ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Interim Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
LOCAL OVERSIGHT PROGRAM (LOP)
For Hazardous Materials Releases
1131 HARBOR BAY PARKWAY, SUITE 250
ALAMEDA, CA 94502
(510) 567-6700
FAX (510) 337-9335

December 15, 2017

Ms. Erin Patch
The Unity Council
1900 Fruitvale Avenue, Suite 2A
Oakland, CA 94601
(Sent via electronic mail to: epatch@unitycouncil.com)

Subject: Site Cleanup Program Case No. RO0003274 and GeoTracker Global ID T10000011152, 2221 Fruitvale Ave, 2221 Fruitvale Avenue, Oakland, CA 94601, Assessor's Parcel No. 26-750-31-3

Dear Ms. Patch:

On November 6, 2017 Alameda County Department of Environmental Health (ACDEH) received a *Request for Preliminary Site Review for Voluntary Remedial Action Agreement* application from Posada de Colores, LP (Posada) for the subject property (the Site). ACDEH understands Posada is a limited partner with The Unity Council, a non-for-profit corporation. During our preliminary review, ACDEH met with you and your environmental consultants on December 6, 2017 to discuss the proposed property improvement activities and recent environmental investigations conducted at the Site in advance of construction-related activities for property improvements the Site and grounds. On December 15, 2017, Posada entered into a *Voluntary Remedial Action Program Agreement* with ACDEH, to provide regulatory oversight for the proposed property improvement project.

ACDEH understands that the site is currently an eight-story senior living apartment complex that includes landscape areas to the north and south and parking to the west. Property improvement activities are proposed to be completed in phases and will include rehabilitation of 100 apartment units and upgrades and repairs to the building exterior, building systems, and common areas.

To date the following documents have been submitted to ACDEH for review:

- *Phase 1 Environmental Assessment Report, Posada De Colores, 2221 Fruitvale Ave., Oakland, CA 94601*, prepared by Partner Engineering and Science, Inc., dated June 27, 2017;
- *Subsurface Investigation Report, Posada De Colores, 2221 Fruitvale Ave., Oakland, CA 94601,* prepared by AllWest Environmental, dated August 29, 2017;
- Draft Figure 2-2 - Data Summary, f prepared by WEST Environmental Services and Technology, dated November 2017; and
- *Proposed Property Improvements Memo*, prepared by The Unity Council.

The existing reports and data indicate that volatile organic compounds (VOCs), some of which are potentially sourced from a previously existing dry cleaner at the Site, or from nearby contaminated sites, have been found in soil, soil gas, and groundwater at the Site. The identified VOCs are of an ordinary and customary nature, which this agency has extensive experience in working with property owners to mitigate. Due to the presence of VOCs, implementation of corrective actions including remediation and/or

mitigation measures will be required to prevent exposure to construction workers and site occupants in the building from residual contamination at the site. Corrective actions identified during the December 6, 2017 meeting that will be required to be implemented include installation of a vapor barrier and sub-slab depressurization system to mitigate risk to building occupants from vapor intrusion to indoor air. Additional corrective actions for soil, soil vapor, and groundwater may also be required and will determined based on collection of additional site specific data and/or a human health risk analysis. Additional corrective actions that may need to be implemented include: (1) utility trench plugs to prevent migration of vapors along utility corridors; (2) remediation of impacted soil; and/or (3) remediation of impacted groundwater. Subsequent to corrective action implementation, if residual contamination remains in soil, soil vapor, or groundwater at the Site and/or if engineered controls are required to mitigate risk to site occupants, a Land Use Covenant and long term risk management monitoring and reporting will be required.

Based on information presented in the case file and discussions during the December 6, 2017 meeting, and with the provision that the information provided to this agency is accurate and representative of currently known Site conditions, ACDEH is of the opinion that implementation of appropriate corrective actions at the Site to remediate and/or mitigate VOCs in soil, soil vapor, and groundwater will prevent exposure to construction workers and future Site occupants of the building from residual contamination at the Site.

Therefore, at this juncture, you may proceed with Site improvements activities provided Posada submits the requisite documents listed below and implements the ACDEH approved corrective actions. Case closure will be granted following completion and approval of the technical reports and completion of corrective actions.

TECHNICAL COMMENTS & DELIVERABLES

Prior to Property Improvement Activities

Prior to the start of property improvements the following documents must be submitted to ACDEH for review and approval:

1. **Baseline Project Schedule** - A project schedule providing details of the sequencing of corrective actions and site improvement activities and submittal of requisite reports and documentation listed below. The schedule shall include at a minimum the following activities: Corrective Action Plan (CAP), Corrective Action Implementation Plan (CAIP), Construction Soil and Groundwater Management Plan (Construction SGMP), revised City of Oakland approved building department permits with vapor mitigation measures incorporated, site rehabilitation phasing and occupant relocation; vapor mitigation measures implementation and indoor air confirmation testing, remediation of soil and groundwater (if required), soil import characterization and documentation (if required for excavation backfill), Construction SGMP Compliance Report, Corrective Action Completion Report, Vapor Mitigation System (VMS) Record Report of Construction, Long Term Site Management Plan (SMP) and Land Use Covenant. The schedule must include appropriate ACDEH review and response times for document submittals in addition to a 72-hour notification to ACDEH prior to implementation of corrective actions. The Baseline Project Schedule shall be updated as necessary to reflect the current status of the project and must submitted to ACDEH for review and approval.

2. **Additional Subsurface Investigation** - The development of a work plan to further evaluate subsurface contaminants at the site. The proposed investigation work plan will be conducted to define the magnitude and extent of soil, soil gas, and groundwater contamination at, and

migrating to and from the subject site. The extent of further investigations and potential remediation will be determined based on the data collected.

3. **Corrective Action Plan (CAP)** – A CAP providing the proposed corrective actions at the Site. The CAP must include the following information:
   - Proposed cleanup goals and the basis for cleanup goals,
   - Summary of site characterization data,
   - Receptor information including likely future land use scenarios, adjacent land use and sensitive receptors, and potential groundwater receptors,
   - Evaluation of the tool kit of corrective actions that may be applicable at the site including a vapor mitigation system, utility trench plugs, and soil and groundwater remediation;
   - Discussion of feasibility, cost effectiveness, estimated time to reach cleanup goals, and limitations for each proposed corrective action;
   - Post-corrective action monitoring, and
   - Schedule for implementation of cleanup.
4. **Corrective Action Implementation Plan (CAIP)** - A CAIP presenting results of the data gap investigation and a comprehensive and detailed plan for the proposed corrective actions presented in the CAP including (1) detailed plans for soil and/or groundwater remediation if required; and (2) a basis of design for the vapor mitigation system (vapor barrier, sub-slab depressurization system, and/or trench plugs). The vapor mitigation measures must be incorporated into the building permit plans and a copy of the City of Oakland approved revised building plans submitted to ACDEH for review. Subsequent to ACDEH approval of the vapor mitigation measures, ACDEH must be notified if Posada or the City proposes changes to the site improvement plans. Any substantial changes made to the plans without review by ACDEH may invalidate the conclusions of the protectiveness of the rehabilitation of the building with respect to residual contamination.

   Appendices of the CAIP shall include the following items: construction drawings, design specifications, approved building permit drawings, operation and maintenance (O&M) plans, and construction quality assurance/construction quality control (CQA-CQC).

5. **Construction Soil and Groundwater Management Plan (Construction SGMP)** - A Construction SGMP describing procedures to be followed by environmental consultants, construction contractors and workers, and other property owner representatives during property improvements, identifying safety and training requirements for construction workers, establishing procedures for assessing and managing contaminated. A template for the CSMP is included in Attachment 3 for your use.

Prior to the start of construction activities the following reports must be submitted to ACDEH for review and approval:

6. **Construction SGMP Compliance Report** - A Construction SGMP Compliance Report presenting documentation verifying compliance with the SGMP protocols during site improvement prior to foundation construction including but not limited to agency notification and reporting requirements, pre-field activities (site security and access, traffic control, excavation permits, notification and utility clearance), waste management, soil and groundwater management, stormwater management, dust and odor emission control, and contingency measures for

discovery of unexpected underground structures. The report must be signed by the construction contractor, developer, and property owner.

7. **Soil Import Documentation (if required for backfill)** - Submittal of requisite documentation to ACDEH for review and approval prior to import of fill material per the Construction SGMP protocols. Information shall include but not be limited to proposed sources, sampling and profiling protocols, analytical laboratory reports, and tables with analytical results and applicable environmental screening levels.

8. **Soil Excavation Completion Report (if required for excavation)** - A soil excavation report documenting source excavation, confirmation sampling and analytical results, and clean fill material import must be submitted prior to the start of construction of the final foundation system. The report must include but not be limited to a description of the sampling methods, scaled figures showing sampling locations, volume of soil excavated and final disposition, waste manifests if disposed of off-site, tabulated analytical results, and laboratory analytical reports.

