REVISED SUBGRADE TESTING AND GEOTECHNICAL WORKPLAN FOR JUNE 16, 2022 STIPULATED NOTICE AND ORDER

FOR
MILAN REI X, LLC

6145 EAST SANTIAGO CANYON ROAD
CITY OF ORANGE, ORANGE COUNTY, CALIFORNIA

Prepared For: **MILAN REI X, LLC**
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Project No. Project No. 13620.006

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Subject: Final Revised Subgrade Testing and Geotechnical Workplan For Soil Testing 6145 East Santiago Canyon Road City of Orange, Orange County, California

This Final Revised Workplan for Subgrade Testing and Geotechnical (Workplan) has been prepared by Leighton and Associates, Inc. (Leighton) for a site consisting of a portion of for Milan REI X, LLC's (Milan's) property located at 6145 E. Santiago Canyon Road in the City of Orange, California to comply with the June 16, 2022 Stipulated Notice and Order (Stipulated N&O) prepared by the Orange County Health Care Agency, Environmental Health acting as the Solid Waste Local Enforcement Agency for the County of Orange, California (the "LEA"). A copy of the Stipulated N&O is presented in Appendix A. Sections 3 and 4 of the Stipulated N&O respectively requires that Milan prepare (1) a workplan for subgrade testing of the soil beneath the current grade level at the site and (2) geotechnical testing to determine the exact boundaries of waste units if any are determined to be located at the site.

The Workplan has been revised to integrate the information requested in the LEA's April 28, 2023, August 10, 2023, and October 16, 2023 comment letters to Milan, Leighton's responses to the LEA comment letters, and other agency letters as they relate information presented in the Workplan and discussed with the LEA. Leighton Tables 1, 2, and 3, which are provided in Appendix A of this workplan, respectively address the aforementioned LEA comment letters. Also included in Appendix A is the LEA's October 31, 2022 comments letter for Leighton's September 13, 2022 Revised Subgrade Testing and Geotechnical Workplan. This Revised Workplan also has incorporated information discussed with the LEA during our telecommunications conducted with LEA personnel.

Based on the findings obtained during the implementation of this Subgrade Testing and Geotechnical Workplan, a stand-alone workplan will be prepared to address methane and soil vapor sampling in accordance with the Stipulated N&O. This Revised Workplan for the subgrade and geotechnical testing planned at the site was prepared under the technical direction of the undersigned which includes a California Professional Geologist.

Respectively submitted,

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Appendices

1.0 INTRODUCTION

Leighton & Associates, Inc. (Leighton) has prepared this revised workplan for Milan REI X, LLC (Milan) for the approximately 67-acre site, which consists of part of the property located at 6145 E. Santiago Canyon Road in the City of Orange, California (Figure 1). The workplan has been prepared to address the requirements for analytical testing of subgrade soil and for determining the boundaries of waste units if any are determined to be located at the site, respectively described in Sections 3 and 4 of the June 16, 2022 Stipulated Notice and Order (Stipulated N&O) agreed between the Orange County Health Care Agency (OCHCA) and Milan.

The OCHCA is acting as the Solid Waste Local Enforcement Agency for the County of Orange (the "LEA"). Previous versions of this workplan were submitted to the LEA for review on August 1, 2022, September 13, 2022, and January 23, 2023. On October 31, 2022, the LEA provided written comments for the September 13, 2022 Revised Workplan. On November 29, 2022, Leighton, Milan, and the LEA met in person to discuss the LEA's comments on the Revised Workplan from September 13, 2022. After the November 29, 2022 meeting and in response to the LEA's October 31, 2022 letter, a response to the LEA's comments was attached as a Table in Leighton's January 23, 2023 Revised Workplan. The LEA provided written comments on the workplan in four letters, dated October 31, 2022, April 28, 2023, August 10, 2023, and October 16, 2023. Leighton tables responding to all of the LEA's correspondences are provided in Appendix A.

A copy of the Stipulated N&O can be found in Appendix A. The site boundaries are defined and depicted in Attachments B and C to the Stipulated N&O of Appendix A. Appendix B to this revised Workplan provides a figure showing the individual parcels that comprise the site with acreage for each parcel.

This Workplan details Milan's plan to meet the requirements Sections 3 and 4 of the Stipulated N&O.

Section 3 requires analytical testing of soil at the site and the submittal of a report.

Section 4 requires a geotechnical evaluation of the site to determine the boundaries of the waste units in the site's soil detected as part of the analytical testing conducted under Section 3.

Section 5 requires analytical testing of stockpiled materials at the site and preparation of a report (prepared under separate cover/workplan and transmitted to the LEA on December 27, 2023).

The requirements of Sections 3 and 4 of the Stipulated N&O are as follows:

Stipulated N&O Section 3 Requirements

Section 3 in the Stipulated N&O requires that the work completed at the site include the following components:

- Section 3.2 of the Stipulated N&O requires sampling of soil for the following potential contaminants:
  - Total Petroleum Hydrocarbons (TPH) by United States Environmental Protection Agency (EPA) Method 8015,
  - Polycyclic Aromatic Hydrocarbons by EPA Method 8310,
  - Volatile Organic Compounds (VOCs) by EPA Method 8260 and Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270 full scan analysis,
  - Heavy Metals by EPA Method 6010B and 7471A,
  - Pesticides organochlorine and organophosphorus, by EPA Method 8081A or 8080A and 8141A,
  - Herbicides by EPA Method 8151A,
  - Poly-cyclic biphenyls (PCBs) by EPA 8082 or 8080A,
  - Asbestos by EPA Method 600/R93-116 or California Air Resources Board [CARB] 435,
  - pH, and
  - Methane gas.
- Preparation of a workplan which shall include all of the following:
  - The scope of the investigation.
  - The scope of the analytical testing, including (i) testing for the presence of any solid waste and (ii) testing for the substances that are specified in Subsection 3.2 and in accordance with their corresponding methods listed in Subsection 3.2
  - The scope of the final assessment report regarding the results and findings of the investigation.

- Take into consideration the past use of the Site and any past reports regarding the Site's soil composition and testing.

- Include sampling of all areas of the Site's previous excavations. To the extent the workplan proposes that no sampling of previous excavations is necessary, the workplan shall describe the rationale therefor.

- Specify sampling methodology that shall at a minimum include borings and boring logs. The methodology shall not use glass jars to take the samples. The methodology shall specify only discrete sampling; no composite sampling will be allowed.

- Include a sufficient number of samples to be a reasonable representative of the Site's areas being tested, taking into consideration the future use of the areas as residential, recreational or open space, as residential and recreational areas will require more dense sampling in comparison to open space areas.

- Include installation of test probes to check for detection/presence of methane gas in the soil subsurface.

- Collection and analytical testing of soil vapor samples if VOCs and SVOCs are detected in soil samples taken. As requested by the LEA, a stand-alone workplan will be prepared to address methane and soil vapor sampling in accordance with the Stipulated N&O.

Stipulated N&O Section 4 Requirements

Section 4 of the Stipulated N&O requires the following elements:

- Take into consideration the past use of the site and any past geotechnical reports for the site.
- Includes sampling of all areas of the site's previous excavations. To the extent the work plan proposes that no sampling of previous excavations is necessary, the work plan shall describe the rationale therefore.
- Specify sampling methodology that shall at a minimum include borings and boring logs.
- Specify depths to be taken no less than 5 feet below the grade level and continue until native subsurface is reached.
- Include a sufficient number of samples to be a reasonable representative of the sites waste units.

2.0 BACKGROUND INFORMATION

2.1 Site Use History

The land-use history of the subject property has been summarized previously in Phase I Environmental Site Assessments (ESAs), which include an August 6, 2009 ESA prepared by Michael Brandman Associates (MBA ESA) and an August 2000 Geomatrix Consultants ESA (Geomatrix ESA). In addition, Ginter & Associates, Inc. (Ginter) prepared a report summarizing geologic and geotechnical information pertinent to the history of the subject property (October 2011). Ginter noted the project site "…*was used from 1919 to 1995 for surface mining of sand, gravel and other aggregates. Previously mined portions of the project site were used for residue silt deposition, otherwise known as silt ponds. The backfill operation restores the previously mined portions of the project site.*"

The MBA ESA noted that aggregate was mined and processed at a rock plant formerly located on site. The silt ponds were primarily located on the western half of the site (Geomatrix Figure 2, August 2000 ESA). The mined sediments originate from alluvial deposits are associated with the East-West trending Santiago Creek which forms the northern boundary of the site (Figure 1). Based on the review of historical aerial photographs, significant portions of the subject property appear to have evidence of soil work including grading, excavation activity, and backfilling operations.

The Geomatrix ESA noted that Arbor West Services and Hiramatsu Farms (subleasing to Otsuka Farms) conducted agricultural activities in the 1990s on the eastern and western portions of the site for the growth of strawberries and other produce. Geomatrix indicated that pesticides use reports in 1999 indicated the use on-site of organochlorine and organophosphate pesticides, herbicides, fungicides and biocides. The historical aerial photographs (Appendix C) reviewed from the 1940s through the early 1960s indicate that orchards were prevalent along the southern portion of the site adjacent to the sediment mining areas. In their 2009 ESA, MBA noted that no agricultural chemicals were observed onsite.

The subject property also had two hot-mix asphalt plants, two office buildings, two maintenance shop buildings, a residence, a laboratory user testing raw materials (sand and gravel), a small building used by the drivers as a waiting area (drivers shack), a diesel spray rack area used to spray the beds of rocks with diesel fuel prior to transporting asphaltic concrete, numerous trailer and equipment/parts

storage areas, several underground storage tanks (USTs), aboveground storage tanks (ASTs), and fuel and oil storage areas. The asphalt plant and associated structures were operated by Blue Diamond Materials (BDM) which is affiliated with its parent company, Sully Miller Contracting Company (SMCC). The asphalt plant and buildings were demolished and/or removed in 1995 during site closure activities (Geomatrix ESA).

The Geomatrix ESA noted that there were three environmental investigations related to fuel spills and leaking USTs at the BDM/SMCC facility between April 1986 and January 1987. Fuel hydrocarbon-affected soil was excavated in the areas where the spills or leaks occurred in compliance with the OCHCA requirements. BDM discontinued the practice of spraying down truck beds with diesel fuel at the spray rack located in the northern portion of the property. Reportedly, the top 1 to 2 feet of soil around the spray rack was removed and replaced with clean base material. The MBA ESA that the site closure activities performed in 1995 included the removal of 15 USTs and seven ASTs together with other structures used to store diesel and gasoline fuel, waste oil, asphalt emulsion oil, bituminous oil, and hydraulic oil. The MBA ESA noted "… *Extensive remediation for affected soils was conducted during site closure. Soil cleanup objectives and sampling frequency in the fuel UST areas were approved by the Orange Fire Department (Geomatrix, 2000).*"

Information for the BDM/SMCC site in the CRWQCB, Santa Ana Region GeoTracker website indicated the presence of a September 12, 1998 "No Further Action (NFA)" letter pertaining to the "…location of the former underground storage tank areas of the site." Case information noted that eight USTs containing diesel duel, gasoline, and waste oil (ranging in size from 1,000 gallons to 22,600 gallons) were removed from the site on April 10, 1995. No groundwater contamination was discovered in three groundwater monitoring wells installed near the UST areas and the CRWQCB approved the site for NFA status. A copy of the September 22, 1998 NFA letter for the BDM/SMCC site can be found using the GeoTracker website under the Santa Ana Regional Water Quality Control Board (SARWQCB) case number 083002699T.

Although reference to buried asbestos on-site was noted on-site in the Geomatrix ESA, none was found during multiple investigations which included drilling as well as trenching as further explained below.

The Villa Park Landfill, located southwest of and adjacent to the subject property, was reportedly closed in February 1966 and represents a potential source of methane and possibly other VOCs on the western portion of the site. We understand there are methane gas monitoring wells located on the western portion of the subject property and on the adjacent Villa Park Landfill. The LEA has noted methane has not been detected from probes on the eastern boundary of the Villa Park Landfill (i.e., adjacent to the site). When the soil vapor sampling activities are performed, Milan will keep the LEA apprised should methane gas be detected in probes adjacent to the Villa Park Landfill.

Reported Potential Asbestos Burial

According to the LEA, a figure in the Phase II Environmental Site Assessment dated May 2011 prepared by Tait Environmental Services identified undocumented fill material in mining excavations (possibly including asbestos) indicating the presence of historical disposal site.

Targhee performed two investigations using trenching and drilling techniques to locate the reported buried asbestos. The Targhee investigation area was located on the site to the west of the northernmost portion of the Handy Creek Culvert. An unidentified “white fibrous material” was reportedly found in some of the soil samples collected by drilling. The results of Targhee’s investigation were inconclusive because the samples were never analyzed for the presence of asbestos. Leighton did not find a boring log by Targhee describing the soil types observed.

As noted in Tait’s June 7, 2010 Response to the City of Orange Comments letter, on June 16, 2008, the OCHCA collected three soil samples in the area where the suspected asbestos burial was reported; however, the three soil samples were non-detect for asbestos. According to Tait’s letter, the OCHCA files indicated that the agency closed the case in light of the sample results.

The site investigation prepared in this Workplan will evaluate multiple areas where undocumented fill may be present. An additional boring, noted as boring C-13 on Figure 2, has been added this Workplan for the area near the Targhee asbestos trench investigation to evaluate for the potential presence of asbestos and the COCs required by the LEA.

Review of Tait Environmental Services May 11, 2011 Phase II Site Assessment Activities Conducted at Rio Santiago Project Site

In 2011, Tait Environmental Services Inc. (Tait) conducted a Phase II Environmental Site Assessment (Phase II) at the subject property in advance of a potential multi-use redevelopment plan for the site. A copy of Tait's Phase II is presented in Appendix D. Tait collected analytical data from multiple areas across the site. The Phase II included soil matrix core samples limited to near-surface soils (those less than 10 feet below grade) and soil vapor samples. The collection of soil vapor samples included only anticipated footprints of planned site buildings that were part of the proposed development. Soil matrix core sample analyses were selected to evaluate for the presence of residual petroleum hydrocarbon compounds, VOCs, metals, and pesticide concentrations from previous site operations. The soil vapor samples evaluated landfill gas impacts from the adjacent Villa Park Landfill. Soil matrix core and soil vapor samples were not collected in excavated areas or areas covered by soil stockpiles.

Tait's Phase II also addressed potential data gaps that were identified to the City of Orange in an August 6, 2009 memorandum prepared by The Planning Center (TPC). These included:

1. Undocumented fill material in mining excavations (possibly including asbestos).
2. Impacts from 15 USTs and seven ASTs
3. Re-evaluation of closure determination for eight former USTs due to proposed land use changes
4. Impacts from former agricultural use of project site, including pesticide storage and application, and ASTs previously located in former mulching and green waste recycling area
5. Human health risk assessment of potential inhalation exposures to VOCs previously detected in subsurface soil at project site
6. Impacts from previously-observed, unlabeled 55-gallon drums and surrounding stained soil at project site
7. Impacts from reported construction debris and illegal dumping around project site, including status of the former ponds (landfills or not).

Tait collected soil matrix core samples from the following areas:

- Former Sully-Miller Maintenance Shop and Equipment Storage Area (HAZ-8)
- Maintenance Buildings (HAZ-7)
- Former UST and AST Locations (HAZ-5 and HAZ-10)
- Asphalt Plant (HAZ-10)
- Materials Recycling Area (HAZ-10)
- Agricultural Areas (including Hiramatsu Farms) (HAZ-9 and HAZ-10)

The results of Tait's Phase II were compared to the EPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. Leighton's review of the Phase II indicated[1]:

- None of the soil samples contain pesticides at concentrations exceeding their respective RSLs.
- None of the soil samples contained TPH-gasoline at a concentration exceeding the San Francisco Bay Region, California Regional Water Quality Control Board Environmental Screening Level (ESL) (2019).
- Nine (9) soil samples containing TPH-diesel at concentrations exceeding the 83 milligram per kilogram (mg/kg) ESL. The soil samples were collected in the former Sully-Miller maintenance shop and equipment storage area.
- Fourteen (14) soil samples containing TPH-motor oil were detected at concentrations exceeding their 370 mg/kg ESL. The soil samples also were collected from the former Sully-Miller maintenance shop and equipment storage area and the former materials recycling area.
- The only VOCs detected in soil matrix or samples were toluene, ethylbenzene, and total xylenes. No RSL have been established for toluene for total xylenes. None of the detected ethylbenzene concentrations exceeded the ethylbenzene RSL.
- The VOCs in the soil vapor samples were compared to the California Human Health Screening Levels (CHSSLs). One soil vapor sample containing PCE and TCE and three soil vapor samples containing ethylbenzene. In addition,

[1] Tait's discussion of the findings was based on the proposed mixed-use development known as the Rio Santiago Specific Plan (RSSP) project is not currently under consideration.

five soil vapor samples contained methane at concentrations approaching 1% by volume. The soil vapor samples were collected in the former Sully-Miller maintenance shop and equipment storage area in the former UST and AST locations.

2.2 Import of Inert Debris Onsite

Leighton's review of the documents provided by Milan indicates that much of the subject property was excavated at one time for sand and gravel mining. The screening of the sand and gravel for commercial purposes resulted in separating silt and finer sediment material which were later hydraulically placed in the original excavations which provided the source of sand and gravel. The backfilled fine sediment was determined to be unsuitable for geotechnical purposes for the proposed Rio Santiago Development. Ginter & Associates, Inc. prepared multiple geotechnical reports describing the removal of the finer sediments from selected excavations and replacement with certified fill which included inert debris materials.

As part of an Environmental Impact Report prepared for a proposed land development formally known as Rio Santiago, Ginter noted "…Approximately 2,248,200 cubic yards of material will be over excavated. This includes all materials required to restore the project site. Once removed, the material will be spread and dried on the project site. The material will then be mixed with imported materials. A total of 1,100,000 cubic yards of material will be imported to the site. The imported materials include concrete, asphalt, rock, and soil. The imported materials will be crushed on-site. A total of 3,348,200 cubic yards of material, both over excavated and imported to the project site, will be blended during the backfilling operation."

As set forth in the Stipulated N&O, the site was operated as an Inert Debris Engineered Fill Operation (IDEFO) from approximately 2011 to 2013. Between approximately 2010 to 2012, Material Transport Services (MTS), Inc. transported IDEFO materials on the site to backfill many of the excavations that were generated during the sand and gravel pit mining activities. MTS submitted and Application/Report of Waste Discharge to the California Regional Water Quality Control Board dated December 22, 2010. The application noted that MTS, Inc. operates an inert material backfilling operation and indicated "… *the operation intends to backfill the site within your materials to approximately natural grade*." MTS indicated "…The inert debris includes: fully cured asphalt, uncontaminated

country, rock, and soil. These materials are spread on land in lifts and compacted under controlled conditions." On December 28, 2010, the CRWQCB issued a letter approving for a Waiver of Waste Discharge Requirements for MTS, Inc. Company's Inert Landfill in the City of Orange under the General Waiver, Order No. RB8-2007-0036. On January 18, 2011, an inspection by the CRWQCB indicated "The site is a new inert landfill. The site is in good condition. No violations noted."

In 2007, Milan purchased the property to redevelop the site.[2] Starting in approximately 2010, Milan initially used MTS to operate IDEFO to conduct fill and compaction operations under engineering oversight. After initiating stockpiling, fill, and compaction activities at the Site, in 2013, Milan changed operators. After 2013, Milan continued to accept and stockpile inert debris for future fill operations at the Site in furtherance of development activities utilizing various operators, including Rio Santiago, LLC. Milan contends that it continued to accept only inert debris as part of an IDEFO. In 2015, while pursuing development approvals from the City and community, Milan temporarily shut down its operations as a good faith effort to work with interested parties with regard to an agreeable development plan for the Site. Operations were later restarted in 2018.

In January 2020, the LEA inspected the Site after receiving a complaint and determined that the site should obtain a Registration Permit for an Inert Debris Type A Disposal Facility. Thereafter, Milan applied for the permit, which the LEA issued on June 22, 2020.[3] However, as further set forth in the Stipulated N&O, a dispute arose between the LEA and Milan over the validity of the permit and

[2] Milan REI X LLC was the majority owner of JMI Properties/Santiago Partners, LLC, and the surviving entity after the two entities merged in 2016.

[3] On May 19, 2020, Associates Environmental (AE) submitted an Inert Debris Type A Disposal Facility Plan, which indicated that it would accept the following Inert Debris, including: Earth, Rock, Gravel and Sand, Fully cured asphalt, Uncontaminated concrete, Crushed glass, Brick, Ceramics, Clay and clay products which may be mixed with rock and soil, Plaster Products (excluding Wall/Plasterboard), Tile/Porcelain, Encased Metal, Stucco and California Non-Hazardous Soils.
AE further to noted "…*This facility is not a [Municipal Solid waste Landfill (MSWLF)] and will not allow any hazardous material onto the site under any circumstance. Loads with anything deemed hazardous or unacceptable will be reloaded onto the truck and escorted off the property. The Inert Debris Type A Disposal Facility will not accept nor will it process hazardous materials under any circumstance.* "In addition, as it relates to site closure information, AE noted "…*The site is importing and stockpiling material to be used in the future compaction and grading of the property. The property owners are in the development process with the City. Once a final plan for the property has been approved, then the property owners will get all appropriate permits to develop the property. This will include the compaction standards for density and design*."

appropriate category of solid waste operations for the site. In October 2020, Milan ceased accepting and stockpiling debris.

At the request of Milan, Ginter & Associates (Ginter) prepared a March 10, 2022 report entitled "*Summary and Compilation of all Geotechnical Reports, Analyses and Data for the Rio Santiago Development Site*." A copy of the March 10, 2022 Ginter report is provided in Appendix E. Ginter noted that for the purpose of simplification, "…*the site was divided into areas, each having its own distinctive geotechnical conditions and development opportunities.*" These areas, designated as Area "A" through Area "M" and shown on a map entitled "Summary Areas Figure" in Ginter's report (Appendix E). Leighton prepared Figure 2 which was derived from Ginter's map. Ginter's Areas A and M were located off-site and are not shown in Leighton's Figure 2.

On Figure 2, slight modifications made to Ginter's map as noted below:

- Ginter Area I, due to its proximity to Area G and similar soil types, was included as part of Leighton's Area G on Figure 2;
- Ginter's Area J was changed to Area I on Leighton's Figure 2
- Ginter's Area L was changed to Area J on Leighton's Figure 2

As noted, Ginter (2022) summarized soil conditions in each of the Areas and Leighton has relied upon this information to prepare Table 1 which is presented below in Section 3.0 Investigative Methodology and summarizes Ginter's geotechnical information and includes our recommendations for drilling the exploratory soil borings for the geotechnical workplan which includes testing of the soil below the current grade level.

The stockpiles of inert materials and soil at the site are shown on Figure 2 and designated as Areas E, F, G, H, I, and L. Fuscoe Engineering (Stockpile Quantities Exhibit, October 20, 2021, Appendix B and stamped by a State of California Professional Civil Engineer) estimated the approximate volumes of the stockpiles of inert material and soil and provided information regarding how the stockpile volumes were reached.

Fuscoe Engineering's estimated stockpile volumes are as follows:

Stockpile ID	Earthwork Quantity in Cubic Yards
E	3,700
F	246,650
G	427,945
H	26,100
I	71,770
L	250

2.3 Regional Geologic setting

The regional geologic setting was excerpted and modified from Ginter's October 2021 report:

"…*The subject site is located in the northern portion of the Peninsular Ranges physiographic province and near the northern terminus of the Santa Ana Mountains, which reflect the northwest-trending signature of this province in southern California. The Peninsular Ranges extended from southern California and down the length of the Baja California peninsula for 900 miles. The ranges are characterized by basement complexes of mid-Jurassic to mid-Cretaceous age mildly metamorphosed sedimentary and volcanic rocks which are intruded by quartz plutonites and gabbros of the southern California batholithic. These basement complexes are overlain locally by Upper Cretaceous and Tertiary sedimentary rocks. These rocks have been offset during the past three million years or more by predominantly northwest-trending right-slip faults and some of these faults are active today, including the Whittier-Elsinore, San Jacinto and Newport-Inglewood faults.*

The structure of the northern Santa Ana Mountains is dominated by two plunging anticlinoriums-a broad north-plunging anticlinal structure that underlines the main mountain mass and which is truncated at the northeast by the Whittier fault and a northwest-trending anticlinorium that underlies the southwest flank and plunges northwest beneath the Los Angeles basin as the Anaheim nose (Figure 6). The generalized structure south of Santiago Creek near the subject site is dominated by northwest-striking beds, fold axes and faults with bisecting northeast-trending faults. In contrast, north of Santiago Creek, the generalized structure is dominated by east/west-trending beds, fold axes and faults with some northwest and northeast-trending antithetic fault systems."

2.4 Site-Specific Geology

The site-specific geologic conditions for the site are best represented in Ginter's March 10, 2022 report entitled *Summary and Compilation of all Geotechnical Reports, Analyses and Data for the Rio Santiago Development Site*. A copy of Ginter's March 10, 2022 report is presented in Appendix E. In addition, Table 1 in Section 3.5 of this workplan summarizes the site-specific geology of the areas investigated onsite.

2.5 Hydrogeologic Setting

The hydrogeologic setting was excerpted from information provided in Ginter's October 2021 report:

"…*The groundwater regime of the site is predominately influenced by the Santiago Creek system and the controlled outflow from the Villa Park dam, situated upstream. The majority of this flow is contained via the Santiago Creek channel, which has an elevation of approximately 400 feet near the eastern perimeter and descends at a very shallow gradient to the western perimeter, where it is at an elevation of 360 feet.*

Based on our subsurface investigation and the onsite monitoring well data, significant subterranean groundwater flows also are present south of Santiago Creek. These flows appear to be uncontrolled and involve a broad braided system migrating along various venues near the older alluvial gravel/bedrock interface. Such flows are well-recognized below the northeast pond area where borings indicate several gallons per minute flows in localized areas at elevations of 400± feet.

The subterranean flows in the vicinity of the Handy Creek Channel, and through to the western pond area are generally dispersed within the native younger alluvial terrace gravels (Qya) below the pond deposits and above the bedrock. Some perched groundwater conditions are evident within the pond deposits that may be influenced from the upstream subterranean flows and local irrigation. A generalized ground water elevation of approximately 400± feet can be assigned to the area east of the Handy Creek Channel and an elevation of 370± feet to the area west of Handy Creek Channel. An approximate ground water elevation of 340± feet can be assigned to the extreme western site perimeter. Localized perched groundwater conditions can be expected to vary from these elevations in

the western pond area due to the variations in the permeable and impermeable zones.

Two groundwater production wells were placed in the area centrally located between the Handy Creek Box Culvert and the existing aggregate plant operations and used for industrial and agricultural purposes. The Asphalt Plant Well #93-28-7-A is located near the center and is no longer in service. The total depth of this well was 111 feet and the measured water level was approximately 34 feet below ground surface according to Geomatrix. The other well is designated as Rock Plant #93-28-8-A and is located southeast of the well discussed above. No reported water levels could be found and this well is currently being used to fill water trucks and spray stockpiles for dust control. In 1997, Geomatrix installed three groundwater monitoring wells in this area. Groundwater levels in these wells were reported to range from 34 to 52 feet below ground surface. These wells have now been abandoned." During a reconnaissance visit of the subject property on July 19, 2022, Leighton did not observe evidence of groundwater monitoring wells on site.

3.0 INVESTIGATIVE METHODOLOGY

3.1 Drilling Phases and Permits

Two distinct phases of subgrade and geotechnical drilling are planned as a part of this Workplan and are described below:

- **Phase 1 -** The 39 red dots on Figure 2 represent drilling locations which will be drilled in the first phase of the work. These are open access areas peripheral to the soil and IDEFO material stockpiles.
- **Phase 2 -** The 22 green dots on Figure 2 represent 22 exploratory borings to be drilled on the second phase of work after the soil and IDEFO stockpiles have been moved.

No drilling permits are required by the City of Orange, California for drilling borings shallower than 50 feet below ground surface. Groundwater is not anticipated to be encountered at the proposed drilling locations onsite.

3.2 Notify Underground Service Alert (USA)

The locations of each boring will be marked by a wooden stake or metal flag during a site walk conducted at least 72 hours prior to commencing field activities. As noted, USA will be notified by Leighton at least 72 hours prior to drilling so that they can mark public underground utilities that may enter the site from public streets.

It should be noted that the Allen McCulloch Pipeline (also referred to as "Diemer" or "transmission" line) trunk water distribution line operated by the Metropolitan Water District (MWD) traverses the easterly portion of the project site and is located entirely below grade. USA will be notified by Leighton to identify and properly demarcate the location of the Allen McCulloch pipeline at the site.

3.3 Site-Specific Health and Safety Plan and Contingency Plan for Asbestos Containing Materials (ACM)

In accordance with standard environmental practices, Leighton has prepared a stand-alone, site-specific Health and Safety Plan (HASP) describing safety aspects of the work to be performed at the site by Leighton. The HASP has been prepared in compliance with the Occupational Safety and Health Administration (OSHA)

regulation 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response (Hazwoper) and 8 California Code of Regulations (CCR) 5192. All onsite Leighton personnel will sign the HASP acknowledging acceptance prior to initiation of fieldwork. The HASP describes the safety aspects and plan of action of the work to be performed at the site. A copy of the HASP can be found in Appendix F.

The LEA, SCAQMD, and other applicable agencies will be notified immediately (i.e., within 8-hours after receipt of the final analytical test report) if any sample results indicate the presence of ACM in the soil and/or IDEFO materials. In accordance with Section 3.9 of the Stipulated N&O, if upon the review of the report regarding the results and findings of the analytical testing it is determined that the results indicate the presence of substances that are at concentrations that pose a risk to human health or the environment and require an appropriate remedial action, Milan will prepare a plan accordingly.

3.4 Evaluate Borehole Locations for Subsurface Utilities

Leighton will retain a private utility locator for the completion of a geophysical survey of the proposed soil boring locations prior to drilling. The geophysical survey will be performed to assess the presence of buried magnetic, metallic, and electrically conductive features such as metal pipelines, buried tanks, drums, debris, electrical lines, rebar/post-tension cables in concrete slabs, and other subsurface features. The geophysical survey will use magnetometers and electro-magnetic survey equipment to complete the survey. Induction line tracer will be applied to features identified as metallic pipelines to enhance tracing such features. Ground penetrating radar will be employed on features discovered with other instruments to further evaluate anomalies. During the survey, underground features discovered by the utility locator will be clearly marked in color-coded paint or flagging. If a subsurface utility or feature is interpreted to be present directly underneath or near a proposed boring location, it will be relocated at the discretion of the field geologist to avoid the utility or feature. If a feature such as a buried tank or buried drum is detected during survey activities, the anomaly(ies) will be further investigated and delineated.

If provided by Milan or other parties at the request of Milan, Leighton will review as-built blueprints (if available) for the presence of private subsurface utilities in the proposed soil boring.

3.5 Drilling of Investigative Soil Borings and Soil Sampling

Drilling procedures at the site will be determined by the type of soils and the suitability of drilling rigs to obtain minimally disturbed soil and material samples from the designated depths established from each area. The potential for encountering subgrade obstructions (e.g., mixed loads, crushed concrete and IDEFO materials, native alluvium or bedrock) will be aided by the soil descriptions provided by Ginter (March 10, 2022) and by actual field observations.

Representatives of the LEA can observe field sampling activities at the site at any time. LEA representatives are to abide by site health and safety protocols. The LEA designated point-of-contact will be notified a minimum of 72 hours prior to the initiation of field activities at the site and will be notified if there are any deviations to be made from the proposed workplan sampling locations during fieldwork.

In accordance with Section 5.5.3 of the Stipulated Notice & Order, and in accordance with general industry practices, "…*All fieldwork regarding the analytical investigation/testing shall be conducted in accordance with the approved workplan and under the supervision of a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California."* Soils encountered during drilling will be logged for soil type in accordance with the Unified Soil Classification System (USCS) by a geologist. Soil cuttings will be continually observed for the presence of hazardous substances, suspected asbestos containing material (ACM) and/or petroleum products and for stratigraphic correlation purposes. All Leighton personnel will be required to have taken an Asbestos Awareness Course prior to conducting drilling or other activities onsite. The LEA will be immediately notified if suspected hazardous materials, ACM, or petroleum hydrocarbons are encountered during drilling and sampling activities.

To minimize the potential for encountering or damaging subsurface utilities, the first five feet of each boring will be drilled using a pre-cleaned stainless steel hand auger. The 0.5 feet bgs soil sample will be collected with a pre-cleaned slide-hammer sampler fitted with stainless steel or brass sleeves. Upon collection of the 0.5 feet soil sample, the ends of the sleeves will be covered with Teflon sheeting and fitted with plastic end caps. The soil samples will be placed into a baggie and placed into a in a cooler filled with ice. The hand auger will be used to advance the boring to a depth of 5 feet bgs at which a drill rig will be used to collect the soil samples at 5 feet bgs and deeper at five-foot intervals.

The four types of drilling rigs that will be considered for completing the scope of work include direct push, hollow stem auger, sonic, and air rotary casing hammer (ARCH) drilling rigs. A brief discussion of each drilling rig and sampling procedures is provided below.

3.5.1 Direct Push Sampling

The initial sampling for the soil samples collected on grade will be conducted with GeoProbe™ (or similar) direct-push sampling equipment. A hydraulic ram is utilized to drive a drill rod into the subsurface. The end of the ram is equipped with a hollow sampler and an acetate sleeve for sample retention. The sampler will be driven into the undisturbed soil to collect samples at approximate five-foot intervals. Once the soil sample has collected the sampler will be extracted and the acetate sleeve will be capped with Teflon™ sheets and plastic end caps. As noted above, the soil types encountered will be described using the USCS to evaluate the total thickness of the pile and determine when native soil/subgrade soil is interpreted to be present in the boring.

3.5.2 Hollow Stem Auger Sampling

For areas where direct push sampling rigs either have encountered refusal or are likely to encounter refusal, a hollow stem auger (HSA) drill rig will be utilized to collect soil samples. The HSA drill rig advances a drill bit to the target sampling depth at which point a California-modified split spoon sampler is driven into the undisturbed soil to collect a soil sample. The sampler is equipped with brass rings which are removed and retained for sample analysis or used to observe and describe the soil type in the sample. The open ends of the brass rings retained for sample analysis will be covered with Teflon™ sheets and capped with plastic end caps. The soil and material types will be described to evaluate the total depth of the pile and determine when native soil is reached in the boring.

3.5.3 Sonic or Air Rotary Casing Hammer Drilling Rigs

For areas where a HSA drill rig either has encountered refusal or are likely to encounter refusal, a sonic drilling rig or an ARCH drilling rig will be utilized to collect samples.

The sonic drilling rig, which generally operates quieter than an ARCH rig, has already been used with success on the stockpile areas onsite. It is a low-impact

technology that is safer by minimizing crew tool handling. Sonic drilling provides many advantages over other types of drilling techniques. It is a low-impact technology that is safer by minimizing crew tool handling. By rotating and vibrating the rod, core barrel, and casing at sonic frequencies a clean bore hole is drilled, cord and cased at the same time. Sonic drilling provides a continuous and relatively undisturbed core sample of good quality through any type of formation. A split-spoon sampler fitted with stainless steel rings will be inserted into the sonic casing and used to collect samples from the desired depths. The open ends of the individual rings will be covered with Teflon sheeting and plastic end caps and stored in a sealed baggie in an ice-chilled cooler.

The ARCH rig utilizes a pneumatic hammer to drive a flush-threaded drill casing coupled with a rotary drill string to reach the target sample depth. This drilling method has the advantage of being able to penetrate concrete or rock debris. Once the target sampling depth is reached with the ARCH rig, the drill string is removed from the boring and a California-modified split spoon sampler is driven into the soil to collect a soil sample. The sampler is equipped with metal sleeves which are removed and retained for sample analysis or used to observe and describe the soil types encountered. The open ends of the metal sleeves retained for sample analysis will be covered with Teflon™ sheets and capped with plastic end caps and stored in a sealed baggie in an ice-chilled cooler. The soil and material types will be described to evaluate the soil types and to also determine when native soil is reached in the boring.

3.5.4 Proposed Soil Sampling

Provided below is Table 1 which identifies the investigation areas onsite and includes Ginter's specific geotechnical description (March 10, 2022) and also describes the number of exploratory soil borings and soil sampling intervals that will be drilled on-site during the implementation of the scope of work detained in Sections 3 and 4 of the Stipulated N&O. A total of 61 exploratory soil borings are planned and roughly conform to a 200 feet by 200 feet grid network. Figure 2 is a map of the subject property which displays the locations of the proposed borings in the Ginter designated areas.

As noted in Section 3.1, the 39 red dots represent drilling locations which will be drilled in the first phase of the work. These are open access areas peripheral to the soil and IDEFO material stockpiles. The 22 green dots represent 22

exploratory borings to be drilled on the second phase of work after the soil and IDEFO stockpiles have been moved.

Note, Area L on Table 1 was not described by Ginter but is included as it was observed by Leighton and is indicated on the Fusco Engineering Stockpile Quantities Exhibit in Appendix B.

In accordance with the Stipulated N&O, and unless otherwise noted herein, each exploratory soil boring will be drilled to the depth five feet below at which "native soils or bedrock" has been encountered (to the extent feasible for bedrock). The sampling intervals for each boring will start at 0.5 feet below ground surface (bgs) and additional soil samples will be collected at 5-foot intervals until five feet below where native soils or bedrock (to the extent feasible) is encountered. If possible, the borings will be continually cored. Direct-push drilling will initially be attempted for soil sampling; however, due to presence of mixed-load materials in areas of the site, drilling will most likely involve using a HSA, sonic or ARCH drilling rig. If drilling refusal is encountered with the sonic or ARCH rig, attempts to complete the drilling by stepping out laterally by approximately 5 to 10 feet. Where encountered, Leighton will attempt to ascertain the cause of the refusal (e.g., a metallic object or boulder) as safety measures will allow.

Figure 2 is a map of the subject property which displays the locations of the proposed borings in the Ginter designated areas. Provided on the next page is Table 1 which identifies the investigation areas onsite and includes Ginter's area specific geotechnical description (March 10, 2022) and also describes the number of proposed exploratory that will be drilled on-site during the implementation of the scope of work detained in Sections 3 and 4 of the Stipulated N&O. Note, Area L on Table 2 was not described by Ginter but is included as it was observed by Leighton and is indicated on the Fusco Engineering Stockpile Quantities Exhibit in Appendix B. As noted above and to reduce the likelihood of encountering subsurface utilities, the first five feet of each boring noted on Table 1 will first be hand-augered to a depth of 5 feet bgs.

TABLE 1

SUMMARY OF SOIL SAMPLING PROPOSED FOR MILAN SITE SUBGRADE AND GEOTECHNICAL WORKPLAN 6145 EAST SANTAIGO CANYON ROAD, CITY OF ORANGE, CALIFORNIA

Investigation Area	Approximate Location See Figure 2	Ginter & Associates Geotechnical Description (March 10, 2022)	Proposed Scope of Geotechnical Testing and Testing of Soil Below the Current Grade Level
B	Western portion of site and south of Santiago Creek. The "panhandle" area.	This area is located in the western portion of the overall site that is south of Santiago Creek and is known as the "panhandle". It was graded as part of MTS's IDEFO. It contains a 5 ft. thick compacted engineered fill blanket compacted to 90% relative compaction with rocks less than 6" diameter. This is underlain by mixed loads placed by MTS consisting of 2-3 ft. diameter rocks, concrete and asphalt fragments mixed with soil and/or crushed asphalt and base material. These materials (mixed loads) were compacted to approximately 88% relative compaction and are 10-15 ft. thick. Underlying these materials are pond deposits approximately 15-20 ft. thick, which in turn are underlain by younger alluvial sands and gravels.	Using a sonic drilling rig due to the reported presence of boulders, four (4) exploratory soil borings are planned in Area B. The borings will be drilled to a depth where native soil or bedrock is encountered. This is also the approximate location of the former western soil stockpile affected by diesel fuel (Geomatrix Consultants, Inc., August 2000)
C	West-Central portion of the site surrounding Area F and south of Area D.	The majority of this area contains silt pond deposits approximately 30-45 ft. thick (deeper in localized areas) overlying alluvial sands and gravels, which in turn are underlain by bedrock. The western portion of this area contains localized areas where mixed loads and rubble (approximately 5-10 ft. thick) were buried by MTS.	A direct-push drilling rig will be used on boring locations C-7 through C-13. In the western portion of Area C, a sonic rig or an ARCH rig will be used to collect the soil samples from borings C-1 through C-6 due to the reported presence of mixed loads and rubble.

Investigation Area	Approximate Location See Figure 2	Ginter & Associates Geotechnical Description (March 10, 2022)	Proposed Scope of Geotechnical Testing and Testing of Soil Below the Current Grade Level
D	North-Central area of the site near the boundary adjacent to Santiago Creek	This area has been graded as part of MTS' IDEFO. All unsuitable pond deposits have been removed and stockpiled to the south and a firm-bearing approved bottom of sands and gravels was established.	Using a sonic rig or an ARCH rig, two soil borings will be drilled due to the presence of mixed loads and IDEFO materials.
E	East of the panhandle Area B on the western portion of the site.	This area delineates a stockpile of clean fill material which can be utilized as a fill source for site grading operations. It contains approximately 3,600 C.Y. of silt, clay and sand in a dry to moderately moist condition. Pond deposits approximately 35 ft. thick underlie this pile	Using a direct-push drilling rig, two exploratory soil borings will be drilled during the second phase of drilling after the removal of the stockpile.
F	East to West Oriented Elongated Pile of Stockpiled Pond Deposits Located on the western half of the site.	This area is west of the Handy Creek Box Channel. In general, this area contains stockpiled pond deposits excavated from Areas C and D immediately to the north. The upper 25 ft.± of this stockpile contains pond deposits consisting of wet clay emplaced by MTS. Underlying this material are pond deposits emplaced by Don McCoy, which were excavated from the original pond deposit surface and consist of much drier, moderately moist clays approximately 25 ft. thick, Underlying this bottom portion of the stockpile are the original pond deposits. The upper 10 ft.± of which are relatively moderately dry to moist, underlain by very wet pond deposits (clay) approximately 35 ft.± thick overlying native sands and gravels.	Using a direct-push drilling rig, four exploratory soil borings will be drilled during the second phase of drilling after the removal of the stockpile. The easternmost boring location, F-4, is located in the area where Tait encountered PCE and TCE in soil vapor in 2001.

Investigation Area	Approximate Location See Figure 2	Ginter & Associates Geotechnical Description (March 10, 2022)	Proposed Scope of Geotechnical Testing and Testing of Soil Below the Current Grade Level
G	East-Central Portion of the site. The largest of the Inert debris stockpiles	Located east of the Hand Creek Box Channel, this area generally consists of stockpiled concrete, rubble and soil. Underlying this stockpile are compacted fills overlying bedrock, older alluvium and in some areas, younger alluvium.	Using a HSA drilling rig, seven exploratory soil borings will be drilled during the second phase of drilling after the removal of the stockpile. At least 6 of the proposed borings are located in areas where Sully Miller managed hazardous substances and/or petroleum products.
H	East-Central Portion of the site adjacent northeast side of Area G and adjacent to the northern boundary	This area is located northeast of Area "G" and consists of a stockpile of clean soil. This stockpile is underlain by compacted fill emplaced by Geomatrix in 1996 and overlies native bedrock.	Using a HSA drilling rig, two exploratory soil borings will be drilled during the second phase of drilling after the removal of the stockpile. One of the proposed borings, H-2, is located in areas where Sully Miller managed hazardous substances and/or petroleum products.
I	Southeast portion of site located southeast of Areas G and H and surrounded by Area K soils.	This area contains a stockpile of concrete rubble and soil similar to Area G. Calculations indicates approximately 92,700 C.Y. Underlying this stockpile are compacted artificial fills placed by Geomatrix.	Using a HSA drilling rig, three exploratory soil borings will be drilled during the second phase of drilling after the removal of the stockpile. At least 6 of the proposed borings are located in areas where Sully Miller managed hazardous substances and/or petroleum products.
J	Easternmost portion of the site. Known as the "Northeast Pond"	Known as the Northeast Pond, this site is flat and contains 25 ft. of silt pond deposits overlying a thin veneer of alluvial sands and gravels over bedrock.	Using a direct-push drill rig, five borings are planned in this area.

Investigation Area	Approximate Location See Figure 2	Ginter & Associates Geotechnical Description (March 10, 2022)	Proposed Scope of Geotechnical Testing and Testing of Soil Below the Current Grade Level
K	Relatively flat-lying eastern portion of the site that surrounds the Area G, H, and I Inert debris stockpiles and is located west and adjacent to Area J.	The western portion of Area K contains compacted fills by Geomatrix overlying native alluvial sands and gravels with small areas adjacent to the Handy Creek Box Channel consisting of compacted fill overlying pond deposits. The eastern portion of this area consists of scattered artificial fills overlying older alluvial sands and gravels.	Using a direct-push drill rig, 12 borings will be drilled will be drilled in this area. Note that 5 of the 12 borings are located in areas where Sully Miller managed hazardous substances and/or petroleum products.
L	Southeast portion of the site just north of Santiago Canyon Road	Not described by Ginter; however, Leighton observed the material in this stockpile to consists of soil.	One boring, L-1, will be drilled during the second phase of drilling after the removal of the stockpile. The L-1 proposed borings is located in areas where Sully Miller managed hazardous substances and/or petroleum products.

During drilling of all borings, a photoionization detector (PID) will be used to measure VOC concentrations (if present) from soil cuttings. Soil cuttings obtained during drilling will be used for VOC monitoring with a pre-calibrated PID. Prior to PID measurement, the soil cuttings shall be placed inside a plastic baggie for approximately 5 minutes prior to taking measurement. The PID will be used to monitor VOC concentrations if evidence of discoloration and/or odiferous soils is observed, and to monitor air quality during drilling for health and safety purposes. The PID will be calibrated with a hexane standard gas prior to use. After reaching total depth and collecting the soil samples, the drilling equipment will be retracted and each boring will be backfilled with hydrated bentonite pellets.

Soils encountered during drilling will be logged for soil type in accordance with the Unified Soil Classification System (USCS). Soil cuttings will be continually observed for the presence of hazardous substances and/or petroleum products and for stratigraphic correlation purposes. Logs of borings will be recorded/typed and will include the name of the field technician advancing the

drilling rig, name of the geologist or engineer, drilling method, borehole diameter, PID measurements, odors, color, discolorations (if present) and groundwater, if encountered. Field instruments and equipment will be properly maintained, calibrated, and operated based on manufacturer's guidelines and recommendations.

The LEA Project Manager and/or other LEA designated point-of-contact will be notified immediately if stained soil or material are encountered and/or materials that could potentially contain ACM or other COCs are observed during sampling activities. A qualified geologist or engineer will be onsite during stockpile and subgrade sampling to observe and identify any potential areas of concern. As noted, all Leighton personnel will be required to have taken an Asbestos Awareness Course prior to conducting drilling or other activities onsite.

Before and between sampling locations, the hand auger will be cleaned in a five-gallon bucket containing tap water mixed with a non-phosphate detergent, followed by a tap water rinse, and lastly, a distilled water rinse. Before and between sampling points, the drilling rods and sampler (direct push) drilling bit and augers (HSA, sonic, and ARCH) will be steam-cleaned on a using a decontamination trailer station designed for drill rig auger equipment. The liquids generated from the auger steam cleaning activities will be contained in polyethylene totes which will later be profiled for appropriate disposal/recycling at a permitted facility.

Leighton proposes to manage all investigation-derived wastes (IDW) in the form of soil cuttings generated during drilling in close proximity to the original boring location. The soil will be placed on and covered with plastic sheeting a minimum of 10 mil in thickness. If needed and based of the profiling of the IDW, manifests documenting the proper disposal of IDW will be provided. Based on the soil sample analytical test results, IDW may be suitable for re-use as clean fill material onsite.

3.5.5 Groundwater and Abandonment of Groundwater Production Well

The LEA and SARWQCB will be notified if groundwater is encountered during drilling. A grab groundwater sample will be collected if sufficient groundwater is present. Based on field observations and the analytical test results of the soil samples collected in the boring, it will be determined whether to analyze the groundwater sample.

Grab groundwater sampling will be performed with a new disposable polyethylene bailer and upon extraction from the borehole, the groundwater sample will be decanted into a 40 mL VOA vial using immerse-fill techniques to minimize agitation during filling. Taking care to avoid bubbles in the sampling vial, the cap will be carefully screwed onto the vial. Each vial will be labeled in place into an ice filled cooler inside it have a separate baggie. In case of potential breakage, three duplicate samples of the groundwater samples will be collected into separate VOA vials. After groundwater sample collection, the bailer will be disposed of properly. Appropriate containers (with preservative, if needed) will be utilized for the groundwater samples after confirming with the LEA of the proposed analytical suits to be tested for.

Leighton will attempt to locate the previously buried groundwater production well #93-28-7-A. If the well is located, the LEA and SARWQCB will be notified and it will be abandoned properly with appropriate agency approval(s), included but not limited to the City of Orange Public Works Department.

3.6 Analytical Testing of Soil Samples

The analytical testing program for the soil samples collected as part of the geotechnical and subgrade investigation will include the tests presented in the Stipulated N&O. These include the following analytical tests:

- TPH by EPA Method 8015,
- PAHs by EPA Method 8270 (c) SIM,
- VOCs by EPA Method 8260 and SVOCs by EPA Method 8270 full scan analysis,
- Heavy Metals by EPA Method 6010B and 7471A,

- Pesticides (organochlorine and organophosphorus) by EPA Method 8081A or 8080A and 8141A,
- Herbicides by EPA Method 8151A,
- PCBs by EPA 8082 or 8080A,
- Asbestos by EPA Method 600/R93-116 or CARB 435, and
- pH.

As noted in Section 1.0, based on the findings obtained during the implementation of this Subgrade Testing and Geotechnical Workplan, a stand-alone workplan will be prepared to address methane and soil vapor sampling in accordance with the Stipulated N&O.

A Quality Assurance Project Plan (QAPP) has been prepared to support Workplan for the site and is presented in Appendix G. The QAPP addresses quality assurance (QA) and quality control (QC) policies and procedures associated with the collection of environmental data at the site. The purpose of the QAPP is to identify the methods to be employed to establish technical accuracy, precision, and validity of data that are generated at the site.

4.0 REPORTING

Following the completion of the field activities and receipt of the laboratory analytical data, Leighton will prepare a report detailing the results of the subgrade testing and geotechnical sampling activities. As noted in the SN&O, the report will be submitted withing 45 calendar days of completion of the investigation. The report will include, at a minimum:

- A description of field sampling activities,
- Maps detailing the location of all sample locations,
- Copies of boring logs describing the soil types/materials encountered,
- Copies of all analytical test reports and chain of custody documents,
- Stratigraphic Information
- Conclusions and Recommendations for additional activities as appropriate.

Milan will confer with the LEA following the receipt of the stockpile sampling analytical test results and the submission of any reports to discuss the allowable uses of the sampled soil.

5.0 REFERENCES

California Code of Regulations, Title 22, Article 11

California Regional Water Quality Control Board, Santa Ana Region, No Further Action, Sully Miller Contracting Com 6145 Santiago Canyon Road, Orange, California, Regional Board Case No: 083002699T, September 22, 1998.

County of Orange, OC Waste & Recycling, CA WDR Order No. R8-2013-0010 Monitoring & Reporting for Villa Park Landfill, November 30, 2021.

Fuscoe Engineering Combined Topo Exhibit, Orange, California, June 2, 2022.

Fuscoe Engineering, Stockpile Quantities Exhibit, Rio Santiago, Flight October 20, 2021, Prepared September 7, 2022.

Geomatrix Consultants, Inc., Geotechnical Observation and Testing Report, Sully Miller Construction Company, 6145 Santiago Canyon Rd., Orange, California, March 11, 1996.

Geomatrix Consultants, Inc., Phase 1 Environmental Site Assessment, 6145 and 6146 Santiago Canyon Road, Orange California, August 2000.

Ginter & Associates, Inc., Geotechnical Comments Regarding Placement of Engineered Compacted Artificial Fill, The Trails Development Site, 6145 E. Santiago Canyon Rd., City of Orange, California, September 15, 2020.

Ginter & Associates, Inc., Preliminary Geologic and Geotechnical Engineering Investigation and Grading Plan Review for Tentative Tract 17344, Rio Santiago Development Site, City of Orange, California, October 2011.

Ginter & Associates, Inc., Summary and Compilation of All Geotechnical Reports, Analyses and Data for the Rio Santiago Development Site, March 10, 2022.

Michael Brandman Associates Appendix I-5: Phase 1 Environmental Site Assessment, Rio Santiago Specific Plan Project Site 6118 E. Santiago Canyon Rd., Orange, Orange County, California, August 6, 2009.

Milan REI X, LLC, Selected Historical Photographs

Orange County Health Care Agency, Environmental Health, Stipulated Notice and Order, June 16, 2022.

State Water Resources Control Board, GeoTracker website for Milan REI X, LLC (T00000003698), https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000003698 July 2022

State Water Resources Control Board, GeoTracker website for Villa Park Landfill (L10009578462), https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=L10009578462, July 2022.

Tait Environmental Services, Appendix I-1: Report of Phase II Environmental Site Assessment Activities Conducted at Rio Santiago Project Site, 6145 E. Santiago Canyon Road, Orange, California, May 16, 2011.

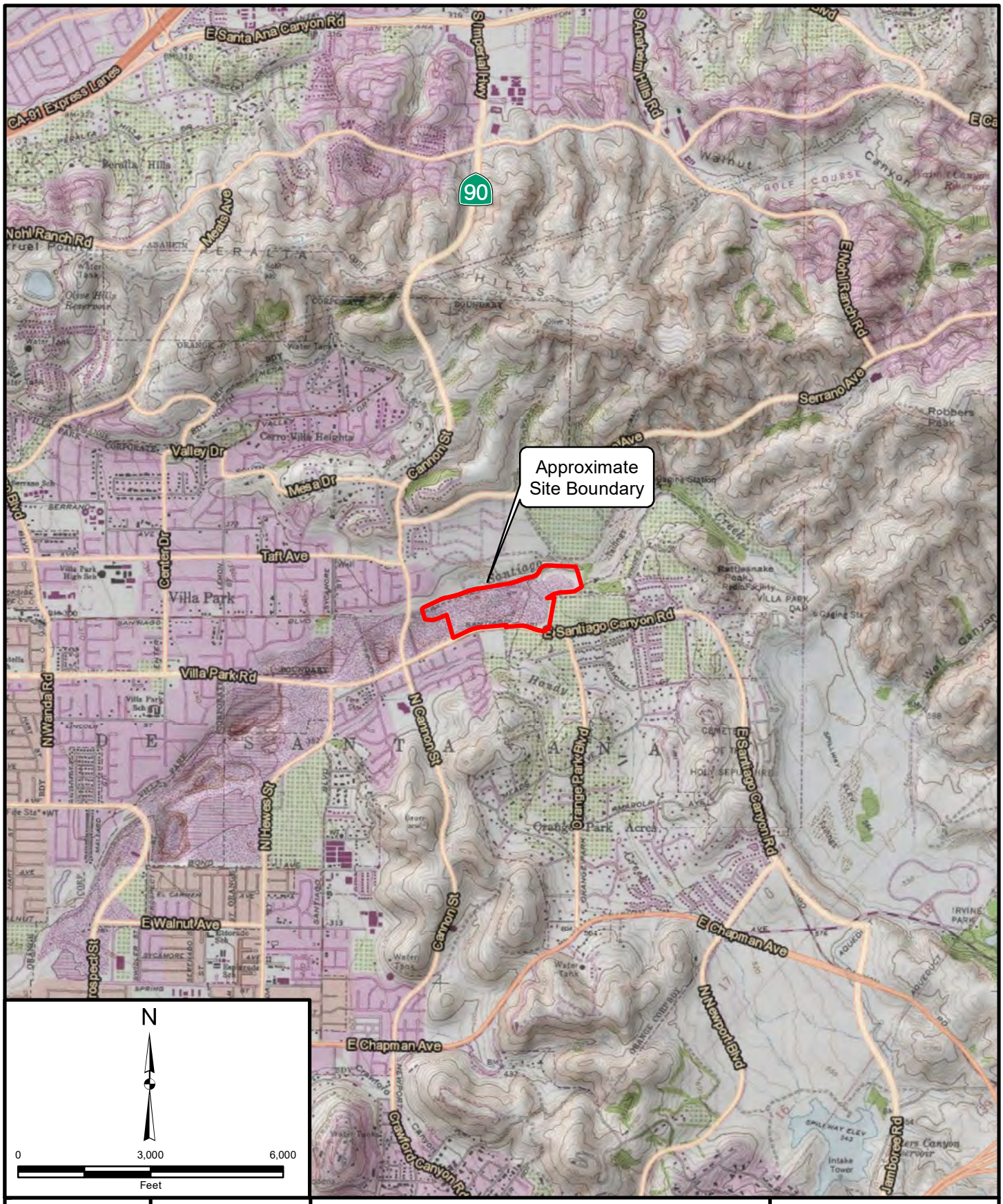
Tait Environmental Services, Appendix I-2: Work Plan Describing Proposed Phase II Environmental Site Assessment Activities to Address Data Gaps Identified in City of Orange, Environmental Comments Regarding Rio Santiago Specific Plan Project Site Located at 6145 E. Santiago Canyon Rd. in Orange, California, January 12, 2011

Tait Environmental Services, Appendix I-3: Response to City of Orange Environmental Comments Regarding Rio Santiago Specific Plan Project Site Located at 6145 E. Santiago Canyon Rd. in Orange, California, June 28, 2010.

Tait Environmental Services, Appendix I-4: Response to City of Orange Environmental Comments Regarding Rio Santiago Specific Plan Project Located at 6145 E. Santiago Canyon Rd. in Orange, California, June 7, 2010.

University of California at Santa Barbara, UCSB Library, FrameFinder, Selected Historical Aerial Photographs, web link: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/

FIGURES



Project: 13620.001	Eng/Geol: RB/MH
Scale: 1 " = 3,000 '	Date: July 2022
Base Map: ESRI ArcGIS Online 2022 Author: (mmurphy)	

SITE LOCATION MAP

6145 East Santiago Canyon Road
City of Orange, Orange County, California

FIGURE 1

Leighton

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Legend

BHC11 — Phase 1 - Approximate Location of Exploratory Soil Borings

14 — Phase 2 - Subgrade Borings to be Drilled after Stockpiles are Removed

Areas B through J - Areas identified by Ginter (March 10, 2022) each having it's own distrinctive geotechnical conditions. Note areas I and J were designated by Ginter as Areas J and L, respectively.

Site boundary

Boring Drilled to Further Evalulate Prior Targhee Asbestos Investigation

Approximate Area of Former Diesel UST and Piping Excavation

Approximate Area of Former Gasoline UST Excavation

Approximate Area of Debris Removal Excavation

Approximate Area of Diesel Spray Rack Removal

Area where PCE and TCE in Soil Vapor were Detected by Tait (2001)

Approximate Location of Former Western Diesel-Affected Soil Stockpile

Former Sully-Miller Asphalt Plant

Approximate Location of Allen McCulloch Pipeline

Location of Former Eastern Diesel-Affected Soil Stockpile

Location of Former Eastern Gasoline-Affected Soil Stockpile

Villa Park Landfill

Former Sully-Miller Maintenance Shop and Equipment Storage Area

Approximate Area of the Excavation for the former Asphalt-Emulsion UST

Handy Creek Culvert

Approximate Area of Excavation for Debris Removal

Approximate Location of Former Eastern Diesel-Affected Soil Stockpile Process Area

N

0 250 500

Feet

Ginter & Associates, Inc. Summary and Compilation of All Geotechnical Reports, Analyses and Data for the Rio Santiago Development Site, March 10, 2022.

Figure provided by Fuscoe Engineering entitled "Combined Topo Exhibit", Orange, California, dated June 2, 2022, Modified by Leighton

Proj: 23328	Eng/Geol: RF/MH
Scale: 1 " = 250 '	Date: February 2024
Author: (mmurphy)	

MILAN REI X, LLC STOCKPILE LOCATION MAP WITH PROPOSED GRADE LEVEL SOIL SAMPLING LOCATIONS

6145 East Santiago Canyon Road
City of Orange, Orange County, California

FIGURE 2

Leighton

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APPENDIX A

June 16, 2022 Stipulated Notice and Order,

Agency, Leighton and Manatt Correspondences

STIPULATED NOTICE AND ORDER

This Stipulated Notice and Order ("Stipulated N&O") dated as of June 16, 2022, is made and entered into by and between Orange County Health Care Agency, Environmental Health, acting as the Solid Waste Local Enforcement Agency for County of Orange (the "LEA"), and Milan REI X, LLC ("Milan"), a California limited liability company.

RECITALS

A. Milan is the owner and operator of that certain real property commonly known as 6145 E. Santiago Canyon Road in the City of Orange, County of Orange, State of California, comprising of Assessor's Parcel Nos. ("APN") 093-280-05, 093-280-07, 093-280-27, 093-280-29, 093-280-30, 093-280-31, 370-011-08, 370-011-18, 370-011-21, 370-011-22, 370-041-12, 370-041-25, 370-141-19, 370-213-01, 370-225-01, and 370-225-02 (the "Property"), as shown on Attachment "A." All portions of APNs 093-280-05, 093-280-07, 093-280-27, 093-280-29, 093-280-31, 370-041-12, 370-041-25, and 370-011-22 and only certain portions of APNs 093-280-30, 370-011-08, 370-011-18, and 370-141-19 as specifically shown in Attachment "B" and described in Attachment "C," attached hereto, are subject to the terms of this Stipulated N&O (the "Site"). Certain other portions of APNs 093-280-30, 370-011-08, 370-011-18, 370-141-19, and the entirety of APNs 370-011-021, 370-213-01, 370-225-01, and 370-225-02 as specifically shown as outside the boundaries of the Site, on Attachment "D," attached hereto, shall not be subject to this Stipulated N&O.

B. The LEA is authorized to locally enforce state solid waste laws under Division 30 of the California Public Resources Code ("PRC"), sections 43209 and 45000 et seq., and Title 14 of the California Code of Regulations ("14 CCR"), sections 18304 et seq. The LEA has authority to issue enforcement orders and enter into this Stipulated N&O pursuant to PRC, sections 43200 and 45000 et seq., and 14 CCR, section 18304 et seq.

C. The LEA alleges Milan has accepted certain inert debris solid waste that include inert debris Type A, as defined in 14 CCR, section 17388, at the Site since 2011 (hereinafter referred to as "inert debris solid waste").

D. Milan alleges that it has not disposed of any solid waste onto land, including that it has only temporarily stockpiled inert debris in order for such debris to be used as fill and compacting as part of an Inert Debris Engineered Fill Operation ("IDEFO") and has not disposed of or placed such debris for final deposition onto land in accordance with 14 CCR, section 17388(e).

E. The LEA alleges the Site operated an IDEFO from 2011 to 2013 under SWIS No. 30-AB-0460 pursuant to an Enforcement Agency Notification ("EAN") and valid accompanying operational plan issued by the LEA under 14 CCR section 17388.3. The LEA alleges the IDEFO was closed and archived with the California Department of Resources Recycling and Recovery ("CalRecycle") in 2013. The LEA alleges that Milan has not complied with 14 CCR, section 17388.3, subdivision (f) by failing to file a detailed description of the IDEFO, SWIS No. 30-AB-0460, with the Orange County Clerk-Recorder Office and the LEA.

F. Milan alleges that the IDEFO was not closed and that it did not receive notice that the IDEFO was closed or archived by the LEA.

G. The LEA alleges that in January 2020, the LEA received a complaint regarding storage of solid waste at the Site. The LEA conducted inspections of the Site and after meeting with then Site operator Rio Santiago, LLC and Milan's consultant, Associates Environmental ("AE"), the LEA determined that the Site was an inert debris Type A disposal facility subject to a Registration Permit under the applicable regulations in Title 14 of the California Code of Regulations.

H. The LEA alleges in March 2020, the LEA received an application for a Registration Permit for the Site submitted by AE pursuant to 14 CCR, section 17388.4. The LEA alleges that in April 2020, the LEA rejected the application due to, among other things, a deficiency in the Siting Element Conformance Finding.

I. The LEA alleges that on or about May 5, 2020, AE submitted a revised application for the Registration Permit to the LEA that was accompanied with a letter by AE that included a comment regarding the Siting Element Conformance Finding deficiency, stating that the Site has been in contact with the City of Orange and CalRecycle and they are in the process of adding the Site to the City's Non-Disposal Facility Site Element. The application listed the "Facility Size" as "116.8 acres" and the "Operation Area" as "30 acres." On or about May 5, 2020, Milan's consultant, AE, also submitted to CalRecycle a Type A Disposal Facility Plan and a Closure Plan/Post-Closure Maintenance Plan (collectively, the "Plans"), which contained a map (Figure 2) that identified the boundaries of certain areas that correspond to the boundaries of the Site as depicted on Attachment "B."

J. The LEA alleges a Registration Permit was issued for the Site on June 22, 2020, under SWIS No. 30-AB-0472 to operate as disposal site for inert debris Type A. The Registration Permit issued by the LEA stated: "The facility for which this permit has been issued may only be operated in accordance with the description provided in the attached application, which is hereby incorporated by reference."

K. The LEA alleges that in July 2020, the LEA learned from CalRecycle that the Site was not identified in the appropriate planning document, namely the Countywide Siting Element, as required pursuant to 14 CCR, section 18104.1, subdivision (e)(2).

L. The LEA alleges that the LEA subsequently issued a letter to Milan that informed of this deficiency and demanded that Milan cease and desist its operation until such time the Site is listed on the Countywide Siting Element. The letter also offered Milan the option to voluntarily surrender the Site's Registration Permit within five (5) business days in lieu of LEA commencing formal procedures to revoke the Registration Permit. The LEA did not receive any communications from Milan to that effect within the allotted five (5) business days, and subsequently issued a Cease and Desist Notice and Order ("CDO") on August 3, 2020, followed by a Notice of Intent to Revoke Registration Permit ("NIR") on August 11, 2020. Both actions informed Milan that it had the right to an administrative hearing if it did not agree with the LEA's actions.

M. Milan alleges that Milan requested an administrative hearing pursuant to PRC, section 44310, contesting both the CDO and NIR. An administrative hearing was set for October 8 and 9, 2020.

N. Milan alleges that on September 14, 2020, Milan sent a letter to the LEA, informing that Milan is voluntarily returning the Registration Permit.

O. The LEA alleges that on September 16, 2020, the LEA responded to Milan's letter by informing Milan that the solid waste laws that govern the LEA and its enforcement authorities do not authorize a permittee to voluntarily return a permit issued by the LEA and that Milan's voluntary return of the Registration Permit had no legal effect. The LEA letter also informed Milan that Milan's remedy was to withdraw its request for a hearing as to the NIR, which would render the NIR effective as of the date the request for withdrawal is granted by the assigned Hearing Officer.

P. The LEA alleges that an administrative hearing was held on October 8 and 9, 2020. The administrative hearing officer issued a written decision on November 4, 2020, finding that Milan's request for a hearing on the NIR had been withdrawn and that the Registration Permit was revoked effective October 8, 2020. The administrative hearing officer also found that the CDO was validly issued.

Q. The LEA alleges that Milan did not appeal the administrative hearing officer's decision with respect to the NIR, and the NIR is final pursuant to 14 CCR, section 18304.2. Accordingly, the Registration Permit for the Site issued in June 2020 under SWIS No. 30-AB-0472 is currently revoked, effective October 8, 2020. The LEA alleges the Site is currently listed in the CalRecycle Solid Waste Information System's database as an active, unpermitted solid waste landfill. The LEA alleges that Milan is required to comply with solid waste laws and certain California Code of Regulations, Title 27, pertaining to closure, post-closure maintenance, and land use restrictions, as applicable.

R. Milan alleges that on November 16, 2020, Milan appealed the Administrative Hearing Officer's Written Decision with respect to the CDO to CalRecycle. On February 26, 2021, the CalRecycle hearing officer overturned the CDO (Decision and Order, CalRecycle Hearing Officer Jensen).

S. The LEA alleges Milan submitted an EAN and accompanying operation plan for a new IDEFO at the Site in August 2020. The LEA alleges the LEA informed Milan that 14 CCR, section 17388.3, subdivision (c) required the LEA to review the information contained in Milan's proposed operation plan to determine whether it is "complete and correct," as the terms, "complete" and "correct," are defined in 14 CCR, section 18101. The LEA alleges that after reviewing the operation plan submitted by Milan, the LEA informed Milan that it did not find the proposed operation plan as "complete and correct." The LEA alleges that therefore the operation plan is not valid and Milan is not legally permitted to operate an IDEFO at the Site.

T. Milan alleges it has stopped accepting inert debris at the Site since October 2020. The LEA alleges that it is not aware of Milan accepting solid waste at the Site since October 2020.

U. The LEA alleges Milan continues to store stockpiles of the inert debris solid waste, as referenced in Recital C, above. The LEA alleges Milan is in violation of solid waste laws and Title 14 regulations by storing these stockpiles at the Site without a Registration Permit from the LEA. The LEA alleges that Milan is required to comply with solid waste laws and Title 14 and 27 regulations pertaining to closure, post-closure maintenance and land use restrictions, as applicable, regarding use of the Site to continue storing these stockpiles at the Site.

V. Milan alleges that it intends to develop, and/or sell to another party to develop, the Site into a mix of residential, recreational, and open space areas. Milan alleges to operate, or allow another party to conduct, an IDEFO at the Site regarding the development of the residential, recreational, and open space areas. Milan alleges it will use the stockpiles of solid waste inert debris as referenced in Recital C, above, for the IDEFO at the Site. Milan alleges it will crush the stockpiles of solid waste inert debris, referenced in Recital C, above, for purposes of use in the IDEFO.

W. The LEA alleges that Milan is required to comply with solid waste laws and Title 27 regulations pertaining to closure, post-closure maintenance and land use restrictions, as applicable, to use and/or develop the Site to that effect stated in Recital V. The LEA alleges that use of the stockpiles of inert debris solid waste, as referenced in Recital C, above, for an IDEFO at the Site, is in violation of Title 14 regulations. The LEA alleges processing the stockpiles of inert debris solid waste, as referenced in Recital C above, at the Site is in violation of Title 14 regulations.

