



January 27, 2018

Mr. Kevin Brown
Holliday Development
1201 Pine Street Suite 151,
Oakland, CA 94607

Subject: Site Cleanup Program Case No. RO0003194 and GeoTracker Global ID T1000007974 5th St & Magnolia St Redevelopment, 0 5th St & Magnolia St, Oakland, CA 94607

Dear Mr. Brown:

Alameda County Department of Environmental Health (ACDEH) has reviewed the case file in conjunction with the Remedial Action Plan, 5th Street and Magnolia Street, Oakland, California (the RAP), prepared by WEST Environmental Services and Technology (WEST) on your behalf, and dated November 2017. The RAP presents proposed remedial actions to address residual soil and soil gas contamination at the site. The RAP includes: a summary of the site investigations; data evaluation and data gap analysis; evaluation of remedial technologies; and details of the recommended remedial action implementation. The remedial actions are proposed to be implemented during site redevelopment to mitigate conditions potentially hazardous to human health or the environment during and after construction.

The RAP was prepared to support redevelopment of the site and a change in site use from commercial/industrial to commercial/multi-family residential, as detailed in the redevelopment plans shown in the RAP and the City of Oakland Department of Planning and Building Zoning Division Case File No. PLN16-164, 532 Union Street (APN 004-0049-004-00). ACDEH understands that approval of the project by the City of Oakland Planning Department was issued on August 8, 2016. ACDEH further understands that Holliday Development has not applied for building permits for the proposed project as of the date of this letter.

ACDEH understands the 0.5-acre site is currently an undeveloped asphalt. The redeveloped site will be a mixed-use development comprised of a single story commercial/retail building; a multi-story residential apartment building with two elevators; an at-grade open-air parking garage; landscaping; and hardscape. The residential units will be constructed above the at-grade open-air parking garage. As part of construction, excavation activities will include mass grading of approximately 450 cubic yards and reuse on-site as engineered fill beneath the buildings; removal of approximately 1,200 cubic yards for the utility trenches and building wall and column foundation footings and on-site reuse or off-site disposal. Soil will be removed within the footprints of commercial building, parking garage/residential building and for subsurface utility trenches between approximately 1-foot and 4-feet below ground surface. The landscape areas will be completed at or above final grade. Additional soil will be removed to accommodate planting of trees within the at-grade planter areas.

The site has historically been used for residential dwellings and then as part of California Department of Transportation (Caltrans) Interstate 880 (Cypress Freeway) right-of-way that was demolished following the 1989 Loma Prieta Earthquake. Approximately 3-feet of fill material comprised of sands and gravels with

brick, wood, charcoal and concrete debris appears to have been placed on the site following the freeway demolition. The source of the fill material is unknown. Historic uses of adjoining properties have included steam laundry and cleaners, automobile repair, and a gasoline service station.

Residual soil and soil gas contamination remains at the site above applicable Regional Water Quality Control Board – San Francisco Bay Region unrestricted use Environmental Screening Levels (ESLs). The presence of total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), pesticides and lead in soil appears to be attributable to the former residential buildings (lead-based paint), automobile exhaust from leaded gasoline (aerially-deposited lead) and/or the fill material. The RAP postulates that the volatile organic compounds (VOCs) including tetrachloroethene (PCE) detected in soil gas and groundwater at the site are associated with historical cleaners and automobile repair uses on the adjoining properties.

The RAP presents the following proposed corrective actions that combine several technologies designed to contain impacted soil and mitigate potential vapor intrusion risks to future site occupants:

- Excavation of soil containing TPH, PAHs and lead during site grading, foundation excavation and utility trenching activities.
- On-site reuse of excavated soil as engineered fill beneath buildings and hardscapes and/or off-site disposal of soil generated from the excavation not used as engineered fill.
- Placement of a geotextile marker within the at-grade landscape planters and backfilling with clean imported soil.
- Installation of subslab vapor mitigation systems beneath buildings to control vapor intrusion and trench dams within utility trenches to control vapor migration, if shown to be necessary. Based on the distribution of VOCs in soil gas and the elevated detection limits that exceed applicable ESLs, additional soil gas sampling will be conducted prior to site grading and construction to evaluate seasonal soil gas concentrations and identify if an on-site source of VOCs exists. The results of the soil gas sampling will be used to determine if additional excavation is required to remove VOC impacted soil and determine the extents of vapor mitigation measures at the site.
- Land use controls to limit exposure to subsurface contaminants to future site occupants and workers.

Based on the information in the case file, and with the provision that the information provided to this agency is accurate and representative of site conditions, ACDEH conditionally approves of the corrective actions presented in the RAP and concurs that implementation of the proposed measures will prevent exposure to construction workers and future site occupants of the proposed development project from residual contamination at the site.

