CORNERSTONE EARTH GROUP

Date:	October 20, 2022
Project No.:	118-141-1
Prepared For:	Mr. Connor Tutino **DAVID J. POWERS & ASSOCIATES** 1736 Franklin Street, Suite 400 Oakland, California 94612
Re:	Environmental Document Review 200-222 East 4th Avenue San Mateo, California

Dear Mr. Tutino:

Per your request, Cornerstone Earth Group, Inc. (Cornerstone) is pleased to present this letter summarizing our review of the provided environmental reports for 200-222 East 4th Avenue in San Mateo, California (Site). This letter was prepared for David J. Powers & Associates (Powers) in accordance with our October 19, 2022 agreement (Agreement).

Project Background

We understand that Powers is providing California Environmental Quality Act (CEQA) support associated with the planned redevelopment of the Site. The approximately 1.1-acre Site consists of Assessor Parcel Numbers (APNs) 034-176-090, 034-176-080, 034-176-070, and 034-176-050 and currently is developed with an approximately 65,608 square-foot building (two stories with a mezzanine – first floor approximately 35,400 square feet) with one level of below grade parking (approximately 47,365 square feet).

Redevelopment plans reportedly consist of demolition of the existing structure and construction of a five-story, mixed use (office, residential and retail) building with two levels of below-grade parking.

Documents Reviewed

This letter briefly summarizes selected information obtained from the following reports:

- Geosyntec Consultants. May 2, 2019. *Draft Phase I Environmental Site Assessment, 200-222 East 4th Avenue, San Mateo, California*
- RMD Environmental Solution. July 7, 2021. *Pre-Construction Site Investigation Report, 222 East 4th Avenue, San Mateo, California.*
- RMD Environmental Solution. October 11, 2022a. *Pre-Construction Site Investigation Report Conclusions, Further Clarification, 222 East 4th Avenue, San Mateo, California.*
- RMD Environmental Solution. October 14, 2022b. *Pre-Construction Site Investigation Report Conclusions and Responses to City of San Mateo Questions, 222 East 4th Avenue, San Mateo, California.*

- Erler & Kalinowski, Inc. (EKI). June 27, 1996. *Closure Report for Property Located at 200 East Fourth Avenue, San Mateo, California.*

- County of San Mateo, Environmental Health Services Division. March 12, 1997. *Case Closure of Non-LUFT/Surface Soils Site located at 200 E. 4th Street, San Mateo, California.*

For complete details, please refer directly to the original reports.

Site History and Prior Studies

Based on the information reviewed, the Site was developed by the late 1800s with several residences and associated outbuildings. By 1927, a gasoline service station was present on the north corner of the Site (East 4th Avenue and South B Street). By 1950, two auto repair/gasoline service stations were present on-Site, one on the north corner and one on the east corner (South B Street and East 5th Avenue). The Levy Brothers leased the Site in 1951, built a department store on the western portion of the Site, and operated the business until 1985. By 1969, the service station on the east corner of the Site was replaced by a parking lot. By 1985, the service station in the north corner of the Site was replaced by a paved parking lot. The existing building was completed in 1997 and has since been occupied by a grocery store and restaurant.

Underground storage tanks (USTs) associated with the former gasoline service station at the north corner of the Site were removed in 1988. Soil sampling was conducted and approximately 335 tons of soil associated with UST removal activities were reported as “excavated”.

In 1993, one hydraulic lift associated with the former gasoline service station at the east corner of the Site was removed. Petroleum hydrocarbons were detected in soil and approximately 20 cubic yards of soil were reported as “removed”.

Soil and groundwater quality studies subsequently were performed at the Site in 1994 by Environmental Geotechnical Consultants (EGC) and in 1995 by EKI. In general, neither of these studies identified significant impacts to soil or groundwater at the Site. The study by EKI included the collection of soil samples from 17 borings and the collection of groundwater samples from eight borings. Low concentrations of total petroleum hydrocarbons as diesel (TPHd) were detected in a few of the soil and groundwater samples; none of the detected concentrations exceed the current Tier 1 Environmental Screening Level (ESL[1]) for TPHd. Benzene, toluene, ethylbenzene and xylenes (BTEX) were not detected in the soil or groundwater samples. The groundwater samples were additionally analyzed for other chlorinated volatile organic compounds (VOCs), none of which were detected.