X. Since early May 2021, the LEA and Milan, as well as representatives from the City of Orange, have been meeting and cooperatively engaged in discussions regarding their differences, specifically in regards to Milan's plans to develop, and/or sell to another entity or person to develop, certain parcels of the Site into a mix of residential, recreational, and open space areas, as well as using and processing the stockpiles of inert debris solid waste present at the Site for purposes related to the development of the Site's parcels and the development of a lot located across Santiago Canyon Road, in the City of Orange, County of Orange, State of California (APN 379-451-24).

NOW, THEREFORE, for and in consideration of the above recitals and the mutual covenants contained herein, the LEA and Milan hereby agree as follows:

1. The LEA and Milan acknowledge that the Recitals above are for the purpose of this Stipulated N&O only and that neither the LEA nor Milan admit or accept the truth of the matters stated therein and that they are recited merely for this Stipulated N&O only.

2. Milan acknowledges that it is not aware of any current or past operations or activities that involve or have involved the disposal and/or handling of solid waste capable of generating methane gas upon decomposition at any areas of APNs 093-280-30, 370-011-08, 370-011-18, 370-141-19, 370-011-021, 370-213-01, 370-225-01, or 370-225-02 shown in Attachment "D," as outside the boundaries of the Site. The LEA, in reliance on this acknowledgment on the part of Milan, agrees that certain limited portions of APNs 093-280-30, 370-011-08, 370-011-18, and 370-141-19, and the entirety of APNs 370-011-21,

370-213-01, 370-225-01, and 370-225-02 specifically shown in Attachment "D," as outside the boundaries of the Site, will not be subject to this Stipulated N&O. Milan agrees that to the extent Milan will operate an IDEFO on the portions of APNs shown in Attachment "D", Milan will submit to the LEA the appropriate EAN and the accompanying operational plan as required by 14 CCR, section 17388.3.

3. Analytical Testing and Report Submittal

3.1 Milan shall conduct an investigation of the Site's soil that specifically includes analytical testing of the soil below the current grade level. Milan may not conduct any operations (i.e., excavation, IDEFO, grading, etc.) at the Site that involve the soil below or above the current grade level prior to (i) completing the investigation and (ii) receiving a notification per Subsection 3.8 and approval of a remediation plan per Subsection 3.9, as applicable. For purposes of this Stipulated N&O, Milan shall mean and refer to "Milan, its directors, officers, employees, agents, contractors, subcontractors, consultants, and/or affiliates."

3.2 The scope of this investigation shall include, at a minimum, analytical testing for the presence and/or concentration of any (i) solid waste and/or (ii) the following contaminants: Total Petroleum Hydrocarbons (EPA Method 8015), polycyclic aromatic hydrocarbons (EPA Method 8310), volatile organic and semi-volatile organic compounds (EPA Method 8260/8270 full scan analysis), heavy metals (EPA Method 6010B and 7471A), pesticides (organochlorine and organophosphorus, EPA Method 8081A or 8080A and 8141A), herbicides (EPA Method 8151A), PCBs (EPA 8082 or 8080A), asbestos (EPA Method 600/R93-116 or CARB 435), pH, and methane gas.

3.3 Prior to initiating the investigation, Milan shall submit a workplan to the LEA within 60 calendar days after the Effective Date of this Stipulated N&O. Milan may conduct the investigation only after the LEA has approved the workplan. The workplan shall be prepared by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California and it shall include all of the following:

3.3.1 The scope of the investigation.

3.3.2 The scope of the analytical testing, including (i) testing for the presence of any solid waste and (ii) testing for the substances that are specified in Subsection 3.2 and in accordance with their corresponding methods listed in Subsection 3.2.

3.3.3 The scope of the final assessment report regarding the results and findings of the investigation.

3.3.4 Take into consideration the past use of the Site and any past reports regarding the Site's soil composition and testing.

3.3.5 Include sampling of all areas of the Site's previous excavations. To the extent the workplan proposes that no sampling of previous excavations is necessary, the workplan shall describe the rationale therefor.

3.3.6 Specify sampling methodology that shall at a minimum include borings and boring logs. The methodology shall not use glass jars to take the samples. The methodology shall specify only discrete sampling; no composite sampling will be allowed.

3.3.7 Include a sufficient number of samples to be a reasonable representative of the Site's areas being tested, taking into consideration the future use of the areas as residential, recreational or open space, as residential and recreational areas will require more dense sampling in comparison to open space areas.

3.3.8 Include installation of test probes to check for detection/presence of methane gas in the soil subsurface.

3.3.9 Collection of soil vapor samples if volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) are detected in soil samples taken.

3.4 After Milan submits the workplan as stated in Section 3.3, the LEA shall review, and within 45 calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the workplan based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final workplan. Milan shall commence the investigation and analytical testing of the Site's soil in accordance with the approved workplan within 30 calendar days of the LEA's approval.

3.5 All fieldwork regarding the investigation shall be conducted in accordance with the approved workplan and under the supervision of a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California. Milan shall complete the investigation no later than 60 calendar days from the date it is commenced.

3.6 Milan shall complete and submit to the LEA, within 45 calendar days of completion of the investigation, a final assessment report that includes the results and findings of the investigation and analytical testing as well as conclusions and recommendations for further action. The report shall be reviewed and signed by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California. The report shall be consistent with the scope of the workplan approved by the LEA and shall include supporting documents, including the original sampling results analyzed and reported by a state certified laboratory (as opposed to Milan transferring or populating the results on its own/consultant's spreadsheet/table), to substantiate the report's findings.

3.7 The LEA shall review the assessment report within 60 calendar days from date the LEA receives the report and provide its comments and determination to Milan.

3.8 If upon review of the assessment report the LEA determines that the results of the Site investigation and analytical testing do not indicate the presence of any: (i) solid waste capable of generating methane gas upon decomposition; (ii) level(s) of methane gas in the Site's soil subject to monitoring and control under 27 CCR, section 20921; and (iii) substances that are sampled per the methods specified in Subsection 3.2 and that are at concentrations that pose a risk to human health or the environment, the LEA shall inform Milan, accordingly. This shall mean Milan will not be required to implement any remediation plan as specified in Section 3.9, below, as to these soil areas.

3.9 On the other hand, if upon review of the assessment report, the LEA determines that the results of the investigation and analytical testing reasonably indicate the presence of any: (i) solid waste in the Site's soil capable of generating methane gas upon decomposition; (ii) present level(s) of methane gas in the Site's soil subject to monitoring and control under 27 CCR section 20921; or (iii) substances that are sampled per the methods specified in Subsection 3.2 and that are at concentrations that pose a risk to human health or the environment and require an appropriate remedial action, the LEA shall inform Milan in writing of this determination. This shall mean that within 60 calendar days of the LEA's notification, Milan shall develop a remediation plan for the purpose of protecting against any threat to human health or the environment due to the presence of the above in the Site's soil. The remediation plan shall include the applicable and appropriate closure and post-closure maintenance measures (including the installation of sufficient number of probes at the Site for detection of methane in the soil subsurface and mitigation measures to satisfy 27 CCR, Section 20921), and/or land use restrictions as consistent with 27 CCR, sections 21090 – 21200, including section 21190. The LEA shall review the proposed remediation plan and within 60 calendar days approve or reject with comments regarding any deficiencies. Milan shall revise the plan based on LEA's comments but no later than 45 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final plan. Upon approval by the LEA, Milan shall implement the remediation plan in accordance with the plan's requirements. The LEA shall continue to have jurisdiction and full regulatory authority in accordance with the applicable provisions of Title 27 of the California Code of Regulations to take any enforcement action as appropriate and necessary to enforce compliance with the remediation plan, such as ensuring that any installed gas control and environmental monitoring system(s) are functional and in compliance with the applicable Title 27 standards, and Milan reserves the right to demand an administrative hearing to challenge the LEA's enforcement action and other rights of review of LEA actions permitted under the law, including pursuant to the PRC and Title 14 of the California Code of Regulations.

4. Geotechnical Testing and Report Submittal.

4.1 Milan shall conduct geotechnical testing of the Site to determine the exact boundaries of waste units in the Site's soil detected as part of the analytical testing conducted under Section 3, above. Milan may not conduct any operations (i.e., excavation, IDEFO, grading, etc.,) at the Site prior to (i) completing the geotechnical testing and (ii) receiving a notification per Subsection 4.6.

4.2 Prior to initiating the geotechnical testing, Milan shall submit a workplan to the LEA, within 45 calendar days after the Effective Date of this Stipulated N&O. Milan may conduct the geotechnical testing only after the LEA has approved the workplan. The workplan shall be prepared by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California and shall include all of the following:

4.2.1 Set forth the scope of the geotechnical testing.

4.2.2 Set forth the scope of the final report regarding the results of the geotechnical testing.

4.2.3 Take into consideration the past use of the Site and any past geotechnical reports for the Site.

4.2.4 Include sampling of all areas of the Site's previous excavations. To the extent the workplan proposes that no sampling of previous excavations is necessary, the workplan shall describe the rationale therefor.

4.2.5 Specify sampling methodology that shall at a minimum include borings and boring logs.

4.2.6 Specify depths to be taken no less than 5 feet below the grade level and continue until native subsurface is reached.

4.2.7 Include a sufficient number of samples to be a reasonable representative of the Site's waste units.

4.3 After Milan submits the workplan, the LEA shall review, and within 45 calendar days, approve or reject with comments regarding any deficiencies. In the event of any noted deficiencies, Milan shall revise the workplan based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final workplan. Milan shall commence the geotechnical testing in accordance with the approved workplan within 30 calendar days of the LEA's approval.

4.4 All fieldwork regarding the geotechnical testing shall be conducted in accordance with the approved workplan and shall be under the supervision of a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the

State of California. Milan shall complete the geotechnical testing no later than 60 calendar days from the date it is commenced.

4.5 Milan shall complete and submit to the LEA, within 45 calendar days of completing the geotechnical testing, a final report that includes the results and findings of the of the geotechnical testing. The report shall be reviewed and signed by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California. The report shall be consistent with the scope of the workplan approved by the LEA and shall include supporting documents, including the original results of the samples analyzed and reported by a certified authorized laboratory (as opposed to Milan transferring or populating the results on its own/consultant's spreadsheet/table), to substantiate the report's findings.

4.6 The LEA shall review the final report, within 60 calendar days from date the LEA receives the report, and notify Milan of its concurrence or any comments it might have regarding the final report.

5. Stockpiled Solid Waste Testing and Report.

5.1 Milan shall conduct the items set forth herein under Subsections 5.2 through 5.6, below, prior to engaging in any operations that involve movement of, disturbance of, and/or use of any of the inert debris solid waste stockpiles currently present on the Site.

5.2 Location of Stockpiles on Map. Milan shall submit to the LEA, within 45 calendar days from the Effective Date of this Stipulated N&O, a map that specifies the location of each of the stockpiles currently present on the Site. This map shall include a label, e.g., #1, #2, etc., for each stockpile. The LEA shall review the map and, within 45 calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the map based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final map.

5.3 Estimate of Amount of Materials in Stockpiles. Milan shall submit to the LEA, within 60 calendar days from the Effective Date of this Stipulated N&O, a reasonably accurate estimate of the amount (in cubic feet or yard) of material contained in each of the stockpile labeled under Subsection 5.2. The submission shall be certified by a Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California. The LEA shall review the reported estimates and, within thirty (30) calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the estimates based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments.

5.4 General Origin of the Stockpiles. Milan shall submit to the LEA, within 60 calendar days from the Effective Date of this Stipulated N&O, a report that identifies the

general origin (e.g., imported to the Site by MTS Inc. or Rio Santiago LLC, excavated from the Site's surface and/or subsurface) of each of the stockpile labeled under Subsection 5.2. The LEA shall review the report and, within 45 calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the report based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final report.

5.5 Analytic Investigation/Testing of Stockpiles' Materials. Milan shall conduct analytical investigation/testing of each of the stockpiles labeled under Subsection 5.2. The scope of the investigation/testing shall include, at a minimum, testing for the presence of the following contaminants: Total Petroleum Hydrocarbons (EPA Method 8015), polycyclic aromatic hydrocarbons (EPA Method 8310), volatile organic and semi-volatile organic compounds (EPA Method 8260/8270 full scan analysis), heavy metals (EPA Method 6010B and 7471A), pesticides (organochlorine and organophosphorus, EPA Method 8081A or 8080A and 8141A), herbicides (EPA Method 8151A), PCBs (EPA Method 8082 or 8080A), asbestos (EPA Method 600/R93-116 or CARB 435), and pH.

5.5.1 Prior to initiating the analytical investigation/testing, Milan shall submit a workplan to the LEA within 45 calendar days after the Effective Date of this Stipulated N&O. Milan may conduct analytical investigation/testing only after the LEA has approved the workplan. The workplan shall be prepared by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California and shall include/set forth all of the following:

(a) The scope of the analytical investigation/testing, including the screening levels for testing for the presence of any contaminants specified in this Subsection, above.

(b) The scope of the final report regarding the results of the analytical investigation/testing, including testing for the general composition of the stockpiles that will identify the general composition of each of the stockpile labeled under Subsection 5.2.

(c) Consideration of the past use/operations of the Site.

(d) Specifying sampling methodology. The methodology shall not use glass jars to take the samples. The methodology shall specify only discrete sampling; no composite sampling will be allowed.

(e) Inclusion of sufficient number of samples from each stockpile labeled under Subsection 5.2 to be a reasonable representative of each stockpile. The workplan shall describe the rationale for the number of samples.

(f) Stockpiles greater than 5,000 cubic yards shall be sampled based on volume with 12 samples for first 5,000 cubic yards and one additional sample for each additional one thousand cubic yards of the individual stockpile labeled under Subsection 5.2.

5.5.2 After Milan submits the workplan, the LEA shall review and, within 45 calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the workplan based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final workplan. Milan shall commence the analytical testing in accordance with the approved workplan within 45 calendar days of the LEA's approval.

5.5.3 All fieldwork regarding the analytical investigation/testing shall be conducted in accordance with the approved workplan and under the supervision of a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California. Milan shall complete the analytical investigation/testing no later than 90 calendar days from the date the LEA approves the workplan.

5.5.4 Milan shall submit to the LEA, within 45 calendar days of completing the investigation/testing, a report regarding the results and findings of the investigation/testing. The report shall be reviewed and signed by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California. The report shall be consistent with the scope of the workplan approved by the LEA, and shall include supporting documents, including the original sampling results analyzed and reported by a state certified laboratory (as opposed to Milan transferring or populating the results on its own/consultant's spreadsheet/table), to substantiate the report's findings and conclusions.

5.5.5 The LEA shall review the report within 60 calendar days from the date the LEA receives the report. If upon review of the report the LEA determines that the results of the analytical investigation/testing do not indicate the presence of any contaminants specified in this Subsection 5.5 in the stockpile above the screening levels set forth in the workplan, the LEA shall inform Milan accordingly. This shall mean that the stockpile or part thereof, as applicable, may remain on the Site to be utilized in an IDEFO as consistent with the requirements set forth in Subsection 5.5.7, below. Milan may remove debris from stockpiles, or parts thereof, determined to not have the presence of contaminants in accordance with this Subsection 5.5.5, from the Site to an offsite location in accordance with a workplan submitted to the LEA for review in accordance with applicable regulations. The LEA shall review the workplan within 30 days from the date it receives the workplan and shall not unreasonably withhold approval.

5.5.6 On the other hand, if upon review of the report the LEA determines that the results of the analytical investigation/testing reasonably indicate the presence of any contaminants as specified in this Subsection 5.5, above, in the stockpile or part thereof above the screening levels set forth in the workplan in instances requiring action, the LEA shall notify Milan accordingly. Within 60 calendar days of the LEA's notification, Milan shall develop a workplan that describes the safe removal of the contaminated stockpiles or the contaminated parts thereof above screening levels in instances requiring action, including all reasonably necessary timelines for accomplishing the removal. The LEA shall review the workplan and, within 60 calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the workplan based on LEA's comments, but no later than 45 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final workplan for the removal of contaminated stockpiles. Upon approval by the LEA, Milan shall implement the final approved workplan in accordance with the plan's requirements and timelines.

5.5.7 Any stockpile or part thereof, applicable, that the LEA determines may remain on the Site in accordance with Subsection 5.5.5, above, shall not be stored on the Site for longer than 9 months from the date the LEA informs Milan of such determination. The LEA may not unreasonably withhold a request to extend the 9 months storage time for a longer time-period, provided the request for extension is directly related to use of the stockpile under consideration for an IDEFO on the Site wherein the IDEFO on the Site is not at a ready operation stage to utilize the stockpile. The stockpiles shall be maintained during storage time on the Site until they are utilized in an IDEFO on Site in accordance, and inspected by the LEA for compliance, with the standards specified in California Code of Regulations, Title 14, and 27, including section 17384 of the Title 14.

5.6 Stockpiles' Suitability for Use in IDEFO. Milan shall submit to the LEA a letter that is written and signed by a Registered Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California that specifically states which of the stockpiles labeled under Subsection 5.2 are suitable for use in an IDEFO, as defined in 14 CCR, section 17388, subdivision (l), on the Site and/or the lot located across Santiago Canyon Road (APN 379-451-24) and/or in any other operation on the Site and/or the lot located across Santiago Canyon Road (APN 379-451-24). Milan shall submit this letter to the LEA no later than 30 calendar days after the determination by the LEA that the stockpile is free of any contaminants under Subsection 5.5.5, above.

6. Processing the Stockpiled Solid Waste.

6.1 Milan may not conduct any activities at the Site that involve processing, as defined in 14 CCR, section 17381, of the material contained in each of the stockpiles

labeled under Subsection 5.2, prior to (i) submission of the document specified in Subsection 6.2 and (ii) receiving the LEA's approval pursuant to Subsection 6.4.

6.2 Milan shall submit to the LEA a document that identifies the types and number of machinery that will be used to perform processing of the inert debris solid waste contained in each of the stockpile labeled under Subsection 5.2. This document shall specify the location where the machinery will be stationed and the location where the machinery will perform processing of the stockpile materials.

6.3 The total/aggregate volume of inert debris solid waste from the stockpiles labeled under Subsection 5.2 processed may not exceed 1,500 tons per day.

6.3.1 Milan shall utilize a scale to confirm the required tonnage herein. Milan shall submit a weekly report to the LEA on Wednesday of each week that indicates the total/aggregate tonnage for the past week.

6.4 Milan shall submit to the LEA an operation plan within 60 calendar days after the LEA notifies Milan of its determination pursuant to Subsection 5.5.5, above. Milan shall not commence processing of the stockpile materials prior to receiving the LEA's approval of the operation plan. The operation plan shall be prepared by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California and shall be consistent with and meet the requirements specified in 14 CCR, sections 17386 and 17383.7, subsection (e) through (k). The LEA shall review the operation plan and, within 30 calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the operation plan based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final operation plan. Milan shall conduct the processing of the stockpile materials only in accordance with the approved operation plan but in no event Milan may commence the processing of the stockpile materials prior to completion of all activities specified in Section 5, above.

6.5 Milan shall obtain all necessary and appropriate permits and authorization from all governmental and/or regulatory agencies, excluding the LEA, that may have jurisdiction over the activities specified in this Section 6.

7. IDEFO on the Site.

7.1 Milan may not operate any Engineered Fill Activity and/or IDEFO at the Site, as each term is defined in 14 CCR, section 17388, subdivision (g) and (l), respectively, prior to receiving the LEA's approval of an operation plan pursuant to Subsection 7.2, below.

7.2 Milan shall submit to the LEA, within 60 calendar days after receiving all approvals from the LEA under Section 5, an operation plan regarding any Fill Operation Activity/IDEFO at the Site. Milan shall not commence any Fill Operation Activity/IDEFO prior to receiving the LEA's approval of the operation plan. The

operation plan shall be prepared by a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California and shall be consistent with and meet the requirements specified in 14 CCR, section 17388.3. The LEA shall review the operation plan and, within 45 calendar days, approve or reject with comments regarding any deficiencies. In the event of noted deficiencies, Milan shall revise the operation plan based on LEA's comments, but no later than 30 calendar days from the date that Milan receives the LEA's comments. The LEA shall not unreasonably withhold approval of a final operation plan. Milan shall conduct all Fill Operation Activity/IDEFO at the Site in accordance with the approved operation plan.

8. Recording Pursuant to 14 CCR, section 17388.3, subdivision (f).

8.1 Milan shall file a detailed description of the IDEFO operated by MTS Inc. at the Site from 2011 – 2013 in accordance with 14 CCR, section 17388.3, subdivision (f) with the Orange County Clerk-Recorder Office and the LEA. Milan shall complete the filing within 90 calendar days after the Effective Date of this Stipulated N&O.

8.2 Milan shall file a detailed description of all IDEFO activities completed pursuant to Section 7, including the 2011 – 2013 IDEFO at the Site, after the Effective Date of this Stipulated N&O in accordance with 14 CCR, section 17388.3, subdivision (f) with the Orange County Clerk-Recorder Office and the LEA. Milan shall complete the filing within 90 calendar days after the event that is specified in 14 CCR, section 17388.3, subdivision (f) that triggers the filing requirement.

9. Record Keeping.

9.1 Milan shall maintain necessary and sufficient records of all activities specified in Sections 3 through 7, above. Such records shall be sufficiently detailed to reasonably permit the LEA upon review thereof to determine compliance with (i) this Stipulated N&O, generally, and (ii) the various provisions of Sections 3 through 7, specifically.

9.1.1 To the extent Milan operates under a plan that is approved by the LEA pursuant to Sections 3 through 7, Milan shall keep and maintain records of its activities subject to that plan in accordance with the applicable requirements of Title 14 and/or 27 regulations that pertain to record keeping for that plan.

10. Inspection and Compliance.

10.1 The LEA shall conduct, and Milan shall allow, reasonable inspection of the Site to ensure compliance with this Stipulated N&O. The LEA shall conduct the inspections as frequently as reasonably necessary and appropriate to ensure compliance with this Stipulated N&O. The LEA shall issue a report of its inspection as required under PRC, section 43218 and will charge a fee to Milan as permitted under PRC sections 43213 and 43222. The LEA may also charge a fee to Milan for

its review of the documents and plans submitted to the LEA for review and approval as set forth in the various Subsections of this Stipulated N&O.

11. Recording of the Stipulated N&O.

11.1 This Stipulated N&O shall be recorded by Milan in the Official Records of Orange County, State of California, at the Orange County Clerk-Recorder Office no later than 14 calendar days after the Effective Date of this Stipulated N&O. In accordance with Section 21 below, the Stipulated N&O duly recorded shall run with the land and serve as notice to all current and future Site owner(s), in whole or part, that the Site owner(s) will be subject to this Stipulated N&O. In the event of any future revisions of the current Site's APNs, Milan shall record in the Official Records of Orange County, State of California, at the Orange County Clerk-Recorder Office a memorandum of agreement that reflects the Site's new APNs, no later than 14 calendar days after the subdivisions are final.

12. Term.

12.1 This Stipulated N&O shall be in effect as of its Effective Date and shall terminate on June 30, 2024, unless extended by the mutual agreement of the parties at their sole discretion. The LEA shall not unreasonably withhold extension of the term of this Stipulated N&O if Milan has made good faith effort to comply with the terms and conditions of this Stipulated N&O.

12.2 The expiration of this Stipulated N&O shall not bar the LEA from taking any enforcement actions against Milan and/or any other site as the LEA deems necessary and appropriate subject to the terms herein, and Milan reserves the right to demand an administrative hearing to challenge the LEA's enforcement action in that respect and other rights of review of LEA actions permitted under the law, including pursuant to the PRC and Title 14 of the California Code of Regulations.

13. Final Order.

13.1 Subject to Sections 1, 15, and 16, this Stipulated N&O shall constitute full settlement of the allegations set forth in the recitals, above, and shall resolve any enforcement action by the LEA, including imposition of civil penalties, for violations of law or regulations related to the allegations contained in, or could have been alleged based upon, the recitals, above, up to and including the date that coincides with the Effective Date, as set forth in Section 22, below.

14. Dispute Resolution.

14.1 The LEA and Milan shall meet in good faith to resolve any difference that arise in their interpretation and compliance with this Stipulated N&O. Failure to resolve their differences in good faith shall not constitute a waiver of the rights the LEA and Milan have under Sections 15 and 16. The parties' good faith effort to resolve their differences shall not be a condition for the LEA to take any enforcement action pursuant to Section 15 and/or 16.

15. Waiver of Rights.

15.1 By executing this Stipulated N&O, the LEA and Milan do not admit any facts or laws, including the allegations set forth in the recitals above.

15.2 Except as specified in Subsections 3.9, 12.2, 15.4, 15.5, and Section 16, by executing this Stipulated N&O, Milan waives any rights to demand an administrative hearing regarding the allegations set forth in the allegations contained in the recitals, above.

15.3 Except as specified in Subsections 3.9, 12.2, 15.4, 15.5, and Section 16, by executing this Stipulated N&O, the LEA waives and releases, as against Milan, claims for non-compliance with respect to the allegations set forth in the recitals, above.

15.4 Milan does not waive any rights to demand an administrative hearing as to any enforcement actions, including notice and order, that the LEA may take against Milan to enforce (i) compliance with the terms of this Stipulated N&O and/or (ii) future violations not addressed in this Stipulated N&O, and other rights of review of LEA actions permitted under the law, including pursuant to the PRC and Title 14 of the California Code of Regulations.

15.5 To the extent the LEA takes an enforcement action, including notice and order and/or imposition of civil penalties, to enforce the terms of this Stipulated N&O against Milan, the LEA and Milan agree that they shall resolve their difference/dispute by means specified in Section 14. To the extent the LEA and Milan are not able to resolve their difference/dispute by means specified in Section 14, the LEA reserves the right to take any enforcement action, including the issuance of a notice and/or imposition of civil penalties, against Milan as the LEA deems necessary and appropriate, and Milan reserves the right to have a hearing, including pursuant to PRC, section 44310 and relevant Title 14 regulations, as to such difference/dispute and enforcement action.

16. Additional Enforcement Action.

16.1 The execution of this Stipulated N&O does not limit the LEA from taking any other appropriate enforcement actions to enforce compliance with the terms of this Stipulated N&O, and Milan reserves the right to demand an administrative hearing to challenge the LEA's enforcement action in that respect and other rights of review of LEA actions under the law, including pursuant to the PRC and Title 14 of the California Code of Regulations.

16.2 The LEA hereby reserves and may take such additional appropriate enforcement actions as necessary to enforce other and/or future violations by Milan not addressed in this Stipulated N&O, and Milan reserves the right to demand an administrative hearing to challenge the LEA's enforcement action in that respect and other rights of review of LEA actions under the law, including pursuant to the PRC and Title 14 of the California Code of Regulations.

17. Extension of Dates Specified in Sections 3 through 7 and Good Faith Performance.

17.1 The Parties agree that in the event a party is unable to meet the deadlines set forth under the various subsections of Sections 3 through 7, above, the party who is unable to meet the stated deadline shall inform the other party of the reasons and inform of a reasonable date the party will be able to meet the deadline.

17.2 The Parties agree to perform their respective responsibilities under this Stipulated N&O with diligence and in good faith.

18. Subordination.

18.1 Nothing in this Stipulated N&O limits the statutory and regulatory authority of the LEA described in California laws and regulations. All terms of this Stipulated N&O are subordinate to such laws and regulations.

19. Entire Agreement.

19.1 This Stipulated N&O together with its Attachments constitute the entire agreement between the LEA and Milan concerning the subject matters contained herein and may not be amended, supplemented, or modified except by written agreement of both parties.

20. Amendment.

20.1 No alteration or variation of the terms, conditions, and covenants of this Stipulated N&O shall be valid or binding unless made in writing and signed by both the LEA and Milan.

21. Parties Bound; Runs with the Land; Notice of Ownership Change.

21.1 This Stipulated N&O shall be binding upon Milan and each of its officers, directors, agents, receivers, trustees, employees, contractors, subcontractors, consultants, successors, and assignees, including, but not limited, to individuals, associates, affiliates, partners, and subsidiary and parent corporations, and any successive owners of the Site, and upon the LEA and any successor agency that may have responsibility for and jurisdiction over the subject matter of this Stipulated N&O. The covenants contained herein shall constitute covenants running with the land; shall be binding upon, and shall inure to the benefit of the current and future owners, purchasers, lessees, and possessors of any right, title, or interest in any portion of the Site during the term of this Stipulated N&O.

21.2 While this Stipulated N&O is in effect, any owner of the Site must provide the LEA prior written notice of such owner's intent to convey a fee interest with respect to the Site at least forty-five days prior to the effective date of such conveyance. Notwithstanding this notice requirement, the LEA shall not have the right to approve or disapprove any conveyance of a fee interest with respect to the Site.

22. Effective Date.

22.1 The effective date ("Effective Date") of this Stipulated N&O shall be the date that it is fully executed by both the LEA and Milan, by and through their authorized designee/agent.

23. Authority.

23.1 The undersigned are each authorized to execute this Stipulated N&O on behalf of the party that they represent, and to legally bind that party to all terms, conditions, and covenants of this Stipulated N&O.

24. Counsel.

24.1 Milan acknowledges that in the course of negotiating the terms, conditions, and covenants contained in this Stipulated N&O, Milan has had an opportunity to consult with legal counsel of its own choosing, who participated in the drafting of this stipulation.

25. Notices.

25.1 Any and all notices, requests, demands, and other communications contemplated, called for, permitted, or required to be given hereunder shall be in writing. Any written communications shall be deemed to have been duly given upon actual in-person delivery, or upon delivery on the actual day of receipt or no greater than four calendar days after being mailed by US certified or registered mail, return receipt requested, whichever occurs first. The date of mailing shall count as the first day. In the case of electronic mail, all communications shall be deemed to have been duly given upon recipient's acknowledgement of receipt received by sender. All communications shall be addressed to the person and at the address stated herein or such other address as the LEA and Milan hereto may designate by written notice from time to time in the manner aforesaid.

For Milan:

Name:	Christopher Nichelson
Address:	Milan REI X, LLC
	701 South Parker Street, Suite 5200
	Orange, California 92868
Telephone:	(714) 687-0000 Ext. 101
E-mail:	chris@milancap.com

For the LEA:

Name: Christine Lane
Address: 1241 E. Dyer Road, Suite 120
Santa Ana, CA 92705
Telephone: (714) 433-6000
E-mail: CLane@ochca.com

26. Governing Law and Venue.

26.1 This Stipulated N&O has been negotiated and executed in the State of California and shall be governed by and construed under the laws of the State of California. In the event of any legal action to enforce or interpret this Agreement, the sole and exclusive venue shall be a court of competent jurisdiction located in County of Orange, California, and the LEA and Milan hereto agree to and do hereby submit to the jurisdiction of such court, notwithstanding Code of Civil Procedure, section 394. Furthermore, the LEA and Milan specifically agree to waive any and all rights to request that an action be transferred for trial to another venue.

27. Attorney's Fees.

27.1 In any action or proceeding brought to enforce or interpret any provision of this Stipulated N&O, or where any provision hereof is validly asserted as a defense, each Party shall bear its own attorneys' fees and costs.

28. Incorporation of Recitals.

28.1 The recitals set forth above are incorporated into this Stipulated N&O by this reference.

29. Incorporation of Attachments.

29.1 The Attachments set forth below are attached hereto are incorporated into this Stipulated N&O by this reference.

29.1.1 Attachment "A" – Map of Parcels Comprising the Property

29.1.2 Attachment "B" – Map of Parcels and Portions of Parcels Comprising the Site and Subject to Stipulated N&O

29.1.3 Attachment "C" – Legal Description of Parcels and Portions of Parcels Comprising the Site and Subject to Stipulated N&O

29.1.4 Attachment "D" – Map of Parcels and Portions of Parcels Outside of the Site's Boundaries and Not Subject to Stipulated N&O

30. Counterparts.

30.1 This Stipulated N&O may be executed by the LEA and Milan in counterparts, each of which shall be an original, with the same force and effect as if fully and simultaneously executed as a single, original document.

IN WITNESS WHEREOF, the LEA and Milan have executed this Stipulated N&O on the day and year first above written.

APPROVED AS TO FORM:

Counsel for Milan REI X, LLC

By: _____
Pete Duchesneau, Partner
Manatt, Phelps & Phillips, LLP

Date: June 15, 2022

Milan REI X, LLC,
a California limited liability company

By: _____
Christopher Nichelson
President of Managing Agent

Date: June 14, 2022

APPROVED AS TO FORM:

COUNTY COUNSEL

By: _____
Massoud Shamel,
Senior Deputy County Counsel

Date: June 15, 2022

COUNTY OF ORANGE,
a political subdivision of the State of California

By: _____
Christine Lane, Director
Environmental Health Division
Orange County Health Care Agency

Date: June 16, 2022

ACKNOWLEDGEMENT APPEARS ON THE FOLLOWING PAGES

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On 06/14/2022, before me, Amy Khai Mong, Notary Public,
(insert name and title of the officer)

Notary Public, personally appeared Christopher Nichelson,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

AMY KHAI MONG
Notary Public - California
Orange County
Commission # 2295611
My Comm. Expires Jul 27, 2023

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On June 16, 2022, before me, Christine M. Long, Notary Public,
(insert name and title of the officer)

Notary Public, personally appeared Christine Lane,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

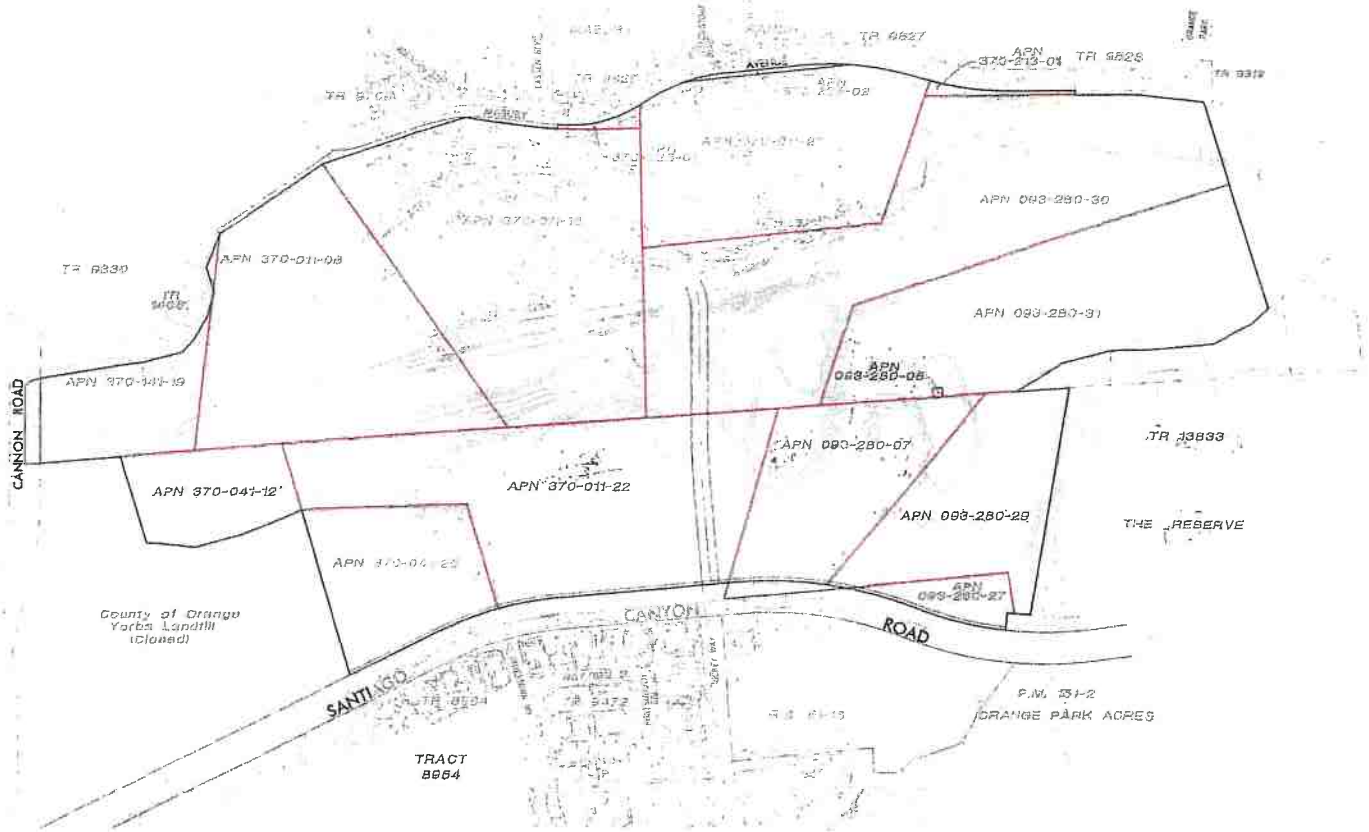
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Christine M Long (Seal)

CHRISTINE M. LONG
Notary Public - California
Orange County
Commission # 2269873
My Comm. Expires Jan 2, 2023

401314058.2



LEGEND:

- BOUNDARY OF MILAN PROPERTY
- EXISTING APN BOUNDARY
- APN XXX-XXX-XX EXISTING APN
- PARCEL LINE SEPARATING MILAN PROPERTY (NSDE/OUTSIDE STIPULATED ORDER)

PREPARED FOR:

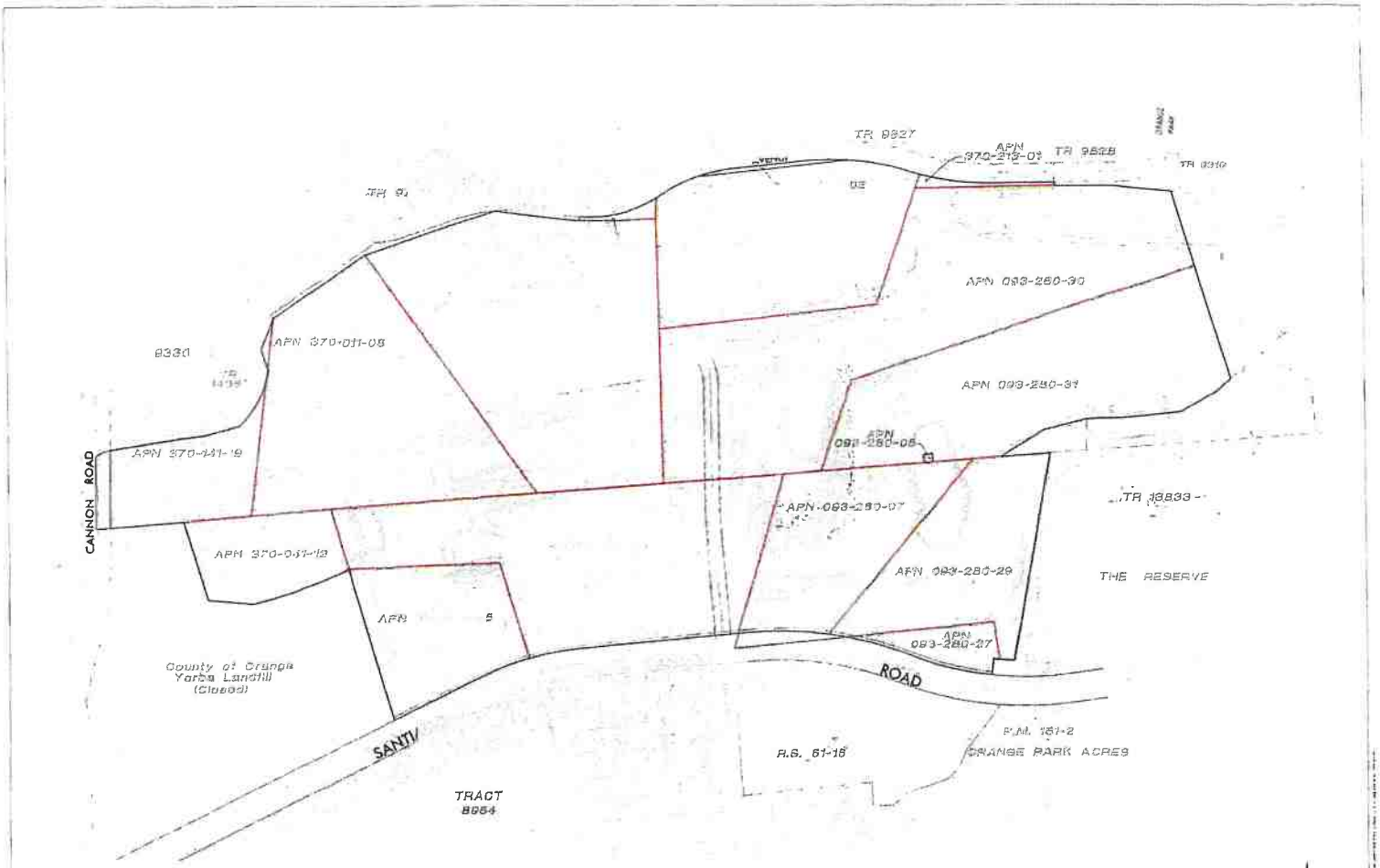
MILAN REI X, LLC

1888 S. DISNEYLAND DRIVE, SUITE 101
ANAHEIM, CA 92802
PHONE: 714.667.0020
FAX: 714.667.1930

ATTACHMENT A
MAP OF PARCELS COMPRISING THE PROPERTY

ORANGE, CA
May 17, 2022

FUSCOE



LEGEND:

- BOUNDARY OF MILAN PROPERTY
- EXISTING APN BOUNDARY
- APN XXX-XXX-XX EXISTING APN
- MILAN PROPERTY SUBJECT TO STIPULATED ORDER (SITE)
- PARCEL LINE SEPARATING MILAN PROPERTY INSIDE/OUTSIDE STIPULATED ORDER

ATTACHMENT B
MAP OF PARCELS AND PORTIONS OF PARCELS COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

ORANGE, CA
May 18, 2022

PREPARED FOR:
MILAN REI X, LLC
888 S. DISNEYLAND DRIVE, SUITE 191
ANAHEIM, CA 92802
PHONE: 714.687.0000
FAX: 714.687.1900

FUSCOE ENGINEERING

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 1 (370-141-19)

THAT PORTION OF THE LAND ALLOTTED TO PAUL PERALTA DE DOMINQUEZ IN DECREE OF PARTITION OF THE RANCHO SANTIAGO DE SANTA ANA, RECORDS IN BOOK "B" OF JUDGMENTS OF THE 17TH JUDICIAL DISTRICT COURT OF CALIFORNIA, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST EASTERLY CORNER OF THE LAND CONVEYED TO W.A. PHILLIPS AND OTHERS BY DEED RECORDED MARCH 1, 1919, IN BOOK 330, PAGE 2 16 OF DEED; THENCE SOUTH 21°21' WEST 116.00;

THENCE SOUTH 18°09' EAST 79.00 FEET;

THENCE SOUTH 13°47' WEST 80.00 FEET;

THENCE SOUTH 30°26' WEST 87.00 FEET;

THENCE SOUTH 42°41' WEST 51.00 FEET;

THENCE SOUTH 74°19' WEST 126.00 FEET;

THENCE SOUTH 82°10' WEST 80.00 FEET;

THENCE NORTH 78°34' WEST 14800 FEET;

THENCE SOUTH 47°41' WEST 100.00 FEET;

THENCE SOUTH 77°28' WEST 55.70 FEET;

THENCE SOUTH 57°13' WEST 445.80 FEET TO THE MOST SOUTHERLY CORNER OF THE LAND CONVEYED TO HUGH C. WILEY AND WIFE, BY DEED RECORDED DECEMBER 17, 1929 IN BOOK 338, PAGE 120 OF OFFICIAL RECORDS;

THENCE SOUTH 0°56'30' EAST 54.75 FEET TO THE SOUTHERLY CORNER OF THE LAND DESCRIBED IN THE DEED TO W.A. PHILLIPS AND OTHERS, RECORDED DECEMBER 17, 1929 IN BOOK 338, PAGE 102 OF OFFICIAL RECORDS, BEING ON THE NORTHERLY LINE FO THE CARPENTER TRACT;

THENCE NORTH 84°43' EAST ALONG THE NORTHERLY LINE OF THE CARPENTER TRACT TO THE SOUTHEASTERLY CORNER OF THE LAND DESCRIBED IN SAID DEED TO W.A. PHILLIPS AND OTHERS, RECORDED DECEMBER 17, 1929 IN BOOK 338, PAGE 120 OF OFFICIAL RECORDS;

THENCE NORTH 7°13' EAST TO THE POINT OF BEGINNING.

EXCEPT THEREFROM THAT PORTION LYING WESTERLY OF THE CENTERLINE OF THE LAND DESCRIBED IN THE DEED TO THE CITY OF ORANGE, RECORDED OCTOBER 30, 1970 IN BOOK 9448, PAGE 612 OFFICIAL RECORDS, DESCRIBED AS PARCEL 3, IN THE DEED TO SECURITY HOUSING COMPANY, A JOINT VENTURE, RECORDED NOVEMBER 15, 1972 IN BOOK 10426, PAGE 557, OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

ALSO EXCEPT THEREFROM THAT PORTION INCLUDED WITH TRACT NO. 9330, AS PER MAP RECORDED IN BOOK 386, PAGES 30 AND 31 OF MISCELLANEOUS MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY OF ORANGE.

EXCEPTING THEREFROM ALL THAT PORTION OF SAID LAND LYING NORTHERLY OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE WESTERLY LINE OF LOT 3 IN BLOCK "A" OF THE "LAND OF OGE AND BOND", AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, WHICH SAID POINT OF COMMENCEMENT IS THE SOUTHERLY TERMINUS OF THAT COURSE SHOWN AS "N17°01'15"W 281.68 FEET" ON RECORD OF SURVEY FILED IN BOOK 138, PAGES 15 TO 17 OF RECORD OF SURVEYS IN THE OFFICE OF CITY RECORDER OF SAID COUNTY;

THENCE ALONG SAID WESTERLY LINE NORTH 17°01'21" WEST 247.86 FEET TO THE TRUE POINT OF BEGINNING.

THENCE, LEAVING THE WESTERLY LINE OF SAID LOT, TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 100.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 58°17'55" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 59.34 FEET, THROUGH A CENTRAL ANGLE OF 34°00'02";

THENCE NORTH 65°42'07" EAST, 408.74 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, SOUTHERLY AND HAVING A RADIUS OF 750.00 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE, 176.51 FEET, THROUGH A CENTRAL ANGLE OF 13°29'04" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHERLY AND HAVING A RADIUS OF 1,950.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°48'49" EAST;

THENCE EASTERLY ALONG SAID CURVE, 357.93 FEET, THROUGH A CENTRAL ANGLE OF 10°31'01" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 2,000.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 21°19'50" WEST;

THENCE EASTERLY ALONG SAID CURVE, 424.32 FEET, THROUGH A CENTRAL ANGLE OF 12°09'21";

THENCE NORTH 80°49'31" EAST, 645.86 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, NORTHERLY AND HAVING A RADIUS OF 700.00 FEET;

THENCE EASTERLY ALONG SAID CURVE, 169.35 FEET, THROUGH A CENTRAL ANGLE OF 13°51'41" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 1,870.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 23°02'10" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 403.03 FEET, THROUGH A CENTRAL ANGLE OF 12°20'55" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 170.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°41'15" EAST;

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

THENCE EASTERLY ALONG SAID CURVE, 182.13 FEET, THROUGH A CENTRAL ANGLE OF 61°23'07" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 200.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 72°04'22" WEST;

THENCE NORTHERLY ALONG SAID CURVE, 260.36 FEET, THROUGH A CENTRAL ANGLE OF 74°35'16";

THENCE SOUTH 87°29'06" EAST, 636.61 FEET TO THE WESTERLY BOUNDARY OF THE LAND DESCRIBED IN THE FINAL ORDER OF CONDEMNATION RECORDED IN BOOK 12177, PAGE 409, OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 2 (093-280-27)

THAT PORTION OF LOT 2 IN BLOCK "A" OF THE LAND OF OGE AND BOND, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 3, PAGES 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT NORTH 4°57'00" WEST, 405.62 FEET (RECORD NORTH 7°07' WEST) FROM A POINT IN THE SOUTH LINE OF SAID LOT 2, NORTH 73°11'20" EAST, 450.58 FEET (RECORD NORTH 71° EAST, 450.582 FEET) FROM THE SOUTHWEST CORNER OF SAID LOT 2;

THENCE NORTH 4°57'00" WEST, 507.61 FEET (RECORD NORTH 7°07' WEST, 507.424 FEET) TO A POINT IN THE CENTERLINE OF THE COUNTY ROAD, WHICH IS DISTANT NORTH 84°23'30" EAST, 642.88 FEET (RECORD NORTH 82°13' EAST, 642.774 FEET) FROM THE WEST LINE OF SAID LOT 2;

THENCE NORTH 84°23'30" EAST, ALONG THE CENTERLINE OF SAID COUNTY ROAD AS THE SAME EXISTED PRIOR TO 1927, 969.25 FEET (RECORD NORTH 82°13' EAST, 969.606 FEET) TO AN ANGLE POINT IN SAID CENTERLINE;

THENCE SOUTH 8°55'40" EAST, ALONG SAID CENTER LINE, 284.11 FEET (RECORD SOUTH 11°10' EAST, 284.064 FEET) TO AN ANGLE POINT IN SAID CENTERLINE;

THENCE SOUTH 81°15'30" WEST, 284.064 FEET TO AN ANGLE POINT IN SAID CENTERLINE;

THENCE SOUTH 81°15'30" WEST, ALONG THE SOUTHWESTERLY EXTENSION OF SAID CENTERLINE, 25.43 FEET;

THENCE SOUTH 37°41'10" WEST, 186.60 FEET;

THENCE SOUTH 24°35'40" WEST, 73.40 FEET;

THENCE SOUTH 42°55' WEST, 50.61 FEET;

THENCE SOUTH 71°10' WEST, 151.19 FEET;

THENCE SOUTH 50°07' WEST, 156.32 FEET;

THENCE NORTH 2°53'10" WEST, 102.11 FEET;

THENCE SOUTH 61°13'50" WEST, 73.87 FEET;

THENCE NORTH 6°40'30" WEST, 62.38 FEET;

THENCE SOUTH 84°03'30" WEST, 422.77 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM, THAT PORTION DESCRIBED AS FOLLOWS:

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

BEGINNING AT AN ANGLE POINT IN THE NORTHERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO E. F. WHITE AND WIFE BY DEED RECORDED AUGUST 10, 1954 IN BOOK 2789, PAGE 11 OF OFFICIAL RECORDS, SAID POINT BEING THE NORTHEASTERL Y TERMINUS OF THAT CERTAIN COURSE SHOWN AS "NORTH 48°48' EAST, 92.30 FEET";

THENCE SOUTH 87°22'41" EAST, 67.90 FEET TO A POINT IN THE NORTHERLY LINE OF SAID LAND CONVEYED TO WHITE, SAID POINT BEING LOCATED 88.00 FEET NORTH 50°07' EAST FROM THE SOUTHWESTERLY TERMINUS OF THAT CERTAIN COURSE DESIGNATED AS "NORTH 50°07' EAST, 156.32 FEET";

THENCE SOUTH 50°07' WEST, 88.00 FEET ALONG THE NORTHERLY LINE OF SAID LAND CONVEYED TO WHITE, TO AN ANGLE POINT THEREIN;

THENCE NORTH 2°53'10" WEST, 59.61 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THEREFROM THAT PORTION OF SAID LAND LYING SOUTHERLY AND SOUTHWESTERLY OF THE NORTHERLY LINE OF THE LAND DESCRIBED IN THE DEED TO THE CITY OF ORANGE, A MUNICIPAL CORPORATION, RECORDED AUGUST 22, 1991 AS INSTRUMENT NO. 91-453101 OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM, THAT PORTION OF SAID LAND DESCRIBED IN THE DEED TO MUNICIPAL WATER DISTRICT OF ORANGE COUNTY, RECORDED JULY 27, 1998 AS INSTRUMENT NO. 19980483623 OF OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 3 (370-041-12)

THAT PORTION OF LOT 3 IN BLOCK "A" OF THE LAND OF OGE AND BOND, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 3, PAGES 430 AND 431, MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 3 AND THENCE FROM SAID POINT OF BEGINNING SOUTH 17°38'30" EAST, ALONG THE WESTERLY LINE OF SAID LOT 3, 281.68 FEET TO A POINT;

THENCE SOUTH 85°07' EAST, 157.75 FEET TO A POINT;

THENCE NORTH 73°53' EAST, 146.71 FEET TO A POINT;

THENCE NORTH 67°16' EAST, 206.30 FEET TO A POINT IN THE EASTERLY LINE OF LAND CONVEYED TO ROY B. WILLIS, BY DEED RECORDED FEBRUARY 4, 1921 IN BOOK 382, PAGE 249, DEEDS, RECORDS OF SAID ORANGE COUNTY;

THENCE NORTH 17°14' WEST, ALONG SAID EASTERLY LINE 215.70 FEET TO A POINT IN THE NORTHERLY LINE OF SAID LOT 3;

THENCE SOUTH 85°00' WEST, ALONG SAID NORTHERLY LINE, 511.81 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL THAT PORTION OF SAID LAND LYING NORTHERLY OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE WESTERLY LINE OF LOT 3 IN BLOCK "A" OF THE "LAND OF OGE AND BOND", AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, WHICH SAID POINT OF COMMENCEMENT IS THE SOUTHERLY TERMINUS OF THAT COURSE SHOWN AS "N17°01'15"W 281.68 FEET" ON RECORD OF SURVEY FILED IN BOOK 138, PAGES 15 TO 17 OF RECORD OF SURVEYS IN THE OFFICE OF CITY RECORDER OF SAID COUNTY;

THENCE ALONG SAID WESTERLY LINE NORTH 17°01'21" WEST 247.86 FEET TO THE TRUE POINT OF BEGINNING.

THENCE, LEAVING THE WESTERLY LINE OF SAID LOT, TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 100.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 58°17'55" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 59.34 FEET, THROUGH A CENTRAL ANGLE OF 34°00'02";

THENCE NORTH 65°42'07" EAST, 408.74 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, SOUTHERLY AND HAVING A RADIUS OF 750.00 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE, 176.51 FEET, THROUGH A CENTRAL ANGLE OF 13°29'04" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHERLY AND HAVING A RADIUS OF 1,950.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°48'49" EAST;

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

THENCE EASTERLY ALONG SAID CURVE, 357.93 FEET, THROUGH A CENTRAL ANGLE OF 10°31'01" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 2,000.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 21°19'50" WEST;

THENCE EASTERLY ALONG SAID CURVE, 424.32 FEET, THROUGH A CENTRAL ANGLE OF 12°09'21";

THENCE NORTH 80°49'31" EAST, 645.86 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, NORTHERLY AND HAVING A RADIUS OF 700.00 FEET;

THENCE EASTERLY ALONG SAID CURVE, 169.35 FEET, THROUGH A CENTRAL ANGLE OF 13°51'41" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 1,870.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 23°02'10" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 403.03 FEET, THROUGH A CENTRAL ANGLE OF 12°20'55" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 170.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°41'15" EAST;

THENCE EASTERLY ALONG SAID CURVE, 182.13 FEET, THROUGH A CENTRAL ANGLE OF 61°23'07" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 200.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 72°04'22" WEST;

THENCE NORTHERLY ALONG SAID CURVE, 260.36 FEET, THROUGH A CENTRAL ANGLE OF 74°35'16";

THENCE SOUTH 87°29'06" EAST, 636.61 FEET TO THE WESTERLY BOUNDARY OF THE LAND DESCRIBED IN THE FINAL ORDER OF CONDEMNATION RECORDED IN BOOK 12177, PAGE 409, OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 4 (370-041-25)

THAT PORTION OF LOT 3 IN BLOCK "A" OF THE LAND OF OGE AND BOND, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 3, PAGES 430 AND 431, MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE EAST LINE OF SAID LOT 3 WITH THE CENTERLINE OF THE COUNTY ROAD, AS CONVEYED TO THE COUNTY OF ORANGE BY DEED RECORDED JANUARY 21, 1914 IN BOOK 244, PAGE 258 OF DEEDS, RECORDS OF SAID ORANGE COUNTY;

THENCE SOUTHWESTERLY ALONG THE CENTERLINE OF SAID ROAD, 517.25 FEET;

THENCE NORTHWESTERLY (NORTH 17°54' WEST) 591.4 FEET;

THENCE IN AN EASTERLY DIRECTION TO A POINT ON THE EAST LINE OF SAID LOT 3, SAID POINT BEING SOUTH 17°30' EAST, 236.15 FEET FROM THE NORTHEAST CORNER OF SAID LOT 3;

THENCE SOUTH 17°30' EAST, 376 FEET TO THE POINT OF BEGINNING.

EXCEPT THEREFROM THAT PORTION OF SAID LAND LYING WITHIN THE LAND DESCRIBED IN THE DEED TO THE CITY OF ORANGE, A MUNICIPAL CORPORATION, RECORDED AUGUST 21, 1991 AS INSTRUMENT NO. 91-451619 OF OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 5 (POR 093-280-29)

THAT PORTION OF LOT 2 IN BLOCK "A" OF THE LAND OF OGE AND BOND, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 3, PAGE 430 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 2; AND THENCE SOUTHWESTERLY ALONG THE NORTHWESTERLY LINE OF THE LAND CONVEYED BY W. V. WHISLER AND WIFE, TO MRS. J. R. FLETCHER, BY DEED RECORDED APRIL 13, 1914 IN BOOK 248, PAGE 55 OF DEEDS, TO A BOLT IN THE CENTER OF THE COUNTY ROAD AT THE SOUTHWEST CORNER OF SAID LAND CONVEYED TO SAID MRS. J. R. FLETCHER;

THENCE RUNNING NORTHWESTERLY ALONG THE CENTER LINE OF SAID COUNTY ROAD, 284.10 FEET, MORE OR LESS, TO AN OLD PIPE IN THE ANGLE POINT IN THE CENTER LINE OF SAID COUNTY ROAD;

THENCE RUNNING SOUTH 84° WEST, ALONG THE CENTER LINE OF SAID COUNTY ROAD, 597.94 FEET TO THE SOUTHEAST CORNER OF THAT PORTION OF SAID LOT 2 CONVEYED BY B. D. PARKER, A SINGLE MAN, TO CHRIS SENTI AND WIFE, BY DEED RECORDED NOVEMBER 2, 1923 IN BOOK 495, PAGE 384 OF DEEDS;

THENCE NORTH 39°50'15" EAST, 815.36 FEET, MORE OR LESS, TO A POINT IN THE NORTH LINE OF SAID LOT 2, WHICH POINT IS 266.66 FEET SOUTH 85° WEST FROM THE NORTHEAST CORNER OF SAID LOT 2;

THENCE NORTH 85° EAST, 266.66 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM, THAT PORTION OF SAID LAND DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 2; RUNNING THENCE SOUTHWESTERLY ALONG THE NORTHWESTERLY LINE OF THE LAND CONVEYED BY W. V. WHISLER TO MRS. J. R. FLETCHER, BY DEED RECORDED APRIL 13, 1914 IN BOOK 248, PAGE 55 OF DEEDS, TO A BOLT IN THE CENTER OF THE COUNTY ROAD AT THE SOUTHWEST CORNER OF SAID LAND CONVEYED TO SAID MRS. J. R. FLETCHER; RUNNING THENCE NORTHWESTERLY ALONG THE CENTER LINE OF SAID COUNTY ROAD 284.10 FEET TO A POINT IN THE CENTERLINE OF SAID COUNTY ROAD;

RUNNING THENCE IN A SOUTHWESTERLY DIRECTION ALONG THE CENTER CENTERLINE OF SAID COUNTY ROAD, 59.94 FEET TO A POINT;

THENCE IN A NORTHEASTERLY DIRECTION ALONG A STRAIGHT LINE TO A POINT IN THE NORTHERLY LINE OF SAID LOT 2, WHICH POINT IS SOUTH 85° WEST, 103.66 FEET FROM THE NORTHEAST CORNER OF SAID LOT 2;

THENCE NORTH 85° EAST, ALONG THE NORTHERLY LINE OF SAID LOT 2, 103.66 FEET TO THE POINT OF BEGINNING.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 6 (POR 093-280-29)

THAT PORTION OF LOT 2 IN BLOCK "A" OF THE LAND OF OGE AND BOND, AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 2; THENCE SOUTHWESTERLY ALONG THE NORTHWESTERLY LINE OF THE LAND CONVEYED BY W. V. WHISLER ET UX TO MRS. J. R. FLETCHER, BY DEED RECORDED APRIL 13, 1914 IN BOOK 248, PAGE 55 OF DEEDS, TO A BOLT IN THE CENTER OF THE COUNTY ROAD AT THE SOUTHWEST CORNER OF SAID LAND CONVEYED TO SAID MRS. J. R. FLETCHER;

THENCE NORTHWESTERLY ALONG THE CENTER LINE OF SAID COUNTY ROAD 284.10 FEET TO A POINT IN THE CENTERLINE OF SAID COUNTY ROAD;

RUNNING THENCE IN A SOUTHWESTERLY DIRECTION ALONG THE CENTERLINE OF SAID COUNTY ROAD 59.94 FEET TO A POINT;

THENCE IN A NORTHEASTERLY DIRECTION ALONG A STRAIGHT LINE TO A POINT IN THE NORTHERLY LINE OF SAID LOT 2, WHICH POINT IS SOUTH 85° WEST, 103.66 FEET FROM THE NORTHEAST CORNER OF SAID LOT 2;

THENCE NORTH 85° EAST, ALONG THE NORTHERLY LINE OF SAID LOT 2, 103.66 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM, THAT PORTION OF SAID LAND DESCRIBED IN THE DEED TO MUNICIPAL WATER DISTRICT OF ORANGE COUNTY, RECORDED JULY 27, 1998 AS INSTRUMENT NO. 19980483623 OF OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 7B (370-011-18)

THAT PORTION OF THE SOUTH HALF OF SECTION 14, TOWNSHIP 4 SOUTH, RANGE 9 WEST AND THE NORTH HALF OF SECTION 23, TOWNSHIP 4, RANGE 9 WEST, OF THE LAND ALLOTTED TO PAUL PERALTA DE DOMINGUEZ IN THE DECREE OF PARTITION OF THE RANCHO SANTIAGO DE SANTA ANA, RECORDED IN BOOK "B" OF JUDGMENTS OF THE 17TH JUDICIAL DISTRICT OF CALIFORNIA IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, INCLUDED WITHIN THE LAND DESCRIBED IN THE DEED TO A. B. HEINSBERGEN AND NEDITH C. HEINSBERGEN RECORDED APRIL 27, 1935 IN BOOK 748, PAGE 222 OF OFFICIAL RECORDS OF SAID COUNTY, LYING SOUTHERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A 1/2 INCH IRON PIPE AT STATION NO. 15 AS SHOWN ON A MAP FILED IN BOOK 3, PAGE 54 OF RECORD OF SURVEYS IN THE CITY OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 82°50'00" WEST, 952.71 FEET;

THENCE SOUTH 0°10'00" EAST, 129.92 FEET;

THENCE SOUTH 86°54'40" WEST, 165.86 FEET;

THENCE SOUTH 89°48'20" WEST, 117.49 FEET;

THENCE NORTH 85°36'20" WEST, 101.01 FEET;

THENCE NORTH 83°42'50" WEST, 174.68 FEET;

THENCE SOUTH 72°11'10" WEST, 167.87 FEET;

THENCE SOUTH 70°15'19" WEST, 309.10 FEET;

THENCE SOUTH 55°03'20" WEST, 388.74 FEET TO AN AXLE, WHICH BEARS SOUTH 46°11'40" EAST, 549.09 FEET FROM A 1 INCH IRON PIPE AT STATION 9 OF SAID RECORD OF SURVEY.

EXCEPT THAT PORTION DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF A TRACT OF LAND CONVEYED TO HENRY SNYDER BY DEED RECORDED JANUARY 6, 1881 IN BOOK 77, PAGE 22 OF DEE DS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY, CALIFORNIA,

THENCE SOUTH 83° WEST, 952.71 FEET ALONG THE NORTH LINE OF SAID SNYDER'S LAND;

THENCE SOUTH 1027.99 FEET TO THE SOUTHERLY LINE OF THE LAND CONVEYED TO A. B. HEINSBERGEN ET UX BY DEED RECORDED APRIL 27, 1935 IN BOOK 748, PAGE 222 OF OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID ORANGE COUNTY;

THENCE ALONG SAID SOUTHERLY LINE NORTH 85° EAST, 550.00 FEET TO THE SOUTHEAST CORNER OF SAID HEINSBERGEN LAND,

THENCE NORTH 19°45' EAST, 1179.42 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL THAT PORTION OF SAID LAND LYING NORTHERLY OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE WESTERLY LINE OF LOT 3 IN BLOCK "A" OF THE "LAND OF OGE AND BOND", AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, WHICH SAID POINT OF COMMENCEMENT IS THE SOUTHERLY TERMINUS OF THAT COURSE SHOWN AS "N17°01'15"W 281.68 FEET" ON RECORD OF SURVEY FILED IN BOOK 138, PAGES 15 TO 17 OF RECORD OF SURVEYS IN THE OFFICE OF CITY RECORDER OF SAID COUNTY;

THENCE ALONG SAID WESTERLY LINE NORTH 17°01'21" WEST 247.86 FEET TO THE TRUE POINT OF BEGINNING.

THENCE, LEAVING THE WESTERLY LINE OF SAID LOT, TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 100.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 58°17'55" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 59.34 FEET, THROUGH A CENTRAL ANGLE OF 34°00'02";

THENCE NORTH 65°42'07" EAST, 408.74 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, SOUTHERLY AND HAVING A RADIUS OF 750.00 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE, 176.51 FEET, THROUGH A CENTRAL ANGLE OF 13°29'04" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHERLY AND HAVING A RADIUS OF 1,950.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°48'49" EAST;

THENCE EASTERLY ALONG SAID CURVE, 357.93 FEET, THROUGH A CENTRAL ANGLE OF 10°31'01" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 2,000.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 21°19'50" WEST;

THENCE EASTERLY ALONG SAID CURVE, 424.32 FEET, THROUGH A CENTRAL ANGLE OF 12°09'21";

THENCE NORTH 80°49'31" EAST, 645.86 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, NORTHERLY AND HAVING A RADIUS OF 700.00 FEET;

THENCE EASTERLY ALONG SAID CURVE, 169.35 FEET, THROUGH A CENTRAL ANGLE OF 13°51'41" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 1,870.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 23°02'10" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 403.03 FEET, THROUGH A CENTRAL ANGLE OF 12°20'55" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 170.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°41'15" EAST;

THENCE EASTERLY ALONG SAID CURVE, 182.13 FEET, THROUGH A CENTRAL ANGLE OF 61°23'07" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 200.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 72°04'22" WEST;

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

THENCE NORTHERLY ALONG SAID CURVE, 260.36 FEET, THROUGH A CENTRAL ANGLE OF 74°35'16";

THENCE SOUTH 87°29'06" EAST, 636.61 FEET TO THE WESTERLY BOUNDARY OF THE LAND DESCRIBED IN THE FINAL ORDER OF CONDEMNATION RECORDED IN BOOK 12177, PAGE 409, OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 9 (POR 370-011-22)

ALL THAT CERTAIN LAND SITUATED IN THE RANCHO SANTIAGO DE SANTA ANA, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 2 IN BLOCK A OF THE LAND OF OGE AND BOND, AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA;

THENCE NORTH 85° EAST, ALONG THE NORTHERLY LINE OF SAID LOT 1056.03 FEET TO A STONE MARKED "X";

THENCE SOUTH 15°59' WEST, 625.48 FEET TO A PIPE IN THE CENTERLINE OF THE COUNTY ROAD;

THENCE SOUTH 83°55' WEST, ALONG SAID CENTERLINE, 706.14 FEET TO AN IRON BAR IN THE WEST LINE OF SAID LOT;

THENCE NORTH 16°24' WEST, ALONG SAID WEST LINE 629.14 FEET TO THE POINT OF BEGINNING.

EXCEPT THEREFROM THAT PORTION OF SAID LAND LYING WITHIN THE LAND DESCRIBED IN THE DEED TO THE CITY OF ORANGE, A MUNICIPAL CORPORATION, RECORDED AUGUST 21, 1991 AS INSTRUMENT NO. 91-451618 OF OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 10 (POR 370-011-22)

ALL THAT CERTAIN LAND SITUATED IN THE RANCHO SANTIAGO DE SANTA ANA, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER OF LOT 3 IN BLOCK A OF THE LAND OF OGE AND BOND, AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGES 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA;

THENCE WESTERLY ALONG THE NORTHERLY LINE OF SAID LOT, 526.7 FEET TO A POINT;

THENCE SOUTHEASTERLY 218.2 FEET TO THE NORTHWESTERLY CORNER OF THE LAND CONVEYED TO J. A. BURNS BY DEED RECORDED JUNE 23, 1923 IN BOOK 476 , PAGE 179 OF DEEDS;

THENCE IN AN EASTERLY DIRECTION TO A POINT ON THE EAST LINE OF SAID LOT 3, 236.15 FEET SOUTHERLY FROM THE NORTHEAST CORNER OF SAID LOT 3;

THENCE NORTH 17°30' WEST, 236.15 FEET TO THE POINT OF BEGINNING.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 11 (370-011-08)

THAT PORTION OF THE LAND ALLOTTED TO PAULA PERALTA DE DOMINQUEZ, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS DESCRIBED IN THE FINAL DECREE OF PARTITION OF THE RANCHO SANTIAGO DE SANTA ANA, WHICH WAS ENTERED SEPTEMBER 12, 1868 IN BOOK "B", PAGE 410 OF JUDGMENTS OF THE DISTRICT COURT OF THE 17TH JUDICIAL DISTRICT IN AND FOR LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT DISTANT SOUTH 924.00 FEET AND NORTH 84°43' EAST, 3261.06 FEET FROM THE CORNER COMMON TO SECTION 14, 15, 22 AND 23 IN SAID ALLOTMENT, SAID POINT BEING THE SOUTHWEST CORNER OF THE LAND DESCRIBED IN THE DEED TO HENRY SNYDER, RECORDED JANUARY 6, 1881 IN BOOK 77, PAGE 22 OF DEEDS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA;

THENCE NORTH 36°07' WEST, 1000.56 FEET ALONG THE BOUNDARY OF SAID SNYDER LAND TO A STAKE;

THENCE SOUTH 55°15' WEST, 381.74 FEET TO A ROCK;

THENCE SOUTH 7°13' WEST, 691.22 FEET;

THENCE NORTH 84°43' EAST, 995.15 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL THAT PORTION OF SAID LAND LYING NORTHERLY OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE WESTERLY LINE OF LOT 3 IN BLOCK "A" OF THE "LAND OF OGE AND BOND", AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, WHICH SAID POINT OF COMMENCEMENT IS THE SOUTHERLY TERMINUS OF THAT COURSE SHOWN AS "N17°01'15"W 281.68 FEET" ON RECORD OF SURVEY FILED IN BOOK 138, PAGES 15 TO 17 OF RECORD OF SURVEYS IN THE OFFICE OF CITY RECORDER OF SAID COUNTY;

THENCE ALONG SAID WESTERLY LINE NORTH 17°01'21" WEST 247.86 FEET TO THE TRUE POINT OF BEGINNING.