Therefore, at this juncture, you may proceed with site redevelopment activities provided the additional soil gas investigation and corrective actions presented in the RAP are implemented, the required vapor mitigation measures including vapor mitigation systems beneath buildings and trench plugs within utility trenches installed, and the documents and field work listed in the Technical Report section below are submitted and/or completed in accordance with the associated compliance dates. Case closure will be granted following completion and approval of the technical reports and completion of corrective actions.

TECHNICAL REPORT AND FIELD WORK REQUEST

1. Prior to the start of site demolition and grading the following work must be completed and documents submitted to ACDEH for review and approval:
 - a. **Project Schedule.** A baseline project schedule providing details of the sequencing of additional field investigation, corrective actions and site redevelopment activities and submittal of requisite reports and documentation listed below. The schedule must incorporate all of the elements included in the RAP and Construction Soil and Groundwater Management Plan

(Construction SGMP) including but not limited to site grading, soil import characterization, vapor mitigation system and utility plug installation, inspection and testing, foundation construction, implementation of institutional controls, etc.

- b. **Soil Vapor Sampling Work Plan.** A work plan detailing the proposed soil vapor sampling activities to be conducted prior to site development. The scope of work must include collection of soil gas samples from existing soil vapor probes and installation of new probes as necessary, and analysis of VOCs to obtain a representative seasonal data set for VOCs at the site and determine the extents of vapor mitigation measures.
- c. **Soil Vapor Sampling Report.** A report detailing the findings of soil vapor sampling activities. The extent of the vapor mitigation system installation beneath the mixed commercial retail and multi-family residential building will be determined based on the findings of this additional soil gas sampling.
- d. **Remedial Action Implementation Plan (RAIP).** A companion report to the RAP presenting the basis of design of vapor mitigation measures (vapor mitigation systems and utility trench dams) if required based on the results of the soil vapor sampling. The vapor mitigation measures must be incorporated into the Building Permit Plans for the site. The RAIP must also include details on additional soil excavation if the soil gas sampling identifies an area of VOC impacted soil. The RAIP must also include a Construction Quality Assurance Plan (CQA Plan) for testing and inspection of the vapor mitigation measures. The CQA Plan must specify the appropriate qualification and experience necessary for contractors and inspectors involved in the construction of vapor mitigation measures and provide procedures for construction monitoring and documentation, including responsibility and authority, construction inspections and as-built documentation. The RAIP and vapor mitigation system plans must be stamped by a registered civil engineer. ACDEH must be notified if Holliday or the City proposes changes to the site development and first floor building plans presented in the RAP and RAIP, including but not limited to the location, depth and/or design of the elevator shafts and vapor mitigation measures. Any substantial changes made to the plans without review by ACDEH may invalidate the conclusions of the protectiveness of the redevelopment of the site with respect to residual contamination.
- e. **Approved Building Permit Plans.** Final approved building plans and grading permits from the City of Oakland to confirm consistency with the plans presented in the RAP and RAIP.
- f. **Construction Soil and Groundwater Management Plan (SGMP).** A report 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, and establishing procedures for assessing and managing contaminated soil and groundwater. We request that you use ACDEH's Construction SGMP template which will be provided to you electronically.
- g. **Construction SGMP Certification.** A signed certification sheet by Holliday, environmental consultants and contractors stating that they have read the Construction SGMP and will abide by the approved protocols.
- h. **Soil Import Management Plan.** A plan presenting criteria required to evaluate the environmental conditions of proposed import borrow sites, the environmental sampling and analysis required to characterize the soil to be imported from proposed import borrow sites, proposed site-specific screening levels to be referenced for accepting the soil proposed to be imported and supporting rationale, and the documentation to be submitted to ACDEH for review and approval of the soil proposed to be imported.
- i. **Draft Residual Risk Management Plan (RRMP).** A draft RRMP for long-term site management providing details regarding the location and construction of the vapor mitigation systems beneath buildings and trench plugs within utility trenches, 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 in the subsurface at the site, and notification and documentation procedures should the vapor mitigation measures be damaged. The draft RRMP must be updated after site redevelopment activities are complete to include surveyed locations and as-built drawings and specifications of the vapor mitigation measures. The draft RRMP must include post-closure monitoring and reporting protocols for inspection, evaluation and reporting including annual inspections and five year reviews to ensure that the corrective actions remain protective of human health and the environment.

