Fremont State Street Center, LLC
c/o SummerHill Homes LLC
3000 Executive Parkway, Suite 450
San Ramon, CA 94583

RECEIVED
By Alameda County Environmental Health 11:09 am, Jan 18, 2017

January 17, 2017

Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Attention: Mr. Mark Detterman, PG, CEG

Subject: **Work Plan for Soil Excavation Addendum**
39155 and 39183 State Street, Fremont, California

Dear Mr. Detterman:

Submitted herewith is the Work Plan for Soil Excavation Addendum in regards to our State Street project for your reference and use.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Very truly yours,

Katia Kamangar

Katia Kamangar
Executive Vice President

PES Environmental, Inc.
Engineering & Environmental Services

January 17, 2017

220.003.02.001

A Report Prepared for:

Fremont State Street Center LLC
Attention: Ms. Denise Cunningham
3000 Executive Parkway, Suite 450
San Ramon, California 94583

For Submittal to Oversight Agency:

Alameda County Environmental Health
Attention: Mr. Mark Detterman, PG, CEG
1131 Harbor Bay Parkway
Alameda, California 94502

Received by: _____
Date: _____

Subject: Work Plan for Soil Excavation Addendum
39155 and 39183 State Street
Fremont, California

Dear Ms. Cunningham:

PES Environmental, Inc. (PES) has prepared this *Work Plan for Soil Excavation Addendum* (Addendum) on behalf of Fremont State Street Center LLC (FSSC) for the property located at 39155 and 39183 State Street in Fremont, California (the site or subject property). The site location and vicinity are shown on Plate 1. The subject property is being re-developed with residential and commercial buildings as outlined on Plate 2.

A localized occurrence of soils containing benzene and petroleum hydrocarbons was remediated at the site via excavation and offsite disposal in July and August 2016, following a Work Plan approved by the Alameda County Department of Environmental Health (ACDEH)[1]. The remediation was documented in a PES report dated September 1, 2016[2]. The remedial excavation identified the presence of cement treated base (CTB) material of between 11 and 13 feet thick, beneath the benzene/petroleum hydrocarbon soils that were excavated. The location of the remedial area and the CTB is shown on Plate 2.

[1] PES, 2016a. *Work Plan for Soil Excavation and Well Destruction, 39155 and 39183 State Street, Fremont, California*. January 29 and ACDEH, 2016. *Conditional Work Plan Approval; Site Cleanup Program Case No. RO0003176 and Geotracker Global ID T10000007102, Fremont Plaza Shopping Center, 39155 and 39183 State Street, Fremont, CA 94538*. March 14.

[2] PES, 2016b. *Soil Excavation Implementation Report, 39155 and 39183 State Street, Fremont, California*. September 1.

Subsequently, in September 2016 and prior to backfilling of the remedial excavation, the southwest quadrant of the site (known as Area #1) was further excavated above and adjacent to the CTB material and the soil was reused as fill at an offsite location. The location of Area #1 is shown on Plate 2. Approximately 3.5 feet of soil was excavated from Area #1 and the entire area was subsequently backfilled to elevations between 2 feet below and 1 foot above the pre-excavation grade. The details of this activity, including additional testing that was done and a review of the acceptability of this excavated material for use as imported engineered fill at the offsite location are presented in a report prepared by Engeo, which has been provided to ACDEH[3].

In a recent meeting with ACDEH on January 9, 2016, ACDEH requested sampling of the CTB material to verify that the material is not contaminated. This Addendum was prepared to outline the procedures for sampling and analysis of the CTB, including a contingency plan for additional sampling in case the CTB is found to be heterogeneous in nature and/or if visual, olfactory, or instrumental evidence of contamination is found in addition to the fixed depth intervals that are planned for sampling.

CTB VERIFICATION SAMPLING AND ANALYSIS AND CONTINGENCY PLAN

Field planning activities, and sampling and analytical methods and procedures for CTB verification samples are presented below. As indicated on Plate 3, three CTB sample locations are proposed.

Field Planning Activities

Prior to conducting the proposed scope-of-work, PES will:

- Coordinate for property access;
- Coordinate with the subcontractors;
- Obtain an drilling permit from the Alameda County Water District (ACWD) for the proposed sampling activities; and
- Contact Underground Service Alert to schedule visits by public and private utility companies to locate their underground utilities. In addition, a private underground utility locating service will be contracted to conduct a subsurface electromagnetic

[3] Engeo, 2016. *Review of Potential Import Fill Material from State Street Project*. December 5.

survey to screen the proposed sampling locations for the presence of subsurface utilities.