During Property Improvement Activities

The following documents must be submitted to ACDEH prior to closure for review and approval:

9. **Corrective Action Completion Report** - A corrective action completion report documenting vapor mitigation measure installation, soil excavation (if required), soil disposal activities confirmation sampling and analytical results, and clean fill material import. The report must include but not be limited to a description of corrective action mitigation measures installed, scaled figures showing mitigation measures, description of soil and groundwater remediation activities conducted, volume of soil excavated and final disposition, waste manifests if disposed of off-site, tabulated analytical results, and laboratory analytical reports.

10. **Vapor Mitigation System (VMS) Record Report of Construction** – A VMS record report of construction with as-built drawings and other information relevant to the installation of the vapor barrier, sub-slab depressurization system and utility trench plugs and certifying that the vapor mitigation measures were installed in accordance with the basis of design report and design plans.

11. **Long Term Site Management Plan (SMP)** – A SMP for long-term site management. The SMP shall provide details regarding the location and construction of the vapor mitigation measures, precautions should subsurface work be required in the area of installed mitigation measures, protocols for handling potentially impacted soil and groundwater exceeding direct exposure screening criteria that may remain beneath the ground floor slab and foundations, and notification and documentation procedures should the vapor mitigation measures be damaged. The SMP must include as-built drawings and specifications of the vapor mitigation measures and must be maintained at the site address by the property manager or designated representative and must be recorded at the Alameda County Clerk Recorder's Office.

    Please note in accordance with the long term SMP, the property and improvement owner, Posada De Colores, is responsible for overseeing implementation of the SMP. A copy of the SMP must be present at the site at all times. Additionally, annual site inspections and five year reviews will be required for the site and must be conducted by the Engineer/Consultant in accordance with the SMP. All relevant environmental documents including the annual site inspection and five year review reports must be uploaded to GeoTracker. ACDEH will send you

an invoice on an annual basis for the cost associated with review of annual and five year reports. An example of a long term SMP will be forwarded at an appropriate junction or upon request.

12. **Land Use Covenant (LUC)**. - A LUC documenting long-term site use. The LUC will include the following restrictions: (1) implementation of the long-term SMP for the site, which shall be incorporated therein by reference, including preservation of the vapor mitigation measures; and (2) prohibition on the extraction of groundwater for any use, including but not limited to domestic, potable, or industrial uses. A copy of the standard Alameda County LUC will be forwarded under a separate correspondence.

Required for all environmental site data and reports performed at the subject site and/or submitted for ACDEH review or approval

13. **GeoTracker Database Compliance** – Site data and documents are maintained in the State Water Board's GeoTracker website. The database acts as repositories for Portable Document Format (PDF) files of regulatory directives and reports and has the functionality to store electronic compliance data in Electronic Deliverable Format (EDF) including analytical laboratory data for soil, vapor, and groundwater samples, monitoring well depth-to-water measurements, and surveyed location and elevation data for sampling locations.

    A review of the State Water Board's GeoTracker database indicates that this site is not in compliance with the State's electronic submittal requirements. As a result, ACDEH requests Posada upload all historical environmental documents related to the subject site including but not limited the missing soil and groundwater analytical data, documents and reports, maps, and boring logs to GeoTracker. See Attachment 1 regarding electronic submittal requests to GeoTracker. Notification of, and a list of, the documents uploaded to GeoTracker can be emailed to my attention (Attention Drew York). File naming conventions for Geotracker uploads is included in Attachment 2. Please upload all submittals to GeoTracker by **January 12, 2018** and furthermore as environmental site data and reports are submitted.

TECHNICAL REPORTS/WORK SCHEDULE

Please perform the requested work and submit technical reports to ACDEH (Attention: Drew York) in accordance with Attachment 1 and 2 and the schedule below. The technical reports may be combined as appropriate. The submittal compliance date for reports with a "Date to be Determined" notation will be finalized in a subsequent directive letter and will be based on the date(s) proposed in the Baseline Project Schedule.

- **Baseline Project Schedule** – December 29, 2018
- **Additional Subsurface Investigations** – Date to be Determined
- **Corrective Action Plan** – Date to be Determined
- **Corrective Action Implementation Plan** – Date to be Determined
- **Construction SGMP** – Date to be Determined
    - **Building Permit Plans** – Date to be Determined
- **Soil Import Documentation (if required for excavation backfill)** – Date to be Determined

- **Remedial Soil Excavation Completion Report (if required)** – Date to be Determined
- **Construction SGMP Compliance Report** – Date to be Determined
- **VMS Record Report of Construction** – Date to be Determined
- **Corrective Action Completion Report** – Date to be Determined
- **Long Term SMP** – Date to be Determined
- **GeoTracker Database Compliance** – January 12, 2018

Thank you for your cooperation. ACDEH looks forward to working with you and your environmental consultants to advance the case toward closure. If you have any questions, please call me at (510) 639-1276 or send me an email message at andrew.york@acgov.org.

Sincerely,

Date: 2017.12.15 18:51:10 -08'00'

Drew J. York
Senior Hazardous Materials Specialist

Dilan Roe, PE, C73703
Chief - Land Water Division

Encl.: Attachment 1 – Responsible Party (ies) Legal Requirement/Obligations
Electronic Report Upload Instructions
Attachment 2 – Electronic File Naming Conventions
Attachment 3 – Soil and Groundwater Management Plan template

cc: Erin Patch, Posada De Colores (*Sent via E-mail to: epatch@unitycouncil.com*)
Kenneth Jones, Landis Development (*Sent via E-mail to: kjones@landisdevelopment.com*)
Tom Graf, Graf Con (*Sent via E-mail to: tom@grafcon.com*)
Peter Morris, WEST (*Sent via E-mail to: peterm@westenvironmental.com*)
Dilan Roe, ACDEH, Chief Land, and Water Division (*Sent via E-mail to: dilan.roe@acgov.org*)
Drew York, ACDEH (*Sent via E-mail to: andrew.york@acgov.org*)
Electronic File, GeoTracker

ATTACHMENT 1

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** December 14, 2017
	ISSUE DATE: July 25, 2012
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	**SUBJECT:** Responsible Party(ies) Legal Requirements / Obligations

REPORT & DELIVERABLE REQUESTS

Alameda County Department of Environmental Health (ACDEH) Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) require submission of all reports in electronic form to the State Water Board's (SWB) GeoTracker website in accordance with California Code of Regulations, Chapter 30, Division3, Title 23 and Division 3, Title 27.

Leaking Underground Fuel Tank (LUFT) Cases

Reports and deliverable requests are pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party (RP) in conjunction with an unauthorized release from a petroleum underground storage tank (UST) system.

Site Cleanup Program (SCP) Cases

For non-petroleum UST cases, reports and deliverables requests are pursuant to California Health and Safety Code Section 101480.

ELECTRONIC SUBMITTAL OF REPORTS

A complete report submittal includes the PDF report and all associated electronic data files, including but not limited to GEO_MAP, GEO_XY, GEO_Z, GEO_BORE, GEO_WELL, and laboratory analytical data in Electronic Deliverable Format™ (EDF). Additional information on these requirements is available on the State Water Board's website (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

- Do not upload draft reports to GeoTracker
- Rotate each page in the PDF document in the direction that will make it easiest to read on a computer monitor.

GEOTRACKER UPLOAD CERTIFICATION

Each report submittal is to include a GeoTracker Upload Summary Table with GeoTracker valid values[1] as illustrated in the example below to facilitate ACDEH review and verify compliance with GeoTracker requirements.

GeoTracker Upload Table Example

Report Title	Sample Period	PDF Report	GEO_MAPS	Sample ID	Matrix	GEO_Z	GEO_XY	GEO_BORE	GEO_WELL	EDF
2016 Subsurface Investigation Report	2016 S1	✓	✓	Effluent	SO	☐	☐	☐	☐	✓
2012 Site Assessment Work Plan	2012	✓	✓			☐	☐	☐	☐	☐
2010 GW Investigation Report	2008 Q4	✓	✓	SB-10	W	✓	☐	☐	☐	✓
				SB-10-6	SO	☐	☐	☐	☐	✓
				MW-1	WG	✓	✓	✓	✓	✓
				SW-1	W	✓	✓	✓	✓	✓

[1] GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, CA State Water Resources Control Board, April 2005

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** NA
	ISSUE DATE: December 14, 2017
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	**SUBJECT:** Responsible Party(ies) Legal Requirements / Obligations

ACKNOWLEDGEMENT STATEMENT

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to the State Water Board's GeoTracker website." This letter must be signed by the Responsible Party, or legally authorized representative of the Responsible Party.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6731, 6735, and 7835) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately licensed or certified professional and include the professional registration stamp, signature, and statement of professional certification. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: http://www.bpelsg.ca.gov/laws/index.shtml.

