by EKI in December 2014.
- APN: 216-29-053 (herein known as "3230 Scott Parcel")
    - The 3230 Scott Parcel comprises approximately 3 acres with one building. A Phase I and II ESA was completed by EKI in December 2014.
- APN: 216-45-022 (herein known as "3265 Scott Parcel")

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- The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard. A Phase I ESA was conducted by EKI in June 2013.

- APN: 216-45-023 and -024 (herein known as "3255 Scott Parcels")
  - The 3255 Scott Parcel comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255 5 Scott Boulevard). A Phase I and Phase II ESA was conducted by EKI in April 2013 and January 2014, respectively.

- Portions of APN: 216-45-011 and -028 (herein known as the Augustine Bowers II Parcel).
  - The Augustine Bowers II LLC Parcel comprises approximately 2.6 acres with only a partial portion of two buildings, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

The Site is bound in the north by the SCS Office Phase II/III Development (currently under construction)to the east by the San Tomas Aquino Creek Trail; to the west by the SCS Retail Development (currently under construction); to the south and west by office and light industrial buildings. The surrounding area comprises of mostly commercial/retail establishments and offices, including restaurants. The Site and the surrounding properties were used as orchards prior to its development as an office complex in the 1970s.

Nature and Extent

Previous environmental investigations have found that the chemicals of concern (COCs) in soil at the Site are arsenic, lead, DDE and dieldrin. The maximum arsenic and lead concentrations detected in soil are 165 milligrams per kilogram (mg/kg) in sample SM20-1 (12-16), and 460 mg/kg in sample SM18-1 (40-44) respectively. The maximum DDE and dieldrin concentrations detected in soil are 1,480 micrograms per kilogram (µg/kg) in sample SM21-1 (12-24) COMP, and 312 µg/kg in sample SG12-1 (4-8), respectively. The Roux Associates Site-specific Health and Safety Plan (HASP) in Appendix E of the Response Plan describes the potential chemical hazards of the COCs.

Potential Pollutant Sources

The anticipated activities and associated pollutants shall be used to select the Best Management Practices (BMPs) for the project. Previous site investigations have identified the chemicals of concern at the Site as arsenic, lead, dieldrin, and DDE.

Contractor shall insure the SWPPP to include sampling requirements for non-visible pollutants associated with construction activity. In addition to a full and complete list of onsite pollutants in

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the Material Safety Data Sheets (MSDS), which shall be retained onsite at the construction trailer.

Best Management Practices 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 contractor shall insure the inspection checklist include the necessary information to meet the SWRCB minimum requirements. Contractor shall keep the completed checklists in the Construction Site Monitoring Program (CSMP) located on site in the SWPPP.

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

Contractor shall include in the SWPPP specific details for maintenance, inspection, and repair of Construction Site BMPs. Contractor shall also include in the SWPPP the "CASQA BMP Handbook".

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. The project site, waste management should be conducted in accordance with the Project's Response Plan.

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

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- Extended contact with some materials and wastes, such as asphalt cold mix and treated wood products, which can leach pollutants into stormwater.

Non-Storm Water 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.

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

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.

Sediment Control

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.

Temporary sediment control BMPs shall be implemented in conformance with the CASQA BMP Handbook guidelines and in accordance with the BMP Fact Sheets provided in Appendix H "CASQA BMP Handbook" of the project SWPPP developed by contractor. 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

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details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Record Keeping

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:

- Inspection Reports
- Water Sampling and Analysis

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.

References

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.

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Quality Control/Quality Assurance Plan

Draft

November 2015

QUALITY ASSURANCE AND QUALITY CONTROL PLAN

Santa Clara Square Apartments
Santa Clara, California

Draft

Prepared for

3230 SCOTT BOULEVARD LLC,
3236 SCOTT BOULEVARD LLC,
3255 SCOTT BOULEVARD LLC,
3265 SCOTT BOULEVARD LLC, AND
AUGUSTINE BOWERS II LLC

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2. Soil Analytical Parameters, Analytical Methods and Detection Limits

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1.0 INTRODUCTION

Roux Associates, Inc., (Roux Associates) has prepared this Quality Assurance and Quality Control Plan for the Santa Clara Square development (SCS) Apartments development, referred to as the "SCS Apartments Site" (Site), in Santa Clara, California. The SCS Apartments Site comprises seven parcels, respectively. 3230 Scott Boulevard LLC, 3236 Scott Boulevard LLC, 3255 Scott Boulevard LLC, 3265 Scott Boulevard LLC, Augustine Bowers II LLC (collectively referred to as the "Companies"), own the respective properties collectively known as the SCS Apartments Site. The Companies intend to develop the full 33.4 acre SCS Apartment Site with 7 residential apartment buildings with a total of approximately 1,800 units, 40,000 square feet of retail use, and approximately 16 acres of public and private open space. The recommended response action in the Response Plan entails off hauling, relocation, consolidation, and capping of impacted shallow soils. The Companies will select a licensed remediation contractor (Contractor) to implement the Response Plan.

If the Contractor proposes to deviate from the procedures specified in this Quality Assurance and Quality Control Plan, the Contractor will be required to prepare an addendum to this Plan and obtain approval. The Contractor will implement the procedures documented in this Quality Assurance and Quality Control Plan and any additional addendum to this Plan. The Companies or their representative (Roux Associates or other selected representative) will verify that the Contractor implements this Quality Assurance and Quality Control Plan and the Contractor's addendum to this Plan.

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1.1 Site Description and History

The SCS Apartments Site comprises the following seven parcels, respectively:

- The 3236 Scott Parcel comprises approximately 3 acres with one building.
- The 3230 Scott Parcel comprises approximately 3 acres with one building.
- The 3265 Scott Parcel comprises approximately 5 acres with three buildings with the following addresses: 2600 and 2610 Augustine Drive; 3300, 3310, 3340, 3350, 3360, 3370 & 3380 Montgomery Drive; and 3265 Scott Boulevard.
- The 3255 Scott Parcel comprises approximately 21 acres with 9 buildings with the following addresses: 3233, 3255-1, 3255-2, 3255-3, 3255-4, 3255-5, 3255-6 & 3255-7 Scott Boulevard; 3221 to 3233 Scott Boulevard; 3303 to 3309 Octavius Drive; and 2500 Augustine Drive (same building as 3255 5 Scott Boulevard).

- The Augustine Bowers II LLC Parcel comprises approximately 2.6 acres with only a partial portion of two buildings, 2620 Augustine Drive and 3281-3285 Scott Boulevard.

Phase I Environmental Site Assessments (ESAs) were prepared for each of these parcels. Soil, soil vapor, and groundwater investigations were previously conducted at five of the seven SCS Apartments Site parcels (EKI 2013, EKI 2014a, EKI 2014b, EKI 2014d, EKI 2014e, EKI 2014f). Roux Associates conducted additional characterization to prepare the response plan as described in the Site characterization report (Roux 2015a).

The Site is bound in the north by the SCS Office Phase II/III Development (currently under construction); to the east by the San Tomas Aquino Creek Trail; to the west by the Santa Clara Square Retail Development (currently under construction) to the south and west by office and light industrial buildings. The surrounding area comprises of mostly commercial/retail establishments and offices, including restaurants. The Site and the surrounding properties were used as orchards prior to its development as an office complex in the 1970s.

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1.2 Regulatory Status

The Response Plan has been developed pursuant to the California Land Reuse and Revitalization Act of 2004, California Health and Safety Code Section 25395.60 et seq. (CLRRA). The DTSC is the designated lead agency responsible for oversight of the cleanup of soil at the Site. The Companies or their representative will confer with DTSC for review and approval of this Quality Assurance and Quality Control Plan and the Contractor's Site-specific addendum.

1.3 Objective

The objective of this Quality Assurance and Quality Control Plan is to establish the project-specific minimum requirements for the quality assurance and quality control of data collection. The procedures contained in this Quality Assurance and Quality Control Plan apply to all samples collected on the Site.

1.4 Nature and Extent of Contamination

Previous environmental investigations have found that the chemicals of concern (COCs) in soil at the Site are arsenic, lead, DDE and dieldrin. The maximum arsenic and lead concentrations detected in soil are 165 milligrams per kilogram (mg/kg)in sample SM20-1 (12-16), and 460

mg/kg in sample SM18-1 (40-44) respectively. The maximum DDE and dieldrin concentrations detected in soil are 1,480 micrograms per kilogram (µg/kg) in sample SM21-1 (12-24) COMP, and 312 µg/kg in sample SG12-1 (4-8), respectively. The Roux Associates Site-specific Health and Safety Plan (HASP) in Appendix E of the Response Plan describes the potential chemical hazards of the COCs.

2.0 FIELD QA/QC PROCEDURES

QA/QC field procedures for equipment decontamination, sampling containers, handling and transport, field documentation, and chain-of-custody were conducted under the same manner as described in detail in the Work Plans for the SCS Office Phase II and Phase III sites submitted to the DTSC on December 17, 2014 (Roux Associates, 2014d, 2014e).

3.0 QUALITY ASSURANCE AND QUALITY CONTROL

To document the quality of the data being collected, several control checks for both field and laboratory data will be performed. The test method objectives for precision and accuracy will be based on USEPA's SW-846 Guidance Document (USEPA, 1998).

3.1 Laboratory Quality Control Samples

The QA/QC program will evaluate laboratory data for soil samples using the following four types of quality control samples for soil samples: 1) matrix spikes, duplicates, lab control samples, and blanks as described below:

1. Matrix spike analyses are used to evaluate the accuracy of laboratory analyses for site-specific matrices. Surrogate spike analyses are intended to evaluate sample-specific extraction efficiency and accuracy for analyses performed on a gas chromatograph. Matrix spike and matrix spike duplicate (MS/MSD) samples are prepared by spiking the sample with a known amount of a target analyte. Once the spike is added to the MS/MSD sample, the sample is carried through the complete sample preparation process along with the other samples in the batch. Performance of the analytical method will be assessed for accuracy by evaluating percent recoveries of the spiked compounds. Percent recoveries will be assessed against established lab- and compound-specific data control limits.

2. Duplicates: Matrix spike duplicate and laboratory duplicate analyses are intended to evaluate the precision of laboratory analyses of site-specific matrices. Laboratory control sample duplicates are intended to monitor analytical precision whenever there is insufficient sample available for matrix spiking. In all cases, performance of the analytical method will be assessed for precision by evaluating the RPD between duplicates. RPDs will be assessed against established lab-specific data control limits.

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3. Laboratory Control Samples: Laboratory control samples ("LCS") are intended to evaluate the performance of the analytical system without any potential matrix interferences. If sample matrix effects produce out-of-control matrix spike or matrix spike duplicate results, then the lab control sample recoveries are used to validate the analytical batch. In this case, performance of the analytical method will be assessed for accuracy by evaluating percent recoveries of the lab control sample compounds. Percent recoveries will be assessed against established lab- and compound-specific data control limits.

4. Blanks: Blanks are intended to evaluate the potential for external contamination of samples due to laboratory or field procedures.

3.2 Field Quality Control Samples

The following sections describe the field quality control samples to be collected as part of this Quality Assurance and Quality Control Plan.

3.2.1 Field Duplicates

Field duplicate samples will be analyzed to check for sampling and analytical reproducibility. The general level of the QC effort will be one field duplicate collected for every 10 sample locations. Duplicate samples will be collected to check for sampling and analytical precision. All duplicates will be collected from points known or suspected to be contaminated. Duplicates will be collected, numbered, packaged and sealed in the manner as the primary sample. All duplicate samples will be submitted blind to the laboratory. Duplicate samples will not be collected for soil do to the heterogeneous nature of soil and the potential for matrix interference.

3.2.2 Blank Samples

Blanks samples will be collected during groundwater sampling to check for possible cross-contamination during sample collection and shipment and in the laboratory. Equipment blanks, field bottle blanks, and trip blanks, will be prepared and analyzed to determine the data quality provided by the sampling and analysis activities conducted during the execution of this Quality Assurance and Quality Control Plan.

Equipment Blanks will be collected when sampling equipment (e.g., bladder pump) or a sample collection vessel (e.g., bailer) is decontaminated and reused in the field. Laboratory provided "blank" water will be used to rinse the sampling equipment after the equipment has been decontaminated and then this water will be collected in the proper sample containers. As all soil

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samples are being collected in new unused disposal acetate or stainless steel liners, no blank samples will be collected for soil.

Field Bottle Blanks will be collected when sampling equipment decontamination is not necessary. The field bottle blank is obtained by pouring the appropriate "blank" water into a laboratory provided container at a sampling point.

3.2.3 Trip Blanks

Trip blanks are used to assess the potential for contamination during sample storage and shipment. The trip blank consists of laboratory provided blank water and will be provided with the sample containers to be used when sampling for VOCs. Trip blanks will remain inside the coolers and will be included along with each shipment cooler containing project samples to be analyzed for VOCs.

3.3 Laboratory QA/QC Checks

Laboratory QC samples will be analyzed at each laboratory for all samples analyzed.

Laboratory quality control checks will be performed by the laboratory in adherence to method-specific laboratory QC procedures. The QC procedures listed in Revision 1 of Chapter 1 (dated July 1992) of SW-846 (U.S. EPA, 1986), Update III (U.S. EPA, 1997), will be followed for each laboratory method for chemical analysis of soil samples. Laboratory QC procedures include the following:

1. One internal method blank will be analyzed for every 20 samples analyzed or one per batch for each method, whichever is more frequent.

2. One matrix spike/matrix spike duplicate ("MS/MSD") will be analyzed for every 20 samples analyzed or one per batch for each method, whichever is more frequent. The MS/MSD will be performed using standard spike compounds on a sample from the Site for each method specified under SW-846.

3. One laboratory control sample ("LCS") will be analyzed for every 20 samples analyzed or one per batch for each method, whichever is more frequent.

4. All sample analyses will be performed within the holding time specified for each individual analysis. Holding times for analyses are presented in Table 1.

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4.0 DATA EVALUATION

Data quality will be measured and evaluated in terms of sensitivity, precision, accuracy, representativeness, completeness and comparability parameters. A discussion of these measurement parameters and how they will be used to evaluate the project analytical data follows.

4.1 Sensitivity

Sensitivity is the lowest detection limit of the method or instruments for each of the measurement parameters of interest. Essentially, it is the capability of a method or instrument to discriminate between measurement responses representing different levels of the variable of interest. All field and analytical activities will follow well established methods. Reporting limits for each analysis are presented in Tables 2 through 4. If the accepted method does not provide the sensitivity required for the project, alternative methods will be considered and presented to the DTSC.

4.2 Precision

Precision is the degree of agreement among repeated measurements of the same characteristic on the same sample or on separate samples collected as close as possible in time and place. It tells you how consistent and reproducible your field or laboratory methods are by showing you how close your measurements are to each other. It does not mean that the sample results actually reflect the "true" value, but rather that the sampling and analysis are giving consistent results under similar conditions.

Precision will be determined through the use of field duplicates, matrix spike/matrix spike duplicates and duplicate quality control samples. The relative percent difference (RPD) between the two results will be calculated and used as an indication of the precision of the analyses performed. The following formula should be used to calculate precision:

$$RPD = \frac{(C1 - C2)}{\left(\frac{(C1 + C2)}{2}\right)} * 100$$

Where: C1 = larger of the two observed values
C2 = smaller of the two observed values

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4.3 Accuracy

Accuracy is a measure of confidence in a measurement. The smaller the difference between the measurement of a parameter and its "true" or expected value, the more accurate the measurement. The more precise or reproducible the result, the more reliable or accurate the result.

Accuracy will be assessed through the analysis of quality control samples. This includes analysis of method blanks, surrogates percent recovery, initial and continuing calibration criteria, including percent relative standard deviations, percent difference, and relative response factors.

The analytical accuracy will expressed as the percent recovery (%R) of an analyte which has been added to the environmental sample at a known concentration before analysis and is calculated according to the following equation.

$$\%R = \frac{(S - U)}{C_{sa}} * 100$$

Where: S = measured concentration in spiked aliquot
U = measured concentration in unspiked aliquot
C_{sa} = actual concentration of spike added

4.4 Representativeness

Representativeness is the extent to which measurements actually depict the true environmental condition or population you are evaluating. The representativeness of the data is largely addressed through the sampling design, and the proper collection and handling of samples and use of established field and laboratory procedures. The sampling design is based on the Site Conceptual Model, and involves the selection sampling location selection (random sampling and targeted sampling) and collecting sufficient sample population.

4.5 Completeness

Completeness is defined as the measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions. Data completeness will be expressed as the percentage of valid data obtained from the measurement system. For data to be considered valid, it must meet all the acceptable criteria including accuracy and precision, as well as any other criteria required by the prescribed analytical method.

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Deficiencies in the data can include sampling techniques, inadequate accuracy, precision, or laboratory error.

4.6 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Sample data should be comparable with other measurements for similar samples and sample conditions. The objective for the QA/QC program is to produce data with the greatest possible degree of comparability. The number of matrices that are sampled and the range of field conditions encountered are considered in determining comparability. Comparability is achieved by using standard methods for sampling and analysis, reporting data in standard units, normalizing results to standard conditions, and using standard and comprehensive reporting formats from one sampling event to the next.

5.0 CORRECTIVE ACTIONS

If a batch of soil data does not meet the accuracy or precision goals described in Section 2, then an evaluation and explanation will be sought from the laboratory. Qualitative criteria to be considered include the following:

1. Comparison with historical data;
2. Comparison with regional data trends;
3. Evaluation of the possible influence on data of recent Site activities;
4. Review of sampling procedures; and
5. Review of other data obtained from samples collected on the same date.

If no reasonable explanation can be established that would validate the represented data and allow use of the data for the project, then the following corrective action(s) may be used:

1. Have the laboratory check sample documentation, calculations, and transcription steps for errors.
2. If possible, repeat the measurement; for example, re-extract and re-analyze.
3. Check instrument calibration and repeat measurement if possible.
4. Check adjustments for ambient conditions such as temperature.

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5. Check presence of laboratory background contaminants, such as zinc or methylene chloride.

6. Replace or repair measuring device as necessary.

7. Resample if possible.

Corrective actions will be handled by the contract laboratory on a case-by-case basis with specific actions communicated to the Roux Associates QA/QC Officer as a written corrective action memorandum, where appropriate.

6.0 REFERENCES

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1. Sample Containers, Preservatives and Hold Times for Soil Samples
2. Soil Analytical Parameters, Analytical Methods and Detection Limits

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Table 1
Sample Containers, Preservatives, and Hold Times for Soil Samples
Santa Clara Square Development
Santa Clara, California

Analyte	Analytical Method	Sample Container/Preservative	Number of Sample Containers Needed	Hold Time
Title 22 Metals	EPA Method 6020/7471	4-inch long, 2-inch diameter, pre cleaned stainless steel or acetate liner or 12-ounce glass jar	1	28-days for mercury, 6 months for all other metals
Organochlorine Pesticides	EPA Method 8081A			14 days for extraction, 40-days from extraction to analysis
Total Petroleum Hydrocarbons as Diesel and Motor Oil	EPA Method 8015M with silica gel cleanup			48-hours for extraction, 14-days from extraction to analysis
Percent Moisture	ASTM Method D2216			NA
Total Petroleum Hydrocarbons as Gasoline	EPA Method 8015M/8260			14-days
Volatile Organic Compounds	EPA Method 8260B	5 gram En Core sampler	3	14-days
Waste Extraction Test	CCR Title 22, Division 4.5, Chapter 11, Appendix II	4-inch long, 2-inch diameter, pre cleaned stainless steel or acetate liner or 12-ounce glass jar	1	28-days for mercury, 6 months for all other metals
Toxicity Characteristic Leaching Procedure	EPA Method 1311			28-days for mercury, 6 months for all other metals

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Table 2
Soil Analytical Parameters, Analytical Methods and Detection Limits
Santa Clara Square Development
Santa Clara, California

Analyte	Reporting Limit	Minimum Detection Limit	Units
Pesticides (EPA Method 8081)			
Aldrin	3.3	0.4	µg/kg
alpha-BHC	3.3	0.36	µg/kg
beta-BHC	3.3	0.79	µg/kg
delta-BHC	3.3	0.4	µg/kg
gamma-BHC (Lindane)	3.3	0.4	µg/kg
alpha-Chlordane	3.3	0.59	µg/kg
gamma-Chlordane	3.3	0.59	µg/kg
Dieldrin	2	0.59	µg/kg
4,4'-DDD	3.3	0.69	µg/kg
4,4'-DDE	3.3	0.59	µg/kg
4,4'-DDT	3.3	0.5	µg/kg
Endrin	3.3	0.59	µg/kg
Endrin aldehyde	3.3	0.59	µg/kg
Endrin ketone	3.3	0.56	µg/kg
Endosulfan-I	3.3	0.56	µg/kg
Endosulfan-II	3.3	0.59	µg/kg
Endosulfan sulfate	3.3	0.56	µg/kg
Heptachlor	3.3	0.46	µg/kg
Heptachlor epoxide	3.3	0.5	µg/kg
Methoxychlor	3.3	0.53	µg/kg
Toxaphene	33	6.6	µg/kg
Petroleum Hydrocarbons (EPA Method 8015)			
TPHg (C6-C10)	0.1	0.05	mg/kg
TPHd (C10-C28)	3.3	0.83	mg/kg
TPHmo (>C28-C40)	6.6	1.7	mg/kg
VOCs (EPA Method 8260)			
Acetone	40	10	µg/kg
Benzene	5	0.5	µg/kg
Bromobenzene	5	0.5	µg/kg
Bromochloromethane	5	0.5	µg/kg
Bromodichloromethane	5	0.5	µg/kg
Bromoform	5	0.5	µg/kg
n-Butylbenzene	5	0.5	µg/kg
sec-Butylbenzene	5	0.5	µg/kg
tert-Butylbenzene	5	0.5	µg/kg
Chlorobenzene	5	0.5	µg/kg
Chloroethane	5	1	µg/kg
Chloroform	5	0.5	µg/kg
o-Chlorotoluene	5	0.5	µg/kg
p-Chlorotoluene	5	0.5	µg/kg
Carbon tetrachloride	5	0.5	µg/kg
1,1-Dichloroethane	5	0.5	µg/kg
1,1-Dichloroethylene	5	0.5	µg/kg
1,1-Dichloropropene	5	0.5	µg/kg
1,2-Dibromo-3-chloropropane	5	1.4	µg/kg
1,2-Dibromoethane	5	0.5	µg/kg
1,2-Dichloroethane	5	0.5	µg/kg
1,2-Dichloropropane	5	0.5	µg/kg
1,3-Dichloropropane	5	0.5	µg/kg
Di-Isopropyl ether	5	0.5	µg/kg
2,2-Dichloropropane	5	0.5	µg/kg
Dibromochloromethane	5	0.5	µg/kg
Dichlorodifluoromethane	5	1	µg/kg

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Table 2
Soil Analytical Parameters, Analytical Methods and Detection Limits
Santa Clara Square Development
Santa Clara, California

Analyte	Reporting Limit	Minimum Detection Limit	Units
VOCs cont. (EPA Method 8260)			
cis-1,2-Dichloroethylene	5	1.1	µg/kg
cis-1,3-Dichloropropene	5	0.5	µg/kg
m-Dichlorobenzene	5	0.5	µg/kg
o-Dichlorobenzene	5	0.5	µg/kg
p-Dichlorobenzene	5	0.5	µg/kg
trans-1,2-Dichloroethylene	5	0.5	µg/kg
trans-1,3-Dichloropropene	5	0.5	µg/kg
Ethylbenzene	5	0.5	µg/kg
Ethyl tert-Butyl Ether	5	0.5	µg/kg
2-Hexanone	20	2	µg/kg
Hexachlorobutadiene	5	1	µg/kg
Isopropylbenzene	5	0.5	µg/kg
p-Isopropyltoluene	5	0.5	µg/kg
4-Methyl-2-pentanone	20	2	µg/kg
Methyl bromide	5	1	µg/kg
Methyl chloride	5	1	µg/kg
Methylene bromide	5	0.5	µg/kg
Methylene chloride	20	5	µg/kg
Methyl ethyl ketone	20	2	µg/kg
Methyl Tert Butyl Ether	5	1	µg/kg
Naphthalene	5	1	µg/kg
n-Propylbenzene	5	0.5	µg/kg
Styrene	5	0.5	µg/kg
Tert-Amyl Methyl Ether	5	0.5	µg/kg
Tert Butyl Alcohol	40	10	µg/kg
1,1,1,2-Tetrachloroethane	5	0.5	µg/kg
1,1,1-Trichloroethane	5	0.5	µg/kg
1,1,2,2-Tetrachloroethane	5	0.5	µg/kg
1,1,2-Trichloroethane	5	0.5	µg/kg
1,2,3-Trichlorobenzene	5	0.5	µg/kg
1,2,3-Trichloropropane	5	1	µg/kg
1,2,4-Trichlorobenzene	5	0.5	µg/kg
1,2,4-Trimethylbenzene	5	1	µg/kg
1,3,5-Trimethylbenzene	5	1	µg/kg
Tetrachloroethylene	5	0.6	µg/kg
Toluene	5	0.5	µg/kg
Trichloroethylene	5	0.5	µg/kg
Trichlorofluoromethane	5	1	µg/kg
Vinyl chloride	5	1	µg/kg
Xylene (total)	10	1	µg/kg

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Table 2
Soil Analytical Parameters, Analytical Methods and Detection Limits
Santa Clara Square Development
Santa Clara, California

Analyte	Reporting Limit	Minimum Detection Limit	Units
ICP Metals (EPA Method 6020)			
Aluminum	25000	2500	µg/kg
Antimony	250	8	µg/kg
Arsenic	250	17	µg/kg
Barium	500	36	µg/kg
Beryllium	250	27	µg/kg
Boron	2500	66	µg/kg
Cadmium	250	11	µg/kg
Calcium	250000	38000	µg/kg
Chromium	1000	53	µg/kg
Cobalt	250	8.5	µg/kg
Copper	1000	110	µg/kg
Iron	25000	1600	µg/kg
Lead	250	38	µg/kg
Magnesium	250000	2100	µg/kg
ICP Metals Cont. (EPA Method 6020)			
Manganese	500	180	µg/kg
Molybdenum	500	26	µg/kg
Nickel	1000	43	µg/kg
Potassium	250000	1500	µg/kg
Selenium	250	12	µg/kg
Silver	250	6	µg/kg
Sodium	250000	2600	µg/kg
Strontium	2500	18	µg/kg
Thallium	250	15	µg/kg
Tin	2500	36	µg/kg
Titanium	500	38	µg/kg
Uranium	250	6	µg/kg
Vanadium	1000	50.5	µg/kg
Zinc	2000	110	µg/kg

Notes:

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

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EKI Investigation Results

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TABLE 1
SUMMARY OF SOIL GAS SAMPLE ANALYTICAL RESULTS
Park Square South of Augustine Drive
Santa Clara, CA

Soil Gas Sample ID (a)	Sample Date	Analytical Results in ug/m^3 (b)(c)(d)											Leak Check Compound TeFA (ppmv)
		1,1-Dichloroethane	1,1-Dichloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane (Freon 11)	Trichlorotrifluoroethane (Freon 113)	1,2,4-Trimethylbenzene	Toluene	Vinyl Chloride	m,p-Xylenes	Other VOCs	
PSSV-6	6/12/2013	<10.1	<9.91	<13.6	<13.4	<14.0	<19.2	<12.3	<9.42	<6.39	<10.9	ND	<10
PSSV-7	6/12/2013	<10.1	<9.91	<13.6	<13.4	<14.0	<19.2	<12.3	<9.42	<6.39	<10.9	ND	<10
PSSV-8	6/12/2013	<4.05	8.41	36.8	<5.37	<5.62	<7.66	<4.92	3.99	<2.56	<4.34	ND	<10
PSSV-9	6/12/2013	147	2,730	<54.6	<53.7	<56.2	<76.6	<49.2	<37.7	**40.7**	<43.4	ND	<10
PSSV-10	6/12/2013	185	344	<13.6	27.9	<14.0	174	<12.3	15.2	<6.39	<10.9	ND	<10
PSSV-11	6/12/2013	<10.1	<9.91	65.2	<13.4	16.2	1,980	<12.3	<9.42	<6.39	<10.9	ND	<10
PSSV-12	6/18/2013	<4.05	<3.97	<5.46	<5.37	<5.62	<7.66	<4.92	<3.77	<2.56	<4.34	ND	<10
PSSV-13	6/12/2013	<4.05	<3.97	<5.46	<5.37	<5.62	632	<4.92	7.05	<2.56	<4.34	ND	<10
PSSV-14	6/12/2013	<20.2	<19.8	<27.3	<23.9	<38.3	<28.1	34.2	<18.8	<12.8	50.8	ND	<10
PSSV-SHROUD-12	6/12/2013	--	--	--	--	--	--	--	--	--	--	ND	4440
Soil Gas Screening Criteria													
Cal-EPA CHHSL for Soil Gas (Residential)		**na**	**na**	**990,000**	**530**	**na**	**na**	**na**	**135,000**	**13**	**317,000**	**na**	**na**
Cal-EPA CHHSL for Soil Gas (Commercial/Industrial)		**na**	**na**	**2,800,000**	**1,800**	**na**	**na**	**na**	**380,000**	**45**	**890,000**	**na**	**na**
RWQCB ESL for Soil Gas (Residential)		**760**	**100,000**	**2,600,000**	**300**	**na**	**na**	**na**	**160,000**	**16**	**52,000**	**na**	**na**
RWQCB ESL for Soil Gas (Commercial/Industrial)		**7,700**	**880,000**	**22,000,000**	**3,000**	**na**	**na**	**na**	**1,300,000**	**160**	**440,000**	**na**	**na**

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Abbreviations:
<3.19 - Compound not detected at or above indicated laboratory reporting limit
"--" - not analyzed
ESL - Environmental Screening Level
CHHSL - California Human Health Screening Level
na - not available
ND - not detected
ppmv - parts per million by volume
TeFA - 1,1,1,2-Tetrafluoroethane
ug/m^3 - micrograms per cubic meter
VOCs - volatile organic compounds

TABLE 1
SUMMARY OF SOIL GAS SAMPLE ANALYTICAL RESULTS
Park Square South of Augustine Drive
Santa Clara, CA

Notes:
(a) Soil gas sample were collected from probes screened at a depth of 5 to 5.5 feet.
(b) VOCs were analyzed using EPA Method TO-15 GC/MS. Samples were analyzed by K-Prime, Inc., Santa Rosa, CA.
(c) **Bold** value indicates detected concentration exceeds its respective screening criterion.
(d) Only detected VOCs are shown.

References:
Cal-EPA, 2010. *California Human Health Screening Levels ("CHHSLs"), Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties,* California EPA, Department of Toxic Substances Control, January 2005 (Updated September 2010).
RWQCB, 2013. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final,* California Regional Water Quality Control Board, Region 2, November 2007 (Updated December 2013).

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TABLE 2
SUMMARY OF GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS
Park Square South of Augustine Drive
Santa Clara, CA

		Analytical Results (ug/L) (a,b)																						
		VOCs						Dissolved Metals																
Sample ID	Sample Date	1,1-Dichloroethene	1,1-Dichloroethane	Trichloroethene	Trichlorotriflouroethane (Freon 113)	1,1,1-Trichloroethane	Other VOCs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
PSGW-3W	6/8/2013	<0.5	<0.5	<0.5	<2.0	<0.5	ND	<1.0	1.4	62	<4.3	<1.3	<1.0	<1.0	<1.0	<1.0	<0.2	3.7	<3.0	**19**	<1.0	<1.0	4.3	<16
PSGW-4W	6/7/2013	3.9	2.6	<0.5	<2.0	2.4	ND	<1.0	1.7	82	<4.3	<1.3	1.7	1.1	<1.0	<1.0	<0.2	<3.2	<3.0	**11**	<1.0	<1.0	5.4	<16
PSGW-5W	6/7/2013	**20**	**15**	<0.5	<2.0	2.0	ND	<1.0	2.0	40	<4.3	<1.3	<1.0	<1.0	<1.0	<1.0	<0.2	5.7	<3.0	3.8	<1.0	<1.0	7.9	<16
PSGW-6W	6/7/2013	2.9	0.8	<0.5	<2.0	0.7	ND	<1.0	4.1	170	<4.3	<1.3	13	**12**	**22**	**4.1**	**1.5**	<3.2	**27**	**6.0**	**1.7**	<1.0	19	43
PSGW-7W	6/8/2013	2.7	1.4	4.1	8.9	0.7	ND	<1.0	1.3	56	<4.3	<1.3	<1.0	1.3	<1.0	<1.0	<0.2	10	3.4	**15**	<1.0	<1.0	4.4	<16
Groundwater Screening Criteria																								
RWQCB ESLs for Groundwater (Potential Drinking Water Source) (c)		**6**	**5**	**5**	**na**	**62**	**na**	**6.0**	**10**	**1,000**	**0.53**	**0.25**	**50**	**3.0**	**3.1**	**2.5**	**0.025**	**78**	**8.2**	**5.0**	**0.19**	**2**	**19**	**81**
California Drinking Water MCLs (d)		**6**	**5**	**5**	**1,200**	**1,200**	**na**	**na**	**10**	**1,000**	**4**	**5**	**50**	**na**	**1,000 (e)**	**15 (e)**	**2**	**na**	**100**	**50**	**na**	**2**	**na**	**5,000 (f)**

Abbreviations:
<0.50 - Compound not detected at or above indicated laboratory reporting limit
ESL - Environmental Screening Level
MCL - Maximum Contaminant Level
na - not available
ND - not detected
RWQCB - Regional Water Quality Control Board, San Francisco Bay
ug/L - micrograms per liter
VOCs - Volatile Organic Compounds

Notes:
(a) All samples were analyzed by Curtis & Tompkins of Berkeley, California for the following: (1) VOCs using EPA Method 8260 and (2) dissolved Title 22 metals using EPA Methods 6020. Samples were filtered in the field prior to analysis for dissolved metals.
(b) Concentrations shown in **bold** exceed one or more screening criterion.
(c) RWQCB ESL - Table F-1a, Groundwater Screening Levels (Groundwater is a Current or Potential Source of Drinking Water) (RWQCB, 2013). Values include protection of aquatic life in addition to drinking water standards.
(d) California Department of Public Health MCLs from Title 22 California Code of Regulations Section 64444, Table 64444-A, 24 June 2010.
(e) Indicated value is an Action Level.
(f) Indicated value is a secondary MCL.

References:
RWQCB, 2013. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final,* RWQCB, November 2007 (updated December 2013).