THENCE, LEAVING THE WESTERLY LINE OF SAID LOT, TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 100.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 58°17'55" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 59.34 FEET, THROUGH A CENTRAL ANGLE OF 34°00'02";

THENCE NORTH 65°42'07" EAST, 408.74 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, SOUTHERLY AND HAVING A RADIUS OF 750.00 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE, 176.51 FEET, THROUGH A CENTRAL ANGLE OF 13°29'04" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHERLY AND HAVING A RADIUS OF 1,950.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°48'49" EAST;

THENCE EASTERLY ALONG SAID CURVE, 357.93 FEET, THROUGH A CENTRAL ANGLE OF 10°31'01" TO THE

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 2,000.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 21°19'50" WEST;

THENCE EASTERLY ALONG SAID CURVE, 424.32 FEET, THROUGH A CENTRAL ANGLE OF 12°09'21";

THENCE NORTH 80°49'31" EAST, 645.86 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, NORTHERLY AND HAVING A RADIUS OF 700.00 FEET;

THENCE EASTERLY ALONG SAID CURVE, 169.35 FEET, THROUGH A CENTRAL ANGLE OF 13°51'41" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 1,870.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 23°02'10" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 403.03 FEET, THROUGH A CENTRAL ANGLE OF 12°20'55" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 170.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°41'15" EAST;

THENCE EASTERLY ALONG SAID CURVE, 182.13 FEET, THROUGH A CENTRAL ANGLE OF 61°23'07" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 200.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 72°04'22" WEST;

THENCE NORTHERLY ALONG SAID CURVE, 260.36 FEET, THROUGH A CENTRAL ANGLE OF 74°35'16";

THENCE SOUTH 87°29'06" EAST, 636.61 FEET TO THE WESTERLY BOUNDARY OF THE LAND DESCRIBED IN THE FINAL ORDER OF CONDEMNATION RECORDED IN BOOK 12177, PAGE 409, OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 12 (POR 093-280-30)

THAT PORTION OF THE LAND ALLOTTED TO PAULA PERALTA DE DOMINQUEZ, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS DESCRIBED IN THE FINAL ORDER OF PARTITION OF THE RANCHO SANTIAGO DE SANTA ANA, WHICH WAS ENTERED SEPTEMBER 12, 1868 IN BOOK "B", PAGE 410 OF JUDGMENTS OF THE DISTRICT COURT OF THE 17TH JUDICIAL DISTRICT IN AND FOR LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF THE TRACT OF LAND CONVEYED TO A. B. HEINSBERGERN AND WIFE, BY DEED RECORDED APRIL 27, 1935 IN BOOK 748, PAGE 222 OF OFFICIAL RECORDS OF SAID COUNTY;

THENCE NORTH 19°45'00" EAST, 334.88 FEET ALONG THE EASTERLY LINE OF SAID LAND TO THE SOUTHEAST CORNER OF THE LAND CONVEYED TO SULLY MILLER CONTRACTING COMPANY, BY DEED RECORDED AUGUST 25, 1933 IN BOOK 630, PAGE 178 OF OFFICIAL RECORDS OF SAID COUNTY;

THENCE SOUTH 83°00'00" WEST, 665.41 FEET TO THE SOUTHWEST CORNER OF SAID LAND CONVEYED TO SULLY MILLER CONTRACTING COMPANY;

THENCE SOUTHERLY 268.00 FEET, MORE OR LESS, ALONG THE SOUTHERLY EXTENSION OF THE WESTERLY LINE OF SAID LAND TO THE SOUTHERLY LINE OF SAID LAND CONVEYED TO A. B. HEINSBERGEN AND WIFE;

THENCE NORTH 85°00'00" EAST, 550.00 FEET, MORE OR LESS TO THE POINT OF BEGINNING.

EXCEPT THEREFROM ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES, IN, UNDER, OR THAT MAY BE PRODUCED FROM A DEPTH BELOW 100 FEET, FROM THE SURFACE OF SAID PROPERTY AND ANY PART THEREOF, AS RESERVED BY A. B. HEINSBERGERN AND WIFE, IN THE DEED TO EARL B. MILLER AND OTHERS, DATED JUNE 9, 1947 AND RECORDED JULY 29, 1947 IN BOOK 1534, PAGE 310 OF OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID ORANGE COUNTY.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 13 (POR 093-280-30)

THAT PORTION OF THE LAND ALLOTTED TO PAULA PERALTA DE DOMINQUEZ, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS DESCRIBED IN THE FINAL ORDER OF PARTITION OF THE RANCHO SANTIAGO DE SANTA ANA, WHICH WAS ENTERED SEPTEMBER 12, 1868 IN BOOK "B" PAGE 410 OF JUDGMENTS OF THE DISTRICT COURT OF THE 17TH JUDICIAL DISTRICT IN AND FOR LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE LAND CONVEYED TO HENRY SNYDER BY DEED RECORDED JANUARY 6, 1881 IN BOOK 77, PAGE 22 OF DEEDS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA;

THENCE SOUTH 83°00'00" WEST, 952.71 FEET ALONG THE NORTH LINE OF SAID SNYDER'S LAND;

THENCE SOUTH 759.99 FEET;

THENCE NORTH 83°00'00" EAST, 665.412 FEET TO THE EAST LINE OF SAID SNYDER'S LAND;

THENCE NORTH 19°45'00" EAST, 844.54 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION THEREOF LYING NORTHERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID LAND DISTANT SOUTHERLY 509.00 FEET FROM THE NORTHWEST CORNER THEREOF;

THENCE NORTH 83°00'00" EAST, 760.00 FEET TO THE EAST LINE OF SAID LAND.

EXCEPTING THEREFROM ALL THAT PORTION OF SAID LAND LYING NORTHERLY OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE WESTERLY LINE OF LOT 3 IN BLOCK "A" OF THE "LAND OF OGE AND BOND", AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, WHICH SAID POINT OF COMMENCEMENT IS THE SOUTHERLY TERMINUS OF THAT COURSE SHOWN AS "N17°01'15"W 281.68 FEET" ON RECORD OF SURVEY FILED IN BOOK 138, PAGES 15 TO 17 OF RECORD OF SURVEYS IN THE OFFICE OF CITY RECORDER OF SAID COUNTY;

THENCE ALONG SAID WESTERLY LINE NORTH 17°01'21" WEST 247.86 FEET TO THE TRUE POINT OF BEGINNING.

THENCE, LEAVING THE WESTERLY LINE OF SAID LOT, TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 100.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 58°17'55" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 59.34 FEET, THROUGH A CENTRAL ANGLE OF 34°00'02";

THENCE NORTH 65°42'07" EAST, 408.74 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, SOUTHERLY AND HAVING A RADIUS OF 750.00 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE, 176.51 FEET, THROUGH A CENTRAL ANGLE OF 13°29'04" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHERLY AND HAVING A RADIUS OF 1,950.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°48'49" EAST;

THENCE EASTERLY ALONG SAID CURVE, 357.93 FEET, THROUGH A CENTRAL ANGLE OF 10°31'01" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 2,000.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 21°19'50" WEST;

THENCE EASTERLY ALONG SAID CURVE, 424.32 FEET, THROUGH A CENTRAL ANGLE OF 12°09'21";

THENCE NORTH 80°49'31" EAST, 645.86 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, NORTHERLY AND HAVING A RADIUS OF 700.00 FEET;

THENCE EASTERLY ALONG SAID CURVE, 169.35 FEET, THROUGH A CENTRAL ANGLE OF 13°51'41" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 1,870.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 23°02'10" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 403.03 FEET, THROUGH A CENTRAL ANGLE OF 12°20'55" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 170.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°41'15" EAST;

THENCE EASTERLY ALONG SAID CURVE, 182.13 FEET, THROUGH A CENTRAL ANGLE OF 61°23'07" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 200.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 72°04'22" WEST;

THENCE NORTHERLY ALONG SAID CURVE, 260.36 FEET, THROUGH A CENTRAL ANGLE OF 74°35'16";

THENCE SOUTH 87°29'06" EAST, 636.61 FEET TO THE WESTERLY BOUNDARY OF THE LAND DESCRIBED IN THE FINAL ORDER OF CONDEMNATION RECORDED IN BOOK 12177, PAGE 409, OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 14 (093-280-31 & POR 093-280-30)

THAT PORTION OF THE LAND ALLOTTED TO PAULA PERALTA DE DOMINQUEZ, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS DESCRIBED IN THE FINAL DECREE OF PARTITION OF THE RANCHO SANTIAGO DE SANTA ANA, WHICH WAS ENTERED SEPTEMBER 12, 1868 IN BOOK "B" PAGE 410 OF JUDGMENTS OF THE DISTRICT COURT OF THE 17TH JUDICIAL DISTRICT IN AND FOR LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTHERLY LINE OF BLOCK "A" OF THE "LAND OF OGE AND BOND", AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 AND IN BOOK 3, PAGE 431 BOTH OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, WHICH SAID POINT OF BEGINNING IS SOUTH 85°29' WEST, MEASURED ALONG SAID NORTHERLY LINE OF BLOCK "A", 170.00 FEET FROM THE NORTHEASTERLY CORNER OF LOT 2 IN BLOCK "A" OF SAID LAND OF OGE AND BOND,

THENCE FROM SAID POINT OF BEGINNING NORTH 58°17'10" EAST, 174.12 FEET TO AN IRON PIPE MARKING THE NORTHWESTERLY CORNER OF LAND DESCRIBED IN THE DEED RECORDED OCTOBER 30, 1917 IN BOOK 261, PAGE 314 OF DEEDS;

THENCE NORTH 75°15' EAST, 155.00 FEET TO AN IRON PIPE MARKING THE NORTHEASTERLY CORNER OF SAID LAND;

THENCE NORTH 87°55'00" EAST, 114.75 FEET;

THENCE NORTH 83°43'00" EAST, 208.64 FEET;

THENCE NORTH 61°13'00" EAST, 138.13 FEET;

THENCE NORTH 48°35'00" EAST, 70.01 FEET TO A POINT IN THE WESTERLY BOUNDARY OF THE LAND DESCRIBED IN THE FINAL ORDER OF CONDEMNATION RECORDED IN BOOK 12177, PAGE 409, OFFICIAL RECORDS,

THENCE ALONG THE WESTERLY BOUNDARY THEREOF NORTH 17°10'18" WEST, 680.78 FEET TO A POINT ON THAT CERTAIN COURSE SHOWN AS SOUTH 85°46' EAST, 264.10 FEET ON THE MAP FILED IN BOOK 3, PAGE 54 OF RECORD OF SURVEYS SAID POINT BEING NORTH 84°51'58" WEST, 60.00 FEET FROM "STA 17.A"

THENCE NORTH 84°51'58" WEST, 288.10 FEET TO STATION 17;

THENCE SOUTH 88°24' WEST, 680.18 WEST TO STATION 16;

THENCE SOUTH 18°43'00" WEST, 1030.12 FEET TO A POINT ON THE ABOVE MENTIONED NORTHERLY LINE OF BLOCK "A" OF THE LAND OF OGE AND BOND, SAID POINT BEING SOUTH 85°29' WEST, 627.42 FEET MEASURED ALONG SAID NORTHERLY LINE FROM THE POINT OF BEGINNING;

THENCE NORTH 85°29' EAST, 360.72 FEET ALONG SAID NORTHERLY LINE TO THE SOUTHWESTERLY CORNER OF THE PUMP LOT AS SHOWN ON A MAP FILED IN B OOK 8, PAGE 3 OF RECORD OF SURVEYS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID ORANGE COUNTY;

THENCE ALONG THE BOUNDARIES OF SAID PUMP LOT THE FOLLOWING COURSES AND DISTANCES, NORTH 4°31' EAST, 30.00 FEET, NORTH 85°29' EAST, 30.00 FEET, SOUTH 4°31' EAST, 30.00 FEET TO THE SOUTHEASTERLY CORNER OF SAID PUMP LOT;

THENCE NORTH 85°29' EAST, 236.70 FEET ALONG THE NORTHERLY LINE OF SAID BLOCK "A" TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL THAT PORTION OF SAID LAND LYING NORTHERLY OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE WESTERLY LINE OF LOT 3 IN BLOCK "A" OF THE "LAND OF OGE AND BOND", AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGE 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, WHICH SAID POINT OF COMMENCEMENT IS THE SOUTHERLY TERMINUS OF THAT COURSE SHOWN AS "N17°01'15"W 281.68 FEET" ON RECORD OF SURVEY FILED IN BOOK 138, PAGES 15 TO 17 OF RECORD OF SURVEYS IN THE OFFICE OF CITY RECORDER OF SAID COUNTY;

THENCE ALONG SAID WESTERLY LINE NORTH 17°01'21" WEST 247.86 FEET TO THE TRUE POINT OF BEGINNING.

THENCE, LEAVING THE WESTERLY LINE OF SAID LOT, TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 100.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 58°17'55" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 59.34 FEET, THROUGH A CENTRAL ANGLE OF 34°00'02";

THENCE NORTH 65°42'07" EAST, 408.74 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, SOUTHERLY AND HAVING A RADIUS OF 750.00 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE, 176.51 FEET, THROUGH A CENTRAL ANGLE OF 13°29'04" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHERLY AND HAVING A RADIUS OF 1,950.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°48'49" EAST;

THENCE EASTERLY ALONG SAID CURVE, 357.93 FEET, THROUGH A CENTRAL ANGLE OF 10°31'01" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 2,000.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 21°19'50" WEST;

THENCE EASTERLY ALONG SAID CURVE, 424.32 FEET, THROUGH A CENTRAL ANGLE OF 12°09'21";

THENCE NORTH 80°49'31" EAST, 645.86 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE, NORTHERLY AND HAVING A RADIUS OF 700.00 FEET;

THENCE EASTERLY ALONG SAID CURVE, 169.35 FEET, THROUGH A CENTRAL ANGLE OF 13°51'41" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHERLY AND HAVING A RADIUS OF 1,870.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 23°02'10" WEST;

THENCE NORTHEASTERLY ALONG SAID CURVE, 403.03 FEET, THROUGH A CENTRAL ANGLE OF 12°20'55" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 170.00

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS SOUTH 10°41'15" EAST;

THENCE EASTERLY ALONG SAID CURVE, 182.13 FEET, THROUGH A CENTRAL ANGLE OF 61°23'07" TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 200.00 FEET, A RADIAL LINE TO SAID BEGINNING OF CURVE BEARS NORTH 72°04'22" WEST;

THENCE NORTHERLY ALONG SAID CURVE, 260.36 FEET, THROUGH A CENTRAL ANGLE OF 74°35'16";

THENCE SOUTH 87°29'06" EAST, 636.61 FEET TO THE WESTERLY BOUNDARY OF THE LAND DESCRIBED IN THE FINAL ORDER OF CONDEMNATION RECORDED IN BOOK 12177, PAGE 409, OFFICIAL RECORDS.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 15 (POR 093-280-07)

THAT PORTION OF LOT 2 IN BLOCK "A" OF THE LAND OF OGE AND BOND, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 3, PAGE 430 OF MISCELLANEOUS RECORDS OF LOS ANGELES, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT, 266.66 FEET SOUTH 85° WEST, FROM THE NORTHEAST CORNER OF SAID LOT;

THENCE SOUTH 39°50'15" WEST, 815.36 FEET TO A POINT IN THE CENTER OF THE COUNTY ROAD;

THENCE SOUTH 83°55' WEST, ALONG THE CENTERLINE OF SAID COUNTY ROAD, 238.15 FEET TO THE SOUTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED BY W. V. WHISLER AND WIFE, TO HIRAM WHISLER, BY DEED RECORDED NOVEMBER 26, 1917 IN BOOK 309, PAGE 236 OF DEEDS;

THENCE NORTH 15°59' EAST, ALONG THE SOUTHEASTERLY LINE OF SAID PARCEL OF LAND CONVEYED TO SAID HIRAM WHISLER, 625.48 FEET TO A POINT IN THE NORTH LINE OF SAID LOT 2;

THENCE NORTH 85° EAST, 588.30 FEET TO THE POINT OF BEGINNING.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 16 (POR 093-280-07)

THE WEST ONE ACRE OF THAT PORTION OF LOT 2 IN BLOCK "A" OF THE LAND OF OGE AND BOND, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 3, PAGE 430 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 2;

THENCE SOUTH 17-1/2° EAST, 860 FEET TO THE CENTER OF THE COUNTY ROAD;

THENCE, ALONG THE CENTER OF THE COUNTY ROAD, THE FOLLOWING COURSES AND DISTANCES: SOUTH 81-1/4° WEST, 407 FEET;

THENCE NORTH 9° WEST, 275 FEET; SOUTH 84° WEST, 930 FEET;

THENCE, LEAVING THE COUNTY ROAD, NORTH 15-1/2° EAST, 625 FEET TO A POST ON THE NORTH LINE OF SAID TRACT;

THENCE NORTH 85° EAST, 930 FEET TO THE POINT OF BEGINNING.

EXCEPT THEREFROM THAT PORTION OF SAID LAND LYING WESTERLY OF A LINE DESCRIBED AS FOLLOWS:

BEGINNING AT A STONE MARKED "X" IN THE NORTH LINE OF SAID LOT 2, NORTH 85° EAST, 1056.03 FEET FROM THE NORTHWEST CORNER THEREOF;

THENCE SOUTH 15°59' WEST, 625.48 FEET TO A PIPE IN THE CENTERLINE OF THE COUNTY ROAD.

ATTACHMENT "C"
LEGAL DESCRIPTION
OF PARCELS AND PORTIONS OF PARCELS
COMPRISING THE SITE AND SUBJECT TO STIPULATED N&O

PARCEL 18 (093-280-05)

THAT CERTAIN WATER WELL SITE, IN THE CITY OF ORANGE, COUNTY OF ORANGE, STATE OF CALIFORNIA, DESCRIBED AS PARCEL 1 IN THAT CERTAIN DEED TO SANTIAGO MUTUAL WATER COMPANY, RECORDED JANUARY 13, 1939 IN BOOK 980, PAGE 58 OF OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING WITHIN A PORTION OF SECTION 23, TOWNSHIP 4 SOUTH, RANGE 9 WEST, SAN BERNARDINO BASE AND MERIDIAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER OF LOT 2, BLOCK "A", LAND OF OGE AND BOND, AS SHOWN ON A MAP THEREOF RECORDED IN BOOK 3, PAGE 430 AND IN BOOK 3, PAGE 431 BOTH OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA;

THENCE SOUTH 85°29' WEST, 406.70 FEET TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH 85°29'30" WEST, 30.00 FEET TO A POINT;

THENCE NORTH 4°31' WEST, 30.00 FEET TO A POINT;

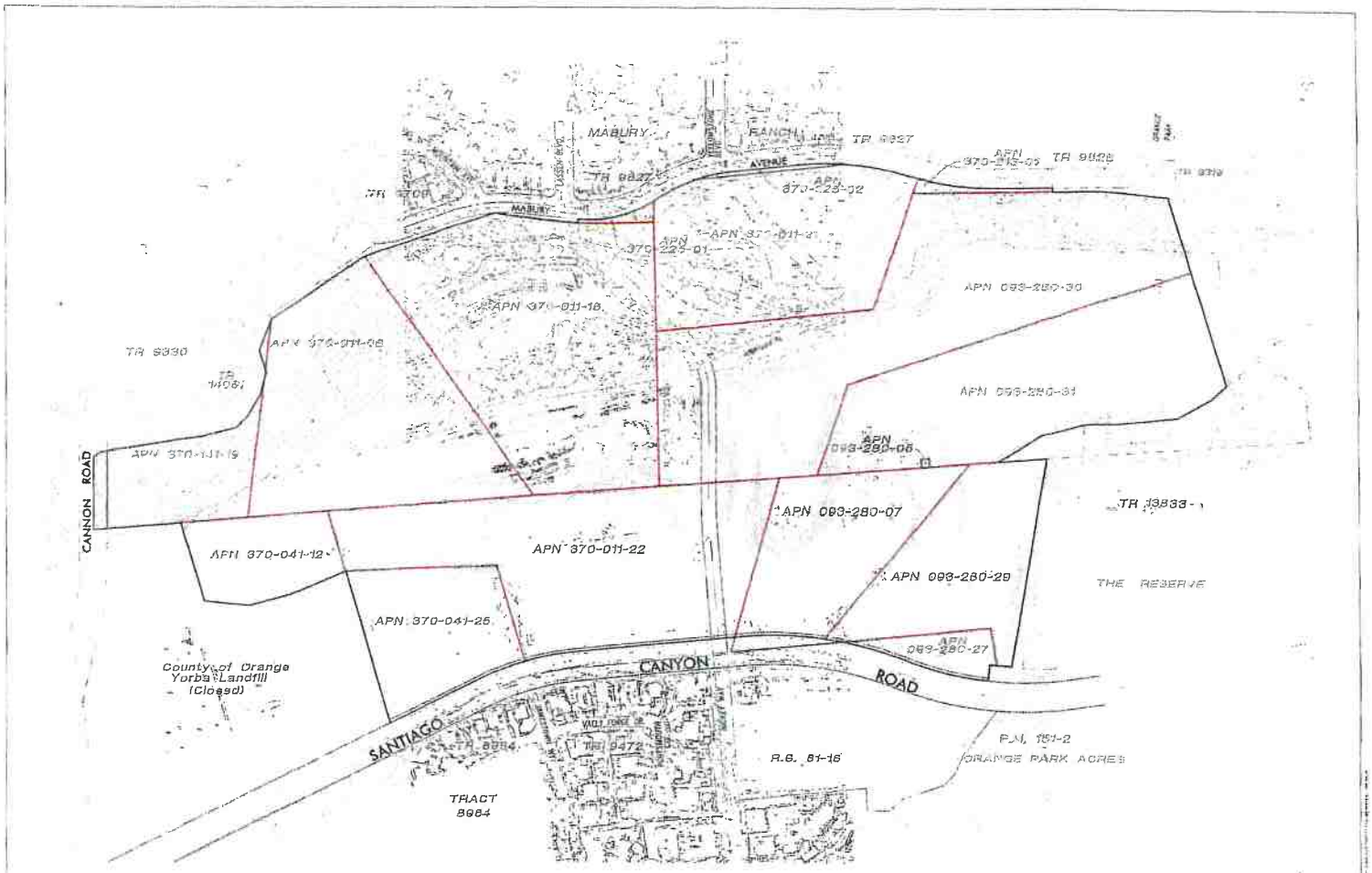
THENCE NORTH 85°29' EAST, 30.00 FEET TO A POINT;

THENCE SOUTH 4°31' EAST, 30.00 FEET TO THE TRUE POINT OF BEGINNING, AS SHOWN IN RECORD OF SURVEY BOOK 8, PAGE 3, RECORDS OF ORANGE COUNTY, CALIFORNIA.

AS SHOWN ON EXHIBIT "B" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

05/05/2022

KURT R. TROXELL P.L.S. 7854 DATE



ATTACHMENT D
MAP OF PARCELS AND PORTIONS OF PARCELS OUTSIDE OF THE SITE'S BOUNDARIES AND NOT SUBJECT TO STIPULATED N&O

ORANGE, CA
MAY 18, 2022

PREPARED FOR:
MILAN REI X, LLC
888 S. DISNEYLAND DRIVE, SUITE 101
ANAHEIM, CA 92802
PHONE: 714.687.0200
FAX: 714.687.1900

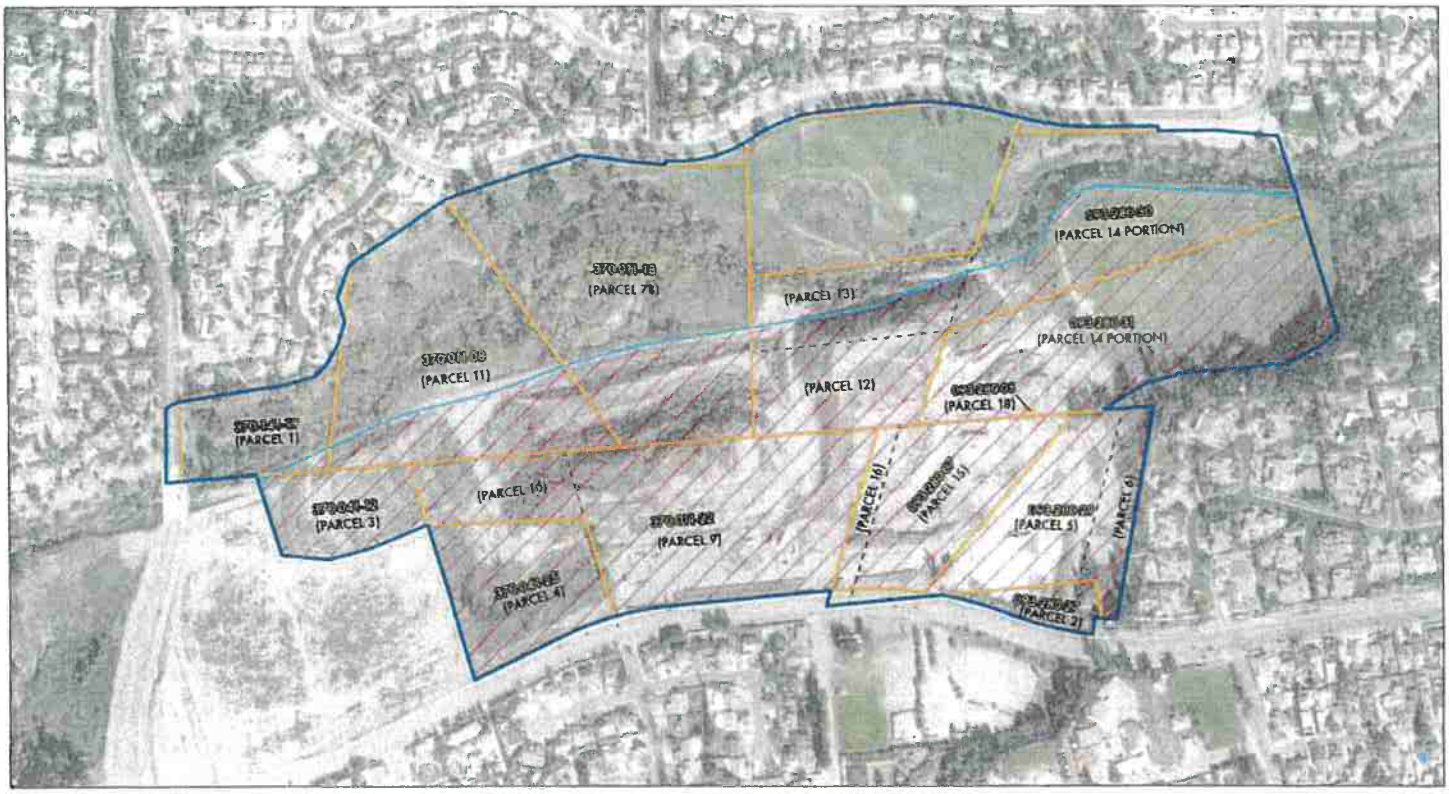


Exhibit "B"

Orange, CA

Legend

Layer
Property Boundary
New Parcel Line
County Assessor's Parcel Line
Title Parcel Line

xxx-xxx-xx County Assessor's Parcel Numbers
(Parcel x) Title Parcel Numbers

N

1 inch = 300 feet

0 300 600 Feet

9/5/2022

A:\Assessing\881\DOP\GIS\881-009 exhibit b.mxd

AGENCY COMMUNICATIONS AND

LEIGHTON RESPONSES TO LEA COMMENTS

CLAYTON CHAU, MD, PhD, MASL
AGENCY DIRECTOR

MINDY WINTERSWYK, PT, DPT, PCS
ASSISTANT AGENCY DIRECTOR

MARGARET BREDEHOFT, DrPH
CHIEF PUBLIC HEALTH SERVICES

CHRISTINE LANE, REHS
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ENVIRONMENTAL HEALTH

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PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION

October 31, 2022

Bret B. Bernard
Director of Planning and Development
MILAN REI X, LLC
701 South Parker St., Suite 5200
Orange, CA 92868

Sent via email: bret@milancap.com

Subject: Revised Subgrade Testing and Geotechnical Workplan dated September 13, 2022 for Rio Santiago Disposal Site located at 6145 East Santiago Canyon Road, Orange, CA (SWIS No. 30-AB-0472)

Dear Mr. Bernard:

The Orange County Health Care Agency (OCHCA), Environmental Health Division is the certified local enforcement agency (LEA) for Orange County, and authorized and obligated to enforce solid waste laws and regulations pursuant to California Public Resource Code (PRC) Sections 43209 and 45000 et seq., and Title 14 of the California Code of Regulations (hereinafter "Title 14 Regulations") Section 18080 et seq. Pursuant to PRC Section 43200.5(b), in enforcing Part 4, 5 and 6 of Division 30 of the PRC and regulations that implement them, the LEA carries out a state function and thus its actions are independent from, and not subject to the authority of, the Orange County Board of Supervisors.

This Agency has received the subject workplan prepared by Leighton and Associates, Inc. (environmental consultant for MILAN REI X, LLC (Milan)) to comply with the Stipulated Notice and Order (N&O) agreed between the OCHCA – Environmental Health Division and Milan finalized on June 16, 2022. Milan is required to prepare and submit a workplan as mandated by Sections 3 and 4 of the Stipulated N&O. The workplan has been prepared to address the requirements for analytical testing of subgrade soil and for determining the boundaries of waste units if any are identified to be located at the site by geotechnical evaluation for collecting field data to quantify site conditions.

Based on the review, the proposed workplan is not acceptable at this time and this Agency has the following comments that must be addressed:

Overall Comments:

1. A site figure showing individual parcels with total acreage per parcel identified in the Stipulated N&O must be submitted in a revised work plan. Also, list the parcel numbers for the approximately 67-acre property that is the subject of investigation identified in the proposed workplan.

2. The street name listed as E. San Diego Canyon Road should be changed to E. Santiago Canyon Road throughout the workplan document.

3. The work plan proposes to collect soil samples at various depths using a 200-foot (ft.) by 200-ft. grid approach. The workplan is to consider historical site information including previous waste fill areas, industrial process areas, material handling/chemical storage areas, underground storage tanks, aboveground tanks, asbestos, as well as previous site investigations that reported construction debris/ illegal dumping and provide a rationale for the number and location of sampling points/borings/probes. Based on further review, this Agency requires the use of a 100-ft. by 100-ft. grid. Please submit a revised figure with updated sampling locations.

4. Please note, soil and soil vapor assessment will be required below stockpiles E, F, G, H, and I to address potential leaching from the stockpiles, data gaps from undocumented fill, likely impacts from underground and above ground storage tanks, previous agricultural use, former mulching and green waste recycling area, unlabeled 55-gallon drums, former asphalt plant, maintenance building, Sully-Miller maintenance shop, and equipment storage area.

5. A Quality Assurance Project Plan should be used to ensure that field data collected meets the data quality objectives for regulatory compliance and that sampling procedures, sample collection, and laboratory analysis are conducted and documented to ensure that the contaminant data set meets a 90% confidence interval for comparison to regulatory thresholds.

6. The LEA must be notified immediately if stained soil or material and/or materials that could potentially contain asbestos or other contaminants are observed during sampling activities. As such, please note that a qualified person must be onsite during stockpile and subgrade sampling to identify any potential areas of concern.

7. If asbestos containing material (ACM) is identified in the subsurface soil during sampling activities, LEA and South Coast Air Quality Management District must be notified immediately. A contingency plan for characterization, removal, and appropriate disposal of ACM if any, must be implemented immediately. Leighton should prepare a site-specific Health & Safety Plan including a contingency plan describing the safety aspects and plan of action of the work to be performed at the site.

8. The workplan states an inspection was conducted by the Santa Ana Regional Water Quality Control Board (RWQCB) in January 2011indicating the site as a new inert landfill and in good condition. However, it remains unclear whether Santa Ana RWQCB inspected and approved the new inert debris fill after their 2011 approval.

   Note: This Agency may modify and/or add sampling locations and collection depths based on field observations and historic/current data.

Response to Sections 2.1/2.2 in the work plan (covered by Stipulated N&O Section 3 Requirement):

1. *The Phase II Environmental Site Assessment dated May 2011 prepared by Tait Environmental Services* identified undocumented fill material in mining excavations (possibly including asbestos) indicating presence of historical disposal site. Please provide details as to whether this observation is made from a trench or a boring log and if this log is available for this Agency review.

2. The estimated volumes of the stockpiles of inert material and soil at each designated areas E – I and L prepared by Fuscoe Engineering, shown as an exhibit, and included as Appendix D to the workplan must be stamped by a licensed civil engineer or engineering geologist.

3. The geotechnical report identified in the workplan titled *Summary and Compilation of all Geotechnical Reports, Analyses and Data for Rio Santiago Development Site dated March 10, 2022 prepared by Ginter & Associates, Inc.* and included as Appendix C to the workplan must be signed and stamped by a licensed civil engineer or engineering geologist.

4. The summary of geotechnical reports analyses dated March 10, 2022 prepared by Ginter & Associates (mentioned above) characterizes the subsurface materials in B, C, E, F and J as being underlain by anywhere from 20 - 45 ft. of pond deposits that are unsuitable for residential development in their current state. Please verify if these pond deposits are essentially the silt waste byproduct that was used to fill the excavations left behind by the sand & gravel pit mining activities. If so, please confirm if complete removal of all compacted fill, mixed loads, and pond deposits is being considered, or stockpiles on-site are proposed to be utilized as a fill source for mixing with the pond deposits to create compacted fills, as necessary.

5. Section 3.3.7 of the Stipulated N&O states an adequate number of samples should be included to be a reasonable representation of the Site's areas being tested, taking into consideration the future use of the areas as residential, recreational, or open space, since residential and recreational areas will require more dense sampling in comparison to open space areas. The workplan does not provide any specifics of the proposed development to develop a methodology for number of soil borings and soil sampling intervals. An explanation along with the type of development proposed in each area must be submitted with the workplan and geotechnical report.

Response to Section 3.4 in the work plan (covered by Stipulated N&O Section 3 Requirement):

1. In addition to preparing a site-specific Health and Safety Plan describing safety aspects of the work to be performed at site, the proposed work plan should also include a contingency plan for identification, characterization, removal, and appropriate disposal of hazardous materials, if identified during field activities.

2. In reference to geophysical survey activities Leighton states, "if subsurface utilities or features are interpreted to be present directly underneath or near a proposed boring location, it will be relocated at the discretion of the field geologist to avoid the utility or feature." Please note, if a feature such as a buried tank or buried drum is detected during survey activities, the anomalies must be further investigated.

Response to Table 1 Proposed Testing of Soil Below the Current Grade in the work plan (covered by Stipulated N&O Section 3.3.4 Requirement):

1. The workplan proposes installing soil borings via air rotary hammer rig and direct push drilling rig; however, the work plan does not detail soil sample collection procedures. To prevent volatilization of volatile organic compounds (VOCs), intact soil samples must be collected. Soil sampling procedures must be included in the revised work plan.

2. Section 3.5 – Drilling of Soil Borings and Soil Sampling of the workplan indicates that only select samples that are discolored or odiferous will be tested with a photoionization detector (PID) to measure VOC concentrations. Ensure all soil samples collected during drilling activities are screened for PID measurements.

3. The workplan proposes to collect all soil samples at a minimum of 5 ft. below ground surface ("bgs") based on the Stipulated N&O Subsection 4.2.6. However, please note it is this Agency's understanding

that Subsection 4.2.6 applies to Section 4 of the Stipulated N&O only. As such, shallow soil samples (1 ft. – 2 ft. bgs) must be collected from all proposed soil sample locations based on current and historic site use activities as noted in Subsection 3.3.4 in the Stipulated N&O.

4. Direct push borings may encounter refusal in disposal fill areas due to concrete or metal obstructions. Sample recovery is also difficult in disposal fill conditions; therefore, drilling methods using a hollow-stem auger with split-spoon sampling is generally recommended the best method in penetrating and logging disposal fill areas.

Response to Table 1 Proposed Testing of Soil Below the Current Grade in the work plan (covered by Stipulated N&O Section 4.4.3 Requirement):

1. The workplan proposes collecting subgrade soil samples throughout the site at depths ranging from 5 to 25 ft. bgs. The workplan also proposes to extend the boring depths by 5 ft. bgs if pond sediments are not encountered. Please note, soil samples must be collected at depths that capture both fill material and native soil, therefore, deeper samples may be necessary based on site conditions encountered during drilling work.

2. Please provide justification for the number of borings and proposed depths for each investigation area. The LEA requires that the borings and soil sampling proposed for each area should be advanced to include the maximum depth of waste in that area of investigation.

3. For areas not proposed for drilling and sampling (for example, Investigation Areas F and G), please provide rationale or field data to support that such areas should not be investigated. Please explain how these areas compare to historical aerial photographs and the location of historical excavations at the site.

Response to Section 3.7 Methane Survey in workplan (covered by Stipulated N&O Section 3 Requirement):

1. Section 3.7 of the work plan states, “If VOCs and/or semi-VOCs are detected in soil samples collected near the proposed vapor probe locations, Leighton will make arrangements with the LEA to collect soil vapor samples for VOCs and methane gas in general conformance with the "Advisory - Active Soil Gas Investigations, dated July 2015" published by the Cal-EPA Department of Toxic Substances Control (DTSC).” Please note, this Agency will require a scope of work detailed in the work plan for soil vapor probe installation and soil vapor sample collection for review and approval if vapor sampling is required. For soil vapor probe installation and sampling for VOCs, DTSC’s Active Soil Gas Investigations Advisory must be followed. Additionally, if VOCs are detected in soil and/or methane gas analysis, soil vapor probes must be installed at depths that capture both fill material and native soil.

2. VOC analysis must be collected from soil vapor probe locations MSV-3 through MSV-6 at depths of 5 and 15 ft. bgs due to historical trichloroethylene (TCE) and ethylbenzene detections. Additionally, a soil vapor probe must be added in between stockpiles D and F for vapor plume definition. Soil gas sampling procedures must be submitted in the revised work plan. Please note, detection limits should be set at acceptable levels to determine risk under the most conservative screening levels using an attenuation factor of 0.03.

3. The five perimeter methane gas probes that are identified in the workplan as being present along the western boundary of the site are probes that belong to the adjacent Villa Park Landfill. Of the five probes listed in Figure 2 of the workplan, probes MP-15 and MP-20 are located within Villa Park

Landfill and not at the subject site as shown in Figure 2. These probes are for indicating any migration of methane gas from the Villa Park Landfill, and not to be used for gas survey within the Rio Santiago site. However, even if these probes are used for supplemental monitoring in coordination with LEA and current operator (OC Waste & Recycling) as they are already in place, as recommended in the proposed workplan, please note the presence of methane gas should be evaluated in several locations within the site, not just one side that is adjacent to Villa Park Landfill.

4. The workplan states the five perimeter gas monitoring probes located along the western boundary of the site will be monitored annually on behalf of Santa Ana Regional Water Quality Control Board (RWQCB). Please note existing gas probes are monitored quarterly for landfill gas, not annually as stated in the workplan and reported to the LEA per Title 27 Regulations. Any groundwater data generated from the site investigation fieldwork should be reported to the Santa Ana RWQCB. Newly proposed network of landfill gas probes should be initially monitored monthly to collect landfill gas monitoring data for a one-year period to determine if landfill gas migration requires additional monitoring and control.

5. The workplan proposes to install four additional probes (MSV-3 through MSV-6) in the central and eastern portions of the property to evaluate the presence of methane gas and potentially other VOCs (if found in nearby samples). Please note the number of probes proposed for landfill gas investigation is not adequate. Further, the methane sampling scope avoids the northeast mud sump area entirely with no explanation provided.

6. The workplan states that the location of soil vapor probes was primarily based on Sully-Miller impacts associated with their management of hazardous substances and/or petroleum products. It should be noted that any percentage of methane gas concentrations detected at the site is an indicator of existing organic waste that requires at a minimum, perimeter gas monitoring probe installation. Please ensure Title 27 Regulations, Chapter 3, Sections 20923-20925 is being followed for perimeter landfill gas well installation and spacing requirements in addition to placing wells/probes within the waste areas.

7. The workplan proposes one gas probe to be installed to a depth of 10 ft. bgs. Please note the number and depths of monitoring probes within the wellbore shall be installed in accordance with Title 27 Regulations, Chapter 3, Article 6, Section 20925 criteria.

8. The depth of the proposed landfill gas probes is dependent on the maximum depth of fill material and should be extended to the deepest waste deposit identified from subsurface site investigations, i.e. bottom of the waste units.

9. Please note that landfill gas sampling and collection of landfill gas samples (methane, etc.) cannot be implemented in accordance with the Advisory – Active Soil Gas Investigations dated July 2015 by the DTSC. Landfill gas sampling and collection of landfill gas samples must be done as per Title 27 Regulations, Chapter 3, Section 20925 requirements. It should be noted all protocols related to installation of gas monitoring wells, sampling, and reporting must be done in accordance with Title 27 Regulations, Chapter 3, Section 20923-20933.

There does not appear to be much focus to correlate areas of concern from past site history and operations with the proposed sampling scope. Overall, the proposed workplan seems to fall short of meeting the intent of the Stipulated N&O objectives to characterize the extent, location, and content of the former waste units. Please submit the revised workplan to this Agency within 30 days of receipt of this letter. This Agency shall review and approve the workplan to facilitate the generation of required data for further action based on the Stipulated

N&O conditions. Please note no field activities may be commenced on the site until such time this Agency has reviewed and approved the revised workplan.

If you have any questions, please contact me, or Tamara Escobedo, Engineering Geologist at (714) 433-6251, or Akbar Sharifian, Senior Civil Engineer at (714) 433-6271.

Sincerely,

R. Shyamala

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

cc: Christine Lane, Director, Orange County Health Care Agency, Environmental Health
Darwin Cheng, Assistant Director, Orange County Health Care Agency, Environmental Health
Lauren Robinson, Program Manager, Orange County Health Care Agency, Environmental Health
Massoud Shamel, Senior Deputy County Counsel, Office of Orange County Counsel
Akbar Sharifian, Senior Civil Engineer, Orange County Health Care Agency, Environmental Health
Tamara Escobedo, Engineering Geologist, Orange County Health care Agency, Environmental Health
Glenn Young, CalRecycle
Abel Martinez-Centeno, CalRecycle
Valerie Jahn-Bull, Santa Ana Regional Water Quality Control Board
Chuck Griffin, Santa Ana Regional Water Quality Control Board
Cindy Li, Santa Ana Regional Water Quality Control Board
William Rice, Santa Ana Regional Water Quality Control Board
Robin J. Ferber, Leighton and Associates, Inc.
Matt Himmelstein, Leighton and Associates, Inc.
CalRecycle/LEA Portal

APPENDIX A – TABLE: RESPONSE TO COMMENTS TABLE FOR LEA COMMENTS LETTER DATED OCTOBER 31, 2022

LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
	OVERALL COMMENTS	
1	A site figure showing individual parcels with total acreage per parcel identified in the Stipulated N&O must be submitted in a revised work plan. Also, list the parcel numbers for the approximately 67-acre property that is the subject of investigation identified in the proposed workplan.	Figures and volume estimated prepared by Fuscoe Engineering, dated January 18, 2023, indicating the parcels, APNs, and total estimated acreage of each parcel are included In Appendix A of the Revised Workplan.
2	The street name listed as E. San Diego Canyon Road should be changed to E. Santiago Canyon Road throughout the workplan document.	The street name was corrected in the cover letter and on Page 1.
3	The work plan proposes to collect soil samples at various depths using a 200-foot (ft.) by 200-ft. grid approach. The workplan is to consider historical site information including previous waste fill areas, industrial process areas, material handling/chemical storage areas, underground storage tanks, aboveground tanks, asbestos, as well as previous site investigations that reported construction debris/illegal dumping and provide a rationale for the number and location of sampling points/borings/probes. Based on further review, this Agency requires the use of a 100-ft. by 100-ft. grid. Please submit a revised figure with updated sampling locations.	A number of prior soil investigations have occurred at the site, including of Sully Miller's waste management areas and historical agricultural areas. Some of these areas, including underground storage tanks, were remediated to the satisfaction of environmental oversight agencies. Appendix E depicts some of these prior investigations. Nonetheless, as requested by the LEA and as shown on Figure 2, additional soil borings locations have been added to the workplan to further sample historical Sully-Miller hazardous substance and petroleum product management areas. A total of 55 soil borings (Figure 2 red dots) will be installed in accessible areas adjacent to the stockpiles. Another 19 borings (Figure 2 green dots) are planned in areas beneath the stockpiles E, F, G, H, I, and L. As discussed with the LEA during our meeting on November 29, 2022, the borings beneath the debris piles will be drilled after the debris piles have been moved to allow for safe and more effective drilling. In light of the prior investigations and since there will be two drilling phases, the need for a 100-foot X 100-foot soil sampling grid will be revisited with the LEA after the first phase of work is completed.

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4	Please note, soil and soil vapor assessment will be required below stockpiles E, F, G, H, and I to address potential leaching from the stockpiles, data gaps from undocumented fill, likely impacts from underground and above ground storage tanks, previous agricultural use, former mulching and green waste recycling area, unlabeled 55-gallon drums, former asphalt plant, maintenance building, Sully-Miller maintenance shop, and equipment storage area.	As noted above, prior investigations have sampled and analytically tested these areas of concern (See Appendix E). Nonetheless, s discussed during our November 29, 2023 meeting and noted on Figure 2, we have added new borings to evaluate soil beneath stockpiles E, F, G, H, and I and in the former hazardous substance and petroleum product management areas at the former Sully-Miller facility.
5	A Quality Assurance Project Plan should be used to ensure that field data collected meets the data quality objectives for regulatory compliance and that sampling procedures, sample collection, and laboratory analysis are conducted and documented to ensure that the contaminant data set meets a 90% confidence interval for comparison to regulatory thresholds.	The Stipulated N&O does not address this requirement. Nonetheless, a Quality Assurance Project Plan (QAPP) has been prepared and is presented in Appendix G of the Workplan.
6	The LEA must be notified immediately if stained soil or material and/or materials that could potentially contain asbestos or other contaminants are observed during sampling activities. As such, please note that a qualified person must be onsite during stockpile and subgrade sampling to identify any potential areas of concern.	Section 3.5 of the Workplan has been revised to indicate, “Soils encountered during drilling will be logged for soil type in accordance with the USCS by a geologist. Soil cuttings will be continually observed for the presence of hazardous substances, suspected asbestos containing material (ACM) and/or petroleum products and for stratigraphic correlation purposes. The LEA will be immediately notified if suspected hazardous materials, ACM, or petroleum hydrocarbons are encountered during drilling and sampling activities.”
7	If asbestos containing material (ACM) is identified in the subsurface soil during sampling activities, LEA and South Coast Air Quality Management District must be notified immediately. A Contingency Plan for characterization, removal, and appropriate disposal of ACM if any, must be implemented immediately. Leighton must prepare a site-specific Health & Safety Plan	The LEA and the SCAQMD will be notified if any sample results indicate the presence of ACM in the soil and/or IDEFO materials. In accordance with Section 3.9 of the Stipulated N&O, if upon the review of the report regarding the results and findings of the analytical testing it is determined that the results indicate the presence of substances that are at concentrations that

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LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
	including a Contingency Plan describing the safety aspects and plan of action of the work to be performed at the site.	pose a risk to human health or the environment and require an appropriate remedial action, Milan will prepare a plan accordingly.
8	The workplan states an inspection was conducted by the Santa Ana Regional Water Quality Control Board (RWQCB) in January 2011 indicating the site as a new inert landfill and in good condition. However, it remains unclear whether Santa Ana RWQCB inspected and approved the new inert debris fill after their 2011 approval.	No response needed.
	Response to Sections 2.1/2.2 in the work plan (covered by Stipulated N&O Section 3 Requirement)	
1	The Phase II Environmental Site Assessment dated May 2011 prepared by Tait Environmental Services identified undocumented fill material in mining excavations (possibly including asbestos) indicating presence of historical disposal site. Please provide details as to whether this observation is made from a trench or a boring log and if this log is available for this Agency review.	Targhee performed two investigations using trenching and drilling techniques to locate the reported buried asbestos. The Targhee investigation area was located on the site to the west of the northernmost portion of the Handy Creek Culvert. An unidentified “white fibrous material” was reportedly found in some of the soil samples collected by drilling. The results of Targhee’s investigation were inconclusive because the samples were never analyzed for the presence of asbestos. Leighton did not find a boring log by Targhee describing the soil types observed. As noted in Tait’s June 7, 2010 Response to the City of Orange Comments letter, on June 16, 2008, the OCHCA collected three soil samples in the area where the suspected asbestos burial was reported; however, the three soil samples were non-detect for asbestos. According to Tait’s letter, the OCHCA files indicated that the agency closed the case in light of the sample results.

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LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
		The site investigation prepared in this Workplan will evaluate multiple areas where undocumented fill may be present. An additional boring, noted as boring C-13 on Figure 2, has been added this Workplan for the area near the Targhee asbestos trench investigation to evaluate for the potential presence of asbestos and the COCs required by the LEA.
2	The estimated volumes of the stockpiles of inert material and soil at each designated areas E – I and L prepared by Fuscoe Engineering, shown as an exhibit, and included as Appendix D to the workplan must be stamped by a licensed civil engineer or engineering geologist.	A CA Civil Engineer stamped copy of Fuscoe's figure entitled Stockpile Quantities Exhibit (dated January 18, 2023) which provides an explanation of the how Fuscoe the volumes were derived is included in Appendix A. Also provided in Appendix A, is Fuscoe's Figure 2, Parcels Subject to Stipulated N&O with Acreage, dated January 18, 2023.
3	The geotechnical report identified in the workplan titled Summary and Compilation of all Geotechnical Reports, Analyses and Data for Rio Santiago Development Site dated March 10, 2022 prepared by Ginter & Associates, Inc. and included as Appendix C to the workplan must be signed and stamped by a licensed civil engineer or engineering geologist.	A signed and stamped copy of the Ginter & Associates, Inc. geotechnical report is included as Appendix C.
4	The summary of geotechnical reports analyses dated March 10, 2022 prepared by Ginter & Associates (mentioned above) characterizes the subsurface materials in B, C, E, F and J as being underlain by anywhere from 20 - 45 ft. of pond deposits that are unsuitable for residential development in their current state. Please verify if these pond deposits are essentially the silt waste byproduct that was used to fill the excavations left behind by the sand & gravel pit mining activities. If so, please confirm if complete removal of all compacted fill, mixed loads, and pond deposits is being considered, or stockpiles on-site are proposed	Based on review of the Ginter reports, it is our understanding that the subsurface materials beneath areas B, C, E, F, and J are underlain by varying thicknesses of silts which were screened and recycled components of the historical sand and gravel mining operations. Ginter provides estimates of the thicknesses in Table 1 of the Workplan. The path forward associated with the pond deposits and their potential reuse as a fill source is undetermined at this time. However, any development

LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
	to be utilized as a fill source for mixing with the pond deposits to create compacted fills, as necessary.	of the site will occur in accordance with the City of Orange's requirements, which will include proper compaction under the oversight of an engineer.
5	Section 3.3.7 of the Stipulated N&O states an adequate number of samples should be included to be a reasonable representation of the Site's areas being tested, taking into consideration the future use of the areas as residential, recreational, or open space, since residential and recreational areas will require more dense sampling in comparison to open space areas. The workplan does not provide any specifics of the proposed development to develop a methodology for number of soil borings and soil sampling intervals. An explanation along with the type of development proposed in each area must be submitted with the workplan and geotechnical report.	At this time, Milan REI X, LLC is not intending to redevelop the site for residential land use. As Milan has previously indicated, the anticipated land use is recreational. If residential land use is proposed in the future for an area of the Site, Milan will consult with the LEA to determine whether additional sampling is necessary. Any development of the Site will occur in accordance with the City of Orange's requirements, which will include proper compaction under the oversight of an engineer.
	Response to Section 3.4 in the work plan (covered by Stipulated N&O Section 3 Requirement)	
1	In addition to preparing a site-specific Health and Safety Plan describing safety aspects of the work to be performed at site, the proposed work plan should also include a contingency plan for identification, characterization, removal, and appropriate disposal of hazardous materials, if identified during field activities.	Section 3.3 contains the statement: The LEA and the SCAQMD will be notified if any sample results indicate the presence of ACM in the soil and/or IDEFO materials. In accordance with Section 3.9 of the Stipulated N&O, if upon the review of the report regarding the results and findings of the analytical testing it is determined that the results indicate the presence of substances that are at concentrations that pose a risk to human health or the environment and require an appropriate remedial action, Milan will prepare a plan accordingly.

APPENDIX A – TABLE: RESPONSE TO COMMENTS TABLE FOR LEA COMMENTS LETTER DATED OCTOBER 31, 2022

LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
2	In reference to geophysical survey activities Leighton states, "if subsurface utilities or features are interpreted to be present directly underneath or near a proposed boring location, it will be relocated at the discretion of the field geologist to avoid the utility or feature." Please note, if a feature such as a buried tank or buried drum is detected during survey activities, the anomalies must be further investigated.	Section 3.4 contains the statement: "If a feature such as a buried tank or buried drum is detected during survey activities, the anomaly(ies) will be further investigated and delineated."
	Response to Table 1 Proposed Testing of Soil Below the Current Grade in the work plan (covered by Stipulated N&O Section 3.3.4 Requirement)	
1	The workplan proposes installing soil borings via air rotary hammer rig and direct push drilling rig; however, the work plan does not detail soil sample collection procedures. To prevent volatilization of volatile organic compounds (VOCs), intact soil samples must be collected. Soil sampling procedures must be included in the revised work plan.	In addition to soil sampling with a direct push drilling rig, air rotary hammer rig, soil sampling will also be performed with a drilling rig fitted with hollow-stem augers and split-spoon California samplers. Soil sampling procedures are noted in Sections 3.5.1, 3.5.2, and 3.5.3 of the Revised Workplan.
2	Section 3.5 – Drilling of Soil Borings and Soil Sampling of the workplan indicates that only select samples that are discolored or odiferous will be tested with a photoionization detector (PID) to measure VOC concentrations. Ensure all soil samples collected during drilling activities are screened for PID measurements.	Section 3.5.4 (below Table 1) has been revised to read: "During all boring advancement activities, a photoionization detector (PID) will be used to measure VOC concentrations (if present) from soil cuttings associated with all soil sample collections."
3	The workplan proposes to collect all soil samples at a minimum of 5 ft. below ground surface ("bgs") based on the Stipulated N&O Subsection 4.2.6. However, please note it is this Agency's understanding that Subsection 4.2.6 applies to Section 4 of the Stipulated N&O only. As such, shallow soil samples (1 ft. – 2 ft. bgs) must be collected from all proposed soil sample locations based on current and historic site use activities as noted in Subsection 3.3.4 in the Stipulated N&O.	The workplan has been revised to indicate that shallow soil samples will be collected at an initial depth of 1 to 2 feet bgs at all proposed soil sampling locations.

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LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
4	Direct push borings may encounter refusal in disposal fill areas due to concrete or metal obstructions. Sample recovery is also difficult in disposal fill conditions; therefore, drilling methods using a hollow- stem auger with split-spoon sampling is generally recommended the best method in penetrating and logging disposal fill areas.	If significant refusal is encountered using a direct-push drill rig, a drilling rig fitted with a hollow-stem augers (HSA) will be utilized for soil sampling purposes. For sample collection, a California split spoon sampler fitted with steel or brass rings will be utilized. With this drilling method, Teflon tape followed by plastic and caps will be placed over the ends of the metal sampling rings which will be stored in an ice chest.
	Response to Table 1 Proposed Testing of Soil Below the Current Grade in the work plan (covered by Stipulated N&O Section 4.4.3 Requirement):	
1	The workplan proposes collecting subgrade soil samples throughout the site at depths ranging from 5 to 25 ft. bgs. The workplan also proposes to extend the boring depths by 5 ft. bgs if pond sediments are not encountered. Please note, soil samples must be collected at depths that capture both fill material and native soil, therefore, deeper samples may be necessary based on site conditions encountered during drilling work.	The Revised Workplan reflects that soil borings will be drilled at successive 10-foot intervals to the depth at which fill material followed by native soil are encountered. A soil sample of native soil will be collected. Continuous coring of the soil is planned (as is possible).
2	Please provide justification for the number of borings and proposed depths for each investigation area. The LEA requires that the borings and soil sampling proposed for each area should be advanced to include the maximum depth of waste in that area of investigation.	As set forth in the Stipulated N&O, the geotechnical testing will be conducted to determine the boundaries of waste units in the Site's soil detected as part of the analytical testing. Figure 2 enumerates the location of the planned borings. The depth of the soil samples is largely determined by the depth to native soil which is estimated in Table 1 in the workplan. In the event that the analytical test results reveal the existence of waste units, the need for additional testing to determine the unit's boundaries will then be determined.

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LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
3	For areas not proposed for drilling and sampling (for example, Investigation Areas F and G), please provide rationale or field data to support that such areas should not be investigated. Please explain how these areas compare to historical aerial photographs and the location of historical excavations at the site.	The Revised Workplan will include proposed boring locations for the subgrade areas beneath Areas E, F, G, and I. As discussed during our meeting with the LEA on November 29, 2022, the drilling of the subslab in the waste pile areas will occur after the piles have been removed to allow for safe access for drilling purposes and to minimize the likelihood for slough from the piles entering into the boreholes between sampling intervals. Historical aerial photos, present in Appendix D were used to observe for areas where hazardous substances and petroleum products were potentially managed (see discolored areas in the 1974 aerial photo) by Sully Miller and other tenants. Appendix E provides figures pertinent to some of the previously tested areas of the site associated with Sully Miller's operations.
	Response to Section 3.7 Methane Survey in workplan (covered by Stipulated N&O Section 3 Requirement):	
1	Section 3.7 of the work plan states, "If VOCs and/or semi-VOCs are detected in soil samples collected near the proposed vapor probe locations, Leighton will make arrangements with the LEA to collect soil vapor samples for VOCs and methane gas in general conformance with the "Advisory - Active Soil Gas Investigations, dated July 2015" published by the Cal-EPA Department of Toxic Substances Control (DTSC)." Please note, this Agency will require a scope of work detailed in the work plan for soil vapor probe installation and soil vapor sample collection for review and approval if vapor sampling is required. For soil vapor probe installation and sampling for VOCs, DTSC's Active Soil Gas Investigations Advisory must be followed. Additionally, if VOCs are detected in soil and/or methane gas analysis, soil vapor probes must be installed at depths that capture both fill material and native soil.	In accordance with the Stipulated N&O, if VOCs are detected in soil sample analysis, soil vapor probes will be collected. These will be installed at depths that capture both fill material and native soil as applicable. Vapor testing will follow DTSC's "Advisory - Active Soil Gas Investigations (July 2015)." A copy of the advisory has been added to Appendix F in the Workplan for reference purposes. Leighton is taking a proactive approach regarding sampling for VOCs in soil vapor in the area associated with prior Sully Miller operations where the use of petroleum products and hazardous substance has already been documented (Figure 2). In addition to testing for methane gas, three soil vapor probes (i.e., probes MSV-6, MSV-7, and MSV-8) where VOCs in soil vapor were previously detected by Tait Environmental (Figure 2) will also be sampled at depths

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LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
		of 5 and 15 feet and analyzed for VOCs. The methane gas/VOC sampling locations are shown on Figure 2. Note: Drilling refusal by coarse sediments or other materials may hinder installing the probes into native materials. As required by the LEA, if VOCs are detected in soil sample analysis, soil vapor probes will be installed at depths that capture both fill material and native soil.
2	VOC analysis must be collected from soil vapor probe locations MSV-3 through MSV-6 at depths of 5 and 15 ft. bgs due to historical trichloroethylene (TCE) and ethylbenzene detections. Additionally, a soil vapor probe must be added in between stockpiles D and F for vapor plume definition. Soil gas sampling procedures must be submitted in the revised work plan. Please note, detection limits should be set at acceptable levels to determine risk under the most conservative screening levels using an attenuation factor of 0.03.	See Figure 2 and note soil vapor probes at locations MSV-3, MSV-5, MSV-6, MSV-7, MSV-8, MSV-9, MSV-11, and MSV12 will be installed at depths of 5 and 15 feet bgs and analyzed for both VOCs and methane gas. As requested, vapor probe MSV-4 has been added to Figure 2 and is located between Areas D and F. A 1.6-liter Summa canister will be utilized to increase the likelihood of detecting VOCs at concentrations below the most conservative screening levels using an attenuation factor of 0.03.
3	The five perimeter methane gas probes that are identified in the workplan as being present along the western boundary of the site are probes that belong to the adjacent Villa Park Landfill. Of the five probes listed in Figure 2 of the workplan, probes MP-15 and MP-20 are located within Villa Park Landfill and not at the subject site as shown in Figure 2. These probes are for indicating any migration of methane gas from the Villa Park Landfill, and not to be used for gas survey within the Rio Santiago site. However, even if these probes are used for supplemental monitoring in coordination with LEA and current operator (OC Waste & Recycling) as they are already in place, as recommended in the proposed workplan, please note the presence of methane gas should be evaluated in several locations within the site, not just one side that is adjacent to Villa Park Landfill.	The locations of methane gas probes MP-15 and MP-20 have been moved onto the adjoining Villa Park Landfill property on Figure 2 of the Workplan. They will not be sampled as a part of this workplan. If permission is approved by the LEA and OC Waste and Recycling, Villa Park methane probes MP-19R, MP-18R, and MP-17 will be sampled as a part of this investigation. Additional methane gas and VOC vapor sampling probes, totaling eight, have been added and their locations are noted on Figure 2. Six different probes will be tested only for methane gas. The new probes will provide soil vapor data from the westernmost to easternmost areas of the site.

APPENDIX A – TABLE: RESPONSE TO COMMENTS TABLE FOR LEA COMMENTS LETTER DATED OCTOBER 31, 2022

LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
4	The workplan states the five perimeter gas monitoring probes located along the western boundary of the site will be monitored annually on behalf of Santa Ana Regional Water Quality Control Board (RWQCB). Please note existing gas probes are monitored quarterly for landfill gas, not annually as stated in the workplan and reported to the LEA per Title 27 Regulations. Any groundwater data generated from the site investigation fieldwork should be reported to the Santa Ana RWQCB. Newly proposed network of landfill gas probes should be initially monitored monthly to collect landfill gas monitoring data for a one-year period to determine if landfill gas migration requires additional monitoring and control.	The workplan has been revised to include 14 probes to be evaluated for the presence of methane gas. If methane gas is detected from an onsite source, Leighton will confer with the LEA as to the applicability of Title 27 Regulations. The Villa Park Landfill is responsible for compliance with Title 27 for methane emanating from it.
5	The workplan proposes to install four additional probes (MSV-3 through MSV-6) in the central and eastern portions of the property to evaluate the presence of methane gas and potentially other VOCs (if found in nearby samples). Please note the number of probes proposed for landfill gas investigation is not adequate. Further, the methane sampling scope avoids the northeast mud sump area entirely with no explanation provided.	The reference to the term “mud sump area” by the LEA is uncertain; however, we have assumed the LEA is referencing the northeastern-most area of the site which is designated as Area J on Figure 2 and as the “Northeast Pond” by Ginter (see Table 1). The total number of methane gas and VOC probes has been increased to 14 and includes two locations in the northeast silt pond deposit area designated as Area J.
6	The workplan states that the location of soil vapor probes was primarily based on Sully-Miller impacts associated with their management of hazardous substances and/or petroleum products. It should be noted that any percentage of methane gas concentrations detected at the site is an indicator of existing organic waste that requires at a minimum, perimeter gas monitoring probe installation. Please ensure Title 27 Regulations, Chapter 3, Sections 20923-20925 is being followed for perimeter landfill gas well installation and spacing requirements in addition to placing wells/probes within the waste areas.	If the presence of methane gas is detected in onsite probes originates from the methane source on the adjoining Villa Park Landfill, the findings will be discussed with the LEA to address the applicability of Title 27 Regulations, Chapter 3, Sections 20923-20925.

APPENDIX A – TABLE: RESPONSE TO COMMENTS TABLE FOR LEA COMMENTS LETTER DATED OCTOBER 31, 2022

LEA Comments from October 31, 2022 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
7	The workplan proposes one gas probe to be installed to a depth of 10 ft. bgs. Please note the number and depths of monitoring probes within the wellbore shall be installed in accordance with Title 27 Regulations, Chapter 3, Article 6, Section 20925 criteria.	If an onsite source of methane is identified, the number and depths of monitoring probes within the wellbore will be installed in accordance with Title 27 Regulations, Chapter 3, Article 6, Section 20925 criteria (Title 27). Consistent with the Title 27 spacing requirements, the lateral spacing of the proposed soil vapor monitoring wells on the site is less than 1,000 feet.
8	The depth of the proposed landfill gas probes is dependent on the maximum depth of fill material and should be extended to the deepest waste deposit identified from subsurface site investigations, i.e., bottom of the waste units.	Noted. The total depth of the soil vapor probes will be based on the fill material depths noted by Ginter (Table 2) and also on field observations by the onsite geologist.
9	Please note that landfill gas sampling and collection of landfill gas samples (methane, etc.) cannot be implemented in accordance with the Advisory – Active Soil Gas Investigations dated July 2015 by the DTSC. Landfill gas sampling and collection of landfill gas samples must be done as per Title 27 Regulations, Chapter 3, Section 20925 requirements. It should be noted all protocols related to installation of gas monitoring wells, sampling, and reporting must be done in accordance with Title 27 Regulations, Chapter 3, Section 20923-20933.	The results of the soil vapor survey to evaluate for the presence of methane and other VOCs will first be evaluated to assess whether compliance with Title 27 Regulations, Chapter 3, Section 20925 is required. If methane gas is detected and found to be associated with a methane source on the Site, Leighton will confer with the LEA to assess whether compliance with Title 27, Chapter 3, Section 20925 is required.
END		

CLAYTON CHAU, MD, PhD, MASL
AGENCY DIRECTOR

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CHIEF OF PUBLIC HEALTH SERVICES/
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PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION

April 28, 2023

Chris Nichelson
Bret B. Bernard
MILAN REI X, LLC
701 South Parker St., Suite 5200
Orange, CA 92868

Sent via email: chris@milancap.com
bret@milancap.com

Subject: Revised Subgrade Testing and Geotechnical Workplan dated January 23, 2023 and Health and Safety Plan for Environmental Investigations dated April 7, 2023 at the Rio Santiago Disposal Site located at 6145 East Santiago Canyon Road, Orange, CA (SWIS No. 30-AB-0472)

Dear Mr. Nichelson and Mr. Bernard:

The Environmental Health Division of the Orange County Health Care Agency is the certified local enforcement agency (LEA) for Orange County, and authorized and obligated to enforce solid waste laws and regulations pursuant to California Public Resource Code (PRC) Sections 43209 and 45000 et seq., and Title 14 of the California Code of Regulations (14 CCR) §18080 et seq. Pursuant to PRC Section 43200.5(b), in enforcing Part 4, 5 and 6 of Division 30 of the PRC and regulations that implement them, the LEA carries out a state function and thus its actions are independent from, and not subject to the authority of, the Orange County Board of Supervisors.

In accordance with Sections 3 and 4 of the Stipulated Notice and Order between the LEA and Milan, dated June 16, 2022, Leighton and Associates, Inc. (Leighton) submitted on your behalf to the LEA a revised workplan for subgrade testing for the Site (referenced in the above subject line) on January 23, 2023. The LEA began its review of the revised workplan upon receipt and notified Leighton that in addition to the workplan a Health & Safety Plan (HASP) was also required. Leighton subsequently provided the LEA the requisite HASP on April 10, 2023.

The LEA has completed its review of the revised workplan and HASP. The revised workplan proposes a total of 55 exploratory soil borings to be advanced in two phases and 14 soil vapor probes to evaluate for the presence of methane gas and potentially other volatile organic compounds (VOCs). Based on the LEA's review of the overall scope of the workplan, the LEA is agreeable to the workplan, provided all the following comments are taken into consideration and the specified conditions are addressed:

1. The workplan states a total of 55 exploratory soil borings are planned at the Site. However, review of Figure 2 of the workplan, which displays the locations of the proposed borings, shows a total of 57 (not 55) exploratory soil borings with 38 borings (red dots) to be drilled in the first phase and 19 borings (green dots) to be drilled in the second phase of the work. Please ensure the accuracy of the total number of soil borings and locations depicted in Figure 2 of the workplan.

2. The workplan's response to the LEA letter dated October 31, 2022 (related to Sections 2.1/2.2, comment #5), states that "At this time, Milan REI X, LLC is not intending to redevelop the site for residential land use. As Milan has previously indicated, the anticipated land use is recreational. If residential land use is proposed in the future for an area of the Site, Milan will consult with the LEA to determine whether additional sampling is necessary." Section 3.3.7 of the Stipulated Notice and Order requires that the workplan must "[i]nclude a sufficient number of samples to be a reasonable representative of the Site's areas being tested, taking into consideration the future use of the areas as residential, recreational, or open space, as residential and recreational areas will require more dense sampling in comparison to open space areas." The LEA finds this workplan acceptable as consistent with Section 3.3.7 of the Stipulated Notice and Order for conducting an analytical investigation of the Site's soil below the subgrade level as relate to the recreational use of the Site's future use only. However, as stated by Leighton, in the event the future use of the Site changes from recreational to residential and/or commercial, you must inform the LEA accordingly as additional assessment and sampling may be required to be conducted below the subgrade level as relate to future residential or commercial use of the Site.