In 1996, the Levy Brothers Department Store was demolished and construction began on the existing Draeger’s Market building. Construction activities included the excavation of soil for the below grade parking structure, which included excavating the majority of the Site to a depth of approximately 10 feet. Petroleum hydrocarbon-impacted soil reportedly was encountered on the north potion of the Site during excavation. EKI (1996) stated that soil containing petroleum hydrocarbons appeared to be limited to the upper 6 feet of soil and that soil excavated from the 6 to 10-foot depths did not exhibit obvious indications of petroleum hydrocarbons. Analyses of

[1] Environmental Screening Levels (ESLs) established by the Water Board (January 2019) are used to screen sites for potential human health concerns where releases of chemicals have occurred. These screening levels are risk-based concentrations derived from standardized equations combining exposure information assumptions with toxicity data. Under most circumstances, the presence of a chemical at concentrations below the corresponding screening level can be assumed not to pose a significant health risk.

confirmation soil samples did not detect contaminants at concentrations above their respective Tier 1 ESLs. No underground tanks, sumps, or piping infrastructure were encountered during excavation. Several areas of backfill were encountered in the northeast and southeast corners of the Site, presumably associated with the prior removals of the hydraulic lift and USTs (EKI, 1996).

County of San Mateo, Environmental Health Services Division issued a closure letter in 1997 stating that the Site investigation for the impacted surface soils from past operations at the Site is complete and that no further action related to the surface soils is required.

The Phase I Environmental Site Assessment conducted by Geosyntec in 2019 identified two off-Site drycleaning facilities that were considered to have a potential to impact groundwater and/or soil vapor at the Site. These drycleaning facilities were identified by Geosyntec as Recognized Environmental Conditions[2]. The former on-Site gasoline station operations were identified by Geosyntec as a Historical Recognized Environmental Condition[3].

In 2021, soil samples were collected from 11 borings advanced by RMD to depths between approximately 14 and 43 feet. Groundwater samples also were collected from two borings. With regards to soil vapor, RMD (2021) stated that they *did not propose collecting soil vapor samples considering 1) the entire site will be excavated for the construction of a 2-level parking garage and 2) it is presumed that the parking garage will be installed with measures to mitigate vapor intrusion concerns (if present), including a waterproof membrane and fresh air intake/circulation.*

Composite[4] soil samples, each comprised of all samples collected from their respective borings, were analyzed for gasoline, diesel and oil range petroleum hydrocarbons, VOCs and 17 metals. The number of soil sample aliquots within each composite ranged from 6 to 20. The two groundwater grab samples were analyzed for gasoline, diesel and oil range petroleum hydrocarbons, and VOCs.

None of the detected analytes in the composite soil samples exceeded their respective Tier 1 ESL or, for metals, typical natural background levels. RMD (2021) stated that shallow soil to be exported for off-Site disposal during Site grading is generally expected to meet acceptable criteria for non-hazardous waste characterization.

In groundwater, TPHd was detected at up to 353 micrograms per liter (µg/L), which exceeds the Tier 1 ESL of 100 µg/L. The Tier 1 ESL for TPHd is based on potential odor/nuisance concerns in drinking water. Shallow groundwater at the Site, however, is not used as a drinking water source. Chloroform also was detected in groundwater at up to 3.67 µg/L. The Tier 1 ESL for chloroform in groundwater (based on potential vapor intrusion) is 0.81 µg/L.

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[2] As defined by ASTM E1527-21, the term Recognized Environmental Condition means 1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; 2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or 3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

[3] A previous release of hazardous substances or petroleum products affecting the Site that has been addressed to the satisfaction of the applicable regulatory agency and meeting unrestricted use criteria established by the applicable regulatory agency without subjecting the Site to any controls.

[4] Compositing is the process of physically combining and homogenizing several individual soil aliquots prior to analysis.

RMD concluded that the concentration of chloroform reported is relatively low and is likely attributed to potable water (as a result of chlorination of organic matter present in raw water supplies) and is not expected to drive further action.

Additionally, RMD (2021) stated that a regulatory agency may require Lane to delineate or verify the source of the TPHd reported in groundwater, but, in their opinion, active remediation of TPHd in groundwater would not be required given the absence of benzene, naphthalene, or other VOCs in groundwater. RMD (2021) also noted that 1) a soil and groundwater management plan would be required by a regulatory agency during property redevelopment, and 2) in the event that dewatering occurs during property redevelopment, carbon treatment of groundwater would likely be required due to the presence of TPHd prior to discharge to the storm or sanitary sewer drains.