PES' existing Site-specific Health and Safety Plan, which complies with applicable federal and California Occupational Safety and Health Administration (OSHA) guidelines, will be used during the implementation of this work.

CTB Sampling and Analytical Methods and Procedures

The CTB samples will be collected using a concrete coring machine operated by a concrete coring subcontractor. However, in order to core through the CTB the coring machine needs to be bolted to the surface of the CTB, which is currently covered by approximately 1 to 4 feet of backfill material. Therefore, prior to conducting the coring activities the backfill material at each sample location will be removed using a backhoe. The soil will be stockpiled adjacent to each sample location and reused as backfill after sampling activities are completed. The backhoe will clear an approximate 5 feet by 5 feet area and will slope one side of each excavation at a 1:1 grade to allow for access into and out of the excavation.

It is anticipated that a 3- to 4-inch diameter core hole will be cut through the entire thickness of the CTB at each sample location to assess whether the material is heterogeneous in nature and/or if visual, olfactory, or instrumental evidence of contamination is found. The coring and sampling activities will be conducted under the supervision of a California-registered geologist or engineer and a PES geologist or engineer will observe the coring activities and will prepare a log for each sample location. The CTB cores will be field-screened for volatile organic compounds (VOCs) using a photoionization detector (PID). The PID readings will be recorded on the log.

CTB samples will be collected at anticipated depths of approximately 2 and 9 feet below the surface of the CTB material at each sample location. These proposed sample depths may be adjusted if the thickness of the CTB is found to deviate from the 11-13 foot thickness that was previously identified. The CTB samples will be analyzed for the following chemical constituents:

- Total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), and total petroleum hydrocarbons as motor oil (TPHmo) using U.S. Environmental Protection Agency (U.S. EPA) Test Method 8015B;
- VOCs, including MTBE, using U.S. EPA Test Method 8260B;
- Semivolatile organic compounds (SVOCs) using U.S. EPA Test Method 8270C; and

- Title 22 Metals using U.S. EPA Test Method 7471A.

Following collection, the CTB samples will be placed in a sealed Ziploc bag, labeled for identification, and immediately placed in a chilled, thermally-insulated cooler containing bagged ice. The samples will be transported under chain-of-custody protocol to Curtis and Tompkins, Ltd. (C&T) in Berkeley, California. C&T is a California state-certified laboratory.

Upon completion of sampling activities, the core holes will be grouted to the surface with neat cement in accordance with ACWD requirements. At the completion of sampling, each sample area will be backfilled with the stockpiled soil material. The backfill material will be placed in 8-inch lifts and compacted to a relative density of at least 90 percent, and brought to grade. FSSC's geotechnical consultant, Rockridge Geotechnical, Inc., will conduct compaction testing during the backfill operations. CTB material generated during coring activities will be temporarily stored on-site in 55-gallon drums until arrangements are made for disposal.

Contingency Sampling Plan

PES will review the CTB sampling results upon receipt, and will notify the ACDEH if elevated concentrations are present (i.e., concentrations above residential Environmental Screening Levels [ESLs][4]). Additionally, during the investigation PES will discuss other conditions observed during sampling with the ACDEH, including whether the CTB appeared to be heterogeneous in nature and/or if visual, olfactory, or instrumental evidence of contamination was observed during the coring activities. Based on the findings of the investigation and subject to consultation with the ACDEH, submittal of additional samples from the cores may be appropriate or additional step sampling may be conducted at step-out locations during the investigation, if warranted. PES anticipates that step-out locations will be located approximately 20 feet from the location wherein heterogeneous CTB conditions or field evidence of contamination is identified. The exact number and location of the step-out samples will be worked out with ACDEH prior to implementation.

REPORTING

The results of the CTB sampling and analysis activities will be presented in an addendum to the implementation report. The draft report will be presented to the ACDEH for review and approval. Based on discussions at the January 9th, 2017 meeting with ACDEH, ACDEH will have 60 days to review the report and 2 weeks for review of the revised report that may be necessary to address ACDEH comments on the draft. Assuming that no additional contingency sampling is required and that the proposed verification sampling of the CTB identifies no

[4] February 2016 (Rev. 3) Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) Environmental Screening Levels (ESLs).

significant contamination, it is PES' understanding that ACDEH will then provide a closure letter for the benzene/petroleum hydrocarbon remediation that was previously described in the Soil Excavation Implementation Report (PES, 2016b).