UNDERGROUND STORAGE TANK CLEANUP FUND

For LUFT cases, RP's non-compliance with these regulations may result in ineligibility to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse the cost of cleanup. Additional information is available on the internet at: https://www.waterboards.ca.gov/water_issues/programs/ustcf/

AGENCY OVERSIGHT

Significant delays in conducting site assessment/cleanup or report submittals may result in referral of the case to the Regional Water Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

ATTCHMENT 2

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** August 1, 2017
	PREVIOUS REVISIONS: July 17, 2017, November 8, 2016, December 15, 2015, December 16, 2014, June 19, 2013, June 15, 2011, March 26, 2009, April 29, 2008
	ISSUE DATE: June 16, 2006
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** File Names for Electronic Reports

Format: REPORT_NAME_R_YYYY-MM-DD
Ex: SWI_R_VOL1_2006-05-25

LOP and SCP (VRAP) INCOMING REPORTS AND LETTERS	
Document Name	**Abbreviation File Name= Abbreviation + Date (yyyy- mm-dd)**
Abandoned Well Information/Water Supply Well Information	ABWELLINF_R
Addendum	ADEND_R (added after report name)
Additional Information Report	ADD_R
Analytical Reports (Loose data sheets not in report)	ANALYT_R
As Built Drawings (or Plans)	AS_BUILT
Case File Scanned By OFD	CASE_FILE
Cleanup and Abatement Report	CAO_R
Case Transfer Form (from CUPA)	CASE_TRNSFR_F
Conduit Study/Well Search/Sensitive Receptor/Well Survey/Preferential Pathway Study	COND_WELL_R
Corrective Action Plan (CAP)	CAP_R
Correspondence	CORRES_L
Court Injunctions	INJ_L
Development Plans (Includes Plan Set, Cross-sections, and Related Drawings)	DEV_PLAN_date
Development Schedule (Project Schedule, Gant Chart, etc.)	DEV_SCHD_date
DWR Confidential Well Logs (Report containing)	report name_R_CONFIDENTIAL_YYYY-MM-DD (Ex: SWI_R_CONFIDENTIAL_YYYY-MM-DD)
DWR Well Completion Report-Confidential (Loose well logs)	DWR_WELL_CONFIDENTIAL_YYYY-MM-DD (Date of Well Log)
ESI/DAR (Environmental Site Investigation, Data Assessment Report	ESI_R
Excavation Report	EX_R
Extension Request Letter	EXT_RQ_L
Fact Sheet	FACT_SHT

Feasibility Study	FEASSTUD_R
Groundwater Monitoring/Quarterly Summary Report	GWM_R
Financial Assurance/Letter of Credit	FNCL_ASSRNC_LOC
Interim Remedial Action Plan	IRAP_R
Interim Remediation Results (Includes Pilot Test Reports, Vapor Mitigation Reports, Soil Reports, Free Product Removal Reports, & Dual-Phase Extraction Reports)	IR_R
Lawsuit	LAWSUIT_R
Migration Control Report	MIG_R
Miscellaneous Report/Soil Sample	MISC_R
Miscellaneous Sample Report (analytical results)	MISC_SAMP_R
Notification Letter	NOT_L
NPDES Miscellaneous Reports	NPDES_R
Operations & Maintenance Plan	OM_P
Operations & Maintenance Report	OM_R
Pay for Performance	PFP_R
Petition	PETITION_R
Phase 1 Environmental Assessment Report	PHASE1_R
Photos	PHOTO_date
Preliminary Site Assessment Report/Phase 2 (historic reports only)	PSA_R
Remedial Action Plan	RAP_R
Remedial Design & Implementation Plan	RDIP_R
Remediation Progress Report	REM_R
Request for Closure	RFC(_L or _R)
Risk Assessment Report	RISK_R
Risk Based Corrective Action	RBCA_R
List of Landowners Forms	LNDOWNR_F_DATE
SB2004 Letter of Commitment	LOC_L
Site Conceptual Model/Conceptual Site Model	SCM_R
Site Health & Safety Plan	SFTY_PLAN_R
Site Management	SITE_MANAGE_R_
Site Management Plan	SMP_R
Site Summary Report	SITE_SUM_R

Soil and Water Investigation Report (Includes soil gas/vapor reports, indoor, additional site investigation, well installation, site characterization, cross section, indoor air, additional onsite investigation, Phase II/preliminary site assessment)	SWI_R
Soil Disposal Report	SOIL_DSPL_R
Source Area Characterization	SOURCAREA_R
State Information	STATE_INFO (no date)
Status Report(monthly remediation status reports addressed to sanitary district requires no stamp/perjury	STAT_R
Tank/Tank System Removal Report	TNK_R
Tentative Order Report	TENT_R
Unauthorized Release Form	URF_R
UST Sampling Report	UST_SAMP_R
USTCF 5 Year Review	USTCF_5YR
USTCF issued Public Notice	USTCF_PP_L
Well Construction Report (limited to water supply wells)	WELL_CST_R
Well Decommissioning Report/Letter (well destruction/abandonment)	WELL_DCM_R
Work Plan	WP_R

LOP and SLIC ACEH OUTGOING LETTERS AND CASE FILE DOCUMENTATION	
Document Name	**Abbreviation** **File Name= Abbreviation + Date (yyyy-mm-dd)**
90 Day Letter	90D_L
CAP Approval	CAP_AP_L
RP Certification of Public Notice	CAP_CERT_L
CAP Public Participation Letter	CAP_PP_L
CAP Public Participation Letter to RP	CAP_PPRP_L
Certified Mail Receipt	CERT_MAIL_RECEIPT
Cleanup and Abatement Order	CAO_L
Closure Public Participation Letter	CL_PP_L
Closure Package (Letter, RACC, Summary, Deed Restriction)	CLOS_L
Correspondence	CORRES_L
Deed Restriction	DEED_L_ (Copied from CLOS_L_)
Directive Letter containing Public Notice and/or Landowner request form	DIR_PP_L
Directive Letter (Landowner form, site management requirements, well decommission scheduling prior to closure of PP, copy of PP to all RPs)	DIR_L
Enforcement	ENF_L
Enforcement Referral Letter	ENF_REF_L
Extension Approval Letter	EXT_AP_L
Extension Denial Letter	EXT_DNY_L
Fund Requests	FUND_REQ_L
Final Voluntary Remedial Action Agreement	FVRAA_date
GeoTracker info	GEOTRACK_R
Late Letter	LATE_L
List of Landowners Forms	LNDOWNR_F_DATE
Mailing List for Public Notice in Excel Format	MAIL_PP_DATE
Maps & Assessor's Parcel Information	MAPS_ASSESSOR (no date)
Meeting Agenda, Minutes, Sign in Sheet	MEETING
Miscellaneous Letter	MISC_L
New Landowner Letters	LNDOWNR_REQ_L
Notice of Responsibility	NOR_L
Notice of Violation	NOV_L
Phone Log	PHONE_LOG
Photos	PHOTO_date
Post Closure Monitoring	PCMP_L
QA/QC Checklist (confidential)	QAC_report name_date
Responsible Parties Information	RPINFO_L_DATE OF THE LETTERHEAD
Returned Mail	RTN_MAIL_date

Site Visit/Inspection Report	SITEVISIT_R
Transfer Letter	TRANS_L
UST Permit	UST_PRMT
Voluntary Remedial Action Notice to State Agencies	VRA_NOTICE
Voluntary Remedial Action Request Form from RP	VREQ_F

ATTACHMENT 3

1.0 INTRODUCTION

This Construction Soil and Groundwater Management Plan (SGMP) has been prepared by XXXXXX on behalf of XXXXXXX (XXX) for earthwork activities associated with the redevelopment project of 123 Street in Oakland, California (***Figure 1***) with Alameda County Assessor Parcel Numbers (APNs) 001-123-1 (the Site). The Site is currently developed with surface parking lots. The redevelopment project ("Project") consists of (1) demolition of the existing asphalt parking lot; (2) grading and soil excavation for utilities, elevator shafts, and foundations; and (3) construction of a seven-story, mixed-use residential building and landscaped areas (?).