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TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Park Square South of Augustine Drive
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Depth (ft bbr)	Sample Type	Analytical Results (a,, c)											
					Organochlorine Pesticides (mg/kg)										Metals (mg/kg)	
					4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Aldrin	Endosulfan I	Dieldrin	alpha-Chlordane	gamma-Chlordane	Other Pesticides	Arsenic	Lead
GW5GW6SV9COMPA	6/7/2013	0.75-1.5	0-0.5	composite	<0.071	<0.071	<0.071	ND	<0.037	<0.037	<0.071	<0.037	<0.037	ND	**31**	***130***
GW5GW6SV9COMPMID	6/7/2013	2.0-2.75	1.0-2.0	composite	--	--	--	--	--	--	--	--	--	--	19	--
GW5GW6SV9COMPB	6/7/2013	2.25-3.0	1.5-2.0	composite	<0.070	<0.070	<0.070	ND	<0.036	<0.036	<0.070	<0.036	<0.036	ND	19	43
GW7SV13SV14COMPA	6/8/2013	1.0-1.5	0-0.5	composite	<0.070	<0.070	<0.070	ND	<0.036	<0.036	<0.070	<0.036	<0.036	ND	6.2	14
GW7SV13SV14COMPB	6/8/2013	2.5-3.0	1.5-2.0	composite	<0.070	<0.070	<0.070	ND	<0.036	<0.036	<0.070	<0.036	<0.036	ND	6.6	11
SV10SS15COMPA	6/8/2013	1.0-1.5	0-0.5	composite	0.77	0.18	0.051 J	*1.001 J*	<0.036	<0.036	**0.17**	0.0064 J	0.0096 J	ND	**27**	***110***
SV10SS15COMPB	6/8/2013	2.0-3.0	1.5-2.0	composite	0.50	0.11	<0.070	0.610	<0.036	<0.036	**0.17**	<0.036	<0.036	ND	**23**	*80*
SV11SS16COMPA	6/8/2013	1.0-1.5	0-0.5	composite	0.82	0.32	0.047 J	*1.187 J*	<0.036	**0.0095 J**	**0.26**	0.025 J	<0.036	ND	**34**	***100***
SV11SS16COMPMID	6/8/2013	2.5-3.0	1.5-2.0	composite	--	--	--	--	--	--	--	--	--	--	5.7	--
SV11SS16COMPB	6/8/2013	2.5-3.0	1.5-2.0	composite	<0.071	<0.071	<0.071	ND	<0.037	<0.037	<0.071	<0.037	<0.037	ND	5.9	11
SV12SS17COMPA	6/8/2013	1.0-1.5	0-0.5	composite	**2.3**	0.42	0.087	***2.807***	<0.036	<0.036	**0.83**	0.020 J	0.019 J	ND	**47**	***140***
SV12SS17COMPMID	6/8/2013	2.0-3.0	1.0-2.0	composite	--	--	--	--	--	--	--	--	--	--	7.8	--
SV12SS17COMPB	6/8/2013	2.0-3.0	1.5-2.0	composite	0.014 J	<0.070	<0.070	0.014 J	<0.036	<0.036	<0.070	<0.036	<0.036	ND	5.4	21
SV6SV7COMPA	6/8/2013	0.5-0.75	0-0.5	composite	**2.5**	0.75	0.24	***3.490***	<0.036	<0.036	**0.91**	0.068	<0.036	ND	**47**	***240***
SV6SV7COMPB	6/8/2013	1.5-2.75	1.5-2.0	composite	0.93	0.30	0.081	*1.311*	<0.036	<0.036	**0.23**	0.0098 J	0.0089 J	ND	**27**	***82***
SV8GW4COMPA	6/7/2013	1.0-1.5	0-0.5	composite	**2.6**	0.17	<0.140	***2.770***	0.0051 J	<0.0091	**0.76**	0.021	<0.0091	ND	**34**	***180***
SV8GW4COMPMID	6/7/2013	2.5-3.0	1.5-2.0	composite	--	--	--	--	--	--	--	--	--	--	**24**	--
SV8GW4COMPB	6/7/2013	3.0-3.5	1.5-2.0	composite	0.060	<0.018	<0.018	0.060	<0.0092	<0.0092	**0.0070 J**	<0.0092	<0.0092	ND	19	17
Soil Screening Criteria																
Hazardous Waste Criteria (TTLC) (d)					**na**	**na**	**na**	**1**	**1.4**	**na**	**8**	**2.5**		**na**	**500**	**1,000**
Hazardous Waste Criteria (10X STLC) (e)					**na**	**na**	**na**	**1**	**1.4**	**na**	**8**	**2.5**		**na**	**50**	**50**
Hazardous Waste Criteria (20X RCRA Regulatory Level) (f)					**na**	**na**	**na**	**na**	**na**	**na**	**na**	**0.60**		**na**	**100**	**100**
RWQCB ESLs for Shallow Soils (<3 m bgs), Residential Land Use (GW is a DW resource) (g)					**1.7**	**2.4**	**1.7**	**na**	**0.032**	**0.0046**	**0.0023**	**0.44**		**na**	**20 (j)**	**80**
Cal-EPA CHHSLs, Residential Land Use (h)					**1.6**	**2.3**	**1.6**	**na**	**0.033**	**na**	**0.035**	**0.43**		**na**	**20 (j)**	**80**
RWQCB ESLs for Shallow Soils (<3 m bgs), Commercial/ Industrial Land Use (GW is a DW resource) (i)					**4.0**	**10**	**4.0**	**na**	**0.13**	**0.0046**	**0.0023**	**1.7**		**na**	**20 (j)**	**320**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (h)					**6.3**	**9.0**	**6.3**	**na**	**0.13**	**na**	**0.13**	**1.7**		**na**	**20 (j)**	**320**

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TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Park Square South of Augustine Drive
Santa Clara, CA

Abbreviations:

-- - not analyzed
<0.50 - Compound not detected at or above indicated laboratory reporting limit
Cal-EPA - California Environmental Protection Agency
CHHSL - California Human Health Screening Level
4,4'-DDE - 4,4'-Dichlorodiphenyldichloroethylene
4,4'-DDD - 4,4'-Dichlorodiphenyldichloroethane
4,4'-DDT - 4,4'-Dichlorodiphenyltrichloroethane
ESL - Environmental Screening Level
ft bbr - feet below baserock
ft bgs - feet below ground surface
GW - groundwater
J - Estimated Value
mg/kg - milligrams per kilogram
na - not available
ND - not detected
RCRA - Resource Conservation and Recovery Act
RWQCB - Regional Water Quality Control Board, San Francisco Bay
STLC - Soluble Threshold Limit Concentration
TCLP - Toxicity Characteristic Leaching Procedure
TTLC - Total Threshold Limit Concentration
WET - Waste Extraction Test

Notes:

(a) Samples were analyzed by Curtis & Tompkins of Berkeley, California, (1) Organochlorine pesticides by EPA Method 8081 and (2) arsenic and lead by EPA Method 6020.
(b) Concentrations shown in bold exceed environmental screening levels (ESLs or CHHSLs) for shallow soils. Concentrations shown in italics exceed one or more hazardous waste screening criteria.
(c) Results are shown on a dry weight basis.
(d) Total Threshold Limit Concentration (TTLC) values (California Code of Regulations (CCR), Title 22, Article 3, Table II).
(e) Ten times (10x) the STLC values. If a compound is present at concentrations that exceed ten times the STLC, the compound may exceed the STLC if the sample is subjected to the WET.
(f) Twenty times (20x) the RCRA regulatory level values. If a compound is present at concentrations that exceed twenty times the RCRA regulatory level, the concentration of a compound may exceed RCRA hazardous waste criteria if the sample is subjected to the TCLP.
(g) RWQCB ESL - Table A-1 Shallow Soil Screening Levels (<3m bgs), Residential Land Use, (groundwater is a current or potential drinking water resource) (RWQCB, 2013).
(h) Cal-EPA CHHSL - Table 1. California Human Health Screening Levels for Soil and Comparison to Other Potential Environmental Concerns (Cal-EPA, 2010).
(i) RWQCB ESL - Table A-2 Shallow Soil Screening Levels (<3m bgs), Commercial/Industrial Land Use, (groundwater is a current or potential drinking water resource) (RWQCB, 2013).
(j) The environmental screening levels (ESLs or CHHSLs) for arsenic are less than the typical background concentration in soil. The value shown is from Scott (1995) and represents an upper-bound background concentration for arsenic for northern Santa Clara County.

References:

Cal-EPA, 2010. *California Human Health Screening Levels ("CHHSLs"), Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties,* California EPA, Department of Toxic Substances Control (Updated September 2010).
RWQCB, 2013. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final,* RWQCB, November 2007 (updated December 2013).
Scott, C.M. 1995. Background Metal Concentrations in Soils in Northern Santa Clara County, California in: Recent Geological Studies in the San Francisco Bay Area, Pacific Section of the Society of Economic Paleontologists and Mineralogists, Volume 76.

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Legend

- Grab Groundwater and Shallow Soil Sampling Location (EKI, 2013)
- Soil Gas and Shallow Soil Sampling Location (EKI, 2013)
- Shallow Soil Sampling Location (EKI, 2013)
- Synertek Monitoring Well
- Grab Groundwater Sample (Geomatrix, 1997)
- Abandonded Groundwater Monitoring Well (United Soil Engineering, 1988)

Note

1. All locations are approximate.

Source

Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer

N

0 250 500

(Approximate Scale in Feet)

Erler & Kalinowski, Inc.

Sampling Locations

Park Square
South of Augustine Drive
Santa Clara, CA
January 2014
EKI B30013.00

Figure 2

X:\Site Location Map\Figure _ - Site Location.mxd

PSSV-10	
1,1-DCA	185
1,1-DCE	344
TCE	27.9
Freon 113	174
Toluene	15.2

PSSV-11	
1,1,1-TCA	65.2
Freon 11	16.2
Freon 113	1,980

PSSV-13	
Freon 113	632
Toluene	7.05

PSSV-14	
1,2,4-TMB	34.2
m,p-Xylenes	50.8

PSSV-12	
All VOCs	ND

PSSV-6	
All VOCs	ND

PSSV-7	
All VOCs	ND

PSSV-8	
1,1-DCE	8.41
1,1,1-TCA	36.8
Toluene	3.99

PSSV-9	
1,1-DCA	147
1,1-DCE	2,730
VC	**40.7**

N

0 180 360

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- Grab Groundwater and Shallow Soil Sampling Location (EKI, 2013)
- Soil Gas and Shallow Soil Sampling Location (EKI, 2013)
- Shallow Soil Sampling Location (EKI, 2013)
- Synertek Monitoring Well
- Grab Groundwater Sample (Geomatrix, 1997)
- Abandonded Groundwater Monitoring Well (United Soil Engineering, 1988)

Abbreviations

1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
1,2,4-TMB = 1,2,4-Trimethylbenzene
Freon 11 = Trichlorofluoromethane
Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane
ND = Not Detected
NPL = National Priorities List
TCE = Trichloroethene
VC = Vinyl Chloride
VOC = Volatile Organic Compound

Notes

1. All locations are approximate.
2. Posted concentrations are in units of micrograms per cubic meter (ug/m^3).
3. Only VOCs detected in soil gas above reporting limits are shown. Concentrations above risk based screening criteria are shown in bold. Refer to Table 1 for screening criteria.

Sources

1. Basemap source: http://services.arcgisonline.com/ArcGIS/ rest/ services/Reference/World_Transportation/MapServer
2. CH2MHill, 2013. *Groundwater Sampling and Monitoring 2012 Summary Report, Synertek Building #1, 3050 Coronado Drive, Santa Clara, California,* CH2MHill, January 2013.

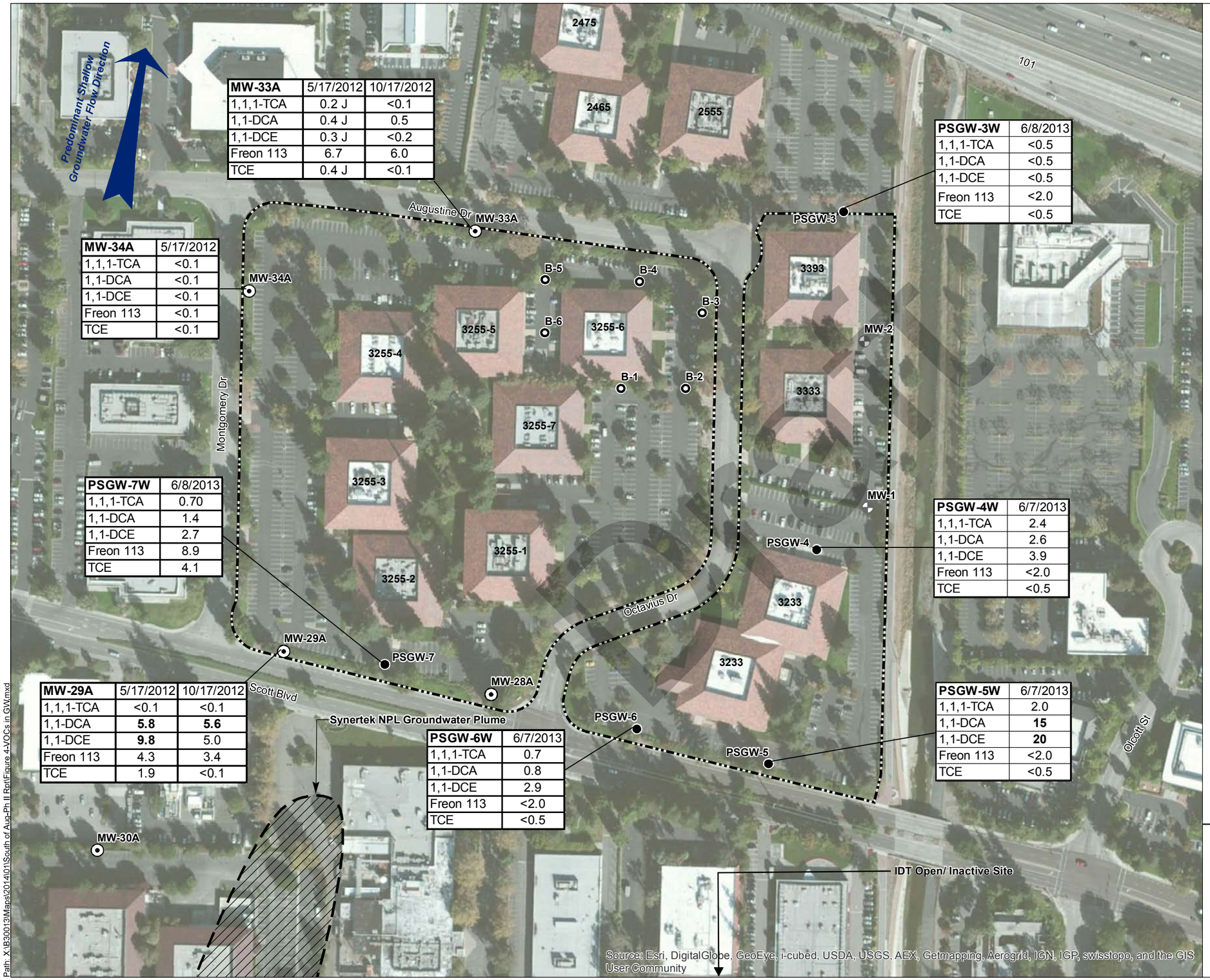
Erler & Kalinowski, Inc.

VOCs Detected in Soil Gas

Park Square
South of Augustine Drive
Santa Clara, CA
January 2014
EKI B30013.00

Figure 3

Path: X:\B30013\Maps\2014\01\South of Aug-Ph II Rpt\Figure 3-VOCs in SG.mxd



MW-33A	5/17/2012	10/17/2012
1,1,1-TCA	0.2 J	<0.1
1,1-DCA	0.4 J	0.5
1,1-DCE	0.3 J	<0.2
Freon 113	6.7	6.0
TCE	0.4 J	<0.1

MW-34A	5/17/2012
1,1,1-TCA	<0.1
1,1-DCA	<0.1
1,1-DCE	<0.1
Freon 113	<0.1
TCE	<0.1

PSGW-3W	6/8/2013
1,1,1-TCA	<0.5
1,1-DCA	<0.5
1,1-DCE	<0.5
Freon 113	<2.0
TCE	<0.5

PSGW-7W	6/8/2013
1,1,1-TCA	0.70
1,1-DCA	1.4
1,1-DCE	2.7
Freon 113	8.9
TCE	4.1

PSGW-4W	6/7/2013
1,1,1-TCA	2.4
1,1-DCA	2.6
1,1-DCE	3.9
Freon 113	<2.0
TCE	<0.5

MW-29A	5/17/2012	10/17/2012
1,1,1-TCA	<0.1	<0.1
1,1-DCA	**5.8**	**5.6**
1,1-DCE	**9.8**	5.0
Freon 113	4.3	3.4
TCE	1.9	<0.1

PSGW-6W	6/7/2013
1,1,1-TCA	0.7
1,1-DCA	0.8
1,1-DCE	2.9
Freon 113	<2.0
TCE	<0.5

PSGW-5W	6/7/2013
1,1,1-TCA	2.0
1,1-DCA	**15**
1,1-DCE	**20**
Freon 113	<2.0
TCE	<0.5

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

N

0 180 360

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- Grab Groundwater and Shallow Soil Sampling Location (EKI, 2013)
- Synertek Monitoring Well
- Grab Groundwater Sample (Geomatrix, 1997)
- Abandonded Groundwater Monitoring Well (United Soil Engineering, 1988)

Abbreviations

1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane
J = Estimated Value
NPL = National Priorities List
TCE = Trichloroethene

Note

1. All locations are approximate.
2. Posted concentrations are in units of micrograms per liter (ug/L).
3. Only VOCs detected in recent shallow groundwater samples are shown. No VOCs were detected in samples samples collected in 1997 or 1988. Concentrations above screening criteria are shown in bold. Refer to Table 2 for screening criteria.

Source

1. Basemap source: http://services.arcgisonline.com/ArcGIS/ rest/ services/Reference/World_Transportation/MapServer
2. CH2MHill, 2013. *Groundwater Sampling and Monitoring 2012 Summary Report, Synertek Building #1, 3050 Coronado Drive, Santa Clara, California,* CH2MHill, January 2013.

Erler & Kalinowski, Inc.

VOCs Detected in Shallow Groundwater

Park Square
South of Augustine Drive
Santa Clara, CA
January 2014
EKI B30013.00

Figure 4

Path: X:\B30013\Maps\2014\01\South of Aug-Ph II Rpt\Figure 4-VOCs in GW.mxd

Draft

SV10SS15COMP	0-0.5 ft	1.5-2.0 ft
DDT, DDD, & DDE	*1.001 J*	0.610
Dieldrin	**0.170**	**0.170**
Arsenic	***27***	**23**
Lead	***110***	*80*

SV12SS17COMP	0-0.5 ft	1.0-2.0 ft	1.5-2.0 ft
DDT, DDD, & DDE	***2.807***	--	0.014 J
Dieldrin	**0.830**	--	<0.070
Arsenic	***47***	8.1	5.4
Lead	***140***	--	21

SV6SV7COMP	0-0.5 ft	1.5-2.0 ft
DDT, DDD, & DDE	***3.490***	*1.311*
Dieldrin	**0.910**	**0.230**
Arsenic	***47***	**27**
Lead	***240***	***82***

SV11SS16COMP	0-0.5 ft	1.5-2.0 ft	1.5-2.0 ft
DDT, DDD, & DDE	*1.187 J*	--	ND
Dieldrin	**0.260**	--	<0.071
Arsenic	**34**	5.7	5.9
Lead	***100***	--	11

SV8GW4COMP	0-0.5 ft	1.5-2.0 ft	1.5-2.0 ft
DDT, DDD, & DDE	***2.770***	--	0.060
Dieldrin	**0.760**	--	**0.0070 J**
Arsenic	**34**	**24**	19
Lead	***180***	--	17

GW7SV13SV14COMP	0-0.5 ft	1.5-2.0 ft
DDT, DDD, & DDE	ND	ND
Dieldrin	<0.070	<0.070
Arsenic	6.2	6.6
Lead	14	11

GW5GW6SV9COMP	0-0.5 ft	1.0-2.0 ft	1.5-2.0 ft
DDT, DDD, & DDE	ND	--	ND
Dieldrin	<0.071	--	<0.070
Arsenic	**31**	19	19
Lead	***130***	--	43

N

0 180 360

(Approximate Scale in Feet)

Legend

- ● Grab Groundwater and Shallow Soil Sampling Location (EKI, 2013)
- ■ Soil Gas and Shallow Soil Sampling Location (EKI, 2013)
- ▲ Shallow Soil Sampling Location (EKI, 2013)

Abbreviations

ft = Feet
J = Estimated Value
ND = Not Detected

Notes

1. All locations are approximate.
2. Concentrations in *italics* exceed potential hazardous waste criteria. Concentrations in **bold** exceed environmentall screening levels (or background for arsenic). See Table 3 for screening values.
3. Sample depths are shown in feet below baserock.

Source

Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer

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Composite Sampling Locations and Shallow Soil Sampling Results

Park Square
South of Augustine Drive
Santa Clara, CA
January 2014
EKI B30013.00

Figure 5

Path: X:\B30013\Maps\2014\011\South of Aug-Ph II Rpt\Figure 5-Soil Results.mxd

TABLE 1
SUMMARY OF SOIL GAS SAMPLE ANALYTICAL RESULTS
3230 Scott Boulevard
Santa Clara, CA

Soil Gas Sample ID (a)	Sample Date	Analytical Results in ug/m^3 (b)(c)(d)															Leak Check Compound 1,1-DFA (ppmv)
		Benzene	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	Dichlorotetrafluoroethane (Freon 114)	Ethylbenzene	Tetrachloroethene	Toluene	Trichloroethene	1,2,4-Trimethylbenzene	Vinyl Chloride	m,p-Xylenes	o-Xylenes	Other VOCs	
3230-SVP01	11/16/2014	21.6	<8.10	<7.93	<7.93	<7.93	<14.0	14.2	<13.6	83.4	<10.7	13.8	<5.11	48.5	14.4	ND	<10
3230-SVP02	11/16/2014	13.8	<8.10	60.2	<7.93	<7.93	15.5	<8.68	<13.6	56.1	<10.7	<9.83	7.03	<8.68	<8.68	ND	<10
3230-SVP03	11/16/2014	11.2	<8.10	<7.93	<7.93	32.6	<14.0	<8.68	<13.6	<7.54	<10.7	<9.83	<5.11	17	<8.68	ND	29.6 (g)
3230-SVP04	11/16/2014	24.6	<8.10	33.7	<7.93	8.72	<14.0	<8.68	<13.6	62.8	<10.7	<9.83	<5.11	22.7	<8.68	ND	247 (g)
3230-SVP05	11/16/2014	<6.39	<8.10	<7.93	<7.93	9.44	<14.0	12.9	<13.6	72.5	<10.7	27.4	<5.11	45.5	13.9	ND	<10
3230-SVP06	11/16/2014	24.4	<8.10	<7.93	<7.93	16.1	<14.0	12.5	<13.6	93.1	<10.7	<9.83	<5.11	40.9	11.9	ND	<10
3230-SVP07	11/16/2014	9.14	9.92	381	540	<7.93	<14.0	<8.68	29	18.7	77.4	<9.83	**20.5**	<8.68	<8.68	ND	<10
3230-SVP08	11/16/2014	<6.39	<8.10	<7.93	<7.93	<7.93	<14.0	<8.68	<13.6	10.8	<10.7	<9.83	<5.11	<8.68	<8.68	ND	<10
3230-SVP05-SHROUD	11/16/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7,390
3230-SVP08-SHROUD	11/16/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13,200
Soil Gas Screening Criteria																	
RWQCB ESL for Residential/Unrestricted Land Use (e)		**42**	**760**	**100,000**	**3,700**	**31,000**	**na**	**490**	**210**	**160,000**	**300**	**2,100**	**16**	**52,000**	**52,000**	**na**	**na**
RWQCB ESL for Commercial Land Use (e)		**420**	**7,700**	**880,000**	**31,000**	**260,000**	**na**	**4,900**	**2,100**	**1,300,000**	**3,000**	**18,000**	**160**	**440,000**	**440,000**	**na**	**na**
Cal-EPA Residential/ Unrestricted Land Use Screening Value (f)		**84**	**1,800**	**210,000**	**7,300**	**na**	**na**	**1,100**	**410**	**310,000**	**480**	**7,300**	**31**	**100,000**	**100,000**	**na**	**na**
Cal-EPA Industrial/Commercial Screening Value (f)		**840**	**15,000**	**1,800,000**	**620,000**	**na**	**na**	**9,800**	**4,200**	**2,600,000**	**6,000**	**62,000**	**320**	**880,000**	**880,000**	**na**	**na**

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Abbreviations:
<27.3 - Compound not detected at or above indicated laboratory reporting limit
Cal-EPA - California Environmental Protection Agency
ESL - Environmental Screening Levels
na - not available
ppmv - parts per million by volume
RSL - Regional Screening Level
RWQCB - Regional Water Quality Control Board
1,1-DFA - 1,1-Difluoroethane
ug/m^3 - micrograms per cubic meter
VOCs - volatile organic compounds

Notes:
(a) Soil gas sample were collected from probes screened at a depth of 5 to 5.5 feet, with the exception of location 3230-SVP03, which was screened at 4 to 4.5 feet.
(b) VOCs were analyzed using EPA Method TO-15 GC/MS. Samples were analyzed by K-Prime, Inc., Santa Rosa, CA.
(d) Only detected VOCs are shown.
(e) RWQCB ESL - Table E-2, Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion.
(f) U.S. EPA RSLs for indoor air were adjusted to a soil gas screening level using an attenuation factor of 0.001 for residential land use and a factor of 0.0005 for industrial/commercial land use (DTSC, 2011; U.S. EPA, 2014). California-modified values were used when lower than EPA RSL values per DTSC (2014).
(g) 1,1,1-DFA was analyzed by EPA Method TO-3 and used as a leak-check compound during sampling. 1,1,1-DFA concentrations detected in samples collected from shrouds (outside the sampling apparatus) were 7,390 and 13,200 ppmv. The 1,1,1-DFA concentrations in samples 3230-SVP03 and 3230-SVP04 indicates leaks in those particular samples could be approximately 0.4% and 3%, respectively. Those minor leaks do not affect the conclusions.

References:
DTSC, 2011. Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, October 2011.
DTSC, 2014. Human Health Risk Assessment (HHRA) Note, HERO HHRA Note Number 3, California Environmental Protection Agency Department of Toxic Substances Control, dated 14 July 2014.
RWQCB, 2013. *Update to Environmental Screening Levels,* California Regional Water Quality Control Board, Region 2, 23 December 2013.
U.S. EPA, 2014. Regional Screening Level (RSL) Summary Table May 2014, United States Environmental Protection Agency, May 2014.

TABLE 2
SUMMARY OF GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS
3230 Scott Boulevard
Santa Clara, CA

			Analytical Results (ug/L) (a,b)																								
			VOCs								Dissolved Metals																
Sample ID	Sample Date	Sample Depth (ft bgs)	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	Tetrachloroethene	Trichloroethene	Trichlorotrifluoroethane (Freon 113)	1,1,1-Trichloroethane	Other VOCs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
3230-GGW1W	11/15/2014	15-20	**7.03**	<0.5	**12.0**	<0.5	0.59	0.51	0.56	ND	<1.0	1.81	99.1	<1.0	<1.0	<1.0	<1.0	1.27	<1.0	<0.2	4.52	1.17	<1.0	<1.0	<1.0	3.41	7.79
3230-GGW2W	11/16/2014	20-25	**5.07**	<0.5	2.07	<0.5	<0.5	<0.5	<0.5	ND	<1.0	2.32	69.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	3.65	<1.0	<1.0	<1.0	<1.0	3.84	3.39
3230-GGW3W	11/15/2014	15-20	**6.74**	0.50	**10.6**	1.04	2.4	<0.5	0.93	ND	<1.0	2.73	85.2	<1.0	<1.0	<1.0	<1.0	1.19	<1.0	<0.2	20.1	2.15	2.13	<1.0	<1.0	6.64	6.25
3230-GGW4W	11/16/2014	15-20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND	<1.0	3.17	68.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	5.98	1.23	1.92	<1.0	<1.0	1.79	5.53
3230-GGW5W	11/16/2014	15-20	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND	<1.0	5.52	77.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	2.91	1.19	**8.89**	<1.0	<1.0	1.26	5.69
3230-GGW6W	11/15/2014	13-18	**8.92**	<0.5	2.95	<0.5	<0.5	<0.5	1.68	ND	<1.0	1.71	63.6	<1.0	<1.0	<1.0	<1.0	1.21	<1.0	<0.2	9.41	1.12	3.34	<1.0	<1.0	3.20	7.89
Groundwater Screening Criteria																											
RWQCB ESLs for Vapor Intrusion (Residential) (c)			**na**	**100**	**16,000**	**63**	**130**	**na**	**720,000**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**
RWQCB ESLs for Vapor Intrusion (Commercial/ Industrial) (c)			**na**	**1,000**	**130,000**	**640**	**1,300**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**
RWQCB ESLs for Groundwater (Potential Drinking Water Source) (d)			**5**	**0.50**	**6**	**5**	**5**	**na**	**62**	**na**	**6.0**	**10**	**1,000**	**0.53**	**0.25**	**50**	**3.0**	**3.1**	**2.5**	**0.025**	**78**	**8.2**	**5.0**	**0.19**	**2.0**	**19**	**81**
California Drinking Water MCLs (e)			**5**	**0.50**	**6**	**5**	**5**	**1,200**	**1,200**	**na**	**6**	**10**	**1,000**	**4**	**5**	**50**	**na**	**1,000 (f)**	**15 (f)**	**2**	**na**	**100**	**50**	**100 (g)**	**2**	**na**	**5,000 (g)**

Abbreviations:
<0.5 - Compound not detected at or above indicated laboratory reporting limit
ESL - Environmental Screening Levels
ft bgs - feet below ground surface
MCL - Maximum Contaminant Level
na - not available
ND - not detected
ug/L - micrograms per liter
RWQCB - Regional Water Quality Control Board
VOCs - Volatile Organic Compounds

Notes:
(a) All samples were analyzed by K-Prime, Inc. of Santa Rosa, California for VOCs using EPA Method 8260 and dissolved Title 22 metals using EPA Method 6020. Samples were filtered in the field prior to analysis for dissolved metals.
(b) Concentrations shown in **bold** exceed MCLs.
(c) RWQCB ESL - Table E-1, Groundwater Screening Levels for Evaliuation of Potential Vapor Intrusion (RWQCB, 2013).
(d) RWQCB ESL - Table F-1a, Groundwater Screening Levels (Groundwater is a Current or Potential Source of Drinking Water) (RWQCB, 2013). Values include protection of aquatic life in addition to drinking water standards.
(e) California Department of Public Health MCLs from Title 22 California Code of Regulations Section 64444, Table 64444-A, 24 June 2010.
(f) Indicated value is an Action Level.
(g) Indicated value is a secondary MCL.

References:
RWQCB, 2013. *Update to Environmental Screening Levels,* California Regional Water Quality Control Board, Region 2, 23 December 2013.

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TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
3230 Scott Boulevard
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Depth (feet below baserock)	Sample Type	Analytical Results (a, b, c)								
					Organochlorine Pesticides (mg/kg)							Metals (mg/kg)	
					4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Chlordane	Dieldrin	Other Pesticides	Arsenic	Lead
3230-GGW1-2.0-2.5	11/15/2014	2.0-2.5	0.5-1.0	discrete	0.026	0.107	0.0123	0.145	<0.0126	**0.00846**	ND	**17.3**	35.7
3230-GGW1-4.0-4.5	11/15/2014	4.0-4.5	2.5-3.0	discrete	0.230	1.04	0.0218	*1.29*	<0.0126	**0.0276**	ND	**37.9**	***191***
3230-GGW2-1.5-2.0	11/16/2014	1.5-2.0	0.5-1.0	discrete	0.0753	0.600	0.00754	0.683	0.0146	**0.00615**	ND	**23.5**	***153***
3230-GGW2-3.5-4.0	11/16/2014	3.5-4.0	2.5-3.0	discrete	0.452	0.967	0.0129	*1.43*	<0.0126	<0.00504	ND	***92.9***	***402***
3230-GGW3-1.5-2.0	11/16/2014	1.5-2.0	0.5-1.0	discrete	0.208	0.825	0.00580	*1.04*	0.0131	**0.00701**	ND	16.2	*76.2*
3230-GGW3-3.5-4.0	11/16/2014	3.5-4.0	2.5-3.0	discrete	<0.00504	<0.00504	<0.00504	ND	<0.0126	<0.00504	ND	**31.7**	12.3
3230-GGW4-1.25-1.75	11/16/2014	1.25-1.75	0.5-1.0	discrete	<0.00504	<0.00504	<0.00504	ND	<0.0126	<0.00504	ND	4.6	9.3
3230-GGW4-3.25-3.75	11/16/2014	3.25-3.75	2.5-3.0	discrete	<0.00504	<0.00504	<0.00504	ND	<0.0126	<0.00504	ND	3.6	6.0
3230-GGW5-1.25-1.75	11/16/2014	1.25-1.75	0.5-1.0	discrete	<0.00504	<0.00504	<0.00504	ND	<0.0126	<0.00504	ND	3.0	10.2
3230-GGW5-3.25-3.75	11/16/2014	3.25-3.75	2.5-3.0	discrete	<0.00504	<0.00504	<0.00504	ND	<0.0126	<0.00504	ND	4.6	5.5
3230-GGW6-1.25-1.75	11/15/2014	1.25-1.75	0.5-1.0	discrete	0.227	0.945	0.0102	*1.18*	0.0280	**0.0124**	ND	**36.6**	***338***
3230-GGW6-3.25-3.75	11/15/2014	3.25-3.75	2.5-3.0	discrete	<0.00504	<0.00504	<0.00504	ND	<0.0126	<0.00504	ND	**18.3**	14.0
3230-SVP01-1.5-2.0	11/15/2014	1.5-2.0	0.5-1.0	discrete	0.0464	0.244	<0.00504	0.290	0.170	**0.00524**	ND	9.6	*77.6*
3230-SVP01-3.5-4.0	11/15/2014	3.5-4.0	2.5-3.0	discrete	0.0736	0.137	0.0113	0.222	<0.0126	<0.00504	ND	***56.1***	16.0
3230-SVP02-1.5-2.0	11/15/2014	1.5-2.0	0.5-1.0	discrete	0.121	0.0545	0.0145	0.190	0.408	**0.0347**	ND	11.6	44.4
3230-SVP02-3.5-4.0	11/15/2014	3.5-4.0	2.5-3.0	discrete	**1.83**	0.592	0.137	*2.56*	0.0388	**0.0484**	ND	**47.7**	***297***
3230-SVP03-1.25-1.75	11/16/2014	1.25-1.75	0.5-1.0	discrete	0.0289	0.112	0.0261	0.167	0.105	**0.00728**	ND	10.1	36.3
3230-SVP03-3.25-3.75	11/16/2014	3.25-3.75	2.5-3.0	discrete	0.148	0.730	0.00725	0.885	0.0205	<0.00504	ND	14.9	***97.8***
3230-SVP04-1.0-1.5	11/15/2014	1.0-1.5	0.5-1.0	discrete	0.121	0.194	0.00683	0.322	***0.847***	**0.0350**	ND	8.5	*54.7*
3230-SVP04-3.0-3.5	11/15/2014	3.0-3.5	2.5-3.0	discrete	0.146	0.507	0.00752	0.661	0.0178	**0.00697**	ND	16.9	***185***
Soil Screening Criteria													
Hazardous Waste Criteria (TTLC) (d)					**na**	**na**	**na**	**1**	**3**	**8**	**na**	**500**	**1,000**
Hazardous Waste Criteria (10X STLC) (e)					**na**	**na**	**na**	**1**	**3**	**8**	**na**	**50**	**50**
Hazardous Waste Criteria (20X RCRA Regulatory Level) (f)					**na**	**na**	**na**	**na**	**0.60**	**na**	**na**	**100**	**100**
RWQCB ESL, Residential Land Use (g)					**2.4**	**1.7**	**1.7**	**na**	**0.44**	**0.0023 (i)**	**na**	**17 (j)**	**80**
RWQCB ESL, Commercial/ Industrial Land Use (g)					**10**	**4.0**	**4.0**	**na**	**1.7**	**0.0023 (i)**	**na**	**17 (j)**	**320**
Cal-modified RSL, Residential Land Use (h)					**1.6**	**2.2**	**1.9**	**na**	**1.8**	**0.033**	**na**	**17 (j)**	**80**
Cal-modified RSL, Industrial Land Use (h)					**6.8**	**9.6**	**8.6**	**na**	**8.0**	**0.14**	**na**	**17 (j)**	**320**

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TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
3230 Scott Boulevard
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Depth (feet below baserock)	Sample Type	Analytical Results (a, b, c)								
					Organochlorine Pesticides (mg/kg)							Metals (mg/kg)	
					4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Chlordane	Dieldrin	Other Pesticides	Arsenic	Lead
3230-SVP05-1.5-2.0	11/15/2014	1.5-2.0	0.5-1.0	discrete	0.142	0.0997	<0.00504	0.242	***1.16***	**0.0606**	ND	10.5	*51.8*
3230-SVP05-3.5-4.0	11/15/2014	3.5-4.0	2.5-3.0	discrete	0.0703	0.0215	<0.00504	0.0918	0.0340	<0.00504	ND	12.1	***88.2***
3230-SVP06-1.25-1.75	11/15/2014	1.25-1.75	0.5-1.0	discrete	0.125	1.43	<0.00504	*1.56*	0.0753	**0.00772**	ND	14.2	***144***
3230-SVP06-3.25-3.75	11/15/2014	3.25-3.75	2.5-3.0	discrete	0.0178	0.109	<0.00504	0.127	<0.0126	<0.00504	ND	**30.3**	***125***
3230-SVP07-1.5-2.0	11/15/2014	1.5-2.0	0.5-1.0	discrete	0.0152	0.0112	<0.00504	0.0264	<0.0126	<0.00504	ND	8.6	26.5
3230-SVP07-3.5-4.0	11/15/2014	3.5-4.0	2.5-3.0	discrete	0.532	0.0772	0.109	0.718	<0.0126	**0.00611**	ND	**40.2**	*50.1*
3230-SVP08-1.25-1.75	11/15/2014	1.25-1.75	0.5-1.0	discrete	1.56	0.502	0.0482	*2.11*	0.0214	**0.0261**	ND	**29.4**	***297***
3230-SVP08-3.25-3.75	11/16/2014	3.25-3.75	2.5-3.0	discrete	<0.00504	<0.00504	<0.00504	ND	<0.0126	<0.00504	ND	6.6	***248***
Soil Screening Criteria													
Hazardous Waste Criteria (TTLC) (d)					**na**	**na**	**na**	**1**	**3**	**8**	**na**	**500**	**1,000**
Hazardous Waste Criteria (10X STLC) (e)					**na**	**na**	**na**	**1**	**3**	**8**	**na**	**50**	**50**
Hazardous Waste Criteria (20X RCRA Regulatory Level) (f)					**na**	**na**	**na**	**na**	**0.60**	**na**	**na**	**100**	**100**
RWQCB ESL, Residential Land Use (g)					**2.4**	**1.7**	**1.7**	**na**	**0.44**	**0.0023 (i)**	**na**	**17 (j)**	**80**
RWQCB ESL, Commercial/ Industrial Land Use (g)					**10**	**4.0**	**4.0**	**na**	**1.7**	**0.0023 (i)**	**na**	**17 (j)**	**320**
Cal-modified RSL, Residential Land Use (h)					**1.6**	**2.2**	**1.9**	**na**	**1.8**	**0.033**	**na**	**17 (j)**	**80**
Cal-modified RSL, Industrial Land Use (h)					**6.8**	**9.6**	**8.6**	**na**	**8.0**	**0.14**	**na**	**17 (j)**	**320**

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Abbreviations:

-- - not analyzed
<0.50 - Compound not detected at or above indicated laboratory reporting limit
4,4'-DDD - 4,4'-Dichlorodiphenyldichloroethane
4,4'-DDE - 4,4'-Dichlorodiphenyldichloroethylene
4,4'-DDT - 4,4'-Dichlorodiphenyltrichloroethane
Cal-EPA - California Environmental Protection Agency
DTSC - Department of Toxic Substances Control
ESL - Environmental Screening Levels
ft bgs - feet below ground surface
mg/kg - milligrams per kilogram
na - not available
ND - not detected
RCRA - Resource Conservation and Recovery Act
RWQCB - Regional Water Quality Control Board
STLC - Soluble Threshold Limit Concentration
TCLP - Toxicity Characteristic Leaching Procedure
TTLC - Total Threshold Limit Concentration
WET - Waste Extraction Test

Notes:

(a) Samples were analyzed by K-Prime, Inc. of Santa Rosa, California for (1) organochlorine pesticides by EPA Method 8081 and (2) arsenic and lead by EPA Method 6020.
(b) Concentrations shown in **bold** exceed respective environmental screening levels. Concentrations shown in *italics* exceed one or more hazardous waste screening criteria.
(c) Results are shown on a dry weight basis.

TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
3230 Scott Boulevard
Santa Clara, CA

(d) Total Threshold Limit Concentration (TTLC) values (California Code of Regulations (CCR), Title 22, Article 3, Table II).
(e) Ten times (10x) the STLC values. If a compound is present at concentrations that exceed ten times the STLC, the compound may exceed the STLC if the sample is subjected to the WET.
(f) Twenty times (20x) the RCRA regulatory level values. If a compound is present at concentrations that exceed twenty times the RCRA regulatory level, the concentration of a compound may exceed RCRA hazardous waste criteria if the sample is subjected to the TCLP.
(g) RWQCB ESL - Summary Table A, Shallow Soils (<3m bgs), Groundwater Is Current or Potential Drinking Water Source (RWQCB, 2013). Screening levels include human health, urban ecotoxicology, and leaching to groundwater pathways.
(h) Cal-modified RSL - Value obtained from DTSC HERO Note 3 if lower than U.S. EPA Regional Screening Level per DTSC (2014).
(i) The ESL for dieldrin is based on groundwater protection. ESL based on direct contact with soil is 0.034 mg/kg for residential land use and 0.13 mg/kg for commercial/industrial land use.
(j) Environmental screening levels (ESLs and RSLs) for arsenic are less than the typical background concentration in soil. The value shown represents an upper-bound background arsenic concentration for a nearby site.

References:

Cal-EPA, 2010. California Human Health Screening Levels, Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, California EPA, Department of Toxic Substances Control (Updated September 2010).
DTSC, 2014. Human Health Risk Assessment (HHRA) Note, HERO HHRA Note Number 3, California Environmental Protection Agency Department of Toxic Substances Control, dated 14 July 2014.
RWQCB, 2013. *Update to Environmental Screening Levels,* California Regional Water Quality Control Board, Region 2, 23 December 2013.
U.S. EPA, 2014. Regional Screening Level (RSL) Summary Table May 2014, United States Environmental Protection Agency, May 2014.

Draft

Path: X:\B40062\Maps\2014\12\Figure 2 - SP Setting_rev.mxd

N

0 150 300

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- Synertek Plume, TCE at or above 5 ug/L (CH2MHill, 2014)
- Synertek GW Monitoring Well (CH2MHill, 2014)
- USTI Site GW Monitoring Well (PES, 1995)
- Shallow Grab GW Location (PES,1993)

Abbreviations

GW = groundwater
TCE = Trichloroethene
ug/L = micrograms per liter

Notes

1. All locations are approximate.
2. Concentrations are shown in units of micrograms per liter ("µg/L"). Concentrations in bold exceed current California drinking water standards (Maximum Contaminant Levels).

Sources

1. Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer
2. CH2MHill, 2014. *Additional Vapor Intrusion Evaluation Work Plan, Former Synertek Building No. 1 Facility, Santa Clara, California,* prepared by CH2MHill, dated June 2014.
3. PES, 1993. *Supplemental Groundwater Investigation, Former Integrated Device Technology Site, Santa Clara,California,* prepared by PES, dated 7 May 1993.
4. PES, 1995. *Semiannual Groundwater Monitoring Report, February 1995 Sampling Event and Request for Termination of Monitoring Former Integrated Device Technology Site, 3236 Scott Boulevard, Santa Clara, California,* prepared by PES Environmental, Inc., dated 29 March 1995.

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Subject Property Setting

3230 Scott Boulevard
Santa Clara, CA
December 2014
EKI B40062.00

Figure 2

Draft

3230-SVP07	
Benzene	9.14
1,1-DCA	9.92
1,1-DCE	381
c-1,2-DCE	540
PCE	29
Toluene	18.7
TCE	77.4
VC	**20.5**
Other VOCs	ND

3230-SVP01	
Benzene	21.6
ETBZ	14.2
Toluene	83.4
1,2,4-TMB	13.8
m,p-Xylenes	48.5
o-Xylenes	14.4
Other VOCs	ND

3230-SVP02	
Benzene	13.8
1,1-DCE	60.2
Freon 114	15.5
Toluene	56.1
VC	7.03
Other VOCs	ND

3230-SVP03	
Benzene	11.2
t-1,2-DCE	32.6
m,p-Xylenes	17
Other VOCs	ND

3230-SVP08	
Toluene	10.8
Other VOCs	ND

3230-SVP05	
t-1,2-DCE	9.44
ETBZ	12.9
Toluene	72.5
1,2,4-TMB	27.4
m,p-Xylenes	45.5
o-Xylenes	13.9
Other VOCs	ND

3230-SVP04	
Benzene	24.6
1,1-DCE	33.7
t-1,2-DCE	8.72
Toluene	62.8
m,p-Xylenes	22.7
Other VOCs	ND

3230-SVP06	
Benzene	24.4
t-1,2-DCE	16.1
ETBZ	12.5
Toluene	93.1
m,p-Xylenes	40.9
o-Xylenes	11.9
Other VOCs	ND

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N

0 75 150

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- Soil Gas and Shallow Soil Sampling Location (EKI, 2014)
- Results Exceed Unrestricted/Residential Land Use Screening Criteria

Abbreviations

1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
c-1,2-DCE = cis-1,2-Dichlrooethene
t-1,2-DCE = trans-1,2-Dichlrooethene
ETBZ = Ethylbenzene
GW = groundwater
ND = not detected
PCE = Tetrachloroethene
TCE = Trichloroethene
VC = Vinyl chloride
VOC = volatile organic compound

Notes

1. All locations are approximate.
2. Posted concentrations are in units of micrograms per cubic meter (ug/m^3).
3. Only VOCs detected in soil gas above reporting limits are shown. Detected concentrations did not exceed risk-based screening levels for residential/unrestricted land use. Refer to Table 1 for screening criteria.

Source

1. Basemap source: http://services.arcgisonline.com/ArcGIS/ rest/ services/Reference/World_Transportation/MapServer

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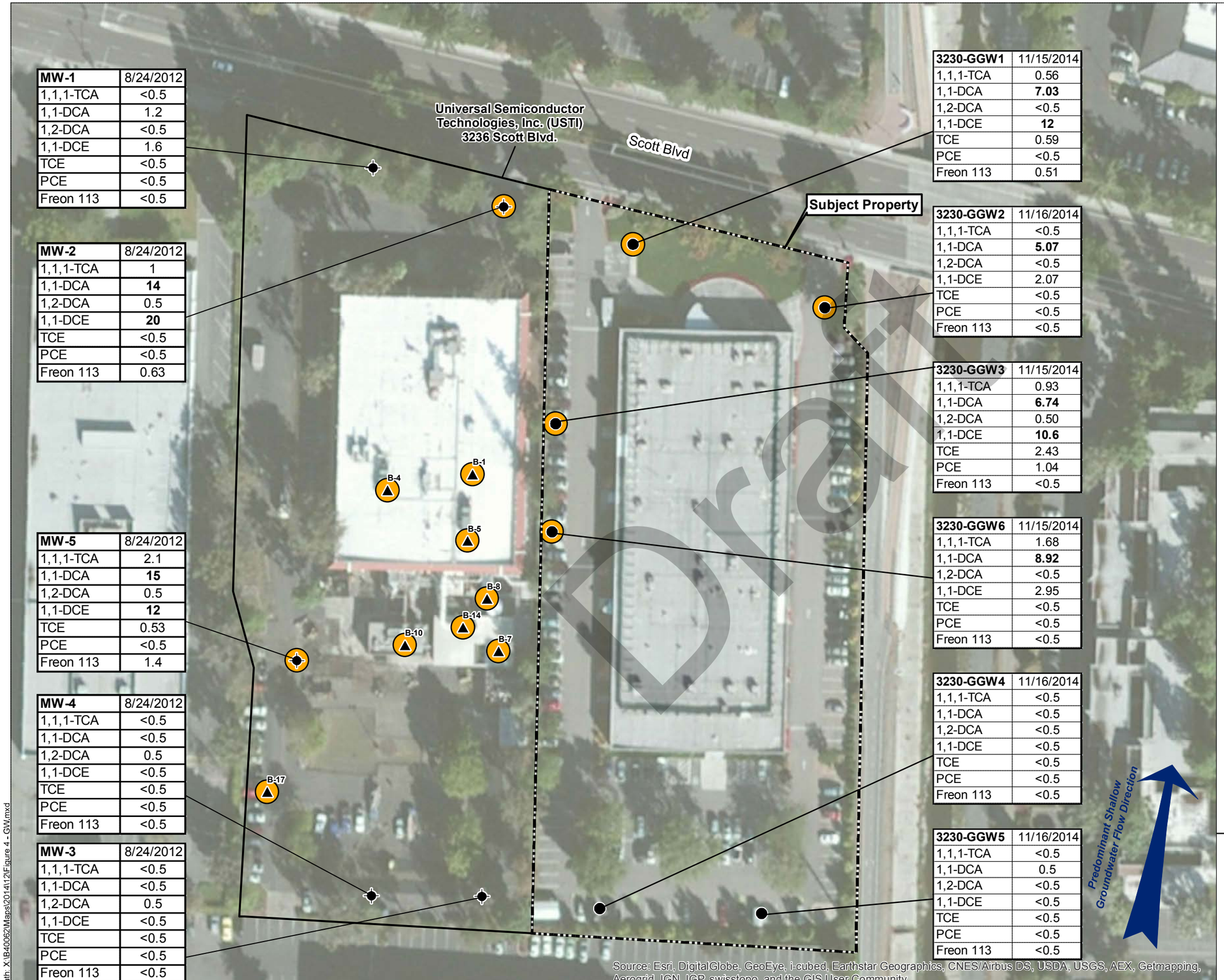
VOCs Detected in Soil Gas

3230 Scott Boulevard
Santa Clara, CA
December 2014
EKI B40062.00

Figure 3

Path: X:\B40062\Maps\2014\12\Figure 3 - Soil Gas.mxd



MW-1	8/24/2012
1,1,1-TCA	<0.5
1,1-DCA	1.2
1,2-DCA	<0.5
1,1-DCE	1.6
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

MW-2	8/24/2012
1,1,1-TCA	1
1,1-DCA	**14**
1,2-DCA	0.5
1,1-DCE	**20**
TCE	<0.5
PCE	<0.5
Freon 113	0.63

MW-5	8/24/2012
1,1,1-TCA	2.1
1,1-DCA	**15**
1,2-DCA	0.5
1,1-DCE	**12**
TCE	0.53
PCE	<0.5
Freon 113	1.4

MW-4	8/24/2012
1,1,1-TCA	<0.5
1,1-DCA	<0.5
1,2-DCA	0.5
1,1-DCE	<0.5
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

MW-3	8/24/2012
1,1,1-TCA	<0.5
1,1-DCA	<0.5
1,2-DCA	0.5
1,1-DCE	<0.5
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

3230-GGW1	11/15/2014
1,1,1-TCA	0.56
1,1-DCA	**7.03**
1,2-DCA	<0.5
1,1-DCE	**12**
TCE	0.59
PCE	<0.5
Freon 113	0.51

3230-GGW2	11/16/2014
1,1,1-TCA	<0.5
1,1-DCA	**5.07**
1,2-DCA	<0.5
1,1-DCE	2.07
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

3230-GGW3	11/15/2014
1,1,1-TCA	0.93
1,1-DCA	**6.74**
1,2-DCA	0.50
1,1-DCE	**10.6**
TCE	2.43
PCE	1.04
Freon 113	<0.5

3230-GGW6	11/15/2014
1,1,1-TCA	1.68
1,1-DCA	**8.92**
1,2-DCA	<0.5
1,1-DCE	2.95
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

3230-GGW4	11/16/2014
1,1,1-TCA	<0.5
1,1-DCA	<0.5
1,2-DCA	<0.5
1,1-DCE	<0.5
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

3230-GGW5	11/16/2014
1,1,1-TCA	<0.5
1,1-DCA	0.5
1,2-DCA	<0.5
1,1-DCE	<0.5
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

N

0 75 150

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- USTI Site GW Monitoring Well (Environ, 2014)
- Shallow Grab GW Location (PES,1993)
- Grab Groundwater and Shallow Soil Sampling Location (EKI, 2014)
- Results Exceed Drinking Water Standards

Abbreviations

1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
PCE = Tetrachloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
TCE = Trichloroethene
ug/L = micrograms per liter

Notes

1. All locations are approximate.
2. Posted concentrations are in units of micrograms per liter (ug/L).
3. Only VOCs detected in recent shallow groundwater samples are shown. Concentrations above California drinking water standards (Maximum Contaminant Levels) are shown in bold. Refer to Table 2 for drinking water standards.

Source

1. Basemap source: http://services.arcgisonline.com/ArcGIS/ rest/ services/Reference/World_Transportation/MapServer
2. PES, 1993. *Supplemental Groundwater Investigation, Former Integrated Device Technology Site, Santa Clara,California,* prepared by PES, dated 7 May 1993.
3. Environ, 2014. Closure Request, 3236 Scott Boulevard, Santa Clara, California, RWQCB Case No. 43S0351 and Case No. 43S0443, prepared by Environ, dated 29 October 2014.

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VOCs Detected in Shallow Groundwater

3230 Scott Boulevard
Santa Clara, CA
December 2014
EKI B40062.00

Figure 4

Path: X:\B40062\Maps\2014\12\Figure 4 - GW.mxd

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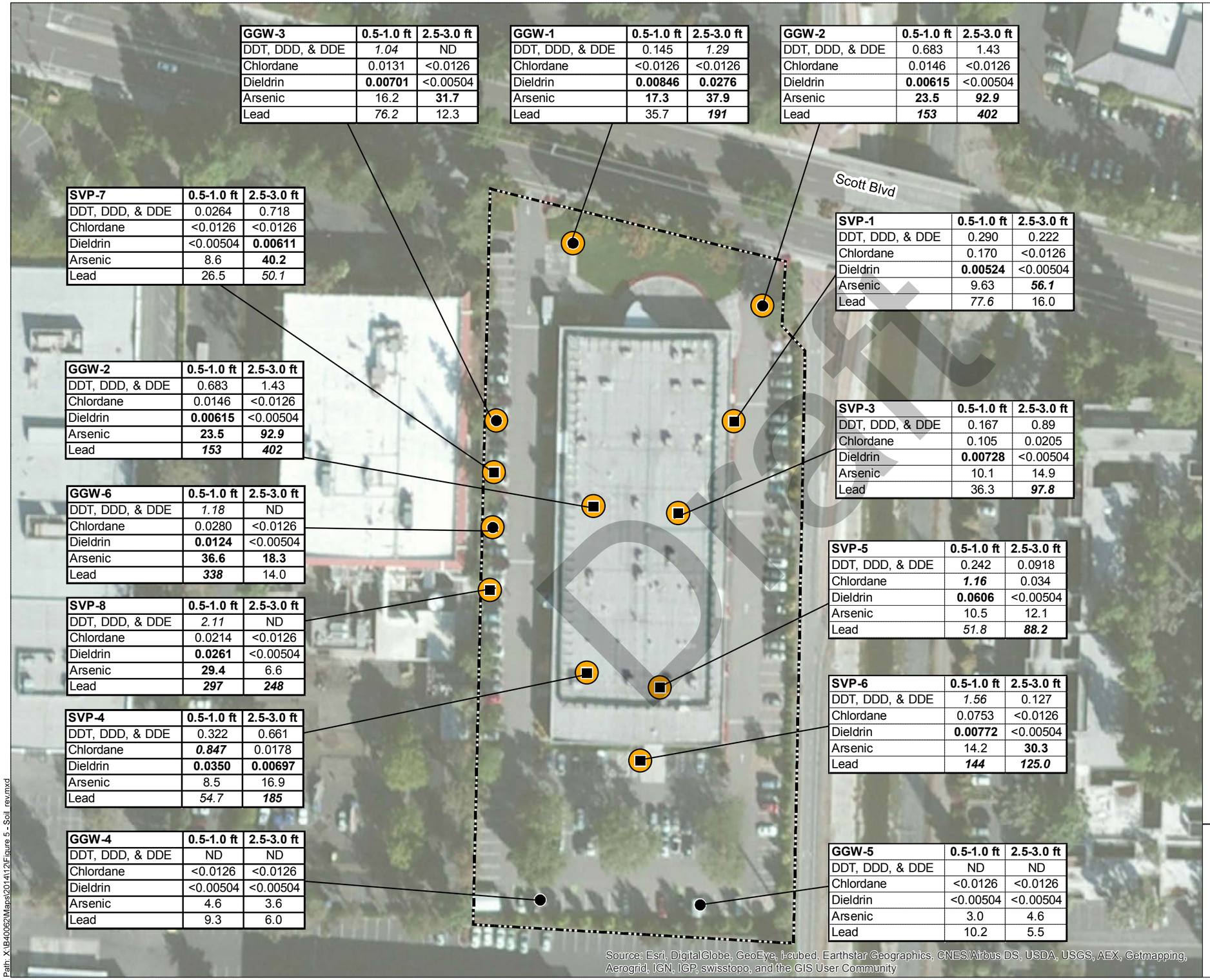

GGW-3	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	*1.04*	ND
Chlordane	0.0131	<0.0126
Dieldrin	**0.00701**	<0.00504
Arsenic	16.2	**31.7**
Lead	*76.2*	12.3

GGW-1	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.145	*1.29*
Chlordane	<0.0126	<0.0126
Dieldrin	**0.00846**	**0.0276**
Arsenic	**17.3**	**37.9**
Lead	35.7	***191***

GGW-2	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.683	1.43
Chlordane	0.0146	<0.0126
Dieldrin	**0.00615**	<0.00504
Arsenic	**23.5**	***92.9***
Lead	***153***	***402***

SVP-7	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.0264	0.718
Chlordane	<0.0126	<0.0126
Dieldrin	<0.00504	**0.00611**
Arsenic	8.6	**40.2**
Lead	26.5	*50.1*

SVP-1	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.290	0.222
Chlordane	0.170	<0.0126
Dieldrin	**0.00524**	<0.00504
Arsenic	9.63	***56.1***
Lead	*77.6*	16.0

GGW-2	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.683	1.43
Chlordane	0.0146	<0.0126
Dieldrin	**0.00615**	<0.00504
Arsenic	**23.5**	***92.9***
Lead	***153***	***402***

SVP-3	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.167	0.89
Chlordane	0.105	0.0205
Dieldrin	**0.00728**	<0.00504
Arsenic	10.1	14.9
Lead	36.3	***97.8***

GGW-6	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	*1.18*	ND
Chlordane	0.0280	<0.0126
Dieldrin	**0.0124**	<0.00504
Arsenic	**36.6**	**18.3**
Lead	***338***	14.0

SVP-5	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.242	0.0918
Chlordane	***1.16***	0.034
Dieldrin	**0.0606**	<0.00504
Arsenic	10.5	12.1
Lead	*51.8*	***88.2***

SVP-8	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	*2.11*	ND
Chlordane	0.0214	<0.0126
Dieldrin	**0.0261**	<0.00504
Arsenic	**29.4**	6.6
Lead	***297***	***248***

SVP-6	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	*1.56*	0.127
Chlordane	0.0753	<0.0126
Dieldrin	**0.00772**	<0.00504
Arsenic	14.2	**30.3**
Lead	***144***	***125.0***

SVP-4	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	0.322	0.661
Chlordane	***0.847***	0.0178
Dieldrin	**0.0350**	**0.00697**
Arsenic	8.5	16.9
Lead	*54.7*	***185***

GGW-4	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	ND	ND
Chlordane	<0.0126	<0.0126
Dieldrin	<0.00504	<0.00504
Arsenic	4.6	3.6
Lead	9.3	6.0

GGW-5	0.5-1.0 ft	2.5-3.0 ft
DDT, DDD, & DDE	ND	ND
Chlordane	<0.0126	<0.0126
Dieldrin	<0.00504	<0.00504
Arsenic	3.0	4.6
Lead	10.2	5.5

N

0 75 150

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- Soil Gas and Shallow Soil Sampling Location (EKI, 2014)
- Grab Groundwater and Shallow Soil Sampling Location (EKI, 2014)
- Results Exceed Residential/ Unrestricted Land Use Screening Criteria

Abbreviations

DDD = 4,4'-Dichlorodiphenyldichloroethane
DDE = 4,4'-Dichlorodiphenyldichloroethylene
DDT = 4,4'-Dichlorodiphenyltrichloroethane
ft = feet
mg/kg = milligrams per kilogram
ND = not detected

Notes

1. All locations are approximate.
2. Posted concentrations are in units of milligrams per kilogram (mg/kg).
3. Sample depths are shown in feet below baserock.
4. Only pesticides detected on the property in excess of risk-based screening criteria are shown. Concentrations in **bold** exceed environmental screening levels for residential/unrestricted land use or background for arsenic. Concnetrations in *italics* potentially exceed hazardous waste criteria. Refer to Table 3 for screening values.

Source

Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer

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Shallow Soil Sampling Results

3230 Scott Boulevard
Santa Clara, CA
December 2014
EKI B40062.00

Figure 5

Path: X:\B40062\Maps\2014\12\Figure 5 - Soil rev.mxd

MW-1	8/24/2012
1,1,1-TCA	<0.5
1,1-DCA	1.2
1,2-DCA	<0.5
1,1-DCE	1.6
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

MW-2	8/24/2012
1,1,1-TCA	1.0
1,1-DCA	**14**
1,2-DCA	0.5
1,1-DCE	**20**
TCE	<0.5
PCE	<0.5
Freon 113	0.63

B-4	1/1993
1,1,1-TCA	21/24.7
1,1-DCA	**33.2/36**
1,1-DCE	**50/69.8**
TCE	ND

B-1	1/5/1993
1,1,1-TCA	25/28.2
1,1-DCA	**31/32.7**
1,1-DCE	**14/18.6**
TCE	ND

B-5	1/5/1993
1,1,1-TCA	27/31.9
1,1-DCA	**10.5/12**
1,1-DCE	ND/2.19
TCE	ND

MW-5	8/24/2012
1,1,1-TCA	2.1
1,1-DCA	**15**
1,2-DCA	0.5
1,1-DCE	**12**
TCE	0.53
PCE	<0.5
Freon 113	1.4

B-8	1/7/1993
1,1,1-TCA	25/32.6
1,1-DCA	5/**5.7**
1,1-DCE	ND/2.68
TCE	ND

B-7	1/7/1993
1,1,1-TCA	ND
1,1-DCA	**11.6/12**
1,1-DCE	ND
TCE	ND

B-10	1/1993
1,1,1-TCA	59/74.3
1,1-DCA	**28/32.6**
1,1-DCE	**58/70.2**
TCE	ND

MW-3	8/24/2012
1,1,1-TCA	<0.5
1,1-DCA	<0.5
1,2-DCA	0.5
1,1-DCE	<0.5
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

B-14	2/24/1993
1,1,1-TCA	42
1,1-DCA	**6.7**
1,1-DCE	3.1
TCE	ND

B-17	4/30/1993
1,1,1-TCA	16/17
1,1-DCA	**7.9/8.3**
1,1-DCE	**32/35**
TCE	ND

MW-4	8/24/2012
1,1,1-TCA	<0.5
1,1-DCA	<0.5
1,2-DCA	0.5
1,1-DCE	<0.5
TCE	<0.5
PCE	<0.5
Freon 113	<0.5

N

0 100 200

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- Synertek Plume, TCE at or above 5 ug/L (CH2MHill, 2014)
- Synertek GW Monitoring Well (CH2MHill, 2014)
- IDT Site GW Monitoring Well (Environ, 2014)
- Shallow Grab GW Location (PES,1993)

Abbreviations

1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
GW = groundwater
ND = not detected
PCE = Tetrachloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
TCE = Trichloroethene

Notes

1. All locations are approximate.
2. Concentrations are shown in units of micrograms per liter ("µg/L"). Concentrations in bold exceed current California drinking water standards (Maximum Contaminant Levels).

Sources

1. Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer
2. CH2MHill, 2014. *Additional Vapor Intrusion Evaluation Work Plan, Former Synertek Building No. 1 Facility, Santa Clara, California,* prepared by CH2MHill, dated June 2014.
3. Environ, 2014. *Closure Request, 3236 Scott Boulevard, Santa Clara, California, RWQCB Case No. 43S0351 and Case No. 43S0443,* prepared by Environ, dated 29 October 2014.
4. PES, 1993. *Supplemental Groundwater Investigation, Former Integrated Device Technology Site, Santa Clara,California,* prepared by PES, dated 7 May 1993

Erler & Kalinowski, Inc.

VOCs in Shallow Groundwater

3236 Scott Boulevard
Santa Clara, CA
December 2014
EKI B40061.00

Figure 3

Path: X:\B40061\12\Figure 3 - VOC in Shallow Groundwater.mxd

Draft

Legend

- ● Grab Groundwater and Soil Sampling Location (EKI, 2013)
- ■ Soil Gas and Soil Sampling Location (EKI, 2013)

Note

1. All locations are approximate.

Source

Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer

Erler & Kalinowski, Inc.

2013 Sampling Locations

Santa Clara Technology Campus
Santa Clara, CA
June 2013
EKI B30005.00

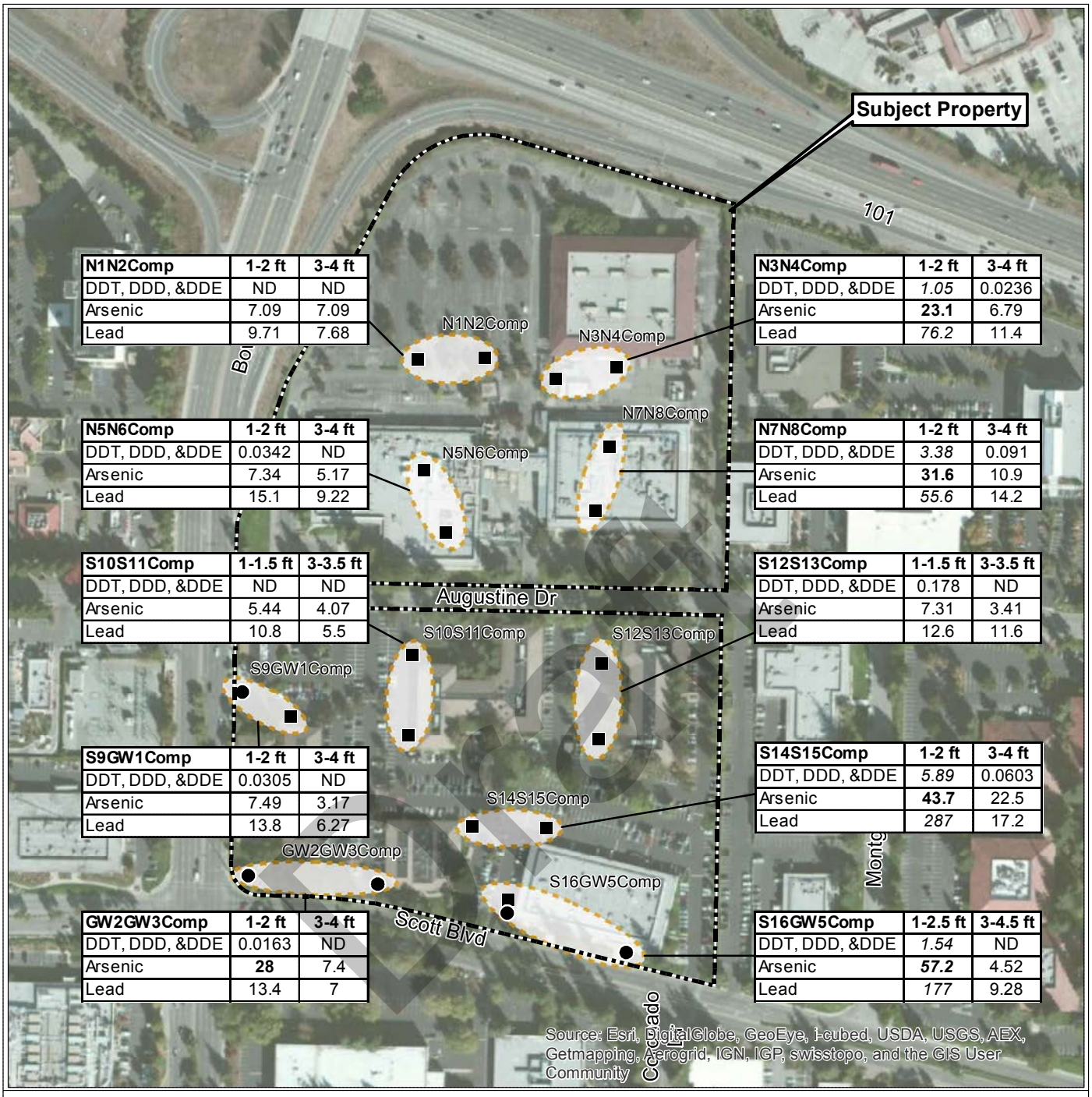
Figure 2

N

0 300 600

(Approximate Scale in Feet)

X:\Site Location Map\Figure __ - Site Location.mxd



N1N2Comp	1-2 ft	3-4 ft
DDT, DDD, &DDE	ND	ND
Arsenic	7.09	7.09
Lead	9.71	7.68

N3N4Comp	1-2 ft	3-4 ft
DDT, DDD, &DDE	*1.05*	0.0236
Arsenic	**23.1**	6.79
Lead	*76.2*	11.4

N5N6Comp	1-2 ft	3-4 ft
DDT, DDD, &DDE	0.0342	ND
Arsenic	7.34	5.17
Lead	15.1	9.22

N7N8Comp	1-2 ft	3-4 ft
DDT, DDD, &DDE	*3.38*	0.091
Arsenic	**31.6**	10.9
Lead	*55.6*	14.2

S10S11Comp	1-1.5 ft	3-3.5 ft
DDT, DDD, &DDE	ND	ND
Arsenic	5.44	4.07
Lead	10.8	5.5

S12S13Comp	1-1.5 ft	3-3.5 ft
DDT, DDD, &DDE	0.178	ND
Arsenic	7.31	3.41
Lead	12.6	11.6

S9GW1Comp	1-2 ft	3-4 ft
DDT, DDD, &DDE	0.0305	ND
Arsenic	7.49	3.17
Lead	13.8	6.27

S14S15Comp	1-2 ft	3-4 ft
DDT, DDD, &DDE	*5.89*	0.0603
Arsenic	**43.7**	22.5
Lead	*287*	17.2

GW2GW3Comp	1-2 ft	3-4 ft
DDT, DDD, &DDE	0.0163	ND
Arsenic	**28**	7.4
Lead	13.4	7

S16GW5Comp	1-2.5 ft	3-4.5 ft
DDT, DDD, &DDE	*1.54*	ND
Arsenic	***57.2***	4.52
Lead	*177*	9.28

Legend

- ● Grab Groundwater and Soil Sampling Location (EKI, 2013)
- ■ Soil Gas and Soil Sampling Location (EKI, 2013)

Notes

1. All locations are approximate.
2. Concentrations in *Italics* exceed potential hazardous waste criteria. Concentrations in **Bold** exceed commercial/industrial screening levels (or background for arsenic).

Source

Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer

N

0 300 600

(Approximate Scale in Feet)

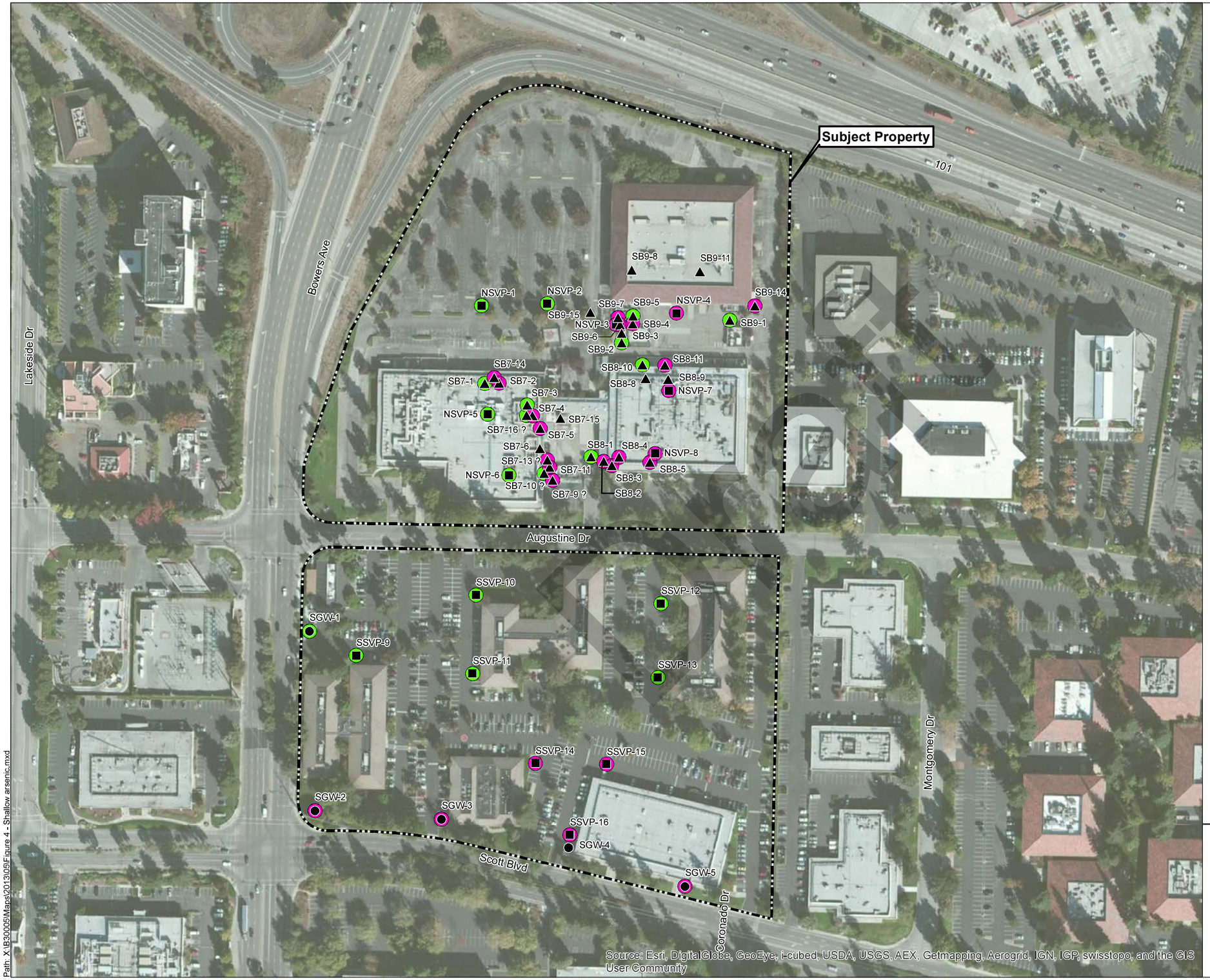
Erler & Kalinowski, Inc.