3. The workplan's response to the LEA letter dated October 31, 2022, (related to Section 3.7 - Methane Survey, comment #6), states that "If the presence of methane gas is detected in onsite probes originates from the methane source on the adjoining Villa Park Landfill, the findings will be discussed with the LEA to address the applicability of CCR, Title 27, Chapter 3, §20923 – §20925." Please note that it is the LEA's understanding that recent probe monitoring data from gas probes associated with the Villa Park Landfill indicates no methane gas is migrating from the existing perimeter monitoring gas probes located within former Villa Park Landfill and adjacent to the Site.

4. Section 3.7 of the workplan states the three Villa Park Landfill perimeter gas probes (MP-18R, MP-17, and MP-15) will be used for monitoring as they are already in place and monitored annually on behalf of the Santa Ana Regional Water Quality Control Board. Although these probes may be allowed to be used for monitoring in coordination with OC Waste & Recycling who maintains and operates the Villa Park Landfill, the workplan incorrectly states that they are monitored annually on behalf of the SARWQCB. Please note these perimeter gas probes are currently monitored quarterly, not annually, as per Title 27 Regulations compliance requirements and reported to the LEA.

5. The workplan states the borings beneath the stockpiles present at the Site will be drilled after the debris piles have been moved to allow for safe and more effective drilling. As there will be two drilling phases, the need for a 100-foot by 100-foot soil sampling grid should be revisited and evaluated with the LEA after the first phase of work is completed.

6. The workplan states sampling intervals for each boring will start at 0.5 feet below ground surface (bgs) and additional soil samples will be collected at 10-foot intervals until native soils or bedrock is encountered. Based on the Ginter & Associates, Inc. Geotechnical Report (March 10, 2022)

description, the proposed scope of geotechnical testing and testing of soil below the current grade level must be conducted at 5-foot intervals. In addition, an undisturbed soil sample should be collected by hand auger drilling at the proposed shallow depth of 0.5 feet to 1 feet bgs.

7. Additional exploratory soil borings (before removal of stockpiles) should be included to be a reasonable representative of the areas being tested as shown in Figure 2 as follows:
   a) One additional boring to the north of Area D
   b) One additional boring to the immediate west side of Area E, between Areas B and E
   c) Two additional borings around Area G with one boring to the west, next to the 'approximate area of excavation of former Asphalt-Emulsion UST' and the other boring to the south, next to the 'approximate area of excavation for debris removal'
   d) A revised site map with the additional soil boring locations must be submitted within 30 days of receipt of this letter for the LEA's review.

8. Additional methane gas sampling locations should be proposed in the central portion of the Site, beneath Stockpiles F, G, H, and K, for sampling to constitute a reasonable representation of the areas to be tested as shown in Figure 2. A revised site map with the additional probe locations must be submitted within 30 days of receipt of this letter for the LEA's review.

9. Soil vapor sampling for proposed vapor probe locations MSV-6 through MSV-8 must follow the listed procedures:
   a) The leak check compound must be reapplied every 10 minutes during purging and sampling of soil vapor probes to ensure adequate saturation.
   b) Leak testing procedures during soil vapor sampling must also include a shut-in test.
   c) The workplan states, "at locations where volatile organic compounds will be sampled in soil vapor, the sampling will occur after a minimum of two hours has passed after the installation of the sampling probes." Soil vapor sampling may begin only after a minimum of 48 hours after soil vapor probe installation.
   d) Please note, the LEA has implemented the Department of Toxic Substances Control (DTSC) and California Water Resources Control Board's Final Draft Screening and Evaluating Vapor Intrusion Guidance dated February 2023. As such, the LEA will be evaluating soil vapor intrusion under this guidance and using the four-step process for screening and evaluating vapor intrusion.
   e) The report documenting the results of this assessment must include a soil vapor sampling data table with results reported in micrograms per cubic meter and should also include detection limits for all non-detect sample results.

10. Proposed methane gas survey must occur after soil sampling data has been submitted and reviewed by the LEA. This survey should include sampling of landfill gases that consists of methane and trace gases (VOCs).

11. Please note in the event of detection/presence of methane gas in the subsurface soil from the initial screening for methane in the proposed investigation, the LEA will assess the need for installation of compliance gas probes at the Site in accordance with 27 CCR §20923 and §20925.

12. The workplan's response to the LEA letter dated October 31, 2022, (related to Section 3.7 – Methane Survey, comment #7) states that "If an onsite source of methane is identified, the number and

depths of compliance monitoring probes within the wellbore will be installed in accordance with Title 27, Chapter 3, Article 6, § 20925 criteria. Consistent with the Title 27 spacing requirements, the lateral spacing of the proposed soil vapor monitoring wells on the site is less than 1,000 feet". Please note that if the residential and/or commercial development or any other habitat structures exist within 1,000 feet of the Site's boundary, then the spacing should be 100 feet per the South Coast Air Quality Management District (SCAQMD) guidelines specified in Rule 1005.1.

13. The Site historically operated two asphalt manufacturing plants and therefore compliance for possible asbestos exposure in accordance with 8 CCR §5208 and other applicable regulations may likely be required. 8 CCR §5208(j)(2) specifically states "Asphalt and vinyl flooring material installed no later than 1980 also must be treated as asbestos-containing". Accordingly, construction debris encountered during the subgrade assessment should be evaluated for asbestos-containing material (ACM) according to applicable state regulations. A Site-specific HASP has been submitted with the workplan to address potential hazards that may arise while conducting field activities associated with the overall scope of work. As mentioned in the HASP, if ACM is identified during subsurface assessment fieldwork, all appropriate agencies including SCAQMD must be notified immediately, and appropriate measures taken.

14. The workplan and review of historical groundwater data for the Site indicate depth to first groundwater may be encountered at approximately 30 – 50 feet bgs. The workplan states that groundwater is not anticipated to be encountered at the proposed drilling locations at the Site. Please note for all exploratory soil borings to be advanced, deeper samples may be required based on field conditions encountered during drilling, as soil samples are to be collected at depths that capture both fill material and native soil. Please see Stipulated Notice and Order, Section 4.2.6. As such, there is a potential that borings could extend deeper, thereby resulting in groundwater being encountered. Although the Stipulated Notice and Order does not specify groundwater sample collection, please note that it is the standard requirement of the LEA that if groundwater is encountered during drilling, a groundwater grab sample should also be collected for analysis. It should be noted that if a groundwater sample is not collected during this assessment, based on forthcoming soil sampling results, a groundwater investigation may be required in future by other applicable agencies.

15. The buried groundwater production well #93-28-7-A, located in the vicinity of the Asphalt manufacturing plant (Area G) and no longer in service, must be identified and abandoned properly with appropriate agency approval(s) including, but not limited to the City of Orange Public Works Department.

16. The LEA may modify and/or add sampling locations/depths/analysis based on field observations and/or results of the pending soil and soil vapor detections.

17. A timeline with a proposed schedule detailing sub-grade soil sampling and soil vapor sampling must be submitted to the LEA within 30 days of receipt of this letter.

18. All investigation derived wastes from subsurface soil drilling and stockpile soil cuttings should be segregated and stored separately as an interim until soil profile is completed for proper disposal.

19. All fieldwork at the Site must be performed under the direct oversight of a State of California licensed professional geologist or a civil engineer as identified in Section 5.5.3 of the Stipulated Notice and Oder.

20. A representative of the LEA staff must be allowed to observe field sampling activities when conducted. The LEA staff must be notified a minimum of 72 hours prior to initiating field activities at the Site. Also, notify the LEA if there are any deviations to be made from the proposed workplan with sampling locations during fieldwork.

Please note the proposed subgrade testing must be conducted in compliance with all applicable Federal, State and local requirements including, but not limited to requirements to obtain permits and to ensure worker safety. It is the legal responsibility of Milan/Leighton to conduct all on-site activities so as not to create public health and safety hazards or nuisances. Every precaution must be taken to prevent impacts to the surrounding community.

If you have any questions, please contact Dan Weerasekera by phone at (714) 433-6255 or by email at dweerasekera@ochca.com and/or Shyamala Rajagopal by phone at (714) 433-6270 or by email at srajagopal@ochca.com.

Sincerely,

Dan Weerasekera
Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

R. Shyamala

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

cc: Christine Lane, Director, Orange County Health Care Agency Environmental Health
Darwin Cheng, Assistant Director, Orange County Health Care Agency Environmental Health
Lauren Robinson, Orange County Health Care Agency Environmental Health – LEA
Massoud Shamel, Senior Deputy County Counsel, Orange County
Tamara Escobedo, Orange County Health Care Agency Environmental Health – LEA
Dawn Liang, CalRecycle
Garrett Kakishita, South Coast Air Management District
Cindy Li, Santa Ana Regional Water Quality Control Board
William Rice, Santa Ana Regional Water Quality Control Board
Chuck Griffin, Santa Ana Regional Water Quality Control Board
Robin J. Ferber, Leighton and Associates, Inc.
Matt Himmelstein, Leighton and Associates, Inc.
Peter Duchesneau, Mannat, Phelps & Phillips, LLP
Robert Garcia, Senior Planner, City of Orange
CalRecycle/LEA SWIS Portal

APPENDIX A – TABLE 1: RESPONSE TO COMMENTS TABLE FOR LEA COMMENTS LETTER DATED APRIL 28, 2023

	LEA Comments from April 28, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comments
1	The workplan states a total of 55 exploratory soil borings are planned at the Site. However, review of Figure 2 of the workplan, which displays the locations of the proposed borings, shows a total of 57 (not 55) exploratory soil borings with 38 borings (red dots) to be drilled in the first phase and 19 borings (green dots) to be drilled in the second phase of the work. Please ensure the accuracy of the total number of soil borings and locations depicted in Figure 2 of the workplan.	Leighton has revised Figure 2 (attached) and included the additional exploratory soil borings recommended by the LEA. In total, there are 39 soil borings (depicted by red dots) planned in the areas outside of the stockpile areas, 22 soil borings (depicted by green dots) planned in the areas underlying the stockpiles. The combined total of exploratory soil borings is now 61.
2	The workplan's response to the LEA letter dated October 31, 2022 (related to Sections 2.1/2.2, comment #5), states that "At this time, Milan REI X, LLC is not intending to redevelop the site for residential land use. As Milan has previously indicated, the anticipated land use is recreational. If residential land use is proposed in the future for an area of the Site, Milan will consult with the LEA to determine whether additional sampling is necessary." Section 3.3.7 of the Stipulated Notice and Order requires that the workplan must "…include a sufficient number of samples to be a reasonable representative of the Site's areas being tested, taking into consideration the future use of the areas as residential, recreational, or open space, as residential and recreational areas will require more dense sampling in comparison to open space areas." The LEA finds this workplan acceptable as consistent with Section 3.3.7 of the Stipulated Notice and Order for conducting an analytical investigation of the Site's soil below the subgrade level as relate to the recreational use of the Site's future use only. However, as stated by Leighton, in the event the future use of the Site changes from recreational to residential and/or commercial, you must inform the LEA accordingly as additional assessment and sampling may be required to be conducted below the subgrade level as relate to future residential or commercial use of the Site.	Milan will continue to keep the LEA informed of the intended use of the Site. As Milan informed the LEA in February 2023, Milan has recently proposed to the City of Orange a residential development (the "Creekside Village"). See attached conceptual plan. This proposed development would largely be situated on a portion of the Site that is currently covered by stockpiles limiting subsurface access. After the analytical data is received from the contemplated subgrade and stockpile sampling under the work plans, Milan will confer with the LEA considering the most up-to-date status of the development plans. See No. 5 below.

	LEA Comments from April 28, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comments
3	The workplan's response to the LEA letter dated October 31, 2022, (related to Section 3.7 - Methane Survey, comment #6), states that "If the presence of methane gas is detected in onsite probes originates from the methane source on the adjoining Villa Park Landfill, the findings will be discussed with the LEA to address the applicability of CCR, Title 27, Chapter 3, §20923 - §20925." Please note that it is the LEA's understanding that recent probe monitoring data from gas probes associated with the Villa Park Landfill indicates no methane gas is migrating from the existing perimeter monitoring gas probes located within former Villa Park Landfill and adjacent to the Site.	If methane gas is detected, Leighton will work with the LEA to evaluate the findings to assess potential source areas. Leighton requests that the LEA share all available current and historical methane and soil gas data for the Villa Park Landfill, including as referenced in its comments, to evaluate any potential detections in the onsite probes. <u>Supplemental Response:</u> When the soil vapor sampling activities are performed, Milan will keep the LEA apprised should methane gas be detected in probes adjacent to the Villa Park Landfill.
4	Section 3.7 of the workplan states the three Villa Park Landfill perimeter gas probes (MP-18:R, MP-17, and MP-15) will be used for monitoring as they are already in place and monitored annually on behalf of the Santa Ana Regional Water Quality Control Board. Although these probes may be allowed to be used for monitoring in coordination with QC Waste & Recycling who maintains and operates the Villa Park Landfill, the workplan incorrectly states that they are monitored annually on behalf of the SARWQCB. Please note these perimeter gas probes are currently monitored quarterly, not annually, as per Title 27 Regulations compliance requirements and reported to the LEA.	Acknowledged.
5	The workplan states the borings beneath the stockpiles present at the Site will be drilled after the debris piles have been moved to allow for safe and more effective drilling. As there will be two drilling phases, the need for a 100-foot by 100-foot soil sampling grid should be revisited and evaluated with the LEA after the first phase of work is completed.	Acknowledged.

	LEA Comments from April 28, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comments
6	The workplan states sampling intervals for each boring will start at 0.5 feet below ground surface (bgs) and additional soil samples will be collected at 10-foot intervals until native soils or bedrock is encountered. Based on the Ginter & Associates, Inc. Geotechnical Report (March 10, 2022) description, the proposed scope of geotechnical testing and testing of soil below the current grade level must be conducted at 5-foot intervals. In addition, an undisturbed soil sample should be collected by hand auger drilling at the proposed shallow depth of 0.5 feet to 1 feet bgs.	The soil sampling portion of the workplan will be revised to reflect 5 foot sampling intervals and hand augur sampling for each 0.5 foot to 1 foot sample collected at each boring location. Leighton will assess the soil type for each 5-foot sample interval and will initially have laboratory analyses performed on the shallow depth sample (0.5 to 1 ft. bgs) and each 10-foot interval. Based upon the field observations and laboratory results, laboratory analysis of soil samples from other 5-foot intervals will be performed. <u>Supplemental Response:</u> See Table 3, Response No. 1 below.
7	Additional exploratory soil borings (before removal of stockpiles) should be included to be a reasonable representative of the areas being tested as shown in Figure 2 as follows: a) One additional boring to the north of Area D b) One additional boring to the immediate west side of Area E, between Areas B and E c) Two additional borings around Area G with one boring to the west, next to the 'approximate area of excavation of former Asphalt-Emulsion UST' and the other boring to the south, next to the 'approximate area of excavation for debris removal' d) A revised site map with the additional soil boring locations must be submitted within 30 days of receipt of this letter for the LEA's review.	The requested additional boring locations are presented in the revised Figure 2 (attached).

	LEA Comments from April 28, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comments
8	Additional methane gas sampling locations should be proposed in the central portion of the Site, beneath Stockpiles F, G, H, and K, for sampling to constitute a reasonable representation of the areas to be tested as shown in Figure 2. A revised site map with the additional probe locations must be submitted within 30 days of receipt of this letter for the LEA's review.	The requested additional methane gas sampling locations are presented in the revised Figure 2 (attached).
9	Soil vapor sampling for proposed vapor probe locations MSV-6 through MSV-8 must follow the listed procedures: a) The leak check compound must be reapplied every 10 minutes during purging and sampling of soil vapor probes to ensure adequate saturation. b) Leak testing procedures during soil vapor sampling must also include a shut-in test. c) The workplan states, "at locations where volatile organic compounds will be sampled in soil vapor, the sampling will occur after a minimum of two hours has passed after the installation of the sampling probes." Soil vapor sampling may begin only after a minimum of 48 hours after soil vapor probe installation. d) Please note, the LEA has implemented the Department of Toxic Substances Control (DTSC) and California Water Resources Control Board's Final Draft Screening and Evaluating Vapor Intrusion Guidance dated February 2023. As such, the LEA will be evaluating soil vapor intrusion under this guidance and using the four-step process for screening and evaluating vapor intrusion. e) The report documenting the results of this assessment must include a soil vapor sampling data table with results reported in micrograms per cubic meter and should also include detection limits for all non-detect sample results.	This information will be added to the workplan. <u>Supplemental Response:</u> Items 9 a, b, c, and e have been added to the Workplan in Section 3.7. Item d. – Noted.

LEA Comments from April 28, 2023 Letter to Milan REI X, LLC		Leighton Responses to LEA Comments
10	Proposed methane gas survey must occur after soil sampling data has been submitted and reviewed by the LEA. This survey should include sampling of landfill gases that consists of methane and trace gases (VOCs).	Acknowledged.
11	Please note in the event of detection/presence of methane gas in the subsurface soil from the initial screening for methane in the proposed investigation, the LEA will assess the need for installation of compliance gas probes at the Site in accordance with 27 CCR §20923 and §20925.	Acknowledged.
12	The workplan's response to the LEA letter dated October 31, 2022, (related to Section 3.7- Methane Survey, comment #7) states that "If an onsite source of methane is identified, the number and depths of compliance monitoring probes within the wellbore will be installed in accordance with Title 27, Chapter 3, Article 6, § 20925 criteria. Consistent with the Title 27 spacing requirements, the lateral spacing of the proposed soil vapor monitoring wells on the site is less than 1,000 feet". Please note that if the residential and/or commercial development or any other habitat structures exist within 1,000 feet of the Site's boundary, then the spacing should be 100 feet per the South Coast Air Quality Management District (SCAQMD) guidelines specified in Rule 1005.1.	Milan will confer with the LEA after receipt of the methane data. Note that SCAQMD Rule 1150.1 concerns municipal solid waste landfills and provides for designated probe spacing where the adjacent land use is no further than 1,320 feet from the refuse boundary.
13	The Site historically operated two asphalt manufacturing plants and therefore compliance for possible asbestos exposure in accordance with 8 CCR §5208 and other applicable regulations may likely be required. 8 CCR §5208G)(2) specifically states "Asphalt and vinyl flooring material installed no later than 1980 also must be treated as asbestos-containing". Accordingly, construction debris encountered during the subgrade assessment should be evaluated for asbestos containing material (ACM) according to applicable state regulations. A Site-specific HASP has been submitted with the workplan to address potential hazards that may arise while conducting field activities associated with the overall scope of work. As mentioned in the HASP, if ACM is identified during subsurface assessment fieldwork, all appropriate agencies including SCAQMD must be notified immediately, and appropriate measures taken.	As noted in the HASP, if ACM is identified during assessment fieldwork, all appropriate agencies, including SCAQMD, will be notified immediately (i.e., within 8-hours of review of the final analytical test results report) and appropriate measures taken. <u>Supplemental Response:</u> This is referenced in Section 3.3 of the Workplan.

	LEA Comments from April 28, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comments
14	The workplan and review of historical groundwater data for the Site indicate depth to first groundwater may be encountered at approximately 30 - 50 feet bgs. The workplan states that groundwater is not anticipated to be encountered at the proposed drilling locations at the Site. Please note for all exploratory soil borings to be advanced, deeper samples may be required based on field conditions encountered during drilling, as soil samples are to be collected at depths that capture both fill material and native soil. Please see Stipulated Notice and Order, Section 4.2.6. As such, there is a potential that borings could extend deeper, thereby resulting in groundwater being encountered. Although the Stipulated Notice and Order does not specify groundwater sample collection, please note that it is the standard requirement of the LEA that if groundwater is encountered during drilling, a groundwater grab sample should also be collected for analysis. It should be noted that if a groundwater sample is not collected during this assessment, based on forthcoming soil sampling results, a groundwater investigation may be required in future by other applicable agencies.	The LEA will be notified if groundwater is encountered during drilling. A grab groundwater sample will be collected if sufficient groundwater is encountered. Based on field observations and the results of the soil samples collected in the boring, it will be determined whether to analyze the groundwater sample.
15	The buried groundwater production well #93-28-7-A, located in the vicinity of the Asphalt manufacturing plant (Area G) and no longer in service, must be identified and abandoned properly with appropriate agency approval(s) including, but not limited to the City of Orange Public Works Department.	Leighton will attempt to locate the buried groundwater production well #93-28-7-A. If the well is found, it will be abandoned properly with appropriate agency approval(s), included but not limited to the City of Orange Public Works Department.
16	The LEA may modify and/or add sampling locations/depths/analysis based on field observations and/or results of the pending soil and soil vapor detections.	Milan and Leighton will confer with the LEA in the event that the LEA seeks additional sample locations, depths or analysis based upon field observations.
17	A timeline with a proposed schedule detailing sub-grade soil sampling and soil vapor sampling must be submitted to the LEA within 30 days of receipt of this letter.	A timeline with the proposed overall schedule is attached.

	LEA Comments from April 28, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comments
18	All investigation derived wastes from subsurface soil drilling and stockpile soil cuttings should be segregated and stored separately as an interim until soil profile is completed for proper disposal.	Leighton proposes to manage all investigation derived wastes (IDW) generated during drilling in close proximity to the original boring location. The soil will be placed on and covered with plastic sheeting a minimum of 10 mil in thickness. <u>Supplemental Response</u>: The IDW will be properly disposed offsite or recycled for re-use onsite based on the analytical test results of the soil samples (Section 3.5.4) .
19	All fieldwork at the Site must be performed under the direct oversight of a State of California licensed professional geologist or a civil engineer as identified in Section 5.5.3 of the Stipulated Notice and Order.	In accordance with Section 5.5.3 of the Stipulated Notice & Order, and in accordance with general industry practices, all fieldwork at the Site will be performed under the supervision of a State of California licensed professional geologist or a civil engineer. <u>Supplemental Response</u>: In accordance with Section 5.5.3 of the Stipulated Notice & Order, and in accordance with general industry practices, "…*All fieldwork regarding the analytical investigation/testing shall be conducted in accordance with the approved workplan and under the supervision of a licensed Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California."*
20	A representative of the LEA staff must be allowed to observe field sampling activities when conducted. The LEA staff must be notified a minimum of 72 hours prior to initiating field activities at the Site. Also, notify the LEA if there are any deviations to be made from the proposed workplan with sampling locations during fieldwork.	A representative of the LEA may observe field sampling activities at any time. The LEA staff will be notified a minimum of 72 hours prior to the initiation of field activities at the site and will be notified if there are any deviations to be made from the proposed workplan sampling locations during fieldwork.

DEBRA BAETZ, MBA
INTERIM AGENCY DIRECTOR

REGINA CHINSIO-KWONG, DO
COUNTY HEALTH OFFICER/
CHIEF OF PUBLIC HEALTH SERVICES

CHRISTINE LANE, REHS
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PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION

August 10, 2023

Chris Nichelson
Bret B. Bernard
MILAN REI X, LLC
701 South Parker St., Suite 5200
Orange, CA 92868

Sent via email: chris@milancap.com
bret@milancap.com

Subject: Leighton Response from May 30, 2023 to April 28, 2023 LEA Comments for Subgrade and Geotechnical Testing Workplan, Milan REI X, LLC for Rio Santiago Disposal Site located at 6145 E. Santiago Canyon Rd., Orange, CA (SWIS No. 30-AB-0472)

Dear Mr. Nichelson and Mr. Bernard:

The Environmental Health Division of the Orange County Health Care Agency is the certified local enforcement agency (LEA) for Orange County and authorized and obligated to enforce solid waste laws and regulations pursuant to California Public Resource Code (PRC) Sections 43209 and 45000 et seq., and Title 14 of the California Code of Regulations (14 CCR) § 18080 et seq. Pursuant to PRC Section 43200.5(b), in enforcing Part 4, 5 and 6 of Division 30 of the PRC and regulations that implement them, the LEA carries out a state function and thus its actions are independent from, and not subject to the authority of, the Orange County Board of Supervisors.

In accordance with Sections 3 and 4 of the Stipulated Notice and Order dated June 16, 2022, between the LEA and Milan REI X, LLC (Milan), Leighton and Associates, Inc. (Leighton) submitted on behalf of Milan to the LEA a revised workplan for the Rio Santiago property referenced in the above subject line (hereinafter "Site") on January 23, 2023. The LEA reviewed the revised workplan upon receipt, and notified Leighton that the workplan was missing the accompanying Health & Safety Plan (HASP). Leighton subsequently submitted the requisite HASP to the LEA on April 8, 2023. The workplan proposes soil borings to be advanced in two phases and soil vapor probes to evaluate for methane and potentially other volatile organic compounds at the Site. On April 28, 2023, the LEA concurred with the overall scope of work and accepted the proposed workplan with comments and specific conditions to be addressed. On June 6, 2023, Leighton submitted responses to the LEA's concurrence letter dated April 28, 2023. The LEA has now reviewed Leighton's responses and has the following comments:

LEA Response to Comment #2:
Leighton's response states, "As Milan informed the LEA in February 2023, Milan has recently proposed to the City of Orange a residential development ("Creekside Village"). This proposed development would largely be situated on a portion of the Site that is currently covered by stockpiles limiting subsurface

access. After the analytical data is received from the contemplated subgrade and stockpile sampling under the work plans, Milan will confer with the LEA considering the most up-to-date status of the development plans."

The LEA's review of historical documents indicates that the Site's past uses included, agricultural uses; a gasoline service station with associated underground storage tanks (USTs); asphalt plants with associated above ground storage tanks, USTs, oil storage areas; and a materials recycling area with an associated maintenance/storage area. Based on review of Figure 1 attached to Leighton's response, it appears these historical uses primary took place in the area proposed for residential development at the Site. The LEA has thus far reviewed the subgrade sampling workplan only for recreational use/development of the Site. Therefore, to the extent the City of Orange approves any residential development at the Site and to that effect Milan wishes to develop the Site for residential use, Milan shall submit to the LEA for review and approval a subsequent subgrade sampling workplan for residential use/development of the Site. The subsequent workplan will be required regardless of analytical data received from the subgrade sampling under the current subgrade workplan in that per Section 3.3.7 of the Stipulated Notice and Order more dense sampling will be required for residential uses of the Site.

LEA Response to Comment #6:
Leighton's response states, "Leighton will assess the soil type for each 5-foot sample interval and will initially have laboratory analyses performed on the shallow depth sample (0.5 to 1 foot bgs) and each 10-foot interval. Based upon the field observations and laboratory results, laboratory analysis of soil samples from other 5-foot intervals will be performed."

Please note as stated in LEA's letter dated April 28, 2023 to the revised subgrade testing workplan, 5-foot samples must be collected to the total depth from each boring and submitted for laboratory analysis.

LEA Response to Comment #7:
Based on the revised subgrade testing workplan submitted, additional soil borings were required by the LEA as identified in the letter dated April 28, 2023. The requested additional boring locations presented in Figure 2 attached to Leighton's response is acceptable to the LEA. The combined total of exploratory soil borings accounts now as 61.

LEA Response to Comment #8:
Based on the revised subgrade testing workplan submitted, additional methane gas sampling locations were required by the LEA as specified in the letter dated April 28, 2023. The additional methane gas sampling locations beneath Stockpiles F, G, H, and K presented in Figure 2 attached to Leighton's response is acceptable to the LEA.

LEA Response to Comment #14:
Leighton's response states, "Based on field observations and the results of the soil samples collected in the boring, it will be determined whether to analyze the groundwater sample."

As stated in LEA's letter dated April 28, 2023, it is the standard requirement of the LEA that if groundwater is encountered during drilling, a groundwater grab sample should also be collected for analysis. It should be noted that if a groundwater sample is not collected during this assessment, based on forthcoming soil sampling results and depth to groundwater at the Site, a groundwater investigation may likely be required in the future by other applicable agencies. Accordingly, the LEA strongly recommends collecting a groundwater grab sample for analysis to avoid any future hurdles.

The LEA reserves the right to modify and/or add sampling locations/depths/analysis based on field observations and/or sampling results from forthcoming subsurface testing.

The LEA is agreeable with the overall scope of the revised workplan submitted previously. This was also noted in the LEA's letter, dated April 28, 2023. At this time, you must submit to the LEA a *revised consolidated workplan* that incorporates all of LEA's comments from the April 28, 2023 letter, Leighton's responses to those comments, and LEA's comments in responses thereto as stated in this letter. Once received, the LEA will review the *revised consolidated workplan* to ensure it is complete and correctly reflects the LEA's and Leighton's comments. Upon the LEA's determination that the *revised consolidated workplan* is complete and correct, the LEA will inform Milan that it may implement the workplan.

If you have any questions, please contact Dan Weerasekera by phone at (714) 433-6255 or by email at dweerasekera@ochca.com and/or Shyamala Rajagopal by phone at (714) 433-6270 or by email at srajagopal@ochca.com.

Sincerely,

Dan Weerasekera
Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

R. Shyamala

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

cc: Christine Lane, Director, Orange County Health Care Agency Environmental Health
Darwin Cheng, Assistant Director, Orange County Health Care Agency Environmental Health
Massoud Shamel, Senior Deputy County Counsel, Orange County
Lauren Robinson, Orange County Health Care Agency Environmental Health – LEA
Tamara Escobedo, Orange County Health Care Agency Environmental Health – LEA
Jeff Hackett, CalRecycle
Garrett Kakishita, South Coast Air Management District
Cindy Li, Santa Ana Regional Water Quality Control Board
William Rice, Santa Ana Regional Water Quality Control Board
Chuck Griffin, Santa Ana Regional Water Quality Control Board
Robin J. Ferber, Leighton and Associates, Inc.
Matt Himmelstein, Leighton and Associates, Inc.
Peter Duchesneau, Mannat, Phelps & Phillips, LLP
Robert Garcia, Senior Planner, City of Orange
CalRecycle/LEA SWIS Portal

APPENDIX A – TABLE 2: RESPONSE TO COMMENTS TABLE FOR LEA COMMENTS LETTER DATED AUGUST 10, 2023

As requested by the LEA, Table 2 below provides responses to the LEA's comments presented in their August 10, 2023 letter to Milan which addresses Leighton's Revised Workplan dated January 23, 2023 and site-specific Health and Safety Plan dated April 8, 2023. On June 6, 2023, Leighton submitted responses to the LEA's concurrence letter dated April 28, 2023. The LEA reviewed Leighton's responses and provided the below comments:

	LEA Comments from August 10, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comment
1	LEA Response to Comment #2: Leighton's response states, "As Milan informed the LEA in February 2023, Milan has recently proposed to the City of Orange a residential development ("Creekside Village"). This proposed development would largely be situated on a portion of the Site that is currently covered by stockpiles limiting subsurface access. After the analytical data is received from the contemplated subgrade and stockpile sampling under the work plans, Milan will confer with the LEA considering the most up-to-date status of the development plans." The LEA's review of historical documents indicates that the Site's past uses included, agricultural uses; a gasoline service station with associated underground storage tanks (USTs); asphalt plants with associated above ground storage tanks, USTs, oil storage areas; and a materials recycling area with an associated maintenance/storage area. Based on review of Figure 1 attached to Leighton's response, it appears these historical uses primary took place in the area proposed for residential development at the Site. The LEA has thus far reviewed the subgrade sampling workplan only for recreational use/development of the Site. Therefore, to the extent the City of Orange approves any residential development at the Site and to that effect Milan wishes to develop the Site for residential use, Milan shall submit to the LEA for review and approval a subsequent subgrade sampling workplan for residential use/development of the Site. The subsequent workplan will be required regardless of analytical data received from the subgrade sampling under the current subgrade workplan in that per Section 3.3.7 of the Stipulated Notice and Order more dense sampling will be required for residential uses of the Site.	Milan recognizes that if portions of the Site become subject to residential use, such areas may be subject to additional testing. The determination and scope of such additional testing should be made after the particular plans for the residential use are confirmed, taking into account the available data from the prior testing. Once the proposed residential development has further solidified, Milan will confer with the LEA to address the scope of additional soil sampling within the contemplated residential areas to supplement the data assemblage proposed in this Workplan as may be warranted.

	LEA Comments from August 10, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comment
2	LEA Response to Comment #6: Leighton 's response states, "Leighton will assess the soil type for each 5-foot sample interval and will initially have laboratory analyses performed on the shallow depth sample (0.5 to 1 foot bgs) and each 10- foot interval. Based upon the field observations and laboratory results, laboratory analysis of soil samples from other 5-foot intervals will be performed. " Please note as stated in LEA's letter dated April 28, 2023 to the revised subgrade testing workplan, 5-foot samples must be collected to the total depth from each boring and submitted for laboratory analysis.	See Table 3, Response No. 1, below.
3	LEA Response to Comment #7: Based on the revised subgrade testing workplan submitted, additional soil borings were required by the LEA as identified in the letter dated April 28, 2023. The requested additional boring locations presented in Figure 2 attached to Leighton's response is acceptable to the LEA. The combined total of exploratory soil borings accounts now as 61.	Acknowledged. The combined total of 61 borings is confirmed and noted in Section 3.5.4 of the Workplan.
4	LEA Response to Comment #8: Based on the revised subgrade testing workplan submitted, additional methane gas sampling locations were required by the LEA as specified in the letter dated April 28, 2023. The additional methane gas sampling locations beneath Stockpiles F, G, H, and K presented in Figure 2 attached to Leighton's response is acceptable to the LEA.	Acknowledged.

	LEA Comments from August 10, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comment
5	LEA Response to Comment #14: Leighton's response states, "Based on field observations and the results of the soil samples collected in the boring, it will be determined whether to analyze the groundwater sample. " As stated in LEA's letter dated April 28, 2023, it is the standard requirement of the LEA that if groundwater is encountered during drilling, a groundwater grab sample should also be collected for analysis. It should be noted that if a groundwater sample is not collected during this assessment, based on forthcoming soil sampling results and depth to groundwater at the Site, a groundwater investigation may likely be required in the future by other applicable agencies. Accordingly, the LEA strongly recommends collecting a groundwater grab sample for analysis to avoid any future hurdles. The LEA reserves the right to modify and/or add sampling locations/depths/analysis based on field observations and/or sampling results from forthcoming subsurface testing.	See Table 1, Comment 14 and Work Plan, Section 5.

manatt

Peter Duchesneau
Manatt, Phelps & Phillips, LLP
Direct Dial: (310) 312-4209
pduchesneau@manatt.com

September 1, 2023

Client-Matter: 66869-030

VIA E-MAIL

Shyamala Rajagopal
Dan Weerasekera
Solid Waste Local Enforcement Agency
Environmental Health Division
Orange County Healthcare Agency
1241 E. Dyer Road, Suite 120
Santa Ana, CA 92705

Re: Milan REI X, LLC Workplans Pursuant to Stipulated Notice and Order

Dear Ms. Rajagopal and Mr. Weerasekera:

Milan REI X, LLC ("Milan") is in receipt of your responses of August 10, 2023 to the Revised Workplans for Stockpiled Waste Testing and Subgrade and Geotechnical Testing prepared by Leighton and Associates, Inc. ("Leighton") on behalf of Milan.[1] Thank you to those members of the Local Enforcement Agency ("LEA") team who participated in a remote conference on August 17, 2023, to discuss the LEA's responses.

As indicated at our conference, pending the LEA's response, Milan has continued to diligently prepare for the investigation so as to be ready to initiate field work in mid-September after habitat restrictions are lifted. To that end, Milan is in the process of preparing revised consolidated workplans for the Stockpiled Waste Testing and Subgrade and Geotechnical Testing that incorporate the prior revisions and comments for the LEA's review and approval so that it may implement the workplans. In doing so, as set forth below, Milan wishes to clarify and respond to a few comments in the LEA's responses as raised in our conference.

- **Below Grade Soil Test Intervals**

As discussed at our conference, Milan's professional geologists at Leighton believe that analyzing samples every 5 feet below the subgrade is not technically necessary and is unreasonably burdensome. The Stipulated N&O provides that "the LEA shall not unreasonably

[1] As a point of clarification, the workplan revisions were submitted by Leighton on May 30, 2023, not June 6, as indicated in the LEA's letters. The workplan revisions were resubmitted on June 6, at the request of the LEA, after staff returned from vacation and discovered that the County's IT prevented access to files emailed on May 30.

withhold approval of a final workplan." (Stip. N&O, § 3.4.) The testing should "[i]nclude a sufficient number of samples to be a reasonable representati[on] of the Site's areas being tested" and "[t]ake into consideration the past use of the Site and any past reports regarding the Site's soil composition and testing." (Stip. N&O, §§ 3.3.7 and 3.3.4.) Given the results of the prior investigations of the Site and other considerations, Leighton proposed analyzing samples at a depth of 0.5 to 1 foot bgs and at each 10 foot interval, while also taking soil samples at every 5 foot interval to consider the soil types and potentially performing laboratory analysis based upon field observations and laboratory results of other soil samples.

Given the unprecedented, extensive scope of analytes that must be tested in each sample and the prohibition against composite samples under the Stipulated N&O, the need to test every five feet is not only technically unnecessary, but unreasonably burdensome. At our conference, the LEA referenced testing protocols, which have not been provided to Milan, and other guidance that are not applicable. For instance, the LEA raised guidance for underground storage tank ("UST") closure, which is not applicable given the scope and objectives of the investigation and that USTs previously located on the Site were investigated and issued closure by the Regional Water Quality Control Board, Santa Ana Region. ("RWQCB").[2] Similarly, testing every 5 feet below the ground surface for some chemicals of concern is not consistent with other guidance, such as *Interim Guidance for Sampling Agricultural Properties* (Third Revision), California Department of Toxic Substances Control, August 7, 2008, which provides for testing organochlorine pesticides and arsenic only from 0 to 6 inches of the first encountered soil.

Nonetheless, as Milan seeks to work together with the LEA, as further set forth in the attached summary prepared by Leighton, Milan proposes to modify its sampling protocol. For the initial round of subgrade testing, Milan will test at 5 foot intervals, except in areas B and J and certain portions of areas C and K, which are underlain by pond deposits comprised primarily of silt that originated from the sand and gravel mining operations associated with the alluvial sediments along Santiago Creek. In the areas underlain by pond deposits, soil samples from 0.5 to 1 feet and 5 feet will be analyzed in addition to the shallow samples and at 10 foot intervals as previously proposed. In these areas, soil samples will also be collected from the other 5 foot intervals and observed for evidence of chemicals of concern during field activities and analytical test results from the 10 foot interval samples. The appropriate sample intervals for subsequent subsurface testing after the moving of the stockpiles will be determined at such time with the benefit of the data from the other testing.

[2] *See No Further Action*, Sully-Miller Contracting Company Facility, 6145 Santiago Canyon Road, Orange, CA, Regional Board Case No. 083002699T, RWQCB, Sept. 22, 1998, and *No Further Action*, Sully-Miller Contracting Company Facility, 6145 Santiago Canyon Road, Orange, CA, Regional Board Case No. 083002699T, RWQCB, ,June 14, 2001.

- **Residential Use**

Milan also desires to clarify the LEA's responses with regard to the necessary sampling in the event of commercial and/or residential use of areas of the Site. As to subgrade testing, as discussed, Milan recognizes that if portions of the Site become subject to residential use, such areas may be subject to additional testing. However, the determination of any required additional testing should be made after particular plans for residential use are confirmed, taking into account the test results of the currently contemplated investigation, among other information. Based upon our conference, Milan understands that the LEA concurs with this approach.

With regard to stockpile testing, Milan wants to clarify the requirements of the Stipulated N&O. In its response to the workplan, the LEA indicated that additional assessment and sampling of stockpiles may be required for commercial and/or residential use. This is neither consistent with, nor necessary under the Stipulated N&O, which proscribes the testing methodology and also particular sampling requirements by volume as well as taking "a sufficient number of samples from each stockpile . . . to be a reasonable representat[ion] of each stockpile." (Stip. N&O, §§ 5.5.1(e) and (f).) As such, the stockpile sampling is not dependent upon the future use. Milan does, however, want to clarify that the number of samples proposed in the stockpile sampling workplan is sufficient to characterize the stockpile materials regardless of the future use. On the other hand, the type of future use of the stockpiled materials could potentially be relevant as to the material's suitability depending upon the outcome of the analytical testing. In accordance with the Stipulated N&O, Milan's professional engineers will make recommendations for the suitability of the material for IDEFO use following receipt of the analytical data. (Stip. N&O, §§ 5.5.4 and 5.6.)

Please confirm that the above approaches and clarifications are acceptable so that Leighton may complete the revised consolidated workplans. Please do not hesitate to contact me if you have any questions.

Sincerely,

Peter Duchesneau

cc:

Chris Nichelson, Milan REI X, LLC
Bret B. Bernard, Milan REI X, LLC
Christine Lane, Director, Orange County Health Care Agency Environmental Health
Darwin Cheng, Assistant Director, Orange County Health Care Agency Environmental Health

Massoud Shamel, Senior Deputy County Counsel, Orange County
Lauren Robinson, Orange County Health Care Agency Environmental Health - LEA
Tamara Escobedo, Orange County Health Care Agency Environmental Health - LEA
Jeff Hackett, CalRecycle
Garrett Kakishita, South Coast Air Management District
Cindy Li, Regional Water Quality Control Board, Santa Ana
William Rice, Regional Water Quality Control Board, Santa Ana
Chuck Griffin, Regional Water Quality Control Board, Santa Ana
Robin J. Ferber, Leighton and Associates, Inc.
Matt Himmelstein, Leighton and Associates, Inc.
Robert Garcia, Senior Planner, City of Orange

Attachment

MEMORANDUM

To:	Solid Waste Local Enforcement Agency Environmental Health Division 1241 East Dyer Road, Suite #120 Santa Ana, California 92705	**Date:**	September 1, 2023
Attention:	Shyamala Rajagopal Supervising Hazardous Materials Specialist	**Project No.**	13620.006
CC:	Chris Nicholsen and Bret Bernard		
From:	Robin J Ferber, PG		
Subject:	**Analytical Testing Program for Soil Samples Collected as a Part of the Revised Subgrade Testing and Geotechnical Workplan for June 16, 2022 Stipulated Notice and Order for Milan REI X, LLC Site, 6145 East Santiago Canyon Road, Orange, California**		

Milan REI X, LLC (Milan) is appreciative of the recent discussions with the Solid Waste Local Enforcement Agency (the "LEA") regarding the analytical testing program for soil samples to be collected during the implementation of the Revised Subgrade Testing and Geotechnical Workplan for Milan's site located at 6145 E. Santiago Canyon Rd., Orange, California (the site or subject property). The collection and analytical testing of soil samples is a requirement of the June 16, 2022 Stipulated Notice and Order (Stipulated N&O). For the first phase of work, Milan intends to drill 39 exploratory soil borings and collect soil samples at five foot intervals starting at 1-2 feet below ground surface (bgs). Soil samples will be collected in each boring until native soils are reached and sampled. The suite of analytical tests for the soil samples to be collected is set forth in the Stipulated N&O.

On May 31, 2023, Leighton proposed analyzing samples taken at a depth of 0.5 to 1 foot bgs and at each 10 foot interval, while also taking soil samples at every 5 foot interval to consider the soil types and potentially performing laboratory analysis based upon field observations and laboratory results of other soil samples. In its August 10 response, the LEA requested analyzing samples at each 5 foot interval. In response to the LEA's request to revise the sample interval for testing, Leighton proposes to revise the workplan as explained below.

Major portions of the site are underlain by pond deposits as documented in Ginter & Associates, Inc.'s March 10, 2022 *Summary and Compilation of all Geotechnical Reports, Analyses and Data for the Rio Santiago Development* (the Ginter Report). The pond deposits which are comprised primarily of silt, originated from the sand and gravel mining operations associated with the alluvial sediments along Santiago Creek. Areas that were excavated as a part of the sand and gravel operations were backfilled with pond deposits. These areas include Areas B, J and portions of Areas C and K, as depicted in Figure 1 (attached). To the best of our knowledge and research, we discovered no information to indicate that chemicals of concern (COCs) were contained in the pond deposits. In conformance with the Stipulated N&O, as previously proposed, Milan is planning to analyze soil samples at a depth of 0.5 to 1 foot bgs and 10 foot intervals from the areas where the backfill materials at the site are predominantly identified as pond deposits. Milan will also collect and analyze a soil sample at 5 feet bgs from all of the borings. The soil samples collected from the pond deposit areas will be analyzed for the complete analytical suite detailed in the Stipulated N&O. In addition and as discussed with the LEA, Milan will plan to analytically test the soil samples collected at other 5 foot intervals should evidence of COCs be observed (e.g., staining, soil discoloration, unusual odors) during the drilling activities. In addition, during drilling and monitoring with a calibrated Photoionization Detector, soil samples collected at 5 foot intervals and exhibiting elevated volatile organic compounds (VOCs) above background, will also be analyzed for the analytical suite noted in the Stipulated N&O.

As to other locations at the Site during this initial investigation phase before the stockpiles are moved, all soil samples collected at 5 foot intervals will be analyzed for the complete analytical suite detailed in the Stipulated N&O. This will include areas where the historical use of COCs were documented (e.g., the Sully Miller operations areas, historical petroleum and potential VOCs use areas).

In particular, the sampling areas where soil samples will be collected at 5 foot intervals to be analyzed are included on the attached map, Figure 1:

- Borings K-11 and K-12 (located in the area where the former diesel-affected and gasoline-affected soil stockpiles are noted in the southeastern portion of the site).
- Boring K-6 (approximate location of the former diesel-affected soil stockpile process area).
- Boring K-1 (approximate area of excavation for debris removal (Sully Miller).
- Borings G-1 (approximate area of the excavation for the former asphalt emulsion UST).
- Boring K-5 (located in the former Sully Miller asphalt plant).

- Boring F-4 (located in the area where PCE and TCE and soil vapor were detected by Tate Environmental (2001)).
- Borings C-7 and C-10 (located in the former Sully Miller maintenance shop and equipment storage area).
- Boring B-3 (located in the former Western diesel-affected soil stockpile storage area).

As explained above, the remaining soil samples from borings planned in this initial investigation phase for the subgrade and geotechnical workplan implementation from the borings that are not listed above, will be analyzed at a depth of 0.5 to 1 foot bgs, 5 feet bgs, and at 10 foot intervals unless evidence of soil affected by chemicals of concern is noted in other 5 foot samples.

We trust this revised focused approach for the analysis of soil sampling intervals will satisfy the LEA's concerns about the potential presence of COCs that are present at the site and achieve the objectives of the Stipulated N&O.

Should have any questions regarding the above-described approach for the analytical testing of soil samples, please contact us.

Respectively submitted,

LEIGHTON CONSULTING, INC.

Robin J. Ferber, PG
Senior Principal Geologist
661-705-3025
rferber@leightongroup.com

Legend

- 14 — Subgrade Borings to be Drilled after Stockpiles are Removed
- 16 — Approximate Location of Exploratory Soil Borings
- MSV-1 — Proposed Methane Gas and VOC Sampling Locations
- MSV-19 — Proposed Methane Gas Sampling Locations
- MP-20 — Villa Park Landfill Perimeter Vadose Zone Gas Monitoring Probe
- Areas B through J - Areas identified by Ginter (March 10, 2022) each having it's own distrinctive geotechnical conditions. Note areas I and J were designated by Ginter as Areas J and L, respectively.
- Site boundary

Approximate Area of Debris Removal Excavation

Approximate Area of Diesel Spray Rack Removal

Approximate Area of Former Gasoline UST Excavation

Boring Drilled to Further Evalulate Prior Targhee Asbestos Investigation

Approximate Area of Former Diesel UST and Piping Excavation

Area where PCE and TCE in Soil Vapor were Detected by Tait (2001)

Approximate Location of Former Western Diesel-Affected Soil Stockpile

Former Sully-Miller Asphalt Plant

Approximate Location of Allen McCulloch Pipeline

Location of Former Eastern Diesel-Affected Soil Stockpile

Location of Former Eastern Gasoline-Affected Soil Stockpile

Villa Park Landfill

Approximate Area of the Excavation for the former Asphalt-Emulsion UST

Handy Creek Culvert

Approximate Area of Excavation for Debris Removal

Approximate Location of Former Eastern Diesel-Affected Soil Stockpile Process Area

Former Sully-Miller Maintenance Shop and Equipment Storage Area

N

0 250 500

Feet

Ginter & Associates, Inc. Summary and Compilation of All Geotechnical Reports, Analyses and Data for the Rio Santiago Development Site, March 10, 2022.

Figure provided by Fuscoe Engineering entitled "Combined Topo Exhibit", Orange, California, dated June 2, 2022, Modified by Leighton

Proj: 13620.004	Eng/Geol: RB/MH
Scale:1 " = 250 '	Date: May 2023
Author: (mmurphy)	

MILAN REI X, LLC STOCKPILE LOCATION MAP WITH PROPOSED GRADE LEVEL SOIL SAMPLING AND METHANE GAS SAMPLING LOCATIONS

6145 East Santiago Canyon Road
City of Orange, Orange County, California

FIGURE 1

Leighton

Map Saved as J:\Drafting\13620\004\13620-004_F02_SPLM_2023-05-12.mxd on 5/12/2023 12:04:00 PM

DEBRA BAETZ, MBA
INTERIM AGENCY DIRECTOR

REGINA CHINSIO-KWONG, DO
COUNTY HEALTH OFFICER/
CHIEF OF PUBLIC HEALTH SERVICES

CHRISTINE LANE, REHS
DIRECTOR
ENVIRONMENTAL HEALTH

MAIL: PO BOX 25400
SANTA ANA, CA 92799
OFFICE: 1241 E. DYER RD, STE 120
SANTA ANA, CA 92705
TELEPHONE: (714) 433-6000
E-MAIL: ehealth@ochca.com

PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION

October 16, 2023

Chris Nichelson
Bret B. Bernard
MILAN REI X, LLC
701 South Parker St., Suite 5200
Orange, CA 92868

Sent via email: chris@milancap.com
bret@milancap.com

Subject: Leighton's Response from September 1, 2023 on the Analytical Testing Program for Soil Samples Collected as part of the Revised Subgrade Testing and Geotechnical Workplan, Milan REI X, LLC for Rio Santiago Disposal Site located at 6145 E. Santiago Canyon Rd., Orange, CA, (SWIS No. 30-AB-0472)

Milan REI X LLC Workplans Pursuant to the Stipulated Notice and Order dated September 1, 2023 prepared by Manatt, Phelps & Phillips, LLP

Dear Mr. Nichelson and Mr. Bernard:

The Environmental Health Division of the Orange County Health Care Agency is the certified local enforcement agency (LEA) for Orange County and authorized and obligated to enforce solid waste laws and regulations pursuant to California Public Resource Code (PRC) Sections 43209 and 45000 et seq., and Title 14 of the California Code of Regulations (14 CCR) § 18080 et seq. Pursuant to PRC Section 43200.5(b), in enforcing Part 4, 5 and 6 of Division 30 of the PRC and regulations that implement them, the LEA carries out a state function and thus its actions are independent from, and not subject to the authority of, the Orange County Board of Supervisors.

In accordance with Sections 3, 4, and 5 of the Stipulated Notice and Order (SNO) dated June 16, 2022 between the LEA and Milan REI X, LLC (Milan), Leighton and Associates, Inc. (Leighton) submitted to the LEA two separate revised workplans for the Rio Santiago Disposal Facility referenced in the subject line, above, (Site) on behalf of Milan on January 23, 2023. The LEA reviewed the revised workplans, and notified Leighton that the workplans were missing a Health & Safety Plan (HASP). Leighton subsequently submitted the HASP to the LEA on April 8, 2023. The first workplan for subgrade testing and geotechnical investigation proposes soil borings to be advanced in two phases along with soil vapor probes to evaluate for methane and potentially other volatile organic compounds at the Site. The second workplan proposes stockpiled solid waste testing to collect in-situ stockpile samples for profiling, testing, and identifying the general composition of the imported and native material stockpiles at the Site. On April 28, 2023, the LEA concurred with the overall scope of work for the two proposed workplans but provided comments with

specific conditions to be addressed and incorporated into the workplans. On June 6, 2023, Leighton submitted responses to the LEA's letters dated April 28, 2023. The LEA submitted response letters dated August 10, 2023, again concurring with the overall scope of the proposed workplans with comments and specific conditions to be incorporated into the final workplans. The parties subsequently met on August 17, 2023 to discuss among other things, two specific issues, namely subgrade sampling interval and stockpile testing. During the meeting, the LEA confirmed its position that 5-foot samples must be collected to the total depth proposed from each boring and analyzed for contamination as relates to subgrade testing while additional stockpile testing beyond the initial testing may be necessary should the stockpiles be intended for use in a commercial or residential related inert debris engineered fill operation (IDEFO). Subsequently, the LEA received two letters dated September 1, 2023 by Manatt, Phelps & Phillips, LLP (Manatt) and Leighton. The Manatt letter is seeking clarification regarding three specific issues as relates to comments made in LEA's past letters noted above. Specifically, the Manatt and Leighton letters propose a different subgrade sampling interval than the LEA's required 5-foot sampling interval and the Manatt letter seeks further clarification that the number of samples in the proposed stockpile testing is sufficient to characterize the stockpiles materials regardless of their future use.

The LEA has reviewed the letters from Manatt and Leighton and consulted with California Department of Resources Recycling and Recovery (CalRecycle) on October 6, 2023 regarding both issues. CalRecycle has also issued a letter regarding the subgrade testing, which is attached to this letter for your reference. Based on the review of the Site's historical reports, LEA's ongoing inspections of the Site, and consultation with CalRecycle, the LEA has the following comments regarding the letters dated September 1, 2023 by Manatt and Leighton:

1. Based on the review of historical site documents, including Ginter & Associates, Inc.'s *Summary and Compilation of all Geotechnical Reports, Analyses and Data dated March 10, 2012 for the Rio Santiago Development* (Ginter Report), the LEA cannot accept the sampling proposal outlined in the Manatt and Leighton letters. The Ginter Report was based on assessments conducted without the oversight of a regulatory agency approximately 12 years prior and are not based on the current Site's conditions (since the Site accepted various wastes from 2012 to 2020). The LEA requires sampling at 5-foot intervals from all borings across the Site to assess the vertical extent of contamination. Soil sampling at a minimum of 5-foot sampling intervals is a standard practice as shown in the State Water Control Board Leaking Underground Fuel Tank (LUFT) Manual dated September 2012, Orange County Guidelines for Site Investigation Workplan, the California Department of Toxic Substances Control's (DTSC) Human Health Risk Assessment (HHRA) Note 12 (June 2021), and the DTSC's Preliminary Endangered Assessment Guidance Manual (Revised October 2015). Soil sampling at a minimum of every 5 feet allows for the development of a two-dimensional cross-section to clearly understand current subsurface conditions at the Site and develop a conceptual site model. Additionally, CalRecycle too has informed the LEA that 5-foot sampling intervals are warranted.

2. The LEA has thus far reviewed the subgrade sampling workplan only for recreational and open use/development of the Site. In response to Manatt's request for clarification regarding possible future residential development at the Site to the extent the City of Orange approves any residential development at the Site or portions of the Site, Milan shall submit to the LEA for review and approval a subsequent subgrade sampling workplan for residential use/development of the Site. To that effect, per Section 3.3.7 of the SNO, more dense sampling (spatially) will be required for proposed residential uses of the Site or select areas planned for residential use, to supplement the sampling results from the forthcoming subgrade investigation.

3. In response to Milan's request for clarification that the number of samples proposed in the stockpile sampling workplan is sufficient to characterize the stockpile materials regardless of the future use, as stated in the LEA's letter dated August 10, 2023, the LEA reserves the right to modify and/or add sampling locations/depth/analysis based on field observations on-site and/or analytical results from the forthcoming stockpiles solid waste sampling.

As noted already in the LEA's letters, dated April 28 and August 10, 2023, the LEA is agreeable with the overall scope of the revised workplans submitted previously. At this time, you must submit revised consolidated workplans that incorporates all of LEA's comments from the April 28 and August 10, 2023 letters, Leighton's responses to those comments, and the LEA's comments and responses in this letter. Once received, the LEA will review the revised workplans to ensure they correctly reflect the LEA's and Leighton's comments. Upon the LEA's determination that the revised workplans are satisfactory, the LEA will notify Milan that it may implement the fieldwork activities in accordance with the revised workplans.

If you have any questions, please contact Mr. Dan Weerasekera by phone at (714) 433-6255 or by email at dweerasekera@ochca.com and/or Ms. Shyamala Rajagopal by phone at (714) 433-6270 or by email at srajagopal@ochca.com.

Sincerely,

Dan Weerasekera
Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

R. Shyamala

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

Attachment: CalRecycle Letter dated October 11, 2023 on Milan REI X, LLC Workplans Pursuant to Stipulated Notice and Order, Below Grade Soil Test Intervals, Rio Santiago Disposal Site

cc: Christine Lane, Director, Orange County Environmental Health Division
Darwin Cheng, Assistant Director, Orange County Environmental Health Division
Massoud Shamel, Senior Deputy County Counsel, Office of County Counsel
Lauren Robinson, Orange County Environmental Health Division
Tamara Escobedo, Orange County Environmental Health Division
Jeff Hackett, CalRecycle
Garrett Kakishita, South Coast Air Quality Management District
Cindy Li, Santa Ana Regional Water Quality Control Board
William Rice, Santa Ana Regional Water Quality Control Board
Chuck Griffin, Santa Ana Regional Water Quality Control Board
Robin J. Ferber, Leighton and Associates, Inc.
Matt Himmelstein, Leighton and Associates, Inc.
Peter Duchesneau, Manatt, Phelps & Phillips, LLP
Robert Garcia, City of Orange
Frank Sun, City of Orange
Chris Cash, City of Orange
CalRecycle/LEA SWIS Portal

October 11, 2023

Via Email: lrobinson@ochca.com

Ms. Lauren Robinson
Program Manager
Solid Waste Local Enforcement Agency
Orange County Environmental Health Department
1241 East Dyer Road, Ste. 120
Santa Ana, California 92705

Subject: Milan REI X, LLC Workplans Pursuant to Stipulated Notice and Order, Below Grade Soil Test Intervals, Rio Santiago Disposal Site (30-AB-0472)

Dear Ms. Robinson:

CalRecycle staff are providing this letter in response to your request for technical assistance with respect to Milan's proposal in a letter dated September 1, 2023, regarding below-grade soil testing intervals in certain areas of the subject site, specifically:

> *Milan proposes to modify its sampling protocol. For the initial round of subgrade testing, Milan will test at 5 foot intervals, except in areas B and J and certain portions of areas C and K, which are underlain by pond deposits comprised primarily of silt that originated from the sand and gravel mining operations associated with the alluvial sediments along Santiago Creek. In the areas underlain by pond deposits, soil samples from 0.5 to 1 feet and 5 feet will be analyzed in addition to the shallow samples and at 10 foot intervals as previously proposed. In these areas, soil samples will also be collected from the other 5 foot intervals and observed for evidence of chemicals of concern during field activities and analytical test results from the 10 foot interval samples. The appropriate sample intervals for subsequent subsurface testing after the moving of the stockpiles will be determined at such time with the benefit of the data from the other testing.*

The following comments are provided to the Local Enforcement Agency (LEA) as assistance to support the program in carrying out its responsibilities for disposal sites. The final determination as to the comments to be provided to the responsible party is within the sole purview of the LEA, acting within the parameters of its discretion, in accordance with its vested authority under its certification as defined in Title 14,

California Code of Regulations (14 CCR), Division 7, 27 CCR, Division 2, Subdivision 1 (Section 20005 et seq.), and Division 30 of the Public Resources Code.

CalRecycle staff previously performed a limited review of the following report:

> *Subgrade Testing and Geotechnical Workplan for June 16, 2022, Stipulated Notice and Order for Meilan REI LLC, 6145 East Santiago Canyon Road, City of Orange, Orange County, California*, Leighton and Associates, August 1, 2022.

In a subsequent letter to you dated October 27, 2022, CalRecycle staff indicated the following:

> *The LEA should ascertain (through a field investigation) if the presence of a historical disposal site exists on the property and if the site requires inspection and the application of state minimum standards for cover, grading, drainage and erosion control, security and LFG monitoring and control and post closure land-use development (Note: CalRecycle concurs with the investigation requirements in the stipulated Notice and Order to determine the location and extent of historical disposal operations and collect field data to quantify site conditions as they related to state minimum standards for cover, grading, drainage and erosion controls, security and LFG monitoring and control).*

The objective of soil sampling in the study areas is to collect data of sufficient quality and quantity to determine with reasonable certainty whether solid waste and/or contaminants are present and, if so, to accurately delineate the horizontal and vertical extent of the suspect material. In addition, analyses of the testing results derived from the proposed investigation, along with other information, will be used in determining the necessity for other testing when new investigations or particular land uses are proposed. To these ends, CalRecycle staff recommend the sampling interval for analytical testing for each boring start at 0.5 to 1 foot below ground surface with additional soil samples being collected at 5-foot intervals until native soil or bedrock is encountered.

Thank you for your consideration in this matter. Please contact me at (916) 341-6320 or at wes.mindermann@calrecycle.ca.gov if you have any questions or comments.

Sincerely,

Wes Mindermann, PE
Chief
Engineering Support Branch

APPENDIX A - TABLE 3: RESPONSE TO COMMENTS TABLE FOR LEA COMMENT LETTER DATED OCTOBER16, 2023

In a September 1, 2023 letter to the LEA, Leighton requested that the analytical testing of soil samples collected from the pond deposits placed on site by Sully Miller be analyzed at 10 foot intervals instead of the 5 foot intervals desired by the LEA. The LEA responded to Leighton's letter in an October 16, 2023 letter and indicated their preference for analyzing all soil samples collected from the site at 5-foot vertical intervals. The comments and responses to the LEA's October 16, 2023 letter are presented in Table 3 below:

	LEA Comments from October 16, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comment
1	Based on the review of historical site documents, including Ginter & Associates, Inc.'s *Summary and Compilation of all Geotechnical Reports, Analyses and Data dated March 10, 2012 for the Rio Santiago Development* (Ginter Report), the LEA cannot accept the sampling proposal outlined in the Manatt and Leighton letters. The Ginter Report was based on assessments conducted without the oversight of a regulatory agency approximately 12 years prior and are not based on the current Site's conditions (since the Site accepted various wastes from 2012 to 2020). The LEA requires sampling at 5-foot intervals from all borings across the Site to assess the vertical extent of contamination. Soil sampling at a minimum of 5-foot sampling intervals is a standard practice as shown in the State Water Control Board Leaking Underground Fuel Tank (LUFT) Manual dated September 2012, Orange County Guidelines for Site Investigation Workplan, the California Department of Toxic Substances Control's (DTSC) Human Health Risk Assessment (HHRA) Note 12 (June 2021), and the DTSC's Preliminary Endangered Assessment Guidance Manual (Revised October 2015). Soil sampling at a minimum of every 5 feet allows for the development of a two-dimensional cross-section to clearly understand current subsurface conditions at the Site and develop a conceptual site model. Additionally, CalRecycle too has informed the LEA that 5-foot sampling intervals are warranted.	Milan continues to believe that the 5-foot testing intervals are excessive and unnecessarily burdensome under the circumstance. However, at the request of the LEA, the soil sampling portion of the Workplan (Section 3.5.4) has been revised to reflect 5-foot sampling intervals with analytical testing after hand auger sampling and testing at 0.5 feet to 1 feet bgs.As discussed during telephone communications with the LEA, should the analytical testing of the initial silt pond deposit samples not reflect environmental concerns, Milan will confer with the LEA as to the potential of analytical testing at 10-foot intervals in additional borings collected from such areas.

	LEA Comments from October 16, 2023 Letter to Milan REI X, LLC	Leighton Responses to LEA Comment
2	The LEA has thus far reviewed the subgrade sampling workplan only for recreational and open use/development of the Site. In response to Manatt's request for clarification regarding possible future residential development at the Site to the extent the City of Orange approves any residential development at the Site or portions of the Site, Milan shall submit to the LEA for review and approval a subsequent subgrade sampling workplan for residential use/development of the Site. To that effect, per Section 3.3.7 of the SNO, more dense sampling (spatially) will be required for proposed residential uses of the Site or select areas planned for residential use, to supplement the sampling results from the forthcoming subgrade investigation.	See Table 2, Response No. 1.

APPENDIX B

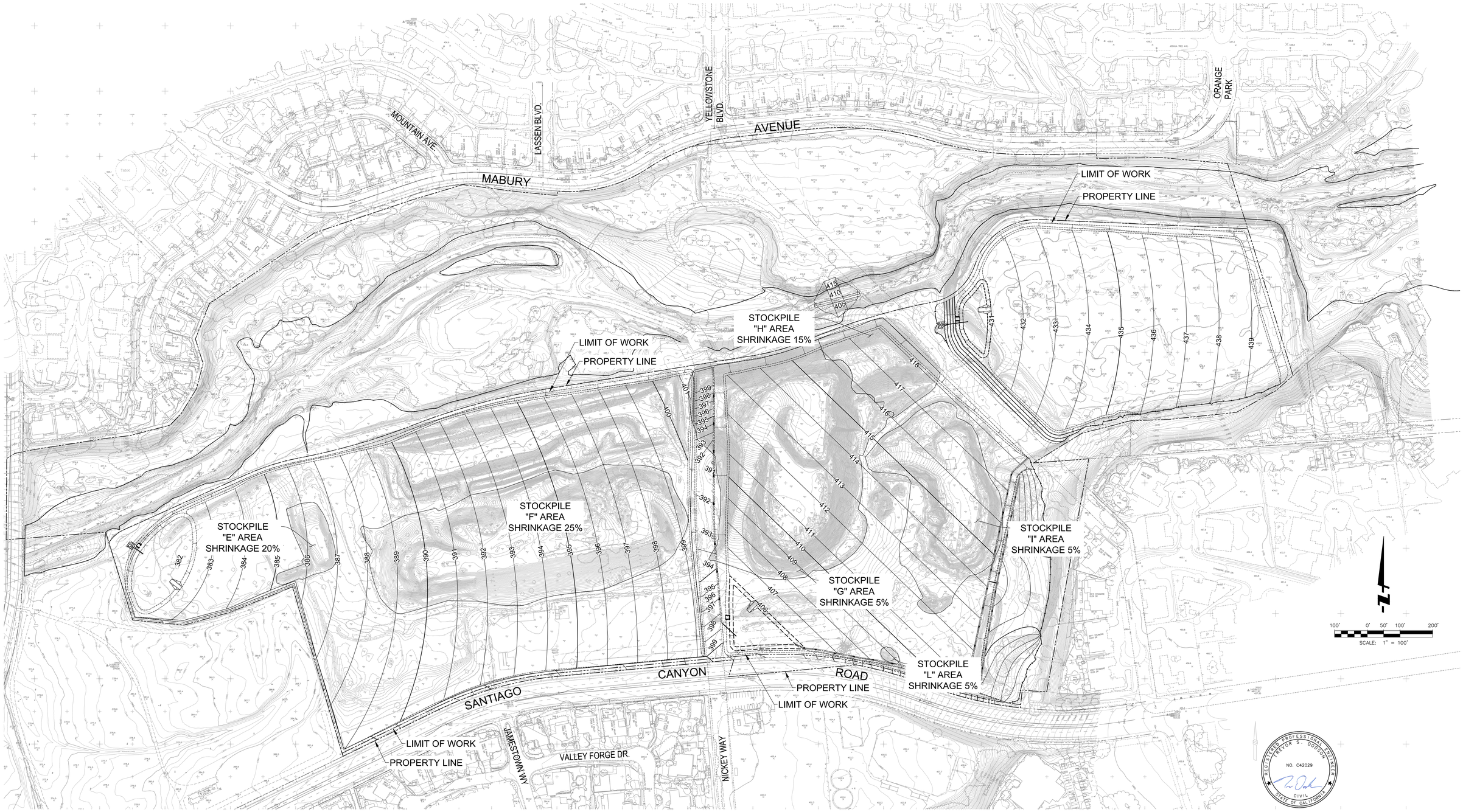
Fuscoe Engineering Stockpile Quantities Exhibit and

Figure 2, Parcels Subject to Stipulated N&O with Acreage, Dated January 18, 2023

Leighton
a verdantas company

STOCKPILE QUANTITIES EXHIBIT

RIO SANTIAGO



REGISTERED PROFESSIONAL ENGINEER
TREVOR S. DODSON
NO. C42029
CIVIL
STATE OF CALIFORNIA

PRELIMINARY EARTHWORK QUANTITIES:

CUT	663,930 CY
FILL	435,280 CY
NORTH SIDE STOCKPILE	120,000 CY
SOUTH SIDE STOCKPILE	15,000 CY
SHRINKAGE	91,325 CY
NET CUT	2,325 CY

GRADING LEGEND AND ABBREVIATIONS:

PAD	PAD ELEVATION
FL	FLOW LINE
R	RIDGE
FG	FINISHED GRADE
TD	TOP OF DIKE
TOP	TOP OF SLOPE
TB	TOP OF BERM
HP	HIGH POINT
LP	LOW POINT
GB	GRADE BREAK
EX	EXISTING
TED	TOP OF EARTHEN BERM

SLOPE
PROPERTY LINE
DAYLIGHT LINE
LOT LINE
CENTERLINE

EARTHWORK QUANTITIES

STOCKPILE	EARTHWORK QUANTITY [CY]	SHRINKAGE [%]	SHRINKAGE QUANTITY [%]	QUANTITY AFTER SHRINKAGE [%]
L – AREA E	3,700	20	740	2,960
L – AREA F	246,650	25	61,665	184,985
L – AREA G	427,945	5	21,400	406,545
L – AREA H	26,100	15	3,915	22,185
L – AREA I	71,770	5	3,590	68,180
L – AREA L	250	5	15	235

NOTE: DESIGNATIONS CONSISTENT WITH SAMPLING WORK PLANS SUBMITTED TO LEA

SHRINKAGE % ESTIMATES PER "GINTER & ASSOCIATES, INC." ON 10/11/2021

DATE OF FLOWN TOPOGRAPHY: 10/20/21 BY ROBERT J. LUNG & ASSOCIATES

ESTIMATES DOCUMENTATION REGARDING HOW VOLUMES WERE REACHED:

THE EARTHWORK QUANTITIES OR "STOCKPILE VOLUMES" WERE BASED ON A FLOWN AERIAL TOPOGRAPHIC MAP PRODUCED BY ROBERT J. LUNG & ASSOCIATES ON 10/20/21. FEI PERFORMED EARTHWORK CALCULATIONS USING A SOFTWARE CALLED AUTOCAD, IT WAS VERSION 2021 THAT WAS USED, THERE WERE TWO SURFACES USED, AND FEI CALCULATED THE DIFFERENCE BETWEEN EACH SURFACE FOR EACH STOCKPILE SHOWN IN THE TABLE HEREON. ONE SURFACE REPRESENTED THE STOCKPILE MATERIAL AND WAS LIMITED TO THE STOCKPILE AREA. THE STOCKPILE AREA WAS DETERMINED BY ANALYZING THE AERIAL TOPOGRAPHIC SURVEY AND THE CONTOURS AND SPOT ELEVATIONS THEREON. THE AREA WAS FURTHER DETERMINED BY A SITE VISIT AND REVIEW OF PHOTOGRAPHS ON 4/2/22. THE OTHER SURFACE IS THE SURFACE PRIOR TO ANY STOCKPILING OF MATERIAL. THIS IS CALLED ORIGINAL GROUND AND IS DEPICTED ON THE ATTACHED DETAIL CALLED "EARTHWORK QUANTITY OR STOCKPILE VOLUME TYPICAL DETAIL", THE ORIGINAL GROUND SURFACE & LIMITS OF ORIGINAL GROUND FOR THE PURPOSE OF THIS STOCKPILE VOLUME EARTHWORK CALCULATION WAS BASED ON THE AERIAL TOPOGRAPHIC SURVEY AND CONTOURS AND SPOT ELEVATIONS THERE ON. ESSENTIALLY, A SURFACE WAS CREATED BY DEFINING THE STOCKPILE LIMIT LINE HORIZONTALLY & VERTICALLY, THEN POPULATING HORIZONTAL & VERTICAL DATA WITHIN THESE LIMITS USING A STRAIGHT GRADE ANALYSIS. ONCE THESE TWO SURFACES WERE CREATED THE AUTOCAD PROGRAM WAS USED TO DETERMINE THE VOLUMES.