1.1 Lead Regulatory Oversight Agency for Environmental Site Cleanup

Soil and groundwater at the Site has been impacted from historic land use practices both on-Site and off-Site. Alameda County Department of Environmental Health's (ACDEH) Local Oversight Program for Hazardous Materials Releases (LOP) is the lead regulatory oversight agency for the environmental investigation and cleanup actions at the Site under Site Cleanup Program Case (SCP) No. RO000XXXX. A separate LOP Case No. RO000XXX was historically associated with the Site in conjunction with a previously proposed redevelopment project as a parking garage. Due to the presence soil and groundwater contamination at the Site corrective actions are necessary to safely prepare the Site for development. Corrective actions include: (1) removal and off-site disposal of lead-contaminated soil in locations of soil excavation for utility trenches, elevator shafts, and foundations; (2) capping lead impacted soil on-Site beneath building foundations, hardscape and/or clean fill; (3) installation of a vapor mitigation barrier at the base of elevator shafts; and (4) installation of a trench plugs in utility trenches where required to prevent vapor migration. A Site map showing the location of lead-impacted soil, areas of historic underground storage tanks (USTs) and geophysical anomalies, and the ground floor redevelopment plan is provided on ***Figure 2***. A complete record of environmental conditions at the Site may be obtained in the case files for both RO000XXXX and RO0000XXX (i.e., regulatory directives and correspondence, reports, analytical data, etc.) through review of both the State Water Resources Control Board's Geotracker database, and the ACDEH website at http://www.acgov.org/aceh/index.htm.

1.2 SGMP Purpose & Objectives

This SGMP is designed to provide XXX and the construction team with guidance for the proper handling and management of contaminated soil and groundwater during redevelopment activities. The goals of this SGMP are to provide detailed information regarding known environmental conditions at the Site and establish a decision-making structure to assist the construction team in the identification and management of contaminated media, when and if they are encountered. The objectives of this SGMP are as follows:

- Communicate information to Site construction workers about Site environmental conditions;
- Present protocols for appropriate community protection;

- Present guidelines for health and safety precautions for on-Site workers who may access soil or groundwater that could contain residual chemicals of concern;

- Present notification and reporting requirements;

- Present protocols for management of known contaminated soil or extracted groundwater generated during Site redevelopment activities; and

- Present contingency procedures in the event that localized areas of unanticipated chemically-affected soil or other subsurface features of environmental concern are encountered during earthwork or excavation activities;

2.0 RESPONSIBILITY FOR SGMP IMPLEMENTATION

Representatives for the property Owner will oversee implementation of the SGMP at the Site. A copy of this SGMP will be maintained at the Site at all times. The Owner and General Contractor(s) will make all third-party subcontractors working at the Site aware of the requirements of the SGMP, and provide an electronic copy and hard-copy to all subcontractors that are performing activities covered by this SGMP and who may encounter suspect subsurface conditions during execution of their work.

The project Environmental Consultant will be present to assist the Owner and contractors with the implementation of this SGMP when ground-disturbing activities are being conducted in areas where contamination is known or suspected or when unknown conditions are encountered.

2.1 Activities Covered by the SGMP

The following activities constitute the work covered under this SGMP.

- **Subsurface Construction or Repair** – any activity occurring beneath the grade level of existing or future ground surface;

- **Utility Line Work** – any subterranean inspection, excavation, or repair fo electrical, telephone, water, sanitary sewer or storm drains occurring within or outside of existing vaults (conducted prior to excavation); and

- **Other** – other subgrade activities not expressly listed a love (e.g., deep landscaping work, sub-slab work, etc.)

2.2 LMC Construction Team Contact Information

Prior to the initiation of construction activities that are covered under this SGMP, the Owner will confirm the Owner's project representative and project Environmental Consultant listed below. Regular and 24-hour emergency contact information for these individuals will be confirmed and

updated as necessary. A project contact sheet will be provided to the General Contractor and posted in an accessible and suitable location at the Site.

Project Role	Company Name	Name	Contact Information
Owner Representative	LMC	Tyler Wood	(510) 567-6708; insert email
General Contractor	Insert Name	Brian Chartrand	(510) 777-2478; insert email
Environmental Consultant	Insert	Insert name	Insert contact information (phone & email)

2.2 Worker Health and Safety

In addition to following the SGMP, each Contractor and subcontractor is responsible for the safety of its employee and site visitors including but not limited to adherence to a health and safety plan and use of property-trained personnel:

- **Preparation of a Site-Specific Health and Safety Plan (HASP)**. A HASP will be prepared for the project in accordance with California Occupational Safety and Health Administration (CAL-OSHA) Construction Safety Orders within Title 8 of the California Code of Regulations (CCR). The General Contractor is responsible for notifying subcontractors and visitors of pertinent environmental conditions to ensure adequate protection for workers and visitors while on Site. Subcontractors may either adopt the General Contractor's HASP or prepare their own HASP. In the event that unanticipated conditions occur at the Site, the HASP will be modified accordingly.

- **Use of Properly-Trained Personnel**. Each contractor engaged in contact and management of contaminated soil or groundwater will use properly trained personnel in accordance CCR, Title 29, Part 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) standards.

2.3 Community Protection During Site Redevelopment

Land use in the vicinity of the Site is mixed commercial and residential. A map of the land use in the immediate vicinity of the Site is presented on ***Figure 3***. During the development of the Site, the Owner and contractors will implement measures to control potential risks to the surrounding community from fugitive dust emissions. These activities will be implemented when there is the potential for exposed soil to affect the nearby community. It is anticipated that following placement of hardscapes and building pads, air monitoring will not be required as there will not be exposed soil surfaces.

2.4 Agreement and Acknowledgement Statement

Prior to commencement of any Site activities that disturb the ground surface, the General Contractor and subcontractors of the Owner will read this plan and sign the Agreement and

Acknowledgement Statement (***Appendix A***) to certify that they have read, understood and agreed to abide by its provisions.

3.0 AGENCY NOTIFICATION & REPORTING REQUIREMENTS

The Owner will notify the ACDEH LOP and other agencies as applicable during Site development activities in accordance with the protocols described below.

3.1 ACDEH Notification

The Owner will notify the ACDEH LOP and the ACDEH Certified Unified Program Agency (CUPA) during Site redevelopment activities in accordance with the protocols below.

3.1.1 Twenty-four (24) Hour Notification

The ACDEH LOP will be notified within 24 hours of discovery if any of the following potentially hazardous conditions are encountered:

- Releases spills or releases of hazardous substances or petroleum hydrocarbons to soil or water that are considered, based on best professional judgement and/or physical evidence (including but not limited to olfactory, visual, field instrument, and lab data), to be an immediate threat to human health and the environment; and/or

- Discovery of unknown conditions (underground storage tanks, sumps, vaults, piping, etc.) or newly found contamination.

In the event of the discovery of USTs, vaults, hoists, & pipelines, the ACDEH CUPA must also be notified within 24 hours of the discovery.

3.1.2 Seventy-two (72) Hour Notification

The ACDEH LOP will be notified 72 hours in advance of ground disturbing activities in areas of known contamination or suspected contamination.

3.1.3 ACDEH LOP and CUPA Contact Information

The primary points of contact for the ACDEH LOP and CUPA are provided below. All agency notifications must be made by phone and email. An ACDEH contact sheet will be provided to the General Contractor and posted in an accessible and suitable location at the Site.

Karel Detterman, ACDEH LOP Case Worker	(510) 567-6708; karel.detterman@acgov.org
Paresh Khatri, ACDEH LOP Program Manager	(510) 777-2478; paresh.khatri@acgov.org
ACDEH CUPA	(510) 567-6700

	dehalamedacers@acgov.org

3.2 Other Agency Notification

In addition to the ACDEH notification requirements discussed above, other agency notifications may be required. Contact information for other agency notifications that may be required is provided below. Prior to the initiation of construction activities that are covered under this SGMP, the Owner will confirm the contact information listed below. An agency contact sheet will be provided to the General Contractor and posted in an accessible and suitable location at the Site.

Conditions Posing an Immediate Threat. For life-threatening or serous hazardous materials incidents, the following number will be contacted immediately upon discovery.	
Local police, fire and rescue services	911
Releases to Water. For spills or releases of hazardous substances or petroleum hydrocarbons to surface water, the following agencies will be contacted immediately upon discovery.	
National Spill Response Center	(800) 424-8802
United States Coast Guard – San Francisco Sector (if spill is going to reach navigable waters)	(415) 399-3547
California Office of Emergency Services	(800) 852-7550; (916) 845-8911
California Regional Water Quality Control Board – San Francisco Bay Region	(510) 622-2300
Local Emergency Response Agency	911
VOC-Impacted Soil. If VOC-impacted soil is discovered during Site grading activities, the following agency will be notified.	
Bay Area Air Quality Management District (BAAQMD)	Insert contact information
Dust Complaints. For dust complaints during ground disturbing activities, the following agencies will be notified.	
City of Oakland Building Department	Insert contact information
BAAQMD	Insert contact information

3.3 LMC Record Keeping & Reporting Requirements

All groundwater removal and soil excavation, disposal and import activities will be documented in daily field reports by the Contractor and/or Environmental Consultant and will kept at the Site and made available to ACDEH upon request. Documentation will include at a minimum the following, as applicable:

- **Groundwater** – volume of groundwater that is removed, characterization, treatment, and destination (transported to temporary holding tanks, used as dust suppression, and/or disposed of off-Site);

- **Underground Structures** – type, contents, characterization, and destination (abandoned in place or disposed of off-Site);

- **Impacted Soil** – origin, volume, characterization, and destination (transported to temporary soil locations within the Site, disposed of off-Site, and/or re-used on Site);

- **Imported Soil** – origin, volume, characterization, and destination (location on-Site);

- **Off-site Disposal Records** – date, time, trucking company, driver and vehicles used for the trip, equipment decontamination and tarping, waste/material type, volume, copies of bills-of-lading, and hazardous waste manifests; and

- **Dust Complaint Logs** – time, name and contact information, compliant description, earthwork activities associated with complaint, and measures taken to mitigate dust;

- **Analytical Reports** – copies of waste characterization laboratory analytical results.