Composite Sample Locations and Shallow Soil Sampling Results

Santa Clara Technology Campus
Santa Clara, CA
June 2013
EKI B30005.00

Figure 3

X:\Site Location Map\Figure _ - Site Location.mxd



N

0 200 400

(Approximate Scale in Feet)

Legend

- Grab Groundwater and Soil Sampling Location (EKI, 2013)
- Soil Gas and Soil Sampling Location (EKI, 2013)
- Soil Sample Location (Kleinfelder, 2005)
- Arsenic ≥ 20 mg/kg
- Arsenic < 20 mg/kg

Abbreviations

mg/kg = milligrams per kilogram

Notes

1. All locations are approximate.
2. Arsenic concentration of 20 mg/kg represents a typical upper-bound background concentration in Northern Santa Clara Valley (Scott, 1995).

Source

Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer

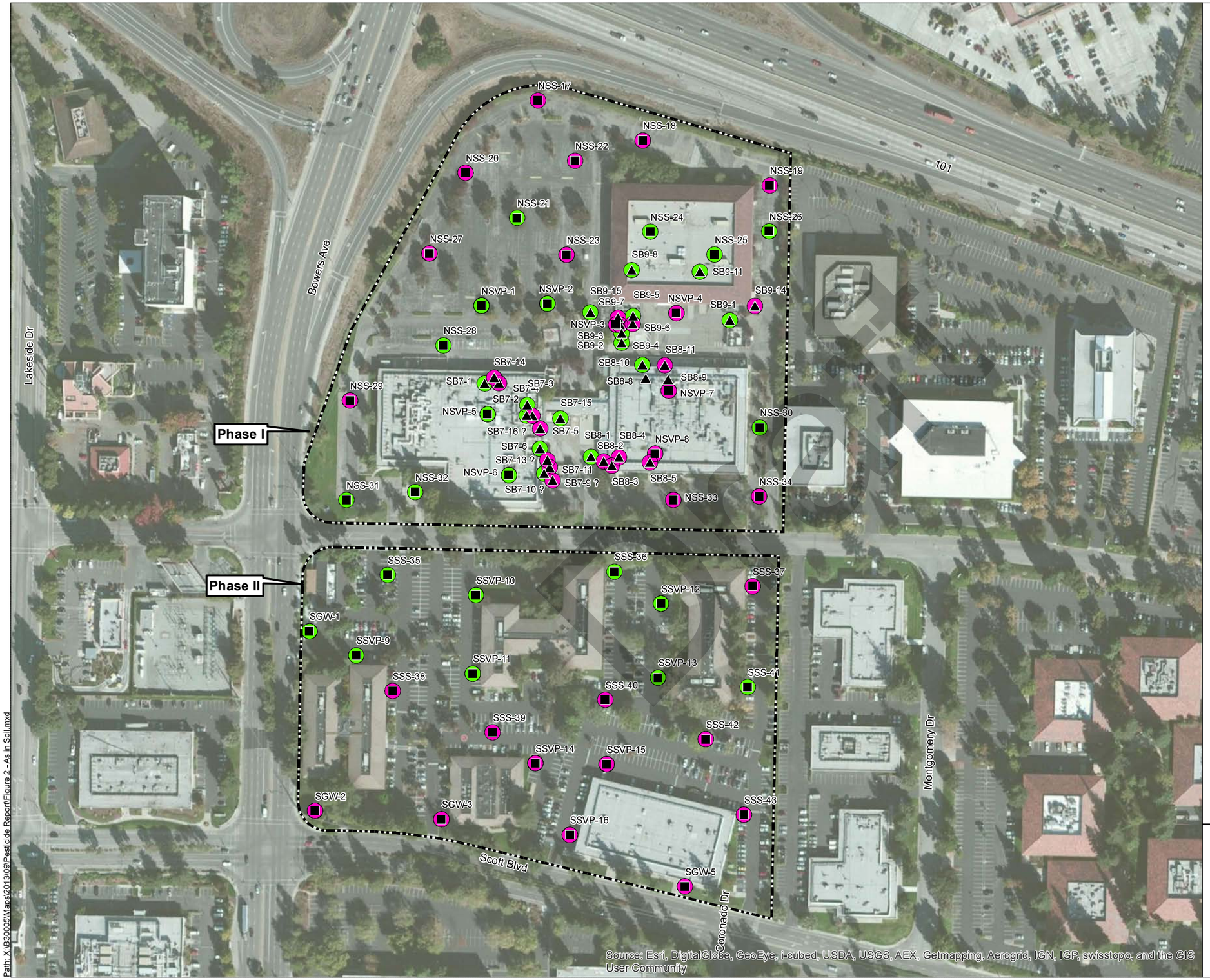
Erler & Kalinowski, Inc.

Arsenic Concentrations in Shallow Soil
(0 - 2 ft below baserock)

Santa Clara Technology Campus
Santa Clara, CA
June 2013
EKI B30005.00

Figure 4

Path: X:\B30005\Maps\2013\05\Figure 4 - Shallow arsenic.mxd



N

0 200 400

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- Shallow Soil Sampling Location (EKI, 2013)
- Soil Sample Location (Kleinfelder, 2005)
- Arsenic ≥ 17 mg/kg
- Arsenic < 17 mg/kg

Abbreviations

mg/kg = milligrams per kilogram

Notes

1. All locations are approximate.
2. Arsenic concentration of 17 mg/kg represents a typical upper-bound background concentration for naturally occurring arsenic in soil based on EKI (2011).
3. Locations where arsenic was detected in shallow soil above a concentration of 17 mg/kg are shown in pink. Refer to Table 1 for sample depths.

Source

1. Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer
2. EKI, 2011. Memorandum to Alex Lee and Mark Piros of DSTC, *Morse Avenue Background Arsenic in Soil,* Erler and Kalinowski, Inc., 12 April 2011.
3. Kleinfelder, 2005. *Facility Closure Observation Report, Applied Materials Augustine Campus, Santa Clara, California,* Kleinfelder, 8 March 2005.

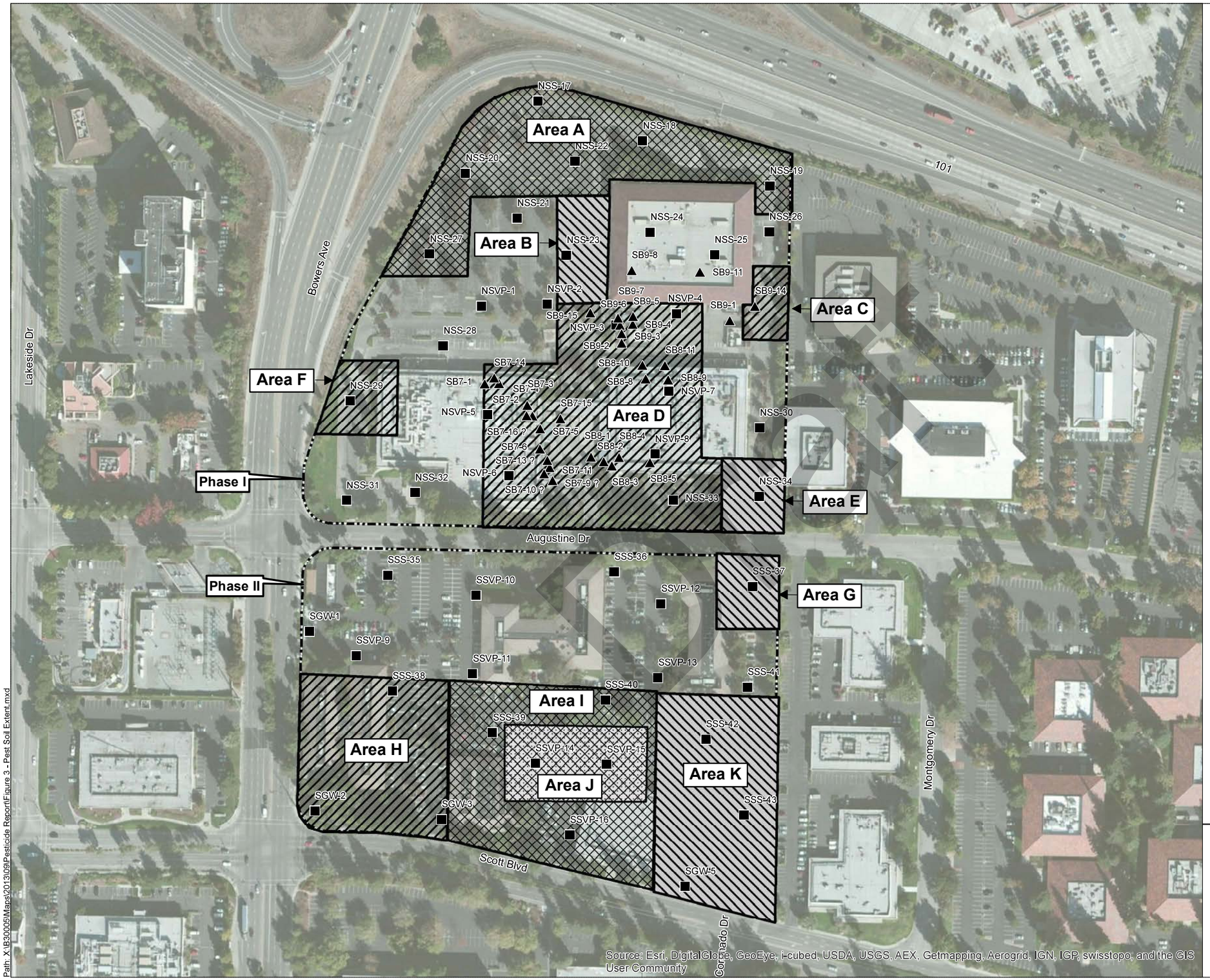
Erler & Kalinowski, Inc.

Arsenic Concentrations in Shallow Soil
(0 - 2.5 feet below baserock)

Santa Clara Technology Campus
Santa Clara, CA
September 2013
EKI B30005.00

Figure 2

Path: X:\B30005\Maps\2013\09\Pesticide Report\Figure 2 - As in Soil.mxd



N

0 200 400

(Approximate Scale in Feet)

Legend

- Subject Property Boundary
- ■ Shallow Soil Sampling Location (EKI, 2013)
- ▲ Shallow Soil Sampling Location (Kleinfelder, 2005)

Approximate Extent of Pesticide-Impacted Soil

- 0-1 ft bbr
- 0-1.5 ft bbr
- 0-2.5 ft bbr
- 0-3.5 ft bbr

Abbreviations

ft bbr = feet below baserock
mg/kg = miligrams per kilogram

Notes

1. All locations are approximate.
2. "Pesticide-impacted" soil is defined as soil containing arsenic at concentrations greater than 17 mg/kg, which is an upper-bound background concentration for naturally occurring arsenic in soil based on EKI (2011). The extent of pesticide-impacted soil is estimated by EKI based on the results of shallow soil sampling performed by Kleinfelder in 2004 and by EKI in 2013.

Sources

1. Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer
2. EKI, 2011. Memorandum to Alex Lee and Mark Piros of DSTC, *Morse Avenue Background Arsenic in Soil* Erler and Kalinowski, Inc., 12 April 2011.
3. Kleinfelder, 2005. *Facility Closure Observation Report, Applied Materials Augustine Campus, Santa Clara, California,* Kleinfelder, 8 March 2005.

Erler & Kalinowski, Inc.

Approximate Extent of Pesticide-Impacted Soil

Santa Clara Technology Campus
Santa Clara, CA
September 2013
EKI B30005.00

Figure 3

Path: X:\B30005\Maps\2013\09\Pesticide Report\Figure 3 - Pest Soil Extent.mxd

TABLE 1
SUMMARY OF SOIL GAS SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Soil Gas Sample ID (a)	Sample Date	Analytical Results in ug/m^3 (b)(c)(d)							Leak Check Compound TeFA (ppmv)
		Benzene	1,1-Dichloroethane	Trichlorotrifluoroethane	Toluene	m,p-Xylenes	o-Xylenes	Other VOCs	
NSVP-01	3/26/2013	<3.19	<4.05	<7.66	8.14	<4.34	<4.34	ND	<10.0
NSVP-02	3/26/2013	<3.19	<4.05	<7.66	5.54	<4.34	<4.34	ND	<10.0
NSVP-03	3/26/2013	<3.19	<4.05	<7.66	10.9	<4.34	<4.34	ND	<10.0
NSVP-04	3/26/2013	<3.19	20.4	<7.66	5.77	<4.34	<4.34	ND	<10.0
NSVP-05	3/26/2013	<3.19	<4.05	10.1	11.7	<4.34	<4.34	ND	<10.0
NSVP-06	3/26/2013	<3.19	<4.05	8.20	12.4	<4.34	<4.34	ND	<10.0
NSVP-07	3/26/2013	5.59	<4.05	<7.66	14.0	<4.34	<4.34	ND	<10.0
NSVP-08	3/26/2013	<7.99	15.5	362	<9.42	<10.9	<10.9	ND	<10.0
SSVP-09	3/26/2013	<7.99	<10.1	<19.2	<9.42	<10.9	<10.9	ND	<10.0
SSVP-10	3/26/2013	<7.99	<10.1	<19.2	50.2	<10.9	<10.9	ND	<10.0
SSVP-11	3/26/2013	<3.19	<4.05	<7.66	34.0	19.2	6.73	ND	<10.0
SSVP-12	3/26/2013	<7.99	19.6	<19.2	102	<10.9	<10.9	ND	<10.0
SSVP-13	3/26/2013	<3.19	<4.05	<7.66	9.99	<4.34	<4.34	ND	<10.0
SSVP-14	3/26/2013	<7.99	<10.1	<19.2	29.9	<10.9	<10.9	ND	22.1
SSVP-15	3/26/2013	<6.39	<8.10	<15.3	12.0	<8.68	<8.68	ND	<10.0
SSVP-16	3/26/2013	<7.99	<10.1	34.6	50.9	<10.9	<10.9	ND	<10.0
Shroud NSVP-02	3/26/2013	--	--	--	--	--	--	--	1790
Shroud NSVP-11	3/26/2013	--	--	--	--	--	--	--	1960
Soil Gas Screening Criteria									
Cal-EPA CHHSL for Soil Gas (Residential)		**36**	**na**	**na**	**135,000**	**317,000**	**315,000**	**na**	**na**
Cal-EPA CHHSL for Soil Gas (Commercial/Industrial)		**122**	**na**	**na**	**380,000**	**890,000**	**880,000**	**na**	**na**
RWQCB ESL for Soil Gas (Residential)		**42**	**760**	**na**	**160,000**	**52,000**	**52,000**	**na**	**na**
RWQCB ESL for Soil Gas (Commercial/Industrial)		**420**	**7,700**	**na**	**1,300,000**	**440,000**	**440,000**	**na**	**na**

Draft

Abbreviations:
<3.19 - Compound not detected at or above indicated laboratory reporting limit
ESL - Environmental Screening Level
CHHSL - California Human Health Screening Level
na - not available
ND - not detected
ppmv - parts per million by volume
TeFA - 1,1,1,2-Tetrafluoroethane
ug/m^3 - micrograms per cubic meter
VOCs - volatile organic compounds

TABLE 1
SUMMARY OF SOIL GAS SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Notes:
(a) Soil gas sample were collected from probes screened at a depth of 5 to 5.5 feet.
(b) VOCs were analyzed using EPA Method TO-15 GC/MS. Samples were analyzed by K-Prime, Inc., Santa Rosa, CA.
(c) **Bold** value indicates detected concentration exceeds its respective screening criterion.
(d) Only detected VOCs are shown.
(e) TeFA was analyzed by EPA Method TO-3 and used as a leak-detection compound during sampling. TeFA concentrations in samples collected from shrouds (outside the sampling apparatus) were 1,790 and 1,960 ppmv. The TeFA concentration in sample SSVP-14 indicates a leak in that particular sample could be approximately 1%. This leak does not change the conclusions.

References:
Cal-EPA, 2005. *California Human Health Screening Levels ("CHHSLs"), Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties,* California EPA, Department of Toxic Substances Control, January 2005.
RWQCB, 2013. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final,* California Regional Water Quality Control Board, Region 2, November 2007 (Updated February 2013).

Draft

TABLE 2
SUMMARY OF GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

		Analytical Results (ug/L) (a,b)																						
			VOCs					Dissolved Metals																
Sample ID	Sample Date	TPH Gasoline	1,1-Dichloroethene	Trichloroethene	Trichlorofluoromethane (Freon 11)	1,1,1-Trichloroethane	Other VOCs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
SGW1	3/24/2013	<50	<0.5	<0.5	<0.5	<0.5	ND	<1.0	<1.0	67.4	<1.0	<1.0	<1.0	1.65	<1.0	<1.0	<0.2	15.9	6.18	**6.46**	<1.0	<1.0	2.52	<1.0
SGW2	3/24/2013	<50	<0.5	<0.5	8.32	<0.5	ND	<1.0	1.24	51.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	8.71	1.30	**9.33**	<1.0	<1.0	2.32	<1.0
SGW3	3/24/2013	<50	<0.5	<0.5	<0.5	<0.5	ND	<1.0	1.31	52.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	5.85	1.11	1.88	<1.0	<1.0	3.54	1.22
SGW4	3/24/2013	<50	0.550	1.26	<0.5	0.550	ND	<1.0	1.06	51.1	<1.0	<1.0	<1.0	2.89	<1.0	<1.0	<0.2	11.7	3.74	3.78	<1.0	<1.0	5.17	<1.0
SGW5	3/24/2013	<50	<0.5	<0.5	<0.5	<0.5	ND	<1.0	<1.0	86.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	5.66	1.10	**12.9**	<1.0	<1.0	5.78	<1.0
Groundwater Screening Criteria																								
RWQCB ESLs for Vapor Intrusion (Residential) (c)		**na**	**16,000**	**130**	**na**	**720,000**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**
RWQCB ESLs for Vapor Intrusion (Commercial/ Industrial) (c)		**na**	**130,000**	**130**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**
RWQCB ESLs for Groundwater (Potential Drinking Water Source) (d)		**100**	**6**	**5**	**na**	**62**	**na**	**6.0**	**36**	**100**	**0.53**	**0.25**	**50**	**3.0**	**3.1**	**2.5**	**0.025**	**180**	**8.2**	**5.0**	**0.19**	**2.0**	**15**	**81**
California Drinking Water MCLs (e)		**na**	**6**	**5**	**150**	**1,200**	**na**	**na**	**10**	**1,000**	**4**	**5**	**50**	**na**	**1,000 (f)**	**15 (f)**	**2**	**na**	**100**	**50**	**na**	**2**	**na**	**5,000 (g)**

Draft

Abbreviations:
<0.50 - Compound not detected at or above indicated laboratory reporting limit
ESL - Environmental Screening Level
MCL - Maximum Contaminant Level
na - not available
ND - not detected
TPH - Total Petroleum Hydrocarbons
ug/L - micrograms per liter
VOCs - Volatile Organic Compounds

Notes:
(a) All samples were analyzed by K-Prime, Inc. of Santa Rosa, California for the following: (1) TPH as gasoline using EPA Method 8015 (modified), (2) VOCs using EPA Method 8260, and (3) dissolved Title 22 metals using EPA Methods 6020. Samples were filtered in the field prior to analysis for dissolved metals.
(b) Concentrations shown in **bold** exceed one or more screening level.
(c) RWQCB ESL - Table E-1, Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (RWQCB, 2013).
(d) RWQCB ESL - Table F-1a, Groundwater Screening Levels (Groundwater is a Current or Potential Source of Drinking Water) (RWQCB, 2013). Values include protection of aquatic life in addition to drinking water standards.
(e) California Department of Public Health MCLs from Title 22 California Code of Regulations Section 64444, Table 64444-A, 24 June 2010.
(f) Indicated value is an Action Level.
(g) Indicated value is a secondary MCL.

References:
RWQCB, 2013. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final,* RWQCB, November 2007 (revised February 2013).

TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Type	Analytical Results (a, b, c)						
				Organochlorine Pesticides (mg/kg)					Metals (mg/kg)	
				4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Other Pesticides	Arsenic	Lead
N1N2CompA	3/22/2013	1-2	soil	<0.012	<0.012	<0.012	ND	ND	7.09	9.71
N1N2CompB	3/22/2013	3-4	soil	<0.0119	<0.0119	<0.0119	ND	ND	7.09	7.68
N3N4CompA	3/22/2013	1-2	soil	0.346	0.636	0.0695	*1.05*	ND	**23.1**	*76.2*
N3N4CompB	3/22/2013	3-4	soil	0.0236	<0.0124	<0.0124	0.0236	ND	6.79	11.4
N5N6CompA	3/22/2013	1-2	soil	0.0342	<0.0124	<0.0124	0.0342	ND	7.34	15.1
N5B6CompB	3/22/2013	3-4	soil	<0.0123	<0.0123	<0.0123	ND	ND	5.17	9.22
N7N8CompA	3/22/2013	1-2	soil	1.57	1.33	0.483	*3.38*	ND	**31.6**	*55.6*
N7N8CompB	3/22/2013	3-4	soil	0.0912	<0.012	<0.012	0.091	ND	10.9	14.2
S10S11CompA	3/23/2013	1-1.5	soil	<0.0124	<0.0124	<0.0124	ND	ND	5.44	10.8
S10S11CompB	3/23/2013	3-3.5	soil	<0.012	<0.012	<0.012	ND	ND	4.07	5.5
S12S13CompA	3/23/2013	1-1.5	soil	0.178	<0.0114	<0.0114	0.178	ND	7.31	12.6
S12S13CompB	3/23/2013	3-3.5	soil	<0.0122	<0.0122	<0.0122	ND	ND	3.41	11.6
S14S15CompA	3/23/2013	1-2	soil	**2.76**	**2.87**	0.256	*5.89*	ND	**43.7**	*287*
S14S15CompB	3/23/2013	3-4	soil	0.0603	<0.0124	<0.0124	0.0603	ND	**22.5**	17.2
S16GW5CompA	3/24/2013	1-2.5	soil	0.96	0.494	0.0909	*1.54*	ND	***57.2***	*177*
S16GW5CompB	3/24/2013	3-4.5	soil	<0.0124	<0.0124	<0.0124	ND	ND	4.52	9.28
S9GW1CompA	3/24/2013	1-2	soil	0.0305	<0.0123	<0.0123	0.0305	ND	7.49	13.8
S9GW1CompB	3/24/2013	3-4	soil	<0.012	<0.012	<0.012	ND	ND	3.17	6.27
GW2GW3CompA	3/24/2013	1-2	soil	0.0163	<0.0126	<0.0.126	0.0163	ND	**28.0**	13.4
GW2GW3CompB	3/24/2013	3-4	soil	<0.0121	<0.0121	<0.0121	ND	ND	7.40	7
SB7-1@1.5	8/2004	1.5	soil	--	--	--	--	--	3.6	14
SB7-2@1.5	8/2004	1.5	soil	--	--	--	--	--	**26**	*100*
SB7-3@1.5	8/2004	1.5	soil	--	--	--	--	--	ND	11
SB7-4@1.5	8/2004	1.5	soil	--	--	--	--	--	**44**	*210*
SB7-5@1.5	8/2004	1.5	soil	--	--	--	--	--	**33**	*160*
SB7-6@3.5	8/2004	3.5	soil	--	--	--	--	--	ND	6.8
SB7-9@1.5	8/2004	1.5	soil	--	--	--	--	--	**33**	35
SB7-10@1.5	8/2004	1.5	soil	--	--	--	--	--	ND	5.8
SB7-11@1	8/2004	1	soil	--	--	--	--	--	**41**	*190*
Soil Screening Criteria										
Hazadous Waste Criteria (TTLC) (d)				**na**	**na**	**na**	**1**	**na**	**500**	**1,000**
Hazadous Waste Criteria (10X STLC) (e)				**na**	**na**	**na**	**1**	**na**	**50**	**50**
Hazadous Waste Criteria (20X RCRA Regulatory Level) (f)				**na**	**na**	**na**	**na**	**na**	**100**	**100**
Cal-EPA CHHSLs, Residential Land Use (g)				**1.6**	**2.3**	**1.6**	**na**	**na**	**20 (i)**	**80**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (h)				**6.3**	**9.0**	**6.3**	**na**	**na**	**20 (i)**	**320**

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TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Type	Analytical Results (a, b, c)						
				Organochlorine Pesticides (mg/kg)					Metals (mg/kg)	
				4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Other Pesticides	Arsenic	Lead
SB712@1.5	8/2004	1.5	soil	--	--	--	--	--	6.6	*87*
SB7-13@1	8/2004	1	soil	--	--	--	--	--	**36**	*70*
SB7-14@1.5	8/2004	1.5	soil	--	--	--	--	--	**30**	*180*
SB7-15@3	8/2004	3	soil	--	--	--	--	--	ND	6.6
SB7-16@1.5	8/2004	1.5	soil	--	--	--	--	--	ND	23
SB8-1@1.5	8/2004	1.5	soil	--	--	--	--	--	ND	21
SB8-2@1.5	8/2004	1.5	soil	--	--	--	--	--	**26**	*75*
SB8-3@1.5	8/2004	1.5	soil	--	--	--	--	--	**23**	*150*
SB8-4@1.5	8/2004	1.5	soil	--	--	--	--	--	**32**	*130*
SB8-5@1.5	8/2004	1.5	soil	--	--	--	--	--	**21**	***540***
SB8-10@1.5	8/2004	1.5	soil	--	--	--	--	--	15	*120*
SB8-11@1.5	8/2004	1.5	soil	--	--	--	--	--	**34**	*170*
SB9-1@0.5	8/2004	0.5	soil	--	--	--	--	--	14	*110*
SB9-2@2	8/2004	2	soil	--	--	--	--	--	8	***367***
SB9-3@5.5	8/2004	5.5	soil	--	--	--	--	--	ND	16
SB9-4@2	8/2004	2	soil	--	--	--	--	--	**30**	*120*
SB9-5@2	8/2004	2	soil	--	--	--	--	--	17	*72*
SB9-6@1.5	8/2004	1.5	soil	--	--	--	--	--	**32**	*190*
SB9-7@2	8/2004	2	soil	--	--	--	--	--	**27**	*180*
SB9-8@10	8/2004	10	soil	--	--	--	--	--	ND	15
SB9-11@7.5	8/2004	7.5	soil	--	--	--	--	--	ND	16
SB9-14@2	8/2004	2	soil	--	--	--	--	--	**21**	*100*
SB9-15@5.5	8/2004	5.5	soil	--	--	--	--	--	ND	17
Soil Screening Criteria										
Hazadous Waste Criteria (TTLC) (d)				**na**	**na**	**na**	**1**	**na**	**500**	**1,000**
Hazadous Waste Criteria (10X STLC) (e)				**na**	**na**	**na**	**1**	**na**	**50**	**50**
Hazadous Waste Criteria (20X RCRA Regulatory Level) (f)				**na**	**na**	**na**	**na**	**na**	**100**	**100**
Cal-EPA CHHSLs, Residential Land Use (g)				**1.6**	**2.3**	**1.6**	**na**	**na**	**20 (h)**	**80**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (g)				**6.3**	**9.0**	**6.3**	**na**	**na**	**20 (h)**	**320**

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Abbreviations:
-- - not analyzed
<0.50 - Compound not detected at or above indicated laboratory reporting limit
Cal-EPA - California Environmental Protection Agency
CHHSL - California Human Health Screening Level
4,4'-DDE - 4,4'-Dichlorodiphenyldichloroethylene

TABLE 3
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

4,4'-DDD - 4,4'-Dichlorodiphenyldichloroethane
4,4'-DDT - 4,4'-Dichlorodiphenyltrichloroethane
ft bgs - feet below ground surface
GW - groundwater
mg/kg - milligrams per kilogram
na - not available
ND - not detected
RCRA - Resource Conservation and Recovery Act
STLC - Soluble Threshold Limit Concentration
TCLP - Toxicity Characteristic Leaching Procedure
TTLC - Total Threshold Limit Concentration
WET - Waste Extraction Test

Notes:
(a) Samples collected in 2013 were analyzed by K-Prime, Inc. of Santa Rosa, California, (1) Organochlorine pesticides by EPA Method 8081 and (2) arsenic and lead by EPA Method 6020. All other samples were collected by Kleinfelder (2005).
(b) Concentrations shown in **bold** exceed exceed the CHHSL for shallow soils for commercial land use. Concentrations shown in *italics* exceed one or more hazardous waste screening criteria.
(c) Results are shown on a dry weight basis.
(d) Total Threshold Limit Concentration (TTLC) values (California Code of Regulations (CCR), Title 22, Article 3, Table II).
(e) Ten times (10x) the STLC values. If a compound is present at concentrations that exceed ten times the STLC, the compound may exceed the STLC if the sample is subjected to the WET.
(f) Twenty times (20x) the RCRA regulatory level values. If a compound is present at concentrations that exceed twenty times the RCRA regulatory level, the concentration of a compound may exceed RCRA hazardous waste criteria if the sample is subjected to the TCLP.
(g) Cal-EPA CHHSL - Table 1. California Human Health Screening Levels for Soil and Comparison to Other Potential Environmental Concerns (Cal-EPA, 2005).
(h) The residential and commercial/industrial CHHSLs for arsenic are less than the typical background concentration in soil. The value shown is from Scott (1995) and represents an upper-bound background concentration for arsenic for northern Santa Clara County.

References:
Cal-EPA, 2005. *California Human Health Screening Levels ("CHHSLs"), Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties,* California EPA, Department of Toxic Substances Control, January 2005.
Kleinfelder, 2005. *Facility Closure Observation Report, Applied Materials Augustine Campus, Santa Clara, California,* Kleinfelder, 8 March 2005.
Scott, C.M. 1995. *Background Metal Concentrations in Soils in Northern Santa Clara County, California in: Recent Geological Studies in the San Francisco Bay Area* , Pacific Section of the Society of Economic Paleontologists and Mineralogists, Volume 76.

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TABLE 4
SUMMARY OF BASE ROCK SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Sample ID (a)	Sample Date	Sample Depth (ft bgs)	Sample Type	Analytical Results (a, b, c)					
				Metals (mg/kg)					Asbestos (%)
				Chromium	Cobalt	Magnesium	Nickel	Vanadium	
NSVP4-BR	3/22/2013	0-0.5	base rock	***57.9***	25.5	23,700	42.4	134	<0.25
NSVP1-BR	3/22/2013	0-0.5	base rock	21.6	8.24	6,100	35.9	30.2	<0.25
SSVP14-BR	3/23/2013	0-0.5	base rock	***63.5***	26.7	24,900	45.5	138	<0.25
SSVP12-BR	3/23/2013	0-0.5	base rock	***58.6***	30.6	23,000	39.6	131	<0.25
SSVP11-BR	3/23/2013	0-0.5	base rock	*51.4*	36.7	22,200	40.0	121	<0.25
SGW3-BR	3/24/2013	0-0.5	base rock	***64.4***	22.8	21,400	43.6	121	<0.25
Soil Screening Criteria									
Hazardous Waste Criteria (TTLC) (d)				**2,500**	**8,000**	**na**	**2,000**	**2,400**	**1**
Hazadous Waste Criteria (10X STLC) (e)				**50**	**800**	**na**	**200**	**240**	**na**
Hazadous Waste Criteria (20X RCRA Regulatory Level) (f)				**100**	**na**	**na**	**na**	**na**	**na**
Cal-EPA CHHSLs, Residential Land Use (g)				**17 / 100,000 (h)**	**660**	**na**	**1,600**	**530**	**na**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (g)				**37/ 100,000 (h)**	**3,200**	**na**	**16,000**	**6,700**	**na**

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Abbreviations:

<0.50 - Compound not detected at or above indicated laboratory reporting limit
Cal-EPA - California Environmental Protection Agency
CHHSL - California Human Health Screening Level
ft bgs - feet below ground surface
mg/kg - milligrams per kilogram
na - not available
ND - not detected
RCRA - Resource Conservation and Recovery Act
STLC - Soluble Threshold Limit Concentration
TCLP - Toxicity Characteristic Leaching Procedure
TTLC - Total Threshold Limit Concentration
WET - Waste Extraction Test

TABLE 4
SUMMARY OF BASE ROCK SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Notes:

(a) Samples were analyzed by K-Prime, Inc. of Santa Rosa, California, or their subcontractor, for the following: (1) metals by EPA Method 6020 and (2) asbestos by CARB 435.

(b) Concentrations shown in **bold** exceed exceed the commericial/industrial CHHSL for shallow soils. Concentrations shown in *italics* exceed one or more hazardous waste screening criteria.

(c) Results are shown on a dry weight basis.

(d) Total Threshold Limit Concentration (TTLC) values (California Code of Regulations (CCR), Title 22, Article 3, Table II).

(e) Ten times (10x) the STLC values. If a compound is present at concentrations that exceed ten times the STLC, the compound may exceed the STLC if the sample is subjected to the WET.

(f) Twenty times (20x) the RCRA regulatory level values. If a compound is present at concentrations that exceed twenty times the RCRA regulatory level, the concentration of a compound may exceed RCRA hazardous waste criteria if the sample is subjected to the TCLP.

(g) Cal-EPA CHHSL - Table 1. California Human Health Screening Levels for Soil and Comparison to Other Potential Environmental Concerns (Cal-EPA, 2005).

(h) Chromium VI/ Chromium III

References:

Cal-EPA, 2005. *California Human Health Screening Levels ("CHHSLs"), Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties,* California EPA, Department of Toxic Substances Control, January 2005.