ADDITIONAL INFORMATION FOR THE REVISED STOCKPILE VOLUMES CALCULATED:

PREVIOUS TO THE EARTHWORK QUANTITIES OR STOCKPILE VOLUMES BASED ON THE 10/20/21 AERIAL TOPOGRAPHIC SURVEY, THERE WAS AN EARTHWORK QUANTITY OR STOCKPILE VOLUME CALCULATED BASED ON A FLOWN AERIAL TOPOGRAPHIC MAP PRODUCED BY ROBERT J. LUNG & ASSOCIATES ON 9/28/15. THE REASON FOR THE DIFFERENCE IN THESE TWO STOCKPILE VOLUME QUANTITY ESTIMATIONS IS THAT ADDITIONAL STOCKPILE MATERIAL WAS ADDED TO THE SITE SOMETIME BETWEEN WHEN THESE TWO AERIAL TOPOGRAPHIC MAPS WERE PRODUCED. BELOW IS THE TABLE OF THE EARTHWORK QUANTITIES OR STOCKPILE VOLUMES FROM THE PREVIOUS FLIGHT.

EARTHWORK QUANTITIES

STOCKPILE	EARTHWORK QUANTITY [CY]	SHRINKAGE [%]	SHRINKAGE QUANTITY [%]	QUANTITY AFTER SHRINKAGE [%]
A	3,600	20	700	2,900
B	252,400	25	63,100	189,300
C	278,200	5	14,000	264,200
D	4,200	5	200	4,000
E	40,500	15	6,000	34,500
F	92,700	5	4,600	88,100

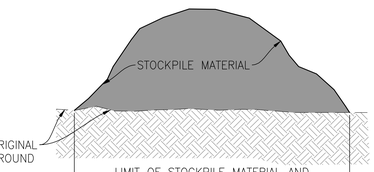
NOTE: STOCKPILE DESIGNATIONS HAVE CHANGED SINCE THIS INITIAL EARTHWORK QUANTITIES TABLE WAS PRODUCED

SHRINKAGE % ESTIMATES PER "GINTER & ASSOCIATES, INC." ON 10/11/2021

DATE OF FLOWN TOPOGRAPHY: 9/28/15 BY ROBERT J. LUNG & ASSOCIATES

NOTE:

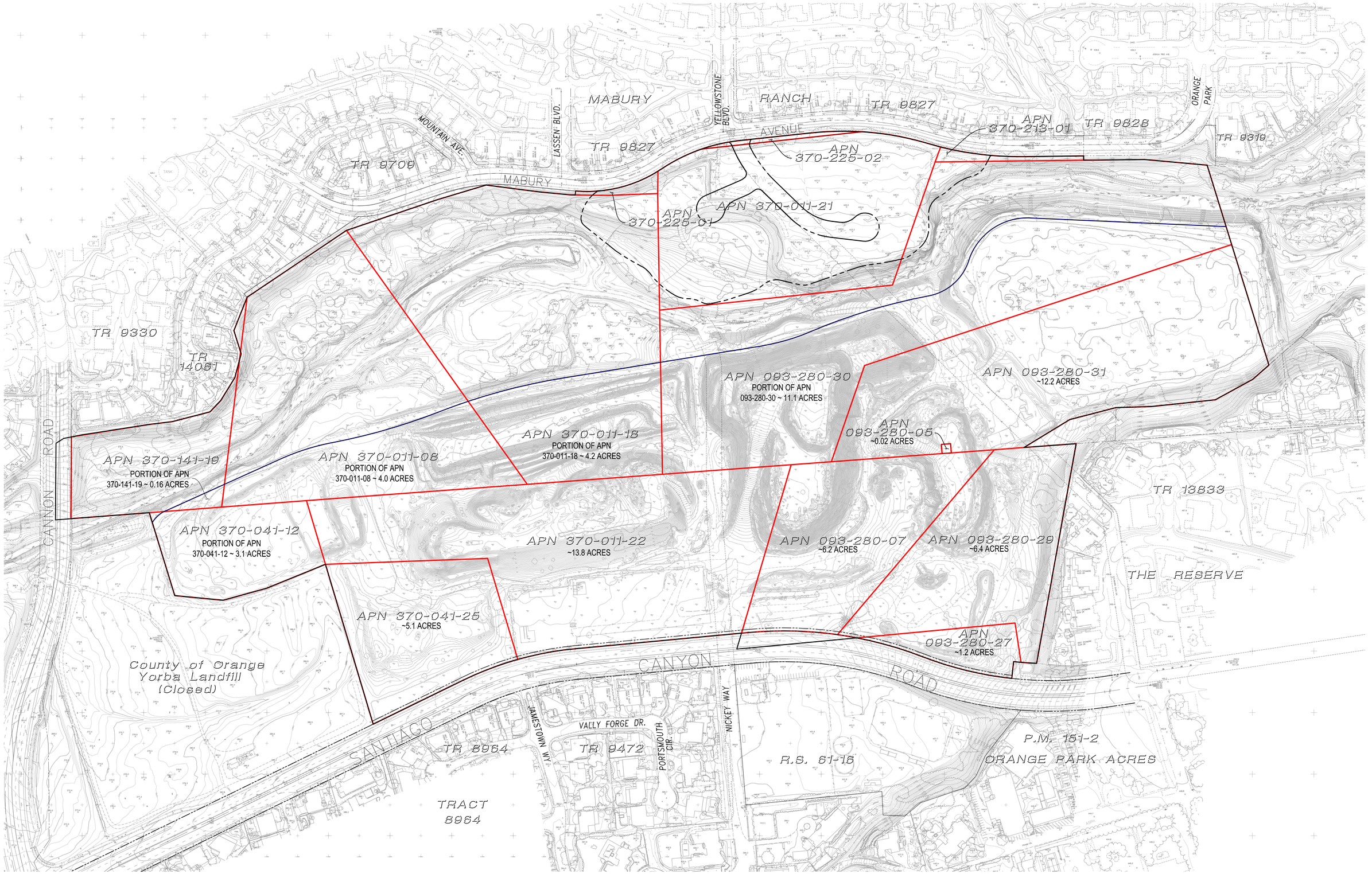
THE STOCKPILE QUANTITIES MENTIONED IN THIS BOX ARE PART OF AN OLD STOCKPILE VOLUMES CALCULATION AND ARE ADDED TO THIS EXHIBIT JUST FOR REFERENCE.



EARTHWORK QUANTITY OR "STOCKPILE VOLUME"
TYPICAL DETAIL

FUSCOE ENGINEERING
16795 Von Karman, Suite 100, Irvine, California 92606
tel 949.474.1960 fax 949.474.5315 www.fuscoe.com

DATE PREPARED JANUARY 18, 2023



LEGEND:

- BOUNDARY OF MILAN PROPERTY
- EXISTING APN BOUNDARY
- APN XXX-XXX-XX EXISTING APN
- PARCEL LINE SEPARATING MILAN PROPERTY INSIDE/OUTSIDE STIPULATED ORDER

N

100' 0' 50' 100' 200'

SCALE: 1" = 100'

FIGURE 2

PARCELS SUBJECT TO STIPULATED N&O WITH ACREAGE

ORANGE, CA

January 18, 2023

PREPARED FOR:

MILAN REI X, LLC

888 S. DISNEYLAND DRIVE, SUITE 101
ANAHEIM, CA 92802
PHONE: 714.687.0000
FAX: 714.687.1900

FUSCOE ENGINEERING
16795 Von Karman, Suite 100, Irvine, California 92606
tel 949.474.1980 fax 949.474.5315 www.fuscoe.com

APPENDIX C

Historical Aerial Photographs

Leighton
a verdantas company


1927-08-01


INQUIRY #: 2726744.1
YEAR: 1938
= 555'
N


INQUIRY #: 2726744.1
YEAR: 1946
= 655'
N


1947-01-01


INQUIRY #: 2726744.1
YEAR: 1952
= 555'
N


1952-11-18


1955-05-01


1960-05-01


INQUIRY #: 2726744.1
YEAR: 1968
= 480'
N


1973-01-20


1974-12-01


1977-02-01


INQUIRY #: 2726744.1
YEAR: 1977
= 666'
N


1982-01-07


INQUIRY #: 2726744.1
YEAR: 1989
= 666'
N


1994-06-01


INQUIRY #: 2726744.1
YEAR: 1994
= 666'
N


INQUIRY #: 2726744.1
YEAR: 2002
= 666'
N


INQUIRY #: 2726744.1
YEAR: 2005
= 604'
N


2007-04-27

APPENDIX D

Tait Environmental Phase II Dated May 16, 2011 and Selected Portions of Other Environmental Reports

Leighton
a verdantas company

TAIT
RISING TO THE CHALLENGE

701 N. Parkcenter Drive, Santa Ana, CA 92705

p:714/560/8200 www.tait.com

REPORT OF PHASE II ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES CONDUCTED AT RIO SANTIAGO PROJECT SITE

6145 EAST SANTIAGO CANYON ROAD ORANGE, CALIFORNIA

Prepared by:

_____

Steve Mulligan
Senior Engineer

Reviewed by:

_____

Ann Hillyard, PG
Senior Geologist

Tait Environmental Services, Inc.
701 North Parkcenter Drive
Santa Ana, California

Project Number: EM 2979

May 16, 2011

TABLE OF CONTENTS

Figures

Tables

TABLE OF CONTENTS (Continued)

Appendices

REPORT OF PHASE II ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES CONDUCTED AT RIO SANTIAGO PROJECT SITE

Tait Environmental Services, Inc. (TAIT) prepared this report that summarizes Phase II Environmental Site Assessment (ESA) activities conducted at the Rio Santiago Specific Plan project site located at 6145 Santiago Canyon Road in Orange, California (Site; Figure 1). The Site encompasses approximately 110 acres of land formerly occupied by a sand and gravel mine and currently under redevelopment. As indicated in the Rio Santiago Notice of Preparation (NOP), Rio Santiago LLC requested the City of Orange (City) to consider the following components:

- A General Plan Amendment to:
    - Change the City's General Plan Designation for the Site from Resource Area (RA) to Low Density Residential (LDR 2.1-6 Du/Ac), Medium Density Residential (MDR 15-24 Du/Ac), Open Space Park (OS-P) and Open Space (OS); and from Low Density Residential (LDR2-6 Du/Ac) to Open Space (OS).
    - Change City's General Plan to remove portions of the Site from 1975 East Orange General Plan (approximately 56.45 acres) and Orange Park Acres Plan (approximately 40.3 acres).
- A Zone Change to re-designate the Site designation from Sand and Gravel (S-G) and Single Family Residential 8,000 sf (R-1-8) to Planned Community (P-C).
- Adoption of a Specific Plan to establish standards for uses and development of the Site, consistent with the proposed amended General Plan.
- A Parcel Map for lease, sale, and/or finance of the Site.
- A Tentative Tract Map for subdivision of the Site.
- Major Site Plan Review for the project.
- Design Review Committee consideration for review of project design.
- Park Planning and Development Committee consideration of project trails.
- A Development Agreement offering additional community benefits and vesting rights associated with project approvals for a period of time mutually agreed upon by the City and Rio Santiago LLC.
- An Environmental Impact Report for disclosure and assessment of potential project impacts and establishment of mitigation measures and a mitigation monitoring program.

Public Natural Open Space Area

Rio Santiago LLC proposed to establish natural open space on approximately 48 gross acres located north of the project between Santiago Creek and Mabury Avenue.

Private Recreation Area

Rio Santiago LLC proposed to establish private recreational uses on approximately 10 gross acres. This would include uses such as a 81,000 square foot building with a maximum two-story height that may include a YMCA facility consisting of uses that could include a wellness center, gymnasium, pool, multi-purpose rooms, a child care center, locker rooms, and administrative offices. Outdoor sport fields and courts are proposed in association with the facility. Educational facilities and a resource center with medical services such as an Autism Center could also be part of the 10 gross acres site, in association with the 81,000 square foot building. Actual uses will be refined in the forthcoming Specific Plan. On-site parking is proposed to support the recreational uses in accordance with a parking analysis to be provided with the Draft Environmental Impact Report and forthcoming Specific Plan.

Age Targeted Residential Community

Rio Santiago LLC proposed to establish no more than a 265-unit, age-targeted community on approximately 17 gross acres of the Site. The community would be comprised of a combination of individual units focused on one and two-story flats (referred to as "villas" in the Specific Plan), independent living, and assisted living. Unit sizes would range from 400 to 2,400 square feet in area. There would be a height limit of two-story along the perimeter and three-story in the center. Accessory amenities such as community dining areas with a kitchen, a community room, a reading room, support services such as coffee and juice service with minor accessory food sales for the senior community, exercise rooms, pool and spa facilities, outdoor gardens, trails, scenic view corridors, and recreation facilities are all identified as likely components of the age targeted community. A comprehensive list of potential ancillary uses will be refined in the forthcoming Specific Plan for the project. On-site and individual unit parking is proposed in accordance with a parking analysis to be provided with the Draft Environmental Impact Report and forthcoming Specific Plan.

Single Family Residential Community

Rio Santiago LLC proposed to establish no more than 130 single-family residences on approximately 35 gross acres of the Site. This community would include residential lots with a minimum lot size of approximately 6,000 square feet with some home sites as large as 20,000 square feet. On-site and individual unit parking is proposed in accordance with a parking analysis to be provided with the Draft Environmental Impact Report and forthcoming Specific Plan.

1.0 PROJECT OBJECTIVE

The objective of the Phase II ESA program was to address (1) data gaps identified from specific comments provided to the City by The Planning Center (TPC) in its memorandum dated January 18, 2010 and (2) future Site users' potential human health risk exposures. To address these issues, TAIT collected analytical data across the Site. TAIT used the analytical data to assess residual concentrations of potential chemicals of concern (PCOCs) in Site soils and soil vapor.

In its memorandum, TPC indicated that it had reviewed a document entitled *Phase I Environmental Site Assessment, Rio Santiago Specific Plan Project Site, 6118 East Santiago Canyon Road, Orange, Orange County, California*, prepared by Michael Brandman Associates and dated August 6, 2009. The Phase I Environmental Site Assessment (ESA) encompassed the time period from 2000 to 2009. As reported by TPC, the Phase I ESA conducted by Michael Brandman Associates was an update of an earlier Phase I ESA performed by Geomatrix in August 2000.

The TPC memorandum specified potential concerns with data provided in the *Phase I Environmental Assessment Rio Santiago Specific Plan Project Site, 6118 East Santiago Canyon Road, Orange County, California* dated August 6, 2009. These concerns included the following potential data gaps:

1. Undocumented fill material in mining excavations (possibly including asbestos)

2. Impacts from 15 underground storage tanks (USTs) and seven aboveground storage tanks (ASTs)

3. Re-evaluation of closure determination for eight former USTs due to proposed land use changes

4. Impacts from former agricultural use of project site, including pesticide storage and application, and ASTs previously located in former mulching and green waste recycling area

5. Human health risk assessment of potential inhalation exposures to volatile organic compounds (VOCs) previously detected in subsurface soil at project site

6. Impacts from previously-observed, unlabeled 55-gallon drums and surrounding stained soil at project site

7. Impacts from reported construction debris and illegal dumping around project site, including status of the former ponds (landfills or not)

TAIT addressed these potential environmental data gaps by reviewing governmental agency file records relating to the Site. Based on its review, TAIT provided additional information regarding the Site and recommended collection of additional data and implementation of mitigation measures. The additional data and mitigation measures are summarized in Table 1: *Responses to January 18, 2010 TPC Memorandum*. A report of TAIT's findings, as well as conclusions and

recommendations, is included in the report entitled *Response to City of Orange Environmental Comments Regarding Rio Santiago Specific Plan Project Site Located at 6145 East Santiago Canyon Road in Orange, California*, dated July 28, 2010.

2.0 PHASE II ESA SCOPE OF WORK

Based on TPC-identified data gaps and future Site users' potential human health risk exposures , TAIT identified several potential complete exposure pathways where residual hazardous materials in Site soils and/or groundwater could pose a risk to future Site users. Potential complete exposure pathways identified for the Site include (1) vapor intrusion of VOCs into future Site buildings; (2) ingestion of contaminants in soil; (3) inhalation of contaminants in air (dust, vapor, gases), including those volatilized or otherwise emitted from groundwater, surface water, and soil; and (4) dermal contact with contaminants in water, soil, air, and other media, such as exposed wastes or other contaminated material.

To assess these potential exposure pathways, TAIT conducted a Phase II ESA. Prior to initiation of field work, TAIT prepared a work plan entitled *Work Plan Describing Proposed Phase II Environmental Site Assessment Activities to Address Data Gaps Identified in City of Orange Environmental Comments Regarding Rio Santiago Specific Plan Project Site Located at 6145 East Santiago Canyon Road in Orange, California,* dated January12, 2011. TAIT submitted this work plan to JMF Properties/Rio Santiago Partners LLC (Site owner) for review and comment. The following sections describe the scope of work of the Phase II ESA.

2.1 Soil Sampling and Analysis Program

To assess identified potential complete exposure pathways at the Site, TAIT collected both soil matrix core samples and soil vapor samples. The collection of soil matrix core samples was limited to near-surface soils (those less than 10 feet below grade), as the identified potential exposure pathways only encompass those soils at or near ground surface. Soil matrix core sample collection was also limited to those areas where (1) historical Site operations may have included the use, storage, or disposal of hazardous materials and (2) potentially affected persons may have a possible exposure potential. Potentially affected persons include future Site workers (especially construction workers during Site development), residents, and visitors (especially open area/recreational facility users). The collection of soil vapor samples included only anticipated footprints of planned Site buildings, as the potential exposure pathway only encompasses the vertical migration of soil vapor from near-surface soil beneath each planned building into the respective building. Planning Area A was not a part of the sampling program, since it is proposed to be used only as Open Space.

Soil matrix core and soil vapor sample analyses were selected to allow assessment of residual petroleum compound, VOC, metal, and pesticide concentrations from previous Site operations and landfill gas impacts from the adjacent Villa Park Landfill. Because of on-going backfill operations currently underway at the Site, large excavations or soil stockpiles are present in portions of Planning Areas B, C, and D. The dimensions of the excavations and stockpiles vary, depending on whether planned backfilling operations have been completed or not. As a result, soil matrix core and soil vapor samples were not collected in excavated areas or areas covered by soil stockpiles. The approximate extents of the areas excluded from the sampling program are shown on Figure 2: *Map of Areas Excluded from Sampling Plan.*

2.1.1 Soil Matrix Core Sampling and Analysis

TAIT collected soil matrix core samples within the following areas shown on Figure 1: *Rio Santiago Specific Project Plan*:

- Former Sully-Miller Maintenance Shop and Equipment Storage Area (HAZ-8)
- Maintenance Buildings (HAZ-7)
- Former UST and AST Locations (HAZ-5 and HAZ-10)
- Asphalt Plant (HAZ-10)
- Materials Recycling Area (HAZ-10)
- Agricultural Areas (including Hiramatsu Farms) (HAZ-9 and HAZ-10)

Information regarding each of these areas is included in Table 1: *Responses to January 18, 2010 TPC Memorandum*. TAIT selected soil matrix core boring locations based on previous Site use information reported in environmental reports prepared by other consultants, regulatory agency file information, and historical information (aerial photographs, topographic maps, criss-cross directories, and interviews with personnel familiar with Site). As presented in Table 2: *Soil Boring Location Matrix*, soil matrix core sample location selection followed the following scheme:

1. Twelve soil matrix core samples were collected from six soil borings in the former Sully-Miller maintenance shop and equipment storage area at a frequency of two borings per acre (Planning Area C).

2. Four soil matrix core samples were collected from two soil borings in the area of the former maintenance buildings (Planning Area D).

3. Twenty soil matrix core samples were collected from 10 soil borings in the area of the former USTs and ASTs (Planning Areas C and D).

4. Four soil matrix core samples were collected from two soil borings in the area of the former asphalt plant (Planning Area D).

5. Twenty soil matrix core samples were collected from 10 soil borings in the former materials recycling area at a frequency of one boring per acre (Planning Area D).

6. Forty-one soil matrix core samples were collected from 38 soil borings in the former agricultural areas at a frequency of one boring per acre (not including the former materials recycling area) (Planning Areas B, C, and D).

In order to determine soil boring locations, each Planning Area on the Site map was overlaid by a one-square-acre grid. Soil boring locations were chosen within each one-acre square based on the above criteria, and were adjusted based on identifiable features from the above sources. Each proposed soil boring location was then plotted on a digital map (Google, 2010). Locational information (latitude and longitude) of proposed soil boring points was obtained from the digital map. The proposed soil boring locations were

determined on Site by latitude and longitude using a hand-held GPS receiver (Magellan Meridian Gold). Proposed locations were adjusted based on current Site conditions and accessibility. Locational information of each completed soil boring was obtained from the hand-held GPS receiver. Soil boring locations, as plotted on the digital map, are shown on Figure 3: *Soil Matrix Core and Soil Vapor Boring Locations Map Planning Area D* and Figure 4: *Soil Matrix Core and Soil Vapor Boring Locations Planning Areas B and C*. Locational information, including elevation, obtained from the hand-held GPS receiver is presented in Table 2: *Soil Boring Location Matrix*.

Soil matrix core samples were collected from the same borings that soil vapor probes were installed (see Section 2.1.2: Soil Vapor Sampling and Analysis) for discussion of soil vapor sampling and analysis program). Soil borings were advanced using a Geoprobe™ direct-push boring rig. All borings were continuously cored to obtain lithological and contaminant interval information. Soil core samples were collected using a Geoprobe™ Macro-Core or Large Bore soil sampler loaded with an acetate liner. The ends of each sample tube were covered with Teflon sheeting, capped, labeled, and placed in an ice-chilled cooler for transport under chain of custody to SunStar Laboratories, Inc., a California Department of Health Services-certified hazardous waste analytical laboratory, located in Lake Forest, California. Waste soil and equipment wash water was contained in Department of Transportation-approved 55-gallon drums and stored on Site pending laboratory analysis.

Soils were described according to the Unified Soil Classification System (USCS) and screened for volatile compounds using a photo-ionization detector (PID). Boring logs are included in Appendix A: *Boring Logs*.

As proposed in the work plan (TAIT, 2011), soil sample selection was to be based on PID readings, physical observations, and/or at lithological changes. A minimum of one sample was to be selected from each boring. None of the soil matrix cores contained VOCs that registered on the PID, nor did TAIT observe physical cues (e.g., stained soil, malodors) or lithological changes that warranted selection of specific samples for chemical analysis. As a result, TAIT collected soil samples (1) from each soil matrix core collected at a former agricultural area from the 3-foot depth interval and (2) from each soil matrix core collected at an area not a former agricultural area from 5-foot and 10-foot depth intervals (or bottom of boring if refusal met). TAIT submitted all samples for chemical analysis.

Soil samples collected from the soil matrix cores underwent one or more of the following chemical analyses:

- Total Petroleum Hydrocarbons (TPH) using modified EPA Method 8015
- Volatile Organic Compounds (VOCs) using EPA Method 8260B
- Seventeen CAM Metals using EPA Method 6000/7000 Series
  Organophosphorous Pesticides (OPPs) using EPA Method 8141A
- Organochlorine Pesticides (OCPs) using EPA Method 8081A

A synopsis of the sample collection areas, the number of samples collected from within each of these areas, and the analyses performed is provided in the following table:

Table A: Soil Matrix Core Sampling and Analysis Details

Planning Area	Area Sampled	Number of Soil Matrix Core Borings	Soil Matrix Analyses
B, C and D	Agricultural Areas (including Hiramatsu Farms) (HAZ-9 and HAZ-10)	38	OPPs; OCPs[1]
C	Former Sully-Miller Maintenance Shop and Equipment Storage Area (HAZ-8)	6	TPH; VOCs
C and D	Former UST and AST Locations (HAZ-5 and HAZ-10)	10	TPH; VOCs
D	Maintenance Buildings (HAZ-7)	2	TPH; VOCs; CAM Metals
D	Asphalt Plant (HAZ-10)	2	TPH; VOCs
D	Materials Recycling Area (HAZ-10)	10	TPH; VOCs; OPPs; OCPs

NOTES:
1. Samples from three borings drilled in area of former agriculture maintenance/storage building also analyzed for TPH and VOCs.
2. TPH means total petroleum hydrocarbons; VOCs means volatile organic compounds; CAM metals means 17 metals listed in California Code of Regulations; OPPs means organophosphorous pesticides; OCPs means organochlorine pesticides.
3. HAZ areas described in Table 1: *Responses to January 18, 2010 TPC Memorandum.*

Additional information on boring locations is included in Table 2: *Soil Boring Location Matrix.*

2.1.2 Soil Vapor Sampling and Analysis

TAIT collected soil vapor samples within the areas where residential housing is proposed (Planning Areas C and D) and random locations in Planning Area B (Figure 3: *Soil Matrix Core and Soil Vapor Boring Locations Map Planning Area D* and Figure 4: *Soil Matrix Core and Soil Vapor Boring Locations Planning Areas B and C*). Soil vapor samples were collected from the same borings as soil matrix samples. The objective of the soil vapor sampling program was to assess potential vapor intrusion risks to occupants of future site buildings from (1) residual volatile hazardous materials present in on-site soils and groundwater and/or (2) toxic and combustible vapors migrating from the adjacent closed Villa Park Landfill. As presented in Table 2: *Soil Boring Location Matrix*, TAIT selected soil vapor sample locations using the following sampling scheme:

- Multi-depth soil vapor samples (5 feet and 15 feet bgs) were collected in Planning Area B at a frequency of one set of multi-depth samples per acre.

- Multi-depth soil vapor samples (5 feet and 15 feet bgs) were collected in Planning Area C at a frequency of two sets of multi-depth samples per acre outside the former Sully-Miller maintenance shop and equipment storage area (assumes only one-third of this area is available for sampling) and six sets of multi-depth samples within the former Sully-Miller maintenance shop and equipment storage area.

- Multi-depth soil vapor samples (5 feet and 15 feet bgs) were collected in Planning Area D at a frequency of one set of multi-depth samples per acre.

A synopsis of the sample collection areas, the number of samples collected from within each of these areas, and the analyses performed is provided in the following table.

Table B: Soil Matrix Core Sampling and Analysis Details

Area Sampled	Number of Soil Vapor Borings	Soil Vapor Analyses
Planning Area B	13	TPH; VOCs; Combustible Gases
Planning Area C	15	TPH; VOCs; Combustible Gases
Planning Area D	40	TPH; VOCs

NOTE:
1. TPH means total petroleum hydrocarbons; VOCs means volatile organic compounds; combustible gases mean methane.

Soil vapor sampling and analysis generally conformed to Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board - Los Angeles Region (CRWQCB – LA) guidelines set forth in the *Advisory – Active Soil Gas Investigations* (DTSC and CRWQCB – LA, 2003) and with the DTSC guidelines for vapor intrusion (DTSC, 2005). Soil gas probes were placed at approximate depths of 5 feet below ground surface (bgs) and 15 feet bgs (or deepest achievable depth) within each boring. Approximately one foot of sand was placed at the bottom of the boring, and a stainless steel probe with attached Teflon tubing placed on top of the sand. Following placement of an additional foot of sand, the boring was then filled with hydrated bentonite chips to an approximate depth of 5.5 feet bgs. Six inches of sand were placed on top of the hydrated bentonite, and a second probe with attached Teflon tubing placed on top of the second sand interval. The boring was then completed with another six inches of sand followed by hydrated bentonite chips to the ground surface. Geoprobe™ rods were washed and rinsed following completion of each soil boring. The Teflon tubing connecting the probes in each boring was brought to the surface to accommodate vapor sampling.

TAIT conducted a purge-volume test prior to collecting the soil vapor samples in order to assess the optimal soil vapor volume to be purged prior to sampling. The purge volume test consisted of collecting three samples using three different purge volumes (purge volumes of 1, 3, and 7). The purge volume associated with the sample containing the highest VOC concentrations was selected as the optimum purge volume to be used throughout the soil vapor sampling program. Based on the results of the purge-volume test, TAIT selected 3 purge volumes as the default probe purging criterion.

Prior to soil vapor sample collection, subsurface conditions were allowed to equilibrate at least 30 minutes after sample probe purging. During soil vapor sampling at each multi-depth location, a 40-milliliter glass vial containing an absorbent material saturated with isopropanol (used as a tracer compound) was opened and exposed at the soil vapor sampling point at the ground surface and at the sample train connections to evaluate potential atmospheric short circuiting. The tracer compound was included in the laboratory analysis (detection of the tracer compound in the soil vapor sample would

indicate ambient air dilution of the sample). In no instance did TAIT detect the tracer compound in any of the soil vapor samples.

To initiate vapor sampling at each multi-depth location, the respective tubing and a 10-milliliter gas-tight syringe were connected to a three-way Swagelok valve attached to a sample vacuum pump at the surface. Vapor was subsequently collected from each probe using clean 10-milliliter gas-tight syringes. The collected sample was submitted to an on-site mobile analytical laboratory operated by Baseline Analytical Services of Huntington Beach, California. Each sample was injected into an on-site gas chromatograph equipped with a mass spectrometer (GC/MS) for TPH as gasoline (TPH-g) and VOC analysis using EPA Method 8260B. In addition, each sample from Planning Areas B and C underwent analysis for methane using EPA Method 8015B.

3.0 FINDINGS

Analytical results for the soil matrix core sampling program are presented in Table 3: *Soil Sample Analytical Results – Petroleum Hydrocarbons and VOCs* and Table 4: *Soil Sample Analytical Results – Pesticides*. Analytical results for the soil vapor sampling program are presented below. Copies of the chain-of-custody forms and analytical laboratory reports are included in Appendix B: *Chain-of-Custody Forms and Analytical Laboratory Reports.* Findings are discussed in the following sections.

3.1 Soil Matrix Core Sampling and Analysis Program

Soil samples from two soil matrix cores drilled in the area of the former maintenance buildings (Planning Area D) underwent chemical analysis for metals. Analytical results indicated that the reported concentrations of metals fell within a range that is considered typical for soils in the western United States.

As shown by the analytical data presented in Table 3: *Soil Sample Analytical Results – Petroleum Hydrocarbons and VOCs* and Table 4: *Soil Sample Analytical Results – Pesticides*, residual concentrations of TPH, VOCs, and pesticides are present in on-site soils. These compounds occur in Planning Areas C and D, both planned residential developments, and Planning Area B, a planned active recreational area.

Pesticide Soil Matrix Core Sampling Program and Analytical Results

To assess if residual pesticide concentrations in on-site soils pose a potential risk to future Site users, TAIT compared detected concentrations to Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, as promulgated by the United States Environmental Protection Agency (USEPA, 2010). For the comparison, TAIT used the lowest residential carcinogenic screening level or non-carcinogenic screening level listed for each chemical of concern. The following table presents the number of borings drilled and samples collected in each area, the number of samples in which pesticides were detected, and the number of samples that contained pesticides exceeding a pesticide RSL.

Table C: Soil Matrix Core Sampling Program for Pesticides

Planning Area	Area	Number of Borings	Number of Soil Samples	Soil Samples Containing Pesticides	Soil Samples With Pesticide Concentration Exceeding RSL
B, C, and D	Former Agricultural Areas	38	38	3	0
D	Former Materials Recycling Area	10	20	2	0

NOTE:
1. RSL means Regional Screening Level for Chemical Contaminants at Superfund Sites, as promulgated by the United States Environmental Protection Agency.

None of the detected pesticide concentrations exceeded its respective RSL [Dieldrin-30 micrograms per kilogram (µg/kg), Alpha Chlordane-1,600 µg/kg, Gamma Chlordane-1,600 µg/kg, and 4,4'-DDE-1,400 µg/kg]. It should be noted that a RSL has not been established for

Endosulfan II. Thus, it appears that a significant human health risk from exposure to residual pesticides in Site soils does not exist for future Site users.

Total Petroleum Hydrocarbon Soil Matrix Core Sampling Program and Analytical Results

To assess if residual TPH concentrations in on-site soils pose a potential risk to future Site users, TAIT compared detected concentrations to Environmental Screening Levels (ESLs), developed by the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB, 2008). For the comparison, TAIT used residential ESLs for shallow soils (less than three meters below ground surface) where groundwater is a current or potential source of drinking water. The following tables present the number of borings drilled and samples collected in each area, the number of samples in which TPH-g, TPH as diesel fuel (TPH-d), and TPH as motor oil (TPH-mo) were detected, and the number of samples that contained TPH-g, TPH-d, and TPH-mo exceeding the respective ESLs.

Table D: Soil Matrix Core Sampling Program for TPH as Gasoline

Planning Area	Area	Number of Borings	Number of Soil Samples	Soil Samples Containing TPH-g	Soil Samples With TPH-g Concentration Exceeding ESL
C	Former Sully-Miller Maintenance Shop and Equipment Storage Area	10	20	4	0
C and D	Former UST and AST Locations	10	20	0	0
D	Maintenance Buildings	2	4	0	0
D	Asphalt Plant	2	4	0	0
D	Materials Recycling Area	10	20	1	0

NOTE:
1. ESL means Environmental Screening Level, developed by the California Regional Water Quality Control Board– San Francisco Bay Region; TPH-g means total petroleum hydrocarbons as gasoline.

None of the five soil samples containing TPH-g had a concentration exceeding the relevant ESL [83 milligrams per kilogram (mg/kg)]. Thus, it appears that a significant human health risk from exposure to residual TPH-g in Site soils does not exist for future Site users.

Table E: Soil Matrix Core Sampling Program for TPH as Diesel Fuel

Planning Area	Area	Number of Borings	Number of Soil Samples	Soil Samples Containing TPH-d	Soil Samples With TPH-d Concentration Exceeding ESL
C	Former Sully-Miller Maintenance Shop and Equipment Storage Area	10	20	13	9
C and D	Former UST and AST Locations	10	20	5	0
D	Maintenance Buildings	2	4	0	0
D	Asphalt Plant	2	4	0	0
D	Materials Recycling Area	10	20	4	0

NOTE:
1. ESL means Environmental Screening Level, developed by the California Regional Water Quality Control Board– San Francisco Bay Region; TPH-d means total petroleum hydrocarbons as diesel fuel.

Nine soil samples containing TPH-d had concentrations exceeding the relevant ESL (83 mg/kg). These samples (C-1-1 @10', C-1-3@5', C-1-3@10', C-1-4@8', C-1-5@8', C-1-6@5', C-3-1@10', C-3-2@5', and C-3-2@10') were collected in the former Sully-Miller maintenance shop and equipment storage area. Near-surface soils in the areas where these soils were collected could require mitigation measures, as discussed in Section 4.0.

Table F: Soil Matrix Core Sampling Program for TPH as Motor Oil

Planning Area	Area	Number of Borings	Number of Soil Samples	Soil Samples Containing TPH-mo	Soil Samples With TPH-mo Concentration Exceeding ESL
C	Former Sully-Miller Maintenance Shop and Equipment Storage Area	10	20	14	13
C and D	Former UST and AST Locations	10	20	11	0
D	Maintenance Buildings	2	4	0	0
D	Asphalt Plant	2	4	0	0
D	Materials Recycling Area	10	20	6	1

NOTE:
1. ESL means Environmental Screening Level, developed by the California Regional Water Quality Control Board– San Francisco Bay Region; TPH-mo means total petroleum hydrocarbons as motor oil.

Fourteen soil samples containing TPH-mo had concentrations exceeding the relevant ESL (370 mg/kg). These samples (A-5-3@5', C-1-1@5', C-1-1 @10', C-1-3@5', C-1-3@10', C-1-4@5', C-1-4@8', C-1-5@5', C-1-5@8', C-1-6@5', C-3-1@5', C-3-1@10', C-3-2@5', and C-3-2@10') were collected in the former Sully-Miller maintenance shop and equipment storage area and the former materials recycling area. Near-surface soils in the areas where these soils were collected could require mitigation measures, as discussed in Section 4.0.

Volatile Organic Compound Soil Matrix Core Sampling Program and Analytical Results

To assess if residual VOC concentrations in on-site soils pose a potential risk to future Site users, TAIT compared detected concentrations to RSLs. For the comparison, TAIT used the lowest residential carcinogenic screening level or non-carcinogenic screening level listed for each chemical of concern. The following table presents the number of borings drilled and samples collected in each area, the number of samples in which VOCs were detected, and the number of samples that contained VOCs exceeding a VOC RSL.

Table G: Soil Matrix Core Sampling Program for VOCs

Planning Area	Area	Number of Borings	Number of Soil Samples	Soil Samples Containing VOCs	Soil Samples With VOC Concentration Exceeding RSL
C	Former Sully-Miller Maintenance Shop and Equipment Storage Area	10	20	4	0
C and D	Former UST and AST Locations	10	20	2	0
D	Maintenance Buildings	2	4	0	0

Planning Area	Area	Number of Borings	Number of Soil Samples	Soil Samples Containing VOCs	Soil Samples With VOC Concentration Exceeding RSL
D	Asphalt Plant	2	4	0	0
D	Materials Recycling Area	10	20	0	0

NOTE:
1. RSL means Regional Screening Level for Chemical Contaminants at Superfund Sites, as promulgated by the United States Environmental Protection Agency; VOCs means volatile organic compounds.

The only VOCs detected in soil matrix core samples submitted for chemical analysis were toluene, ethylbenzene, and total xylenes. It should be noted that a RSL has not been established for toluene or total xylenes. None of the detected ethylbenzene concentrations exceeded the ethylbenzene RSL (5,400 µg/kg). Thus, it appears that a significant human health risk from exposure to residual VOCs in Site soils does not exist for future Site users.

3.2 Soil Vapor Sampling and Analysis Program

As shown by the analytical data presented in Appendix B: *Chain-of-Custody Forms and Analytical Laboratory Reports,* soil vapor containing TPH-g, VOCs, and methane is present beneath the Site. This soil vapor occurs in Planning Areas B, C, and D. TAIT compared the soil vapor analytical data to California Human Health Screening Levels (CHHSLs), as promulgated by the California Environmental Protection Agency (CalEPA, 2005). The following table presents the number of borings drilled in which soil vapor probes were installed (two vapor probes per boring); the number of samples in which TPH-g, VOCs, and/or methane was detected; and the number of samples in which VOC concentrations exceeded their respective CHHSL.

Table H: Soil Vapor Sampling Program

Area	Number of Borings	Number of Soil Vapor Samples	Soil Vapor Samples Containing Listed Analyte			Soil Vapor Samples With VOC Concentration Exceeding CHHSL		
			TPH-g	VOCs	Methane	EBZ	PCE	TCE
Planning Area A	13	26	1	2	0	2	0	0
Planning Area B	40	80	2	4	0	0	0	0
Planning Area C	15	30	1	2	5	1	1	1

NOTE:
1. CHHSL means California Human Health Screening Level, as promulgated by the California Environmental Protection Agency; TPH-g means total petroleum hydrocarbons as gasoline; VOCs means volatile organic compounds; EBZ means ethylbenzene; PCE means tetrachloroethene; and TCE means trichloroethene.

Analytical results showing detected concentrations of TPH as gasoline (TPH-g), VOCs, and/or methane in soil vapor samples collected at the Site are as follows:

Table I: Soil Vapor Sample Analytical Results

Planning Area	Historical Feature	Concentration of Listed Analyte Detected in Soil Vapor Sample (µg/l)						
		TPH-g	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Methane
B	Agriculture	**53**	**7.4**	**0.34**	**2.3**	ND<0.050	ND<0.050	ND<0.10
B	Agriculture	ND<25	**1.0**	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.10
C	Maintenance	**110**	**3.2**	**2.7**	**14**	ND<0.050	ND<0.050	ND<0.10
C	Maintenance	ND<25	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.050	**0.60**

Planning Area	Historical Feature	Concentration of Listed Analyte Detected in Soil Vapor Sample (µg/l)						
		TPH-g	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Methane
C	Maintenance	ND<25	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.050	**0.73**
C	Maintenance	ND<25	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.050	**0.89**
C	UST/AST	ND<25	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.050	**0.81**
C	Agriculture	ND<25	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.050	**0.75**
C	Agriculture	ND<25	ND<0.050	ND<0.050	ND<0.050	**0.60**	**4.8**	ND<0.10
D	Agriculture	ND<25	**0.92**	ND<0.050	ND<0.050	ND<0.050	ND<0.050	NA
D	Agriculture	ND<25	**0.41**	**0.70**	**4.2**	ND<0.050	ND<0.050	NA
D	Agriculture	**37**	**1.4**	**0.59**	**4.5**	ND<0.050	ND<0.050	NA
D	UST/AST	**42**	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.050	NA
D	UST/AST	ND<25	**1.9**	ND<0.050	**0.60**	ND<0.050	ND<0.050	NA

NOTES:

1. TPH-g means TPH as gasoline; PCE means tetrachloroethene; TCE means trichloroethene
2. Methane concentrations are in units of molar percent (percent by volume)
3. ND< means analyte not detected at the listed method detection limit
4. NA means indicated analysis not performed
5. Historical feature indicates former use of area in which sample collected (former tanks, maintenance area, or agricultural)

Four soil vapor samples containing VOCs (C-6-5@15', A-6-16@15', A-6-18@15', and C-1-2@15') had concentrations exceeding the relevant CHHSLs. This included one sample that contained PCE [CHHSL: 0.180 micrograms per liter (µg/l)] and TCE (CHHSL: 0.528 µg/l) and three samples that contained ethylbenzene (CHHSL: 0.42 µg/l). In addition, five soil vapor samples contained methane (C-1-1@15', C-1-3@15', C-1-6@8', C-3-2@15', and C-6-7@15') at concentrations approaching one percent by volume. These samples were collected in the former Sully-Miller maintenance shop and equipment storage area and the former UST and AST locations. Near-surface soils in the areas where these soil vapor samples were collected could require mitigation measures, as discussed in Section 4.0.

4.0 DISCUSSION OF FINDINGS

The following sections present a discussion of findings for the soil matrix core sampling and analysis program and the soil vapor sampling and analysis program. The purpose of this report was the analysis of potential complete exposure pathways identified for the Site that include (1) vapor intrusion of VOCs into future Site buildings; (2) ingestion of contaminants in soil; (3) inhalation of contaminants in air (dust, vapor, gases), including those volatilized or otherwise emitted from groundwater, surface water, and soil; and (4) dermal contact with contaminants in water, soil, air, and other media, such as exposed wastes or other contaminated material.
TAIT evaluated these potential complete exposure pathways using analytical data collected during the soil matrix core sampling and analysis program and the soil vapor sampling and analysis program. To evaluate the VOC vapor intrusion pathway, TAIT used analytical data from the soil vapor sampling and analysis program. The following sections provide a discussion of the findings.

4.1 Soil Vapor Sampling and Analysis Program

TAIT used analytical data from the soil vapor sample and analysis program to evaluate the vapor intrusion and air inhalation pathways. TAIT conducted the evaluation by comparing reported VOC concentrations in soil vapor samples collected at the Site to CHHSLs. For the vapor intrusion pathway, VOC concentrations that exceeded CHSSLs were then further evaluated using a DTSC-approved vapor intrusion model.

4.1.1 Evaluation of VOC Vapor Intrusion and Air Inhalation Exposure Pathways

A portion of the soil vapor samples collected at the Site contained TPH-g, toluene, ethylbenzene, xylenes, PCE, TCE, and/or methane. Four soil vapor samples out of 136 samples collected at the Site contained TPH-g (3 %). Eight soil vapor samples out of 136 samples collected at the Site contained VOCs (6 %). Five soil vapor samples out of 136 samples collected at the Site contained methane (4 %). Of the eight samples containing VOCs, three samples contained ethylbenzene (A-6-16@15', A-6-18@15', and C-1-2@15') at concentrations that exceeded the ethylbenzene CHHSL (0.42 µg/l). The locations at which these samples were collected are in Planning Areas C and D, both planned residential areas. One sample collected in Planning Area C (C-6-5@15') contained PCE and TCE at concentrations exceeding the respective CHHSLs (0.180 µg/l and 0.528 µg/l, respectively).

To further assess if the detected ethylbenzene, PCE, and TCE concentrations potentially pose a vapor intrusion risk to future Site residents, TAIT modeled the potential for chemical vapor intrusion using the USEPA spreadsheets for the Johnson and Ettinger (1991) model, as modified by DTSC. Vapor intrusion from soil gas was modeled using the SG-SCREEN model, version 2.0, last modified February 4, 2009 (http://www.dtsc.ca.gov/Site Cleanup/Vapor_Intrusion.cfm). It should be noted that this model does not account for a number of possible attenuating factors; as a result, it is likely that it overestimates the VOC flux to indoor air. TAIT used conservative

assumptions in the model, including classification of overlying soils between the sample point and the future building as sand (most permeable), 70-year averaging time, 30-year exposure duration, and 350-day per year exposure frequency. Model results were as follows:

Table I: Vapor Intrusion Assessment Model Results

Ethylbenzene – 9.3 increased cancer risks in 10 million population (9.3E-07) PCE – 4.7 increased cancer risks in 10 million population (4.7E-07) TCE – 1.4 increased cancer risks in 1 million population (1.4E-06)

NOTE:
1. PCE means tetrachloroethene and TCE means trichloroethene

TAIT compared the incremental cancer risk to the risk level considered acceptable by federal and state regulatory agencies. The target incremental cancer risk identified by the USEPA and DTSC for residential use is one in 1 million (1.0E-06). The calculated ethylbenzene and PCE increased cancer risks fall within this guideline, and thus are assumed not to pose a significant risk to future Site occupants. The calculated TCE increased cancer risk falls just outside this guideline, and thus may pose a significant risk to future Site occupants.

Finding: **One soil vapor sample (C-6-5@15') collected in Planning Area C contained TCE at a concentration that could potentially pose a significant human health risk to users of residential buildings located in the area where sample C-6-5@15' was collected. Mitigation and/or remedial actions to address potential vapor intrusion risks to residential users' potential risk may be needed. The need for the mitigation and/or remedial actions will depend on the final grade elevations for the area of concern (the greater the distance between the detected TCE-impacted soil vapor and the final grade, the less chance that mitigation and/or remedial actions will be required). Mitigation measures could include vapor barriers or passive/active venting systems beneath Site buildings in the affected area. Remedial actions could include mechanical stripping of TCE-impacted soil in the affected area.**

4.1.2 Potential Methane Intrusion in Future Site Buildings

Methane occurred in five soil vapor samples collected in Planning Area C. TAIT collected four of these samples in the former Sully-Miller maintenance shop and equipment storage area and one sample along the northern perimeter of Planning Area C (Figure 4: *Soil Matrix Core and Soil Vapor Boring Locations Map Planning Areas B and C*). While measured methane concentrations in subsurface Site soils all ranged below one percent by volume, the possibility potentially exists that this methane could infiltrate future Site buildings and concentrate in areas with limited air exchanges. Should this occur, the methane concentration could exceed its lower explosive limit (5% by volume),

creating a potentially explosive mixture. Potential sources for the methane could include, but are not limited to, biodegradation of residual petroleum hydrocarbons from former Site operations or migration from the adjacent former Villa Park Landfill.

Finding: **Five soil vapor samples (C-1-1@15', C-1-3@15', C-1-6@8', C-3-2@15', and C-6-7@15') collected in Planning Area C contained methane at concentrations below one percent by volume. The possibility exists that this methane could infiltrate future Site buildings in the affected areas and concentrate in rooms with limited air exchanges. Should this occur, the methane concentration could exceed its lower explosive limit (5% by volume), creating a potentially explosive mixture.. Mitigation and/or remedial actions to address this potential risk may be needed. The need for the mitigation and/or remedial actions will depend on the final grade elevations for the area of concern (the greater the distance between the detected methane-containing soil vapor and the final grade, the less chance that mitigation and/or remedial actions will be required). Mitigation measures could include vapor barriers or passive/active venting systems beneath Site buildings in the affected area. Remedial actions could include mechanical stripping of methane-containing soil vapor in the affected areas.**

4.2 Soil Matrix Core Sampling and Analysis Program

TAIT used analytical data from the soil matrix core sample and analysis program to evaluate the soil ingestion and dermal contact pathways. TAIT conducted the evaluation by comparing reported VOC and pesticide concentrations in soil matrix core samples collected at the Site to RSLs. Additionally, TAIT compared TPH concentrations in soil matrix core samples to ESLs.

4.2.1 Evaluation of VOC and Pesticide Soil Ingestion and Dermal Contact Exposure Pathways

None of the soil matrix core samples collected at the Site contained detectable concentrations of VOCs or pesticide compounds that could potentially pose a significant human health risk to future Site construction workers, residential occupants, and/or users. Additionally, TAIT notes that VOCs, specifically toluene, ethylbenzene, and total xylenes, were detected in only six of the 73 samples submitted for VOC analysis (8 %). Pesticides, including, alpha chlordane, gamma chlordane, 4-4'-DDE, Dieldrin, and Endosulfan II, were only detected in five of the 58 samples submitted for pesticides analysis (9 %).

Finding: **None of the soil matrix core samples collected at the Site contained detectable concentrations of VOCs or pesticide compounds that could potentially pose a significant human health risk to future Site users. Accordingly, TAIT makes no recommendation for remedial actions and/or mitigation measures.**

4.2.2 Evaluation of TPH Soil Ingestion and Dermal Contact Exposure Pathways

Five soil matrix core samples contained detectable concentrations of TPH-g (7 %), 22 soil matrix core samples contained detectable concentrations of TPH-d (30%), and 31 soil matrix core samples contained detectable concentrations of TPH-mo (42 %), all out of a total of 73 samples submitted for TPH analyses. None of the soil matrix core samples containing TPH-g had a concentration exceeding the relevant ESL (83 mg/kg). Nine soil matrix core samples containing TPH-d (C-1-1 @10', C-1-3@5', C-1-3@10', C-1-4@8', C-1-5@8', C-1-6@5', C-3-1@10', C-3-2@5', and C-3-2@10') had concentrations exceeding the relevant ESL (83 mg/kg). Fourteen soil matrix core samples containing TPH-mo (A-5-3@5', C-1-1@5', C-1-1 @10', C-1-3@5', C-1-3@10', C-1-4@5', C-1-4@8', C-1-5@5', C-1-5@8', C-1-6@5', C-3-1@5', C-3-1@10', C-3-2@5', and C-3-2@10') had concentrations exceeding the relevant ESL (370 mg/kg). The soil matrix core samples containing TPH at concentrations exceeding the relevant ESLs originated in the former Sully-Miller maintenance shop and equipment storage area (Planning Area C), at the former UST/AST locations (Planning Areas C and D), and in the materials recycling area (Planning Area D).

Finding: **Fourteen soil matrix core samples (A-5-3@5', C-1-1@5', C-1-1 @10', C-1-3@5', C-1-3@10', C-1-4@5', C-1-4@8', C-1-5@5', C-1-5@8', C-1-6@5', C-3-1@5', C-3-1@10', C-3-2@5', and C-3-2@10') collected in Planning Areas C and D (both planned residential areas) contained TPH-mo at concentrations that exceeded the respective ESL. Nine of these samples also contained TPH-d at concentrations exceeding the respective ESL. Remedial actions to address potential soil ingestion and dermal contact risk to future Site users may be needed. The need for the remedial actions will depend on final surface cover and final grade elevations for the areas of concern (the greater the distance between the detected TPH-impacted soil and the final grade, the less chance that remedial actions will be required). Remedial actions could include excavation and off-site disposal.**

5.0 REFERENCES

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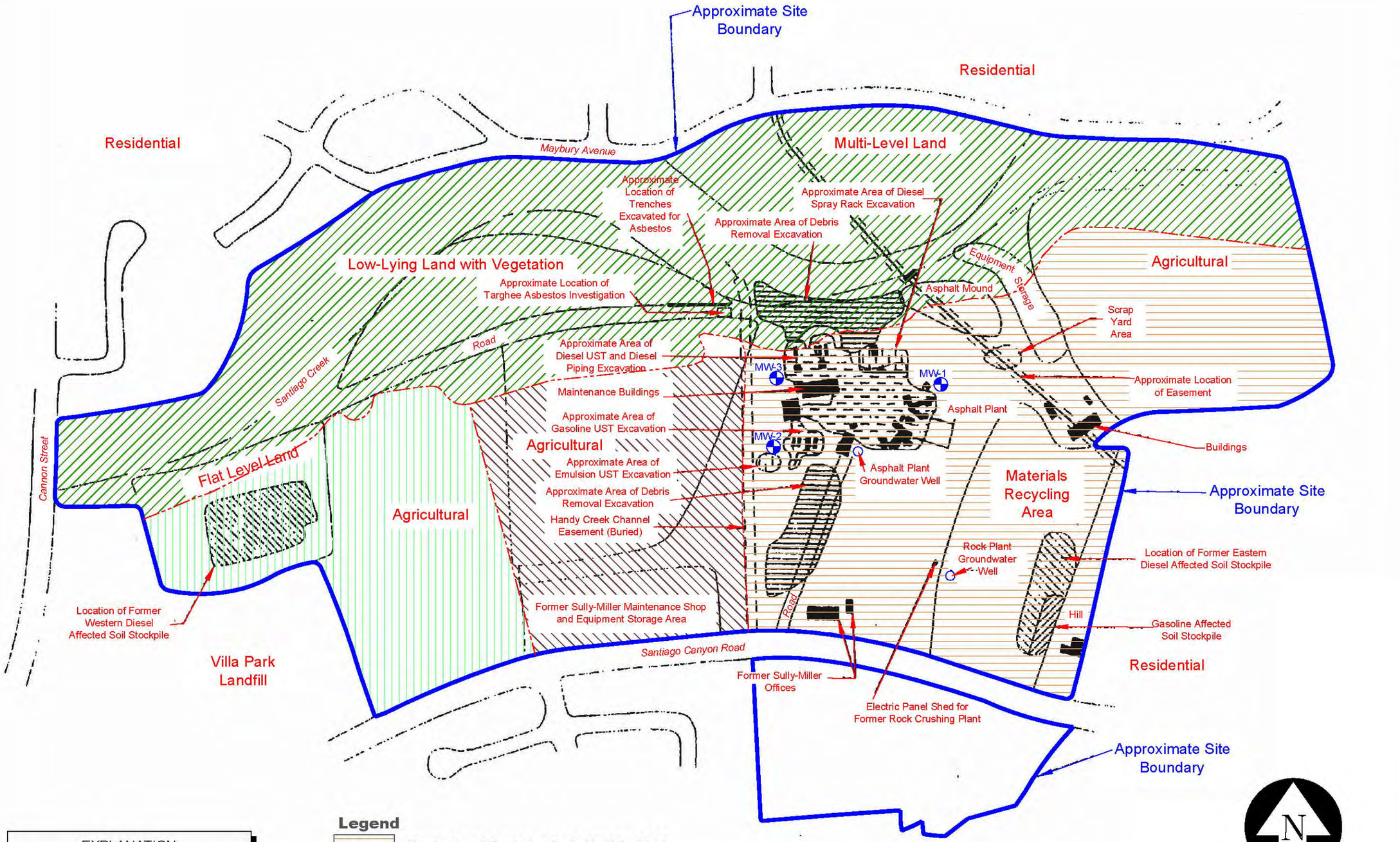

DRAWN BY: N.M.
REVIEWED BY: T.W.
PROJECT: EM29790
DATE: MAY 2011

FIGURE 1

RIO SANTIAGO SPECIFIC PLAN PROJECT

6145 EAST SANTIAGO CANYON ROAD
ORANGE, CALIFORNIA

701 NORTH PARKCENTER DRIVE
SANTA ANA, CALIFORNIA 92705
(714) 560-8200
(714) 560-8211 FAX

TAIT
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LEGEND

Outline of approximate extent of area excluded from sampling plan

Site and Planning Area Boundary

Based on GoogleEarth Image

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MAP OF AREAS EXCLUDED FROM SAMPLING PLAN

RIO SANTIAGO SPECIFIC PLAN PROJECT
6145 E. SANTIAGO CANYON ROAD, ORANGE, CA

FIGURE 2 | MAY 2011

N

NOTES: Soil matrix and soil vapor samples collected from each boring location.

Based on GoogleEarth Image

LEGEND

- Soil Boring - Agricultural Area
- Soil Boring - Fmr Maintenance Building
- Soil Boring - Fmr UST/AST Area
- Soil Boring - Fmr Asphalt Plant
- Soil Boring - Materials Recycling Area

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SOIL MATRIX CORE AND SOIL VAPOR BORING LOCATIONS MAP
PLANNING AREA D (PREVIOUSLY NAMED PLANNING AREA A)

RIO SANTIAGO SPECIFIC PLAN PROJECT
6145 E. SANTIAGO CANYON ROAD, ORANGE, CA

FIGURE 3 | MAY 2011

LEGEND

- Soil Boring - Area C Agricultural Area
- Soil Boring - Area D Agricultural Area
- Soil Boring - Area C Former UST/AST at Sully Miller Maintenance/Equipment Storage
- Soil Boring - Area C Former Sully Miller Maintenance/Equipment Storage

NOTE: Soil matrix and soil vapor samples collected from each boring location.

Based on GoogleEarth Image

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SOIL MATRIX CORE AND SOIL VAPOR BORING LOCATIONS MAP
PLANNING AREAS B AND C (PREVIOUSLY PLANNING AREAS C AND D)

RIO SANTIAGO SPECIFIC PLAN PROJECT
6145 E. SANTIAGO CANYON ROAD, ORANGE, CA

FIGURE 4 | MAY 2011

geotechnical investigations have been conducted to evaluate engineering properties of native and backfilled materials in selected areas of the site and to investigate the El Modena fault. The following summarizes previous work that has been conducted at the site since 1985.

3.1 ENVIRONMENTAL INVESTIGATIONS

In a letter from Blue Diamond to the Regional Water Quality Control Board-Santa Ana Region (RWQCB) dated January 24, 1979, Blue Diamond indicated that approximately 15,000 gallons of diesel fuel was released to the subsurface through a leaking pipe from an unidentified diesel tank. The results of the investigation indicated that diesel fuel was present in the soil at the site and may have extended underneath the former north maintenance building. No further documentation indicating that this investigation had been completed was available, although the RWQCB indicates that the file has been closed (Geomatrix, 1992).

In May 1985, a 2000-gallon gasoline UST was removed from the east side of the former north maintenance shop building. Diesel-affected soil was encountered in the excavation following removal of the tank. The source of the diesel fuel was attributed to a leaking underground pipeline located north of the gasoline UST excavation. This is likely the same leaking pipe reported by Blue Diamond in 1979. Petroleum hydrocarbon-affected soils were removed from the area; however, complete excavation reportedly was not possible without affecting the integrity of the maintenance shop building and diesel-affected soils were left in place. This area was subsequently remediated during site closure activities in 1995.

Three environmental investigations related to fuel spills and leaking USTs and appurtenant piping were conducted by Earth Technology Corporation (ETC) between April 1986 and January 1987. Fuel hydrocarbon-affected soil was excavated in the areas where spills or leaks occurred to comply with County of Orange Health Care Agency (OCHCA) requirements.

Internal memoranda from 1986 indicated that Blue Diamond planned to discontinue the practice of spraying down truck beds with diesel fuel at the spray rack located in the northern portion of the property near the driver's shack (Figure 3). This practice had reportedly affected soil in the vicinity of the spray rack. The top one to two feet of soil around the spray rack was reportedly removed and replaced with clean base material. According to one of the memoranda, the spray rack was to be decommissioned in November 1986 and removed from the site.

Geomatrix conducted a Phase I ESA for SMCC in 1992 (Geomatrix, 1992). The findings of the Phase I ESA indicated the following areas of potential environmental concern:

- possible releases of petroleum hydrocarbons or volatile organic compounds (VOCs) in the UST area, AST areas, diesel spray rack area, or asphalt plants areas;
- potential impacts of fuel hydrocarbons or VOCs on groundwater;
- possible presence of asbestos materials and polychlorinated biphenyls (PCBs);
- minor surface staining in various locations at the former SMCC maintenance shop and equipment storage area; and
- construction debris fill areas.

In March 1995, Geomatrix conducted a soil vapor survey in the former maintenance shop areas. The purpose of the soil vapor survey was to assess the potential presence of VOCs in soil vapor. Thirty-two soil vapor samples were collected from approximately 5 feet bgs in the maintenance shops area and analyzed for VOCs. VOCs detected in soil vapor included: benzene, toluene, ethylbenzene, and xylenes (BTEX), tetracholorethene (PCE), cis-1, 2-dichlorothene, trans-1, 2-dichloroethene, 1,1-dichloroethene, and vinyl chloride. A complete summary of the soil vapor survey results is presented in the Site Closure Report (Geomatrix, 1997).

In April 1995, closure activities included the removal of two asphaltic concrete hot mix plants, maintenance buildings, office buildings, the driver's shack, electrical shed, and other small structures. Site closure also included the removal of 15 USTs and seven ASTs and appurtenant structures used to store diesel and gasoline fuel, waste oil, asphalt emulsion oil, bituminous oil, and hydraulic oil (Figure 3). These tanks and all associated appurtenances were removed in 1995 (Geomatrix, 1998).

Petroleum hydrocarbon-affected soils were encountered in the fuel UST and diesel pipeline excavations and in shallow surface soil in the former diesel spray rack area and in other "high use" areas during site closure activities. Remediation of the petroleum hydrocarbon-affected soils included excavation and removal to the soil stockpile areas on the western and eastern portions of the property. Soils were excavated until the cleanup criteria established for the site were met. Soil cleanup objectives and sampling frequency in the fuel UST areas were approved by the Orange Fire Department (OFD). These criteria were adopted for all areas

where petroleum hydrocarbon-affected soil was found. A detailed discussion of the OFD closure requirements and UST closure activities is included in the Underground Storage Tank Closure Report (Geomatrix, 1996a). The cleanup criteria used at that time are summarized below.

For fuel hydrocarbon-affected soils located 25 feet or more above groundwater:

- Total petroleum hydrocarbons quantified against a diesel standard (TPHd) — 1000 milligrams per kilogram (mg/kg)
- Total petroleum hydrocarbons quantified against a gasoline standard (TPHg) — 100 mg/kg
- benzene and toluene — 0.3 mg/kg
- ethylbenzene and total xylenes — 1.0 mg/kg

For fuel hydrocarbon-affected soils located 5 to 25 feet above groundwater:

- TPHd — 100 mg/kg
- TPHg — 10 mg/kg
- BTEX — no allowable concentrations

Cleanup levels for total recoverable petroleum hydrocarbons (TRPH) and PCBs were also established as follows:

- TRPH — 1000 mg/kg
- PCBs — 1 mg/kg

Following removal of the emulsion oil UST, the area was over-excavated to remove visibly stained soil and construction debris encountered in the excavation. Verification sampling was conducted and one sample from the western sidewall of the excavation had a detected TPHd concentration of 1100 mg/kg (established cleanup level was 1000 mg/kg). Further excavation of the western wall was not possible because of a subsurface concrete storm drain channel (the Handy Creek bypass) located near the western edge of the excavation. A simulated distillation analysis was performed on this sample and indicated that approximately 79 percent of the hydrocarbons detected in the sample had a carbon range typical of asphalt emulsion oil. Based on the data, the OFD approved backfilling the excavation with clean soil with no further action required.

Following removal of the asphaltic cement USTs, visibly impacted soils were removed and placed in the diesel-affected soil stockpiles. The excavations were backfilled with clean

material meeting the above criteria and compacted to 90 percent relative compaction. The locations of the excavations are shown on Figure 3.

Several areas on the property were also excavated during site closure activities to remove construction debris consisting primarily of concrete and asphaltic concrete blocks. The locations of these excavations are shown on Figure 3. These excavations were backfilled with clean material and compacted. A compaction report was submitted to the City of Orange Public Works Department in March 1996 (Geomatrix, 1996b).

3.1.1 Gasoline-Affected Soil Stockpile

In 1995, approximately 1800 cubic yards of gasoline-affected soil was removed from the gasoline UST area excavation and stockpiled separately on a bermed asphaltic concrete pad located in the southeastern portion of the site (Figures 3 and 4). The gasoline-affected soil was treated on-site using vapor extraction and thermal oxidation techniques.

Remediation of the gasoline-affected soil began on June 5, 1995 following approval from the OFD. Treatment of the gasoline-affected soil continued for 37 days. Nine verification samples were collected from various locations within the treated soil stockpile on July 11, 1995. The verification samples were analyzed for TPHg and BTEX. The analytical results for the verification samples are summarized below.

- TPHg concentrations ranged from 0.26 mg/kg to 12 mg/kg.
- Benzene was not detected in any of the samples above its reporting limit of 0.005 mg/kg.
- Toluene concentrations ranged from <0.005 mg/kg to 0.038 mg/kg.
- Ethylbenzene concentrations ranged from <0.005 mg/kg to 0.01 mg/kg.
- Total xylenes concentrations ranged from <0.005 mg/kg to 1.4 mg/kg.

On August 1, 1995, the RWQCB approved the treated soil for use as on-site backfill material provided the material was placed at an elevation 25 feet or more above the current groundwater table. The treated soil was used on-site as engineered backfill in an area immediately northwest of the former SMCC office building that was excavated to remove construction debris (Figure 3).

3.1.2 Diesel-Affected Soil Stockpiles

In 1995, approximately 52,000 cubic yards of diesel-affected soil was removed from the diesel UST area and diesel pipeline excavations. The excavated material was stockpiled in two areas of the site (Figures 3 and 4). Following approval from County of Orange Integrated Waste Management District (IWMD) and the RWQCB, the diesel-affected soil stockpiles were processed and transported to Olinda Alpha Municipal Landfill located in Brea, California, for use as daily cover. The stockpiles were processed to remove all materials greater that 3-inch diameter. The oversize material, consisting mostly of cobbles and boulders, is currently stockpiled on-site at the locations of the two former diesel-affected soil stockpiles.

At the request of the RWQCB, the oversize material removed from the diesel-affected soil stockpiles was sampled and analyzed for TPHd, TPHg and BTEX. There were no detected concentrations of TPHd, TPHg, or BTEX in any of the samples collected. Based on the analytical results, the RWQCB has given verbal approval that the oversize material can be reused on or off site without any restrictions. In addition, the RWQCB requested verification samples be collected from the surface soil beneath the former western stockpile and from any areas where the processed soil from either the western or eastern stockpiles was temporarily stored on unlined soil prior to transport to the Olinda Alpha Municipal Landfill.

Eight verification surface samples were collected from the eastern stockpile area and 18 verification surface samples were collected from the western stockpile area (Figure 4). The verification surface samples were analyzed for TPHd, TPHg, and BTEX. Selected samples were also analyzed for methyl-tert-butyl ether (MTBE) and polyaromatic hydrocarbons (PAHs). The RWQCB did not require verification surface samples to be collected from the asphaltic concrete pad beneath the eastern diesel-affected soil stockpile. Eighteen shallow subsurface samples were also collected from nine locations beneath the footprint of the former western diesel-affected soil stockpile at depths ranging from 0.5 feet bgs to 5 feet bgs. These samples were analyzed for TPHd, TPHg, and BTEX.

Verification surface samples collected from beneath the diesel-affected stockpiles did not contain detected concentrations of BTEX, MTBE, or PAHs. Low concentrations of TPHd (400 mg/kg or less) and TPHg (9 mg/kg or less) were detected in samples from both areas. The shallow subsurface samples that were collected from beneath the footprint of the former western diesel stockpile contained concentrations of TPHd ranging between <10 mg/kg and 1190 mg/kg. Seventeen of the 18 shallow subsurface samples analyzed had TPHd concentrations below the 1000 mg/kg cleanup criteria established for the site. Six of these

samples were also analyzed for TRPH using EPA Method 418.1. TRPH concentrations in these samples ranged from 210 mg/kg to 990 mg/kg.

A request for case closure of the two diesel-affected soil stockpile areas was submittal to the RWQCB by Hanson on July 28, 2000.

3.2 GEOTECHNICAL INVESTIGATIONS

A summary of the geotechnical investigations performed at the site is provided in the following sections.