Following completion of the work covered by this SGMP, the Environmental Consultant will prepare a report for submittal to ACDEH that documents compliance with this SGMP including soil and/or groundwater sampling, removal and management of unknown structures, chemical analysis and proper disposal of contaminated materials and soil import. The report will include at a minimum the information described in Section 3.3 above.

4.0 ENVIRONMENTAL SITE CONDITIONS

Soil and groundwater has been impacted at the Site from historic Site use and off-Site sources. A summary of known environmental conditions in soil and groundwater is provided below. Tabulated results of analytical data are provided in ***Appendix B***.

4.1 Soil

Soil at the Site consists of artificial fill material and native sand, and sand-silt-clay mixtures. Known soil contamination includes the following:

- **Lead Impacts.** Lead exists randomly at the Site in the shallow fill layer and has been detected at concentrations that exceed both residential human health risk-based screening levels and/or hazardous waste screening criteria in numerous samples. During earthwork activities soil excavated to achieve Site grades and construct building foundations will be disposed of off-Site at a permitted landfill. Lead impacted soil will be excavated and disposed of at an off-Site permitted landfill, and/or capped in place beneath the building foundation, hardscape, or clean fill material.

- **Petroleum Impacts.** Elevated concentrations of petroleum-related compounds have been detected in Site soil at depths of greater than 20 feet, typically below groundwater. Based on the results of previous investigations, it is not anticipated that petroleum-related impacted soil will be encountered in near-surface soil during earthwork activities.

4.2 Groundwater

Unconfined groundwater has been encountered at depths of approximately 21 feet below the existing ground surface. Petroleum hydrocarbons, associated volatile organic compounds (benzene, ethylbenzene, naphthalene, toluene, and total xylenes), and halogenated volatile organic compounds (tetrachloroethylene, trichloroethylene, and carbon tetrachloride) are present in groundwater beneath the western and central portions of the Site.

4.3 Discovery of Unexpected Conditions

Due to historic Site including use as a commercial fueling facility, redevelopment activities may reveal unexpected conditions such as previously unidentified areas of contamination or underground structures such as USTs, vaults, hoists, sumps, maintenance pits, pipelines, etc.

3.2 Excavation Contractor Responsibilities

5.0 PRE-FIELD ACTIVITIES

The pre-field activities include a description of planning and organizational aspects of soil excavation required for excavation to begin.

5.1 Site Security and Access

During remedial activities, the Site will be secured to provide protection and safety to on-Site personnel and equipment, and to prevent unauthorized access to areas of remedial activity. A 6-foot high chain link fence will be constructed around the perimeter of the Site and will enclose the staging area and the work zones (*i.e.*, any exclusion, decontamination, and support zones). During non-working hours, the fencing will be fully closed and locked. During remedial activities, access will be restricted to authorized personnel only.

5.2 Traffic Control

Caution will be exercised during entrance and exiting of the work area to ensure safe and uninterrupted traffic flow. Entrance into and departure from the Site by trucks will be facilitated by a flagman, or comparable contractor personnel, as necessary. Once trucks have left the Site, they will follow specific haul routes to disposal facilities as described in the Transportation Plan, Section 5.3.5.

5.3 Excavation Permit

All necessary permits for removal activities, transportation, and/or air quality will be obtained

prior to remediation. The permits will be kept on-Site and made available for inspection during working hours.

The procedures proposed for remediation activities will comply with federal, State and local rules and regulations, regardless of whether permit documents are required.

5.4 Notifications and Utility Clearance

LMC will notify the Bay Area Air Quality Management District (BAAQMD) of excavation activities at least five days prior to implementation. In addition, LMC will also notify ACDEH of the soil excavation activities at least 72 hours prior to commencing work. The proposed excavation areas will be marked in white paint prior to contacting Underground Service Alert (USA) at least 48 hours prior to excavating, as required by law. A private utility locating service will be contracted prior to conducting the field activities to mark and/or clear proposed excavation locations relative to the presence and/or marked locations of potential subsurface utilities.

4.0 SOIL MANAGEMENT

Redevelopment activities include grading of the Site. Site grading will include removing the top 12 inches (?) of site material (pavement, fill material) and excavating soil in conjunction with installation of utility trenches, elevator shafts, and building foundations. Lead-impacted soil will be excavated under the observation of the Environmental Consultant in the areas shown on ***Figure 2*** prior to completing general grading activities during Site redevelopment. Any excess soil generated during grading may be temporarily stockpiled on-Site and either re-distributed for re-compaction on-Site as part of Site grading activities, or transported off-Site for disposal.

All soil management and handling activities will be conducted in accordance with applicable federal, state, and local regulations. During implementation of the project other data may be collected for profiling purposes and to further refine the quantities and classification of potential waste materials that may be generated.

4.1 Excavation of Lead-Contaminated Soil

Lead-impacted soil at the Site exceeds both residential human health risk-based screening levels and/or hazardous waste screening criteria in numerous samples (see ***Appendix A***). Excavation of lead-impacted soil will be conducted in the following general sequence:

- Develop staging areas, access paths for equipment, work zones, and decontamination areas for use during handling of contaminated soil to reduce the potential of tracking waste off-Site;

- Identify locations of perimeter air monitoring stations, as necessary, and begin monitoring to comply with BAAQMD regulations, the HASP, and the protocols in Section XX of this SGMP;

- Stockpile soil for characterization or direct load onto trucks for appropriate off-Site disposal.

- Characterize stockpiled soil by collecting samples using a pre-cleaned hand trowel and transferred into laboratory-supplied glass containers. One 4-point composite sample will be collected for every 200 cubic yards of material generated per disposal/accepting facility requirements.

- Following soil sample collection, the containers will be labeled for identification and immediately placed in a chilled, thermally insulated cooler containing bagged ice or blue ice. The cooler containing the samples will then be delivered under chain-of-custody protocol to a state-certified laboratory. Composite samples will be submitted, at a minimum, for laboratory analysis for Title 22 metals using U.S. EPA Test Method 6010B and other constituents required as part of waste characterization testing for off-Site disposal. If necessary, extractable metals tests (i.e., leaching test including waste extraction test [WET] and/or toxicity characteristic leaching procedure [TCLP] procedures) will be conducted on the samples with elevated metals concentrations to establish if the soil is hazardous based on their leaching characteristics.

4.2 Contingency Measures for Previously Unidentified Suspect Soils

The following contingency measures will be implemented in the event that previously unidentified suspected chemically-affected soil is identified during site excavation. All contingency measures will be conducted by HAZWOPER-trained environmental professionals in accordance with the HASP.

Additionally, as a precaution, the Environmental Consultant will be present during excavation and grading activities in areas of historic underground storage tanks, subsurface anomaly detections, and deeper soil contamination (as shown on ***Figure 3***) in case unexpected contamination or subsurface structures are encountered.

4.2.1 Identification of Contaminated Soil

The Contractor will be instructed to report indicators of contaminated soil, in particular, petroleum hydrocarbons. The three primary physical indicators of petroleum-related contamination in soil include staining, sheen, and petroleum-like odor, as described below:

- **Staining:** Generally, soil that is impacted with petroleum hydrocarbons exhibits gray, black or green staining, although other contaminants and natural conditions may also cause staining.

- **Sheen:** Sheen is another indication of petroleum contamination. Soil exhibiting sheen may appear shiny and reflective. Sheens from heavily impacted soil may appear iridescent with rainbow-like colors.

- **Odor:** Soil impacted with petroleum products, volatile organics, and other types of contamination may release vapors when exposed to the atmosphere. These vapors can be interpreted as an odor. Odor can be subjective, and inhalation of vapors from impacted soil is harmful to human health. Therefore, odor is considered an inadvertent field indicator and should not be used for continuous screening of soil.

If soil exhibiting evidence of contamination is encountered during excavation, the Contractor will cease excavation activities in the area and notify the Environmental Consultant within 24 hours. The Contractor will not conduct any work in the area of concern or replace any known or suspected contaminated soil in the excavation area without prior approval by the ACDEH LOP.