2. Prior to the import of soil to the site the following documents must be submitted to ACDEH for review and approval:
 - a. **Soil Import Documentation.** Requisite documentation per the approved Soil Import Management Plan for imported fill material including information on proposed sources, sampling and profiling protocols, analytical laboratory reports, and tables with analytical results and applicable environmental screening levels.
3. Prior to start of foundation construction the following reports must be submitted to ACDEH for review and approval:
 - a. **Remedial Soil Excavation Completion Report.** A report documenting compliance with the RAP and/or RAIP for excavation of soil containing TPH, PAHs and metals, placement of geotextile marker fabric in landscape areas prior to placement of clean fill, and final disposition of excavated material (on-site reuse as engineered fill and/or off-site disposal). The report must document the surveyed locations of areas where excavated soil exceeding the screening levels approved in the RAP/RAIP has been re-used on-site and the areas where geotextile fabric has been placed in landscaped areas to delineate clean fill.
4. Prior to building occupancy the following documents must be submitted to ACDEH for review and approval:
 - a. **Vapor Mitigation Measures Record Report of Construction.** A vapor mitigation measures record report of construction with as-built drawings and other information relevant to the installation of the vapor mitigations systems installed beneath buildings and trench dams installed within utility trenches and certifying that the vapor mitigation measures were installed in accordance with the basis of design report, plans and specifications, and CQA plan.
 - b. **Construction SGMP Compliance Report.** A report documenting compliance with the Construction SGMP.
 - c. **Final Residual Risk Management Plan (RRMP).** A final RRMP including as built drawings and specifications of the vapor mitigation measures. The RRMP 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.
 - d. **Land Use Covenant.** Recordation of a land use covenant (LUC) documenting long-term site use, including the following restrictions: (1) implementation of the long-term RRMP for the site, which shall be incorporated therein by reference, including preservation of the site cap and vapor mitigation measures; and (2) prohibition on the extraction of groundwater for any use, including but not limited to domestic, potable, or industrial uses.
 - e. **Financial Assurance.** An appropriate financial instrument will be required to be obtained to assure ACDEH of long term maintenance of the corrective actions. The details of this financial assurance will be worked out by Holliday and ACDEH as design, construction and monitoring plans are finalized and approved. The financial assurance instrument must provide for sufficient funds to construct, monitor, and provide regulatory oversight costs until a no further action status has been issued for the corrective actions at the site.

5. Corrective Action Performance Monitoring. Post-closure monitoring and reporting will be required to confirm that the corrective action measures implemented at the site remain protective of human health. Annual site inspections will be required to observe and document the integrity and maintenance of corrective actions, including auditing of on-site maintenance and monitoring records, and confirming that required on-site documents are available (e.g., copy of the RRMP). Five year reviews will be required and must include an evaluation of the effectiveness of the corrective action measures and recommendations for continued monitoring and reporting requirements and additional corrective actions if appropriate.
6. Continued Geotracker Database Upload Compliance. Electronic submittal of all reports and analytical data to the State Water Resources Control Board's Geotracker database. A new "non-case" number will be opened after the corrective actions have been completed to act as a repository for long-term monitoring documents including annual reports and five-year reviews.

TECHNICAL REPORTS/WORK SCHEDULE

Please perform the requested work and submit technical reports to ACDEH (Attention: Mark Detterman) in accordance with Attachment 1 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 Project Schedule.

- **Project Schedule** – March 30, 2018
- **Soil Vapor Sampling Work Plan** – Date to be Determined
- **Soil Vapor Sampling Report** – Date to be Determined
- **Remedial Action Implementation Plan** - Date to be Determined
- **Approved Building Permit Plans** – Date to be Determined
- **Construction Soil and Groundwater Management Plan** – Date to be Determined
- **Construction SGMP Certification** – Date to be Determined
- **Soil Import Management Plan** – Date to be Determined
- **Draft Residual Risk Management Plan** – Date to be Determined
- **Remedial Soil Excavation Completion Report** – Date to be Determined
- **Vapor Mitigation Measures Record Report of Construction** – Date to be Determined
- **Construction SGMP Compliance Report** – Date to be Determined
- **Final Residual Risk Management Plan** – Date to be Determined
- **Land Use Covenant** – Date to be Determined
- **Financial Assurance** – Date to be Determined

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 567-6767 or send me an electronic mail message at dilan.roe@acgov.org.

Sincerely,

Dilan Roe

Dilan Roe
Chief – Land Water Division

cc:

Tom Graf, Grafcon, (*Sent via E-mail to: tom@grafcon.us*)

Peter Morris, (*Sent via E-mail to peterm@westenvironmental.com*)

Mark Detterman, ACDEH (*Sent via E-mail to: mark.detterman@acgov.org*)

Paresh Khatri, ACDEH (*Sent via E-mail to: paresh.khatri@acgov.org*)

File

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, Division 3, 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 values¹ 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
2012 Site Assessment Work Plan	2012	✓	✓			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2010 GW Investigation Report	2008 Q4	✓	✓	SB-10	W	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				SB-10-6	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				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.