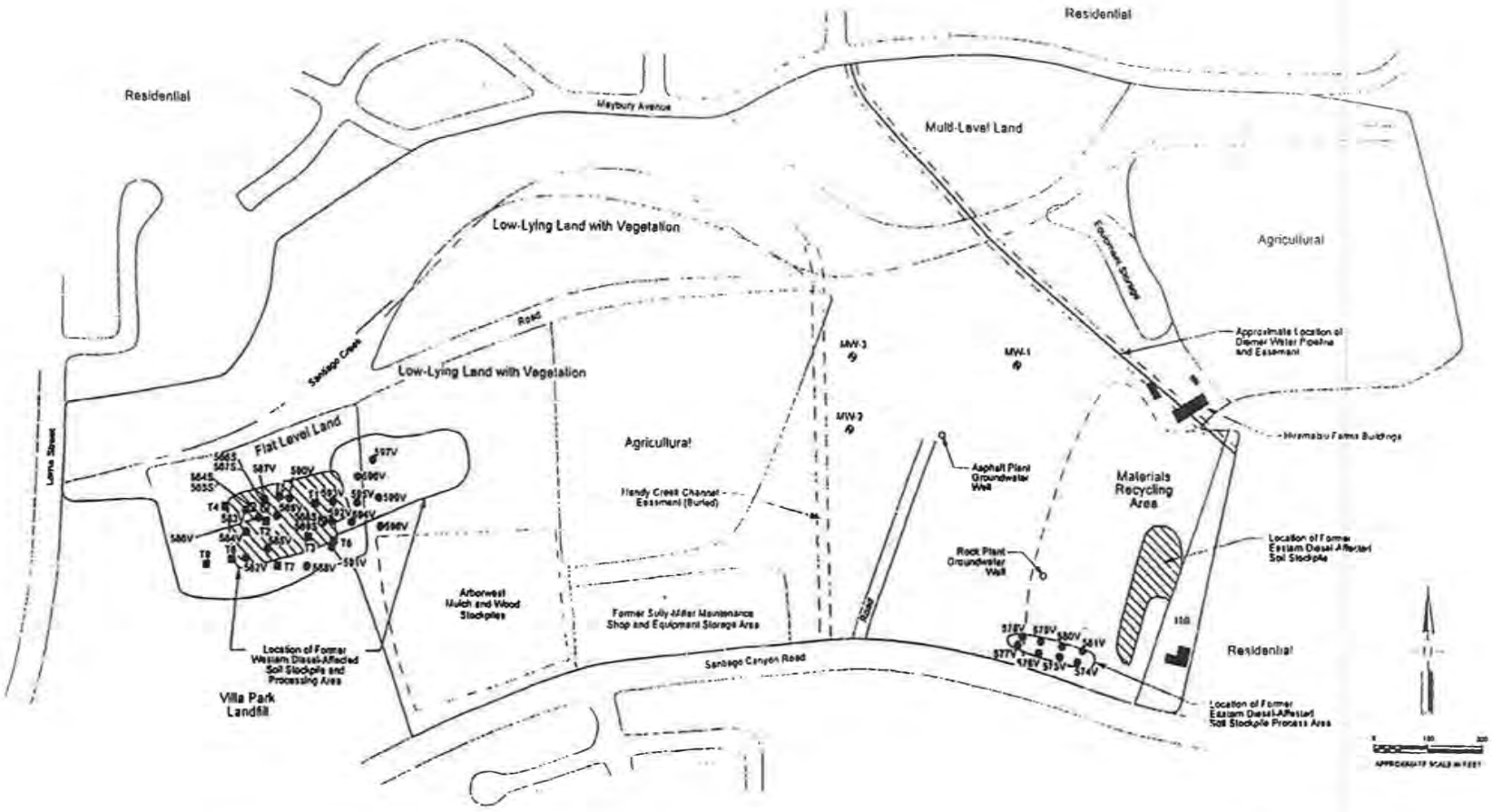
3.2.1 Property North of Santiago Canyon Road

A geotechnical feasibility study was conducted in 1998 by Geomatrix (Geomatrix, 1998). The purpose of this investigation was to better delineate the vertical and areal extent of the former silt ponds using electromagnetic (EM) and soil sampling techniques. The EM surveys supported information provided on aerial photographs for the lateral extent of the ponds, but proved to be inconclusive as to the depth of the silt ponds. Five soil borings were drilled within the identified silt pond areas. Based on the borings, the silt ponds generally varied in thickness from 15.5 to 37 feet. The type and consistency of the fine-grained fill material varied in each boring and mainly consisted of clay and silt. Consolidation tests were performed on selected samples of clay fill and indicated that the clays are normally consolidated and highly compressible.

Neblett & Associates conducted a geologic/geotechnical investigation for Fieldstone in 1999 (Neblett & Associates, 2000). This investigation consisted of 29 bucket auger borings, 14 test pits, 19 continuously cored borings, and 17 cone penetrometer test soundings. The thicknesses of the silt ponds and the physical characteristics of the of the sediment determined in Neblett's investigation are consistent with those estimated in the Geomatrix geotechnical feasibility study. Neblett estimated the volume of material from the silt ponds that would require removal and reworking prior to development to be between 1,800,000 and 2,050,000 cubic yards.

3.2.2 Property South of Santiago Canyon Road

Pacific Soils conducted two investigations in 1990 on the parcel located directly south of Santiago Canyon Road. The first investigation consisted of reviewing available information regarding the geology of the subject area. The report concluded that the El Modeno fault trace may cross the southern parcel and recommended that a detailed field fault study be performed (Pacific Soils, 1990a). During the second investigation, Pacific Soils conducted a more



EXPLANATION

378V ● VERIFICATION SAMPLE LOCATION AND IDENTIFICATION ANALYTICAL RESULTS FOR SOIL SAMPLES ARE PRESENTED IN TABLE 1

5648 ⊠ APPROXIMATE TRENCH SOIL SAMPLE LOCATION WITH DESIGNATION (NOT SURVEYED)

T1 ■ APPROXIMATE TRENCH LOCATION AND IDENTIFICATION (12/2/99)

MW-1 ⊕ FORMER GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION

SITE MAP SHOWING FORMER DIESEL-AFFECTED SOIL STOCKPILES AND VERIFICATION SAMPLE LOCATIONS

FORMER SULLY-MILLER CONTRACTING COMPANY FACILITY
8145 SANTIAGO CANYON ROAD
Orange, California

GEOMATRIX	Figure By: dmm	Project No: 5757	Figure 4
	Date: 06/27/00		

330 W. Bay Street, Suite 140
Costa Mesa, California 92627
(949) 642-0245 • FAX (949) 642-4474

GEOMATRIX

March 11, 1996
S2057.01

Mr. Bret Braden
Sully Miller Construction Company
1100 E. Orangethorpe Avenue, Suite 200
Anaheim, California 92801

SUBJECT: GEOTECHNICAL OBSERVATION AND TESTING REPORT
Sully Miller Construction Company
6145 Santiago Canyon Road, Orange, California

Dear Mr. Braden:

This report presents the results of geotechnical observation and testing services provided by Geomatrix Consultants, Inc., (Geomatrix) during backfilling of the underground storage tank (UST) and fill excavation areas at the Sully-Miller Contracting Company site at 6145 Santiago Canyon Road, Orange, California. These field services were performed on an as-request basis from April 28, 1995 to August 14, 1995.

Geotechnical services provided by Geomatrix during grading included:

- observation and documentation during site preparation, excavation, and benching prior to placement of fills
- observation and field density testing during placement of compacted fill
- laboratory testing in conjunction with field testing.

The limits of grading under the purview of this report are depicted on Figure 1.

PROJECT DESCRIPTION

The project involved removal and disposal of :

- 3 diesel underground storage tanks
- 4 gasoline underground storage tanks
- 1 waste oil underground storage tank

- 1 asphaltic emulsion underground storage tank
- 6 asphalt oil underground storage tanks
- 5 engine, gear, hydraulic and Guardal oil aboveground storage tanks
- 1 service bay
- Buried pipes associated with underground storage tanks
- Cold feed tunnel supplying asphalt plant
- Surface diesel-effected soil on the former spray rack area
- Various debris fill excavation areas

Backfilling was conducted in accordance with the "Amendment To Lease" (the Lease) dated October 1, 1994 by and between Sully-Miller Land Company and Sully-Miller Contracting Company and City of Orange Building Department Permit No. B43161. The Amendment indicated that Sully-Miller Contracting Company was to perform backfilling and compaction where required under laws applicable to the permitted uses of the Premises. Sully-Miller Contracting Company also agreed to leave the Premises in a level and smooth condition upon the expiration of the Lease.

FIELD OBSERVATION AND TESTING

Site Preparation

Prior to placement of backfill, UST and construction debris fill areas were excavated to expose native materials. After removals were completed and prior to fill placement, areas to receive backfill were scarified, moisture-conditioned as necessary, and compacted to the geotechnical specifications.

In the Diesel Piping, Spray Rack and Asphalt UST area and some portions of the fill excavation area, the exposed native materials had moisture contents greater than optimum or contained free standing ground water and "pumped" under loading by grading equipment. In these areas, 3/8 to 3/4-inch crushed rock was placed over the excavation bottom to provide a working platform on which to place backfill.

- 1 asphaltic emulsion underground storage tank
- 6 asphalt oil underground storage tanks
- 5 engine, gear, hydraulic and Guardal oil aboveground storage tanks
- 1 service bay
- Buried pipes associated with underground storage tanks
- Cold feed tunnel supplying asphalt plant
- Surface diesel-effected soil on the former spray rack area
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Excavation Backfill
The approximate extent of compacted backfill described in this report is indicated on Figure 1. Backfill materials were placed in horizontal lifts not exceeding eight inches in loose thickness, moisture-conditioned as necessary, and compacted to at least 90 percent of maximum dry density determined by ASTM D1557.

Field Testing
ASTM D2922 and D3017 (nuclear gauge) and D1556 (six-inch sand cone) were the methods used for field density testing.

When field density tests produced failing results, the approximate limits of substandard fill were established. The failing area was then either reworked and recompacted as necessary under Geomatrix's observation, or the failing materials were removed and replaced with properly compacted fill.

Results of the field density tests are presented in Table 1. Retests are indicated by the original test number followed by an alphabetical letter. Letter "A" would indicate the first retest, letter "B" would indicate the second retest, and so forth for each test location. Approximate test locations are presented on Figure 1.

LABORATORY TESTING

The maximum dry density and optimum moisture content for representative fill soils were determined in the laboratory in accordance with ASTM D 1557. The results were used to determine the relative compaction of the backfill. The test results are summarized in Table 2.

CONCLUSIONS

It is our opinion, based on the results of our observations and testing, that excavation areas were backfilled in general accordance with the Grading Codes of County of Orange and City of Orange.

CLOSURE

Professional judgments presented in this report are based on evaluation of the technical information gathered, on our understanding of the proposed construction, and in accordance with generally accepted soil engineering and geologic principles and practices. No warranty is express nor implied.

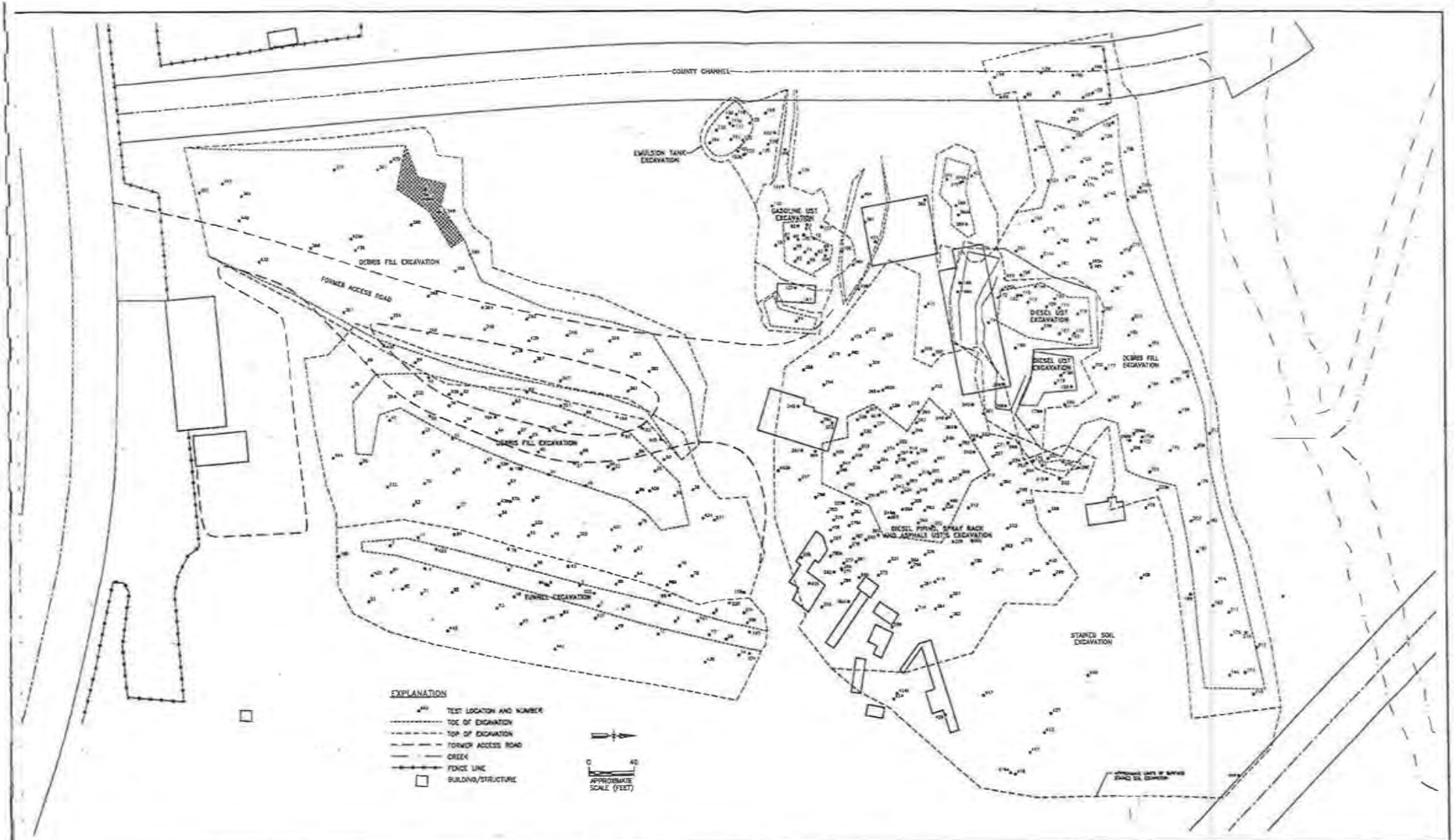
The presence of the geotechnical consultant at the site was to provide the client with a source of professional advice and opinions, based upon testing and observations of the subcontractor's work, and did not include superintending nor supervision. The data and conclusions contained herein should be considered to relate only to the specific locations discussed herein. Geomatrix is not responsible for any conclusions or recommendations that may be made by others, unless we have been given an opportunity to review such conclusions or recommendations and concur in writing.

We hope that this report fulfills the current needs of the project. If you have any questions, or require additional information, please call the undersigned.

Sincerely,
GEOMATRIX CONSULTANTS, INC.

James J. Weaver
Vice President and
Principal Geotechnical Engineer.

Enclosures: Table 1 - Field Density Test Summary
Table 2 - Laboratory Maximum Density Test Summary
Figure 1 - Field Density Test Locations



NO.	DATE	REVISION	BY	NO.	DATE	REVISION	BY

Draft by	R2M
	01/29/96
Proj. Chk	
Apprv. by	

GEOMATRIX
Geomatrix Consultants, Inc.
20201 SW Birch Street, Suite 150
Newport Beach, CA 92660

DATE
03/06/96

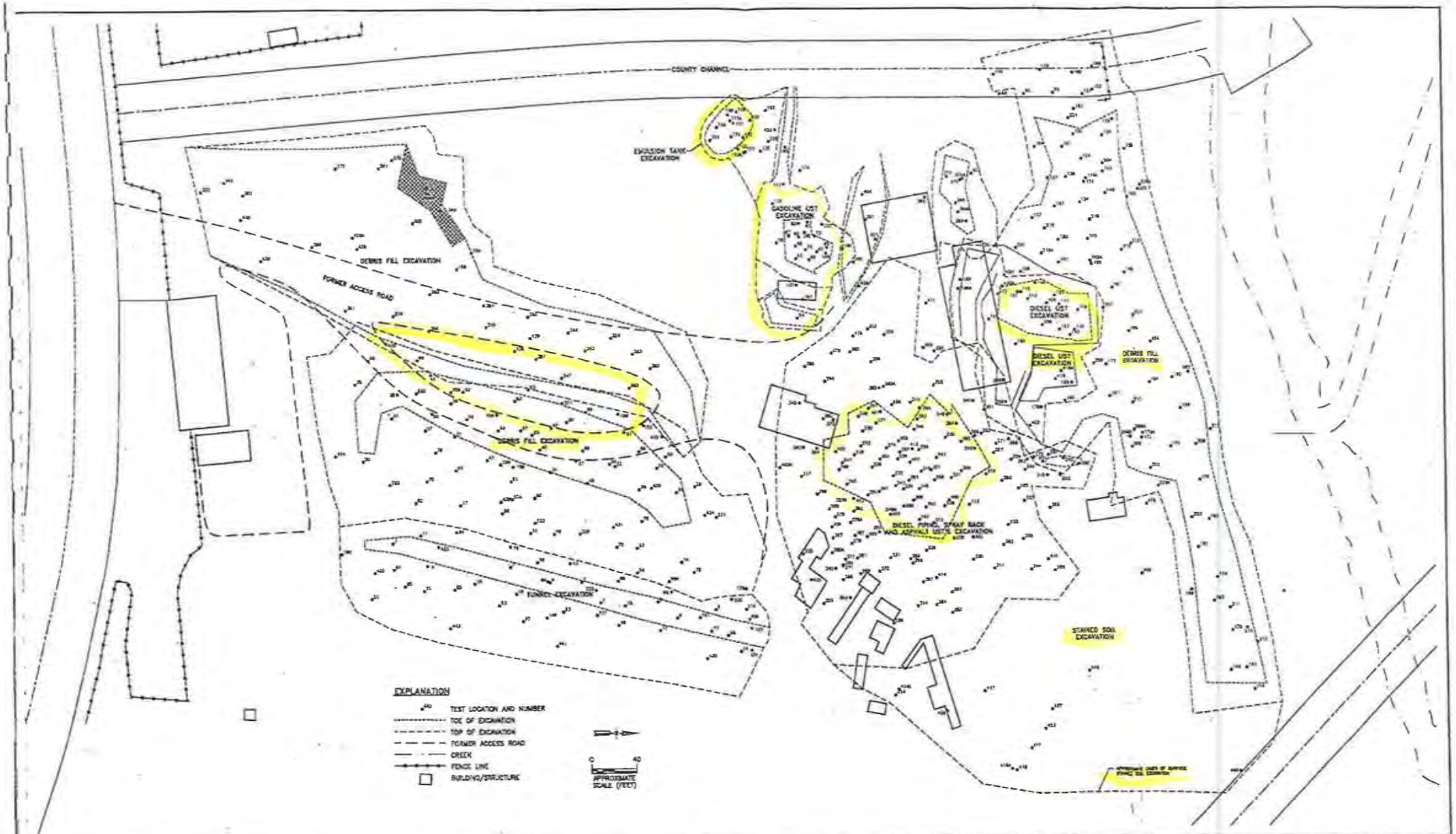
FNM: 2057SM26.DWG

FIELD DENSITY TEST LOCATIONS

SULLY-MILLER CONTRACTING COMPANY
6145 SANTIAGO CANYON ROAD
ORANGE, CA

S2057.01
Project No.

1
Figure



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FIELD DENSITY
TEST LOCATIONS
SULLY-MILLER CONTRACTING COMPANY
6145 SANTIAGO CANYON ROAD
ORANGE, CA

S2057.01
Project No.
1
Figure

APPENDIX E

Ginter & Associates, Inc. Summary and Compilation of All Geotechnical Reports, March 10, 2022

Leighton
a verdantas company

GINTER & ASSOCIATES, INC.

27631 DURAZNO
MISSION VIEJO, CA 92692
OFC (949) 581-2363 CELL (714) 478-1167

Milan Capital Management
888 S. Disneyland Dr., Suite 101
Anaheim, CA 92802

March 10, 2022
Project 107-18

Attn: Mr. Chris Nichelson, President
Mr. Bret B. Bernard, AICP
Director of Planning and Development

Subject: Summary and Compilation of all Geotechnical Reports, Analyses and Data for the Rio Santiago Development Site

References: Folders and files from Ginter & Associates, Inc.

Gentlemen:

In accordance with your request, we have prepared this document to provide a general summary of the subject site's existing surface and subsurface conditions from a geotechnical standpoint. This document can be utilized by the current owner to distribute to potential buyers/developers for their review and provide a pathway for their geotechnical consultants to review the details of the underlying soil characteristics, logs of boring and test pits, along with engineering analyses contained in the referenced folders and files.

For this document and simplification, the site has been divided into areas, each having its own distinctive geotechnical conditions and development opportunities. These areas, designated as Area "A" through Area "M" are delineated on Figure 1, utilizing an exhibit provided by Fuscoe Engineering. The following lists these areas and describes their surface and subsurface conditions, including our general recommendations and considerations.

Area "A"

This site area encompasses approximately 10 acres north of Santiago Creek and south of Mabury Avenue (Figure 1). A 106" diameter MWD Diemer water line bisects the site in NW to SE direction.

Natural topography ranges from 430 ft. elevation in the northeast to 400 ft.± elevation to the southwest. A 20 ft. high cliff occurs along the north bank of Santiago Creek near the southeast perimeter.

Based on the geotechnical data and analyses presented in the reports, etc. contained in the folder files (reference Proj. 107-19) and the proposed grading plans to date, proposed residential development is feasible and generally conformable to typical rough grading and development projects in the industry.

In general, the majority of the site, predominately in the central and northern portions, contain older alluvium and is a slightly elevated terrace deposit consisting of medium-grained sand with some clay and abundant sub-rounded pebbles and cobbles in a massive moderately dense condition approximately 30-40 ft. in depth. The upper portions of this unit are unsuitable and will require removals to depths ranging from 5-10 feet. These excavated soils can be used as compacted fill.

Younger alluvium is located in the southwest portion and consists of similar lithologic and soil engineering properties as the older alluvium. Depths range from 10-12 feet. Some areas along the site's southern perimeter have the younger alluvium blanketed by a thin veneer of artificial fill approximately 1-3 ft. thick, which will require removal and replacement with engineered fill. The young alluvial terrace gravels will be suitable to support the development after appropriate removals and replacement with engineered fill.

Artificial fill and debris is located in an in-filled ravine in the vicinity of the northeast perimeter along the north bank of Santiago Creek. These materials will require removal and replacement with engineered fill and bank protection designed by the Civil Engineer in concert with the jurisdictional requirements.

Bedrock consisting of very well-cemented and massive coarse sandstones and pebbly sandstones with minor siltstone and claystone interbeds underlies the artificial fill, younger alluvium and older alluvium. It is exposed along the floor and north bank of Santiago Creek along the southern and eastern perimeter and is suitable (with proper engineering) for support of the development.

Planned residences can be supported on conventional and continuous footings, provided the recommendations presented in the reference reports are incorporated into the design and implemented during construction. The native soils are considered non-expansive.

Area "B"

This area is located (as shown on Figure 1) in the western portion of the overall site that is south of Santiago Creek and is known as the "panhandle". It was graded as part of MTS's IDEFO. It contains a 5 ft. thick compacted engineered fill blanket compacted to 90% relative compaction with rocks less than 6" diameter. This is underlain by mixed loads placed by MTS consisting of 2-3 ft. diameter rocks, concrete and asphalt fragments mixed with soil and/or crushed asphalt and base material.

These materials (mixed loads) were compacted to approximately 88% relative compaction and are 10-15 ft. thick. Underlying these materials are pond deposits approximately 15-20 ft. thick, which in turn are underlain by younger alluvial sands and gravels.

This area, in its present condition, is suitable for recreational development. If residential development is proposed in this area, complete removal of all compacted fill, mixed loads and pond deposits will be required. Details of the subsurface conditions can be reviewed in the referenced folder (Proj. 107-02).

Area "C"

The majority of this area contains silt pond deposits approximately 30-45 ft. thick (deeper in localized areas) overlying alluvial sands and gravels, which in turn are underlain by bedrock. The western portion of this area contains localized areas where mixed loads and rubble (approximately 5-10 ft. thick) were buried by MTS. Complete removal of the pond deposits and replacement with engineered fill will be required if this area is to be used for residential development. Note that the pond deposits will shrink on the order of 25% when utilized as compacted fill and that they have an expansion index from low to high. Details of the subsurface conditions can be reviewed in the referenced folders and files.

It should also be noted that the jurisdictional agencies in conjunction with the Civil Engineer will need to design some form of slope protection (i.e., buried rip-rap) along the northern perimeter of this area.

Area "D"

This area has been graded as part of MTS' IDEFO. All unsuitable pond deposits have been removed and stockpiled to the south and a firm-bearing approved bottom of sands and gravels was established. Mixed loads, grindings and soil were compacted to a minimum 90% relative compaction. This area is essentially flat and is currently at an elevation of 387 ft.±.

This compacted fill area is suitable for the construction of habitable structures, office buildings, maintenance buildings and the like. Other options include recreational facilities, such as soccer fields or parking lots. If proposed grades are raised, we recommend 90% relative compaction with rocks less than 6" in diameter and a minimum of 5 ft. thick compacted fill blanket. Details of the subsurface conditions of this area can be reviewed in reference folder Proj. 107-02.

Area "E"

This area delineates a stockpile of clean fill material which can be utilized as a fill source for site grading operations. It contains approximately 3,600 C.Y. of silt, clay and sand in a dry to moderately moist condition. Pond deposits approximately 35 ft. thick underly this pile and will need to be removed and replaced with engineered fill for residential development. For recreational use, on the pile is removed, a 5 ft. over-excavation in the pond deposits and replacement with engineered fill compacted to 90% will be required.

Area "F"

This area is shown as located on Figure 1, west of the Handy Creek Box Channel. In general, this area contains stockpiled pond deposits excavated from Areas C and D immediately to the north. The upper 25 ft.± of this stockpile contains pond deposits consisting of wet clay emplaced by MTS. Underlying this material are pond deposits emplaced by Don McCoy, which were excavated from the original pond deposit surface and consist of much drier, moderately moist clays approximately 25 ft. thick, underlying this bottom portion of the stockpile are the original pond deposits. The upper 10 ft.± of which are relatively moderately dry to moist, underlain by very wet pond deposits (clay) approximately 35 ft.± thick overlying native sands and gravels.

This stockpile contains approximately 252,400 cubic yards that is estimated to shrink 25%. If residential construction is proposed in this area, complete removal of the stockpile and the underlying pond deposits will be required and replace with engineered fill.

Area"G"

Located east of the Hand Creek Box Channel, as shown on Figure 1, this area generally consists of stockpiled concrete, rubble and soil. Underlying these stockpiles are compacted fills overlying bedrock, older alluvium and in some areas, younger alluvium.

It is important to note that previously our firm recommended the compacted fill by Geomatrix in 1996 be removed because their report could not be found. However, the *"Geotechnical Observation and Testing Report"* by Geomatrix was obtained from the City files. Consequently, the compacted fill placed by Geomatrix **will not** require removal and will only require scarification, moisture conditioning and re-compacting the upper 2-3 ft. of this subgrade.

We recommend that the concrete rubble stockpiles can be removed and perhaps transported to Area "H" or crushed to 6" minus for use as a source of fill for other areas of the site, as needed or crushed for use as crushed miscellaneous base for sale to local contractors. Calculation indicates approximately 278,200 C.Y. of stockpiled concrete rubble and soil that may shrink 5%.

Upon removal of the stockpiles, we recommend compacted fills of 90% compaction by placed to proposed grade to maintain the integrity of the compacted fills already emplaced and keep this area suitable for habitable structures, which may include office buildings, YMCA or other structures. The crushed materials from the stockpiles could be used as a fill source for this area. Other opportunities for this area include residential development for single-family residences or apartments.

Area "H"

This area is located northeast of Area "G", as shown in Figure 1 and consists of a stockpile of clean soil suitable as a fill source for compacted fills throughout the site. This stockpile is underlain by compacted fill emplaced by Geomatrix in 1996 and overlies native bedrock. Upon the removal of this stockpile, scarification, moisture conditioning and re-compaction of the subgrade, we recommend compacted fills to 90% relative compaction by continued to proposed grade in order to maintain the integrity of the opportunity for use as habitable structures, such as office building or residential development.

Cursory volume calculations indicate approximately 40,500 C.Y. of clean fill in this stockpile that may shrink 15%.

Area "I"

This is a stockpile of crushed miscellaneous base containing approximately 4,200 C.Y. that can be utilized throughout the site for a fill source or street construction.

Area "J"

This area contains a stockpile of concrete rubble and soil similar to Area "G". Calculations indicate approximately 92,700 C.Y. that may shrink 5%. Underlying this stockpile are compacted artificial fills placed by Geomatrix, which will be suitable for support of habitable structures.

Area "K"

The western portion of this area contains compacted fills by Geomatrix overlying native alluvial sands and gravels with small areas adjacent to the Handy Creek Box Channel consisting of compacted fill overlying pond deposits. The eastern portion of this area consists of scattered

artificial fills overlying older alluvial sands and gravels. We recommend scarification and re-compaction of the upper surface of the compacted fill and removal of the artificial fill. Additional compacted fills, if necessary, to achieve proposed grades, should be compacted to 90% relative compaction. This will result in an opportunity for this area to be utilized for habitable structures, such as office buildings and/or residential development. Please see the reference documents for details, etc. of this area.

Area "L"

Know as the Northeast Pond, this site is flat and contains 25 ft. of silt pond deposits overlying a thin veneer of alluvial sands and gravels over bedrock. For residential development, the pond deposits will require complete removal and replacement with compacted artificial fill. A substantial subdrainage network will be required beneath the compacted fill to maintain groundwater flow. Also, suitable bank protection (i.e., buried rip-rap) designed by the civil engineer in concert with the jurisdictional agencies along the south bank of Santiago Creek. Details for remediation of this area can be reviewed in the referenced documents.

Area "M"

This area is known as the Mara Brandman Arena Site, which encompasses approximately 7.2 acres south of Santiago Canyon Road.

Topography within the site is of low relief and ranges in elevation from approximately 399± ft. in the northwest to 440± ft. at the eastern property line.

The site is currently occupied by a fruit stand, with attendant outbuildings and a parking lot, located on the northwest corner, empty field in the southwest and central portions and equestrian facilities, including various corrals, barn and an arena, in the eastern portion of the property. The site was used as a citrus orchard in the past.

Various portions of the site have been disturbed and infilled with undocumented and non-engineered fills, generally derived locally, which consist of silty to gravely sand with cobbles.

Trenches excavated indicate thin agricultural fills (less than 3 ft.) over much of the site, with localized deeper fill (approximately 5.5. ft.). These artificial fills will require removal and replacement with compacted fills and overly native older alluvium.

The older alluvium, which has been designated by this firm after Schoellhamer et al., occurs along the northern and southern flanks of Santiago Creek as a slightly elevated alluvial terrace deposit consisting of similar lithologic and soil engineering characteristics as the young alluvium (Qya). Onsite, this unit is characterized by brown to reddish brown sand, gravelly sand with cobble to boulder size larger fraction (comprised predominantly of basaltic volcanic rocks with lesser granitic and metamorphic rocks). It is generally matrix supported with localized clast supported lenses.

These soils have a low to medium expansion index and may shrink on the order of 3-5%.

Additional Comments:

In general, the site is currently poised for rough grading operations to commence. Sufficient stockpiles are onsite that can be utilized as a fill source for mixing with the pond deposits to

create compacted artificial fills, as necessary. Some areas may be conducive to recreational opportunities.

Regardless of the end product, it will be essential to prepare an "Earth Management Plan" (EMP) for the grading operations. This plan will determine a sequential grading scenario, which determines the areas of excavation and/or processing in concert with the developer's needs and help determine grading logistics and related costs.

We appreciate the opportunity to provide our services and if you have any question or require additional information, please contact the undersigned.

Respectfully submitted,

GINTER & ASSOCIATES, INC.

By: _____

Dave Ginter R.G., C.E.G.
Principal Engineering Geologist/President

Attachment: Figure 1

STOCKPILE QUANTITIES EXHIBIT

RIO SANTIAGO

Summary Figure Areas

PREPARED BY:

FUSCOE ENGINEERING
16795 Von Karman, Suite 100
Irvine, California 92606
tel 949.474.1960 • fax 949.474.5315
www.fuscoe.com

LEGEND:

PAD	PAD ELEVATION
FL	FLOW LINE
R	RIDGE
FG	FINISHED GRADE
TD	TOP OF DIKE
TOP	TOP OF SLOPE
TB	TOP OF BERM
HP	HIGH POINT
LP	LOW POINT
GB	GRADE BREAK
EX	EXISTING
TED	TOP OF EARTHEN DAM

SLOPE
PROPERTY LINE
PARCEL LINE
STOCKPILE LINE

EARTHWORK QUANTITIES

STOCKPILE	EARTHWORK QUANTITY [CY]	SHRINKAGE [%]	SHRINKAGE QUANTITY [CY]	QUANTITY AFTER SHRINKAGE [CY]
A	3,600	20	700	2,900
B	252,400	25	63,100	189,300
C	278,200	5	14,000	284,200
D	4,200	5	200	4,000
E	40,500	15	6,000	34,500
F	92,700	5	4,600	88,100

SHRINKAGE % ESTIMATES
PER "GINTER & ASSOCIATES, INC"
ON 10/11/2021

N

100' 0' 50' 100'
SCALE: 1" = 100'

DATE PREPARED OCT. 15, 2021

SHEET 1 OF 1

APPENDIX F

Health and Safety Plan

Leighton
a verdantas company

HEALTH AND SAFETY PLAN

Plan Prepared by: _____ **Date:** 3/14/2024

Ines Cadavid-Parr, CSP
Corporate Safety Director
Leighton Consulting, Inc.

TABLE OF CONTENTS

1.0 INTRODUCTION

Leighton & Associates, Inc. (Leighton) has prepared this site-specific Health and Safety Plan (HASP) for environmental and geotechnical field activities that will be performed for Milan REI X, LLC (Milan). Field activities will be conducted at the 67-acre site (the site), which consists of part of the property located at 6145 E. Santiago Canyon Road in the City of Orange, California (the subject property). The location of the project site is shown on Figure 1, Site Location Map.

Leighton prepared the Revised Subgrade Testing and Geotechnical Workplan for Stipulated Notice and Order (Leighton, January 23, 2023) and the Revised Environmental Sampling Workplan for Stockpiled Material Testing for the June 16, 2022 Stipulate Notice and Order (Leighton, January 23, 2023), for the Site to address the requirements for analytical testing of subgrade soil and stockpiled inert debris and soil as required under the June 16, 2022 Stipulated Notice and Order (Stipulated N&O) agreed between the Orange County Health Care Agency (OCHCA), Environmental Health acting as the Solid Waste Local Enforcement Agency for the County of Orange (the “LEA”) and Milan.

This HASP applies to the field activities and scope of work related to implementing the above-referenced workplans. If additional work is to be completed, this HASP will be modified by the Plan Preparer, a certified safety professional (CSP), to incorporate the changes, or a new HASP will be developed. The safety procedures within this HASP cannot be modified or altered by field personnel without clearance from the Plan Reviewer or Project Manager.

This HASP describes the basic safety requirements for performing field activities related to the Site and addresses the potential hazards that may arise while conducting the field activities associated with this project. The provisions of this HASP apply to all Leighton personnel, subcontractors and company-sponsored personnel. Subcontractors are responsible for their own health and safety program. Modifications to this HASP may be incorporated in the event of a change of conditions or if special circumstances changes (i.e. change in the scope of work, chemical, biological, radiological or physical hazards arise that were not anticipated at the time of the HASP development, etc.). The modifications will be communicated to the personnel onsite prior to the start of work via a daily tailgate briefing.

1.1 Site History

Land-use history of the site has been summarized in various environmental site assessments (ESA) and geological and geotechnical reports, including a 2009 ESA prepared by Michael Brandman Associates (MBA ESA) and an August 2000 Geomatrix Consultants ESA (Geomatrix ESA), and geological and geotechnical reports prepared by Ginter & Associates, Inc. (Ginter). Summaries of the reports and their findings are provided in Section 1.2 Site Use History of each of the Workplans.

According to these reports, the site was operated by Sully-Miller Contracting Company (SMCC) for surface mining of sand, gravel, and other aggregates. Previously mined portions of the site were backfilled with silt generated during mining and the areas backfilled have been referenced as silt ponds. (Ginter & Associates, Inc. (Ginter)).

The MBA ESA noted that aggregate was mined and processed at a SMCC's rock plant formerly located on site. The silt ponds were primarily located on the western half of the site. The mined sediments originate from alluvial deposits and are associated with the East-West trending Santiago Creek which forms the northern boundary of the site (Figure 1).

Based on the review of historical aerial photographs, significant portions of the subject property appear to have evidence of soil work including grading, excavation activity, and backfilling operations.

The Geomatrix ESA noted that Arbor West Services and Hiramatsu Farms (subleasing to Otsuka Farms) conducted agricultural activities in the 1990s on the eastern and western portions of the subject property for the growth of strawberries and other produce.

Geometric indicated the historical use on-site of organochlorine and organophosphate pesticides, herbicides, fungicides, and biocides. The historical aerial photographs reviewed from the 1940s through the early 1960s indicate that orchards were prevalent along the southern portion of the subject property adjacent to the sediment mining areas. In their 2009 ESA, MBA noted that no agricultural chemicals were observed onsite.

The SMCC operation onsite also had two hot-mix asphalt plants, two office buildings, two maintenance shop buildings, a residence, a laboratory user testing raw materials (sand and gravel), a small building used by the drivers as a waiting area (drivers shack), a diesel spray rack area used to spray the beds of rocks with

diesel fuel prior to transporting asphaltic concrete, numerous trailer and equipment/parts storage areas, several underground storage tanks (USTs), aboveground storage tanks (ASTs), and fuel and oil storage areas. The asphalt plant and associated structures were operated by Blue Diamond Materials (BDM) which is affiliated with its parent company, SMCC. The asphalt plant and buildings were demolished and/or removed in 1995 during site closure activities (Geomatrix ESA).

The Geomatrix ESA noted that there were three environmental investigations related to fuel spills and leaking USTs at the BDM/SMCC facility between April 1986 and January 1987. Fuel hydrocarbon-affected soil was excavated in the areas where the spills or leaks occurred in compliance with the OCHCA requirements.

The MBA ESA identified that the site closure activities performed in 1995 included the removal of 15 USTs and seven ASTs together with other structures used to store diesel and gasoline fuel, waste oil, asphalt emulsion oil, bituminous oil, and hydraulic oil. The MBA ESA noted "… *Extensive remediation for affected soils was conducted during site closure. Soil cleanup objectives and sampling frequency in the fuel UST areas were approved by the Orange Fire Department (Geomatrix, 2000).*"

Information for the BDM/SMCC site in the CRWQCB, Santa Ana Region GeoTracker website indicated the presence of a September 12, 1998 "No Further Action (NFA)" letter pertaining to the "…location of the former underground storage tank areas of the site."

Case information noted that eight USTs containing diesel duel, gasoline, and waste oil (ranging in size from 1,000 gallons to 22,600 gallons) were removed from the site on April 10, 1995. No groundwater contamination was discovered in three groundwater monitoring wells installed near the UST areas and the CRWQCB approved the site for NFA status.

Although reference to buried asbestos on-site was noted on-site in the Geomatrix ESA, none was found during multiple investigations which included drilling as well as trenching as further explained below.

The Villa Park Landfill, located southwest of the subject property, was reportedly closed in February 1966, and represents a potential source of methane and possibly other VOCs on the western portion of the site. We understand there are methane gas monitoring wells located on the western portion of the subject property and on the adjacent Villa Park Landfill.

Reported Potential Asbestos Burial

According to the LEA, a figure in the Phase II Environmental Site Assessment dated May 2011 prepared by Tait Environmental Services identified undocumented fill material in mining excavations (possibly including asbestos) indicating the presence of historical disposal site. Targhee performed two investigations using trenching and drilling techniques to locate the reported buried asbestos. The results of Targhee's investigation were inconclusive because the samples were never analyzed for the presence of asbestos. Leighton did not find a boring log by Targhee describing the soil types observed.

As noted in Tait's June 7, 2010 Response to the City of Orange Comments letter,

on June 16, 2008, the OCHCA collected three soil samples in the area where the suspected asbestos burial was reported; however, the three soil samples were non-detect for asbestos. According to Tait's letter, the OCHCA files indicated that the agency closed the case in light of the sample results.

The site investigation prepared in the Revised Environmental Sampling Workplan for Stockpiled Material Testing will evaluate multiple areas where undocumented fill may be present, including an area near the Targhee asbestos trench investigation to evaluate for the potential presence of asbestos and the COCs required by the LEA.

Review of Tait Environmental Services May 16, 2011 Phase II Site Assessment Activities Conducted at Rio Santiago Project Site

In 2011, Tait Environmental Services Inc. (Tait) conducted a Phase II Environmental Site Assessment (Phase II) at the subject property in advance of a potential multi-use redevelopment plan for the site. Tait collected from multiple areas across the site. Phase II included soil matrix core samples limited to near-surface soils (those less than 10 feet below grade) and soil vapor samples. The collection of soil vapor samples included only anticipated footprints of planned site buildings that were part of the proposed development.

Soil matrix core sample analyses were selected to evaluate for the presence of residual petroleum hydrocarbon compounds, VOCs, metals, and pesticide concentrations from previous site operations. The soil vapor samples evaluated landfill gas impacts from the adjacent Villa Park Landfill. Soil matrix core and soil vapor samples were not collected in excavated areas or areas covered by soil stockpiles.

Tait's Phase II also addressed potential data gaps that were identified to the City of Orange in an August 6, 2009 memorandum prepared by The Planning Center (TPC).

These included:

1. Undocumented fill material in mining excavations (possibly including asbestos).
2. Impacts from 15 USTs and seven ASTs
3. Re-evaluation of closure determination for eight former USTs due to proposed land use changes
4. Impacts from former agricultural use of project site, including pesticide storage and application, and ASTs previously located in former mulching and green waste recycling area.
5. Human health risk assessment of potential inhalation exposures to VOCs previously detected in subsurface soil at project site.
6. Impacts from previously observed, unlabeled 55-gallon drums and surrounding stained soil at project site.
7. Impacts from reported construction debris and illegal dumping around project site, including status of the former ponds (landfills or not)

Tait collected soil matrix core samples from the following areas:

- Former Sully-Miller Maintenance Shop and Equipment Storage Area (HAZ-8)
- Maintenance Buildings (HAZ-7)
- Former UST and AST Locations (HAZ-5 and HAZ-10)
- Asphalt Plant (HAZ-10)
- Materials Recycling Area (HAZ-10)
- Agricultural Areas (including Hiramatsu Farms) (HAZ-9 and HAZ-10)

The results of Tait's Phase II were compared to the EPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. Leighton's review of the Phase II indicated1:

- None of the soil samples contain pesticides at concentrations exceeding their respective RSLs.
- None of the soil samples contained TPH-gasoline at a concentration exceeding the San Francisco Bay Region, California Regional Water Quality Control Board Environmental Screening Level (ESL).

- Nine (9) soil samples containing TPH-diesel at concentrations exceeding the 83 milligram per kilogram (mg/kg) ESL. The soil samples were collected in the former Sully-Miller maintenance shop and equipment storage area.
- Fourteen (14) soil samples containing TPH-motor oil were detected at concentrations exceeding their 370 mg/kg ESL. The soil samples were also collected from the former Sully-Miller maintenance shop and equipment storage area and the former materials recycling area.
- The only VOCs detected in soil matrix or samples were toluene, ethylbenzene, and total xylenes. No RSL has been established for toluene for total xylenes. None of the detected ethylbenzene concentrations exceeded the ethylbenzene RSL.
- The soil vapor samples were collected at the former locations of the Sully-Miller maintenance shop, equipment storage, USTs and ASTs.
- The VOCs in the soil vapor samples were compared to the California Human Health Screening Levels (CHSSLs). Tait noted four soil vapor samples containing VOCs had concentrations exceeding the relevant CHHSLs. This included one soil vapor sample (C-6-5@15') that contained PCE and TCE above their respective CHHSLs. In addition, three soil vapor samples (A-6-16@15', A-6-18@15', and C-1-2@15') contained ethylbenzene above its CHHSL. Five soil vapor samples contained methane at concentrations approaching 1% by volume.

Import of Inert Debris Onsite

Leighton's review of the documents provided by Milan indicates that much of the subject property was excavated at one time for sand and gravel mining. The screening of the sand and gravel for commercial purposes resulted in separating silt and finer sediment material which were later hydraulically placed in the original excavations which provided the source of sand and gravel.

In 2007, Milan purchased the property to redevelop the site. The backfilled fine sediment was determined to be unsuitable for geotechnical purposes for the proposed Rio Santiago Development. Ginter & Associates, Inc. prepared multiple geotechnical reports describing the removal of the finer sediments from selected excavations and replacement with certified fill which included inert debris materials.

As part of an Environmental Impact Report prepared for a proposed land development formally known as Rio Santiago, Ginter noted "…Approximately 2,248,200 cubic yards of material will be over excavated. This includes all materials required to restore the project site. Once removed, the material will be spread and dried on the project site. The material will then be mixed with imported materials. A total of 1,100,000 cubic yards of material will be imported to the site. The imported materials include concrete, asphalt, rock, and soil. The imported materials will be crushed on-site. A total of 3,348,200 cubic yards of

material, both over excavated and imported to the project site, will be blended during the backfilling operation."

As set forth in the Stipulated N&O, as part of an Inert Debris Engineered Fill Operation (IDEFO), between approximately 2010 to 2012, Material Transport Services (MTS), Inc. transported inert debris to the site for backfilling many of the excavations that were generated during the sand and gravel pit mining activities. MTS submitted an Application/Report of Waste Discharge to the California Regional Water Quality Control Board dated December 22, 2010. The application noted that MTS, Inc. operates an inert material backfilling operation and indicated "… the operation intends to backfill the site within your materials to approximately natural grade." MTS indicated "…The inert debris includes fully cured asphalt, uncontaminated country, rock, and soil. These materials are spread on land in lifts and compacted under controlled conditions." On December 28, 2010, the CRWQCB issued a letter approving a Waiver of Waste Discharge Requirements for MTS, Inc. Company's Inert Landfill in the City of Orange under the General Waiver, Order No. B8-2007-0036. On January 18, 2011, an inspection by the CRWQCB indicated "The site is a new inert landfill. The site is in good condition. No violations noted."

Starting in approximately 2010, Milan initially used MTS to operate an IDEFO to conduct fill and compaction operations under engineering oversight. After initiating stockpiling, fill, and compaction activities at the Site, in 2013, Milan changed operators. After 2013, Milan continued to accept and stockpile inert debris for future fill operations at the Site in furtherance of development activities utilizing various operators, including Rio Santiago, LLC. Milan contends that it continued to accept only inert debris as part of an IDEFO. In 2015, while pursuing development approvals from the City and community, Milan temporarily shut down its operations as a good faith effort to work with interested parties with regard to an agreeable development plan for the Site. Operations were later restarted.

In January 2020, the LEA inspected the Site after receiving a complaint and determined that the Site should obtain a Registration Permit for an Inert Debris Type A Disposal Facility. Thereafter, Milan applied for the permit, which the LEA issued on June 22, 2020.

However, as further set forth in the Stipulated N&O, a dispute arose between the LEA and Milan over the validity of the permit and appropriate category of solid waste operations for the site. In October 2020, Milan ceased accepting and stockpiling debris.

1.2 Purpose and Planned Scope of Work

The purpose of this HASP is to define the health and safety requirements, which are to be observed by all Leighton personnel, their subcontractors, and visitors.

Geotechnical and environmental testing of soil within the soil stockpiles and below the current grade levels will be performed across the site in locations that were identified in the two Leighton investigation workplans. Soil sampling will be accomplished across the Site utilizing different types of drill rigs and construction equipment depending on the anticipated sols conditions. A summary of the proposed soil sampling methods and location is provided in the two Leighton investigation workplans.

The scope of work includes the following:

Evaluation of Borehole Locations for Subsurface Utilities

Leighton will retain a private utility locator for the completion of a geophysical survey of the proposed soil boring locations prior to drilling. The geophysical survey will be performed to assess the presence of buried magnetic, metallic, and electrically conductive features such as metal pipelines, buried tanks, drums, debris, electrical lines, rebar/post-tension cables in concrete slabs, and other subsurface features. The geophysical survey will use magnetometers and electro-magnetic survey equipment to complete the survey. Induction line tracer will be applied to features identified as metallic pipelines to enhance tracing such features. Ground penetrating radar will be employed on features discovered with other instruments to further evaluate anomalies. During the survey, underground features discovered by the utility locator will be clearly marked in color-coded paint or flagging. If a subsurface utility or feature is interpreted to be present directly underneath or near a proposed boring location, it will be relocated at the discretion of the field geologist to avoid the utility or feature. If a feature such as a buried tank or buried drum is detected during survey activities, the anomaly(ies) will be further investigated and delineated.

If provided by Milan or other parties at the request of Milan, Leighton will review as-built blueprints (if available) for the presence of private subsurface utilities in the proposed soil boring.

Drilling of Investigative Soil Borings and Soil Sampling

Drilling procedures at the site will be determined by the type of soil and the suitability of drilling rigs to obtain minimally disturbed soil and material samples from the designated depths established from each area. The three types of drilling

rigs will be considered for completing the scope of work including direct push rigs, hollow stem auger rigs, and air rotary casing hammer rigs. A brief discussion of each drilling rig and sampling procedures is provided below.

- Geoprobe (direct push sampling) - The initial sampling for the bulk of the soil stockpiles will be conducted with GeoProbe™ (or similar) direct-push sampling equipment. A hydraulic ram is utilized to drive a drill rod into the subsurface. The end of the ram is equipped with a hollow sampler and an acetate sleeve for sample retention. The sampler will be driven into the undisturbed soil to collect samples at approximate five-foot intervals. Once the sample has collected the sampler will be extracted and the acetate sleeve will be capped with Teflon™ sheets and plastic end caps. As noted above, the soil types encountered will be described using the USCS to evaluate the total thickness of the pile and determine when native soil/subgrade soil is interpreted to be present in the boring.

- Hollow Stem Auger - For areas where direct push sampling rigs either have encountered refusal or are likely to encounter refusal, a hollow stem auger (HSA) drill rig will be utilized to collect soil samples. The HSA drill rig advances a drill bit to the target sampling depth at which point a California-modified split spoon sampler is driven into the undisturbed soil to collect a soil sample. The sampler is equipped with brass rings which are removed and retained for sample analysis or used to observe and describe the soil type in the sample. The open ends of the brass rings retained for sample analysis will be covered with Teflon™ sheets and capped with plastic end caps. The soil and material types will be described to evaluate the total depth of the pile and determine when native soil is reached in the boring.

- Air Rotary Casing Hammer - For areas where a HSA drill rig either have encountered refusal or are likely to encounter refusal, an air rotary casing hammer (ARCH) drill rig will be utilized to collect samples. The ARCH utilized a pneumatic hammer to drive a flush threaded drill casing coupled with a rotary drill string to reach the target sample depth. This drilling method has the advantage of being able to penetrate concrete or rock debris. Once the target sampling depth is reached, the drill string is removed from the boring and a California-modified split spoon sampler is driven into the soil to collect a soil sample. The sampler is equipped with brass rings which are removed and retained for sample analysis or used to observe and describe the soil types encountered. The open ends of the brass rings retained for sample analysis will be covered with Teflon™ sheets and capped with plastic end caps. The soil

and material types will be described to evaluate the soil types and to determine when native soil is reached in the boring.

Inert Debris and Soil Stockpile Sidewall Sampling

- The stockpiles onsite consist both of inert debris and soil. In areas where conventional drilling is unsuitable, an excavator and/or backhoe will be mobilized to collect inert debris and soil samples from the sidewalls of the inert debris/soil stockpiles. Dust control measures will be employed when exposing the inert debris piles for sampling. The inert debris/soil samples will be manually collected directly from the open excavator/backhoe bucket. The staging area for the sampling activities will be from areas that are stable and not subject to wall failure.

- Two geologists (or one geologist and a trained subcontractor) may be needed during portions of this sampling; one to be located at grade level directing the location of the excavator/backhoe bucket sampling and the other to be located at least 10 feet (or an agreed upon safe distance) from the base of the excavator to manually collect the inert debris/soil samples.

Soil Sampling – Hand Augering

For smaller stockpiles (less than 5 feet above grade) where the number and frequency of sampling does not require advancement of borings, or where the material is not conducive to borings, Leighton proposes to collect samples either directly in brass sleeves or by advancing a hand auger and then utilizing a pre—cleaned slide hammer sampler to collect samples in a 6-inch brass sleeve. After sample collection, the brass sleeves will be capped with Teflon sheeting followed by plastic end caps. Any manually collected samples with be labeled with an ID noting the designated stockpile number, depth of sampling, date and time of sampling, and the name of the sample collector. The brass sleeves will be placed into a baggie and stored in a cooler chilled with ice and transported under proper chain-of-custody to the designated analytical laboratory.

Analytical Testing of Soil Samples

The analytical testing program for the soil samples collected as part of the environmental investigation will include the tests presented in the Stipulated N&O. These include the following analytical tests:

- TPH by EPA Method 8015,
- PAHs by EPA Method 8310,
- VOCs by EPA Method 8260 and SVOCs by EPA Method 8270 full scan
- analysis,
- Heavy Metals by EPA Method 6010B and 7471A,
- Pesticides (organochlorine and organophosphorus) by EPA Method 8081A or
- 8080A and 8141A,
- Herbicides by EPA Method 8151A,
- PCBs by EPA 8082 or 8080A,
- Asbestos by EPA Method 600/R93-116 or CARB 435, and
- pH.

Methane Gas Survey and Soil Vapor Survey for VOCs

As required in Section 3 of the Stipulated N&O, a methane gas survey will be performed at the site at multiple locations. The methane and possible VOC surveys will occur after the first phase of the soil sampling has been completed and analytical tests reviewed for the presence of VOCs and semi-VOCs (SVOCs). Review of the soil data is critical to determine whether sampling and testing for VOCs in soil vapor is required at a particular location as the LEA's October 31, 2022 Comments Letter noted "…*if VOCs are detected in soil and/or methane gas analysis, soil vapor probes must be installed at depths that capture both fill material and native soil*." After completion of the soil testing phases, the LEA will be consulted as to the locations for additional soil vapor testing.

The environmental geologist will be onsite to monitor and document observations (e.g., prepare boring logs, note VOC concentrations detected with a PID) associated with the drilling and soil sampling activities. The workplans should be referenced for details regarding site-specific sampling requirements at the Site.

1.3 Hazard Identification and Control

Prior to beginning work at the project site, all Leighton personnel, subcontractors and company-sponsored personnel will be required to be familiar with this HASP and emergency procedures specific to this project. All the subcontractors are responsible for the health and safety of their employees.

2.0 ORGANIZATION AND MANAGEMENT

Leighton employees and its subcontractors working onsite, and other onsite visitors are required to read and comply with the provisions of this HASP, and sign the Health and Safety Compliance Agreement as presented in Attachment A Health and Safety Forms.

2.1 Key Personnel

Project Geologist/Project Manager	Michael Priestaf, PG
Project Engineer/Project Manager:	Mark Withrow, PE
Site Geologist/Site Safety Officer:	Michael Priestaf, PG
Alternate Site Safety Officer:	Ines Cadavid-Parr, CSP
Project Health and Safety Officer/Industrial Hygienist:	Mark Zakrzewski, CSP
Subcontractors:	

2.1.1 Project Manager

The Project Manager is responsible for the overall operation of the project, including implementation of the health and safety program during field activities. This includes developing a site HASP, ensuring that all onsite workers have met the necessary health and safety training requirements and are knowledgeable about the work they will perform, assigning a qualified SSO to the field team, verifying compliance with all applicable safety and health requirements, and updating equipment and procedures based on new information gathered during the course of work. Specific responsibilities include organization of all project work assignments, assigning personnel to specific duties, ensuring that the field team follows health and safety procedures and overall quality assurance/quality control of the project.

The Project Manager also will be responsible for the day-to-day progress of the project and will hold review and plan meetings as necessary with all technical staff, during which the current progress, problems encountered, and future direction will be discussed.

2.1.2 Site Safety Officer (SSO)

Specific duties of the SSO will include:

1. Conduct daily safety orientation for all Leighton personnel, subcontractor personnel, and sponsored visitors new to the project site. All personnel will be notified of hazards associated with work being performed and documented onsite.

2. Conduct all safety-related training required for work being performed by company employees, subcontractor personnel, and visitors.

3. Monitor Company's own compliance with site-specific safety rules and HASP guidelines.

4. Verify compliance with Occupational Safety and Health Administration (OSHA) regulations.

5. The SSO will conduct daily briefings and record all health and safety activities.

6. Personnel documentation of training, medical surveillance, and fit-testing will be available onsite at all times.

7. Post safety posters, OSHA statistics, and worker's compensation posters as required by law.

8. Prepare appropriate investigative report forms for any accident-causing injury to Leighton employees and submit them to corporate headquarters.

9. The SSO has the authority to suspend work at any time he/she determines that the provisions of the HASP are inadequate to ensure worker safety.

2.1.3 Project Health and Safety Officer/Industrial Hygienist

The Industrial Hygienist/Project Health and Safety Officer will work with the Project Manager to develop the site-specific HASP and review the HASP to verify compliance with all applicable safety and health requirements. The Industrial Hygienist/Project Health and Safety Officer may also perform field audits to ensure that the HASP is being properly implemented by field staff and/or subcontractors.

2.1.4 Onsite Project Safety

The Project Manager and the SSO are responsible for ensuring compliance with safety procedures established for the performance of the work. The Project Manager may modify work practices to meet the safety requirements. The SSO has the primary responsibility in determining the modifications of any safety procedures. The Project Manager is responsible for the dissemination of the information contained in the HASP to the field personnel and to the responsible representative for each subcontractor working on the project. The Project Manager may also act as SSO and will be required to ensure the applicable health and safety rules, Leighton's procedures, and health and safety related documentation to be completed accurately and on time.

2.1.5 Pre-Project Briefing-Training

Site employees will attend a project orientation prior to starting the project. The orientation will review all elements of the HASP, including pre-emergency planning, specifically the location of potential health and safety hazards on the site; emergency procedures; traffic safety; noise; heat stress and applicable requirements of the HASP.

2.1.6 "Tailgate" Meetings

During the active field components of the project, the Project Manager or designee will conduct regular (i.e. pre-activity and daily, if the site is active for more than one day) "tailgate" safety meetings. This meeting will include information on the following subjects, as applicable:

- Changes to project scope.
- Recognized changes to site conditions.
- Review of safe work practices.
- Feedback from employees on hazards, safety suggestions, or concerns; and
- Recognition for compliance, good safety performance or attitude.

Attendance at the tailgate meetings is considered mandatory and a part of each employee's job responsibilities.

3.0 JOB HAZARD ANALYSIS

Hazards include trauma from physical hazards (including working near heavy equipment (drill rigs, excavator, backhoe, etc.), noise, slips, trips, and falls, heat stress, exposure to chemicals through ingestion, inhalation, or contact with impacted waste, sediment or water, and biological hazards. Physical hazards will be minimized through hazard awareness and adherence to Leighton's Health and Safety Manual and specific standard operating procedures (SOPs). SOPs for COVID-19 Prevention, Heat Illness Prevention, Drilling and Sampling, and Asbestos are provided in Attachments B through E, respectively. Daily safety meetings will emphasize the hazards that may exist that day and the precautions that should be taken to avoid injuries. Hazards due to chemical exposures will be minimized through the use of PPE and monitoring as outlined in Section 6.0. A first-aid kit, a 15-minute ANSI-approved eye-wash station, and a fire extinguisher will be present as part of Leighton's field equipment.

3.1 Biological Hazards

Biological Hazards Type(s)/Source: Biting insects (mosquitoes, wasps, bees, and ticks), animals, COVID-19 virus.

Controls:

- Isolation (Diligence – avoidance)
- PPE (Gloves/boots/long-sleeve shirts/long pants)
- Insect repellent, barrier creams, wasp spray. Hazard: Contact with plants, insects, and animals likely to be present at the site should be avoided. Stinging and biting insects, including bees, spiders, and ticks, can cause extreme discomfort and/or serious allergic responses. Insect bites are generally not dangerous unless they are from a poisonous insect or mosquitoes potentially carrying West Nile virus. The adjacent Santiago Creek and stagnant water associated with the winter and spring precipitation events may increase the potential for mosquito exposure during the filed activities and it is highly recommended that insect repellant (see below paragraph) be applied during the field work. Wearing long-sleeved outer wear to minimize exposed skin is recommended. The primary concern with animal bites and scratches is the potential for infection and/or rabies. Snake or scorpion bites can also be dangerous, but more from infection or trauma than the toxins injected by the snake or scorpion.

- Before beginning fieldwork each day, inspect the work area for the presence of standing water and inhabitant reptiles and take measures necessary to minimize the potential for contact. Specially prepared topical barriers and insect repellent containing approximately 50% DEET can be used for protecting exposed skin from biting insects. These products are commercially available and may minimize the potential for development of skin rashes and/or irritations due to such exposures; apply insect repellent sparingly to exposed skin. Note: Avoid contacting plastic zippers or other plastic closure mechanisms on clothing, equipment bags, etc., with DEET containing cream which will cause these materials to degrade. If you are allergic to bee or wasp stings, be sure to have the appropriate medically approved first aid available (e.g., an epi-pen) on the project. If you are stung, administer first aid, and seek immediate medical attention. Be sure a reptile or animal bite victim obtains medical attention quickly if a bite or scratch occurs, especially if there is a potential that it was poisonous. In the meantime, administer First Aid by scrubbing the wound with soap and water, and rinsing thoroughly under running water. Dry off and place a clean bandage on the wound. Victims of these bites should lie down and remain calm and motionless; cold packs should be applied, and medical attention sought immediately.

- The COVID-19 virus aerosol is spherical, with an approximate diameter of 0.125 micrometers. This virus is close in size to the particle size used to test the efficiency of the high efficiency particulate air (HEPA) filter components. Thus, P100 filters protect ≥99.97% efficiency against the virus. HEPA filter means a filter that is at least 99.97% efficient in removing monodisperse particles at a cut size of 0.3 micrometers in diameter. Because the particulates produced during coughing or sneezing will appear greater in size than the naked virus particle, the filter should be able to protect significantly better than ≥99.97%. It is important to note that the abovementioned filter will trap the virus, not kill it. Proper disposal of a contaminated filter (not reuse) or product is required and should follow local guidelines. It is imperative that the user read, understand, and follow all respective product user instructions specifically on donning, doffing, training, and disposal. Exhaled air will leave through an exhale valve that does not filter the exhaled air.

If an individual wearing a mask or hood is contagious, the filter will not prevent the individual from spreading the disease. Measures to be taken to prevent exposure to workers include three levels of action:

Engineering Controls include the following.

- Work in open areas and separate personnel.
- Provide hand washing stations to encourage hand washing.
- Discourage workers from using other workers' phones, desks, work tools, and equipment. If necessary, clean and disinfect them before and after use.
- Do not share vehicles.
- Be aware of touch points (shared equipment, door handles, rails, markers, cell phones, etc.).
- Post, in all areas visible to workers, required hygienic practices including not touching your face with unwashed hands or with gloves, washing hands often with soap and water for at least 20 seconds, use of hand sanitizer with at least 60% alcohol, cleaning AND disinfecting frequently-touched objects and surfaces such as workstations, keyboards, telephones, handrails, machines, shared tools, elevator control buttons, and doorknobs, covering the mouth and nose when coughing or sneezing as well as other hygienic recommendations by the Centers for Disease Control (CDC).

Note: N95 masks are available to all field personnel as required by Cal OSHA California's Aerosol Transmissible Diseases (ATD) Standard (California Code of Regulations title 8 section 5199). Each Leighton office has been issued N95s for field staff to use if requested.

Administrative Controls:

- Do not go to work if sick! Stay away from anyone who is sick!
- Stagger employees if applicable.
- Social distancing (6 to 10 feet) separation of personnel (mark boundaries with tape).
- Provide plenty of cleaning materials for personnel and equipment (hand sanitizer, soap and water, paper towels, sanitizing wipes, alconox).
- Good hygienic practices – washing hands for 20 seconds or more prior to eating or touching your face.
- Avoid touching your face.

Personal Protective Equipment (PPE):

- Face masks (required); use of face coverings may provide a barrier.
- Air Purifying Respirators may be used if working in close contact and social distancing is not available – use P100/HEPA filters with 99.97% efficiency or N95 masks.
- Safety Glasses/Goggles.
- Gloves (2 pairs) remembering to change them out keeping one pair on for final removal during decontamination.
- Decontamination of PPE, equipment, and personnel.
- Remove work clothing, without shaking and launder as usual.

Leightons Covid-19 Prevention Memorandum is provided in Attachment B.

3.2 Physical Hazards

Task – Driving to and from Site

Motor vehicle accidents are one of the number-one causes of employee injuries and deaths. Most accidents can be avoided by practicing defensive driving. Leighton's policies mandate that employee:

- Prepare themselves and their vehicle for the road before travel,
- Drive according to posted speed limits unless adverse conditions necessitate slower speeds,
- Never tailgate, employ the three (3) second rule in following vehicles,
- Fully comply with California Vehicle Code and other local laws and regulations regarding the use of cellular phones for communication while driving - talking on a hand-held cell phone and/or texting (texting is illegal under California Law) while driving is not only a significant hazard to yourself and others, but also violates Leighton's H&S policy,
- Use practical driving procedures in cities, on the freeway, and in rural areas, and
- Be aware of fatigue, and if necessary pull over in a safe location to rest instead of continuing to drive.

Task – Drilling Activities

Borings and soil sampling will be conducted with the use of a hand-auger, direct-push drill rig, hollow stem auger drill rig, and air rotary casing hammer drill rig depending on the location and type of materials anticipated. Sol samples will be collected and placed into glass jars, or into acetate sleeves.

- ***Chemical Hazards*** – Aerially deposited lead and other metals (potentially).
- ***Physical Hazards*** - Manual labor, cuts, bruises from use of hand tools, slips, trips and falls from uneven terrain, heat stress, noise, vehicular traffic, power lines underground.
- ***Biological Hazards*** - Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.), COVID-19 virus.

Mitigation Measures

- Only personnel associated with the activities will be allowed in the vicinity of the work area. Prior to hand augering and/or direct-push drilling activities, USA Dig Alert shall be contacted to assure proper clearances.

- Caution tape, cones, barricades, etc., will be provided to delineate the work area and prevent unauthorized personnel from entering work area. Traffic control will be provided to aid in reducing foot and vehicular traffic in the work area.

- Personnel will wear ANSI approved Class II high visibility vests (Class III at night) at all times and shall be aware of the movement of surrounding traffic.

- **Material Handling/Back Injury Hazard:** It is expected that field personnel will be required to use a drill rig and supplies and/or perform arduous tasks during this project. Accordingly, back injuries or physical strain may be caused by: routine lifting or one-time-only lifting, the weight of a lifted object, the frequency of lifting, bending, twisting, or rotating during lifting, prolonged sitting, exposure to vibrations, poor arch support in shoes, and, not stretching prior to physical activity. If the following "control" mechanisms are not exercised, debilitating back injury may occur.

  ➢ Control(s): Before attempting to lift and carry an object, always test its weight first. If it is too heavy, get help. If possible, use mechanical lifting aids. If manageable, the proper method for lifting is:

  - Get a good footing,
  - Place feet about shoulder width apart,
  - Bend knees to pick up load. Never bend from the waist,
  - Keep back straight,
  - Get a firm hold. Grasp opposite corners of the load, if possible,
  - Keep the back as upright as possible,
  - Lift gradually by straightening the legs - don't jerk the load,
  - Keep the weight as close to the body as possible, and
  - When changing directions, turn the entire body, including the feet. Don't twist the body. If devices are used for handling materials manually (e.g., two-handed lifters, barrel ring clamps, hand trucks, wheelbarrows, etc.), wear protective equipment like gloves and safety shoes to minimize the potential of appendages becoming pinched or smashed between the load and stationary features. Also, avoid overloading the device.

- **"Striking" Injuries Hazard:** Injuries can, and often, result when a person (a kinetic mass) unexpectedly instigates contact with another kinetic mass. These occurrences typically result from inadvertent slips, trips and falls.

- Control(s): To minimize risks of “slip/trip” hazards, personnel shall maintain a constant program of good housekeeping, keeping areas clear of trip hazards and wet and slippery surfaces. All hand tools shall be regularly secured, and care shall be taken when entering areas where work is being performed above eye level.

- **"Struck-by" Injuries:** Shoulder or Median Work Hazard: Injuries can, and often, result when one becomes an unexpected receptor of contact with a moving vehicle or another kinetic mass. These occurrences typically result from the worker being struck by a dropped or collapsed mass or a moving piece of equipment or vehicle. This is particularly important during nighttime operations where visibility is restricted.

  ➢ Controls:

  - PPE: ANSI approved Class II/III reflective vest (speed of highway traffic greater than [>] 50 mph) and reflective head gear (hard hat); night work reflective ensemble. Personnel working in proximity to operating equipment shall maintain a high degree of awareness and remain out of harm’s way of the moving portions of the equipment. Trucks, backhoes, excavators, and other heavy equipment shall be equipped with a backup alarm to warn workers that the vehicles are moving in reverse. In addition, personnel shall carry an air horn or other warning device whenever working in proximity to heavy equipment where the operator’s full view of the work area is impeded. Workers shall maintain a persistent awareness of traffic patterns/conditions throughout the duration of the field services.

  - Traffic Control: An experienced traffic control subcontractor will be onsite during the field activities and will implement appropriate traffic control in accordance with the WATCH Manual within City right-of-way and the California Manual on Uniform Traffic Control Devices within Caltrans right-of-way. Caution tape, cones, barricades, etc., will be provided to delineate the work area and prevent unauthorized personnel from entering the work area. The work will be conducted on both sides of SR-14 at Avenue K. A traffic control plan is included to the rear of the HASP and shall include the shoulder(s) of the freeway, as deemed necessary.

- **Underground Utility Hazards Type(s)/Source:** Electric, gas, water, sewer, and communication cables. Potential Hazards: Shock or electrocution, work area flooding. Qualified Exposure Risk: Moderate to high Hazard. Contact with electrical current can cause shock, electrical burns, and/or be instantly fatal if shovels, picks, breaker bars, or powered augers contact energized electrical wires or cables.