4.2.2 Preliminary Assessment

Preliminary assessment of the previously unidentified suspect soil will include confirmation that access control measures installed by the General Contractor are adequate to provide necessary protection to on-Site workers and the public during the evaluation phase. Confirmation will consist of visual assessment of the installed barriers as well as monitoring of the air outside the control area.

Air sampling will be conducted around the perimeter of the secured area using a combination photoionization detector (PID) meter to measure volatile organic compounds (VOCs) in the breathing zone and a lower explosive limit (LEL)/oxygen (O_2) meter to measure concentrations of combustible gases and available oxygen. If the air sampling suggests that the control measures are improperly positioned to provide necessary protection to on-Site workers, the barriers will be relocated as necessary.

The Environmental Consultant will conduct a preliminary assessment to determine if the previously unidentified suspect soil is considered a significant risk to human health or the environment. If field observations suggest that the suspect conditions are *de minimis* and: (1) do not present a threat to human health or the environment; or (2) would generally not be subject of an enforcement action if brought to the attention of appropriate governmental agencies; then the Environmental Consultant will terminate the contingency plan process and release the suspect areas to the General Contractor.

4.2.3 Evaluation of Previously Unidentified Suspect Soil

If conditions in the suspect area are not considered *de minimis*, the Environmental Consultant will notify the ACDEH LOP on behalf of the Owner within 24-hours of discovery and evaluate the nature and extent of the potentially chemically-affected soil in accordance with the protocols below.

- **In-Situ Soil Samples.** An in-situ soil sample will be collected from the same location and depth as the previously unidentified suspect soil and 1-foot below this depth. Additional samples will also be collected at the same depths at a minimum of four step-out locations to assess soil conditions around the suspect sample location. The four step-out locations will be located approximately 5 feet to the north, south, east, and west of the suspect sample

location. Each sample will be collected using a pre-cleaned hand trowel and transferred into laboratory-supplied glass containers and observed for evidence of odors and staining and screened for VOCs using a PID. If any of the in-situ soil samples show evidence of odors and staining or VOCs are detected above 10 parts per million by volume (ppmv) then environmental sample(s) will be retained for analyses.

- **Stockpiled Soil Samples.** If previously unidentified suspect soil is stockpiled on-Site, samples will be obtained using a pre-cleaned hand trowel and transferred into laboratory-supplied glass containers. One 4-point composite sample will be collected for every 200 cubic yards of material generated per disposal/accepting facility requirements.

- **Laboratory Analysis.** Following soil sample collection, the containers will be labeled for identification and immediately placed in a chilled, thermally insulated cooler containing bagged ice or blue ice. The cooler containing the samples will then be delivered under chain-of-custody protocol to a state-certified laboratory. Discrete and composite samples will be submitted, at a minimum, for laboratory analysis of total petroleum hydrocarbons quantified as gasoline (TPHg) and VOCs by United States Environmental Protection Agency (U.S. EPA) Test Method 8260B and total petroleum hydrocarbons quantified as diesel (TPHd) and motor oil (TPHmo) by U.S. EPA Test Method 8015M. All soil samples submitted for analysis by U.S. EPA Method 8260B will be collected in accordance with U.S. EPA Method 5035 using Terracore™ (or equivalent) samplers. Samples may also be analyzed for Title 22 metals using U.S. EPA Test Method 6010B or other constituents as determined by the Environmental Consultant and the ACDEH LOP or as part of waste characterization testing for off-Site disposal. If necessary, extractable metals tests (i.e., leaching test including waste extraction test [WET] and/or toxicity characteristic leaching procedure [TCLP] procedures) will be conducted on the samples with elevated total metals concentrations to establish if the soils are hazardous based on their leaching characteristics.

After the evaluation is complete, the Environmental Consultant will provide the Owner, General Contractor and the ACDEH LOP with conclusions regarding potential risks of the suspect material to human health and the environment as well as recommendations for proper removal and disposal of the affected soil. All soil removal work will be approved by the ACDEH LOP prior to implementation. If VOC-affected soil is encountered, notification will be provided to BAAQMD as required in the guidelines and notification requirements set by Regulation 8, Rule 40 of the BAAQMD Rules and Regulations for aeration of contaminated soil.

4.4 Reuse of Concrete & Soil Importation

Reuse of crushed concrete or use of imported fill material will be characterized and approved by ACDEH prior to being placed at the Site in accordance with the Department of Toxic Substances Control (DTSC) *Information Advisory – Clean Imported Fill Material* (DTSC, 2001) and the New Jersey Department of Environmental Protection *Guidance for Characterization of Concrete and Clean Material Certification for Recycling* (updated January 12, 2010). Discrete samples will be collected from the import source for characterization and specific laboratory analyses will be based on the fill source characteristics. The analytical results of the import soil samples will be compared to applicable screening criteria to evaluate whether the material is suitable for import

to the Site.

5.0 CONTINGENCY MEAUSURES FOR DISCOVERY OF UNEXPECTED UNDERGROUND STRUCTURES

If any previously unidentified or unknown underground structures including tanks, vaults, sumps, containment structures, separators, or piping that has previously contained or has the potential to contain hazardous materials is encountered during Site grading activities, the ACDEH LOP and CUPA will be notified within 24-hours and consulted on appropriate next steps. USTs may be identified during grading and Site excavation activities by the presence of vent pipes that extend above the ground surface, product distribution piping that leads to the UST, fill pipes, backfill materials, or the underground structure itself. Other buried structures may not have features that extend above ground surface, and could be discovered only after contact with construction equipment.

The removal or burying of any of these structures without prior acknowledgement and approval form ACDEH is prohibited. Discovered structures will be assess as follows:

- The structure will be inspected to assess whether it contains any indication of chemical residuals or free-phase liquids other than water. This assessment will be conducted by the Environmental Consultant, and will be based on visual evidence and the results of vapor monitoring using a PID. Under no circumstances will any personnel enter an unknown subsurface structure at any time. If chemicals are not indicated within the structure by the above-referenced means and with ACDEH approval the structure may be removed or abandoned in place in a safe manner by the contractor;

- If liquids or solids are present within the structure, measures will be taken to contain the liquids to avoid spills to the subsurface. Samples will be collected and submitted to a California-certified laboratory for analysis. Liquids or solids may be temporarily drummed, or liquids may be collected by vacuum truck, while analysis is pending. Based on analytical results, the liquids or solids will be disposed of under the direction of the Environmental Consultant in accordance with all applicable environmental laws and disposal requirements;

- If contaminated liquid or solids are present in the structure, the structure will be inspected for physical integrity following removal of the contaminated media. The Environmental Consultant will document the results of this inspection, including an estimation of the volume and former use of the structure.

- If the physical inspection of the structure suggests that chemicals may have been released to the underlying soils additional environmental investigations of the underlying soils will be conducted to assess whether a release sufficient to warrant removal has occurred.

    - If, based on the opinion of the Environmental Consultant and ACDEH, it is assessed that the structure is intact, that subsurface releases of the chemicals to the underlying soils likely did not occur, and no free-phase liquids or chemical

residues remain inside, removal of the structure may not be required for environmental reasons.

- Otherwise, with ACDEH approval, the structure will be excavated and disposed of at the direction of the Environmental Professional. Once the structure is removed, soils adjacent to and beneath the structure will be assessed for contamination through visual observation and organic vapor analysis and the results documented. If soils are determined to be "contaminated" with VOCs in the context of BAAQMD Rule 8-40, the appropriate response will be determined in consultation with ACDEH.

ACDEH may require further response actions based on the discovery of hazardous materials that pose an unreasonable risk to human health and safety or the environment.

6.0 GROUNDWATER MANAGEMENT

The depth to groundwater at the Site is typically encountered at depths greater than 21 feet below ground surface. As the excavation is at most approximately XX feet (for elevator pits), construction dewatering is not anticipated. If dewatering of the excavation will be necessary during construction activities, a batch wastewater discharge permit will be obtained from the East Bay Municipal Utility District (EBMUD) for discharging water encountered during construction activities to the sanitary sewer system.

Construction de-watering effluent, if generated, shall be pumped into holding tanks and sampled and analyzed for the parameters required for the selected discharge point, such as the storm drain or sanitary sewer. If dewatering effluent is to be discharged to the storm drain, a National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board. Permits will be obtained from the City of Oakland Public Works Department and/or the East Bay Municipal Utility District (EBMUD) if dewatering effluent is discharged to the City of Oakland sanitary sewer system.

Chemical testing will be performed in accordance with the receiving facility's requirements prior to discharge. If concentrations exceed the limits established for the discharge point, the dewatering effluent will either will be (1) transported off-Site for disposal at a licensed disposal facility or (2) treated and discharged following sampling and analysis to confirm the success of treatment.