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TABLE 1
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Depth (feet below baserock)	Sample Type	Analytical Results (a, b, c)																
					Organochlorine Pesticides (mg/kg)															Metals (mg/kg)	
					4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Aldrin	alpha-Chlordane	gamma-Chlordane	Chlordane	Dieldrin	Endosulfan I	Endrin	Endrin aldehyde	Heptachlor	Heptachlor epoxide	Other Pesticides	Arsenic	Lead
SCTC Phase I (Northern Portion)																					
N1N2CompA	3/22/2013	1-2	0.5-1.25	composite	<0.012	<0.012	<0.012	ND	<0.006	--	--	<0.060	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	7.09	9.71
N1N2CompB	3/22/2013	3-4	2.5-3.25	composite	<0.0119	<0.0119	<0.0119	ND	<0.006	--	--	<0.059	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	7.09	7.68
N3N4CompA	3/22/2013	1-2	0.5-1.0	composite	0.346	0.636	0.0695	*1.05*	<0.006	--	--	<0.063	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	**23.1**	*76.2*
N3N4CompB	3/22/2013	3-4	2.5-3.5	composite	0.0236	<0.0124	<0.0124	0.0236	<0.006	--	--	<0.006	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	6.79	11.4
N5N6CompA	3/22/2013	1-2	0.5-1.25	composite	0.0342	<0.0124	<0.0124	0.0342	<0.006	--	--	<0.062	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	7.34	15.1
N5N6CompB	3/22/2013	3-4	2.5-3.25	composite	<0.0123	<0.0123	<0.0123	ND	<0.006	--	--	<0.061	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	5.17	9.22
N7N8CompA	3/22/2013	1-2	0.5-1.25	composite	1.57	1.33	0.483	*3.38*	<0.006	--	--	<0.061	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	**31.6**	*55.6*
N7N8CompB	3/22/2013	3-4	2.5-3.25	composite	0.0912	<0.012	<0.012	0.091	<0.006	--	--	<0.060	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	10.9	14.2
NSS17-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	1.60	0.31	<0.071	*1.91*	<0.036	<0.036	<0.036	--	**0.210**	<0.036	<0.071	<0.071	<0.036	<0.036	ND	**30**	--
NSS17-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	***74***	--
NSS18-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	0.44	0.11	0.024 J	0.574	<0.018	0.0089 J	0.0050 J	--	0.056	<0.018	<0.035	<0.035	<0.018	<0.018	ND	15	--
NSS18-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--
NSS19-1.5-2	5/31/2013	1.5-2	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**24**	--
NSS19-3-3.5	5/31/2013	3-3.5	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**38**	--
NSS20-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	5.3	<0.038	0.047	*5.35*	<0.02	0.043	<0.02	--	**0.500**	0.0067	<0.038	<0.038	<0.02	<0.02	ND	**46**	--
NSS20-2-2.5	5/31/2013	2-2.5	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**29**	--
NSS20-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15	--
NSS21-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13	--
NSS21-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.4	--
NSS22-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**38**	--
NSS22-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**33**	--
NSS23-2-2.5	5/31/2013	2-2.5	0-0.5	discrete	2.0	0.064	0.21	*2.27*	<0.019	0.0092 J	<0.019	--	0.036 J	<0.019	<0.036	<0.036	<0.019	<0.019	ND	**31**	--
NSS23-3-3.5	5/31/2013	3-3.5	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**33**	--
NSS23-3.5-4	5/31/2013	3.5-4	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13	--
NSS24-1.25-1.75	5/31/2013	1.25-1.75	0-0.5	discrete	0.011	<0.0035	0.010	0.021	<0.001	<0.001	0.00044 J	--	<0.003	<0.001	<0.003	<0.003	<0.001	<0.001	ND	10	--
NSS24-2.75-3.25	5/31/2013	2.75-3.25	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.2	--
NSS25-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.4	--
NSS25-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13	--
NSS26-1.5-2	5/31/2013	1.5-2	0-0.5	discrete	0.15	0.048	0.046	0.244	<0.009	0.0031 J	0.056 J	--	0.026	<0.091	0.0056 J	<0.018	<0.009	0.0015 J	ND	13	--
NSS26-3-3.5	5/31/2013	3-3.5	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16	--
NSS27-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.5	--
NSS27-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	***91***	--
NSS28-0.7-1.2	5/31/2013	0.7-1.2	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16	--
NSS28-2.3-2.8	5/31/2013	2.3-2.8	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.8	--
Soil Screening Criteria																					
Hazadous Waste Criteria (TTLC) (d)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**500**	**1,000**
Hazadous Waste Criteria (10X STLC) (e)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**50**	**50**
Hazadous Waste Criteria (20X RCRA Regulatory Level) (f)					**na**	**na**	**na**	**na**	**na**	**0.60**		**0.60**	**na**	**na**	**0.4**	**na**	**0.16**	**0.16**	**na**	**100**	**100**
Cal-EPA CHHSLs, Residential Land Use (g)					**1.6**	**2.3**	**1.6**	**na**	**0.033**	**0.43**		**0.43**	**0.035**	**na**	**21**	**21 (h)**	**0.13**	**na**	**na**	**17 (i)**	**80**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (g)					**6.3**	**9.0**	**6.3**	**na**	**0.13**	**1.7**		**1.7**	**0.13**	**na**	**230**	**230 (h)**	**0.52**	**na**	**na**	**17 (i)**	**320**
NSS29-0.5-1	6/1/2013	0.5-1	0-0.5	discrete	1.4	0.087	0.040	*1.53*	<0.001	0.010	<0.001	--	0.059	<0.001	<0.003	<0.003	<0.001	<0.001	ND	**19**	--

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TABLE 1
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Depth (feet below baserock)	Sample Type	Analytical Results (a, b, c)																
					Organochlorine Pesticides (mg/kg)															Metals (mg/kg)	
					4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Aldrin	alpha-Chlordane	gamma-Chlordane	Chlordane	Dieldrin	Endosulfan I	Endrin	Endrin aldehyde	Heptachlor	Heptachlor epoxide	Other Pesticides	Arsenic	Lead
NSS29-2-2.5	6/1/2013	2-2.5	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.8	--
NSS30-1.25-1.75	5/31/2013	1.25-1.75	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.3	--
NSS30-2.75-3.25	5/31/2013	2.75-3.25	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.8	--
NSS31-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	0.12	0.028	0.0041	0.152	<0.001	0.0012 J	<0.001	--	<0.003	<0.001	<0.003	<0.003	<0.001	<0.001	ND	6.4	--
NSS31-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.3	--
NSS32-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.5	--
NSS32-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.9	--
NSS33-1-1.5	5/31/2013	1-1.5	0-0.5	discrete	1.4	0.055	0.014 J	*1.47*	<0.019	0.011 J	<0.019	--	0.110	0.0018 J	<0.037	<0.037	<0.019	<0.019	ND	**23**	--
NSS33-2-2.5	5/31/2013	2.0-2.5	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11	--
NSS33-2.5-3	5/31/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13	--
NSS34-1.25-1.75	5/31/2013	1.25-1.75	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**30**	--
NSS34-2.25-2.75	5/31/2013	2.25-2.75	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**23**	--
NSS34-2.75-3.25	5/31/2013	2.75-3.25	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.4	--
SB7-1@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.6	14
SB7-2@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**26**	*100*
SB7-3@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	11
SB7-4@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**44**	*210*
SB7-5@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**33**	*160*
SB7-6@3.5	8/2004	3.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	6.8
SB7-9@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**33**	35
SB7-10@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	5.8
SB7-11@1	8/2004	1	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**41**	190
SB712@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.6	87
SB7-13@1	8/2004	1	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**36**	70
SB7-14@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**30**	180
SB7-15@3	8/2004	3	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	6.6
SB7-16@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	23
SB8-1@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	21
SB8-2@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**26**	*75*
SB8-3@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**23**	*150*
SB8-4@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**32**	*130*
SB8-5@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**21**	***540***
SB8-10@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15	*120*
Soil Screening Criteria																					
Hazadous Waste Criteria (TTLC) (d)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**500**	**1,000**
Hazadous Waste Criteria (10X STLC) (e)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**50**	**50**
Hazadous Waste Criteria (20X RCRA Regulatory Level) (f)					**na**	**na**	**na**	**na**	**na**	**0.60**		**0.60**	**na**	**na**	**0.4**	**na**	**0.16**	**0.16**	**na**	**100**	**100**
Cal-EPA CHHSLs, Residential Land Use (g)					**1.6**	**2.3**	**1.6**	**na**	**0.033**	**0.43**		**0.43**	**0.035**	**na**	**21**	**21 (h)**	**0.13**	**na**	**na**	**17 (i)**	**80**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (g)					**6.3**	**9.0**	**6.3**	**na**	**0.13**	**1.7**		**1.7**	**0.13**	**na**	**230**	**230 (h)**	**0.52**	**na**	**na**	**17 (i)**	**320**

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TABLE 1
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Depth (feet below baserock)	Sample Type	Analytical Results (a, b, c)																
					Organochlorine Pesticides (mg/kg)															Metals (mg/kg)	
					4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Aldrin	alpha-Chlordane	gamma-Chlordane	Chlordane	Dieldrin	Endosulfan I	Endrin	Endrin aldehyde	Heptachlor	Heptachlor epoxide	Other Pesticides	Arsenic	Lead
SB8-11@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**34**	*170*
SB9-1@0.5	8/2004	0.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	*110*
SB9-2@2	8/2004	2	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8	***367***
SB9-3@5.5	8/2004	5.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	16
SB9-4@2	8/2004	2	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**30**	*120*
SB9-5@2	8/2004	2	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17	72
SB9-6@1.5	8/2004	1.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**32**	*190*
SB9-7@2	8/2004	2	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**27**	*180*
SB9-8@10	8/2004	10	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	15
SB9-11@7.5	8/2004	7.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	16
SB9-14@2	8/2004	2	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**21**	*100*
SB9-15@5.5	8/2004	5.5	na	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	17
SCTC Phase II (Southern Portion)																					
S10S11CompA	3/23/2013	1-1.5	0.25-1.0	composite	<0.0124	<0.0124	<0.0124	ND	<0.006	--	--	<0.061	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	5.44	10.8
S10S11CompB	3/23/2013	3-3.5	2.25-3.0	composite	<0.012	<0.012	<0.012	ND	<0.006	--	--	<0.059	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	4.07	5.5
S12S13CompA	3/23/2013	1-1.5	0.25-0.75	composite	0.178	<0.0114	<0.0114	0.178	<0.006	--	--	<0.056	<0.011	<0.006	<0.011	<0.011	<0.006	<0.006	ND	7.31	12.6
S12S13CompB	3/23/2013	3-3.5	2.25-2.75	composite	<0.0122	<0.0122	<0.0122	ND	<0.006	--	--	<0.060	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	3.41	11.6
S14S15CompA	3/23/2013	1-2	0.25-1.25	composite	2.76	2.87	0.256	*5.89*	<0.006	--	--	<0.061	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	**43.7**	*287*
S14S15CompB	3/23/2013	3-4	2.25-3.25	composite	0.0603	<0.0124	<0.0124	0.0603	<0.006	--	--	<0.062	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	**22.5**	17.2
S16GW5CompA	3/24/2013	1-2.5	0.25-2.0	composite	0.96	0.494	0.0909	*1.54*	<0.006	--	--	<0.064	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	***57.2***	***177***
S16GW5CompB	3/24/2013	3-4.5	2.25-4.0	composite	<0.0124	<0.0124	<0.0124	ND	<0.006	--	--	<0.062	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	4.52	9.28
S9GW1CompA	3/24/2013	1-2	0.5-1.0	composite	0.0305	<0.0123	<0.0123	0.0305	<0.006	--	--	<0.061	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	7.49	13.8
S9GW1CompB	3/24/2013	3-4	2.5-3.0	composite	<0.012	<0.012	<0.012	ND	<0.006	--	--	<0.060	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	3.17	6.27
GW2GW3CompA	3/24/2013	1-2	0.25-1.25	composite	0.0163	<0.0126	<0.0126	0.0163	<0.006	--	--	<0.063	<0.012	<0.006	<0.013	<0.013	<0.006	<0.006	ND	**28**	13.4
GW2GW3CompB	3/24/2013	3-4	2.25-3.25	composite	<0.0121	<0.0121	<0.0121	ND	<0.006	--	--	<0.060	<0.012	<0.006	<0.012	<0.012	<0.006	<0.006	ND	7.4	7.0
SSS35-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	0.12	<0.0036	<0.005	0.12	<0.001	<0.001	<0.001	--	0.00053 J	<0.001	<0.003	<0.003	<0.001	<0.001	ND	11	--
SSS35-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0	--
SSS36-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	0.41	0.025	0.0069	0.442	<0.001	0.0025	<0.001	--	0.016	<0.001	<0.003	0.0016 J	<0.001	<0.001	ND	14	--
SSS36-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.4	--
SSS37-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	2.7	0.057 J	0.026	*2.73*	<0.001	0.054	<0.001	--	**0.160**	0.0010	<0.003	<0.003	0.00041 J	<0.001	ND	**42**	--
SSS37-1.75-2.25	6/1/2013	1.75-2.25	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**31**	--
SSS37-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.3	--
SSS38-1-1.5	6/1/2013	1-1.5	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**32**	--
SSS38-2-2.5	6/1/2013	2.0-2.5	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.9	--
SSS38-2.5-3	6/1/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.5	--
Soil Screening Criteria																					
Hazadous Waste Criteria (TTLC) (d)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**500**	**1,000**
Hazadous Waste Criteria (10X STLC) (e)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**50**	**50**
Hazadous Waste Criteria (20X RCRA Regulatory Level) (f)					**na**	**na**	**na**	**na**	**na**	**0.60**		**0.60**	**na**	**na**	**0.4**	**na**	**0.16**	**0.16**	**na**	**100**	**100**
Cal-EPA CHHSLs, Residential Land Use (g)					**1.6**	**2.3**	**1.6**	**na**	**0.033**	**0.43**		**0.43**	**0.035**	**na**	**21**	**21 (h)**	**0.13**	**na**	**na**	**17 (i)**	**80**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (g)					**6.3**	**9.0**	**6.3**	**na**	**0.13**	**1.7**		**1.7**	**0.13**	**na**	**230**	**230 (h)**	**0.52**	**na**	**na**	**17 (i)**	**320**

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TABLE 1
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Depth (feet below baserock)	Sample Type	Analytical Results (a, b, c)																
					Organochlorine Pesticides (mg/kg)															Metals (mg/kg)	
					4,4'-DDE	4,4'-DDD	4,4'-DDT	Sum of 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT	Aldrin	alpha-Chlordane	gamma-Chlordane	Chlordane	Dieldrin	Endosulfan I	Endrin	Endrin aldehyde	Heptachlor	Heptachlor epoxide	Other Pesticides	Arsenic	Lead
SSS39-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	0.57	0.068	0.0063	0.646	0.0080 J	0.0079	<0.001	--	0.037	0.0013 J	<0.003	0.0056	<0.001	<0.001	ND	***100***	--
SSS39-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	***61***	--
SSS40-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	***62***	--
SSS40-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**30**	--
SSS41-1-1.5	6/1/2013	1-1.5	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.8	--
SSS41-2.5-3	6/1/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.2	--
SSS42-0.75-1.25	6/1/2013	0.75-1.25	0-0.5	discrete	2.5	0.077	0.92	*3.50*	<0.001	0.023	<0.001	--	0.013	0.0017 J	0.0022 J	0.0024 J	<0.001	<0.001	ND	***85***	--
SSS42-1.75-2.25	5/31/2013	1.75-2.25	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**36**	--
SSS42-2.25-2.75	6/1/2013	2.25-2.75	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.5	--
SSS43-1-1.5	6/1/2013	1-1.5	0-0.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	***70***	--
SSS43-2-2.5	5/31/2013	2.0-2.5	1.0-1.5	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**35**	--
SSS43-2.5-3	6/1/2013	2.5-3	1.5-2.0	discrete	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15	--
Soil Screening Criteria																					
Hazadous Waste Criteria (TTLC) (d)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**500**	**1,000**
Hazadous Waste Criteria (10X STLC) (e)					**na**	**na**	**na**	**1**	**1.4**	**2.5**		**2.5**	**8**	**na**	**0.2**	**na**	**4.7**	**4.7**	**na**	**50**	**50**
Hazadous Waste Criteria (20X RCRA Regulatory Level) (f)					**na**	**na**	**na**	**na**	**na**	**0.60**		**0.60**	**na**	**na**	**0.4**	**na**	**0.16**	**0.16**	**na**	**100**	**100**
Cal-EPA CHHSLs, Residential Land Use (g)					**1.6**	**2.3**	**1.6**	**na**	**0.033**	**0.43**		**0.43**	**0.035**	**na**	**21**	**21 (h)**	**0.13**	**na**	**na**	**17 (i)**	**80**
Cal-EPA CHHSLs, Commercial/ Industrial Land Use (g)					**6.3**	**9.0**	**6.3**	**na**	**0.13**	**1.7**		**1.7**	**0.13**	**na**	**230**	**230 (h)**	**0.52**	**na**	**na**	**17 (i)**	**320**

Abbreviations:

-- - not analyzed
<0.50 - Compound not detected at or above indicated laboratory reporting limit
4,4'-DDD - 4,4'-Dichlorodiphenyldichloroethane
4,4'-DDE - 4,4'-Dichlorodiphenyldichloroethylene
4,4'-DDT - 4,4'-Dichlorodiphenyltrichloroethane
Cal-EPA - California Environmental Protection Agency
CHHSL - California Human Health Screening Level
DTSC - Department of Toxic Substances Control
ft bgs - feet below ground surface
J - Estimated Value
mg/kg - milligrams per kilogram
na - not available
ND - not detected
RCRA - Resource Conservation and Recovery Act
STLC - Soluble Threshold Limit Concentration
TCLP - Toxicity Characteristic Leaching Procedure
TTLC - Total Threshold Limit Concentration
U.S. EPA - United States Environmental Protection Agency
WET - Waste Extraction Test

Notes:

(a) Samples were analyzed by K-Prime, Inc. of Santa Rosa, California or Curtis & Tompkins of Berkeley, California for (1) organochlorine pesticides by EPA Method 8081 and (2) arsenic and lead by EPA Method 6020.
(b) Concentrations shown in **bold** exceed respective environmental screening levels (CHHSLs for commercial/industrial land use). Concentrations shown in *italics* exceed one or more hazardous waste screening criteria.
(c) Results are shown on a dry weight basis.
(d) Total Threshold Limit Concentration (TTLC) values (California Code of Regulations (CCR), Title 22, Article 3, Table II).
(e) Ten times (10x) the STLC values. Soluble Threshold Limit Concentrations (STLC) values (California Code of Regulations (CCR), Title 22, Article 3, Table II). STLC values are used to identify California hazardous wastes. If a compound is present at concentrations that exceed ten times the STLC, the compound may exceed the STLC if the sample is subjected to the Waste Extraction Test ("WET").
(f) Twenty times (20x) the RCRA regulatory level values. If a compound is present at concentrations that exceed twenty times the RCRA regulatory level, the concentration of a compound may exceed RCRA hazardous waste criteria if the sample is subjected to the TCLP.
(g) Cal-EPA CHHSL - Table 1. California Human Health Screening Levels for Soil and Comparison to Other Potential Environmental Concerns (Cal-EPA, 2010).
(h) Environmental screening levels for endrin is used; endrin aldehyde is a breakdown product of endrin.
(i) Environmental screening levels (CHHSLs and RSLs) for arsenic are less than the typical background concentration in soil. The value shown is from EKI (2011) and represents an upper-bound background concentration for arsenic for a nearby site and was agreed upon by DTSC as the appropriate screening level for the subject property.

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TABLE 1
SUMMARY OF SHALLOW SOIL SAMPLE ANALYTICAL RESULTS
Santa Clara Technology Campus
Santa Clara, CA

References:
Cal-EPA, 2010. California Human Health Screening Levels ("CHHSLs"), Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, California EPA, Department of Toxic Substances Control (Updated September 2010).
EKI, 2011. Memorandum to Alex Lee and Mark Piros of DSTC, *Morse Avenue Background Arsenic in Soil* , Erler & Kalinowski, Inc., 12 April 2011.
EKI, 2013. Results of Phase II Subsurface Investigation, Santa Clara Technology Campus, Bowers Avenue, Augustine Drive, and Scott Boulevard, Santa Clara, California, Erler & Kalinowski, Inc., 21 June 2013.
Kleinfelder, 2005. Facility Closure Observation Report, Applied Materials Augustine Campus, Santa Clara, California, Kleinfelder, 8 March 2005.
U.S. EPA, 2013. Regional Screening Level (RSL) Summary Table May 2013, United States Environmental Protection Agency, May 2013.

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APPENDIX I

Groundwater Elevation Data

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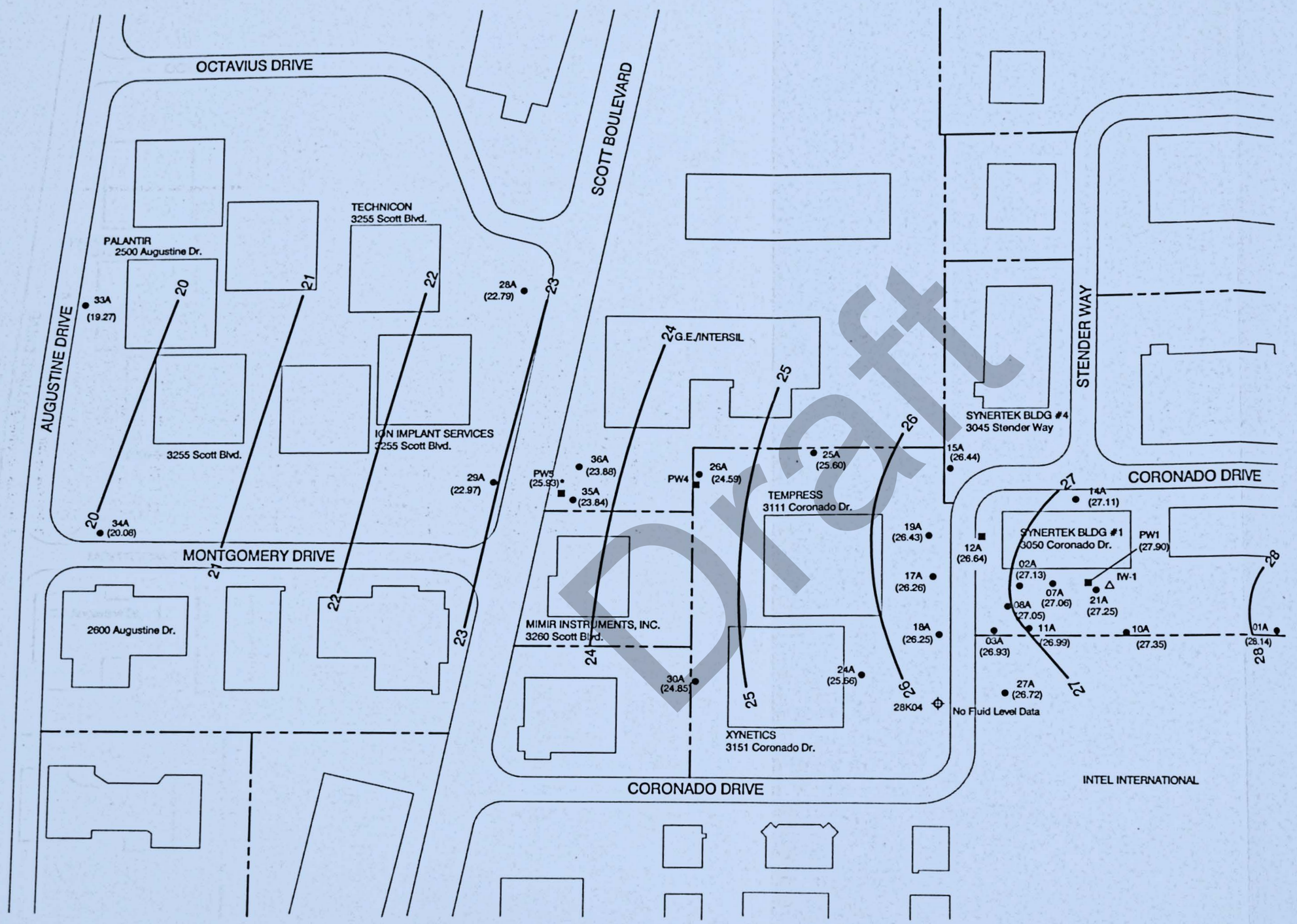

LEGEND

- ● A - AQUIFER MONITORING WELL
- ■ A - AQUIFER EXTRACTION WELL
- ⊕ FORMER AGRICULTURAL WELL
- △ INJECTION WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- (NM) NOT MONITORED
- • DATA NOT USED FOR CONTOURING

N

0 FEET 200
SCALE

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FIGURE A1
POTENTIOMETRIC SURFACE MAP
A-AQUIFER (3/8/04)
HONEYWELL, INC.
Synertek Building #1
3050 Coronado Drive
Santa Clara, California

M:Honeywell/fig_2004/2004-figa1.dwg

CH2MHILL

Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
Shell Station Monitoring Wells (West of Site) (b)			
MW-1 (TOC: 28.37 ft MSL)	12/8/2003	7.77	20.60
	12/15/2003	7.67	20.70
	3/4/2004	7.15	21.22
	5/27/2004	7.69	20.68
	9/2/2004	7.92	20.45
	12/16/2004	7.79	20.58
	3/7/2005	6.88	21.49
	6/15/2005	7.59	20.78
	9/8/2005	7.65	20.72
	12/8/2005	7.73	20.64
	3/1/2006	7.27	21.10
MW-2 (TOC: 29.46 ft MSL)	12/8/2003	8.43	21.03
	12/15/2003	8.31	21.15
	3/4/2004	7.75	21.71
	5/27/2004	8.42	21.04
	9/2/2004	8.59	20.87
	12/16/2004	8.44	21.02
	3/7/2005	7.48	21.98
	6/15/2005	6.27	23.19 (c)
	9/8/2005	8.30	21.16
	12/8/2005	8.42	21.04
	3/1/2006	7.91	21.55
MW-3 (TOC: 28.14 ft MSL)	12/8/2003	7.12	21.02
	12/15/2003	7.10	21.04
	3/4/2004	6.65	21.49
	5/27/2004	7.04	21.10
	9/2/2004	7.20	20.94
	12/16/2004	7.09	21.05
	3/7/2005	6.57	21.57
	6/15/2005	6.94	21.20
	9/8/2005	7.11	21.03
	12/8/2005	7.04	21.10
	3/1/2006	6.70	21.44
Synertek NPL Site Monitoring Wells (East of Site) (d)			
MW-28A (TOC: 31.34 ft MSL)	12/18/1987	11.37	19.97
	1/7/1988	8.31	23.03
	1/12/1988	11.29	20.05
	1/22/1988	10.93	20.41
	3/22/1988	11.41	19.93
	6/24/1988	11.15	20.19
	9/26/1988	10.99	20.35
	12/12/1988	12.12	19.22
	3/29/1989	12.05	19.29
	8/21/1989	11.25	20.09

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Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
MW-28A (TOC: 31.34 ft MSL)	9/28/1989	11.05	20.29
	12/8/1989	11.61	19.73
	3/8/1990	11.45	19.89
	6/8/1990	11.06	20.28
	9/8/1990	11.60	19.74
	12/8/1990	12.21	19.13
	3/9/1991	11.30	20.04
	6/1/1991	11.63	19.71
	8/3/1991	11.83	19.51
	11/8/1991	11.92	19.42
	3/10/1992	10.11	21.23
	5/26/1992	11.09	20.25
	8/25/1992	11.15	20.19
	11/12/1992	11.76	19.58
	2/11/1993	10.06	21.28
	5/13/1993	10.28	21.06
	8/25/1993	10.62	20.72
	11/10/1993	10.97	20.37
	2/10/1994	10.35	20.99
	5/6/1994	10.05	21.29
	9/6/1994	10.52	20.82
	11/8/1994	10.62	20.72
	2/21/1995	10.05	21.29
	5/17/1995	9.15	22.19
	8/15/1995	9.82	21.52
	11/17/1995	10.55	20.79
	2/16/1996	9.68	21.66
	5/22/1996	9.17	22.17
	8/18/1996	10.46	20.88
	11/6/1996	10.00	21.34
	1/20/1997	8.70	22.64
	7/22/1997	9.66	21.68
	1/20/1998	9.00	22.34
	7/14/1998	9.32	22.02
	2/1/1999	9.09	22.25
	7/12/1999	9.80	21.54
	1/4/2000	9.72	21.62
	8/28/2000	9.62	21.72
	3/26/2001	8.70	22.64
	6/13/2001	9.26	22.08
	9/27/2001	9.45	21.89
	12/11/2001	9.00	22.34
	4/3/2002	9.02	22.32
	7/16/2002	9.75	21.59
	10/2/2002	9.75	21.59

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Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
MW-28A (TOC: 31.34 ft MSL)	1/8/2003	8.62	22.72
	7/8/2003	8.89	22.45
	9/4/2003	9.37	21.97
	3/8/2004	8.55	22.79
	9/2/2004	9.73	21.61
	5/23/2005	8.59	22.75
	9/15/2005	9.50	21.84
	9/20/2006	9.70	21.64
	11/1/2006	9.78	21.56
	6/4/2007	9.49	21.85
	11/8/2007	10.48	20.86
	6/25/2008	10.32	21.02
	11/20/2008	10.60	20.74
	6/2/2009	10.09	21.25
	12/2/2009	10.24	21.10
	6/21/2010	9.60	21.74
	12/1/2010	9.68	21.66
	6/21/2011	9.27	22.07
	11/3/2011	10.11	21.23
	5/15/2012	9.08	22.26
	10/18/2012	9.95	21.39
	5/2/2013	9.68	21.66
MW-29A (TOC: 29.71 ft MSL)	12/18/1987	9.64	20.07
	1/7/1988	9.57	20.14
	1/12/1988	9.64	20.07
	1/22/1988	9.22	20.49
	3/22/1988	9.55	20.16
	6/24/1988	9.28	20.43
	9/26/1988	9.26	20.45
	12/12/1988	10.31	19.40
	3/29/1989	10.38	19.33
	8/21/1989	9.38	20.33
	9/28/1989	9.20	20.51
	12/8/1989	9.77	19.94
	3/8/1990	9.63	20.08
	6/8/1990	9.36	20.35
	9/8/1990	9.88	19.83
	12/8/1990	10.45	19.26
	3/9/1991	9.65	20.06
	6/1/1991	9.86	19.85
	8/3/1991	10.15	19.56
	11/8/1991	10.16	19.55
	3/10/1992	8.28	21.43
	5/26/1992	9.28	20.43
	8/25/1992	9.41	20.30

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Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
MW-29A (TOC: 29.71 ft MSL)	11/12/1992	10.02	19.69
	2/11/1993	8.45	21.26
	5/13/1993	8.42	21.29
	8/25/1993	8.65	21.06
	11/10/1993	9.32	20.39
	2/10/1994	8.76	20.95
	5/6/1994	8.48	21.23
	9/6/1994	8.78	20.93
	11/8/1994	9.07	20.64
	2/21/1995	8.48	21.23
	5/17/1995	7.23	22.48
	8/15/1995	8.18	21.53
	11/17/1995	10.75	18.96
	2/12/1996	7.92	21.79
	5/22/1996	7.35	22.36
	8/18/1996	8.57	21.14
	11/6/1996	8.27	21.44
	1/20/1997	6.90	22.81
	7/22/1997	7.82	21.89
	1/20/1998	7.17	22.54
	7/14/1998	7.52	22.19
	2/1/1999	7.30	22.41
	7/12/1999	7.95	21.76
	1/4/2000	8.11	21.60
	8/28/2000	7.80	21.91
	3/26/2001	6.85	22.86
	6/13/2001	7.40	22.31
	9/27/2001	7.60	22.11
	12/11/2001	7.20	22.51
	4/3/2002	7.21	22.50
	7/16/2002	7.80	21.91
	10/2/2002	7.83	21.88
	1/8/2003	6.72	22.99
	7/8/2003	6.85	22.86
	9/4/2003	7.42	22.29
	3/8/2004	6.74	22.97
	9/2/2004	7.80	21.91
	5/23/2005	6.74	22.97
	9/15/2005	7.60	22.11
	9/20/2006	7.72	21.99
	11/1/2006	7.89	21.82
	6/4/2007	7.56	22.15
	11/8/2007	8.53	21.18
	6/25/2008	8.28	21.43
	11/20/2008	8.67	21.04

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Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
MW-29A (TOC: 29.71 ft MSL)	6/2/2009	8.14	21.57
	12/2/2009	8.39	21.32
	6/21/2010	7.66	22.05
	12/1/2010	7.81	21.90
	6/21/2011	7.44	22.27
	11/3/2011	8.32	21.39
	5/15/2012	7.24	22.47
	10/17/2012	8.09	21.62
	5/2/2013	7.84	21.87
MW-33A (TOC: 26.99 ft MSL)	12/18/1987	10.03	16.96
	1/7/1988	10.01	16.98
	1/12/1988	10.10	16.89
	1/22/1988	9.52	17.47
	3/22/1988	9.91	17.08
	6/24/1988	9.54	17.45
	9/26/1988	9.70	17.29
	12/12/1988	10.54	16.45
	3/29/1989	10.61	16.38
	6/23/1989	10.26	16.73
	8/21/1989	9.67	17.32
	9/28/1989	9.44	17.55
	12/8/1989	11.59	15.40
	3/8/1990	10.02	16.97
	6/8/1990	9.78	17.21
	9/8/1990	9.97	17.02
	12/8/1990	10.73	16.26
	3/9/1991	9.75	17.24
	6/1/1991	10.23	16.76
	8/3/1991	10.41	16.58
	11/8/1991	10.21	16.78
	3/10/1992	8.90	18.09
	5/26/1992	9.75	17.24
	8/25/1992	9.93	17.06
	11/12/1992	10.32	16.67
	2/11/1993	9.05	17.94
	5/13/1993	9.22	17.77
	8/25/1993	9.39	17.60
	11/10/1993	9.92	17.07
	2/10/1994	9.05	17.94
	5/6/1994	8.88	18.11
	9/6/1994	9.43	17.56
	11/8/1994	9.66	17.33
	2/21/1995	8.88	18.11
	5/17/1995	8.19	18.80
	8/15/1995	8.87	18.12

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Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
MW-33A (TOC: 26.99 ft MSL)	11/17/1995	9.45	17.54
	2/16/1996	8.53	18.46
	5/22/1996	8.27	18.72
	8/18/1996	9.08	17.91
	11/6/1996	8.90	18.09
	1/20/1997	7.84	19.15
	7/22/1997	8.66	18.33
	1/20/1998	7.90	19.09
	7/14/1998	8.25	18.74
	2/1/1999	8.12	18.87
	7/12/1999	8.57	18.42
	1/4/2000	8.83	18.16
	8/28/2000	8.30	18.69
	3/26/2001	7.85	19.14
	6/13/2001	8.10	18.89
	9/27/2001	8.45	18.54
	12/11/2001	8.12	18.87
	4/3/2002	8.10	18.89
	7/16/2002	8.52	18.47
	10/2/2002	8.54	18.45
	1/8/2003	7.78	19.21
	7/8/2003	7.99	19.00
	9/4/2003	8.27	18.72
	3/8/2004	7.72	19.27
	9/2/2004	8.52	18.47
	5/23/2005	7.86	19.13
	9/15/2005	8.33	18.66
	9/20/2006	8.52	18.47
	11/1/2006	8.78	18.21
	6/4/2007	8.45	18.54
	11/8/2007	9.30	17.69
	6/25/2008	8.96	18.03
	11/20/2008	9.30	17.69
	6/2/2009	8.76	18.23
	12/2/2009	8.90	18.09
	6/21/2010	8.55	18.44
	12/1/2010	8.61	18.38
	6/21/2011	8.38	18.61
	11/3/2011	9.20	17.79
	5/15/2012	8.43	18.56
	10/18/2012	8.96	18.03
	5/2/2013	8.52	18.20

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Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
MW-34 (TOC: 27.62 ft MSL)	12/18/1987	9.81	17.81
	1/7/1988	9.75	17.87
	1/12/1988	9.85	17.77
	1/22/1988	9.33	18.29
	3/22/1988	9.74	17.88
	6/24/1988	9.29	18.33
	9/26/1988	9.47	18.15
	12/12/1988	10.17	17.45
	3/29/1989	10.38	17.24
	6/23/1989	9.92	17.70
	8/21/1989	9.40	18.22
	9/28/1989	9.44	18.18
	12/8/1989	10.23	17.39
	3/8/1990	9.72	17.90
	6/8/1990	9.51	18.11
	9/8/1990	9.75	17.87
	12/8/1990	10.42	17.20
	3/9/1991	9.51	18.11
	6/1/1991	9.73	17.89
	8/3/1991	10.16	17.46
	11/8/1991	10.18	17.44
	3/10/1992	8.63	18.99
	5/26/1992	9.50	18.12
	8/25/1992	9.68	17.94
	11/12/1992	10.05	17.57
	2/11/1993	8.70	18.92
	5/13/1993	8.91	18.71
	8/25/1993	9.12	18.50
	11/10/1993	9.62	18.00
	2/10/1994	8.88	18.74
	5/6/1994	8.21	19.41
	9/6/1994	9.15	18.47
	11/8/1994	9.33	18.29
	2/21/1995	8.21	19.41
	5/17/1995	7.88	19.74
	8/15/1995	8.65	18.97
	11/17/1995	9.32	18.30
	2/16/1996	8.32	19.30
	5/22/1996	8.07	19.55
	8/18/1996	8.82	18.80
	11/6/1996	8.66	18.96
	1/20/1997	7.54	20.08
	7/22/1997	8.30	19.32
	1/20/1998	7.64	19.98
	7/14/1998	8.01	19.61

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Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
MW-34A (TOC: 27.62 ft MSL)	2/1/1999	7.92	19.70
	7/12/1999	8.47	19.15
	1/4/2000	8.68	18.94
	8/28/2000	8.15	19.47
	3/26/2001	7.65	19.97
	6/13/2001	7.95	19.67
	9/27/2001	8.30	19.32
	12/11/2001	7.98	19.64
	4/3/2002	7.97	19.65
	7/16/2002	8.43	19.19
	10/2/2002	8.38	19.24
	1/8/2003	7.61	20.01
	7/8/2003	7.71	19.91
	9/4/2003	8.16	19.46
	3/8/2004	7.54	20.08
	9/2/2004	8.39	19.23
	5/23/2005	7.59	20.03
	9/15/2005	8.19	19.43
	9/20/2006	8.25	19.37
	11/1/2006	8.55	19.07
	6/4/2007	8.24	19.38
	11/8/2007	9.10	18.52
	6/25/2008	8.77	18.85
	11/20/2008	9.10	18.52
	6/2/2009	8.64	18.98
	12/2/2009	8.50	19.12
	6/21/2010	8.36	19.26
	12/1/2010	8.47	19.15
	6/21/2011	8.19	19.43
	11/3/2011	9.01	18.61
	5/15/2012	8.24	19.38
	10/18/2012	8.81	18.81
	5/2/2013	8.52	18.20

Draft

Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
HP Site Monitoring Wells (South of Site) (e)			
AV-E6 (TOC: 31.52 ft MSL)	10/24/1995	9.69	21.83
	1/30/1996	9.49	22.03
	4/18/1996	9.16	22.36
	7/19/1996	9.50	22.02
	10/17/1996	9.26	22.26
	1/7/1997	8.17	23.35
	4/17/1997	9.15	22.37
	1/8/1998	8.93	22.59
	1/14/1999	9.28	22.24
	1/13/2000	9.36	22.16
	1/22/2001	8.76	22.76
	1/31/2002	8.58	22.94
	3/5/2003	8.31	23.21
	5/13/2004	8.57	22.95
	3/9/2005	8.32	23.20
AV-9 (TOC: 32.28 ft MSL)	7/26/1985	9.08	23.20
	8/5/1985	8.08	24.20
	8/13/1985	9.11	23.17
	8/21/1985	9.18	23.10
	9/13/1985	9.28	23.00
	11/1/1985	9.95	22.33
	12/5/1985	10.06	22.22
	1/10/1986	10.67	21.61
	3/5/1986	9.79	22.49
	7/18/1986	9.75	22.53
	7/31/1986	9.77	22.51
	8/6/1986	9.58	22.70
	8/13/1986	9.58	22.70
	8/20/1986	9.50	22.78
	8/27/1986	9.58	22.70
	10/6/1986	9.50	22.78
	11/13/1986	10.17	22.11
	12/4/1986	10.42	21.86
	1/16/1987	10.81	21.47
	2/3/1987	10.75	21.53