➢ Control(s): First mark out all drill locations. Contact Underground Service Alert (USA, i.e. Dig Alert) at 800-642-2444 and review available as-built plans before performing any digging activity. Direct push drilling should not proceed until all locating activities have been completed and fully documented in the site records. The initial pre-project orientation meeting should include a review of the underground utility locations. The position of any suspected underground utility lines should be marked on the site plan. The site safety orientation shall include a site walkover of each marked utility or line. Should personnel encounter a suspicious sub-surface condition that may be a previously unidentified underground line or utility, they should immediately cease work, secure their equipment, and notify their supervisor.

- **Noise Hazards:** Equipment operated may present a noise hazard to employees. In all cases where the sound pressure levels may exceed a time-weighted average noise dose of 85 decibels, A-Weighed (dBA, the Noise Action Level), the Safety Officer will evaluate exposures according to Leighton's Hearing Conservation Program (ref. T8 CCR §§5095-5100). Selection of hearing protection will be made in accordance with the Safety Equipment Guide. Only hearing protectors (ear plugs or muffs) with a Noise Reduction Rating of 20 decibels (dB), or higher, will be used. When worn, earmuffs will be donned in the "over the head" position with the hair pulled back from the sealing surface. Note: In general, noise levels in excess of 85 dBA interfere with communication between two individuals speaking in a normal tone of voice at three (3) feet from one another.

- **Heat Stress and Heat Strain Type(s)/Source**: Solar load – working outdoors, Qualified Exposure Risk: Moderate to high Primary "Control": Compliance with T8 CCR §3395 Heat Illness Prevention, Dress appropriately for the expected weather conditions; Adequate supply of drinking water, fluid consumption. Hazard: In addition to the chemical, physical and operational hazards referenced above, heat stress may present a potential hazard to personnel during the on-site operations. This hazard can be created when individuals work in warm temperatures while wearing relatively impervious chemical protective clothing (CPC), i.e., Tyvek™ coveralls. When ambient air temperatures at a project site exceed approximately 80 degrees Fahrenheit, the following precautions shall be implemented:

  - Controls: The Project Manager, Site Safety Officer or designee will regularly monitor daily weather forecasts and monitor ambient air temperatures; for any work performed during daylight hours when temperatures are anticipated to exceed 80 degrees Fahrenheit, a shaded rest area must be available, and the shaded area shall be located as close as practicable to the areas where employees are working. In addition, routinely observe and monitor construction workers for signs and symptoms of heat stress including dizziness, profuse sweating, or lack of perspiration (hot dry skin), and skin color change – flush appearance. If necessary, monitor for increased heart rate and potential vision problems. Personnel who exhibit any of these symptoms will immediately be removed from field work to a shaded location and required to consume 2 to 4 pints of cool water while resting. Individuals exhibiting symptoms of heat stress should not return to work until the symptoms are no longer recognizable. Note: If symptoms of hot, dry skin or other critical symptoms appear, immediately implement emergency medical procedures by dialing 911. While awaiting the arrival of emergency medical services attempt to cool the individual's body by saturating their upper clothing (shirt) with cool, but not chilled or cold water. To control the potential occurrence of heat stress, preventive measures will be evaluated and implemented daily (ref. T8 CCR §3395 Heat Illness Prevention).

These measures will include:

- Schedule periodic cooling and rest (recovery) periods in a shaded area (ref. T8 CCR §3395(d) Heat Illness Prevention),
- Designated shaded rest areas, or portable shade structures must be available when the ambient daily high temperature is predicted to exceed 80 degrees Fahrenheit, or 75 degrees Fahrenheit if CPC will be required to be worn, and
- Encouragement of water intake, the equivalent quantity of 1 quart of water (4 cups) per hour per on-site worker (2 gallons per person, per day) be available before work begins unless provisions for immediate water replenishments are available (nearby store, plumbed water supply, etc.). Water must always be replenished before running out (ref. T8 CCR §3395(c) Heat Illness Prevention).

- **Lack of Illumination Hazard:** Since phases of construction work for this project are not scheduled to be performed at night, poor illumination will not likely contribute significantly to the hazards of site tasks.

  ➢ Control: During night and early morning work, or during periods of limited visibility due to adverse weather conditions, all work areas will be provided with illumination using portable generators with light stanchions meeting the minimum intensities specified in the Cal/OSHA regulation, T8 CCR §3317 (5 foot-candles).

- **Rainy Conditions:** Personnel will work in the rain unless inclement weather, such as lightning, severe windy conditions are anticipated. Personnel will check the weather forecast prior to field activities to plan accordingly (raingear, windbreakers, etc.).

- **Ergonomics:** Personnel will be encouraged to stretch prior to and during rest breaks to avoid strains, muscular and back injuries.

3.3 Job Task Analysis and Mitigation Measures

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Site Mobilization **Utility Clearance**	Proposed boring locations will be marked for locating existing underground utilities through Underground Service Alert and private utility services. **Dig Alert Number: 811**	None anticipated for this task	Noise, struck by heavy equipment/vehicle, becoming entwined in equipment, objects falling from above, slips, trips and falls from uneven terrain, and heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.), COVID-19 virus.
Mitigation Measures				
Chemical Hazards - No chemical hazards are anticipated. **Physical Hazards** - Personnel will inspect tools prior to their use. Drill rig will be inspected prior to operation. PPE required consists of hard hat, high visibility safety vests, safety glasses, long pants, steel-toed boots, and face masks. During time of temperatures exceeding 80 °F workers will take frequent shade breaks and will be encouraged to drink sufficient quantities of water to maintain hydration as outlined in Section 14.1. In the event of inclement weather (lightning/heavy rains/wind exceeding 15 mph) work will be halted until work can continue safely. **Biological Hazards** - The following precautions shall be taken to avoid exposure to these hazards: *Poisonous plants* --Avoid areas where there are suspect poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants. *Bees, spiders, other insects* - Always wear nitrile gloves, long sleeves and long pants; Be aware of surroundings (i.e. bee hives, snakes holes, the stockpiles of inert debris and soil may provide cover for snakes and other pests); Have appropriate first-aid kit and insect repellant on hand at all times. *COVID-19 Virus* – Follow guidelines published by the CDC, such as use of face masks, maintaining social distance of at least 6 feet, cover coughs and sneezes, and wash hands frequently for a minimum duration of 20 seconds.			
Drilling and Sampling	Borings will be advanced using a direct push drill rig, hollow stem auger, air rotary casing hammer, or from an excavator/backhoe bucket.	Lead, OCPs, Arsenic, TPH, VOCs, Title 22 Metals, Asbestos, Methane	Noise, struck by heavy equipment/vehicle, becoming entwined in equipment, objects falling from above, slips, trips and falls from uneven terrain or unprotected borings, power lines, and heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.), COVID-19 virus.

<table>
<tr><th>Task</th><th>Description of Task</th><th>Chemical Hazards</th><th>Physical Hazard</th><th>Biological Hazards</th></tr>
<tr><td colspan="5">Mitigation Measures</td></tr>
<tr><td colspan="5">Chemical Hazards - Personal protective equipment (nitrile gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil and/or groundwater. Air monitoring equipment - photoionization detector (PID), a combustible gas indicator (CGI), and a dust monitor will be used to monitor in and around the work area and in the workers breathing zone during field activities to determine it respiratory protection is required.

Physical Hazards - Only personnel associated with field activities will be allowed in the work area. Caution tape, cones, barricades, etc. will be provided to delineate the work area and prevent unauthorized personnel from entering. Prior to drilling, the drill rig, slings, chains and tools will be inspected, utilities marked, shut down confirmed, and visually surveyed overhead. A tailgate briefing will be held daily and attended by all personnel involved in field activities. Personnel will wear high visibility vests at all times while onsite and shall be aware of the movement of heavy equipment (if present) or traffic. PPE required consists of hardhat, safety glasses, high visibility safety vest, nitrile gloves, hearing protection devices, masks/face covering, and steel toed boots. Precautions to prevent heat stress and reduce the effects of extreme outside temperatures (greater than 80 °F) will include a combination of workplace observations and work/rest cycles, as outlined in Section 14.1. In the event of inclement weather (lightning/heavy rains/wind exceeding 15 mph) work will be halted until work can continue safely. As noted in Section 1.2 (stockpile wall sampling), two environmental personnel may be required when the excavator/backhoe sampling activities are performed on the exterior areas of the inert debris/soil stockpiles.

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:

Poisonous plants --Avoid areas where there are suspect poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.

Bees, spiders, other insects - Always wear nitrile gloves, long sleeves and long pants; Be aware of surroundings (i.e. bee hives, snakes holes, the stockpiles of inert debris and soil may provide cover for snakes and other pests); Have appropriate first-aid kit and insect repellant on hand at all times.

COVID-19 Virus – Follow guidelines published by the CDC, such as use of face masks, maintaining social distance of at least 6 feet, cover coughs and sneezes, and wash hands frequently for a minimum duration of 20 seconds.

Investigation Derived Waste (IDW) – All IDW will be placed in drums/bins, appropriately labeled, and disposed of in accordance with applicable regulatory requirements.</td></tr>
<tr><td>Decontamination and Containerization of IDW</td><td>Decontamination of tools and placement of IDW into US DOT-approved drums for disposal</td><td>Lead, OCPs, Arsenic, TPH, VOCs, Title 22 Metals, Asbestos</td><td>Noise, struck by heavy equipment/vehicle, becoming entwined in equipment, objects falling from above, slips, trips and falls from uneven terrain, and heat stress.</td><td>Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.), COVID-19 virus.</td></tr>
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Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards

Chemical Hazards - Personal protective equipment (nitrile gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil and/or groundwater. Air monitoring equipment - photoionization detector (PID), a combustible gas indicator (CGI), and a dust monitor will be used to monitor in and around the work area and in the workers breathing zone during field activities to determine it respiratory protection is required.

Physical Hazards - Only personnel associated with field activities will be allowed in the work area. Caution tape, cones, barricades, etc. will be provided to delineate the work area and prevent unauthorized personnel from entering. Prior to drilling, the drill rig, slings, chains, and tools will be inspected, utilities marked, shut down confirmed, and visually surveyed overhead. A tailgate briefing will be held daily and attended by all personnel involved in field activities. Personnel will always wear high visibility vests while onsite and shall be aware of the movement of heavy equipment (if present) or traffic. PPE required consists of hardhat, safety glasses, high visibility safety vest, nitrile gloves, hearing protection devices, masks/face covering, and steel toed boots. Precautions to prevent heat stress and reduce the effects of extreme outside temperatures (greater than 80 °F) will include a combination of workplace observations and work/rest cycles, as outlined in Section 14.1. In the event of inclement weather (lightning/heavy rains/wind exceeding 15 mph) work will be halted until work can continue safely.

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:

Poisonous plants --Avoid areas where there are suspect poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.

Bees, spiders, other insects - Always wear nitrile gloves, long sleeves and long pants; Be aware of surroundings (i.e. bee hives, snakes holes, the stockpiles of inert debris and soil may provide cover for snakes and other pests); Have appropriate first-aid kit and insect repellant on hand at all times.

COVID-19 Virus – Follow guidelines published by the CDC, such as use of face masks, maintaining social distance of at least 6 feet, cover coughs and sneezes, and wash hands frequently for a minimum duration of 20 seconds.

Investigation Derived Waste (IDW) – All IDW will be placed in drums/bins, appropriately labeled, and disposed of in accordance with applicable regulatory requirements.

3.4 Chemical Hazards

The following contaminants of concern during the drilling and sampling activities at the Site are listed below. A summary of their exposure routes and exposure limits are listed on Table 1.

ASBESTOS

Asbestos is a naturally occurring mineral that is found throughout the world. The fibers are extremely strong, flexible, and very resistant to heat, chemicals, and corrosion. Asbestos materials are used in the manufacture of heat-resistant clothing, automotive brake and clutch linings, and a variety of building materials

including insulation, soundproofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet and fire-resistant drywall. Asbestos is also present in pipe and boiler insulation materials, pipeline wrap and in sprayed-on materials located on beams, in crawlspaces, and between walls.

Leighton personnel could potentially encounter asbestos during field activities if asbestos containing materials were previously disposed, used, or stored onsite (e.g, possibly in the subgrade areas where possible asbestos disposal was previously suspected, but not found). The LEA has also indicated that asbestos may have been used as an additive in older asphalt materials. All personnel will be trained in Asbestos Awareness as required by the Title 8 CCR Section 1502 Application, 1529 Asbestos, and Title 8 CCR 5194 Hazard Communication Standard, prior to the commencement of field activities.

Exposure to asbestos fibers can cause serious health risks. Asbestos fibers can easily penetrate body tissues and cause disabling and fatal diseases after prolonged exposure. The most dangerous exposure to asbestos is from inhaling airborne fibers. The body's defenses can trap and expel many of the particles. However, as the level of asbestos fibers increases many fibers bypass these defenses and become embedded in the lungs. The fibers are not broken down by the body and can remain in body tissue indefinitely. Exposure to asbestos has been shown to cause respiratory diseases such as lung cancer, asbestosis, mesothelioma, and various types of stomach and colon cancer.

Asbestos can be defined as friable or non-friable. Friable means that the material can be crumbled with hand pressure and is therefore likely to emit fibers. The fibrous or fluffy sprayed-on materials used for fireproofing, insulation, or sound proofing are friable and they readily release airborne fibers if disturbed.

Materials such as vinyl-asbestos floor tile or roofing felts are considered non-friable and generally do not emit airborne fibers unless subjected to sanding or sawing operations. Asbestos cement pipe or sheet can emit airborne fibers if the materials are cut, abraded, or sawed, or if they are broken during demolition or drilling operations.

The following general precautions will reduce exposure and lower the risk of asbestos related health problems:

- Use common sense when working around materials that are suspected to contain asbestos. Unique to this Site, avoid touching or disturbing asbestos materials that may be on the varied building materials present on inert debris piles.
- In the presence of asbestos dust above the PEL, the use of a respirator approved for asbestos work is required (air purifying respirator with high efficiency particulate air (HEPA) filters. A dust mask is not acceptable because asbestos fibers will pass through it.
- Implement dust control measures, including dust suppression especially when moving debris piles.
- An effective tailgate to assist with the identification of potential ACMs during excavations and field activities.
- Good site hygiene by all staff (hand washing, no eating or drinking in the immediate work area, no applying lip balms in immediate area, etc.)
- Provision of specific PPE (personal protective equipment) and respiratory protective equipment to relevant staff with effective training and fitting.
- Effective training of all staff (asbestos awareness), involving them directly in works where they will encounter potentially asbestos-contaminated materials.
- Air monitoring for reassurance and control purposes.
- Where necessary, employment of specially licensed asbestos subcontractors to assist with characterization.
- Emergency and contingency plans for dealing with larger volumes of ACMs should they be encountered.
- Ongoing testing of materials, especially for waste classification, and correct classification of wastes in line with regulations.

Leighton personnel do not perform abatement activities related to asbestos, but they are trained to recognize materials that may contain asbestos and have protocols in place to **stop work** and proceed with the proper notifications. In the event suspected asbestos containing materials are encountered, all work will stop in that location until testing can confirm whether asbestos is present. In areas of the inert debris piles, where drilling and sampling will occur, personnel will wear respiratory protection (air purifying respirator with HEPA filters).

LEAD

Acute lead exposure can lead to brain damage, renal tubular dysfunction, hemolysis, liver damage, seizures, coma, and respiratory arrest. Chronic low-level lead exposure can affect the hematopoietic, nervous, and cardiovascular systems. One characteristic effect is anemia caused by reduced hemoglobin production and shortened red blood cell survival. Lead can result in brain damage or other neurotoxin effects. Lead exposure is also linked to degenerative changes in the heart and kidneys. Symptoms of lead exposure include weakness, characteristic "wrist drop", weight loss, lassitude, insomnia, and hypotension.

Other physical signs of exposure include facial pallor, malnutrition, and abdominal tenderness. Metal toxicity typically results from chronic exposure and is associated with inhalation or ingestion of dust and particulates containing these constituents.

ARSENIC

Acute arsenic exposure can lead to vomiting, abdominal pain, diarrhea, dark urine, dehydration, cardiac arrhythmia, hemolysis, vertigo, delirium, shock, and death. Chronic low-level arsenic exposure can cause hyperkeratosis and can affect the nervous system, liver, and kidneys. Arsenic is a known human carcinogen and is linked to the development of cancers of the bladder, lung, kidney, and skin.

CHLORINATED PESTICIDES

OCPs are organochlorine pesticides which were used extensively from the 1940s through the 1960s in agriculture and mosquito control. Representative compounds in this group include dichloro-diphenyl-trichloroethane (DDT), methoxychlor, dieldrin, chlordane, toxaphene, mirex, kepone, lindane, and benzene hexachloride. As neurotoxicants, many OCPs were banned in the United States, although a few are still registered for use in this country.

Exposure to OCPs may occur through accidental inhalation exposure if OCPs were previously applied. OCPs can also be ingested in fish, dairy products, and other fatty foods that are contaminated. OCPs accumulate in the environment, are very persistent and move long distances in surface runoff or groundwater.

Exposure to OCPs over a short period may produce convulsions, headache, dizziness, nausea, vomiting, tremors, confusion, muscle weakness, slurred speech, salivation and sweating. Long-term exposure may damage the liver, kidney, central nervous system, thyroid and bladder. Many of these pesticides

have been linked to elevated rates of liver or kidney cancer in animals. There is some evidence indicating that OCPs may also cause cancer in humans.

POLYAROMATIC HYDROCARBONS

Polycyclic aromatic hydrocarbons (PAHs) are a class of chemicals that occur naturally in coal, crude oil, and gasoline. They result from burning coal, oil, gas, wood, garbage, during the manufacture of asphalt and tobacco. PAHs can bind to or form small particles in the air. High heat when cooking meat and other foods will form PAHs. Naphthalene is a manmade PAH used in the United States to make other chemicals and mothballs. Cigarette smoke contains many PAHs.
Exposure to PAHs can occur by:

- Breathing air containing
  - Motor vehicle exhaust
  - Cigarette smoke
  - Wood smoke
  - Fumes from asphalt debris/roads (note the SMCC manufactured asphalt in the central area of the Site).
- Consuming grilled or charred meats or foods
- Eating foods on which PAH particles have settled from the air.
- In some cases, passing through the skin.

After PAHs enter a person, the body converts PAHs into breakdown products called metabolites. The metabolites pass out of the body in the urine and feces.

Human health effects from indirect exposure to low levels of PAHs are unknown. Large amounts of naphthalene in air can irritate eyes and breathing passages. Occupational skin exposure with liquid naphthalene and breathing its vapors may be harmful. Workers have become sick with blood and liver problems from large amounts of exposure. Scientists consider several of the PAHs and some specific mixtures to be cancer-causing chemicals.

TOTAL PETROLUEM HYDROCARBONS (TPH)

Petroleum hydrocarbons such as diesel, lube oil, motor oil, and hydraulic oil may cause irritation of the eyes, skin, and mucous membranes. SMCC used diesel and other TPH constituents during the manufacture of asphalt onsite. Symptoms include headache, fatigue, blurred vision, dizziness, slurred speech, confusion, and convulsions. Exposure may lead to possible liver and/or kidney damage.

VOLATILE ORGANIC COMPOUNDS

VOCs in general cause irritation to eyes, skin, and upper respiratory system. If inhaled, they may cause dizziness, headache, nausea, or difficulty in breathing. Acute vapor exposures to VOCs can cause symptoms ranging from coughing to transient anesthesia and central nervous system depression. Many organic solvents are recognized by the National Institute for Occupational Safety and Health (NIOSH) as carcinogens (e.g., benzene, carbon tetrachloride, trichloroethylene), reproductive hazards (e.g., 2-ethoxyethanol, 2-methoxyethanol, methyl chloride), and neurotoxins (e.g., n-hexane, tetrachloroethylene, toluene). Many different classes of chemicals can be used as organic solvents, including aliphatic hydrocarbons, aromatic hydrocarbons, amines, esters, ethers, ketones, and nitrated or chlorinated hydrocarbons.

A summary of the chemicals of concern and their health effects is provided below in ***Table 1.***

Table 1 - Suspected Chemicals of Concern[1]

Compound	Health Effects	PEL[2]
Asbestos	**Exposure Routes** – Inhalation, ingestion, skin and/or eye contact **Symptoms** – Asbestosis (chronic exposure), dyspnea (breathing difficulty), interstitial fibrosis, restricted pulmonary function, finger clubbing, irritation eyes; occupation carcinogen **Target Organs** – Respiratory system, eyes. ***Note**: Refer to 8 CCR 1529 Asbestos Standard*	0.1 fibers/cc 0.2 Excursion Limit (3o min) – 1 fiber/cc
Lead	**Exposure Routes** – Inhalation, ingestion, skin and/or eye contact **Symptoms** – 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 **Target Organs** – Eyes, gastrointestinal tract, central nervous system, kidneys, blood, gingival tissue **Note**: Refer to 8 CCR 1532.1 Lead Standard	PEL/TLV 0.05 mg/m^3 ACTION LEVEL - 0.03 mg/m^3
Arsenic	**Exposure Routes** – Inhalation, skin absorption, ingestion, skin and/or eye contact **Symptoms** – Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin, [potential occupational carcinogen] **Target Organs** – Liver, kidneys skin, lungs, lymphatic system **Note:** Refer to 8 CCR 5214 Arsenic Standard	NIOSH 0.002 mg/m^3 – 15 min. Ceiling PEL/TLV 0.01 mg/m^3
OCPs (as DDT)	**Exposure Routes** – Inhalation, ingestion, skin and/or eye contact **Symptoms** – Nausea, confusion, agitation, tremor, convulsions, unconsciousness; dry, red skin; [potential occupational carcinogen] **Target Organs:** Liver, kidney, central nervous system, skin	NIOSH 0.5 mg/m^3 PEL/TLV – 1 mg/m^3 Skin Notation[5]

Compound	Health Effects	PEL[2]
TPH	**Exposure Routes** – Inhalation, skin absorption, ingestion, skin and/or eye contact **Symptoms** – Irritation eyes, skin, mucous membrane; dermatitis; headache, lassitude (weakness, exhaustion), blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis (aspiration liquid); possible liver, kidney damage; [potential occupational carcinogen] **Target Organs** – Eyes, skin, respiratory system, central nervous system, liver, kidneys	PEL/TLV – 300 ppm (gasoline) STEL[3] – 500 ppm
Benzene	**Exposure Routes** – Inhalation, Absorption, Skin and/or Eye Contact, Ingestion **Symptoms** – Irritation eyes, skin, nose, respiratory system; giddiness, headache, nausea, staggered gait, fatigue, anorexia, lassitude; dermatitis, bone marrow depression **Target Organs** – Eyes, skin, respiratory system, blood, central nervous system, bone marrow. Carcinogen.	PEL – 1.0 ppm TLV – 0.5 ppm AL – 0.5 ppm STEL – 5.0 ppm IDLH[4] – 500 ppm Skin Notation[5]
Ethylbenzene	**Exposure Routes** – Inhalation, Absorption, Skin and/or Eye Contact, Ingestion **Symptoms** – Irritation eyes, skin, mucous membrane, headache, narcosis, coma, dermatitis **Target Organs** – Eyes, skin, respiratory system, central nervous system	PEL – 5.0 ppm TLV – 20 ppm STEL – 30 ppm IDLH – 800 ppm
Toluene	**Exposure Routes** – Inhalation, Skin Absorption, Ingestion, Skin and/or Eye Contact **Symptoms** – Irritation eyes, nose; fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, nervousness, dermatitis, liver, kidney damage. **Target Organs** – Eyes, skin, respiratory system, central nervous system, liver and kidneys	PEL – 10 ppm TLV – 20 ppm Ceiling[6] – 500 ppm STEL – 150 ppm IDLH – 500 ppm Skin Notation[5]
Xylenes	**Exposure Routes** – Inhalation, Absorption, Ingestion, Skin and/or Eye Contact **Symptoms** – Irritation eyes, skin, nose, throat; dizziness, drowsiness, excitement, staggering gait, anorexia, headache, nausea, vomiting, abdominal pain, dermatitis. **Target Organs** – Eyes, skin, respiratory system, blood, central nervous system, gastrointestinal tract, liver, and kidneys.	PEL/TLV – 100 ppm STEL – 15 ppm IDLH – 900 ppm
Naphthalene	**Exposure Routes** – Inhalation, skin absorption, ingestion, skin and/or eye contact **Symptoms** – irritation eyes, headache, confusion, excitement, malaise (vague feeling of discomfort), nausea, vomiting, abdominal pain, irritation of bladder, profuse sweating, jaundice, hematuria (blood in urine), renal shutdown, dermatitis, optical neuritis, corneal damage. ***Target Organs:*** *Eyes, skin, blood, liver, central nervous system, kidney*	CA-PEL/TLV – 0.1 ppm Ceiling – 300 ppm STEL – 150 ppm IDLH – 250 ppm
Perchloroethylene (PCE) Colorless liquid with an aromatic sweet odor - 1 ppm	**Exposure Routes** – Inhalation, skin absorption, ingestion, skin and/or eye contact **Symptoms -** Irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen] **Target Organs -** Eyes, skin, respiratory system, liver, kidneys, central nervous system; Cancer site in animals: liver tumors	PEL – 25 ppm Ceiling– 300 ppm STEL – 100 ppm IDLH – 150 ppm IP = 9.32 eV
Trichloroethylene (TCE)	**Exposure Routes -** Inhalation, skin absorption, ingestion, skin and/or eye contact **Symptoms -** Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness,	PEL – 25 ppm Ceiling– 300 ppm STEL – 100 ppm

Compound	Health Effects	PEL[2]
Sweet, solvent like odor – 0.2 ppm	nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen] **Target Organs -** Eyes, skin, respiratory system, heart, liver, kidneys, central nervous system; Cancer site in animals: liver and kidney cancer	IDLH – 1000 ppm IP = 9.45 eV

[1]Chemicals listed are based upon historical information.
[2]PEL/TLV – California OSHA Permissible Exposure Limit, 8 CCR 5155, Table AC-1, TLV – Threshold Limit Value
[3]STEL – Short Term Exposure Limit
[4]IDLH – Immediately Dangerous to Life and Health Level, National Institute of Occupational Safety and Health (NIOSH) Publication 2010
[5]Skin Notation – The substances designated by "S" in the skin notation column of Table AC-1 of 8 CCR 5155 may be absorbed into the bloodstream through the skin, the mucous membranes and/or the eye, and contribute to the overall exposure. Appropriate protective clothing shall be provided for and used by employees as necessary to prevent skin absorption.
[6]Ceiling Limit - Employee exposures shall be controlled such that the applicable ceiling limit specified in Table AC-1 for any airborne contaminant is not exceeded at any time.
ACGIH – American Conference of Governmental Industrial Hygienists
ppm – parts per million
mg/m^3 – milligrams per cubic meter
IP - Ionization Potential

4.0 HAZARD ASSESSMENT SUMMARY

Based on the potential for exposure to physical and chemical hazards during field activities, the Project should be considered as potentially hazardous. The use of PPE and work site monitoring will significantly reduce the potential for exposure. Nearby public exposure is considered insignificant due to the proximity, and the fact that the public access to this site and work zone is prohibited. The potential of serious injuries will be reduced by daily safety meetings, worker awareness, following procedures, and a full-time health and safety officer present at the Project.

5.0 AIR MONITORING PLAN

Implementation of the air monitoring program at the site will be determined by conditions encountered during field activities. Leighton will initially conduct the air monitoring for worker protection to determine if the engineering controls (dust suppression) are effective to minimize personnel exposure. A combustible gas indicator (CGI), Photo-Ionization Detector (PID), particulate monitor will be used to monitor the worker's breathing zone and exclusion zone work area for methane, VOCs, and particulates, respectively, during field activities.

5.1 Action Levels

Table 2 provides a summary of the air monitoring, work practices and action levels for the expected parameters.

Table 2 - Air Monitoring Summary and Action Levels

Monitoring Device	Minimum Frequency	Action Level	Action
Action Levels for Air Monitoring for VOCs			
PID or Equivalent	Every 15 minutes	Background to 1 ppm – VOCs	Modified Level D
PID	Every 15 minutes	>1 ppm above background in breathing zone sustained	Continue with Level D and monitor for benzene and naphthalene with Gastec or Dräger tubes.
PID with benzene/naphthalene Gastec or Dräger tubes.	Every 15 minutes	>1 ppm detected benzene or naphthalene concentration	Upgrade to Level C up to 25 ppm in the breathing zone
PID	Every 15 minutes	>10 ppm - 25 ppm above background in breathing zone sustained (no benzene or naphthalene detected)	Continue with Level D.
Action Levels for Air Monitoring for Combustible Gases			

Monitoring Device	Minimum Frequency	Action Level	Action
Combustible Gas Indicator	Every 15 minutes	LEL <10% O2 > 20.9 % CO <25 ppm H2S <10 ppm	Continue with Level D.
		LEL <10% O2 < 19.5 % CO >25 ppm H2S > 10ppm	Stop Work and reassess. Implement engineering controls – vapor suppression
Action Levels for Air Monitoring for Particulates			
Particulate Monitor	Every 15 minutes	>1 - 5 mg/m^3 above background	Monitor and record results initially and at least every 15 minutes. Implement engineering controls (wetting down the area of concern); stop work is wind speeds exceed 15 mph.
		>5 mg/m^3 above background	All personnel will immediately leave the work area and contact the Project Manager. With approval, personnel may re-enter the work zone using Level C protection. Monitor and record results at least every 15 minutes.

Criteria for Selection of Action Levels for Airborne Particulates and VOCs

The action level for airborne volatiles is 1 ppm above the background level and is based upon ½ of the PEL for the most prevalent hydrocarbons. Action level calculations utilized a safety factor of 2. All work will shut down until levels are below the PEL. Nuisance dust permissible exposure limit is 10 mg/m^3. 5 mg/m^3 is half of the PEL and will be used as the action level for respiratory protection.

Note: If soils analysis indicated the presence of any contaminants of concern, the air monitoring and action levels criteria will be reviewed by Leighton's safety team and changes to the HASP will be incorporated, if necessary.

5.2 Air Monitoring Equipment and Calibration

All air monitoring instrumentation will be calibrated, and bump tested in the field. Monitoring will be conducted in and around all work areas and at the workers' breathing zone before activities commence to establish a background level, then at 15-minute intervals throughout the day. A calibration log will be maintained and will include the date and time calibrated, and instrument reading.

Note: If weather conditions, such as wind, exceed 10 miles per hour (mph), dust suppression will be implemented. If sustained wind speeds exceed 15 mph, then all work will cease! If air monitoring data indicate safe levels consistently, then monitoring can be conducted less frequently (every 30 minutes). This determination will be made by the onsite SSO.

5.3 Air Monitoring Summary

Initial Activities

Job Task	Level of PPE	Instrument	Frequency
Drilling	Level D	CGI/PID/Particulate/Dust Monitor	15-minute intervals
Soil Sampling	Level D	CGI/PID/Particulate/Dust Monitor	15-minute intervals
Waste Handling	Level D	CGI/PID/Particulate/Dust Monitor	15-minute intervals
Decontamination of Equipment	Level D	CGI/PID/Particulate/Dust Monitor	15-minute intervals

6.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

6.1 Rationale for Selection of PPE

All site workers shall wear, at a minimum, steel-toed boots or shoes, safety glasses, hardhat, high visibility vest, long sleeved shirts, long pants, and hearing protection. Leather or cloth work gloves will be worn when a potential exists for puncture wounds associated with the use of wood, cable, wire, etc., or temperatures warrant. A minimum of latex or nitrile gloves will be worn when potentially hazardous materials are being handled. Level D PPE is anticipated for this project.

6.2 Equipment

The anticipated level of protection for the activities is Level D. However, a description of the US EPA level of protection C is also listed below as reference.

Level of Protection: A ☐ B ☐ C ☐ D ☒

Respiratory Protection: None ☒

If Air-Purifying: Canister ☐ Cartridge ☐ None ☒
Half Face ☐ Full Face ☐

Canister/Cartridge Type: N/A

Protective Clothing:

Suit Type:	None	Boot Type	Steel-toed, sturdy leather
Glove Type(s):	Leather, cloth, neoprene and/or nitrile	Head Protection Type:	Hard hat
Eye Protection Type:	Glasses/ Goggles	Other Protection Clothing:	N/A

Hearing Protection: Muff Type or Foam Inserts

\+ persons handling water samples will be required to wear inner nitrile gloves.

Level of Protection: A ☐ B ☐ C ☒ D ☐

Respiratory Protection: Air Purifying ☒
If Air-Purifying: Canister ☐ Cartridge ☒
Half Face ☒ Full Face ☒

Canister/Cartridge Type: High Efficiency Particulate Air (HEPA) Filter

Personnel will abide by a change out schedule should it be necessary to use Level C protection. Cartridges may be used for up to 8 hours. Protective Clothing:

Suit Type:	Tyvek	Boot Type	Steel-toed, sturdy leather
Glove Type(s):	Neoprene and/or nitrile	Head Protection Type:	Hard hat
Eye Protection Type:	Glasses/Goggles	Other Protection Clothing:	Outer Boot Covers
Hearing Protection:	Muff Type or Foam Inserts		

7.0 WORK ZONES AND SECURITY MEASURES

Leighton will implement security and work zone measures:

- Visitors who do not have business related to the project will be excluded from the Project.
- Traffic routes will be clearly established. All site workers and visitors will be briefed as to routes.
- Workers in work zones and all visitors will be required to wear high visibility vests.
- All Leighton-sponsored visitors and personnel shall abide by safety rules at all times.

The work zone for this site shall consist of the individual sampling locations and equipment areas and a setback providing sufficient room to provide safe working distances for all equipment and personnel. The individual sampling locations will be delineated using traffic cones or pylons. No equipment other than that needed for field activities shall be placed in this area. Persons outside this area should place their equipment and themselves upwind of any open sampling activities.

In the event that hazardous or potentially hazardous waste/contaminated soil is encountered, exclusion, decontamination and support zones will be established. Personnel and equipment entering the established zone will be required to follow all health and safety requirements provided in this HASP.

8.0 DECONTAMINATION PROCEDURES

8.1 Personnel Decontamination

If hazardous materials are encountered, the following procedures will be instituted for decontaminating all personnel leaving the Exclusion Zone and Contamination Reduction Zone (CRZ) to prevent or reduce the physical transfer of contaminants by people. These procedures include the decontamination of personnel and equipment. In general, personnel decontamination at the site will consist of washing with a detergent/water solution and then rinsing with copious amounts of water. Used solution, brushes, sponges, and containers will be properly disposed of. Based on the level of protection (C, D), the decontamination step-off will be modified. Reusable personal equipment shall be decontaminated and stored for air drying. All personnel shall adhere to the following decontamination procedures:

Decontamination – Level C

1. Segregated equipment drops.
2. Outer boot and outer glove wash (Tyvek disposable outer boot covers, if used, shall be removed here prior to boot wash);
3. Outer boot and outer glove rinse.
4. Tape removal.
5. Outer boot removal.
6. Outer glove removal
7. Removal of excess soil or dust from field staff and clothing via vacuum with HEPA filter.
8. Disposable (i.e., Tyvek) suit removal.
9. Respirator removal.
10. Inner glove removal/disposal

CRZ/SAFE ZONE BOUNDARY

Field Wash

If Level D decontamination is required, adhere to steps 1 through 7.

During short rest breaks, workers may remain in the CRZ area and drink water after they have removed their outer gloves. All respiratory PPE will be stored in a sealable plastic bag to protect against dust, sunlight, extreme temperatures, excessive moisture, or damaging chemicals.

During lunch breaks and at the end of the work shift, personnel will be required to doff their disposable PPE and wash their hands and face prior to eating, drinking, or smoking.

Hand Tools and Personal Equipment

All hand and personal equipment contaminated by activities at the site will be decontaminated using a solution of Alconox (or equivalent) and water, then rinsed in tap water. All contaminated site equipment will be decontaminated both before and after site activities. All uncontaminated site equipment should be wiped with a wet towel at the close of site activities to remove dust.

Equipment which will be used in the decontamination procedure:

- Alconox (or equivalent).
- Distilled Water.
- Scrub Brushes.
- Towels; and
- Plastic Buckets.

Heavy Equipment

The movement of all heavy equipment will be restricted in a manner which reduces the surfaces of the equipment which come into contact with waste. All portions of equipment which have been placed in direct contact with contaminated waste or water will be cleaned prior to leaving the work area. All uncontaminated portions of the equipment will be wiped with a wet rag, or brushed clean.

9.0 CONFINED SPACE ENTRY PROCEDURES

There are no confined spaces anticipated as part of this scope of work.

10.0 CONTINGENCY PLAN

Liquid Wastes

The potential of encountering liquid wastes at the site is considered to be very low. Liquid waste may be generated by routine equipment maintenance and repairs, and on occasion by failures of equipment hoses or parts. The potential of exposure to liquid waste by site personnel will be minimized by worker awareness, preparation, and adherence to the following spill contingency plan.

Spills and exposure to liquid waste will be minimized by worker awareness of conditions which exist prior to, or in the event of, a spill. Three stages of response will facilitate reduction of waste generated.

- Identification – Identification of potential sources of liquid hazards will be made by regular inspections of containers, and of equipment to determine if mechanical parts or hoses are worn or defective. Spills or releases of liquid wastes will be immediately reported to the nearest grading foreman or site manager.

- Prevention/Response – A rapid response to the spill will be initiated by all personnel involved. The following responses will be followed to minimize spills.

  - Release of liquids from site equipment will be minimized by immediately stopping and shutting down the affected equipment, and safely relieving all system pressure if possible.

  - Visqueen will be stored onsite and will be placed beneath the equipment to contain leaking fluids, when conditions permit. Absorbent material will be stored onsite and will be used in conjunction with plastic.

  - Spill protection (Visqueen, absorbent material, and/or appropriate containers) will be strategically placed beneath equipment being repaired or maintained which requires draining of fluids.

  - Transfer of fluids from containers to equipment reservoirs will be performed in a controlled manner.

- Storage – Liquid wastes will be stored in US DOT-approved, 55-gallon drums, and properly labeled. A specific secure location will be designated for liquid waste storage prior to the commencement of field activities.
  - The designated storage area will be lined with a minimum of 6-MIL Visqueen to preclude contact of liquids.
  - The storage area will be demarcated to preclude entry by unauthorized personnel.
  - Absorbent material will be stored onsite and will be readily available in the event of spills or leaks within the storage area.

Handling of Contaminated Material

In the event indications of contamination or regulated waste are unexpectedly encountered during the investigation, the following procedures will be implemented.

Advise Owner of spill and notification requirements. Do not transport or approve transportation of hazardous materials/waste. The Permittee is responsible for all waste disposal activities including the signing of all waste manifests, bill of lading/shipping papers, transport, and disposal of waste material from Site. Do not sign manifests as generator of waste. Notify Permittee/Client compliance manager or Permittee/Owner representative for waste disposal procedures.

Indicators of potentially contaminated soil, groundwater or surface water include, but are not limited to the following:

- Odors including gasoline, diesel, creosote (odor of railroad ties), mothballs, or other chemical-like odors in soil excavation areas or groundwater.
- Soil with unusual staining (such as black or green staining not associated with organic content), or with an oily appearance, or any unusual soil texture or color.
- A rainbow sheen on the surface of water (groundwater or ponded rainwater) or soil.
- Indications of a release through the use of a photo ionization detector (PID) or other field screening instrument.

Indicators of regulated wastes include, but are not limited to the following:

- Cans, bottles, scrap metal, wood, glass (indicates dumping/burial of solid waste and a possible dump with associated chemical contamination)
- Asphalt and concrete rubble (indicates dumping/burial of demolition waste with associated chemical contamination)
- Shingles, roofing materials, vermiculite, transite siding, floor tiles, insulation, or any fibrous material (demolition debris that could be associated with asbestos containing material (ACM) or associated contamination)
- In-place intact active or inactive transite pipes (steam or water pipes) or conduit (contains ACM)
- Culverts or other pipes with tar-like coating (potentially contains ACM) Wood Ash (potentially contains lead, asbestos or other chemicals) or Coal Ash or Slag (potentially contains metals)
- Sandblast or Foundry Sand residue (potentially contains lead or other metals)
- Treated wood, including, but not limited to products referred to as brown-or green-treat, and creosote (potentially contains arsenic, chromium, copper or PAHs)
- Chemical containers such as drums and other containers (potential source of chemical contaminants within intact containers, or surrounding damaged containers) Underground and above ground storage tanks (USTs/ASTs) (potential source of petroleum or other chemical contaminants within intact USTs/ASTs, or surrounding damaged USTs/ASTs)
- Intact filled-in basement or buried concrete slab from demolished building with insulation or intact floor tiles (potential ACM), waste traps (potentially contains oily waste), cesspools (potentially contains chemical or oil wastes) and sumps (potentially contains chemical waste).

Note: All work areas will be fenced off and secured to prevent entrance from unauthorized personnel.

Incident Response

If unexpected, contaminated soil, water, debris, or potentially contaminated waste materials are encountered during construction, the onsite field manager will immediately stop work in the vicinity and notify the Project Engineer. Work will not resume in the suspect area until approved by the Project Engineer. Work outside of the vicinity of the suspect area may continue if the Project Engineer determines that the areal extent of the contamination has been defined and work can continue around the area.

Notification

The Project Engineer will proceed with the following notifications in the order listed:

- Contact #1: 911 (if the incident/release represents an immediate danger to life or health)
- Contact #2: if asbestos encountered - Asbestos Environmental Consultant (to conduct and document a detailed inspection and evaluation of the unexpected material)
- Contact #3: Project Owner/Project Partner
- Contact #4: Appropriate regulatory agencies as required (SCAQMD, OCHCA, etc.)

11.0 GENERAL SAFE WORK PRACTICES

All Leighton personnel and subcontractors shall provide all the equipment necessary to meet safe operating practices and procedures for personnel onsite (this includes respirators, cartridges, steel-toed boots, eye protection, Tyvek suits, hearing protectors, and protective gloves such as neoprene and/or nitrile gloves) and be responsible for the safety of their workers. All general safety guidelines and procedures will conform to:

- Title 8 CCR 5192 - HAZWOPER Standard.
- Title 8 CCR 5194 - Hazard Communication Standard.
- Title 8 CCR Section 1502 Application
- Title 8 CCR Section 1529 Asbestos
- Subchapter 4. Construction Safety Orders
- Leighton Standard Operating Procedures and Injury and Illness Prevention Program

A “three warning” system will be implemented to enforce compliance with health and safety procedures as follows:

- First infraction – violator receives a verbal warning;
- Second infraction of same rule – violator receives a written warning; and
- Third infraction of same rule – violators will be requested to leave the site.

The “three warning” system applies to the following safe work practices which will be implemented at the site for worker safety:

- Eating, drinking, chewing gum or tobacco, applying makeup, and smoking will be allowed only in designated areas;
- Wash facilities will be utilized by workers in the work areas before eating, drinking, or use of the toilet facilities.
- Containers will be labeled identifying them as waste, debris, or contaminated clothing.
- Personnel at the Project will use the “buddy system” when wearing any respiratory protective equipment. No one will be allowed to engage in sampling operations alone.
- No facial hair which interferes with a satisfactory fit of the mask-to-face seal will be allowed (no beards, large mustaches, or long sideburns).
- All respiratory protection selection, use, and maintenance will meet the requirements of established procedures, recognized consensus standards (AIHA, ANSI, MSHA,

and NIOSH), and will comply in all respects to the requirements set forth in 8 CCR 5144.

- All site personnel will be required to wear hard hats, safety-toe boots, protective glasses and adequate hand protection when in the work zone.
- Any other action which is determined to be unsafe by the SSO; and
- Lighting will be at a minimum of 5 foot-candles. If needed, additional lighting will be provided.

12.0 EMERGENCY RESPONSE PLAN

Site Address: 6145 E. Santiago Canyons Road, Orange, CA
Nearest Cross Street: Orange Park Boulevard
Contractor Name: Leighton
Contractor Phone: (949) 250-1421

Emergency Numbers

Person	Title (Leighton)	Phone #
Michael Priestaf, PG	Project Geologist/Project Manager	Office (949) 681-4258 Cell - (949) 568-4144
Robin Ferber, PG	Senior Principal Geologist	Office (661) 705-3025 Cell - (213) 610-2446
Ines Cadavid-Parr, CSP	Industrial Hygienist/Project H&S Officer	Cell - (818) 235-6266
	City of Orange Fire Department FS 8 – 5725 Carver Lane Orange, CA	**Emergency Only – 911** **(714) 288-2500**
	Centers for Disease Control	(Day) (404) 329-3311 (Night) (404) 329-2888
	National Response Center	(800) 424-8802
	Superfund/RCRA Hotline	(800) 424-9346
	TSCA Hotline	(800) 424-9065
	National Pesticide Information Service	(800) 845-7633
	Underground Service Alert	(800) 422-4133
Nearest Hospital **24/7 Emergency Room, (Fig 2)** **Max Distance = 4.9 miles**	**St. Joseph's Hospital** **1100 W. Stewart Drive** **Orange, CA 92868** **(714) 633-9111**	**(714) 633-9111**

Pre-planning Activities:

The following preplanning precautions shall be taken prior to start of field activities:

- Identify and discuss evacuation and muster areas prior to the beginning of field activities.
- Identify local emergency response agencies (post numbers). Coordinate action with Owner of the site.
- Establish location of shutoff valves, power, water, control switches

- Check emergency equipment; first-aid equipment, fire extinguishers, absorbent materials, etc.
- Ensure that appropriate permits are in place prior to start of work.

Site Emergency Procedures

In the event of an emergency that necessitates an evacuation of the site, the following alarm procedures will be implemented:

1. Equipment and/or portable air horns will be used to alert ALL site personnel of an evacuation emergency. The primary and secondary meeting area will be established on a site-specific basis during the morning safety briefing. Two longs blasts followed by one short blast will direct personnel to the primary assembly area. Two long blasts followed by two short blasts will direct personnel to the alternate assembly area. A head count will be completed by the Site Supervisor at the meeting area and further directions or response discussions coordinated at that point.

2. In the event that a site-wide evacuation is necessary, radio and telephone communication will be used to cue employees to evacuate the site.

Normal traffic flow patterns will be in effect unless a local detour is required. Following an Emergency Alarm signal, access to the Project and immediate vicinity of the incident will be restricted. Depending upon the severity and location of the incident, physical barriers or banner guard will be used to delineate restricted areas. Site Control will be the responsibility of the Site Supervisor who will establish the new work area boundaries if necessary. Future entries into restricted areas will require permission from the Site Supervisor.

Personnel Emergency Signals

The following communication signals will be utilized, if necessary, in case of an emergency onsite.

Gesture	Meaning
Hand clutching throat	Out of air/can't breath
Hands on top of head	Need assistance
Thumbs up	OK/I'm all right/I understand
Thumbs down	No/negative
Grip partner's wrists	Informing partner to leave area immediately

Emergency Notification

Initial emergency notification: Dial 911.

Emergency Decontamination

In an emergency, the primary concern is to prevent the loss of life or severe injury to site personnel. If immediate medical treatment is required to save a life, decontamination should be delayed until the victim is stabilized. If decontamination can be performed without interfering with essential life-saving techniques or first aid, or if a worker has been contaminated with an extremely toxic or corrosive material that could cause severe injury or loss of life, decontamination must be performed immediately. If an emergency due to heat-related illness develops, protective clothing should be removed from the victim as soon as possible to reduce heat stress. All emergency decontamination procedures must be supervised by the SSO/Field Team Leader.

Onsite Emergencies

In the event of an accident resulting in physical injury, first-aid will be administered, and the injured worker will be transported to the nearest hospital for emergency treatment. In the event of a chemical exposure or the potential for chemical exposure, site personnel shall safely evacuate from the "contamination zone" and meet at the designated assembly area. First-aid shall be administered in the assembly area and the exposed worker shall be transported to the nearest hospital for treatment.

Off-Site Emergencies

In the event of an off-site emergency, the site owner/operator will be notified and an Owner representative will be immediately notified. If necessary, local fire, and/or emergency response agencies will be notified.

Access for Emergency Personnel and Vehicles

Operations at the site will be conducted such that there is always access for emergency vehicles and personnel. The SSO/Project Superintendent will be responsible for directing personnel safely through the work area.

Nearby Community Protection

All possible measures will be taken to prevent a release from the site. Immediate notifications will be made to the site Owner. If necessary, local fire, and/or emergency response agencies will be notified.

13.0 TRAINING REQUIREMENTS

Prior to mobilization at the job site or at any time during site activities, if the Leighton, Project Manager or SSO requests, all applicable personnel and Leighton subcontractors shall submit evidence that site workers have completed a 40-hour course and 8 hour refresher course in hazardous waste site operations training as specified in 8 CCR 5192, along with a letter from a physician stating that they have received a physical examination within one year and are physically capable of working on hazardous sites and wearing respiratory protection devices.

Leighton personnel and subcontractors working onsite have completed the OSHA mandatory 40-hour hazardous waste operations and emergency response (HAZWOPER) training and are trained annually in accordance with 8 CCR 5192.

Personnel are also trained annually in Hazard Communication (Right-to-Know), (8 CCR 5194), Respiratory Protection (8 CCR 5144), and Noise (8 CCR 5095-5100), and CPR and first-aid every 2 years, Personnel are also trained in the Company's Injury & Illness Prevention Plan (IIPP) (8 CCR 3203) (Current version available onsite with field documentation). All personnel involved in the field activities will be required to complete an Asbestos Hazard Awareness training course in accordance with Title 8 CCR Section 1502 Application, 1529 Asbestos, and Title 8 CCR 5194 Hazard Communication Standard.

Leighton performs a variety of fieldwork (i.e. drilling, sampling, remediation system installations, groundwater well installations, earthwork, confined space entry work, environmental audits, etc.), therefore personnel are also trained in various topics including Benzene (8 CCR 5218), Lead Awareness (8 CCR 5198 and/or 1532.1), Bloodborne Pathogens (8 CCR 5193), Confined Spaces (8 CCR 5156-5159), Trenching and Excavation (8 CCR 1539-1543), and construction related topics such as Fall Protection (8 CCR 1669-1672), Ladder Safety (8 CCR 1675-1678), Fire Protection and Prevention (8 CCR 1920-1938) and Heat Illness Prevention (8 CCR 3395), handling of drums and containers (8 CCR 5192(j)), depending on the specific work anticipated at the site.

Prior to involvement in any field program, all personnel will attend a safety briefing. The briefing will include the nature of the waste at the site, donning PPE, decontamination procedures, respirator fit testing, and emergency procedures. Included in the initial briefing will be a review of:

- Site emergency signals.
- Use of visual emergency signals.
- The limitations and capabilities of the equipment and PPE.
- Proper use and maintenance of the selected PPE.
- Hazards and Control Measures associated with lead and all potential chemicals of concern;
- The nature of the hazards and the consequences of not using the PPE;
- The human factor influencing PPE performance.
- Inspection, donning, checking, fitting, and using the PPE;
- Provide individualized respirator fit testing to ensure proper fit;
- The user's responsibility for decontamination, cleaning, maintenance, and repair (if any) of PPE. Personnel will be required to clean and maintain respirators after each use and to replace cartridges on a daily basis;
- Emergency procedures and self-rescue in the event of PPE failure; and
- The HASP and the individual's responsibilities and duties in an emergency.

Daily, prior to commencement of operations, all personnel involved with the remedial investigations shall attend a short "tailgate" safety briefing which will cover:

- Expected conditions at the site.
- Daily activities.
- Safety deficiencies previously observed; and
- Any changes in the emergency procedure.

Record of Training – Upon completion of the project safety briefing, all personnel will sign a statement indicating that they have read and understand and that they agree to abide by this project HASP. A record of attendance will be kept for all safety briefings.

14.0 MEDICAL SURVEILLANCE PROGRAM

Prior to assignment to any task requiring a level of personal protection above Level D, personnel will submit, if requested by the Leighton project manager, evidence that they have received a physical examination within the previous twelve months which incorporates the federal and state requirements.

Workers shall maintain evidence that they have received a physical examination within the previous twelve months which incorporates the following:

- An occupation and general physical history.
- Complete physical examination which incorporates the head, torso, abdomen, limbs, and musculoskeletal system;
- Chest X-ray.
- Pulmonary function test.
- Audiometric exam for persons working around drill rigs.
- Laboratory testing of blood and urine to include the following: complete blood count (C.B.C.), albumin phosphatase, total bilirubin, serum glutamic-oxaloacetic transaminase (SGOT), serum glutamic pyruvic transaminase (SGPT), cholesterol, total protein, albumin, globulin, albumin/globulin (A/G) ratio, blood urea nitrogen (BUN), and creatinin.
- Vision test.
- Electrocardiogram; and
- Physicians' certification that the employee is physically capable of wearing respiratory protection.

14.1 Heat Stress

The Project Manager, Site Safety Officer or designee will regularly monitor daily weather forecasts and monitor ambient air temperatures. Heat stress monitoring will commence when the ambient temperature reaches 70° Fahrenheit (F) if Tyvek or Saranex (Level C) garments are in use. Otherwise, heat stress monitoring will commence at an ambient temperature of 80°F.

The monitoring will consist of the following:

- Heart rate (HR) will be measured by the radial pulse for 30 seconds as early as possible in the resting period. The heart rate at the beginning of the rest period should not exceed 110 beats per minute. If the HR is in excess of the above value, the next work period will be shortened by 33% while the length of the rest period stays the same. If the pulse rate is in excess of 110 beats per minute at the beginning of the next rest period, the following work cycle will be reduced by 33%.

- Workers will be asked to report any dizziness, faintness, cramps, or other symptoms of heat stress as discussed above.

- Workers will also be questioned about any history of asthma, or if currently taking asthma medications. Persons taking asthma medications are typically more susceptible to heat stress reactions.

California regulations pertaining to Heat Stress require the following:

1. Where unlimited drinking water is not immediately available from a plumbed system, the employer must provide enough water for every employee to be able to drink one quart of water, or four 8-ounce cups, per hour for the entire shift.

2. Water must always be readily accessible.

3. When temperatures exceed **80°F**, having ice on hand to cool the water is recommended.

4. Having shade present is a requirement of the standard when the temperature exceeds 80° F. When the outdoor temperature in the work area exceeds 80° F, the employer shall have and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling. Shade must be up at the beginning of the shift and present throughout.

5. Regardless of what the predicted high is, employers are expected to know if the actual temperature is exceeding **80°**F at their worksite. If the temperature enters this range, shade must be present regardless of the predicted high.

6. The amount of shade present shall be at least enough to accommodate the number of employees on recovery or rest periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with

each other. The shade shall be located as close as practicable to the areas where employees are working. Subject to the same specifications, the amount of shade present during meal periods shall be at least enough to accommodate the number of employees on the meal period who remain onsite. Additionally, given the current COVID-19 pandemic and exposure risk to the virus to individuals in close proximity to each other, the shaded area should be large enough to accommodate the recommended social distancing measures of 6 feet between each worker, as discussed in Section 3.1.1.

7. Employees shall be allowed and encouraged to take a preventative cool-down and rest in the shade when they feel the need to do so to protect themselves from overheating. Such access to shade shall be permitted at all times. An individual employee who takes a preventative cool-down rest (A) shall be monitored and asked if he or she is experiencing symptoms of heat illness; (B) shall be encouraged to remain in the shade; and (C) shall not be ordered back to work until any signs or symptoms of heat illness have abated, but in no event less than 5 minutes in addition to the time needed to access the shade.

8. Shade must be located as close as possible to the support zone.

9. High-heat procedures. The employer shall implement high-heat procedures when the temperature equals or exceeds 95° F. These procedures shall include the following to the extent practicable:

    a. Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.

    b. Observing employees for alertness and signs or symptoms of heat illness. The employer shall ensure effective employee observation/monitoring by implementing one or more of the following:

        (A) Supervisor or designee observation of 20 or fewer employees, or

        (B) Mandatory buddy system, or

        (C) Regular communication with sole employee such as by radio or cellular phone, or

        (D) Other effective means of observation.

c. Designating one or more employees on each worksite as authorized to call for emergency medical services, and allowing other employees to call for emergency services when no designated employee is available.

d. Reminding employees throughout the work shift to drink plenty of water.

e. Pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary.

15.0 REFERENCES

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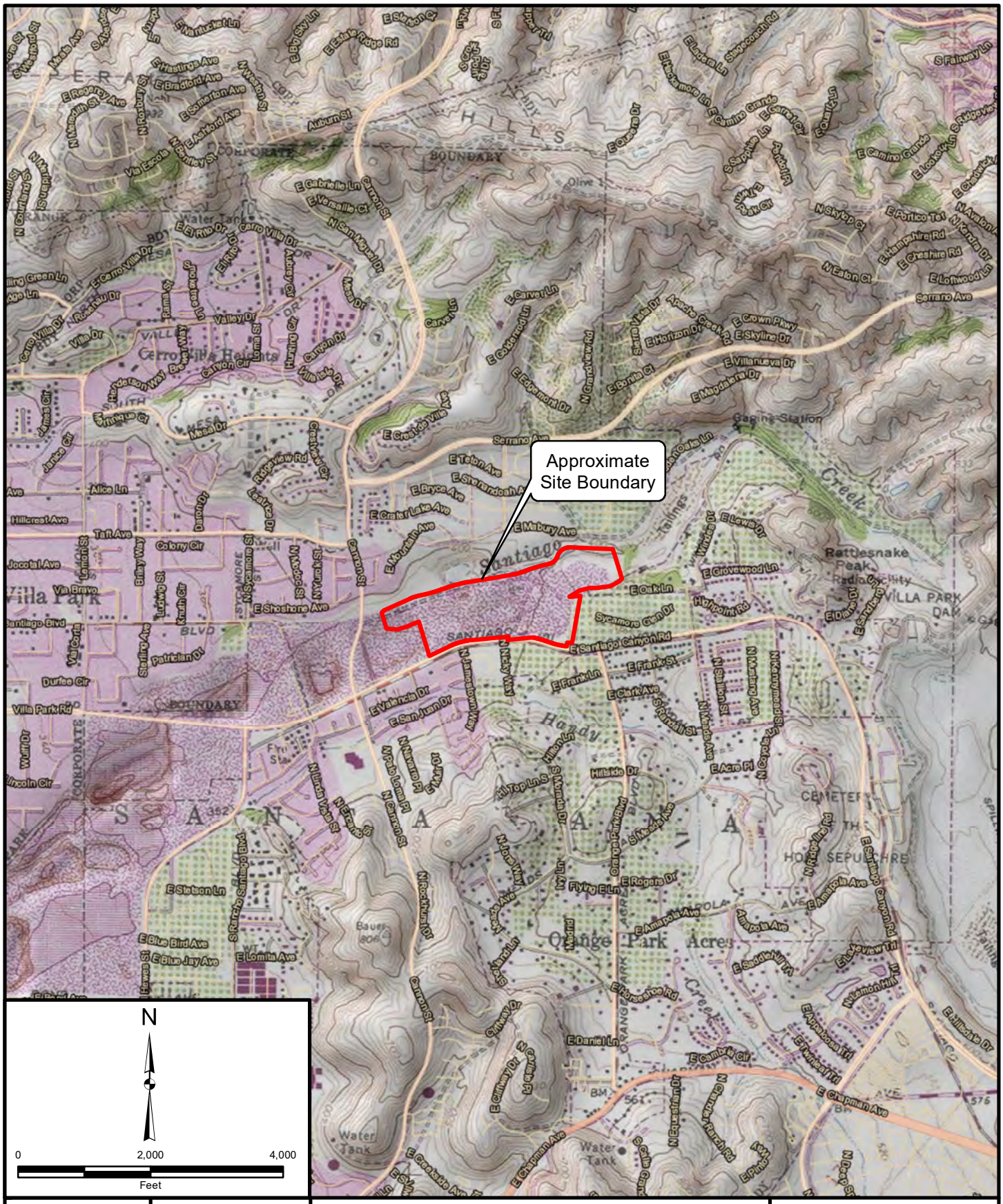
Title 8 Code of California Regulations

8 CCR General Industry Safety Orders

8 CCR Construction Safety Orders

Bing Maps, April 2023



Project: 13620.004	Eng/Geol: RB/MH
Scale: 1 " = 2,000 '	Date: August 2022
Base Map: ESRI ArcGIS Online 2022 Author: (mmurphy)	

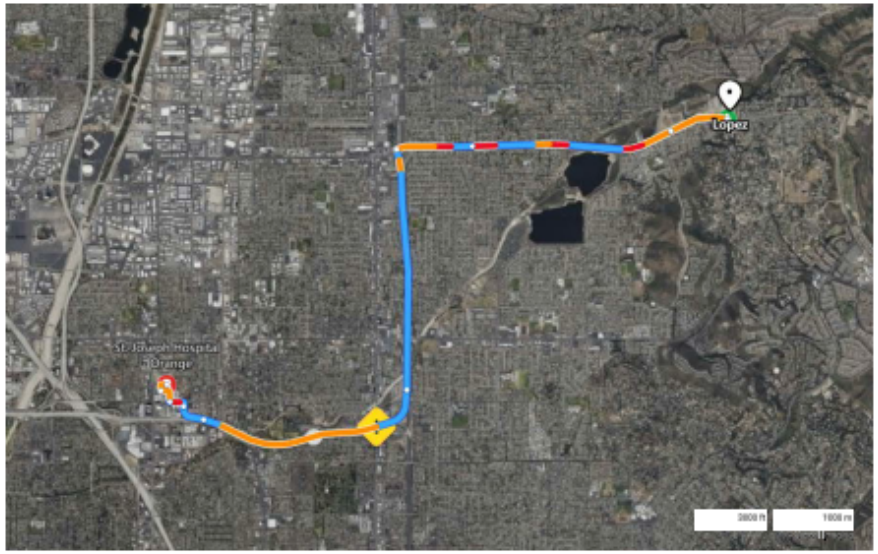
SITE LOCATION MAP

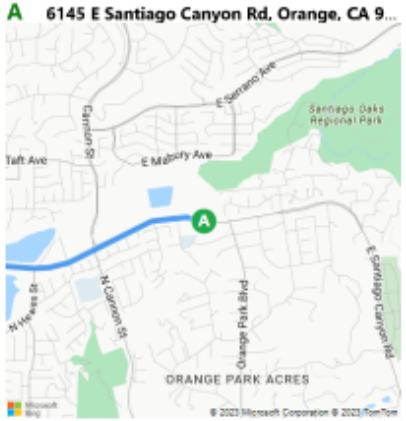
6145 East Santiago Canyon Road
City of Orange, Orange County, California

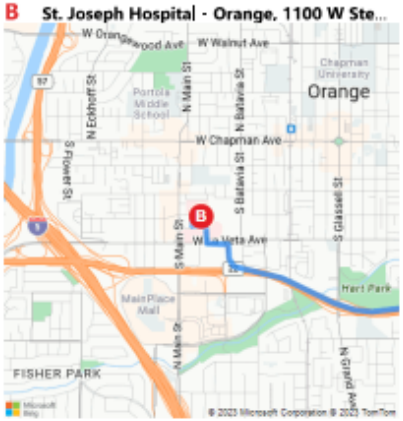
FIGURE 1

Leighton

Map Saved as J:\Drafting\13620\004\13620-001_F01_SLM_2022-07-26.mxd on 8/1/2022 12:53:36 PM







These directions are subject to the Microsoft® Service Agreement and are for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2023 TomTom.

N

Reference: Bing Maps 2023

FIGURE 2

Route to St. Joseph's Hospital
1100 W. Stewart Drive
Orange, CA 92868

Leighton

bing maps

A 6145 E Santiago Canyon Rd, Orange, CA 92869

B St. Joseph Hospital - Orange, 1100 W Stewart Dr, Orange, CA 92868

16 min , 7.3 miles
Moderate traffic (Leave at 4:52 PM)
Via Villa Park Rd, CA-55 S

ROUTE TO ST. JOSEPH'S HOSPITAL
(714) 633-9111

A 6145 E Santiago Canyon Rd, Orange, CA 92869

↑	1.	Head **west** on **E Santiago Canyon Rd** toward N Nicky Way	0.5 mi
↑	2.	Continue on **Villa Park Rd**	1.7 mi
↑	3.	Road name changes to **E Katella Ave**	0.6 mi
55	4.	Take the ramp on the **left** and follow signs for **55 S** Chevron on the corner • *Roadwork from exit [15] to CA-55 S.*	2.0 mi
22	5.	At Exit **13**, head **right** on the ramp for **CA-22 West** toward **Long Beach** ▲ *Minor Congestion*	1.9 mi
↱	6.	At Exit **15**, head **right** on the ramp for **W La Veta Ave** toward **Main St**	0.2 mi
↰	7.	Turn **left** onto **W La Veta Ave**	0.1 mi
↱	8.	Turn **right** onto **S Pepper St** Dayton Montgomery County on the corner	0.2 mi
↱	9.	Turn **right** onto **S Bush St**, then immediately turn **right** onto **W Stewart Dr**	525 ft
	10.	Arrive at **W Stewart Dr** on the right The last intersection before your destination is S Bush St	

B St. Joseph Hospital - Orange

ATTACHMENT A

Health And Safety Plan Forms

LEIGHTON
Employee Acknowledgement Form

This form has been developed to assure that all personnel and subcontractors working at MILAN REI X LLC - 6145 E. Santiago Canyon Road, Orange, CA have read and understand the Site Specific Health and Safety Plan that has been prepared by Leighton in accordance with 8 CCR 5192.

Date	Name	Company	Signature	40 Hour Trained

LEIGHTON
Tailgate Safety Meeting Form

Date:_____ Time:_____ Job Number:___ _____
Client _____Address:_____
Specific Location/ Area: _____Building :._____
Scope of Work: _____

SAFETY TOPIC PRESENTED

Protective Clothing/Equipment: _____
Chemical Hazards: _____
Physical Hazards: _____
Emergency Procedures: _____
Special Equipment: _____
Injuries Occurred: _____
Near Misses:_____
Other Topics Discussed: _____

ATTENDEES

PRINTED NAME	SIGNATURE
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

MEETING CONDUCTED BY:
Printed Name: _____Signature: _____
Site Supervisor: _____ Project Manager:_____

ALL TAILGATE SAFETY MEETING FORMS TO BE RETURNED TO THE HEALTH & SAFETY DEPARTMENT AT COMPLETION OF EACH PROJECT

LEIGHTON
Daily Project Log

Site Address _____

_____

_____

Job No. _____

Date _____

Completed by _____

Signature _____

Hours	Personnel	Hours	Personnel
Hours	**Subcontractors**	**Hours**	**Equipment**

Log

LEIGHTON
DAILY HEALTH & SAFETY INSPECTION LOG

Date: _____ Time: _____ Location: _____

Housekeeping & Sanitation	**YES**	**NO**	**Corrective Action**
General neatness of work	_____	_____	_____
Disposal of waste/trash/misc. scrap	_____	_____	_____
Full and empty cylinders separated (5'tall) ½ hour firewall or a 20' distance	_____	_____	_____
Walk ways clear (trip hazards)	_____	_____	_____
Site secure, free from pedestrian traffic	_____	_____	_____
Eyewash station clean and accessible	_____	_____	_____
First-aid kit accessible	_____	_____	_____
Drinking water available	_____	_____	_____
Fire Prevention			
Extinguisher checked	_____	_____	_____
Extinguisher posted 75' in any direction	_____	_____	_____
Electrical			
Exposed wires/cord on tools	_____	_____	_____
Panels unobstructed and in place	_____	_____	_____
Tools & Machinery			
Good working condition	_____	_____	_____
Inspection and maintenance	_____	_____	_____
Exposed wires/cords on tools	_____	_____	_____
GFCI extension cords being used	_____	_____	_____

THESE INSPECTIONS SHOULD BE MADE DAILY, BEFORE JOB BEGINS, AFTER LUNCH, AND AT THE END OF THE DAY. THEY SHOULD BE MADE BY THE JOB SITE FOREMAN OR SUPERINTENDENT, BY USING THIS CHECKLIST AND SENDING IT TO THE SAFETY OFFICER TO FILE IT IN THE JOB FOLDER.

_____	_____	_____	_____
SIGNATURE	**DATE**	**POSITION**	**JOB NUMBER**

LEIGHTON
Monitoring Log

Site Address _____

_____

_____

Job No. _____

Date _____

Completed by _____

Signature _____

CALIBRATION RECORD FOR INSTRUMENT

Instrument: _____

Model Number: _____Serial Number:_____

Date Last Calibrated:_____ By:_____

Span Setting Remarks (include type of calibration gas, weather, etc.)

____ _____ _____ _____

____ _____ _____ _____

____ _____ _____ _____

____ _____ _____ _____

MONITORING RECORD FOR INSTRUMENT

Monitoring Recorded

Date	Time	Location	Reading	By:	Remarks (include weather, etc.)

LEIGHTON GROUP, INC.
EMPLOYEE'S ACCIDENT REPORT

Contact Human Resources Immediately @ 949-681-4248

Date of Accident:_____ Time of Accident: _____AM/PM

Injured Employee: _____ Company: _____

Employee Job Title: _____ Employee Office Location: _____

Supervisor's Name: _____ Has Supervisor been notified: ___ Yes ___ No

Project Name: _____ Client: _____

Project Location: _____

_____

What were you doing when the accident occurred (include tools, equipment, terrain, etc): _____

_____

_____

_____

Describe accident in detail: _____

_____

_____

_____

_____

_____

Nature of Injury:

_____

_____

List names of any witnesses, their company and phone numbers: _____

_____

Did you obtain first aid or medical treatment? ___ Yes ___No: Is yes, provide name, address, & phone number and attach copy of the 'Doctor's First Report' and/or 'Return-To-Work Authorization: _____

_____

_____

What will you do to prevent this incident from happening again? _____

_____

Was any equipment damaged? Yes___ No___ List: _____

I wish to file a Worker's Compensation claim Yes_____ No_____

Employee Signature: _____ Date: _____

LEIGHTON GROUP, INC.
SUPERVISOR'S ACCIDENT INVESTIGATION REPORT

Contact Human Resources Immediately @ 949-681-4248

Date of Accident:_____ Time of Accident: _____AM/PM

Injured Employee: _____ Company: _____

Employee Job Title: _____ Employee Office Location: _____

Project Name: _____ Client: _____

Project Location: _____

_____

Describe accident in detail: _____

_____

_____

_____

Described what caused the accident: _____

_____

_____

_____

List names of any witnesses, their company and phone numbers: _____

_____

List names, companies and phone numbers of anyone working in the immediate area: _____

_____

Did you interview the witnesses and write down their statements? Yes___ No___ If yes, please attach.