7.0 WASTE MANAGEMENT

7.1 Soil Characterization Prior to Off-Site Disposal

Soil that has been pre-characterized by in-situ soil testing and is intended for off-Site disposal can be loaded directly into trucks for transport to the receiving facility once the appropriate off-Site disposal location and permitting has been completed. Some soil may need to be placed in temporary on-site stockpiles because: (1) they require further characterization prior to off-site disposal; (2) short-term storage is necessary until haul trucks are available to transport the soil off-

site for disposal; or (3) the need for processing or sorting prior to landfilling. If soil is not adequately characterized to directly load and haul then it may be necessary to stockpile and sample. Stockpiled soil will be characterized as required by the receiving facility. At a minimum, stockpiled soil shall be characterized using the October 2001 DTSC Fill Advisory Guidance (included as ***Attachment B***). In the event very elevated data are found in a four-point composite sample, the Environmental Consultant may elect, in consultation with the Owner, to have the four individual subsamples run for that specific compound in an attempt to isolate the soils containing the worst impacts for disposal.

7.2 Soil Stockpile Management

Soil that is placed in temporary stockpiles will be well maintained at all times to prevent runon/runoff and fugitive dust emissions. All stockpiled soil will be placed on impermeable plastic sheeting (minimum 10-mil-thick) with a berm around the perimeter of the stockpile. The plastic sheeting and berm will prevent the runoff of soil and potential contaminants to surrounding areas. The berm will be constructed with hay bales, dimensional lumber, or other equivalent methods. The bottom plastic sheeting will be lapped over the berm materials, and the soil stockpile will be covered with plastic sheeting to prevent erosion or leaching of contaminants to underlying soil and prevent exposure to precipitation and wind. Plastic sheeting that covers the soil stockpile will be secured using sand bags or equivalent. Following removal, the soil stockpile area will be restored to a pre-stockpile condition. Residual plastic or debris will also be disposed of following stockpile removal.

7.3 Decontamination Procedures

In order to prevent residual contamination from leaving the Site by construction equipment and personnel during remedial excavation activities, the following decontamination procedures will be followed:

- Prior to loading excavated materials into trucks, plastic sheeting will be placed on the ground such that any spilled material will be prevented from contacting the ground surface. Upon completion of loading, any debris will be placed in the transportation vessel and the plastic sheeting will be reused, or disposed.

- To minimize the spread of contaminated soil, equipment will be cleaned prior to movement out of active work zones. The equipment wheels/tires will be cleaned over plastic sheeting by means of shovels and stiff-bristled brooms or brushes until they are fully cleaned. Upon completion of cleaning, any debris will be placed in the appropriate transportation vessel and the plastic sheeting will be folded and disposed. Equipment exiting the Site will be inspected and logged for compliance with the Site decontamination requirements.

- Personal protective equipment, such as disposable coveralls, will be removed and discarded in the contamination reduction zone. In order to decontaminate reusable items such as work boots, a two-stage decontamination process will be used. This process will include washing in a detergent solution with a stiff-bristled brush and rinsing in clean water. The rinsate water will be distributed over contaminated soil (to be exported) for dust control purposes.

7.4 Off-Site Soil Disposal & Transportation Plan

Following acceptance of the excavated soil at an appropriate-licensed disposal facility, the soil will be loaded in licensed haul trucks (end-dumps or transfers) and transported off the Site following appropriate California and Federal waste manifesting procedures. The appropriate waste manifest documentation will be provided to truck drivers hauling the affected soil off-Site.

Transportation equipment will be chosen to safely transport the expected volumes of soil, taking into consideration the types of roads to be traveled and their loading capacity. Routine truck maintenance and repairs will be performed at the contractor's premises prior to picking up loads of waste material from the Site.

As each truck is filled, an inspection will be made to verify that the waste soil is securely covered, to the extent practicable, and that the tires of the haul trucks are reasonably free of accumulated soil prior to leaving the site. During loading, dust and odor emissions will be monitored and mitigated as necessary. During transportation, the hauling trucks will be equipped to fully cover all soil and debris, such as with a heavy tarpaulin. A street sweeper will be made available, as needed, to keep the loading area clean. The soil will be wetted, as necessary, to reduce the potential for dust generation during loading and transportation activities.

A detailed log of the loads hauled from the Site will be maintained. The log will include, at a minimum, the date and the time trucks were loaded and off-loaded, the destination, size (volume and weight) of the load, description of contents, name and signature of the hauler, and name and signature of the contractor's representative. The waste will be off-loaded for treatment or disposal in a manner consistent with current Federal, State, and local regulations. Shipments of hazardous waste will be tracked with the appropriate hazardous waste manifests.

7.4.1 Off-Site Disposal Facilities

If soil is classified as hazardous waste by State and Federal standards, it will be disposed of at the Class I Kettleman Hills Landfill in Kettleman City, California, a licensed and approved facility.

If soil is classified as non-hazardous waste by State and Federal standards, it will likely be disposed of at a Class II licensed landfill facility such as:

- Waste Management's Altamont Landfill in Livermore, California;
- Republic Services' Vasco Road Landfill in Livermore, California; or
- Allied Waste's Forward Landfill in Manteca, California.

7.4.2 Transportation Plan

All transportation activities will be performed in strict compliance with all regulations and ordinances. Hauling contractor(s) used to transport non-hazardous or hazardous waste will be fully

licensed and permitted by the State of California. For hazardous waste haulers, the selected transportation company will be certified by the State of California as a hazardous waste hauler, and appropriately permitted to haul contaminated waste material. All Department of Transportation (DOT) and California Highway Patrol (CHP) safety regulations will be strictly followed by both hazardous and non-hazardous waste haulers.

Transportation routes will be developed to minimize transporting the affected soil through residential areas. The affected soil will be transported via surface streets to the closest suitable freeway, which is Interstate 580. The proposed routes for transportation on Interstate 580 are as follows:

- To Interstate 580 East and West: Leaving the site along Railroad Avenue, travel west approximately 1-mile to Isabel Avenue, turn right and travel north on Isabel Avenue approximately 1-mile and use the appropriate ramp onto I-580.

The remainder of the freeway route(s) will be established upon selection of the appropriate landfill(s).

7.5 Wastewater and Groundwater Management Protocols

Wastewater generated during Site redevelopment, such as decontamination liquids, will be temporarily stored onsite. Decontamination water will be profiled and transported to an appropriate disposal or recycling facility.

If a saturated zone is encountered during earthwork activities that produces accumulated water it will be temporarily containerized on-Site within portable aboveground industrial holding tanks. Holding tanks will be staged on the existing hardscape (i.e. concrete or asphalt) where feasible.

Collected wastewater and groundwater will be transferred into a vacuum truck or 55-gallon steel drums for off-Site transportation and disposal.

7.6 Spill Response Plan

In the event of a spill, the Contractor will be responsible and prepared to respond in a safe and efficient manner, specific to the particular spill situation. Standards will be set and consistent procedures will be used for handling of spills, whether they are on-Site spills or spills occurring during transportation. Haulers will have an Emergency Spill Contingency Plan (ESCP) to ensure that all drivers and dispatchers know their responsibilities in the unlikely event that an accidental spill occurs while transporting contaminated material off-Site. The drivers and dispatchers will be required to know the procedures for emergency spill response. The ESCP will meet or exceed all Federal, State, and County regulations currently in effect. The provisions of the ESCP will be strictly adhered to, in order to ensure continued protection of the public safety and the environment. The HASP will address the handling of on-Site spills.

8.0 Dust and Odor Emissions

During excavation activities, depending on soil and weather conditions, there is potential to generate airborne dust and fugitive emissions. Standard dust and fugitive emissions control measures will be followed during the ground disturbing activities to comply with OSHA and BAAQMD rules and accomplish the following goals:

- Reduce the potential for health impacts to workers;
- Reduce the potential for health impacts to facility neighbors;
- Prevent violations of ambient air quality standards;
- Minimize nuisance dust complaints from facility neighbors; and
- Minimize the migration of contaminants adhered to fugitive dust particles outside the Site.

8.1 Erosion, Dust, and Odor Control Measures

Once the pre-construction ground surface is stripped from the Site, the exposed soil will become susceptible to erosion by wind and water. Therefore, erosion control measures and dust control measures will in place before construction begins. Emission (dust) control measures will at a minimum comply with those established by OSHA and the BAAQMD for construction-related activities. Dust control measures will be based on "Best Management Practices" and will be used throughout all phases of construction.

8.1.1 Construction Mitigation Measures

The following basic construction mitigation measures will be implemented in accordance with recommendations for all proposed projects in the BAAQMD California Environmental Quality Act Air Quality Guidelines (BAAQMD, 2017):

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day;
- All haul trucks transporting soil, sand, or other loose material off-site will be covered;
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour (mph);
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used;

- Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure CCR Title 13, Section 2485). Clear signage will be provided for construction workers at all access points;

- All construction equipment will be maintained and properly tuned in accordance with manufacturer‘s specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation; and

- A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints will be posted. This person will respond and take corrective action within 48 hours. The BAAQMD’s phone number will also be visible to ensure compliance with applicable regulations.