Draft

Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
AV-9 (TOC: 32.28 ft MSL)	3/9/1987	10.72	21.56
	3/31/1987	10.58	21.70
	5/18/1987	10.37	21.91
	7/15/1987	10.16	22.12
	8/11/1987	9.78	22.50
	9/4/1987	10.35	21.93
	9/18/1987	10.48	21.80
	10/6/1987	10.69	21.59
	11/4/1987	11.20	21.08
	12/8/1987	11.46	20.82
	1/22/1988	11.43	20.85
	2/9/1988	11.76	20.52
	3/24/1988	11.86	20.42
	4/14/1988	11.63	20.65
	5/11/1988	11.26	21.02
	6/6/1988	11.46	20.82
	7/15/1988	11.14	21.14
	8/8/1988	11.33	20.95
	9/30/1988	11.55	20.73
	10/14/1988	11.80	20.48
	11/5/1988	11.93	20.35
	12/2/1988	12.22	20.06
	1/9/1989	12.00	20.28
	2/28/1989	12.49	19.79
	6/14/1990	11.33	20.95
	6/20/1990	11.50	20.78
	7/10/1990	11.50	20.78
	8/7/1990	11.75	20.53
	9/5/1990	11.83	20.45
	10/4/1990	11.11	21.17
	11/6/1990	12.23	20.05
	12/11/1990	12.36	19.92
	1/9/1991	12.40	19.88
	2/6/1991	12.58	19.70
	4/4/1991	11.14	21.14
	7/3/1991	11.99	20.29
	10/1/1991	12.17	20.11
	1/7/1992	11.52	20.76
	4/2/1992	11.02	21.26
	7/8/1992	11.51	20.77
	12/30/1992	11.17	21.11
	1/6/1993	10.96	21.32
	4/7/1993	10.26	22.02
	5/12/1993	10.76	21.52
	7/6/1993	10.86	21.42

Draft

Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
AV-9 (TOC: 32.28 ft MSL)	10/6/1993	10.86	21.42
	1/5/1994	11.31	20.97
	4/5/1994	11.29	20.99
	6/5/1994	11.42	20.86
	10/11/1994	11.64	20.64
	1/11/1995	10.68	21.60
	6/21/1995	10.16	22.12
	7/25/1995	10.14	22.14
	10/24/1995	11.10	21.18
	1/30/1996	10.59	21.69
	4/18/1996	10.23	22.05
	7/19/1996	10.60	21.68
	10/17/1996	10.53	21.75
	1/7/1997	9.63	22.65
	4/17/1997	10.30	21.98
	1/8/1998	10.02	22.26
	1/14/1999	10.37	21.91
	1/13/2000	10.45	21.83
	1/22/2001	9.84	22.44
	1/31/2002	9.64	22.64
	3/5/2003	9.39	22.89
	5/13/2004	9.62	22.66
	3/9/2005	9.41	22.87
AV-11 (TOC: 30.27 ft MSL)	7/26/1985	8.24	22.03
	8/5/1985	8.20	22.07
	8/13/1985	8.25	22.02
	8/21/1985	8.28	21.99
	9/13/1985	8.44	21.83
	11/1/1985	8.97	21.30
	12/5/1985	9.00	21.27
	1/10/1986	9.20	21.07
	3/5/1986	8.82	21.45
	7/18/1986	8.83	21.44
	7/31/1986	8.88	21.39
	8/6/1986	8.79	21.48
	8/13/1986	8.83	21.44
	8/20/1986	8.75	21.52
	8/27/1986	8.83	21.44
	10/6/1986	9.42	20.85
	11/13/1986	9.00	21.27
	12/4/1986	9.04	21.23
	1/16/1987	9.31	20.96
	2/3/1987	9.31	20.96
	3/9/1987	9.08	21.19
	3/31/1987	9.17	21.10

Draft

Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
AV-11 (TOC: 30.27 ft MSL)	5/18/1987	9.10	21.17
	7/15/1987	9.03	21.24
	8/11/1987	9.02	21.25
	9/4/1987	9.01	21.26
	9/18/1987	9.10	21.17
	10/6/1987	9.06	21.21
	11/4/1987	9.32	20.95
	12/8/1987	9.43	20.84
	1/22/1988	9.28	20.99
	2/9/1988	9.62	20.65
	3/24/1988	9.70	20.57
	4/14/1988	9.57	20.70
	5/11/1988	9.40	20.87
	6/6/1988	9.40	20.87
	7/15/1988	9.42	20.85
	8/8/1988	9.45	20.82
	9/30/1988	9.60	20.67
	10/14/1988	8.50	21.77
	11/5/1988	9.16	21.11
	12/2/1988	9.95	20.32
	1/9/1989	8.91	21.36
	2/28/1989	10.29	19.98
	6/14/1990	9.50	20.77
	6/20/1990	9.58	20.69
	7/10/1990	9.58	20.69
	8/7/1990	11.33	18.94
	9/5/1990	9.83	20.44
	10/4/1990	10.00	20.27
	11/6/1990	10.27	20.00
	12/11/1990	10.26	20.01
	1/9/1991	10.22	20.05
	2/6/1991	10.39	19.88
	4/4/1991	9.33	20.94
	7/3/1991	10.06	20.21
	10/1/1991	10.00	20.27
	1/7/1992	9.81	20.46
	4/2/1992	9.27	21.00
	7/8/1992	9.79	20.48
	12/30/1992	9.44	20.83
	1/6/1993	9.27	21.00
	4/7/1993	8.92	21.35
	5/12/1993	9.18	21.09
	7/6/1993	9.28	20.99
	10/6/1993	9.27	21.00
	1/5/1994	9.39	20.88

Draft

Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
AV-11 (TOC: 30.27 ft MSL)	4/5/1994	9.24	21.03
	6/5/1994	9.60	20.67
	10/11/1994	9.61	20.66
	1/11/1995	8.74	21.53
	6/21/1995	9.09	21.18
	7/25/1995	9.13	21.14
	10/24/1995	9.53	20.74
	1/30/1996	9.12	21.15
	4/18/1996	9.05	21.22
	7/19/1996	9.37	20.90
	10/17/1996	9.05	21.22
	1/7/1997	8.19	22.08
	4/17/1997	8.92	21.35
	1/8/1998	8.56	21.71
	1/14/1999	9.10	21.17
	1/13/2000	9.05	21.22
	1/22/2001	8.66	21.61
	1/31/2002	8.26	22.01
	3/5/2003	7.96	22.31
	5/13/2004	8.21	22.06
	3/9/2005	8.15	22.12
AV-13 (TOC: 30.83 ft MSL)	5/12/1993	9.12	21.51
	7/6/1993	9.19	21.44
	10/6/1993	9.22	21.41
	1/5/1994	9.73	20.90
	4/5/1994	9.41	21.22
	6/5/1994	9.41	21.22
	10/11/1994	9.71	20.92
	1/11/1995	8.60	22.03
	6/21/1995	8.37	22.26
	7/25/1995	8.27	22.36
	10/24/1995	9.28	21.35
	1/30/1996	8.98	21.65
	4/18/1996	8.57	22.06
	7/19/1996	8.65	21.98
	10/17/1996	8.82	21.81
	1/7/1997	7.87	22.76
	4/17/1997	8.63	22.00
	1/8/1998	8.43	22.20
	1/14/1999	8.69	21.94
	1/13/2000	8.79	21.84
	1/22/2001	8.21	22.42
	1/31/2002	8.02	22.61
	3/5/2003	7.77	22.86

Draft

Table J-1
Historical Groundwater Levels at Nearby Monitoring Wells
Santa Clara Square Retail
Santa Clara, CA

Well ID	Date	Depth to Water (ft bgs or ft below TOC) (a)	Groundwater Elevation (ft MSL)
AV-13	5/13/2004	8.00	22.63
(TOC: 30.83 ft MSL)	3/9/2005	7.32	23.31

Abbreviations:
ft bgs - feet below ground surface
ft MSL - feet above mean sea level (NAVD29)
NPL - National Priorities List
TOC - top of casing

Notes:
a) Depth is reported as feet below ground surface for Shell Site and Synertek NPL Site wells. For HP Site wells, depth below TOC is reported.
b) Groundwater levels are as reported by Shaw (2006).
c) The reported water level from MW-2 on 15 June 2005 appears to be erroneous because the water levels in the other two site wells decresed from the March 2005 to the June 2005 events; in contrast, at MW-2, the elevation appeared to incrase by more than a foot. Moreover, water levels typically decrease between March and June. This data point is excluded from EKI's assessment.
d) Groundwater levels are as reported by CH2MHill (2013). According to CH2MHill (2013), the reported groundwater elevations were surveyed to a "common datum referenced to mean sea level." HMH performed a survey of the Synertek wells nearest to the Site on behalf of Augustine Bowers LLC (EKI, 2014). Based on this survey, the elevations reported by CH2MHill (2013) appear to be referenced to the NAVD29 datum.
e) Groundwater levels are as reported by SECOR (2005).

References:

CH2MHill, 2014. *2013 Groudnwater Monitoring and Sampling Summary Report, Former Synertek Building #1, 3050 Coronado Drive, Santa Clara, California,* CH2MHill, January 2014.
EKI, 2014. *Final Response Plan, Santa Clara Technology Campus 1, Santa Clara, California,* Erler & Kalinowski, Inc., dated January 2014.
SECOR, 2005. *2005 Annual Groundwater Self-Monitoring Report, 3175 Bowers Avenue Site, Santa Clara, California,* SECOR International Incorporated, dated 31 May 2005.
Shaw, 2006. *Quarterly Report – First Quarter 2006, Shell-branded Service Station, SAP No. 136074, 2800 Augustine Drive at Bowers Avenue, Santa Clara, California,* Shaw Environmental & Infrastructure, Inc., dated 5 May 2006.

Draft

N

0 200 400

(Approximate Scale in Feet)

Legend

Site Boundary

Shallow Groundwater Monitoring Well

Notes

1. All locations are approximate.

Sources

1. Basemap source: http://services.arcgisonline.com/ArcGIS/rest/services/Reference/World_Transportation/MapServer
2. CH2MHill, 2013. *Groundwater Sampling and Monitoring 2012 Summary Report, Synertek Building #1, 3050 Coronado Drive, Santa Clara, California*, CH2MHill, January 2013.
3. SECOR, 2005. *2005 Annual Groundwater Self-Monitoring Report, 3175 Bowers Avenue Site, Santa Clara, California*, SECOR International Incorporated, dated 31 May 2005.
4. Shaw, 2006. *Quarterly Report – First Quarter 2006, Shell-branded Service Station, SAP No. 136074, 2800 Augustine Drive at Bowers Avenue, Santa Clara, California*, Shaw Environmental and Infrastructure, Inc., dated 5 May 2006.

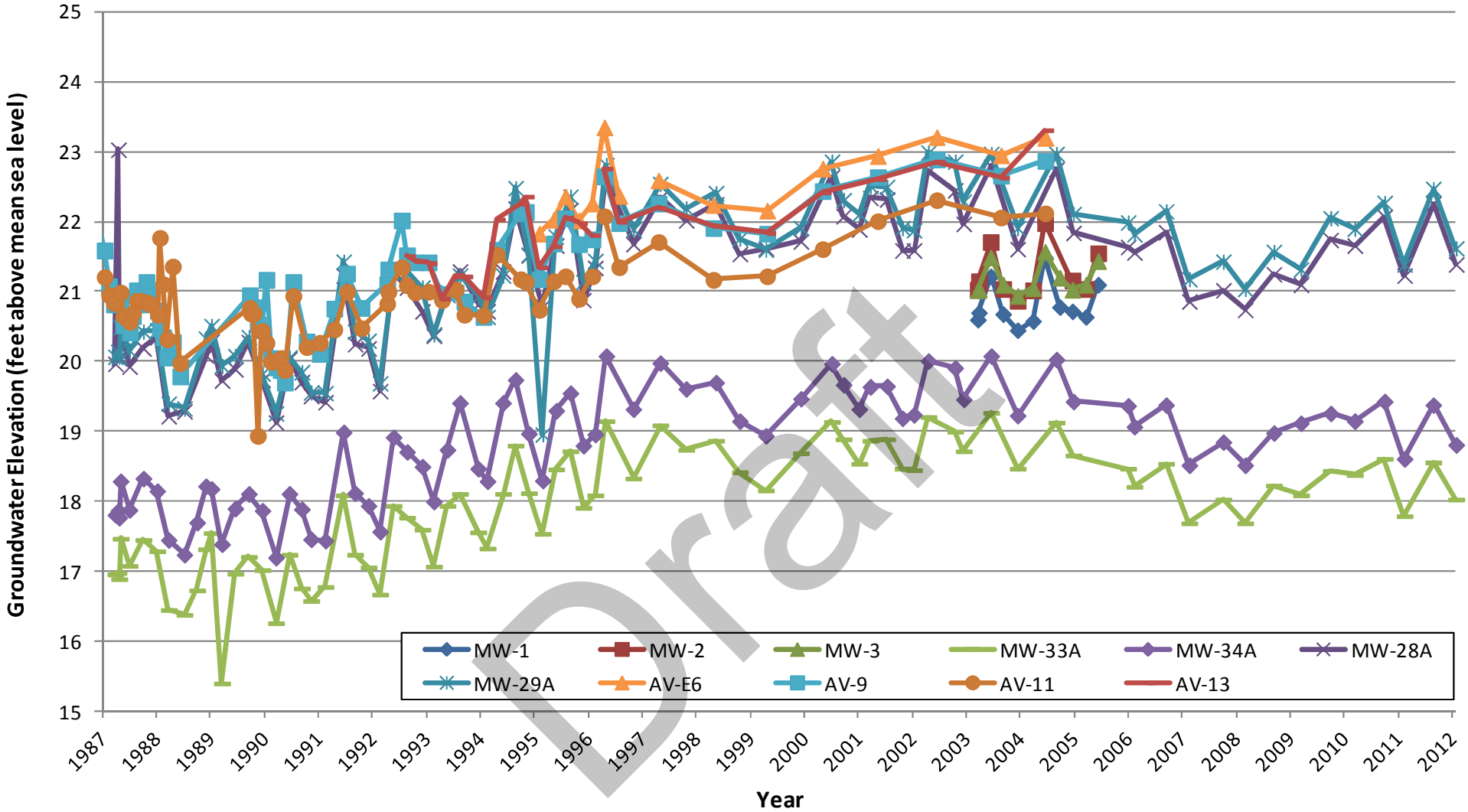
Erler & Kalinowski, Inc.

Nearby Groundwarer Monitoring Well Locations

Santa Clara Square Retail
Santa Clara, CA
June 2014
EKI B30005.03

Figure J-1

Path: X:\B30005\Maps\2014\03\SCS Retail Response Plan\Figure J-1 - WL Figure.mxd



Erler & Kalinowski, Inc.

Historical Groundwater Levels at Nearby Monitoring Wells

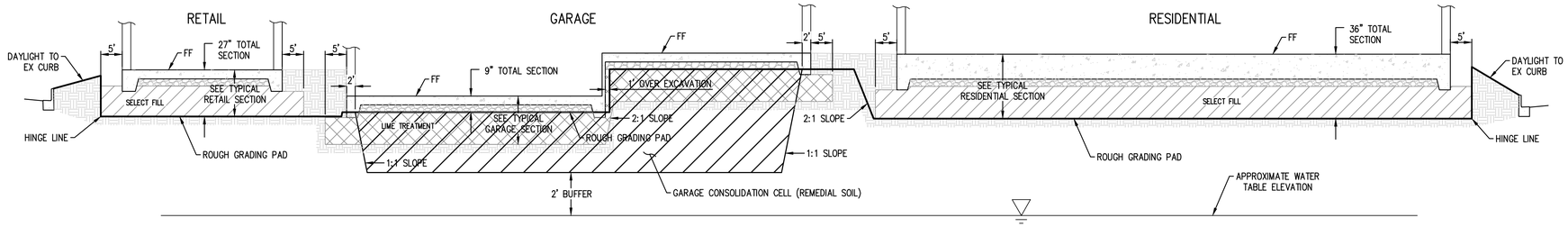
Notes
1. Groundwater levels for MW-1 through MW-3 are as reported by Shaw (2006).
2. Groundwater levels for MW-33A and MW-34A are as reported by CH2MHill (2013).
3. Groundwater levels for AV-E6, AV-9, AV-11, and AV-13 are as reported by SECOR (2005).
4. Per Table J-1, the 15 June 2005 data point from MW-2 is excluded from this graph.

Santa Clara Square
Retail Santa Clara, California
June 2014
EKI B30005.03

Figure J-2

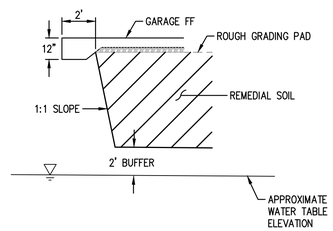
Preliminary Soil Grading and Consolidation Cell Plans

Draft

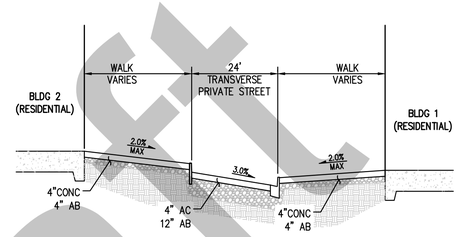


TYPICAL BUILDING SECTION
NOT TO SCALE

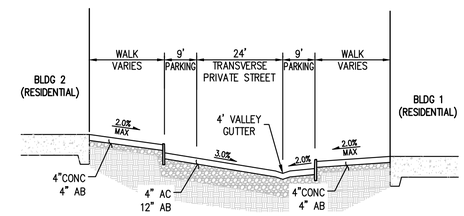
NOTE:
SEE GEOTECHNICAL INVESTIGATION FOR SANTA CLARA SQUARE PREPARED BY LANGAN TREADWELL ROLLO DATED SEPTEMBER 26, 2014 FOR SECTIONS 7.1.1 & 7.1.2 FOR ADDITIONAL INFORMATION ON SELECT FILL & LIME TREATMENT.



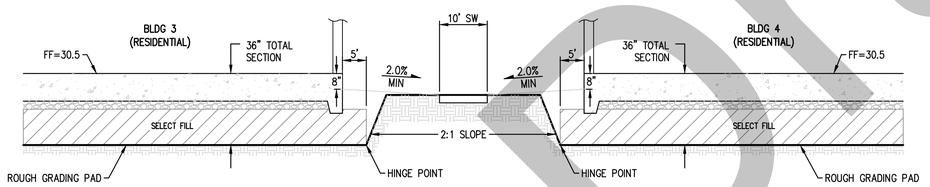
TYPICAL GARAGE CONSOLIDATION CELL
NOT TO SCALE



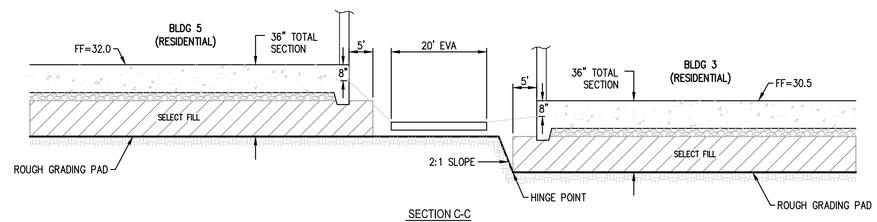
SECTION A-A
(PRIVATE ALLEY)
NOT TO SCALE



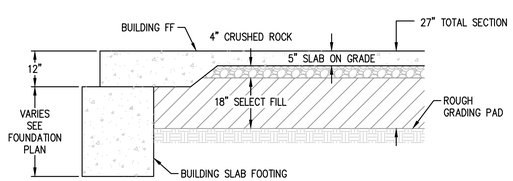
SECTION B-B
(PRIVATE ALLEY WITH PARKING)
NOT TO SCALE



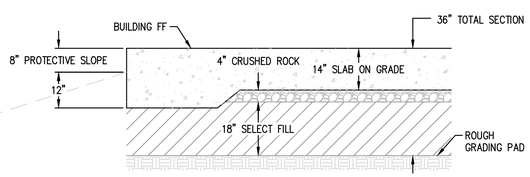
SECTION D-D
NOT TO SCALE



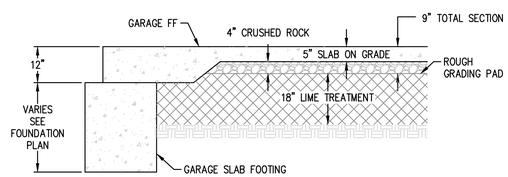
SECTION C-C
NOT TO SCALE



TYPICAL RETAIL SECTION
NOT TO SCALE



TYPICAL RESIDENTIAL SECTION
NOT TO SCALE



TYPICAL GARAGE SECTION
NOT TO SCALE

1-800-227-2600
CALL BEFORE YOU DIG
USA
UNDERGROUND SERVICE ALERT
1-800-227-2600

Draft

NO.	DATE	REVISIONS	BY
△			
△			
△			
△			
△			
△			

Civil Engineering Associates
Civil Engineers • Planners • Surveyors
224 Airport Parkway
Suite 325
San Jose, CA 95110
T: (408) 453-1066

PREPARED FOR:
IRVINE COMPANY
APARTMENT COMMUNITIES
690 N. McCARTHY BLVD. SUITE 100, MILPITAS, CA 95035
TEL (408) 957.1232 FAX (408) 957.1212

ROUGH GRADING PLANS

SANTA CLARA SQUARE

ROUGH GRADING PLAN
SITE SECTIONS

SANTA CLARA CALIFORNIA

DATE	10/08/2015
SCALE	N/A
DESIGNED	ASA
DRAWN	ES
JOB NO.	14-101

SHEET 7 OF 12

R:\PROJECT\2014\14101\GP\ROUGH GRADING\7 SITE SECTIONS.dwg Oct 08, 2015

GRAPHIC SCALE

80 0 40 80 160

(IN FEET)
1 inch = 80 ft.

REMEDIATION CUT FILL MAP
SCALE: 1"=80'

LEGEND			
ID	MIN CUT (FT)	MAX CUT (FT)	COLOR
1	-8.00	-7.00	
2	-7.00	-6.00	
3	-6.00	-5.00	
4	-5.00	-4.00	
5	-4.00	-3.00	
6	-3.00	-2.00	
7	-2.00	-1.00	
8	-1.00	0.00	
9	0.00	0.00	

BASED ON ROUX. ASSOCIATES, INC. FIGURE 6 DATED SEPT 17, 2015 (DATE STAMPED 20150925)

Draft

NO.	DATE	REVISIONS	BY
△			
△			
△			
△			
△			
△			

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224 Airport Parkway
Suite 325
San Jose, CA 95110
T: (408) 453-1066

PREPARED FOR:

IRVINE COMPANY
APARTMENT COMMUNITIES
690 N. McCARTHY BLVD, SUITE 100, MILPITAS, CA 95035
TEL (408) 957-1232 FAX (408) 957-1212

SANTA CLARA SQUARE

ROUGH GRADING PLANS

ROUGH GRADING PLAN

REMEDIATION CUT-FILL MAP

SANTA CLARA CALIFORNIA

DATE	10/08/2015
SCALE	1"=80'
DESIGNED	ASA
DRAWN	ES
JOB NO.	14-101

SHEET
12
OF 12

R:\PROJECT\2014\14101\GP\ROUGH GRADING\12 REMEDIATION CUT-FILL MAP.dwg Oct 08, 2015

Tree Protection Plan

Draft

LEGEND

EXISTING TREES - PROTECT IN PLACE:

REDWOOD

OTHER TREE TYPE

Tree No.	Species	Tree No.	Species	Tree No.	Species	Tree No.	Species
4	Coast Redwood	104	Coast Redwood	211	Coast Redwood	Building 7	
6	Coast Redwood	105	Coast Redwood	219	Holly Oak	194	Coast Redwood
7	Coast Redwood	106	Coast Redwood	222	Coast Redwood	195	Coast Redwood
8	Coast Redwood	110	Coast Redwood	223	London Plane	196	Coast Redwood
9	Coast Redwood	111	Coast Redwood	237	Coast Redwood	197	Coast Redwood
10	Coast Redwood	113	Coast Redwood	238	Coast Redwood	198	Coast Redwood
12	Coast Redwood	114	Coast Redwood	242	Coast Redwood	199	Coast Redwood
33	Coast Live Oak	115	Coast Redwood	245	Coast Redwood	200	Coast Redwood
34	She-Oak	116	Coast Redwood	246	Coast Redwood	201	Coast Redwood
43	Coast Redwood	132	Coast Redwood	277	Holly Oak		
47	Coast Redwood	133	Coast Redwood	279	Coast Redwood		
48	Holly Oak	134	Coast Redwood	280	Coast Redwood		
49	Holly Oak	194	Coast Redwood	281	Coast Redwood		
67	Coast Redwood	195	Coast Redwood	284	London Plane		
68	Coast Redwood	196	Coast Redwood	286	London Plane		
69	Coast Redwood	206	London Plane	288	Holly Oak		
72	Coast Redwood	207	London Plane	301	Coast Redwood		
74	Coast Redwood	208	Coast Redwood	454	Coast Redwood		
75	Coast Redwood	209	Coast Redwood	456	Coast Redwood		
76	Coast Redwood	210	Coast Redwood				

EXISTING TREES - RELOCATE:

(###)

Tree No.	Species	Tree No.	Species	Tree No.	Species
37	Holly Oak	185	Holly Oak	441	Coast Redwood
41	Canary Island Pine	266	Holly Oak	442	Coast Redwood
42	Holly Oak	427	Olive	443	Coast Redwood
156	Holly Oak	431	Olive	444	Coast Redwood
157	Holly Oak	433	Olive	445	Coast Redwood
164	Holly Oak	435	Olive	446	Coast Redwood
165	Holly Oak	436	Olive	455	Olive
166	Holly Oak	437	Olive	458	Olive
167	Holly Oak	438	Coast Redwood	460	Olive
175	Holly Oak	439	Coast Redwood	461	Olive
176	Holly Oak	440	Coast Redwood	463	Olive

Tree Protection Plan

Santa Clara Square - Apartments Site

Santa Clara, California

Prepared for:
The Irvine Company Apartment Communities

30 June 2015

EPTDESIGN

IRVINE COMPANY Since 1864 APARTMENT COMMUNITIES

MVE + PARTNERS

0 20 40 80

Construction Worker Screening Level Calculations

Draft

Site Specific Screening Level Calculations for Arsenic
Construction Worker Six Month Exposure Scenario
Santa Clara Square Apartments Site
Santa Clara, CA

Parameter	Value	Units	Comment/Source
Target Risk	1.E-05		
Target Hazard Quotient	1.E+00		
Cancer Slope Factor (o)	9.50E+00	1/(mg/kg-day)	oral ingestion - OEHHA Toxicity Criteria Database
Reference Dose (o)	3.0E-04	mg/kg-day	oral ingestion - Region IX PRGs (Jan. 2015)
Cancer Slope Factor (d)	9.5E+00	1/(mg/kg-day)	OSWER (2002) - Equation 3-3
Reference Dose (d)	3.0E-04	mg/kg-day	OSWER (2002) - Equation 3-4
Exposure Frequency	250	days/yr	HERO (2014)
Exposure Duration	0.5	yr	Site-specific (Recommended construction scenario = 1 year [HERO, 2014])
Soil Ingestion Rate	330	mg/day	OSWER (2002); HERO (2014)
Skin Surface Area	3470	cm2	HERO (2014) - 6032; OSWER (2014) - 3470
Soil Adherence Factor	0.3	mg/cm2-event	HERO (2014) - 0.8; OSWER (2002) - 0.3
Gastrointestinal Absorption Factor	1	--	OSWER (2002)
Dermal Absorption Fraction	0.03	--	OSWER (2002); Wester, et al. (1993a)
Body Weight	80	kg	HERO (2014); OSWER (2002) - 70 kg
Averaging Time (carcinogens)	70	yr	OSWER (2002)
Averaging Time (non-carcinogens)	0.5	yr	HERO (2014)
Event Frequency	1	event/day	OSWER (2002)
Inhalation Unit Risk Factor	0.0033	(µg/cubic meter)-1	OEHHA Toxicity Criteria Database
Subchronic health based limit	0.5	mg/m3	PEL (8-hour TWA) for construction industry
SSL carc dermal	551.2	mg/kg	
SSL carc oral	52.2	mg/kg	
SSL non-carc dermal	1,122.0	mg/kg	
SSL non-carc oral	106.2	mg/kg	
SSL carc inhalation	2,485.0	mg/kg	
SSL non-carc inhalation	2,928,699.7	mg/kg	
Carc Ingestion/Dermal Combo	47.7	mg/kg	
Non-carc Ingestion/Dermal Combo	97.0	mg/kg	

Final SSL	47.7
Carcinogenic Ingestion/Dermal Combined Exposure (most conservative)	

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Site Specific Screening Level Calculations for DDE
Construction Worker Six Month Exposure Scenario
Santa Clara Square Apartments Site
Santa Clara, CA

Parameter	Value	Units	Comment/Source
Target Risk	1.E-05		
Target Hazard Quotient	1.E+00		
Cancer Slope Factor (o)	0.34	1/(mg/kg-day)	oral ingestion - OEHHA Toxicity Criteria Database
Reference Dose (o)	5.00E-04	mg/kg-day	oral ingestion - Region IX PRGs (Jan. 2015)
Cancer Slope Factor (d)	3.4E-01	1/(mg/kg-day)	OSWER (2002) - Equation 3-3
Reference Dose (d)	5.0E-04	mg/kg-day	OSWER (2002) - Equation 3-4
Exposure Frequency	250	days/yr	HERO (2014)
Exposure Duration	0.5	yr	Site-specific (Recommended construction scenario = 1 year [HERO, 2014])
Soil Ingestion Rate	330	mg/day	OSWER (2002); HERO (2014)
Skin Surface Area	3470	cm2	HERO (2014) - 6032; OSWER (2014) - 3470
Soil Adherence Factor	0.3	mg/cm2-event	HERO (2014) - 0.8; OSWER (2002) - 0.3
Gastrointestinal Absorption Factor	1	--	OSWER (2002)
Dermal Absorption Fraction	0.03	--	OSWER (2002); Wester, et al. (1993a)
Body Weight	80	kg	HERO (2014); OSWER (2002) - 70 kg
Averaging Time (carcinogens)	70	yr	OSWER (2002)
Averaging Time (non-carcinogens)	0.5	yr	HERO (2014)
Event Frequency	1	event/day	OSWER (2002)
Inhalation Unit Risk Factor	0.000097	(µg/cubic meter)-1	OEHHA Toxicity Criteria Database
Subchronic health based limit	1	mg/m3	PEL (8-hour TWA) for construction industry
SSL carc dermal	15400.0	mg/kg	
SSL carc oral	1457.4	mg/kg	
SSL non-carc dermal	1,870.0	mg/kg	
SSL non-carc oral	177.0	mg/kg	
SSL carc inhalation	84,539.8	mg/kg	
SSL non-carc inhalation	5,857,399.3	mg/kg	
Carc Ingestion/Dermal Combo	1331.4	mg/kg	
Non-carc Ingestion/Dermal Combo	161.7	mg/kg	

Final SSL	161.7
Non-Carcinogenic Ingestion/Dermal Combined Exposure (most conservative)	

Draft

Site Specific Screening Level Calculations for Dieldrin
Construction Worker Six Month Exposure Scenario
Santa Clara Square Apartments Site
Santa Clara, CA

Parameter	Value	Units	Comment/Source
Target Risk	1.E-05		
Target Hazard Quotient	1.E+00		
Cancer Slope Factor (o)	1.60E+01	1/(mg/kg-day)	oral ingestion - OEHHA Toxicity Criteria Database
Reference Dose (o)	5.0E-05	mg/kg-day	oral ingestion - Region IX PRGs (Jan. 2015)
Cancer Slope Factor (d)	1.6E+01	1/(mg/kg-day)	OSWER (2002) - Equation 3-3
Reference Dose (d)	5.0E-05	mg/kg-day	OSWER (2002) - Equation 3-4
Exposure Frequency	250	days/yr	HERO (2014)
Exposure Duration	0.5	yr	Site-specific (Recommended construction scenario = 1 year [HERO, 2014])
Soil Ingestion Rate	330	mg/day	OSWER (2002); HERO (2014)
Skin Surface Area	3470	cm2	HERO (2014) - 6032; OSWER (2014) - 3470
Soil Adherence Factor	0.3	mg/cm2-event	HERO (2014) - 0.8; OSWER (2002) - 0.3
Gastrointestinal Absorption Factor	1	--	OSWER (2002)
Dermal Absorption Fraction	0.1	--	OSWER (2002); Wester, et al. (1993a)
Body Weight	80	kg	HERO (2014); OSWER (2002) - 70 kg
Averaging Time (carcinogens)	70	yr	OSWER (2002)
Averaging Time (non-carcinogens)	0.5	yr	HERO (2014)
Event Frequency	1	event/day	OSWER (2002)
Inhalation Unit Risk Factor	0.0046	(µg/cubic meter)-1	OEHHA Toxicity Criteria Database
Subchronic health based limit	0.25	mg/m3	PEL (8-hour TWA) for construction industry
SSL carc dermal	98.2	mg/kg	
SSL carc oral	31.0	mg/kg	
SSL non-carc dermal	56.1	mg/kg	
SSL non-carc oral	17.7	mg/kg	
SSL carc inhalation	1,782.7	mg/kg	
SSL non-carc inhalation	1,464,349.8	mg/kg	
Carc Ingestion/Dermal Combo	23.5	mg/kg	
Non-carc Ingestion/Dermal Combo	13.5	mg/kg	

Final SSL	13.5
Non-Carcinogenic Ingestion/Dermal Combined Exposure (most conservative)	

Draft

				Weeks
Q/C (m3/kg)	89.53	for San Francisco (0.5 ac)		52
Dispersion correction	0.195459956	8 hour day for duration		26
Construction time (s)	1872000	8 hour day for duration		13
Surface area of road (m2)	274.99288			
Length of Road (ft)	148	0.045 km		
Width of Road (ft)	20			
Precipitation days	60	For Central California		
Sum of fleet vehicle kilometers traveled	87.75	30 vehicles		
Daily mean vehical weight (tons)	8	20 cars @ 2 tons/car; 10 trucks @ 20 tons/truck)		
			20	2
PEF	3906804.653		10	20

12 months	4066768.301
6 months	4011917.343
3 months	3906804.653

1. USEPA. 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. December.
2. USEPA. 1996. Soil Screening Guidance: User's Guide. July.
3. USEPA. 1996. Soil Screening Guidance: Technical Background Document. May

Equation 5-5
Derivation of the Particulate Emission Factor
Construction Scenario - Construction Worker

$$PEF_{sc} = Q/C_{sr} \times \frac{1}{F_D} \times \left[\frac{T \times A_R}{556 \times (W/3)^{0.4} \times \frac{(365d/yr - p)}{365d/yr} \times \Sigma VKT} \right]$$

Parameter/Definition (units)	Default
PEF_{sc}/subchronic road particulate emission factor (m^3/kg)	site-specific
Q/C_{sr}/ inverse of the ratio of the 1-h geometric mean air concentration to the emission flux along a straight road segment bisecting a square site (g/m^2-s per kg/m^3)	23.02* (Equation 5-6)
F_D/dispersion correction factor (unitless)	0.185 (Appendix E)
T/total time over which construction occurs (s)	site-specific
A_R/surface area of contaminated road segment (m^2) L_R/length of road segment (ft) W_R/width of road segment (ft)	274.213 ($A_R = L_R \times W_R \times 0.092903 m^2/ft^2$)
W/mean vehicle weight (tons)	site-specific
p/number of days with at least 0.01 inches of precipitation (days/year)	site-specific (Exhibit 5-2)
ΣVKT/sum of fleet vehicle kilometers traveled during the exposure duration (km)	site-specific

* Assumes a 0.5 acre site

Draft

Comparison of Site Specific Screening Levels to CalOSHA Permissible Exposure limits

$$EC_{dust} = \frac{C_{soil} \times EF \times ED \times ET}{AT \times PEF}$$

Where:

EC_{dust} = exposure concentration of COC in fugitive dust from soil (mg/m^3);

C_{soil} = concentration in soil (mg/kg) – 47.7 mg/kg

EF = exposure frequency (days/yr) – 1 day/yr

ED = exposure duration (yrs) – 1/365 years

ET = exposure time - 8 hrs/24 hrs for workers

AT = averaging time (days):

cancer effects: 70 yrs × 365 days;

noncancer effects: ED × 365 days;

PEF = particulate emission factor for soil (m^3/kg) - site specific (previously calculated)

	Site Specific Screening Level (mg/kg)	EC_{dust} (mg/m^3)	CalOSHA PEL (mg/m^3)
Arsenic	47.7	1.12E-08	0.5
Dieldrin	13.5	3.16E-09	0.25
DDE	161.7	3.78E-08	1

Draft

APPENDIX 2.4

Commitment Letter - Voluntary Contributions to the VTA

IRVINE COMPANY
Since 1864

September 30, 2015

Dennis Ng
Traffic Engineer
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Dear Mr. Ng:

This letter confirms that The Irvine Company will offer $103,000 to the Valley Transportation Authority (VTA) to assist with transportation needs that are outside the City's jurisdiction. This amount of the contribution was based on the assessment of impacted freeway segments, and the relative (and very small) volumes of traffic at these intersections that are attributable to the Company's Santa Clara Square project.