Have other accidents of a similar nature happened in the last 12 months? If yes, how many? _____

Was any equipment damaged? Yes___ NO___ List: _____

Was any emergency equipment used? Yes___ No___ Was it replaced? Yes___ No___

Was any first aid treatment performed at the site of the accident? If so, describe: _____

_____

Was the employee sent to a medical treatment facility (medical center, hospital, etc.)? If, so where? _____

What will you do to prevent a recurrence? _____

_____

What does the company need to provide or do to prevent a recurrence? _____

_____

Supervisor Signature: _____ Date: _____

ATTACHMENT B

COVID-19 Prevention Memorandum

SAFETY MEMORANDUM

Subject: **COVID-19 Field Protocols** **Date:** March 14, 2024

Purpose

Leighton Consulting, Inc., (Leighton) presents this Safety Memorandum to serve as a supplement to Leighton's site-specific Health and Safety Plan (HASP). This Safety Memorandum outlines additional field protocols designed to mitigate the risk of exposure to COVID-19 and protect the safety and health of Leighton staff, subcontractors, clients and their families. Practices and procedures described herein will be implemented by Leighton staff while performing tasks at project sites. This document was developed based on current guidance from the Centers for Disease Control and Prevention (CDC) and documents released by the federal, State of California, county and local government agencies. The landscape surrounding this public health crisis is constantly changing and Leighton may issue subsequent updates to this Safety Memorandum with modified field protocols or required personal protective equipment (PPE) in the future in order to comply with current health guidance or government mandates.

Background

The coronavirus disease 2019, abbreviated COVID-19, is an infectious disease caused by sever acute respiratory syndrome coronavirus 2 (SARS-CoV-2). According to the CDC, symptoms of the disease commonly include:

- Fever,
- Cough, and/or
- Shortness of Breath (please note symptoms and severity are known to vary)
- Other early symptoms to watch for are chills, body aches, sore throat, headache, diarrhea, nausea/ vomiting, sudden loss of smell and/or taste and runny nose
- Close contact with a person known to have COVID19 or live in or have recently traveled from an area with ongoing spread of COVID-19 as a symptom.

Safety Memorandum: COVID-19 Field Protocols (updated on 4/23/2020)

The virus primarily spreads from person to person through respiratory droplets produced when an infected person coughs, sneezes or talks. It may also be possible to contract COVID-19 from touching a surface or object where the active virus is present and then touching the mouth, nose, or possibly eyes and allowing the virus to enter the body. There are currently no approved treatments or vaccines for COVID-19, so the recommended course of action is to minimize exposure to infected individuals and avoid contracting the virus altogether.

Leighton staff provide service to the construction industry and perform hazardous materials cleanup, which are currently listed as critical infrastructure services. The following sections outline policies and procedures that Leighton has implementing in order to conduct essential field operations in a safe and responsible manner. These protocols were developed to protect the health of working individuals and reduce the spread of the virus to other members of the community.

If an employee is generally feeling sick or answered "yes" to any of the three questions above, they are directed to **stay home and not report to work.** If an employee answers "yes" to any questions above and determines that they may not be "fit for duty," that employee should notify their supervisor immediately. If staff are experiencing symptoms related to COVID-19, they are directed to isolate themselves from others and contact their doctor for further instructions regarding personal medical care and possible COVID-19 testing. Specific questions regarding employee "fit-for-duty" status should be directed to the Leighton Project Manager or Leighton's Safety Manager, Brandie DeVries (949-681-4292).

Employees who can honestly answer "no" to all three questions above may report to the project site for field duty. The following sections should be reviewed prior to employee departure to the project site and be shared with others during a mandatory **Tailgate Safety Meeting**. Tailgate Safety Meetings should be held outdoors whenever possible and conducted following the social distancing guidelines while wearing the required PPE discussed in the following sections. In an effort to reduce sharing tools or equipment, it is strongly recommended that the employee leading the Tailgate Safety Meetings print everyone's name in the HASP or on project/tailgate sign-in sheets in lieu of passing documents or writing utensils to each employee for signature.

Travel Protocols

Leighton employees are directed to avoid using mass transit systems including airplanes, trains, or busses when commuting to the office or project sites. Automobile transportation is the preferred method of transportation and **carpooling is strongly discouraged**.

If Leighton employees have plans to utilize a Leighton company vehicle (not utilizing a dedicated personal vehicle) for travel to and from a project site, additional disinfection protocols will apply prior to initial vehicle travel and when the company vehicle is returned to the office.

Vehicle disinfection should be conducted on high-contact surfaces including **door handles (interior and exterior), steering wheel, gear shifter, center console, radio/climate control buttons or knobs, or any other surfaces that may be in physical contact with personnel when operating or moving in/out of the vehicle**. Disinfection agents to be utilized may include common household or commercial products that have been approved and provided by Leighton. An ample supply of

disinfection products shall be stored and maintained in Leighton company vehicles to allow for periodic disinfection. At a minimum, disinfection should take place when checking a company vehicle in/out or more frequently, if appropriate (e.g., switching vehicles with another employee or team member, other personnel touches or enters a vehicle during the course of the work shift, etc.). If disinfection solution or materials are running low or not identified in a company vehicle during the check-in/out process, please contact the Project Manager or Leighton's Safety Manager, Brandie DeVries (949-681-4292).

Field Protocols and PPE

Hazard Communication

Prior to field activities or during the daily **Tailgate Safety Meeting**, a site-specific **COVID-19 Supervisor** shall be appointed to enforce this guidance. The COVID-19 Supervisor can be an onsite worker who is designated to carry this role. A designated COVID-19 Supervisor should be present on the site at all times during field activities. **All site visitors** must be given a brief safety orientation by the COVID-19 Supervisor, or other designated individual, if they did not participate in the daily Tailgate Safety Meeting. Once briefed, the visitor's name and company shall be added to the HASP or daily tailgate form.

All onsite personnel have **Stop Work Authority**, not just the COVID-19 Supervisor, and can use this authority to stop any task if they observe a violation of the following field protocols or deem an activity to present an unsafe condition.

Appropriate Signage shall be posted which outlines the following protocols required at the site as they pertain to active social distancing, PPE, and proper hygiene while working on site. Consider placing signage near the entrance to the work area, restroom, and/or wash station.

Social Distancing

Social distancing is a term used to describe the practice of minimizing physical interaction with others and putting space between people to limit the risk of transferring the virus between individuals. Wherever possible, meetings should be conducted "virtually" either by phone call, email, or other form of communication that does not involve a physical gathering.

Where personnel must gather for the purposes of essential work, as described above, **all personnel must maintain a minimum of six (6) feet of distance from each another**.

Preclude gatherings of any size, and anytime two or more people must meet, ensure minimum 6-foot separation. If process requires/has no alternative, provide suitable personal protective equipment (PPE), limit interaction to the minimum time required to perform the given task, and comply to the maximum extent.

Personal Protective Equipment (PPE)

Refer to the site-specific HASP for guidance on standard PPE to be worn based on the specific project site and anticipated work tasks. In addition to the normal PPE designated within the HASP, the following additional PPE is required to reduce employee exposure to COVID-19 while performing normal field duties:

Face coverings must be worn when performing essential work tasks that do not take place at an employee's personal residence (includes Leighton offices, project sites, or in public spaces). Currently, the CDC recommends wearing cloth face coverings which fit snugly but comfortably against the side of face, can be secured with ties or ear loops, include multiple layers of fabric, allow for breathing without restriction, and have the ability to be laundered and machine dried without damage or change to shape. Acceptable face coverings can include bandanas, dust masks, surgical masks, or fabricated coverings using readily available cloth and rubberbands/string (see CDC guidance in References Section regarding cloth face coverings).

Nitrile gloves must be worn when interacting with tools or shared surfaces while on performing work at a project site. If additional hand protection is required to mitigate cuts or abrasions, appropriate cut-resistant gloves may be worn over nitrile gloves. Employees are strongly encouraged to **use dedicated tools** and not share typical equipment such as writing utensils, notebooks, cell phones/tablets, hand tools, power tools, handheld instruments, hammers, shovels, etc. Nitrile gloves should be changed as needed and soiled gloves should be secured in a trash bag or large plastic bag and disposed as municipal waste.

The above additional PPE must be worn in addition to maintaining proper social distance protocols. In the event that a task is identified, where workers must operate within six (6) feet of each other for any amount of time, the Project Manager or Leighton Safety Manager should be consulted to discuss if alternative administrative controls can be implemented so that employees can maintain social distancing protocols.

If the Project Manager/Safety Manager agree that the task cannot be completed while maintaining social distancing protocols, additional respiratory protection may be considered. **Face shields** can be donned over face coverings to provide an additional barrier for incoming or outgoing respiratory droplets that could contain the active virus. **Air-purifying respirators** such as disposable N95 respirators or elastomeric, half-mask respirators with P100 particulate filters can provide additional particulate filtration efficiency to protect personnel working in close proximity. All tight-fitting respirators require that an employee be fit tested, medically cleared, and properly trained (e.g. OSHA 40-hour HAZWOPER certified or specific respirator training) before donning in the field. Written approval must be obtained from the Project Manager and the Leighton Safety Manager before an employee is allowed to don an air-purifying respirator. Upon approval, a brief summary of proper respirator use and care will be discussed and additional/spare P100 cartridges can be provided, as necessary. Once social distancing protocols can be resumed, additional respiratory protection (face shield or respirators) can be removed but face coverings shall remain.

Field Etiquette and Hygiene

Frequent and effective **hand washing** is very important for effectively removing the virus from hands and reducing the risk of employee infection. The CDC recommends washing hands with soap and water for a minimum of 20 seconds. If a restroom facility or potable water source is not within 100 feet of field operations, a water jug and soap shall be provided by Leighton to bring to the project site. Hand sanitizer that contains at least 60% alcohol can be used if water and soap are not immediately available. Once a wash station has been established at the site, soap and water shall be used as the primary method to clean and disinfect hands regularly.

Avoid touching eyes, nose, and mouth. This is especially important when hands have not been cleaned with soap and water (see above). Employees should be aware that the use of face coverings may increase the urge to touch ones face when attempting to reposition or adjust PPE.

Frequently touched surfaces or tools should be disinfected regularly. This includes clipboards, writing utensils, field instruments, tables, doorknobs, light switches, and cell phones.

It is recommended that employees remove field clothing/face covering and shower as soon as possible when they return home after their shift. Clothing and cloth face coverings worn when performing field work or performing work in public spaces should

be washed before reuse to protect employees and their families from contracting the virus from potentially contaminated clothing or PPE.

References

Centers for Disease Control and Prevention (CDC), *Use of Cloth Face Coverings to Help Slow the Spread of COVID-19*, updated April 10, 2020. https://www.cdc.gov/coronavirus/2019-ncov/downloads/DIY-cloth-face-covering-instructions.pdf

CDC, *How to Protect Yourself & Others*, last reviewed April 13, 2020. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

National Institute for Occupational Safety and Health (NIOSH) and CDC, *Respirator Fact Sheet*, last reviewed April 9, 2020. https://www.cdc.gov/niosh/npptl/topics/respirators/factsheets/respsars.html

State of California, *Executive Order N-33-20*, Issued March 19, 2020. https://covid19.ca.gov/img/Executive-Order-N-33-20.pdf

State of California, *Essential Critical Infrastructure Workers*, Issued March 22, 2020. https://covid19.ca.gov/img/EssentialCriticalInfrastructureWorkers.pdf

United States Environmental Protection Agency (USEPA), *List N: Disinfectants for Use Against SARS-CoV-2*, last updated April 9, 2020. https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

ATTACHMENT C

Heat Illness Prevention Attachment

CAL/OSHA HEAT ILLNESS PREVENTION

California Code OF Regulations, Title 8, Section 3395

Rev April 3, 2023

Rev March 14, 2024

CAL/OSHA HEAT ILLNESS PREVENTION

The following designated person or persons (Program Administrator, Safety Coordinator, Supervisor, Foreman, Field Supervisor, Crew Leader have the authority and responsibility for implementing the provisions of this program at the Leighton project sites.

NAME/TITLE/PHONE NUMBER

1. Cindy Guerroro, Human Resources Partner	Ofc 949-681-4248
2. Ines Cadavid-Parr, Project Safety Manager	Ofc 661-257-7434 Cell 818-235-6266
3.. Mark Zakrewski, National Health Safety Leader	Ofc 216-505-7746 Cell 216-905-9087

PROCEDURES FOR PROVISION OF WATER (INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING):

1. Drinking water containers (of 5 to 10 gallons each) will be brought to the site, so that at least two quarts per employee are available at the start of the shift. All workers whether working individually or in smaller crews, will have access to drinking water.

2. Paper cone rims or bags of disposable cups and the necessary cup dispensers will be made available to workers and will be kept clean until used.

3. As part of the Effective Replenishment Procedures, the water level of all containers will be checked periodically (e.g. every hour, every 30 min), and more frequently when the temperature rises. Water containers will be refilled with cool water, when the water level within a container drops below 50 percent. Additional water containers (e.g. five gallon bottles) will be carried, to replace water as needed.

4. Ice will be carried in separate containers, so that when necessary, it will be added to the drinking water to keep it cool.

5. Water will be fresh, pure, and suitably cool and provided free of charge. Supervisors will visually examine the water and pour some on their skin to insure that the water is suitably cool. During hot weather, the water must be cooler than the ambient temperature but not so cool as to cause discomfort.

6. Water containers will be placed as close as possible to the workers (given the working conditions and layout of the worksite), to encourage the frequent drinking of water. If field terrain prevents the water from being placed as close as possible to the workers, bottled water or personal water containers will be made available, so that workers can have drinking water readily accessible.

7. Water containers will be relocated to follow along with the crew, so drinking water will remain readily accessible.

8. Water containers will be kept in sanitary condition. Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable. If hoses or connections are used, they must be governmentally approved potable drinking water systems, as shown on the manufactures label.

9. Daily, workers will be reminded of the location of the water coolers and of the importance of drinking water frequently. When the temperature exceeds or is expected to exceed 80 degrees Fahrenheit, brief 'tailgate' meetings will be held each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness.

10. Audible devices (such as whistles or air horns) will be used to remind employees to drink water.

11. When the temperature equals or exceeds 95 degrees Fahrenheit or during a heat wave, pre-shift meetings before the commencement of work to encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary will be conducted. Additionally, the number of water breaks will be increased, and workers will be reminded throughout the work shift to drink water.

12. Individual water containers or bottled water provided to workers will be adequately identified to eliminate the possibility of drinking from a co-workers container or bottle.

13. During employee training and tailgate meetings, the importance of frequent drinking of water will be stressed.

PROCEDURES FOR ACCESS TO SHADE (INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING):

1. Shade structures will be opened and placed as close as practical to the workers, when the temperature equals or exceeds 80 degrees Fahrenheit. When the temperature is above 80 degrees Fahrenheit, access to shade will be provided promptly, when requested by an employee. **Note**: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on.

2. Enough shade structures will be available at the site, to accommodate at least 25 percent of the employees on the shift at any one time. During meal periods there will be enough shade for all of the employees who choose to remain in the general area of work or in areas designated for recovery and rest periods. (Employer may rotate employees in and out of meal periods, as with recovery and rest periods.)

3. Daily, workers will be informed of the location of the shade structures and will be encouraged to take a five minute cool-down rest in the shade. An employee who takes a preventative cool-down rest break will be monitored and asked if he/she is experiencing symptoms of heat illness and in no case will the employee be ordered back to work until signs or symptoms of heat illness have abated.

4. Shade structures will be relocated to follow along with the crew and they will be placed as close as practical to the employees, so that access to shade is provided at all times. All employees on a recovery, rest break or meal period will have full access to shade so they can sit in a normal posture without having to be in physical contact with each other.

5. In situations where trees or other vegetation are used to provide shade (such as in orchards), the thickness and shape of the shaded area will be evaluated, before assuming that sufficient shadow is being cast to protect employees.

6. In situations where it is not safe or feasible to provide access to shade (e.g., during high winds), a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide shade upon request.

7. For non-agricultural employers, in situations where it is not safe or feasible to provide shade, a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide alternative cooling measures but with equivalent protection as shade.

PROCEDURES FOR MONITORING THE WEATHER (INCLUDE BUT ARE NOT LIMITED TO):

1. The supervisor will be trained and instructed to check in advance the extended weather forecast. Weather forecasts can be checked with the aid of the internet (http://www.nws.noaa.gov/), or by calling the National Weather Service phone numbers (see CA numbers below) or by checking the Weather Channel TV Network.

2. The work schedule will be planned in advance, taking into consideration whether high temperatures or a heat wave is expected. This type of advance planning should take place all summer long.

CALIFORNIA Dial-A-Forecast

Eureka 707-443-7062
Hanford 559-584-8047
Los Angeles 805-988-6610 (#1)
Sacramento 916-979-3051
San Diego 619-297-2107 (#1)
San Francisco 831-656-1725 (#1)

3. Prior to each workday, the forecasted temperature and humidity for the worksite will be reviewed and will be compared against the National Weather Service Heat Index to evaluate the risk level for heat illness. Determination will be made of whether or not workers will be exposed at a temperature and humidity characterized as either “extreme caution” or “extreme danger” for heat illnesses. It is important to note that the temperature at which these warnings occur must be lowered as much as 15 degrees if the workers under consideration are in direct sunlight.

4. Prior to each workday, the supervisor will monitor the weather (using http://www.nws.noaa.gov/ or with the aid of a simple thermometer, available at most hardware stores) at the worksite. This critical weather information will be taken into consideration, to determine, when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).

5. A thermometer will be used at the jobsite to monitor for sudden increases in temperature, and to ensure that once the temperature exceeds 80 degrees Fahrenheit, shade structures will be opened and made available to the workers. In addition, when the temperature equals or exceeds 95 degrees Fahrenheit, additional preventive measures such as the High Heat Procedures will be implemented.

HANDLING A HEAT WAVE:

1. During a heat wave or heat spike, the work day will be cut short or rescheduled (example conducted at night or during cooler hours).

2. During a heat wave or heat spike, and before starting work, tailgate meetings will be held, to review the company heat illness prevention procedures, the weather forecast and emergency response. In addition, if schedule modifications are not possible, workers will be provided with an increased number of water and rest breaks and will be observed closely for signs and symptoms of heat illness.

3. Each employee will be assigned a “buddy” to be on the lookout for signs and symptoms of heat illness and to ensure that emergency procedures are initiated when someone displays possible signs or symptoms of heat illness.

HIGH HEAT PROCEDURES (INCLUDE BUT ARE NOT LIMITED TO):

High Heat Procedures are additional preventive measures that Leighton will use when the temperature equals or exceeds 95 degrees Fahrenheit.

1. Effective communication by voice, observation, or electronic means will be maintained, so that employees at the worksite can contact a supervisor when necessary. If the supervisor is unable to be near the workers (to observe them or communicate with them), then an electronic device, such as a cell phone or text messaging device, may be used for this purpose if reception in the area is reliable.

2. Frequent communication will be maintained with employees working by themselves or in smaller groups (keep tabs on them via phone or two-way radio), to be on the lookout for possible symptoms of heat illness. The employee(s) will be contacted regularly and as frequently as possible throughout the day, since an employee in distress may not be able to summon help on her/his own.

3. Employees will be observed for alertness and signs and symptoms of heat illness. When the supervisor is not available, an alternate responsible person may be assigned, to look for signs and symptoms of heat illness. Such a designated observer will be trained and know what steps to take if heat illness occurs.

4. Employees will be reminded throughout the work shift to drink plenty of water and take preventative cool-down rest break when needed.

5. New employees will be closely supervised, or assign a “buddy” or more experienced coworker for the first 14 days of the employment (unless the employee indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for four or more hours per day).

PROCEDURES FOR ACCLIMATIZATION (INCLUDE BUT ARE NOT LIMITED TO):

Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee’s body hasn’t yet adjusted.

Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.

1. The weather will be monitored daily. The supervisor will be on the lookout for sudden heat

2. Wave(s), or increases in temperatures to which employees haven’t been exposed to for several weeks or longer.

3. **During a heat wave or heat spike, the work day will be cut short (example 12 p.m.), will be rescheduled (example conducted at night or during cooler hours) or if at all possible cease for the day.**

4. For new employees, the intensity of the work will be lessened during a two-week break-in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early-morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.

5. The supervisor will be extra-vigilant with new employees and stay alert to the presence of heat related

symptoms.

6. New employees will be assigned a “buddy” or experienced coworker to watch each other closely for discomfort or symptoms of heat illness.

7. During a heat wave, all employees will be observed closely (or maintain frequent communication via phone or radio), to be on the lookout for possible symptoms of heat illness.

8. Employees and supervisors will be trained on the importance of acclimatization, how it is developed and how these company procedures address it.

PROCEDURES FOR EMERGENCY RESPONSE (INCLUDE BUT ARE NOT LIMITED TO):

1. Prior to assigning a crew to a particular worksite, workers and the foreman will be provided a map of the site, along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads), to avoid a delay of emergency medical services.

2. Prior to assigning a crew to a particular worksite, efforts will be made to ensure that a qualified and appropriately trained and equipped person is available at the site to render first aid if necessary.

3. Prior to the start of the shift, a determination will be made of whether or not a language barrier is present at the site and steps will be taken (such as assigning the responsibility to call emergency medical services to the foreman or an English speaking worker) to ensure that emergency medical services can be immediately called in the event of an emergency.

4. All foremen and supervisors will carry cell phones or other means of communication, to ensure that emergency medical services can be called. Checks will be made to ensure that these electronic devices are functional prior to each shift.

5. When an employee is showing symptoms of possible heat illness, steps will be taken immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).

6. At remote locations such as rural farms, lots or undeveloped areas, the supervisor will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated employee(s) shall be given reflective vest or flashlights in order to direct emergency personnel to the location of the worksite, which may not be visible form the road or highway.

7. During a heat wave or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.

8. Employees and supervisors training will include every detail of these written emergency procedures.

HANDLING A SICK EMPLOYEE:

1. **When an employee displays possible signs or symptoms of heat illness, a trained first aid worker or supervisor will check the sick employee and determine whether resting in the shade and drinking cool water will suffice or if emergency service providers will need to be called.** A sick worker will not be left alone in the shade, as he or she can take a turn for the worse**!**

2. When an employee displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, emergency service providers will be called.

3. **Emergency service providers will be called immediately if an employee displays signs or symptoms of heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), does not look OK or does not get better after drinking cool water and resting in the shade. While the ambulance is in route, first aid will be initiated (cool the worker: place the worker in the shade, remove excess layers of clothing, place ice pack in the armpits and join area and fan the victim).** Do not let a sick worker leave the site, as they can get lost or die before reaching a hospital!

4. If an employee does not look OK and displays signs or symptoms of severe heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), and the worksite is located more than 20 minutes away from a hospital, call emergency service providers, communicate the signs and symptoms of the victim and request Air Ambulance.

PROCEDURES FOR EMPLOYEE AND SUPERVISORY TRAINING (INCLUDE BUT ARE NOT LIMITED TO):

1. Supervisors will be trained prior to being assigned to supervise other workers. Training will include this company's written procedures and the steps supervisors will follow when employees' exhibit symptoms consistent with heat illness.

2. Supervisors will be trained on their responsibility to provide water, shade, cool- down rests, and access to first aid as well as the employees' rights to exercise this standard without retaliation.

3. Supervisors will be trained in appropriate first aid and/emergency responses to different types of heat illness, and in addition, that heat illness may progress quickly from mild symptoms and signs to serious and life threatening illness.

4. Supervisors will be trained on how to track the weather at the job site (by monitoring predicted temperature highs and periodically using a thermometer). Supervisors will be instructed on, how weather information will be used to modify work schedules, to increase number of water and rest breaks or cease work early if necessary.

5. All employees and supervisors will be trained prior to working outside and annually thereafter, and the training will be documented on a training signature page with the topic, employee name, date and training provider. Training will include the company's written prevention procedures.

6. Employees will be trained on the steps that will be followed for contacting emergency medical services, including how they are to proceed when there are non-English speaking workers, how clear and precise directions to the site will be provided and the importance of making visual contact with emergency responders at the nearest road or landmark to direct them to their worksite.

7. When the temperature exceeds 80 degrees Fahrenheit, short 'tailgate' meetings will be held to review the weather report, to reinforce heat illness prevention with all workers, to provide reminders to drink water frequently, to inform them that shade can be made available upon request and to remind them to be on the lookout for signs and symptoms of heat illness.

8. New employees will be assigned a "buddy" or experienced coworker to ensure that they understand the training and follow company procedures.

9. The heat illness program and procedures will be readily available to all Leighton employees at all times. The electronic version will be available on the Leighton system and a copy will be provided in the field when applicable as part of the site-specific health and safety plan.

ATTACHMENT D

Drilling and Sampling

ATTACHMENT 2

PERMIT TO WORK – GROUND DISTURBANCE

PERMIT TO WORK – GROUND DISTURBANCE

This Permit to Work is required to be Authorized by the Project Manager prior to initiating any ground disturbance project.

Project Name/Location: _____

For any item answered "No," additional documentation must be completed before work can proceed.			
1. Has written authorization (executed contract and task order) been received from the client?	☐Yes	☐No	
2. If the proposed ground disturbance will occur on a property not owned by our client, a written access agreement from the owner is required. If this condition applies to this project, has the written access agreement been received prior to beginning work?	☐Yes	☐No	☐NA
3. Has a" Before You Dig" notification been submitted within 10 days, but no less than 48 hours prior to the scheduled ground disturbance?	☐Yes	☐No	
4. Has the drilling/excavation subcontractor provided documentation confirming that all utilities have been notified and have provided positive responses? Attach a copy of this	☐Yes	☐No	
5. Has the client provided accurate site plans ("as-builts") or confirmed in writing that no utilities are in the proposed ground disturbance area(s)? **If "NO,"** a private utility locate is required if breaking ground on private property. (Exception: Rural, undeveloped properties where no evidence of underground facilities exist, and the project manager has authorization of the ASL or HSO.	☐Yes	☐No	
6. Have all available records been reviewed that may indicate the location of underground facilities in the proposed disturbance area(s)?	☐Yes	☐No	
7. Have all overhead utilities in the proposed work area been identified and will remain a minimum of 20 feet from equipment used for this ground disturbance project?	☐Yes	☐No	
8. If the answer to the question above is "NO," have all <u>overhead</u> utility precautions listed in the "Pre-drill Excavate Utilities and Structures Checklist" been performed and documented, including authorization of the HSO or ASL?	☐Yes	☐No	
9. Has the "Pre-Drill / Excavate Utilities and Structures Checklist" been filled out?	☐Yes	☐No	
10. Has the proposed ground disturbance area(s) been marked on-site, and competent public and/or private line locator(s) marked all underground facilities in the areas where subsurface disturbance activities are to be conducted (except for rural, undeveloped properties, as discussed in item 5, above)?	☐Yes	☐No	
11. Have all suspected underground utilities/structures been located? If "No" then pre-clearing is required beyond the anticipated depth of the unlocated utility/structure. Note the depth specified by Project Manager. _____ ft.	Yes	No	
12. Are there any visible features (i.e., pipeline markers, manholes, etc.) without an identified "feed" in the mark-out? If "Yes" - STOP WORK and further evaluate before beginning the ground disturbance project.	☐Yes	☐No	
13. Are copies of all approvals, notifications, and agreements available for field crew reference while on site?	☐Yes	☐No	
14. Are precautionary techniques planned (using air knife, hydro-vac, hand auger, or hand digging) for drilling or digging within 5 feet of the known utilities?	☐Yes	☐No	
15. If the first _____ feet cannot be cleared has approval from Project Manager been received to proceed?	☐Yes	☐No	☐NA
16. Will ground disturbance include trenching? If so, a Daily Trench Safety Field Report shall be completed each day prior to the start of work. (Attach sufficient copies as needed)	☐Yes	☐No	☐NA
17. If applicable, have provisions been made to address unattended open excavations to provide for the safety of the public, livestock and/or wildlife until the project is completed?	☐Yes	☐No	☐NA

Person responsible for coordinating/confirming utility verification

Name: _____ Signature: _____ Date: _____

Project Manager *Permit Authorization* _____ _____

Name: _____ Signature: _____ Date: _____

ATTACHMENT E

Asbestos

OBJECTIVE

The objective of this program is to provide guidance regarding exposure to asbestos, asbestos-containing material (ACM) inspections in buildings, sampling of ACM and handling/transportation of ACM. Note that ACM inspections/sampling of building materials will be conducted by individuals certified by the state in which the project is located.

Note: **Leighton** personnel do not perform asbestos surveys or remediation. Leighton utilizes subcontractors with proper certifications/licenses to perform asbestos surveys and remediation.

General

Materials that historically often contained asbestos should be assumed to contain asbestos unless laboratory analysis, date of manufacture, label, or the manufacturer verifies that it does not. A material may be presumed to be ACM and treated as though it is ACM in lieu of analysis. The following list, though not comprehensive, includes commonly encountered materials that historically contained asbestos. Unless these materials meet the conditions noted above, they should be assumed to contain asbestos until laboratory analysis determines otherwise.

COMMON EXAMPLES OF POTENTIAL ASBESTOS CONTAINING MATERIALS

Cement Pipes	Elevator Brake Shoes
Cement Wallboard	HVAC Duct Insulation
Cement Siding	Boiler Insulation and Gaskets
Asphalt Floor Tile	Breaching Insulation
Vinyl Floor Tile	Ductwork Flexible Fabric Connections
Vinyl Sheet Flooring	Cooling Towers
Flooring Backing	Pipe Insulation (corrugated air-cell, block, etc.)
Mastics (floor tile, carpet, ceiling tile, etc.)	Heating and Electrical Ducts
Acoustical Plaster	Electrical Panel Partitions
Decorative Plaster	Electrical Cloth
Textured Paints/Coatings/spackling compounds	Electric Wiring Insulation
Ceiling Tiles and Lay-in Panels	Chalkboards
Spray-Applied Insulation	Roofing Shingles
Blown-in Insulation	Roofing Felt
Fireproofing Materials, including insulation within many doors	Base Flashing
Taping Compounds (thermal)	Thermal Paper Products
Packing Materials (for wall/floor penetrations)	Fire Doors
High Temperature Gaskets	Caulking/Putties

Laboratory Hoods/Tabletops	Adhesives
Laboratory Gloves	Wallboard
Fire Blankets	Joint Compounds
Fire Curtains	Vinyl Wall Coverings
Elevator Equipment Panels	

Definitions

- Asbestos – an incombustible, chemical-resistant, fibrous mineral used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters.
- Asbestos containing material (ACM) – any material containing more than 1% asbestos.
- Friable asbestos - used for fireproofing, insulation, or soundproofing are considered to be friable, and they readily release airborne fibers if disturbed.
- Non-friable asbestos - vinyl-asbestos floor tile or roofing felts are considered non- friable and generally do not emit airborne fibers unless subjected to sanding or sawing operations.
- Presumed asbestos containing material (PACM) – thermal insulation and surfacing material found in buildings constructed no later than 1980.
- Surfacing material – material that is sprayed-on, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members or other materials on surfaces for acoustical, fireproofing, and other purposes).
- Thermal system insulation – ACM applied to pipes, fittings, boilers, breeching, tanks, ducts, or other structural components to prevent heat loss or gain.

EXPOSURE TO ASBESTOS

Asbestos can cause disabling respiratory disease and various types of cancers if the fibers are inhaled. Inhaling or ingesting fibers from contaminated clothing or skin can also result in these diseases. The symptoms of these diseases generally do not appear for 20 or more years after initial exposure.

Exposure to asbestos has been shown to cause lung cancer, mesothelioma, and cancer of the stomach and colon. Mesothelioma is a rare cancer of the thin membrane lining of the chest and abdomen. Symptoms of mesothelioma include shortness of breath, pain in the walls of the chest, and/or abdominal pain.

Leighton personnel may not be exposed to an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter (f/cc) of air as an eight-hour time weighted average (TWA) or 1.0 fiber per cubic centimeter averaged over a 30-minute time period. Breathing zone air samples will be collected as appropriate and documented to confirm air quality safety. When applicable, engineering controls, administrative controls, safe work practices, such as wet methods, and PPE should be utilized to reduce exposure.

Personal protective equipment, such as coveralls, foot coverings, face shields, goggles and respirators will be provided to employees at no cost. Respirators must be NIOSH-approved and used for safe work operations / practices, to reduce exposure, as well as in emergencies.

SAFE PRACTICES

Leighton personnel are not permitted to perform work on ACM, including collection of samples that may require damage or production of friable asbestos. If such sample collection is required, a certified/licensed asbestos subcontractor will conduct the work.

Building Walk-through/Documentation of Suspected ACMs

Before qualified asbestos subcontractors collect samples of suspected ACM, the building should be examined to identify potential health and safety concerns and to identify the presence of suspect ACM. Each suspected ACM must be assigned a homogeneous area in accordance with Asbestos Hazard Emergency Response Act (AHERA) guidelines. The description, location, condition, and quantity of the material should be documented, and a photograph of the suspect material should be taken. Other information may be required based on project-specific needs.

Materials that are not accessible or are not safe to sample (i.e., due to confined space, height, live electrical lines or equipment, operating machinery, etc.) should be assumed to contain asbestos unless procedures can be followed to allow for the safe sampling of such material. Roofing material should not be sampled unless directed to do so by the Project Manager.

Collection of suspected ACM may expose individuals to risk of injury not directly associated with the material in question. Preventing injury during assessment and sampling processes requires a keen awareness of the risks, vigilance, and discipline. The following risks may be encountered during the ACM assessment and sample-collection process.

- Slipping and/or tripping hazards. Look for electrical cords, cables, floor cracks/uneven areas, protruding structures, or wet surfaces.
- Fall hazards. Accessing ACM often requires special maneuvers that might expose personnel to the risk of falls. Care needs to be taken minimize the risk of falling from elevated locations.
- Ladder hazards. Access to ACM might require the use of ladders. Ladders must be inspected before use and verified to be stable, secure and in sound condition and that proper ladder use precautions are taken.
- Eating, drinking, and smoking. These activities should be prohibited when there is a possibility of exposure to ACM.
- Authorized entry. Areas containing airborne asbestos fibers must be demarcated, such as during asbestos abatement. If ACM areas are

demarcated, make sure that only authorized persons are permitted to enter these areas and that proper PPE is worn in these areas.

- Lockout/Tagout. If operations are ongoing, or if equipment is energized, the chance of inadvertent startup of equipment or machinery is a serious risk. Employ lockout procedures where necessary to prevent injury by providing that all equipment and systems are in a "zero energy state." Common sources of energy may include electrical, hydraulic, pneumatic, gravitational, capacitance, chemical or steam.
- Hand Tool Safety. Tools used to collect bulk samples often have sharp edges. Care should be taken to use the appropriate tool for the job and to use it correctly to avoid injury. Appropriate protective gloves are also to be worn when using hand tools.
- Simultaneous Operations (SIMOPS). If employees working immediately adjacent to an asbestos job are potentially exposed to asbestos due to the inadequate containment of such job, Leighton shall either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

SAMPLE COLLECTION RECOMMENDATIONS

Random sampling procedures should be employed when collecting samples for analytical purposes as described in AHERA guidelines. Other sampling procedures may be used at the discretion of the Project Manager. Sample collection practices should adhere to the following:

- Wear disposable gloves and wash hands after sampling (wear additional PPE as necessary or directed by the Project Manager).
- Shut down any forced air heating or cooling systems to minimize the spread of any released fibers.
- Do not disturb the material any more than is needed to take a small sample.
- Place a plastic sheet on the floor below the area to be sampled to collect any fragments that may fall from the sample area.
- Wet the material using a fine mist of amended water to reduce the release of asbestos fibers.
- Carefully cut a piece from the entire depth of the material using, for example, a small utility knife, corer, or other appropriate tool.
- Place the small piece into a clean container, such as a high-quality re-sealable plastic bag.
- Tightly seal the container.
- Carefully place the plastic sheet in a plastic bag and dispose of as solid waste. Use a damp paper towel to clean up any dust or material fragments on the outside of the container or around the area sampled.
- Label the container with an identification number and clearly state when and where the sample was taken (see below).
- Where appropriate, patch the sampled area with available materials to prevent fiber release.

Sample nomenclature should include the project code, the homogeneous area, and the sample number.

ANALYTICAL PROCEDURE

The EPA requires that the asbestos content of suspect materials be determined by analyzing samples by polarized light microscopy (PLM). PLM analysis results give the percent and type of asbestos in the sample. All samples should be analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory. An analytical result that indicates asbestos content to be greater than one percent using PLM analysis is considered ACM. PLM results indicating the content of asbestos to be greater than one percent but less than five percent asbestos should, at the discretion of the Project Manager, be further analyzed using a point count methodology to reduce the likelihood of a false positive result.

RESPIRATORY PROTECTION

The only circumstances that will necessitate Leighton personnel to use respiratory protection is during the asbestos exposure assessment process, while confirming (via personnel monitoring) that the engineering controls and work practices designed and employed for a particular work activity are adequate to maintain exposure levels below the PEL/excursion limit. Asbestos work that requires respiratory equipment beyond the noted exception above, should be performed by a qualified contractor.

Prerequisites for use of respiratory equipment include:

- Successfully passing a respiratory physical.
- Successfully completing annual respiratory protection training.
- Successfully passing a respirator fit test within the past 12 months.

PERSONNEL AIR MONITORING

An independent/third party air sampling person shall perform required air sampling during contractor asbestos work and provide the results to Leighton. Note: Air sampling is not required for glove bag activities that are covered under a Negative Exposure Initial Assessment.

Affected employees and/or their designated representatives are to be provided the opportunity to observe asbestos exposure monitoring.

Air sampling analysis shall be performed by an American Industrial Hygiene Association (AIHA) accredited laboratory.

Where the asbestos exposure assessment (in the absence of quantitative personnel monitoring results) does not present objective, convincing data that indicates the ACM to be handled will not (under the worst circumstances) release airborne fibers, personnel air monitoring shall be performed to quantify exposure.

If personnel monitoring is considered necessary during the asbestos exposure assessment, to verify exposures would be maintained below the PEL/excursion limit, respiratory protection shall be utilized until such time that sufficient sampling results verify that respiratory protection is not required.

The number of samples necessary to be considered "representative" is dependent upon many factors and must be determined in consultation with the HSO, Certified Industrial Hygienist consultant, or other third-party air sampling professional.

Affected employees shall be notified of monitoring results, which represent the employee's exposure, as soon as possible following receipt of the monitoring results. Employees shall be notified in writing either individually or by posting at a centrally located place that is accessible to affected employees.

Once representative sampling indicates that exposure levels for a specific activity are consistently below the OSHA established permissible limit and/or excursion limit, the requirement for respiratory protection may be waived. It is imperative that accurate personnel air sampling records are maintained to justify any relaxation of respiratory protection requirements. Results of air sampling data must be maintained in the asbestos job documentation.

Written Program

If the TWA or excursion limit is exceeded, a written program must be implemented to reduce employee exposure. Any employee working in regulated asbestos areas are to be covered by the program. The program requires posting of signs and labels meeting OSHA requirements.

TRAINING

Employees who may be exposed to airborne concentrations of asbestos at or above the TWA will be trained prior to their initial assignment and annually thereafter. Training will include:

- Exposure to asbestos has been shown to cause lung cancer, asbestosis, mesothelioma, and cancer of the stomach and colon,
- Relationship between smoking and exposure to asbestos producing lung cancer,
- Quantity, location, manner of use, release, and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos,
- Specific procedures implemented to protect employees from exposure to asbestos, such as appropriate engineering and administrative controls, work practices, emergency, and clean-up procedures,
- Purpose, proper use, and limitations of respirators, protective clothing and other PPE as needed.

Employees will receive a certificate documenting completion of asbestos awareness training.

CONTRACTORS

Asbestos contractors shall be pre-screened and approved by the group responsible for contracting the work. Contractors performing work shall comply with the requirements of this standard and applicable OSHA and environmental regulatory requirements. The following documents must be obtained at least 10 working days (or as soon as possible) prior to beginning the asbestos abatement work:

- Copy of the contractor's State Contractor's License (renewed annually)
- Safety Data Sheets for material used for the abatement process
- Copy of all asbestos Notifications (if required)
- Copies of asbestos sample analysis (if performed by contractor)

The following are required upon completion of work by the contractor (If an asbestos project completion report is provided by the contractor, these items are often a part of it.):

- Work Summary Report, including daily work summaries;
- Results of independent third-party air sampling, including asbestos material sampling, personnel air monitoring, clearance sampling results; and
- Waste Shipment Records.

Every contracted asbestos job must have assigned a competent person to monitor asbestos work and to assure compliance with applicable regulations and requirements. An independent third party shall be contracted to perform required air sampling for contracted asbestos removal.

Contractors who are not involved in ACM work, but who may be inadvertently exposed to ACM on Leighton worksites are to be informed of this potential and advised on proper methods to avoid exposure.

APPENDIX G

Quality Assurance Project Plan

Leighton
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QUALITY ASSURANCE PROJECT PLAN
SUBGRADE TESTING AND GEOTECHNICAL WORKPLAN
6145 EAST SANTIAGO CANYON ROAD
ORANGE, CALIFORNIA

Prepared For: **MILAN REI X, LLC**
701 SOUTH PARKER STREET, SUITE 5200
ORANGE, CALIFORNIA 92868

Prepared By: **LEIGHTON CONSULTING, INC.**
17781 COWAN
IRVINE, CALIFORNIA 92614

Project No. 13620.004

January 23, 2023

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ABBREVIATIONS AND ACRONYMS

ASTM	American Society for Testing and Materials
CARB	California Air Resources Board
CLP	Contract Laboratory Program
COPC	Chemical of Potential Concern
DQO	Data Quality Objective
DRO	Diesel Range Organics
GRO	Gasoline Range Organics
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
Leighton	Leighton Consulting, Inc.
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NIST	National Institute of Standards and Technology
OCPs	Organochlorine Pesticides
OPPs	Organophosphorous Pesticides
ORO	Oil Range Organics
PAHs	Polycyclic Aromatic Hydrocarbons
PARCC	Precision, Accuracy, Representativeness, Comparability, and Completeness
PCBs	Polychlorinated Biphenyls
PE	Performance Evaluation
PID	photoionization detector
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
RPD	Relative Percent Difference
Site	6145 East Santiago Canyon Road Orange, California 92869
SOP	Standard Operating Procedure
SVOCs	Semi-Volatile Organic Compounds
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
Workplan	“Revised Subgrade Testing and Geotechnical Workplan, 6145 East Santiago Canyon Road, City of Orange, Orange County, California” (Leighton, 2023)

1.0 INTRODUCTION AND OBJECTIVES

Leighton Consulting, Inc. (Leighton) has prepared this Quality Assurance Project Plan (QAPP) to support Leighton's Subgrade Testing and Geotechnical Workplan (referred to herein as "Workplan") for the property located at 6145 East Santiago Canyon Road in Orange, California (referred to herein as the "Site"). This QAPP addresses quality assurance (QA) and quality control (QC) policies and procedures associated with the collection of environmental data at the Site. The purpose of this QAPP is to identify the methods to be employed to establish technical accuracy, precision, and validity of data that are generated at the Site.

The sampling program is formally described in the Workplan. This QAPP contains general and specific details regarding field sampling, laboratory, and analytical procedures that apply to activities described in the Workplan. It provides field and laboratory personnel with instructions regarding activities to be performed before, during, and after field investigations. These instructions will ensure data collected for use in project decisions will be of the type and quality needed and expected for their intended purpose.

2.0 PROJECT DESCRIPTION

This section presents information concerning the proposed sampling activities, selected analytical parameters, and data use. The project is a subgrade testing and geotechnical investigation intended to characterize subgrade soil and soil vapor beneath the site. The Workplan provides specifications for field activities.

2.1 Analytical Scope

The proposed scope of work includes the collection and analysis of subgrade soil and soil vapor samples. A detailed site background and sampling plan are included in the Workplan. Soil samples will be analyzed as follows:

Parameter	Method(s)	Holding Time
Total Petroleum Hydrocarbons (TPH) DRO (diesel range organics) and ORO (oil range organics)	USEPA Method 8015	14 days
Polycyclic Aromatic Hydrocarbons (PAHs)	USEPA Method 8310	14 days
Volatile Organic Compounds (VOCs) and GRO (gasoline range organics)	USEPA Method 8260	14 days
Semi-Volatile Organic Compounds (SVOCs)	USEPA Method 8270	14 days
Title 22 Metals	USEPA Methods 6010B/7471A	180 days / 28 days
Organochlorine Pesticides (OCPs)	USEPA Methods 8080A, 8081A	14 days
Organophosphorous Pesticides (OPPs)	USEPA Method 8141A	7 days
Chlorinated Herbicides	USEPA 8151A	14 days
Polychlorinated Biphenyls (PCBs)	USEPA Methods 8082, 8080A	14 days
Asbestos	USEPA Method 600/R93-116, CARB 435	Not applicable
pH	USEPA Method 9045D	24 hours

Soil sample analyses will be performed by Eurofins Calscience, Inc. (Eurofins) in Tustin, California, a National Environmental Laboratory Accreditation Program (NELAP)-accredited analytical laboratory. The laboratory will conform to the QA and QC procedures outlined in this QAPP and their own QA plan/Standard Operating Procedures (SOPs).

Soil vapor will be analyzed for the methane using a Landtec GEM-2000 Plus, a RKI Eagle 4-gas meter, or other equivalent field equipment. Two sequential measurements will be taken with a minimum 24-hour interval between the two measurements. Ambient pressure will be measured using a Magnahelic gauge prior to each methane measurement.

2.2 Data Use

Decisions to be made based on the planned sampling and analysis effort will be determined by the data compiled from the sampling and analysis program. It is intended that data collected through implementation of this QAPP will satisfy federal, state, and local data quality requirements. These data may be used to characterize the nature and extent of any contamination, support a risk assessment, support the evaluation of corrective/remedial action, or assist in determination of additional actions.

3.0 DATA QUALITY OBJECTIVES

Data Quality Objectives (DQOs) have been specified for each data collection activity, and the work will be conducted and documented so that the data collected are of sufficient quality for their intended use. DQOs specify the data type, quality, quantity, and uses needed to make decisions, and are the basis for designing data collection activities. The DQOs have been used to design the data collection activities presented in the Workplan.

The project DQOs developed specifically for the planned sampling and analysis program have been determined based on the United States Environmental Protection Agency (USEPA) seven-step DQO process. The project manager will evaluate the project DQOs to determine if the quantitative and qualitative needs of the sampling and analysis program have been met. The project definition associated with each step of the DQO process can be summarized as follows:

1. **State the problem**: The purpose of the sampling program is to a.) characterize subgrade soil at the Site for waste classification, and b.) evaluate soil vapor at the site for the presence of methane.

2. **Identify the Decision**: The data obtained will be compared with waste criteria and methane survey thresholds.

3. **Identify Inputs to the Decision**: Inputs to the decision will include results of the analytical testing of soil and soil vapor samples collected at the Site. Soil vapor samples will be analyzed for methane, and soil samples will be analyzed as discussed in Section 2.0.

4. **Define the Study Boundaries**: The boundaries of the field sampling and analysis program are described in detail in the Workplan.

5. **Develop a Decision Rule**: Decisions will be based upon field and laboratory results for the target constituents. If target constituents are detected in the samples tested, the data will be compiled for comparison against federal and state waste classification criteria and methane mitigation system requirements.

6. **Specify Limits on Decision Error**: The results of all analytical testing will be subjected to data validation as specified in Section 6.3. Data are determined to be valid if the specified limits on precision, accuracy, representativeness, comparability, and completeness are achieved. The results of any detected

target constituents will be considered in evaluating the need for additional sampling of Site soil and assessing the necessity for reducing any risks posed by the potential contamination.

7. **Optimize the Design**: The Workplan has been designed to provide the type and quantity of data needed to satisfy each of the project objectives. It provides the specifications for the data collection activities, including the numbers of samples, respective locations, and sampling techniques. The quality of the data will be assessed through the procedures further described in this QAPP.

4.0 QUALITY CONTROL ELEMENTS

This section presents QC requirements relevant to analysis of environmental samples that will be followed during project analytical activities. The purpose of the QC program is to produce data of known quality that satisfy the project objectives and that meet or exceed the requirements of the standard methods of analysis. This program provides a mechanism for ongoing control and evaluation of data quality measurements through use of QC procedures, materials, and samples.

Laboratory analytical data will be used to determine that the extent of contamination is properly evaluated. As such, it is critical that the chemical data be of the highest confidence and quality. QA/QC procedures to be adhered to include:

- Adherence to strict protocols for field sampling and decontamination procedures
- Collection and laboratory analysis of appropriate field equipment blanks to monitor for contamination of samples in the field or the laboratory
- Collection and laboratory analysis of matrix spike, matrix spike duplicate, and field duplicate samples to evaluate precision and accuracy, and
- Attainment of completeness goals.

4.1 Equipment Decontamination

Reusable sampling equipment will be decontaminated before and after each sample is collected. In general, soil sampling equipment will be washed in a non-phosphate detergent and potable water, rinsed in potable water, and then rinsed in distilled water.

4.2 Standards

Standards used for calibration or to prepare samples will be certified by USEPA or other equivalent source. The standards will be current. The expiration date will be established by the manufacturer, or based on chemical stability, the possibility of contamination, and environmental and storage conditions. Standards will be labeled with expiration dates and will reference primary standard sources if applicable. Expired standards will be discarded.

4.3 Supplies

All supplies will be inspected prior to their use in the field or laboratory. The descriptions for sample collection and analysis contained in the methods will be used as a guideline for establishing the acceptance criteria for supplies. A current inventory and appropriate storage system for these materials will ensure their integrity prior to use. Efficiency and purity of supplies will be monitored through use of standards and blank samples.

4.4 Holding Time Compliance

Sample preparation and analysis will be completed within the required method holding time. Holding time begins at the time of sample collection. If holding times are exceeded, and the analyses are performed, the associated results will be qualified as described in the applicable validation procedure. The following definitions of extraction and analysis compliance are used to assess holding times:

- Preparation or extraction completion - completion of the sample preparation process as described in the applicable method, prior to any necessary extract cleanup.

- Analysis completion - completion of all analytical runs, including dilutions, second-column confirmations, and any required re-analyses.

4.5 Preventive Maintenance

The project manager is responsible for documenting the maintenance of all field equipment prescribed in the manufacturer's specifications. Scheduled maintenance will be performed by trained personnel. The analytical laboratory is responsible for all analytical equipment calibration and maintenance as described in their laboratory QA Plan. Subcontractors are responsible for maintenance of all equipment needed to carry out subcontracted duties. Backup instrumentation and equipment will be available locally and shipped to the Site as needed.

4.6 Field Quality Control Samples

Two types of field QC samples will be collected during soil sampling:

- **Rinsate blanks**: Samples prepared in the field to evaluate if a sampling device (e.g., hand auger) has been effectively decontaminated. The sampling device will be decontaminated and then rinsed with distilled or deionized water that will be

poured through the device, transferred to appropriate sample containers, and submitted to the laboratory for analysis. The rinsate blank will be analyzed for the chemicals of potential concern (COPCs) sampled during that day.

- **Field Duplicate Samples:** Field duplicate samples will be collected and analyzed to evaluate sampling and analytical precision. Field duplicates are collected and analyzed in the same manner as the primary samples. Agreement between duplicate sample results will indicate acceptable sampling and analytical precision. Field duplicates for soil sampling will be collected at a frequency of 10 percent of the primary soil samples collected. The duplicate sample will be analyzed for all laboratory analyses requested for the primary sample collected. The precision goal for field duplicate analyses will be plus or minus 100 percent relative percent difference for soil samples. Duplicate soil samples collected will be co-located samples.

4.7 Laboratory Quality Control Samples

Laboratory quality control samples are used to ensure conducted analyses are within quality control limits and document the quality of analytical results. The types of QC samples the laboratory will employ depend on the analytical methodology that will be used to analyze the samples. Each analytical method has required QC that must meet laboratory developed acceptance limits for the data to be considered valid. In addition, as part of the laboratory's accreditation program, performance evaluation samples and method detection limit studies are conducted to evaluate the laboratory's capability of performing the method accurately and precisely. The primary types of laboratory QC samples are as follows:

- **Method Blanks (MB)**: A laboratory method blank is de-ionized or distilled water, clean soil (Ottawa sand), or clean air (depending on the project sample matrix) that is prepared and analyzed by the laboratory exactly in the same manner as project samples in the analytical batch. Analysis of the method blank indicates potential sources of contamination from laboratory procedures (e.g., contaminated reagents, improperly cleaned laboratory equipment, or persistent contamination due to presence of certain compounds in the ambient laboratory air). A method blank is included with the analysis of every analytical batch or as stated in the method, whichever is more frequent.

- **Laboratory Control Samples (LCS):** laboratory control samples are performed by the analytical laboratory to evaluate the efficiency of the extraction and

analysis procedures and are necessary to verify the accuracy and precision of the extraction and analysis. The LCS is prepared by the addition of known quantities of target compounds to a blank matrix. The laboratory control sample is extracted and analyzed in the same manner as project samples in the analytical batch. The results of the analysis are compared with the known additions and a LCS recovery is calculated giving an evaluation of the accuracy of the extraction and analysis procedures. LCS recoveries are reviewed to check that they are within laboratory's determined acceptance ranges. However, the acceptable ranges vary widely with both sample matrix and analytical method. LCS and laboratory control sample duplicates will be analyzed by the laboratory with each sample batch at a frequency of at least one per batch of 20 samples, or less. LCSs may be performed in duplicate to evaluate the precision of the procedures as well as the accuracy. Precision objectives (represented by agreement between laboratory control sample and laboratory control sample duplicate recoveries) and accuracy objectives (represented by laboratory control sample recovery results) are based on statistically generated limits established annually by the analytical laboratory. If a bias is determined, the associated data will be qualified and the direction of the bias indicated in the data validation report.

- **Matrix Spikes (MS)**: matrix spikes are performed by the analytical laboratory to evaluate the efficiency of the sample extraction and analysis procedures and are necessary because matrix interference (interference from the environmental matrix e.g., water or soil) may have a widely varying impact on the accuracy and precision of the extraction analysis. The matrix spike is prepared by the addition of known quantities of target compounds to a sample. The matrix spike sample is extracted and analyzed in the same manner as project samples in the analytical batch. The results of the analysis are compared with the known additions and a matrix spike recovery is calculated giving an evaluation of the accuracy of the extraction and analysis procedures. Matrix spike recoveries are reviewed to check that they are within the laboratory's statistically determined acceptance ranges. However, the acceptable ranges vary widely with both sample matrix and analytical method. Matrix spikes and matrix spike duplicates will be analyzed by the laboratory at a frequency of at least one per batch of 20 samples or less. Typically, matrix spikes are performed in duplicate to evaluate the precision of the procedures as well as the accuracy. Precision objectives (represented by agreement between matrix spike and MSD recoveries) and accuracy objectives (represented by matrix spike recovery results) are based on statistically

generated limits established annually by the analytical laboratory. It is important to note that these objectives are to be viewed as goals, not as criteria. If matrix bias is suspected, the associated data will be qualified, and the direction of the bias indicated in the data validation report. Site-specific samples will be used by the laboratory for the MS/MSD samples.

5.0 ANALYTICAL PROCEDURES

The analytical methods used for this project are primarily USEPA approved methods. Specific analytical method procedures are detailed in the QC plan SOPs of the selected analytical laboratory. These documents may be reviewed by quality assurance staff during laboratory audits to ensure that project specifications are met. Laboratory audits are discussed in Section 7.2.

5.1 Laboratory QC Requirements

To obtain data on analysis precision, accuracy, and recovery, the analytical laboratory will analyze the QC samples specified in Section 4.7. The control limits and corrective actions for each parameter are specified in each analytical method.

For organic and inorganic analyses of soil, the analytical methods require analyses of the following QC samples:

- Calibration verification following instrument calibration and once every tenth sample thereafter through the working day.
- Laboratory blank verification at instrument calibration and once every tenth sample thereafter through the working day to check instrument drift.
- Method blank analysis at a rate of once per batch of samples or one per 20 samples of a single matrix, whichever is more frequent, to evaluate contamination levels during preparation.
- Matrix spike/matrix spike duplicate analyses at a rate of one per batch of samples for each matrix type and concentration level or one in 20 samples, whichever is more frequent. The MS/MSDs are used to check for the ability to recover compounds of interest from the sample matrix and analyze them precisely and accurately.

The results of analyses of these QC samples will be used as independent, external checks on laboratory and field contamination.

5.2 Instrument Calibration

Analytical instruments will be calibrated in accordance with the procedures specified in the applicable method. All analytes that are reported shall be present in the initial and continuing calibrations, and these calibrations must meet the acceptance criteria specified in the reference method. Records of standard preparation and instrument

calibration will be maintained. Records shall unambiguously trace the preparation of standards and their use in calibration and quantitation of sample results. Calibration records will be traceable to standard materials as described in Section 4.2.

At the onset of analysis, instrument calibrations will be checked using all analytes of interest. At a minimum, calibration criteria will satisfy method requirements. Analyte concentrations can be determined with either calibration curves or response factors, as defined in the method. Guidance provided in SW-846 should be considered to determine appropriate evaluation procedures.

6.0 DATA VALIDATION, USABILITY, AND REPORTING

This section presents reporting requirements relevant to the data produced during all project analytical activities.

6.1 Field Data

Data collected by field instruments will be recorded in field logs and/or forms. Field data will be reviewed by the project manager to evaluate completeness of the field records and appropriateness of the field methods employed. All field records will be retained in the project files.

6.2 Laboratory Data

Analytical data will contain the necessary sample results and QC data to evaluate the DQOs defined for the project. Documentation requirements for laboratory data are defined in Draft Region 9 Laboratory Documentation Requirements for Data Validation. At a minimum the laboratory reports will include the following data and summary forms:

- Cover Letter
- Narrative, cross-reference, chain of custody, and method references
- Analytical results
- Calibration summary upon request
- Blank results
- Laboratory control sample recoveries
- Duplicate sample results or duplicate spike recoveries
- Sample spike recoveries
- Associated raw data upon request

6.3 Data Validation

Limited data validation will be performed on all laboratory data. The limited data validation uses the same criteria contained in the USEPA Contract Laboratory Program

(CLP) National Functional Guidelines for Superfund Inorganic Methods Data Review; however, the reviews do not include checking the raw data, calibrations, and calculations. Instead, limited validation utilizes the data summary and QA/QC summary provided in the laboratory report. The laboratory data will be reviewed for compliance with the applicable method and the quality of the data reported. The following summarizes the areas of data validation:

- Data Completeness
- Holding Times
- Blanks
- Laboratory Control Samples
- Matrix Spike/Matrix Spike Duplicates
- Field Quality Control Samples

The application of data validation criteria is a function of project specific DQOs. The project manager will determine if DQOs for analytical data have been met. Results of the data validation review will be documented and summarized in a Data Validation Memorandum.

6.4 Data Qualifiers

Data validation procedures were designed to review each data set, identify biases inherent to the data, and determine its usefulness. Data validation flags are applied to those sample results that fall outside of specified tolerance limits, and, therefore, did not meet the program's quality assurance objectives. Data validation flags to be used for this project are defined in the National Functional Guidelines. Data validation flags will indicate if results are considered anomalous, estimated, or rejected. Only rejected data are considered unusable for decision-making purposes; however, other qualified data may require further verification.

6.5 Data Management

Data management is the process of organizing, maintaining, and applying a variety of data to provide a useful and coherent view of the Site conditions. Data collected for this investigation include sample collection data, field measurement data, and offsite

laboratory analytical data. The data management resources include staff to review and maintain project data, a computerized data management system, and a documentation filing system. The project database management system has the capability to:

- Maintain the relationship between sampling locations, samples collected, and field and laboratory analytical results;
- Filter the data to create selected subsets of appropriate information; and
- Efficiently report large quantities of data in both tabular and graphical formats.

6.6 Data Flow

Data received from the contracted laboratory are in hardcopy and/or electronic format. Analytical results received in hardcopy form are manually entered into a “temporary file” utilizing a proprietary data program. Analytical results received from the laboratory as an electronic file are converted to the project’s standard database structure. Printouts are created from all sources of analytical data and verified for accuracy using the hardcopy report. Any errors are noted by the reviewer and communicated to Leighton for correction. Upon completion of the data verification and data validation processes, the analytical data are appended to a main composite database for storage and eventual reporting. Data qualifiers assigned to analytical results upon completion of the data validation are appended to the results in the database utilizing a proprietary validation program. Proprietary custom report programs are used to generate tabular data presentations and statistical reports. Prior to distribution to project personnel, these database outputs are re-verified for accuracy and consistency against the original data. Upon final approval, the final analytical tables and statistical reports are distributed to project personnel for data evaluation and project decisions.

6.7 Data Reporting

Data will be summarized as they are generated and submitted to the project team. Data will be considered preliminary until completion of review and validation.

If data points are qualified, they will receive data qualifiers. The qualifiers will indicate if results are usable as-is, usable as-estimated, or unusable (rejected). A case narrative will be generated for each analytical package submitted by the laboratory. This narrative represents a summary of data quality. Standard data qualifiers will be used to classify data as to their conformance to QA/QC requirements.

Qualified personnel will perform validation of data obtained from field measurements (e.g., methane). Data validity will be evaluated by checking calibration procedures utilized in the field as appropriate and by comparing the data to previous measurements obtained at the site. Variations in data that cannot be explained will be assigned a lower level of validity and will be used for limited purposes. Field staff will summarize the data obtained from the field measurements and include this information in field logs and/or forms.

6.8 Reconciliation with Data Quality Objectives

Environmental data quality depends on sample collection procedures, analytical methods and instrumentation, documentation, and sample matrix properties. Sampling procedures and laboratory analyses contain potential sources of uncertainty, error, and/or bias, which affect the overall quality of a measurement. Errors in sample data may result from incomplete equipment decontamination, inappropriate sampling techniques, sample heterogeneity, improper filtering, and improper preservation. The accuracy of analytical results is dependent on selecting appropriate analytical methods, maintaining equipment properly, and complying with QC requirements. The sample matrix is also an important factor in the ability to obtain precise and accurate results from an environmental medium.

Environmental and laboratory QA/QC samples assess the effects of sampling procedures and evaluate laboratory contamination, laboratory performance, and matrix effects.

Once the data are reviewed and qualified according to the project QAPP and the functional guidelines, the data set is evaluated using precision, accuracy, representativeness, comparability, and completeness (PARCC) criteria. PARCC criteria provide an evaluation of overall data usability. The following is a discussion of PARCC criteria as related to the project DQOs:

Precision

Precision is a measure of the agreement or reproducibility of analytical results under a given set of conditions. It is a quantity that cannot be measured directly but is calculated from percent recovery data. Precision is expressed as the relative percent difference (RPD):

$$RPD = (D1-D2)/\{1/2(D1+D2)\} \times 100$$

Where D1 and D2 are the reported concentrations for sample and duplicate analyses. Precision is primarily assessed by calculating an RPD from the percent recoveries of the spiked compounds for each sample in the MS/MSD pair. In the absence of an MS/MSD pair, a laboratory duplicate or LCS/LCSD pair may be analyzed. In some cases, client samples from multiple SDGs may be included within one QC batch and therefore associated with the same laboratory QC samples. An additional measure of sampling precision is obtained by collecting and analyzing field duplicate samples, which are also evaluated using the RPD result.

MS and MSD samples are field samples spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. A LCS is like a MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis; however, the LCS is prepared using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. Non-aqueous LCSs are prepared using solid media approved by the American Society for Testing and Materials (ASTM) for their homogeneity. The LCS measures laboratory efficiency in recovering target analytes from an environmental matrix in the absence of matrix interferences.

For inorganic analysis, one primary sample is analyzed and accompanied by an unspiked laboratory duplicate. The data reviewer compares the results of the primary analysis and the duplicate, and then calculates RPDs, which are used to assess laboratory precision.

An RPD outside the numerical QC limit in either MS/MSD samples or LCS/LCSD indicates imprecision. Imprecision is the variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result.

Possible causes of poor precision include sample matrix interference, improper sample collection or handling, inconsistent sample preparation, and poor instrument stability. In some duplicate pairs, results may be reported as detected above the reporting limit in one sample but below the reporting limit (non-detect) in the other. Since these values are estimates, RPD exceedances from these duplicate pairs do not suggest a significant impact on the data quality.

Accuracy

Accuracy is a measure of the agreement between experimentally determined results and the true value of the parameter being measured. It is used to identify bias in a measurement system. Recoveries outside of acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference. Accuracy is assessed through the analysis of MS, MSD, LCS, and samples containing surrogate spikes. In some cases, samples from multiple SDGs were within one QC batch and therefore are associated with the same laboratory QC samples. Surrogate spikes are either isotopically labeled compounds or compounds that are not typically detected in the samples. Surrogate spikes are added to every blank, environmental sample, MS/MSD, and standard. Accuracy of inorganic analyses is determined using the percent recoveries of MS and LCS analyses.

Percent recovery (%R) is calculated using the following equation:

$$\%R = (A-B)/C \times 100$$

Where:

A = measured concentration in the spiked sample
B = measured concentration of the spike in the unspiked sample
C = concentration of the spike

Acceptance criteria are used to evaluate the percent recovery of spike analytes added to the MS/MSD and LCS, and surrogates added to environmental samples. Spike recoveries outside of acceptable QC limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantification limits reported for environmental samples.

Representativeness

Representativeness is a qualitative parameter that expresses the degree to which sample data are characteristic of a population. It is evaluated by reviewing analytical holding times and the results of method blank samples. A method blank is a laboratory QA/QC sample that has undergone the same preparation and analysis as the target environmental samples. The method blank provides a measure of the degree of contamination derived from the laboratory source water, glassware, instruments, reagents, and sample preparation steps. Detections of compounds in laboratory blank samples indicates cross-contamination may have occurred during sample preparation or analysis.

Comparability

Comparability is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the equivalence of the analytical results to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The factors affecting comparability include sample collection and handling techniques, matrix type, and analytical method. If these aspects of sampling and analysis are conducted according to standard analytical procedures, the data are considered comparable. Comparability is also dependent upon other PARCC criteria, because only when precision, accuracy, and representativeness are known can data sets be compared with confidence.

Completeness

Completeness is defined as the percentage of acceptable sample results compared to the total number of sample results. Completeness is evaluated to determine if an acceptable amount of usable data were obtained so that a valid scientific site assessment can be completed. Completeness equals the total number of sample results for each fraction minus the total number of rejected sample results divided by the total number of sample results multiplied by 100. As specified in the project DQOs, the goal for completeness for target analytes in each analytical fraction is 90 percent.

Percent completeness is calculated using the following equation:

$$\%C = (T - R)/T \times 100$$

Where:

%C = percent completeness
T = total number of sample results
R = total number of rejected sample results

Completeness is also determined by comparing the planned number of samples per method and matrix as specified in the field sampling plan or QAPP, with the number determined above.

7.0 PERFORMANCE AND SYSTEM AUDITS

Audit programs are established to ensure field and laboratory activities are performed in compliance with project documents and requirements. This section describes the responsibilities, requirements, and methods for scheduling, conducting and documenting audits of field and laboratory activities.

7.1 Field Audits

Field audits focus on appropriateness of personnel assignments and expertise, availability of field equipment, adherence to project controlling documents for sample collection and identification, sample handling and transport, use of QA samples, chain of custody procedures, equipment decontamination and documentation. Field audits are not required but may be performed in the event significant discrepancies are identified that warrant evaluation of field practices.

7.2 Laboratory Audits

Laboratory audits include reviews of sample handling procedures, internal sample tracking, SOPs, analytical data documentation, QA/QC protocols, and data reporting. Analytical laboratories will be licensed and certified by the State of California.

Double blind performance evaluation (PE) samples may be submitted to the analytical laboratory during any site investigation. These samples are used to assess the accuracy of analytical procedures employed for a given sample set. If used, double blind PE samples will be prepared by Environmental Resources Standards, or similar supplier, in similar sample containers as the project field samples and shipped from the field to the laboratory for analysis.

Double blind PE samples will be prepared using National Institute of Standards and Technology (NIST) certified standards. The project-specific PE samples will contain known concentrations of the analytes of interest. Laboratory results will be evaluated against the original Certificates of Analyses for precision and accuracy. PE samples may be submitted for analysis as part of the laboratory pre-qualification process, or as part of a given sampling event. Results will be reported to the laboratory and presented with associated field sample results.

7.3 Data Audits

Data audits will be performed on analytical results received from the laboratories if issues arise that question the data. These audits will be accomplished through the process of data validation as described in Section 6.3 and involve a more detailed review of laboratory analytical records. Data audits require the laboratory to submit complete raw data files for validation and verification. QC staff will perform a review of the data consistent with the level of effort described in the USEPA National Functional Guidelines. This level of validation consists of a detailed review of sample data, including verification of data calculations for calibration and quality control samples to assess if these data are consistent with method requirements. Upon request, the laboratory will make available all supporting documentation in a timely fashion.

7.4 Scheduling

Audits will be scheduled such that field and laboratory activities are adequately monitored, or in the event discrepancies are identified. The overall frequency of audits conducted for these activities will be based on the importance and duration of work, as well as significant changes in project scope or personnel.

7.5 Reports to Management and Responsibilities

Upon completion of any audit, the auditor will submit to the project manager a report or memorandum describing any problems or deficiencies identified during the audit. It is the responsibility of the project manager to determine if the deviations will result in any adverse effect on the project conclusions. If it is determined that corrective action is necessary, procedures outlined in Section 7.6 will be followed.

7.6 Corrective Action

Corrective actions will be initiated whenever data quality indicators suggest DQOs have not been met. Corrective actions will begin with identifying the source of the problem. Potential problem sources include failure to adhere to method procedures, improper data reduction, equipment malfunctions, or systemic contamination. The first level of responsibility for identifying the problems and initiating corrective action lies with the laboratory analyst or field personnel. The second level of responsibility lies with any person reviewing the data. Corrective actions may include more intensive staff training, equipment repair followed by a more intensive preventive maintenance program, or removal of the source of systemic contamination. Once resolved, the corrective action

procedure will be fully documented, and if DQOs were not met, the samples in question must be recollected and/or reanalyzed utilizing a properly functioning system.