Dust level monitoring of air will be conducted to evaluate the potential exposure to Site personnel and to off-Site downwind receptors. The presence of airborne dust will be evaluated through the use of real time personal sampling equipment and perimeter air sampling. If the difference between the upwind and downwind dust monitoring levels exceeds 50 micrograms per cubic meter ($\mu g/m^3$), additional dust control methods (i.e., applying additional water to disturbed areas) will be implemented.

8.1.2 Dust Suppression Measures

If dust is excessive, some or all of the following mitigation procedures may be implemented:

- Active areas adjacent to residences may need to be kept damp at all times.

- Apply water or (non-toxic) soil stabilizers to unpaved access roads, parking areas, and staging areas.

- Sweep (with water sweepers) paved access roads, parking areas, and staging areas.

- Cover or otherwise stabilize exposed soil stockpiles.

- Suspend construction activities that cause visible dust plumes and odors to extend beyond the limits of the Site.

8.1.3 Odor and Vapor Suppression Measures

By controlling the dust as described above, the emission of odor and vapors will be reduced to levels that likely will not pose a risk to the health of the public and Site workers. The water spray used to control dust will also significantly reduce the emissions of any potential volatiles that may be present in the soil. The selective loading and transportation of impacted soils could minimize the use of soil stockpiling, further reducing potential emissions of volatiles. Any active stockpile of contaminated soil or exposed excavation left overnight at the Site will be properly covered with plastic so emissions of volatiles will be minimized.

If odor is excessive and vapor emissions are detected, some or all of the following mitigation procedures may be implemented:

- Use of chemical suppressants mixed with water and applied using various applications such as spray or mist;
- Use of plastic sheeting to cover the sidewalls of the trench during non-active remedial activities will minimize the migration of VOCs and odors;
- Alternative work sequencing, such that excavation of soil with potential odor during mid-day or afternoon (during hot weather) is avoided;
- Any highly odorous soil could be segregated and placed inside a roll-off bin equipped with a lid. This will minimize the amount of highly odorous soil during loading; and
- Balancing the excavation with transportation so that the need for large stockpiles is reduced.

Other emissions include exhaust from remediation equipment. The equipment proposed for the Site redevelopment will be maintained properly so that exhaust emissions will be within acceptable standards.

8.2 Air Monitoring

To the extent feasible, the presence of airborne contaminants will be evaluated through the use of portable monitoring equipment. Information gathered will be used to ensure the adequacy of the levels of protection being employed at the Site, and may be used as the basis for upgrading or downgrading levels of personal protection, at the discretion of the Site Safety Officer. In addition, this sampling equipment will be utilized to monitor the potential for the migration of contaminants off-Site (i.e. fence line monitoring). Such monitoring will incorporate off-Site receptor type, wind direction, work tasks being performed, etc.

The following air sampling equipment will be utilized for site monitoring:

- Personal sampling pumps with appropriate sample collection media; and
- Dust monitors.

The above instruments will serve as the primary instruments for personal exposure monitoring. They will be utilized to fully characterize potential employee exposure and the need for equipment upgrades/downgrades.

8.2.1 Integrated Industrial Hygiene Sampling

Integrated Industrial Hygiene (IH) sampling for airborne contaminants and dust will be conducted during the excavation process and/or loading operation. This IH sampling will be performed to properly characterize potential employee exposures and/or to establish baseline levels. Sampling may include personnel monitoring and fence line sampling. The duration of such monitoring will be determined based upon analytical results, regulatory requirements, etc.

8.2.2 Real-Time Air Monitoring During Excavation of Contaminated Soil

Dust monitoring will also be conducted to characterize the potential for exposure to Site personnel during disruption of contaminated soil using a direct-reading dust monitor. Continuous monitoring will also be performed during operations that have not previously been characterized. After initial site screening, monitoring will be conducted periodically or anytime Site conditions might be altered (i.e. weather, drilling, excavation, spills, etc.).
Results of monitoring information will be recorded, and will include time, date, location operations, and any other conditions that may contribute to potential exposures. Maintenance and calibration information will be maintained and made available upon request. The monitoring equipment will be calibrated in accordance with the manufacturer's specifications, and the records of such maintained with the project HASP.

Real-time air monitoring for respirable dust will be performed during the first three days of excavation of contaminated soil. The objective of the perimeter air-monitoring program is to protect the health and safety of the nearby community and to document the effectiveness of the dust control measures.

The Site HSO will determine the air monitoring locations based on Site operations and the location of areas that could be adversely impacted by air emissions. In general, real-time monitoring will be conducted downwind and around the perimeter of relevant activities. Monitoring locations will be documented on a monitoring log, along with any concentrations detected.

The dust standard will be based on the PM10 ambient air quality standards adopted by BAAQMD, which specifies a ceiling level of no more than 50 micrograms per cubic meter ($\mu g/m^3$) difference between upwind and downwind sampling locations. The ceiling level of 50 $\mu g/m^3$ represents the Bay Area 24-hour time-weighted average standard for 10 micron diameter particulate matter (the PM10 24-hour standard).

The perimeter of the work area will be monitored while excavation of contaminated soil is being conducted. If any readings exceed action levels, work will be stopped, engineering controls will be implemented and the work and monitoring schedule will be adjusted until background levels are reached.

Real-time dust monitors will be used to measure mass concentrations of airborne dust and provide respirable dust, expressed as concentration of particulates smaller than 10 microns (PM10) correlated measurements. A handheld respirable air monitor (mini-RAM) will be used to provide real-time data on total dust levels as PM10. Real-time worker dust monitoring will be performed continuously during work activities where soil disturbance is anticipated, downwind of active

excavations. Measurements of real-time and time-weighted averages (TWA) of airborne particulate concentrations will be recorded using a Monitoring Instruments for the Environment, Inc. (MIE) RAM, model PDR-1000 or equivalent equipment. The miniRAM measures the concentration of airborne particulate matter using a high sensitivity nephelometer (photometer) using a light scatter sensor. The sensitivity of the miniRAM is reported to range from 0.001 milligrams per cubic meter (mg/m^3) to 400 mg/m^3. The miniRAM will be calibrated daily in the supplied calibration pouch.

Real-time monitoring will consist of the following activities:

- Determine the predominant wind direction;
- Place one instrument upwind of Site operations for ambient sampling;
- Place one or more instrument(s) downwind of Site operations, at the Site perimeter;
- Position the instrument probe near the normal breathing zone and monitor for approximately five minutes after instrument readings have stabilized; and
- Record the following observations and readings in real-time:
  - Location;
  - Time;
  - Site activity;
  - Readings;
  - Visual observations of dust;
  - Site conditions, including current weather conditions; and
  - Odors and/or other miscellaneous observations.

9.0 STORM WATER MANAGEMENT

Other environmental controls may be required in the event that anticipated conditions at the Site change. In the event that remediation activities occur during the rainy season, then water management procedures will be implemented in addition to probable modifications of other plans, such as the HASP. The following procedures will be implemented at the Site during the rainy season:

- The weather forecast will be monitored. During the days heavy rain is forecasted, remediation activities may be stopped;

- The boundary of the remediation area will be properly bermed to prevent storm water from entering or leaving the remediation area;

- Storm water entering the remediation area from non-impacted areas and storm water originating within the excavated area will be pumped to settlement tanks and treated prior to discharge under permit;

- The excavation will be conducted in small sections so the exposed excavated area can be covered immediately if heavy rains occur;

- Procedures will be used to prevent wet soil from sticking to the tires of trucks used to haul soil off Site. These procedures may include plastic sheeting at the loading area, a tire wash at Site egress paths, and/or a stabilized gravel construction entrance; and

- Plastic sheeting will be used extensively to cover the area of excavation during non-working hours.

In general, the excavation will be kept as dry as possible in order to minimize the waste generated and the backfilling (as necessary) of the excavation can be conducted promptly. Storm water best management practices (BMPs) will be followed in accordance with the contractors Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the Site. The BMPs for the Site development activities should include: use of fiber rolls; inlet protection; stabilized construction entrance; landscape and paving; street cleaning and catch basin cleaning.

APPENDIX A

AGREEMENT AND ACKNOWLEDGMENT STATEMENT
Senior and Family Housing
1625-1635 Chestnut Street
Livermore, California

Soil Management Plan Agreement

All project personnel and subcontractors are required to sign the following agreement prior to conducting work at the site.

1. I have read and fully understand the plan and my individual responsibilities.

2. I agree to abide by the provisions of the plan.

Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date

(Add additional sheets if necessary)