This voluntary contribution is not intended to be restricted to the affected intersections, and is not a mitigation measure for purposes of the California Environmental Quality Act (CEQA). The Company is committed to supporting regional and local efforts to support multi-modal transportation, and very much appreciates the ongoing transportation leadership of the City and VTA.

Sincerely,

Carlene Matchniff
Vice President, Entitlements & Public Affairs
Irvine Company

690 N. McCarthy Blvd., Suite 100 | Milpitas, CA 95035

APPENDIX 2.5

Jeanette C. Justus Response to Comments Letter

JEANETTE C. JUSTUS ASSOCIATES
SCHOOL PLANNING | PUBLIC POLICY

4343 VON KARMAN AVE, THIRD FLOOR
NEWPORT BEACH | CALIFORNIA | 92660
TELEPHONE: (949) 474-0409

November 23, 2015

Yen Chen
Associate Planner
City of Santa Clara
1500 Warburton Ave
Santa Clara, CA 95050

Subject: School Impacts from the Santa Clara Square Project

Dear Mr. Chen:

I am writing to you in response to the comments from Santa Clara Unified School District («SCUSD») regarding the impacts from the proposed Santa Clara Square Residential-Mixed Use Project («Project») dated November 18, 2015. The Project proposes to demolish existing commercial development and to construct eight apartment complexes for a total of 1,800 new rental units. The information presented in the DEIR Public Services Schools section was put together after working with SCUSD extensively to plan for expected growth and anticipated students from this Project. The results of our joint efforts including student generation and Project contribution to SCUSD capital and operational budgets were summarized in the June 2, 2015 letter from SCUSD Superintendent Dr. Stanley Rose III.

Regarding the comments in the November 18, 2015, we would like the City to note the following information:

SCUSD Comment: "The open space and fields at the schools and parks within Santa Clara are already used to capacity."

> Regarding the school fields and open space on school sites, there is no evidence of this statement. Our research indicates that Bracher Elementary School assigned to the Project housed 451 students within the last 20 years and current enrollment is approximately 9% lower with 359 students enrolled. The school site size is approximately 12 acres. The California Department of Education recommends an approximately 9.2-acre site for up to 650 students. Cabrillo Middle School with enrollment of 851 students is housed on approximately 25 acres. The California Department of Education recommends 14.0 acres for up to 900 students.
>
> While Wilcox HS appears to be impacted by enrollment from existing communities, a new high school on the Agnews Site is in the early planning

stages. The $150 million high school is fully paid for with the Measure H general obligation bond. The Project is subject to the taxes from Measure H and will be contributing approximately $2.24 million annually after build-out. SCUSD expects the high school to draw students districtwide.

SCUSD Comment: "Payment of [school] fees does not solve the need to identify land for the development of new parks or additional school field space."

Regarding school field space, Government Code Section 65995 states that the development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." SB 50 provides that a state or local agency may not deny or refuse to approve the planning, use or development of real property on the basis of a developer's refusal to provide mitigation in amounts in excess of that established by SB 50.

Furthermore, while school fees can be used to purchase land for school sites, they cannot be used to buy park land. Government Code Section 65995.5 (f) limits the use of school fees on school facilities as follows:

Except as provided in paragraph (5) of subdivision (a) of Section 17620 of the Education Code, a fee, charge, dedication, or other requirement authorized under this section and Section 65995.7 shall be expended solely on the school facilities identified in the needs analysis as being attributable to projected enrollment growth from the construction of new residential units. This subdivision does not preclude the expenditure of a fee, charge, dedication, or other requirement, authorized pursuant to subparagraph (C) of paragraph (1) of subdivision (a) of Section 17620, on school facilities identified in the needs analysis as necessary due to projected enrollment growth attributable to the new residential units.

SCUSD Comment: "...new residential units will increase student enrollment in all three schools: Bracher Elementary, Cabrillo Middle, and Wilcox High."

Based on Student Generation Rates prepared by SCUSD demographer in January 2015, high-density apartments such as those planned for the Project, generate students at the rate of 0.02. In other words, 36 K-12 students (18 elementary, 8 middle and 10 high school students) are likely to be generated by the Project. It is unlikely that SCUSD would be constructing any new facilities to house Project students. Even if SCUSD pursues school construction, the cost of one portable classroom is approximately $100,000 and a permanent classroom $384,000. The Project will generate $6.4 million in school impacts fees, which provide more funding than required to address school impacts from the Project.

SCUSD Comment: "The development will increase vehicle traffic taking students to and from the schools. Safe routes for the students to walk and bike to school are imperative and the developer of the Project must work with the City of Santa Clara and the School District to mitigate issues that may affect the students ability to arrive and school and return home safely.

The Project will generate $6.4 million in school impacts fees, which provide more funding than required to address school impacts from the Project.

Additionally, at build-out on the annual basis the Project would contribute $7.3 million to the SCUSD operating budget via school district's share of property taxes. These funds can be used to fund safe routes to schools including items such as crossing guards and bussing.

SCUSD Comment: "The current student generation rate for these apartment types is low and the rate is likely to increase in the future, which would substantially change the number of students attending each of the schools."

Based on SCUSD student generation rates, the Project is expected to generate 36 K-12 students. The SCUSD demographer prepared these rates based on a sample of 3,371 most recently built apartments in SCUSD. Furthermore, these assumptions were reviewed with SCUSD staff and consultants between February-June 2015 and the use of the rates was approved. The comment that the student generation rates will increase in the future is speculative and no data was provided to support that comment.

SCUSD Comment: "Santa Clara Unified School District does not have any plan for new school sites in this area, since major development was not anticipated until at least 2025"

Development of the Project does not generate the need for construction of a new school at any level. Additionally, SCUSD has a surplus school site – Monticello ES that is currently leased out to private schools. Should the need for additional school facilities materialize, the school could be re-opened as a public school to alleviate overcrowding at other existing campuses.

SCUSD Comment: "The Statutory Developer Fee amount for full mitigation per square foot of residential and commercial construction does not adequately cover the land purchase and design and construction cost incurred by SCUSD for new or expanded school facilities. The Santa Clara Unified School District is requesting the developers mitigate their impact on the School District by working with the SCUSD to locate and purchase alternative land, construct facilities and find alternate solutions to accommodate the additional students and support serves needed by families attending the schools.

Government Code Section 65995 (h) states: "The payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 and, if applicable, any amounts specified in Section 65995.5 or 65995.7 are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities. "

The Project will generate $6.4 million in school impact fees. Additionally, SCUSD has several outstanding local General Obligation bonds approved by the district-wide voters in 1999, 2004, 2010 and 2014. With the Assessed Valuation of the proposed Project projected to be $1.9 billion at build-out, SCUSD will be able to collect approximately $2.24 million annually at build-out for capital school projects throughout the District. Using the GO bond funds, SCUSD recently acquired the school site and will be constructing the K-8 and 9-12 schools on the Agnews site.

The funds from the school impact fees and/or General Obligation bonds can be used to purchase school sites, construct new schools or re-open closed schools. The amounts generated from the Project more than adequately mitigates the impact of 36 students.

Sincerely,

Jeanette C. Justus

Jeanette C. Justus
President
Jeanette C. Justus Associates

Dated: 11/23/2015

APPENDIX 2.6

SCUSD Letter

SANTA
CLARA
UNIFIED
SCHOOL
DISTRICT

1889 Lawrence Rd.
Santa Clara, CA
95051
(408) 423-2000
STANLEY ROSE III, Ed.D.
SUPERINTENDENT

June 2, 2015

Mayor Jamie L. Matthews
1500 Warburton Ave
Santa Clara, CA 95050

Subject: School Impacts from the Santa Clara Square Project

Dear Mayor Matthews:

I am writing to you on behalf of Santa Clara Unified School District (SCUSD) regarding the proposed Santa Clara Square Residential-Mixed Use Project (Project) located within the City of Santa Clara on Scott Boulevard between Bower Avenue and San Tomas Aquino Creek. The Project proposes to demolish existing commercial developments and to construct eight apartment complexes for a total of 1,800 new rental units. The SCUSD has met with the Project developer, the Irvine Company, to plan for the expected growth and anticipated students from this Project.

The SCUSD has a school fee program in place, and Santa Clara Square would be subject to payment of applicable developer fees. Based on developer provided estimates of assessable space, we anticipate that the Project would generate approximately $6.4 million in school fees from the residential development.

Additionally, SCUSD has several outstanding local General Obligation bonds approved by the district-wide voters in 1999, 2004, 2010 and 2014. With the Assessed Valuation of the proposed Project projected to be $1.9 billion at build-out, SCUSD will be able to collect approximately $2.24 million annually for capital school projects throughout the District.

As a Basic Aid district, SCUSD pays for its operating expenses from a percentage of the annual property tax. At build-out, the Project will generate over $7.3 million annually to pay for the education of students generated from the Project. This amount of funding is significantly more than expected to be necessary for Project students alone and will result in educational benefits to the district as a whole.

As the City of Santa Clara considers the Santa Clara Square Project, we would like to state for the record that the Project addresses the school impacts, and its development will provide substantial benefits to the SCUSD. We have discussed our facility needs and available capacity with the Project developer and believe that the proposed school fees as well as General Obligation bond taxes will adequately meet our facility requirements. We are satisfied that the both the facility school impacts and educational needs of the students will be met and that the Project will be a benefit to the District.

Sincerely,

Stanley Rose III, Ed.D.
Superintendent
Santa Clara Unified School District

Cc:	Debi Davis	Vice Mayor
	Lisa Gilmore	Councilmember
	Dominic J Caserta	Councilmember
	Pat Kolstad	Councilmember
	Jerry Marsalli	Councilmember
	Teresa O'Neill	Councilmember
	Julio J. Fuentes	City Manager
	Carlene Matchniff	Irvine Company

"The mission of Santa Clara Unified School District is to prepare students of all ages and abilities to succeed in an ever-changing world."

BOARD
OF EDUCATION
JIM CANOVA
ALBERT GONZALEZ
JODI MUIRHEAD
ANDREW RATERMANN
MICHELLE RYAN
NOELANI SALLINGS
CHRISTOPHER STAMPOLIS

APPENDIX 2.7

Illingworth & Rodkin, Inc. Response to Comments Letter

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

1 Willowbrook Court, Suite 120
Petaluma, California 94954

Tel: 707-794-0400 *Fax: 707-794-0405*
www.Illingworthrodkin.com *illro@illingworthrodkin.com*

November 24, 2015

Yen Chen
City of Santa Clara Planning Department
1500 Warburton Avenue
Santa Clara, CA 95050

SUBJECT: Santa Clara Square Residential Project in Santa Clara, CA – Response to DEIR Comments on Air Quality

Dear Mr. Chen:

The question of feasibility of reducing significant reactive organic gas (ROG) emissions was brought up in a letter from Gideon Kracov, Attorney at Law, dated November 19, 2015. Emissions of ROG from the project are reported in Table 1 below. The net increase in ROG emissions caused by the project is 11 percent above the significance threshold of 10 tons per year and 54 pounds per average day. Over 50 percent of the increased emissions are the result of consumer product use. There are no feasible emissions that the project could implement to control these emissions. ROG emissions from mobile sources account for 37 percent of the project emissions.

As explained in the Draft EIR [Section 4.11] and accompanying expert traffic report included as Appendix 4.11, a mixed use project in an infill location, with ready access to transit services, in an area with a substantial need for additional residential units to address a jobs-housing imbalance, results in a 14 percent reduction in the generation of project trips, as calculated by Fehr & Peers's MainStreet tool. These features that are inherent to the project (i.e., location, including proximity to transit and employment centers) reduce trips, and thus, trip-related air pollutant emissions. The project will reduce traffic trips further by 10 percent under the travel demand management (TDM) program required by the City in its Climate Action Plan (see Mitigation Measure AIR-2 in the DEIR). In order to comply with this additional TDM trip reduction requirement, a menu of further feasible means to reduce traffic trips are required to be implemented that will further reduce ROG emissions. With implementation of a TDM program, mobile emissions would be reduced below levels predicted in the DEIR, but unlikely to a level below the significance threshold.

Table 1. SCS MU Residential - Operational Unmitigated ROG Emissions

Scenario	Mobile ROG	Energy ROG	Consumer Products ROG	Other Area Source ROG	Total ROG[2]
Annual Project Operational Emissions	5.32 tons	0.07 tons	7.16 tons	1.90 tons	14.45
Annual Existing Emissions (2020)	1.54 tons	0.04 tons	1.64 tons	0.22 tons	3.44
Net Annual Emissions (2020)	3.78 tons	0.03 tons	5.52 tons	1.68 tons	11.01
BAAQMD Significance Threshold	--	--	--	--	10
Net Average daily emissions (pounds)	20.7 lbs.	0.16 lbs.	30.2 lbs.	9.2 lbs.	60
BAAQMD Significance Threshold	--	--	--	--	54
[1] Assumes 365-day operation. [2] Due to rounding, values may not total exactly.					

* * *

Please let us know if you have further questions regarding the air quality analysis we prepared for the Santa Clara Square residential project.

Sincerely,

Digitally signed by James A. Reyff
DN: cn=James A. Reyff, o=Illingworth & Rodkin, Inc., ou, email=jreyff@illingworthrodkin.com, c=US
Date: 2015.11.24 13:13:02 -08'00'

James A. Reyff
Illingworth & Rodkin, Inc.

14-023

APPENDIX 2.8

HortScience Response to Comments Memorandum

HORT SCIENCE

Memorandum

DATE: November 20, 2015

TO: Yen Chen

FROM: Jim Clark

SUBJECT: Kracow letter
Santa Clara Square project

I reviewed the "loss of mature trees" section of the letter prepared by Gideon Kracow (dated November 19, 2015).

Arborists define "mature" as a stage of development when height growth slows and the ultimate tree height has been attained. Many of the 449 trees at the site are mature in development. Maturity and ultimate tree size varies widely by species. Species such as coast redwood, evergreen ash, camphor and Canary Island pine are large-statured trees while others are medium-sized (ginkgo, holly oak, London plane) and small (purpleleaf plum, bronze loquat, olive).

Ninety-nine (99) mature trees will be retained, either preserved in place (66 trees) or relocated (33 trees). This represents over 20% of trees presently at the site. All trees proposed for retention are mature in development. In addition to these 99 trees, landscape plans for the project call for the installation of over 1,000 new trees.

Mr. Gideon noted that 350 trees will be removed and will be replaced by many smaller trees. The implication of his statement is that these are large trees. But they are not. The majority (over 65%) are 21" or less in diameter. Only 96 of the 350 trees to be removed are 21" or larger in diameter.

There will be a reduction in tree canopy at this site between the time that the existing trees are removed and the new trees mature in size. But even without the project, existing trees will require removal and replacement, simply because many are mature in development and/or in poor health. Among the 350 trees to be removed, only 145 were in good or excellent condition. Tree health can be expected to decline as additional restrictions on the amount of irrigation that can be applied to landscape trees are imposed by the State of California. Species proposed for planting have much lower irrigation requirement than those currently present.

In summary, there will be a change in tree canopy coverage as the existing trees are removed and new trees installed. But the canopy coverage at the site would change over time even without the project as trees decline in health due to either maturity or reduced irrigation. The proposed landscape planting will install over 1,000 trees of species that will be able to thrive under conditions of restricted irrigation.

Please contact me with any questions.

HortScience, Inc. | 325 Ray Street | Pleasanton, CA 94566
phone 925.484.0211 | fax 925.484.5096 | www.hortscience.com

Santa Clara Square -- Apartments HortScience, Inc

Santa Clara CA

Proposed action as of July 2015

Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
104	Bldg. 7	Coast redwood	32	No	3	Very thin canopy; topped high in	Remove	
105	Bldg. 7	Sweetgum	20	Yes	4	4' from curb; typical form & structure; heavy lateral limb; branch failure.	Remove	
106	Bldg. 7	Sweetgum	16	Yes	4	4' from curb; typical form & structure;	Remove	
107	Bldg. 7	Sweetgum	18	Yes	4	4' from curb; typical form & structure;	Remove	
108	Bldg. 7	Sweetgum	18	Yes	4	4' from curb; typical form & structure;	Remove	
109	Bldg. 7	Purpleleaf plum	6	No	3	Leans E.; multiple attachments @ 6'; stake tie still around stem.	Remove	
110	Bldg. 7	Purpleleaf plum	8	No	2	Ext. twig & branch dieback in upper canopy; ext. dead bark on lower	Remove	
111	Bldg. 7	Purpleleaf plum	6	No	5	Narrow parking lot planter; typical	Remove	
112	Bldg. 7	Purpleleaf plum	6	No	4	5' from bldg.; multiple attachments	Remove	
113	Bldg. 7	Coast redwood	26	Yes	4	Good form & structure; thin canopy;	Remove	
114	Bldg. 7	Coast redwood	25	Yes	4	Good form & structure; thin canopy;	Remove	
115	Bldg. 7	Purpleleaf plum	5	No	4	5' from bldg; typical form & structure.	Remove	
116	Bldg. 7	Purpleleaf plum	4	No	3	5' from bldg.; leans S.; multiple	Remove	
117	Bldg. 7	Purpleleaf plum	7	No	5	Narrow parking lot planter; good	Remove	
118	Bldg. 7	Coast redwood	15	No	3	Okay form; very thin canopy; 1' from	Remove	
119	Bldg. 7	Coast redwood	35	Yes	4	Good tree but for lost central leader @ very top; ext. pavement lift by roots; pavement on W. removed.	Remove	
120	Bldg. 7	Purpleleaf plum	6	No	4	5' from bldg; slight bow S.; multiple attachments @ 6'.	Remove	
121	Bldg. 7	Monterey pine	22	No	3	Nice canopy but poor form & structure; base @ curb.	Remove	
122	Bldg. 7	Purpleleaf plum	6	No	3	Narrow parking lot planter; leans S.; stake still attached.	Remove	

Santa Clara Square -- Apartments HortScience, Inc

Santa Clara CA

Proposed action as of July 2015

Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
123	Bldg. 7	Evergreen ash	23	Yes	4	Typical form & structure; 6' planter; curb lifted; scaffolds bowed out.	Remove	
124	Bldg. 7	Evergreen ash	26	Yes	4	Typical form & structure; 6' planter wiith lifted pavement & displaced curb; girdling root.	Remove	
125	Bldg. 7	Evergreen ash	30	No	2	Round form due to multiple attachments @ 6' & tipping back pruning; 12' square planter; thin canopy; twig & branch dieback on S. to 4".	Remove	
126	Bldg. 7	Evergreen ash	20	Yes	4	Typical form & structure; 6' planter; curb lifted.	Remove	
127	Bldg. 7	Evergreen ash	21	No	3	Typical form & structure; 6' planter; multiple attachments @ 6'.	Remove	
128	Bldg. 7	Ginkgo	5	No	4	5' from curb; slight bow S.	Remove	
129	Bldg. 7	Ginkgo	6	No	4	5' from curb; okay form.	Remove	
130	Bldg. 7	Ginkgo	7	No	4	5' from curb; typical form & structure; slight bow S.	Remove	
131	Bldg. 7	Ginkgo	5	No	4	5' from curb; typical form & structure; slight bow S.	Remove	
132	Bldg. 7	Ginkgo	6	No	4	5' from curb; typical form & structure; slight bow S.	Remove	
133	Bldg. 7	Ginkgo	4	No	4	5' from curb; typical form & structure; slight bow E.	Remove	
134	Bldg. 7	Ginkgo	5	No	4	5' from curb; typical form & structure; slight bow S.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
135	Bldg. 7	Raywood ash	12,6	No	2	Base of fence; off-site? Bowed S.; ext. twig dieback.	Remove	
136	Bldg. 7	Ginkgo	5,5	No	3	5' from curb; codominant trunks @ base; poor structure.	Remove	
137	Bldg. 7	She-oak	13	Yes	4	Base of fence; typical form & structure.	Remove	
138	Bldg. 7	Ginkgo	7,5,4,3,3,2	No	3	5' from curb; multiple attachments @ 2'; dead bark on lower trunk.	Remove	
139	Bldg. 7	Ginkgo	8,4,3,3	No	3	5' from curb; multiple attachments @ 2'.	Remove	
140	Bldg. 7	Raywood ash	10	No	2	No tag; off-site; poor form & structure; ext. twig dieback.	Remove	
141	Bldg. 7	Mexican fan palm	20	Yes	5	No tag; off-site; base engulfed by ivy; 60' brown trunk.	Remove	
142	Bldg. 7	Ginkgo	8	No	4	5' from curb; low laterals sweep upright.	Remove	
143	Bldg. 7	Ginkgo	4	No	4	5' from curb; typical form & structure.	Remove	
144	Bldg. 7	Ginkgo	5	No	4	5' from curb; sinuous trunk.	Remove	
145	Bldg. 7	Ginkgo	5	No	5	5' from curb; good form & structure.	Remove	
146	Bldg. 7	Purpleleaf plum	6	No	3	Narrow planter; bowed S.	Remove	
147	Bldg. 7	Southern magnolia	6	No	4	Narrow planter; typical form & structure; thin canopy.	Remove	
148	Bldg. 7	Ginkgo	4	No	4	5' from curb; slight lean S.	Remove	
149	Bldg. 7	Ginkgo	4	No	4	5' from curb; codominant trunks @ 5'.	Remove	
150	Bldg. 7	Evergreen ash	15,14	No	3	Codominant trunks @ base; displaced curb; okay canopy.	Remove	

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Proposed action as of July 2015

Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
151	Bldg. 7	Red ironbark	13	No	3	Curb displaced; pavement lifted; one-sided to W.; rangy.	Remove	
152	Bldg. 7	Red ironbark	28	No	3	Base @ curb; curbed replaced; pavement lifted; codominant turnks @ 7' & 12'; ext. bark checking.	Remove	
153	Bldg. 7	She-oak	10,9,7	No	3	8' planter; multiple attachments @ base; upright.	Remove	
154	Bldg. 7	Red ironbark	10	No	2	Base adj. to curb; poor form & structure; lost central leader.	Remove	
155	Bldg. 7	Canary island pine	24	Yes	5	Good form & structure.	**Preserve?**	
156	Bldg. 7	Canary island pine	17	No	3	Crook @ base; trunk sweeps vertical; 5' from curb.	Remove	
157	Bldg. 7	She-oak	28	No	2	Poor form; topped?; ext. twig & branch dieback to 2" throughout canopy.	Remove	
158	Bldg. 7	Evergreen ash	16	Yes	4	5' planter; new curb; typical form & structure.	Remove	
159	Bldg. 7	Evergreen ash	14	No	3	5' planter; new curb; tipped back; one-sided to N.	Remove	
160	Bldg. 7	Evergreen ash	17	No	3	5' planter; new curb; rangy form; bowed S.	Remove	
161	Bldg. 7	Evergreen ash	18	No	2	5' planter; new curb; poor; center of canopy dead; multiple attachments @ 5'.	Remove	
162	Bldg. 7	Red ironbark	25	Yes	4	Adj. to lifted curb; surrounded by equipment; dense canopy; rangy form.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
163	Bldg. 7	Evergreen ash	13	Yes	4	5' planter; new curb; typical form & structure.	Remove	
164	Bldg. 7	Evergreen ash	12	No	2	5' planter; poor form & structure.	Remove	
165	Bldg. 7	Evergreen ash	11	No	2	5' planter; pavement lifted; poor form & structure.	Remove	
166	Bldg. 7	Red ironbark	13	No	3	Adj. to curb; typical form & structure; rangy.	Remove	
167	Bldg. 7	Raywood ash	11	No	2	4' from curb; poor form & structure; ext. twig dieback throughout canopy.	Remove	
168	Bldg. 7	Red ironbark	15	No	3	Adj. to curb; pavement cracked; bowed N.; rangy form.	Remove	
169	Bldg. 7	Red ironbark	36	Yes	4	Adj. to curb; pavement lifted; very wide vase-shaped crown; codominant trunks @ 14'.	Remove	
170	Bldg. 7	Canary island pine	15	No	3	SW. corner; codominant trunk high in crown; very chlorotic.	Remove	
171	Bldg. 7	Red ironbark	25	Yes	4	Adj. to curb; pavement cracked; wide vase-shaped crown.	Remove	
172	Bldg. 7	White alder	6	No	2	No tag; totally engulfed in ivy.	Remove	
173	Bldg. 7	Red ironbark	27	Yes	4	Adj. to curb; pavement cracked; open vase-shaped crown.	Remove	
174	Bldg. 7	Red ironbark	21	No	3	Adj. to curb; pavement cracked; tipped back; rangy form.	Remove	
175	Bldg. 7	Red ironbark	28	Yes	4	Adj. to curb; pavement cracked; rangy vase-shaped crown; codominant trunks @ 15'.	Remove	
176	Bldg. 7	Canary island pine	17	Yes	4	Good form & structure; open canopy.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
177	Bldg. 7	Canary island pine	18	Yes	5	Good form & structure; triangular planter.	Remove	
178	Bldg. 7	Red ironbark	24	No	3	10' from bldg.; crown reduced to 4" stubs; rangy.	Remove	
179	Bldg. 7	Mexican fan palm	20	Yes	4	18' brown trunk; base pillowing over curb on W.	Remove	
180	Bldg. 7	Red ironbark	30	No	3	Adj. to curb; ext. bark checking; severals sets of codominant trunks yields wide vase-shaped crown.	Remove	
181	Bldg. 7	Red ironbark	23	No	3	Adj. to curb; pavement cracked; multiple attachments @ 7'; rangy.	Remove	
182	Bldg. 7	Red ironbark	23	No	2	Adj. to curb; pavement cracked badly on W.; very thin canopy; codominant trunks @ 8'.	Remove	
183	Bldg. 7	Red ironbark	21	No	2	10' from bldg.; crown reduced to 4" stubs; poor.	Remove	
184	Bldg. 7	Red ironbark	15	No	2	10' from bldg.; crown reduced to 4" stubs; poor.	Remove	
185	Bldg. 7	Mexican fan palm	20	Yes	4	50' brown trunk; over-pruned; small planter.	Remove	
186	Bldg. 7	Red ironbark	24	No	2	15' from bldg.; crown reduced to 4" stubs; poor; adj. curb cracked.	Remove	
187	Bldg. 7	Japanese privet	12,11	Yes	4	2' above-ground planter; several sets of codominant attachments.	Remove	
188	Bldg. 7	Japanese privet	9,9	No	4	2' above-ground planter; codominant trunks @ 1'.	Remove	
189	Bldg. 7	Brush cherry	6	No	2	2' above-ground planter; suppressed; bowed W.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
190	Bldg. 7	Coast redwood	25	No	3	Good form & structure; thin canopy.	Remove	
191	Bldg. 7	Coast redwood	36	No	3	Good form & structure; thin canopy; codominant trunks high in crown; 3' from curb.	Remove	
192	Bldg. 7	Coast redwood	22	No	2	Poor; behind utility vault; lost central leader @ top; very thin canopy with ext. twig dieback.	Remove	
193	Bldg. 7	Sweetgum	16	No	3	4' from curb; poor form & structure; lateral on S. sweeps upright to compete with main trunk.	Remove	
194	Bldg. 7	Coast redwood	37	Yes	4	Large tree; curb displaced; good form & structure; thin canopy.	Preserve	No/limited irrigation
195	Bldg. 7	Coast redwood	42	No	3	Large tree; 3' from curb; good form & structure; very thin canopy.	Preserve	No/limited irrigation
196	Bldg. 7	Coast redwood	25	Yes	4	Good form & structure; thin canopy.	Preserve	No/limited irrigation
197	Bldg. 7	Coast redwood	24	No	2	Lost central leader @ top; thin canopy with twig dieback.	Preserve	No/limited irrigation
198	Bldg. 7	Coast redwood	30	No	3	Lost central leader @ top; thin canopy.	Preserve	No/limited irrigation
199	Bldg. 7	Coast redwood	27	Yes	4	Good form & structure; thin canopy.	**Remove**	No/limited irrigation
200	Bldg. 7	Coast redwood	28	Yes	4	Good form & structure; thin canopy.	**Remove**	No/limited irrigation
201	Bldg. 7	Coast redwood	36	No	3	Good form & structure; thin canopy.	**Remove**	No/limited irrigation

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
202	Bldg. 7	Coast redwood	28	No	2	Lost central leader @ top; very thin canopy with twig dieback.	**Remove**	No/limited irrigation
203	Bldg. 7	Coast redwood	33	No	3	Good form & structure; very thin canopy; large base. Sept. 2015: upper canopy dead. Prune?	Preserve	No/limited irrigation
204	Bldg. 7	Coast redwood	26	No	3?	Good form & structure; very thin canopy with twig dieback.	Preserve	No/limited irrigation
205	Bldg. 7	Coast redwood	30	Yes	4	Good form & structure; thin canopy.	Preserve	No/limited irrigation
206	Bldg. 7	Canary island pine	20	Yes	4	Good form & structure; crowded.	Preserve	No/limited irrigation
207	Bldg. 7	Canary island pine	20	Yes	5	Good form & structure.	Preserve	No/limited irrigation
208	Bldg. 7	Canary island pine	20	Yes	4	Good form & structure; crowded; one-sided W.	Preserve	No/limited irrigation
209	Bldg. 7	Canary island pine	22	Yes	5	4' planter; good form & structure; pavement lifted.	Remove	
210	Bldg. 7	Canary island pine	20	No	2	4' planter; poor; multiple attachments @ 12'.	**Relocate**	
1	Park Sq.	Holly oak	19	Yes	4	Good form; developing heavy lateral limbs.	Remove	
2	Park Sq.	White alder	27	Yes	4	Codominant trunks @ 14'; ext. surface roots; dense crown.	Remove	
3	Park Sq.	Chinese pistache	12	No	3	Codominant trunks @ 7'; twist around.	Remove	
4	Park Sq.	Coast redwood	35	Yes	4	Good form.	Preserve	
5	Park Sq.	Chinese pistache	9	No	3	Codominant trunks @ 4' & 5'; rangy.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
6	Park Sq.	Coast redwood	33	Yes	4	Central leader lost & replaced @ top.	Preserve	
7	Park Sq.	Coast redwood	36	Yes	5	Good tree.	Preserve	
8	Park Sq.	Coast redwood	37	Yes	**3**	Good form; **very** thin canopy.	Preserve	
9	Park Sq.	Coast redwood	31	Yes	5	Good tree; codominant trunks high in crown.	Preserve	
10	Park Sq.	Coast redwood	27	Yes	4	Narrow form; may have lost central leader @ top.	Preserve	
11	Park Sq.	Coast redwood	21	No	2	Poor form & structure; small & sparse.	Remove	
12	Park Sq.	Coast redwood	32	Yes	4	Okay form; thin canopy.	Preserve	
13	Park Sq.	Japanese privet	10	No	5	Good tree; parking lot planter.	Remove	
14	Park Sq.	Japanese privet	9	No	3	Okay form; thin canopy; parking lot planter.	Remove	
15	Park Sq.	Japanese privet	12	No	3	Poor form & structure; leans NE.; codominant trunks x'd @ 5'; parking lot planter.	Remove	
16	Park Sq.	Coast redwood	34	Yes	5	Good tree.	Remove	
17	Park Sq.	Coast redwood	27	No	2	Very thin canopy; codominant trunks high in crown; slight lean S.	Remove	
18	Park Sq.	Coast redwood	37	No	3	Broad sweep upright from base; buckled bark.	Remove	
19	Park Sq.	Coast redwood	42	Yes	5	Good tree.	Remove	
20	Park Sq.	Coast redwood	34	No	3	Thin crown; codominant trunks @ 30'.	Remove	
21	Park Sq.	Bronze loquat	7	No	5	Nice tree; 3' from curb; multiple attachments @ 9'.	Remove	
22	Park Sq.	Holly oak	6	No	2	Failing @ base to W.; poor.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
23	Park Sq.	Holly oak	11	No	3	Partly corrected lean W.; multiple attachments @ 10'.	Remove	
24	Park Sq.	Sweetgum	16	Yes	4	Narrow planter already cracked; laterals sweep upright; lost central leader.	Remove	
25	Park Sq.	Sweetgum	13	Yes	4	Narrow planter already cracked; laterals sweep upright.	Remove	
26	Park Sq.	Sweetgum	12	Yes	5	Narrow planter; laterals sweep upright.	Remove	
27	Park Sq.	Holly oak	11	No	3	Codominant trunks @ 5'; 3rd stem x'd; small planter.	Remove	
28	Park Sq.	Holly oak	7	No	3	At curb; codominant trunks @ 3'; dense canopy.	Remove	
29	Park Sq.	Bronze loquat	9	No	4	Good tree; small dead branch; ext. surface roots.	Remove	
30	Park Sq.	Coast redwood	27	Yes	4	Good tree; slightly one-sided to S. due to competition with #31.	Remove	
31	Park Sq.	Coast redwood	45	Yes	5	Good tree; lost central leader @ top?	Remove	
32	Park Sq.	Holly oak	11	No	3	Multiple attachments @ 5'; 2 heavy lateral limbs; 1 vertical.	Remove	
33	Park Sq.	Coast live oak	26	No	3	At curb; multiple attachments @ 3'; branches sweep over parking; twig dieback throughout.	Preserve	
34	Park Sq.	She-oak	26	Yes	5	Off-site; against fence; good form & structure.	Preserve	
35	Park Sq.	Japanese privet	9,7,6,5,5,5	No	3	Multiple attachments @ 1'; upright; okay form.	Remove	
36	Park Sq.	Holly oak	16	No	3	Codominant trunks @ 5'; rangy.	Remove	