In a subsequent letter (RMD, 2022a), RMD stated that their *statement that "a soil and groundwater management plan would be required by a regulatory agency during property development" would only apply for properties that actually have open case files, and would not apply to a site such as the subject Site where there is no need for an open regulatory case file. However, as a construction industry standard, it is a common best management practice (BMP) for redevelopment of former commercial sites to prepare soil and groundwater management plans. The statement that additional investigation may be required by a regulatory agency is hypothetical and conservative and was not intended to imply that a case opening is warranted or likely.* RMD (2022a) also noted that the need for treatment of groundwater associated with dewatering activities during construction would be determined during the required Application for Groundwater Waste Discharge Permit through the City of San Mateo Public Works Department.

In their October 14, 2022 letter, RMD provided their opinion that based on the 2021 subsurface investigation data, *soil and groundwater do not pose a significant risk to human health and the environment in relation to proposed construction activities, including with respect to construction workers and in regard to nearby residential use.* RMD additionally indicated that a Construction Site Management Plan (SMP) will be prepared for the Site that will be used as a guidance document for handling impacted soil and groundwater, if encountered, during construction activities.

Conclusions and Recommendations

Based on the information obtained during this study, Cornerstone concludes and recommends the following:

- Based on the prior sampling, the Site generally does not appear to have been significantly impacted by past Site occupants or by VOC releases from nearby off-Site drycleaning facilities. The planned use appears compatible with the known on-Site environmental conditions.

- As is common during development of properties with a commercial or industrial history, the preparation of a Site Management Plan (SMP) is recommended to establish appropriate management practices for handling impacted soil or groundwater that may be encountered during construction activities. A Health and Safety Plan (HSP) also should be prepared as required by California Division of Occupational Safety and Health (Cal/OSHA) to establish health and safety protocols for construction personnel working at the Site.

- If groundwater dewatering activities will be conducted during the planned redevelopment, the need for treatment of groundwater should be determined during the required discharge permitting process. If discharge to the sanitary sewer system is anticipated, a Groundwater

Waste Discharge Permit should be obtained from the City of San Mateo Public Works Department. If discharge to the storm sewer system is anticipated, a National Pollutant Discharge Elimination System (NPDES) permit should be obtained.

- Based on prior studies by EGC (1994), EKI (1995) and RMD (2021), residual contaminant concentrations in Site soil are not expected to exceed their respective ESLs. Note, however, that the composite soil samples analyzed by RMD contained up to 20 sample aliquots, which is uncommon and not consistent with regulatory guidance. Department of Toxic Substances Control (DTSC)[5] indicates that if samples are composited, they should be from the same soil layer, and that compositing samples for volatile and semi-volatile constituents is not acceptable. The EPA (1995)[6] similarly states that compositing is not recommended where volatile compounds are of concern. The recommended SMP should establish appropriate protocols for profiling of soil to be removed from the Site for off-Site disposal. The profiling protocols should be consistent with regulatory guidance and also meet the requirements of the facility that will be accepting the soil for disposal or reuse.

- We understand that the planned development will include two levels of below grade parking. To reduce the potential for vapor intrusion, we recommend utilizing a dual-purpose waterproofing membrane that provides: 1) required waterproofing protection; 2) chemical degradation protection; and 3) serves as an effective vapor barrier. Alternatively, soil vapor sampling shall be performed in the building envelop to confirm the presence or absence of VOCs above residential screening levels.

Limitations

Cornerstone performed this investigation to support David J. Powers & Associates in the evaluation of the referenced Site. Conclusions presented in this letter are based on limited, readily available information. This letter, an instrument of professional service, was prepared for the sole use of David J. Powers & Associates and may not be reproduced or distributed without written authorization from Cornerstone. It is valid for 180 days. Cornerstone makes no warranty, expressed or implied, except that our services have been performed in accordance with the environmental principles generally accepted at this time and location.

We thank you for this opportunity to work with you on this important project. Should you have any questions, please contact us at your convenience.

Sincerely,

Cornerstone Earth Group, Inc.

Ron L. Helm, C.E.G.
Senior Principal Geologist

[5] Department of Toxic Substances Control (DTSC). October 2001. *Information Advisory Clean Imported Fill Material.*

[6] U.S. Environmental Protection Agency. December 1995. *Superfund Program Representative Sampling Guidance.*

200-222 East 4th Avenue
San Mateo, California