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Tree No.	**Orig. Location**	**Species**	**Trunk Diameter** (in.)	**Protected Tree?**	**Condition** 0=dead 1=poor 5=excell.	**Comments**	**Proposed Action**	**Notes**
37	Park Sq.	Holly oak	17	Yes	4	1' from curb; okay form; small planter.	Relocate	
38	Park Sq.	Holly oak	11	No	3	Multiple attachments @ 7'; rangy.	Remove	
39	Park Sq.	Camphor	11	No	2	Poor form & structure; chlorotic & thin.	Remove	
40	Park Sq.	Camphor	13	Yes	4	Multiple attachments @ 5'.	Remove	
41	Park Sq.	Canary Island pine	22	Yes	4	Good form; lost central leader @ top.	Relocate	
42	Park Sq.	Holly oak	14	Yes	4	Raised planter; codominant trunks @ 8'; rounded form.	Relocate	
43	Park Sq.	Coast redwood	41	Yes	4	Good form; thin canopy.	Preserve	No/limited irrigation
44	Park Sq.	Coast redwood	31	No	3	Good form; thin canopy with twig dieback.	Remove	No/limited irrigation
45	Park Sq.	Coast redwood	44	Yes	5	Good tree in narrow space; lifting pavement.	Remove	No/limited irrigation
46	Park Sq.	Coast redwood	17	No	2	Poor form & structure.	Remove	No/limited irrigation
47	Park Sq.	Coast redwood	43	No	3	Good form; thin canopy. **Will improve with supplemental irrigation.**	Preserve	No/limited irrigation
48	Park Sq.	Holly oak	18	No	3	Codominant trunks @ 12' & above; crown lifted.	Preserve	
49	Park Sq.	Holly oak	18	No	3	One-sided to W. with thin canopy; okay form.	Preserve	
50	Park Sq.	Sweetgum	12	No	3	Narrow planter; multiple attachments @ 4'; rangy.	Remove	
51	Park Sq.	Sweetgum	12	No	3	Narrow planter; laterals sweep upright.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
52	Park Sq.	Camphor	11	No	2	Just poor.	Remove	
53	Park Sq.	Camphor	7	No	3	No vigor.	Remove	
54	Park Sq.	Holly oak	9	No	3	Multiple attachments @ 12'.	Remove	
55	Park Sq.	White alder	27	No	2	Dying.	Remove	
56	Park Sq.	White alder	24	Yes	4	Codominant trunks @ 16'; ext. surface roots; dense canopy.	Remove	
57	Park Sq.	Camphor	12	Yes	4	Okay tree.	Remove	
58	Park Sq.	Camphor	8	No	2	Just poor.	Remove	
59	Park Sq.	Sweetgum	21	Yes	4	Codominant trunks high in crown; leans S.	Remove	
60	Park Sq.	Sweetgum	20	Yes	4	Low laterals sweep vertical.	Remove	
61	Park Sq.	Sweetgum	22	No	3	Codominant trunks @ 12' & 16'; main stem bowed SE.; branch failure.	Remove	
62	Park Sq.	Holly oak	22	Yes	4	Multiple attachments @ 5' & 8' slightly one-sided to NW.	Remove	
63	Park Sq.	Camphor	9	No	3	Narrow planter; rangy; chlorotic.	Remove	
64	Park Sq.	Holly oak	12	No	3	Partly suppressed; bowed W.	Remove	
65	Park Sq.	Holly oak	17	Yes	4	Rounded with low laterals sweeping upright.	**Relocate?**	
66	Park Sq.	Camphor	15,10	Yes	4	Codominant trunks @ 3'; 3rd stem btwn. x'd; nice canopy.	Remove	
67	Park Sq.	Coast redwood	42	Yes	**3**	Grove of 3; 2' from curb; lifting; okay form. **Thin canopy.**	Preserve	
68	Park Sq.	Coast redwood	47	Yes	4	Grove of 3; okay form.	Preserve	
69	Park Sq.	Coast redwood	52	Yes	4	Grove of 3; 1' from curb; okay form; hanger.	Preserve	
70	Park Sq.	Camphor	20	No	3	Multiple attachments @ 6' with add'l. stems x'd; thin canopy.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
71	Park Sq.	Chinese pistache	7,7,5,5	No	2	Poor form & structure; multiple attachments @ base; shrub.	Remove	
72	Park Sq.	Coast redwood	36	Yes	4	Good form; lost central leader @ top. **Thin canopy.**	Preserve	
73	Park Sq.	White alder	12,10	No	3	Codominant trunks @ 3'; 12" vertical; 10" sweeps over parking.	Remove	
74	Park Sq.	Coast redwood	24	No	3	Partly corrected lean S.; lost central leader. **Thin upper canopy.**	Preserve	
75	Park Sq.	Coast redwood	17	Yes	5	Semi-mature; excellent. **Off-color.**	Preserve	
76	Park Sq.	Coast redwood	17	Yes	5	Semi-mature; excellent.	Preserve	
77	Park Sq.	Sweetgum	22	No	3	One-sided to S.; upper crown bowed S.	Remove	
78	Park Sq.	Sweetgum	20	Yes	4	Laterals sweep upright; codominant trunks high in crown.	Remove	
79	Park Sq.	Sweetgum	20	No	3	Multiple attachments @ 12'; vase-shaped crown.	Remove	
80	Park Sq.	Holly oak	14	No	3	Group of 4; one-sided to SE.; rangy.	Remove	
81	Park Sq.	Holly oak	19	No	2	Group of 4; sharp lean over street.	Remove	
82	Park Sq.	Holly oak	16	No	3	Group of 4; multiple attachments @ 8'; codominant trunks @ 10'.	**Relocate?**	
83	Park Sq.	Holly oak	12	No	3	Group of 4; codominant trunks @ 7'; rangy.	Remove	
84	Park Sq.	Sweetgum	9	No	3	Narrow planter; lost central leader; rangy.	Remove	
85	Park Sq.	Sweetgum	7	No	3	Narrow planter; lacks vigor; twig dieback.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
86	Park Sq.	Sweetgum	10	No	3	Narrow planter; codominant trunks @ 6' upright.	Remove	
87	Park Sq.	Holly oak	9	No	3	5' by 5' planter; codominant trunks @ 7'; 1 vertical; 2nd horizontal.	Remove	
88	Park Sq.	Holly oak	7	No	2	5' by 5' planter; very thin canopy; multiple attachments @ 7'.	Remove	
89	Park Sq.	Coast redwood	47	Yes	5	2' from curb; good form.	Remove	
90	Park Sq.	Coast redwood	48	Yes	5	3' from sidewalk; good form.	Remove	
91	Park Sq.	Coast redwood	53	Yes	4	Roots cut on N.; pushes against curb on S.; nice canopy; one-sided to W.	Remove	
92	Park Sq.	Coast redwood	28	Yes	4	Interior; one-sided to S.	Remove	
93	Park Sq.	Coast redwood	37	Yes	4	Roots cut on N.; slightly thin canopy.	Remove	
94	Park Sq.	Coast redwood	51	Yes	4	Roots cut on N. & W.; nice canopy; one-sided to W.	Remove	
95	Park Sq.	Coast redwood	56	Yes	4	Roots cut on N.; nice full canopy.	Remove	
96	Park Sq.	Camphor	15	No	2	Narrow planter; codominant trunks @ 6'; very thin canopy.	Remove	
97	Park Sq.	Coast redwood	40	Yes	5	Btwn. buildings; good form.	Remove	
98	Park Sq.	Coast redwood	44	Yes	5	Btwn. buildings; good form.	Remove	
99	Park Sq.	Coast redwood	44	Yes	4	Btwn. buildings; codominant trunks @ 12'; upright.	Remove	
100	Park Sq.	Coast redwood	36	No	3	Btwn. buildings; sinuous lower trunk; thin canopy.	Remove	
101	Park Sq.	Coast redwood	44	Yes	5	Btwn. buildings; good tree.	Remove	
102	Park Sq.	Sweetgum	15	No	3	4' from sidewalk; crown reduced; one-sided to SE.	Remove	
103	Park Sq.	Sweetgum	12	No	2	Poor form & structure.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
104	Park Sq.	Coast redwood	44	Yes	4	Group of 3; one-sided to W.	Preserve	
105	Park Sq.	Coast redwood	26	Yes	4	Group of 3; interior; one-sided to S.; lost central leader; flat-topped.	Preserve	
106	Park Sq.	Coast redwood	43	Yes	4	Group of 3; codominant trunks high in crown; rangy; thin canopy.	Preserve	
107	Park Sq.	Sweetgum	15	Yes	4	Laterals sweep upright.	Remove	
108	Park Sq.	Sweetgum	13	No	3	Codominant trunks @ 12' & 18'; separating.	Remove	
109	Park Sq.	Sweetgum	14	No	2	Pavement on 3 sides; poor form & structure; twig dieback throughout.	Remove	
110	Park Sq.	Coast redwood	42	Yes	4	Good form; slightly thin canopy.	Preserve	
111	Park Sq.	Coast redwood	43	Yes	5	Nice tree.	Preserve	
112	Park Sq.	Coast redwood	39	Yes	5	Good tree.	Remove	
113	Park Sq.	Coast redwood	33	Yes	5	Good tree.	Preserve	
114	Park Sq.	Coast redwood	35	Yes	4	Good form; slightly thin canopy.	Preserve	
115	Park Sq.	Coast redwood	49	Yes	4	Codominant trunks @ 8'; upright.	Preserve	
116	Park Sq.	Coast redwood	51	Yes	5	Specimen.	Preserve	
117	Park Sq.	Sweetgum	13	No	2	Bowed S. due to competition; codominant trunks high in crown; twig dieback.	Remove	
118	Park Sq.	Sweetgum	14	No	3	One-sided to W.; some twig dieback.	Remove	
119	Park Sq.	Tuliptree	30	No	3	Codominant trunks @ 5' & 9'; upright; thin canopy.	Remove	
120	Park Sq.	Canary Island pine	22	Yes	4	Good form save for 2 heavy lateral limbs mid-crown.	Remove	
121	Park Sq.	Canary Island pine	14	No	3	Corrected lean E.; codominant trunks high in crown; flat area @ base on E.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
122	Park Sq.	Sweetgum	15	No	3	Codominant trunks @ 6' & 12'; bowed S. & separating.	Remove	
123	Park Sq.	Sweetgum	15	No	3	Codominant trunks @ 22'; separating.	Remove	
124	Park Sq.	Sweetgum	12	No	2	Poor form & structure; multiple attachments @ 10'.	Remove	
125	Park Sq.	Sweetgum	14	No	3	Codominant trunks @ 10' & high in crown; separating.	Remove	
126	Park Sq.	Sweetgum	12	No	3	Bowed SE.; codominant trunks @ 20'.	Remove	
127	Park Sq.	Canary Island pine	19	Yes	4	Good form; slightly thin canopy.	Remove	
128	Park Sq.	Coast redwood	28	Yes	5	One-sided to E.; slight bow.	Remove	
129	Park Sq.	Coast redwood	47	Yes	5	Good tree; large base.	Remove	
130	Park Sq.	Coast redwood	27	Yes	5	Good tree.	Remove	
131	Park Sq.	Coast redwood	45	Yes	5	Good tree.	Remove	
132	Park Sq.	Coast redwood	34	No	3	Good form; thin canopy.	Preserve	
133	Park Sq.	Coast redwood	21	Yes	4	Interior; okay.	Preserve	
134	Park Sq.	Coast redwood	50	Yes	5	1' from sidewalk; good tree.	Preserve	
135	Park Sq.	Camphor	16	No	3	Partly suppressed; one-sided & bowed W.	Remove	
136	Park Sq.	Camphor	17	No	3	One-sided to N.; twig dieback.	Remove	
137	Park Sq.	Camphor	14	No	3	Rangy form; root-pruned on W.	Remove	
138	Park Sq.	Coast redwood	48	Yes	5	Group of 3; good tree.	Remove	
139	Park Sq.	Coast redwood	36	Yes	4	Group of 3; one-sided to NE.	Remove	
140	Park Sq.	Coast redwood	43	Yes	4	Group of 3; one-sided to NW.	Remove	
141	Park Sq.	Coast redwood	35	No	3	Group of 3; good form; thin canopy.	Remove	
142	Park Sq.	Coast redwood	37	Yes	4	Group of 3; one-sided to SE.; thin canopy.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
143	Park Sq.	Coast redwood	49	Yes	5	Group of 3; one-sided to W.	Remove	
144	Park Sq.	Sweetgum	15	No	3	Btwn. buildings; narrow planter; codominant trunks @ 12' & above; rangy.	Remove	
145	Park Sq.	Sweetgum	8	No	3	Btwn. buildings; narrow planter; codominant trunks @ 8'.	Remove	
146	Park Sq.	Sweetgum	9	No	3	Btwn. buildings; narrow planter; high crown; laterals sweep upright.	Remove	
147	Park Sq.	Sweetgum	10	No	3	Btwn. buildings; narrow planter; high crown; laterals sweep upright.	Remove	
148	Park Sq.	Sweetgum	10	No	3	Btwn. buildings; narrow planter; codominant trunks @ 12' & above; rangy.	Remove	
149	Park Sq.	Sweetgum	7	No	3	Btwn. buildings; narrow planter; codominant trunks @ 14' & above; rangy.	Remove	
150	Park Sq.	Sweetgum	14	No	3	Btwn. buildings; narrow planter; codominant trunks @ 14', 18' & above; separating.	Remove	
151	Park Sq.	Canary Island pine	21	Yes	5	Good tree.	Remove	
152	Park Sq.	Canary Island pine	24	No	3	Leans NW.; codominant trunks @ 12'; upright.	Remove	
153	Park Sq.	Sweetgum	12	No	3	Narrow planter; codominant trunks @ 5'; upright.	Remove	
154	Park Sq.	Sweetgum	12	No	3	Narrow planter; rangy.	Remove	
155	Park Sq.	Sweetgum	14	No	3	Narrow planter; multiple attachments @ 20'; low laterals with broad sweep.	Remove	

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Tree No.	**Orig. Location**	**Species**	**Trunk Diameter** (in.)	**Protected Tree?**	**Condition** 0=dead 1=poor 5=excell.	**Comments**	**Proposed Action**	**Notes**
156	Park Sq.	Holly oak	10	No	3	5' by 5' planter; enlarged from 2' by 2'; multiple attachments @ 10'; thin canopy.	Relocate	
157	Park Sq.	Holly oak	12	No	**4**	5' by 5' planter; enlarged from 2' by 2'; good form but base is a mess.	Relocate	
158	Park Sq.	Sweetgum	16	No	3	Narrow planter; rangy; ext. twig dieback.	Remove	
159	Park Sq.	Sweetgum	10	No	2	Narrow planter; poor form & structure.	Remove	
160	Park Sq.	Sweetgum	8	No	3	Narrow planter; no vigor; lifting pavement.	Remove	
161	Park Sq.	Sweetgum	13	No	3	Narrow planter; lost central leader; candelabra.	Remove	
162	Park Sq.	Sweetgum	9	No	3	Narrow planter; lost central leader; no vigor.	Remove	
163	Park Sq.	Sweetgum	14	No	3	Narrow planter; laterals sweep upright; rangy.	Remove	
164	Park Sq.	Holly oak	14	No	3	5' by 5' planter; enlarged from 2' by 2'; okay form but base is a mess. **Thin canopy.**	Relocate	
165	Park Sq.	Holly oak	15	No	3	5' by 5' planter; enlarged from 2' by 2'; okay form but base is a mess. **Thin canopy.**	Relocate	
166	Park Sq.	Holly oak	11	No	3	5' by 5' planter; enlarged from 2' by 2'; rangy form; base is better than others.	Relocate; prune S. facing lateral at transplanting.	

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Tree No.	**Orig. Location**	**Species**	**Trunk Diameter** (in.)	**Protected Tree?**	**Condition** 0=dead 1=poor 5=excell.	**Comments**	**Proposed Action**	**Notes**
167	Park Sq.	Holly oak	12	No	3	5' by 5' planter; enlarged from 2' by 2'; good form but base damaged.	Relocate	
168	Park Sq.	Sweetgum	12	No	3	Narrow planter; laterals sweep upright; rangy.	Remove	
169	Park Sq.	Sweetgum	12	No	3	Narrow planter; no vigor; lost central leader.	Remove	
170	Park Sq.	Sweetgum	10	No	3	Narrow planter; rangy.	Remove	
171	Park Sq.	Sweetgum	12	No	3	Narrow planter; twig & branch dieback @ top.	Remove	
172	Park Sq.	Sweetgum	11	No	3	Narrow planter; partly corrected lean NE.; no vigor.	Remove	
173	Park Sq.	Sweetgum	12	No	3	Narrow planter; laterals sweep upright; twig dieback.	Remove	
174	Park Sq.	Holly oak	16	No	3	Okay form; slightly one-sided to W.	Remove	
175	Park Sq.	Holly oak	18	Yes	5	Slightly rangy; heavy lateral limb developing on SE.	Relocate	
176	Park Sq.	Holly oak	16	Yes	5	Good tree.	Relocate	
177	Park Sq.	Sweetgum	17	No	3	One-sided to NW.; thin with small foliage.	Remove	
178	Park Sq.	Sweetgum	18	No	3	Open & rangy; small foliage; minor twig dieback.	Remove	
179	Park Sq.	Sweetgum	19	No	1	All but dead.	Remove	
180	Park Sq.	Camphor	8	No	3	Nice canopy; codominant trunks @ 5'.	Remove	
181	Park Sq.	Coast redwood	56	Yes	5	1' from sidewalk; nice tree; one-sided to SE.	Remove	
182	Park Sq.	Coast redwood	39	Yes	5	Nice tree.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
183	Park Sq.	Camphor	12	No	3	Narrow planter; rangy; minor twig dieback; long wound on lower trunk.	Remove	
184	Park Sq.	Camphor	10,9,7	No	2	Narrow planter; multiple attachments @ 3'; ext. twig dieback; branch broken on N. leaving large jagged wound.	Remove	
185	Park Sq.	Holly oak	12	Yes	4	Codominant trunks @ 10'; okay form.	Relocate	
186	Park Sq.	Coast redwood	44	Yes	5	Group of 3; huge tree; one-sided to E.	Remove	
187	Park Sq.	Coast redwood	37	Yes	4	Group of 3; one-sided to SW.; lost central leader.	Remove	
188	Park Sq.	Coast redwood	45	Yes	5	Group of 3.	Remove	
189	Park Sq.	Camphor	20	No	3	One-sided & slight bow E.	Remove	
190	Park Sq.	Coast redwood	48	Yes	4	Good form; slightly thin canopy.	Remove	
191	Park Sq.	Coast redwood	53	Yes	4	Corrected lean E.; good canopy.	Remove	
192	Park Sq.	Sweetgum	11,6	No	3	Low branched not codominant; lost central leader; rangy.	Remove	
193	Park Sq.	London plane	14,10	No	2	Codominant trunks @ 3'; ext. twig dieback.	Remove	
194	Park Sq.	Coast redwood	45	Yes	5	Group of 3; huge tree; one-sided to S.; @ curb.	Preserve	No/limited irrigation
195	Park Sq.	Coast redwood	43	Yes	4	Group of 3; codominant trunks @ 14'; 1 stem dominates; nice canopy.	Preserve	No/limited irrigation
196	Park Sq.	Coast redwood	39	Yes	4	Group of 3; one-sided to NW.; thin canopy.	Preserve	No/limited irrigation

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
197	Park Sq.	Sweetgum	14	No	3	Codominant trunks @ 12'; lost central leader.	Remove	
198	Park Sq.	Sweetgum	18	Yes	4	Codominant trunks @ 20' & 22'; one-sided to NW.; could be okay.	Remove	
199	Park Sq.	Coast redwood	34	No	3	Very narrow upper crown.	Remove	
200	Park Sq.	Coast redwood	27	Yes	4	One-sided to N.; narrow.	Remove	
201	Park Sq.	Coast redwood	36	Yes	4	One-sided to S.; good tree.	Remove	
202	Park Sq.	Holly oak	19	Yes	4	Rangy.	Remove	
203	Park Sq.	Holly oak	12	Yes	4	Codominant trunks @ 13'; slight bow S.	Remove	
204	Park Sq.	Holly oak	11	No	3	Multiple attachments @ 10'; thin canopy.	Remove	
205	Park Sq.	Camphor	11	No	5	Codominant trunks @ 8'; nice tree.	Remove	
206	Park Sq.	London plane	30	Yes	4	Codominant trunks @ 5', 6' & 12'; some separation.	Preserve	
207	Park Sq.	London plane	9	No	3	One-sided to N.; thin canopy.	Preserve	
208	Park Sq.	Coast redwood	30	Yes	5	Good tree.	Preserve	
209	Park Sq.	Coast redwood	30	Yes	4	Lost central leader @ top, replaced; thin canopy.	Preserve	
210	Park Sq.	Coast redwood	51	Yes	4	Good form; seems stressed. **Thin canopy.**	Preserve	
211	Park Sq.	Coast redwood	27	Yes	4	Narrow & somewhat open form. **Thin canopy.**	Preserve	
212	Park Sq.	Holly oak	17	No	3	Codominant trunks @ 8' & 10'; flat form.	Remove	
213	Park Sq.	Holly oak	14	No	3	Asymmetric form due to competition; codominant trunks @ 7'.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
214	Park Sq.	Holly oak	12	No	3	Flat form due to competition; leans E.; codominant trunks @ 8'.	Remove	
215	Park Sq.	Camphor	13	No	3	High crown; okay form.	Remove	
216	Park Sq.	Camphor	11	No	2	Poor form & structure; scaffold branch failure on SW. left large wound; bowed E.	Remove	
217	Park Sq.	Sweetgum	17	Yes	4	Narrow with twig dieback throughout.	Remove	
218	Park Sq.	Sweetgum	15	No	3	Multiple attachments @ 13'; separating.	Remove	
219	Park Sq.	Holly oak	18	No	3	Codominant trunks @ 10'; multiple attachments @ 12'; open form; thin canopy.	Preserve	
220	Park Sq.	Holly oak	14	No	3	Slightly asymmetric due to competition; good vigor.	**Preserve**	
221	Park Sq.	Coast redwood	19	No	3	Narrow & upright; thin canopy. **Removed.**	--	
222	Park Sq.	Coast redwood	34	No	3	Broad sweep upright from base; thin canopy. 2015: canopy still thin but good new growth.	Preserve	
223	Park Sq.	London plane	22	No	3	Okay form but very thin canopy.	Preserve	
224	Park Sq.	London plane	29	No	3	Okay form but very thin canopy.	Remove	
225	Park Sq.	Camphor	9	No	5	Codominant trunks @ 6'.	Remove	
226	Park Sq.	Coast redwood	52	Yes	5	Corrected lean N.; nice canopy.	Remove	
227	Park Sq.	Coast redwood	53	Yes	5	Nice tree; lost central leader @ very top? Small basal cavity on S.	Remove	
228	Park Sq.	Sweetgum	11	No	3	Codominant trunks @ 8'; thin canopy; no vigor.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
229	Park Sq.	Sweetgum	16	No	3	Codominant trunks @ 14'; separating; twig dieback.	Remove	
230	Park Sq.	Sweetgum	15	No	3	Severe girdling roots; okay form.	Remove	
231	Park Sq.	Sweetgum	12	No	3	One-sided to N.; lost central leader.	Remove	
232	Park Sq.	Holly oak	10	Yes	4	Codominant trunks @ 7'; multiple attachments @ 10'; nice canopy.	**Relocate?**	
233	Park Sq.	Camphor	9	No	4	Codominant trunks @ 6' & 8'.	Remove	
234	Park Sq.	Sweetgum	17	No	3	Very rangy; lost central leader.	Remove	
235	Park Sq.	Sweetgum	19	No	3	Very rangy; lost central leader.	Remove	
236	Park Sq.	Sweetgum	20	No	3	Ext. wounded surface roots; good vigor; codominant trunks @ 18'; rangy.	Remove	
237	Park Sq.	Coast redwood	32	Yes	5	Good tree.	Preserve	
238	Park Sq.	Coast redwood	33	Yes	5	Open canopy.	Preserve	
239	Park Sq.	Sweetgum	19	No	3	Codominant trunks @ 20'; rangy above; large surface roots under sidewalk.	Remove	
240	Park Sq.	Sweetgum	26	No	3	Laterals with broad sweep upright; one-sided to N. & NE.	Remove	
241	Park Sq.	London plane	18	No	3	Good form; very thin canopy.	Remove	
242	Park Sq.	Coast redwood	45	Yes	5	Good tree.	Preserve	
243	Park Sq.	Sweetgum	18	No	3	Low laterals sweep upright; now bowing out; good vigor.	Remove	
244	Park Sq.	Sweetgum	10	No	3	Poor form & structure; codominant trunks @ 25' with wide attachment.	Remove	
245	Park Sq.	Coast redwood	48	Yes	5	Good tree.	Preserve	

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Tree No.	**Orig. Location**	**Species**	**Trunk Diameter** (in.)	**Protected Tree?**	**Condition** 0=dead 1=poor 5=excell.	**Comments**	**Proposed Action**	**Notes**
246	Park Sq.	Coast redwood	41	Yes	5	Good form; slightly one-sided to S.	Preserve	
247	Park Sq.	London plane	24	Yes	4	Tangle of upright scaffolds.	Remove	
248	Park Sq.	London plane	16	Yes	4	Codominant trunks @ 7'; one-sided to S.	Remove	
249	Park Sq.	London plane	18	No	3	Codominant trunks @ 15'; leans E.; bottle butt.	Remove	
250	Park Sq.	Camphor	11	No	3	Codominant trunks @ 4'; spread apart.	Remove	
251	Park Sq.	Coast redwood	37	Yes	4	Good form; thin canopy.	Remove	
252	Park Sq.	Holly oak	14	No	3	Leans E. over driveway; codominant trunks @ 7' & 12'.	Remove	
253	Park Sq.	Sweetgum	17	No	3	Codominant trunks @ 6' & 8'; rangy.	Remove	
254	Park Sq.	Sweetgum	15	No	3	Open & rangy; twig dieback throughout.	Remove	
255	Park Sq.	Sweetgum	16	No	3	Multiple attachments high in crown; rangy.	Remove	
256	Park Sq.	Sweetgum	10	No	2	Btwn. buildings; narrow planter; ext. twig dieback; codominant trunks @ 16'.	Remove	
257	Park Sq.	Sweetgum	8	No	3	Btwn. buildings; narrow planter; codominant trunks @ 16'; rangy.	Remove	
258	Park Sq.	Sweetgum	13	No	3	Btwn. buildings; narrow planter; codominant trunks @ 16'; rangy.	Remove	
259	Park Sq.	Sweetgum	10	No	3	Btwn. buildings; narrow planter; series of codominant attachments.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
260	Park Sq.	Sweetgum	10	No	3	Btwn. buildings; narrow planter; codominant trunks @ 12'; separating.	Remove	
261	Park Sq.	Sweetgum	9	No	3	Btwn. buildings; narrow planter; codominant trunks @ 11'; separating; twig dieback.	Remove	
262	Park Sq.	Sweetgum	9	No	3	Btwn. buildings; narrow planter; narrow & upright.	Remove	
263	Park Sq.	Sweetgum	10	No	3	Btwn. buildings; narrow planter; codominant trunks @ 10'; separating; rangy.	Remove	
264	Park Sq.	Coast redwood	44	Yes	5	Good form; short & squat.	Remove	
265	Park Sq.	Sweetgum	8	No	3	Narrow planter; rangy & rounded.	Remove	
266	Park Sq.	Holly oak	15	Yes	4	5' by 5' planter; enlarged from 2' by 2'; good vigor; okay form but base is a mess.	Relocate	
267	Park Sq.	Holly oak	11	No	3	5' by 5' planter; enlarged from 2' by 2'; good vigor; okay form but base is a mess.	Remove	
268	Park Sq.	Camphor	10	No	3	Enlarged planter? Round form; twig dieback.	Remove	
269	Park Sq.	Camphor	10	No	3	Multiple attachments @ 7'.	Remove	
270	Park Sq.	Camphor	12,9	No	2	Ext. twig dieback; codominant trunks @ 4'.	Remove	
271	Park Sq.	Holly oak	9	No	3	5' by 5' planter; enlarged from 2' by 2'; flat-topped; base is a mess.	Remove	
272	Park Sq.	Holly oak	7	No	3	5' by 5' planter; enlarged from 2' by 2'; no vigor.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
273	Park Sq.	Holly oak	11	No	3	5' by 5' planter; enlarged from 2' by 2'; no vigor; poor form but base is a mess.	Remove	
274	Park Sq.	Holly oak	12	No	3	5' by 5' planter; enlarged from 2' by 2'; good vigor; base is a mess; multiple attachments @ 6'.	Remove	
275	Park Sq.	Camphor	14	Yes	4	Codominant trunks @ 5'; round form; thin canopy.	Remove	
276	Park Sq.	Camphor	5,5	No	2	Poor form & structure; codominant trunks @ 2'; twig & branch dieback.	Remove	
277	Park Sq.	Holly oak	24	Yes	5	Nice tree.	Preserve	
278	Park Sq.	White alder	26	No	0		Remove	
279	Park Sq.	Coast redwood	17	Yes	4	One-sided to SE.; lost central leader @ very top? Thin canopy.	Preserve	
280	Park Sq.	Coast redwood	28	Yes	5	More open & rangy.	Preserve	
281	Park Sq.	Coast redwood	27	Yes	5	Slightly one-sided to N.	Preserve	
282	Park Sq.	Sweetgum	16	No	3	Multiple attachments @ 16'; separating.	Remove	
283	Park Sq.	Sweetgum	18	No	3	Multiple attachments @ 15'; lost central leader high in crown; rangy.	Remove	
284	Park Sq.	London plane	21	Yes	4	Good form; thin canopy.	Preserve	
285	Park Sq.	London plane	20	No	3	Poor form & structure; basically defoliated.	Remove	
286	Park Sq.	London plane	20	Yes	4	Good form; thin canopy.	Preserve	
287	Park Sq.	Holly oak	11	No	3	Multiple attachments @ 6'; thin canopy.	Remove	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
288	Park Sq.	Holly oak	19	Yes	4	Multiple attachments @ 15'; otherwise okay.	Preserve	
289	Park Sq.	Holly oak	15	No	3	One-sided to NW.; open form.	Remove	
290	Park Sq.	Coast redwood	22	Yes	5	Narrow & upright.	Remove	
291	Park Sq.	Coast redwood	20	Yes	5	Good tree.	Remove	
292	Park Sq.	Coast redwood	20	Yes	4	Sinuous trunk; open form.	Remove	
293	Park Sq.	Sweetgum	15	No	3	Codominant trunks @ 18'; rangy.	Remove	
294	Park Sq.	Sweetgum	19	No	3	Codominant trunks failure @ 14'; multiple attachments high in crown; rangy form.	Remove	
295	Park Sq.	Camphor	13	No	3	Poor form & structure; one-sided to W.	Remove	
411	Park Sq.	Coast redwood	32	Yes	5	Good tree.	Remove	
412	Park Sq.	Coast redwood	31	Yes	5	Good tree.	Remove	
413	Park Sq.	Coast redwood	30	Yes	4	One-sided to SW.	Remove	
414	Park Sq.	Coast redwood	28	Yes	5	Good tree.	Remove	
416	Park Sq.	Coast redwood	21	Yes	5	Good tree.	Remove	
417	Park Sq.	Coast redwood	22	Yes	4	Good tree; thinner; lost central leader @ top?	Remove	
418	Park Sq.	Coast redwood	24	Yes	4	Good tree; thin canopy.	Remove	
419	Park Sq.	Coast redwood	30	Yes	4	Good tree; thinner.	Remove	
420	Park Sq.	Coast redwood	28	Yes	4	Good tree; thinner.	Remove	
421	Park Sq.	Coast redwood	31	Yes	4	Good tree; thinner; lost central leader @ top?	Remove	
427	TA	Olive	15,14,13,11,9	No	3	Multiple attachments @ base; codominant trunks @ 2'; wide separation; topped; branch failure; ext. twig dieback especially on 14".	Relocate	

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Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
428	TA	Coast redwood	23	Yes	4	Huge base; corrected lean SE.	Remove	
429	TA	Coast redwood	32	Yes	5	Good tree.	Remove	
430	TA	Coast redwood	39	Yes	5	Good tree.	Remove	
431	TA	Olive	16,16,11,10	No	3	Multiple attachments @ 3'; bowing apart; topped.	Relocate	
432	TA	Coast redwood	49	Yes	5	Huge tree.	Remove	
433	TA	Olive	14,11,11,9, 9,8,7	Yes	4	Multiple attachments @ base & 1'; bowing apart; topped.	Relocate	
434	TA	Coast redwood	35	No	3	Corrected lean S.; narrow & upright; lost central leader @ top.	Remove	
435	TA	Olive	14,13,12,12 ,10	No	2	Multiple attachments @ 1'; ext. twig & branch dieback to 4"; topped.	Relocate; prune to remove dead branches at transplanting	
436	TA	Olive	27	Yes	5	Full & dense; multiple attachments @ 4'; 1 upright; 1 bowed out; 1 leans E.; topped.	Relocate	
437	TA	Olive	15,14,13,9	Yes	4	Multiple attachments @ 3'; rounded; topped.	Relocate	
438	TA	Coast redwood	9	Yes	5	Good young tree.	Relocate	
439	TA	Coast redwood	9	Yes	5	Good young tree.	Relocate	
440	TA	Coast redwood	10	Yes	5	Good young tree.	Relocate	
441	TA	Coast redwood	10	Yes	5	Good young tree.	Relocate	
442	TA	Coast redwood	10	Yes	5	Good young tree.	Relocate	
443	TA	Coast redwood	10	Yes	5	Good young tree.	Relocate	
444	TA	Coast redwood	10	Yes	5	Good young tree.	Relocate	
445	TA	Coast redwood	9	Yes	5	Good young tree.	Relocate	
446	TA	Coast redwood	7	Yes	5	Good young tree.	Relocate	

Santa Clara Square -- Apartments HortScience, Inc

Santa Clara CA

Proposed action as of July 2015

Tree No.	Orig. Location	Species	Trunk Diameter (in.)	Protected Tree?	Condition 0=dead 1=poor 5=excell.	Comments	Proposed Action	Notes
447	TA	Hopseed	4,4	No	3	Corrected lean W.; codominant trunks @ 1'.	Remove	
448	TA	Purpleleaf plum	7	No	4	Multiple attachments @ 3'; otherwise good.	Remove	
449	TA	Evergreen ash	23	Yes	5	Good tree; series of codominant attachments.	Remove	
450	TA	Evergreen ash	23	Yes	4	Multiple attachments @ 8'.	Remove	
451	TA	Evergreen ash	23	Yes	4	Multiple attachments @ 7'.	Remove	
452	TA	Evergreen ash	27	Yes	4	Multiple attachments @ 18'.	Remove	
453	TA	Evergreen ash	24	No	3	Multiple attachments @ 8'; leans SE; girdling root.	Remove	
454	TA	Coast redwood	45	Yes	5	Open but good. Sept. 2015: still thin but better.	Preserve	
455	TA	Olive	21,14,11	No	3	Multiple attachments @ base; codominant trunks @ 5'; topped; 14" with long cavity.	Relocate	
456	TA	Coast redwood	42	Yes	**3**	Open but good. **Upper canopy very; lower canopy better.**	Preserve	
457	TA	Olive	15,12,11,9	No	3	Multiple attachments @ base; *Ganoderma* @ base.	**Remove**	
458	TA	Olive	14,12,12,11	No	3	Multiple attachments @ 1'; topped; 2 vertical; 2 bowed out.	Relocate	
459	TA	Coast redwood	46	Yes	4	Open; lost central leader @ top.	Remove	
460	TA	Olive	16,14,12	No	3	Multiple attachments @ base; topped; 16" with long cracked cavity.	Relocate	
461	TA	Olive	19,18,15,12	No	3	Multiple attachments @ base to 2'; topped.	Relocate	

Santa Clara Square -- Apartments								HortScience, Inc
Santa Clara CA								
Proposed action as of July 2015								
Tree No.	**Orig. Location**	**Species**	**Trunk Diameter** (in.)	**Protected Tree?**	**Condition** 0=dead 1=poor 5=excell.	**Comments**	**Proposed Action**	**Notes**
462	TA	Coast redwood	44	Yes	5	Open but good; large surface roots.	Remove	
463	TA	Olive	16,14,13,12	No	3	Multiple attachments @ base; codominant trunks @ 4'; topped; 14" & 13" lean SE.	Relocate	

APPENDIX 2.9

WRA Response to Comments Letter

November 23, 2015

Mr. Yen Chen
Associate Planner
The City of Santa Clara
1500 Warburton Ave
Santa Clara, CA 95050

Re: Response to comment on the EIR regarding temporary loss of mature trees during the Santa Clara Square Mixed Use/Residential project implementation in Santa Clara, California

Dear Mr. Chen:

The proposed project seeks to establish a Residential/Mixed Use development situated within an existing urban and commercial development environment. The project site is entirely developed with office building complexes, parking lots and associated landscaping. The project proposes to preserve 65 trees on site and relocate 33 trees to other parts of the project site. As stated in the EIR on page 4.3-16, implementation of Mitigation Measure BIO-3 will ensure successful tree preservation during the design and construction phases. Although the removal of 350 trees may potentially pose a significant construction-related impact to biological resources, this impact would be less than significant with the implementation of all mitigation measures and compliance with all applicable regulations, as listed in the Biological Resources Assessment and EIR.

The temporary loss of trees within the project area as potential nesting, migrating or wintering habitat for native common and special-status bird species is not anticipated to have a substantial adverse impact due to existing urban conditions, size and location of the project area, and low density of nests generally observed in urban environments. The project area is considered low quality habitat for avian species due to the low density of potential foraging habitat in the developed site and surrounding urban areas. A low density of foraging habitat limits the carrying capacity of a site, meaning the developed site could support few nesting, migrating or wintering birds relative to a more natural setting. Additionally, the site covers a relatively small area in an extensive landscape of development. The temporary loss of trees in such an area, which has a low carrying capacity and is surrounded by similar development, is not anticipated to have a substantial adverse effect on birds because a) very few would be displaced, b) those displaced would be displaced only temporarily, and c) the site does not lie on a natural migration corridor. Nesting in urban environments tends to be relatively low-density for these reasons, and it often occurs on buildings where protection from predators is often greater than in exposed and managed landscape trees. Special-status species also typically require specific, natural habitats not found in urban, developed environments, and thus the temporary loss of trees in the project site is unlikely to displace many, if any, special-status birds. Therefore, the temporary loss of trees within the project area is not anticipated to have a substantial adverse effect on native birds in the area, and EIR mitigation measure BIO-1 is

anticipated to be sufficient to ensure that any potential construction-related adverse effects are less than significant.

The proposed project would also be subject to the City of Santa Clara General Plan Land Use Policy and the Design Guidelines which includes a 2:1 ratio for tree removal. The proposed nursery stock size would be 24- and 36-inch boxes. Although not a mitigation measure, compliance with this policy will restore and enhance existing site characteristics, including characteristics beneficial for native birds. As stated in the EIR on page 4.3-17, "there would be a substantially greater number of trees and shrubs planted as part of the proposed project as opposed to the existing landscaping, which would compensate for the smaller size of the new trees before they achieve full maturity." The list of trees to be removed during project construction can be found in Appendix 4.3 of the EIR.

The proposed project does not exceed the thresholds of significance established in CEQA Appendix G for Biological Resources as the project would not have a significant adverse impact to native or special-status species. Temporary loss of trees would be insignificant, and any minor adverse effect caused by temporary tree loss would be outweighed by the planting of a substantially greater number of trees within the site. Therefore impacts to biological resources are less than significant.

Please do not hesitate to contact me with any questions.

Most sincerely,

Kate Allan

Kate Allan
Wildlife Biologist