We trust that this is the information you require at this time. Please call either of the undersigned if you have any questions.

Yours very truly,

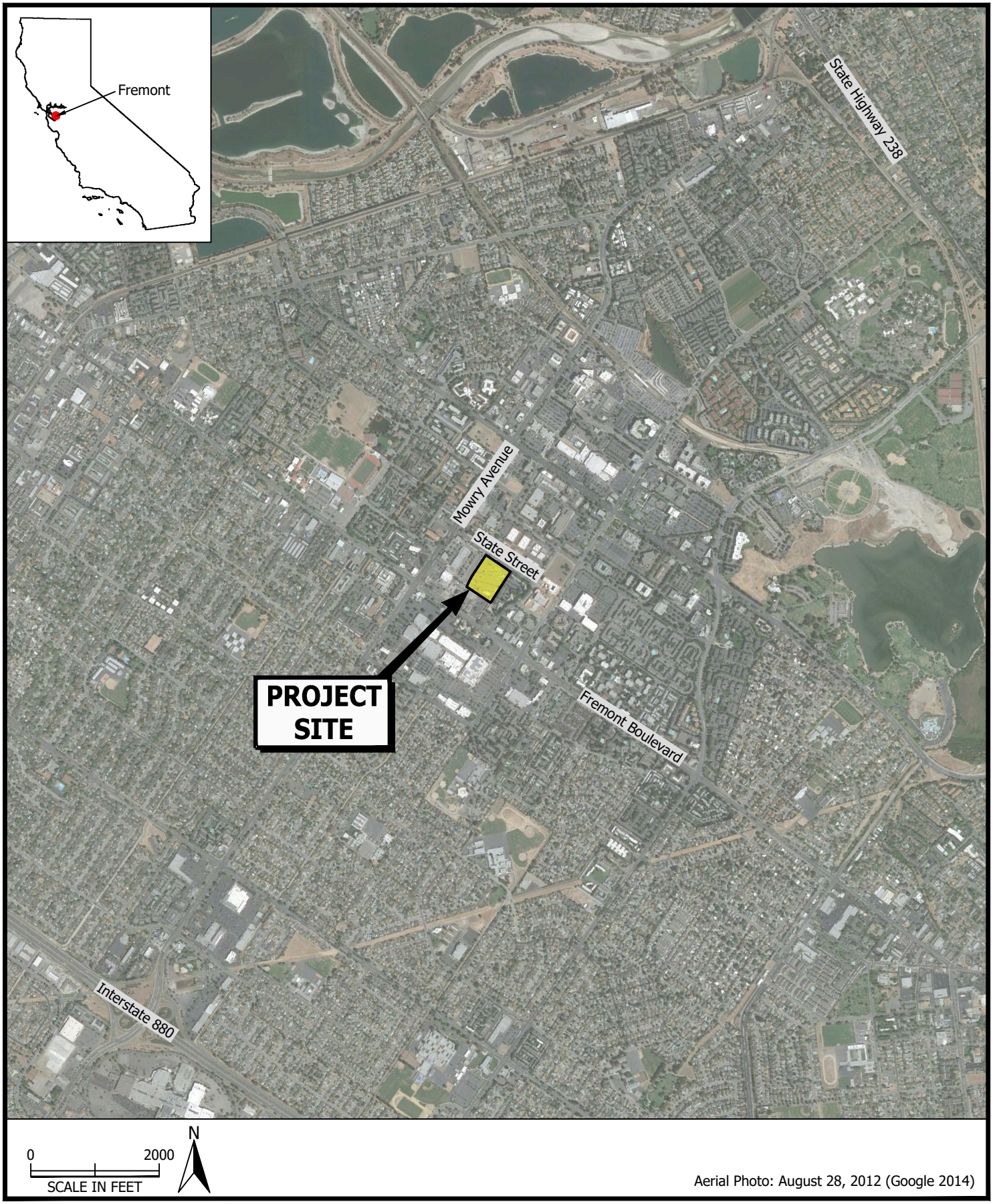
PES ENVIRONMENTAL, INC.

Gary Thomas, P.G.
Associate Geologist

Carl J. Michelsen, P.G., C.HG.
Principal Geochemist

Attachments: Plate 1 – Site Location and Vicinity
Plate 2 – Excavation Areas
Plate 3 – Proposed CTB Sample Locations

ATTACHMENTS



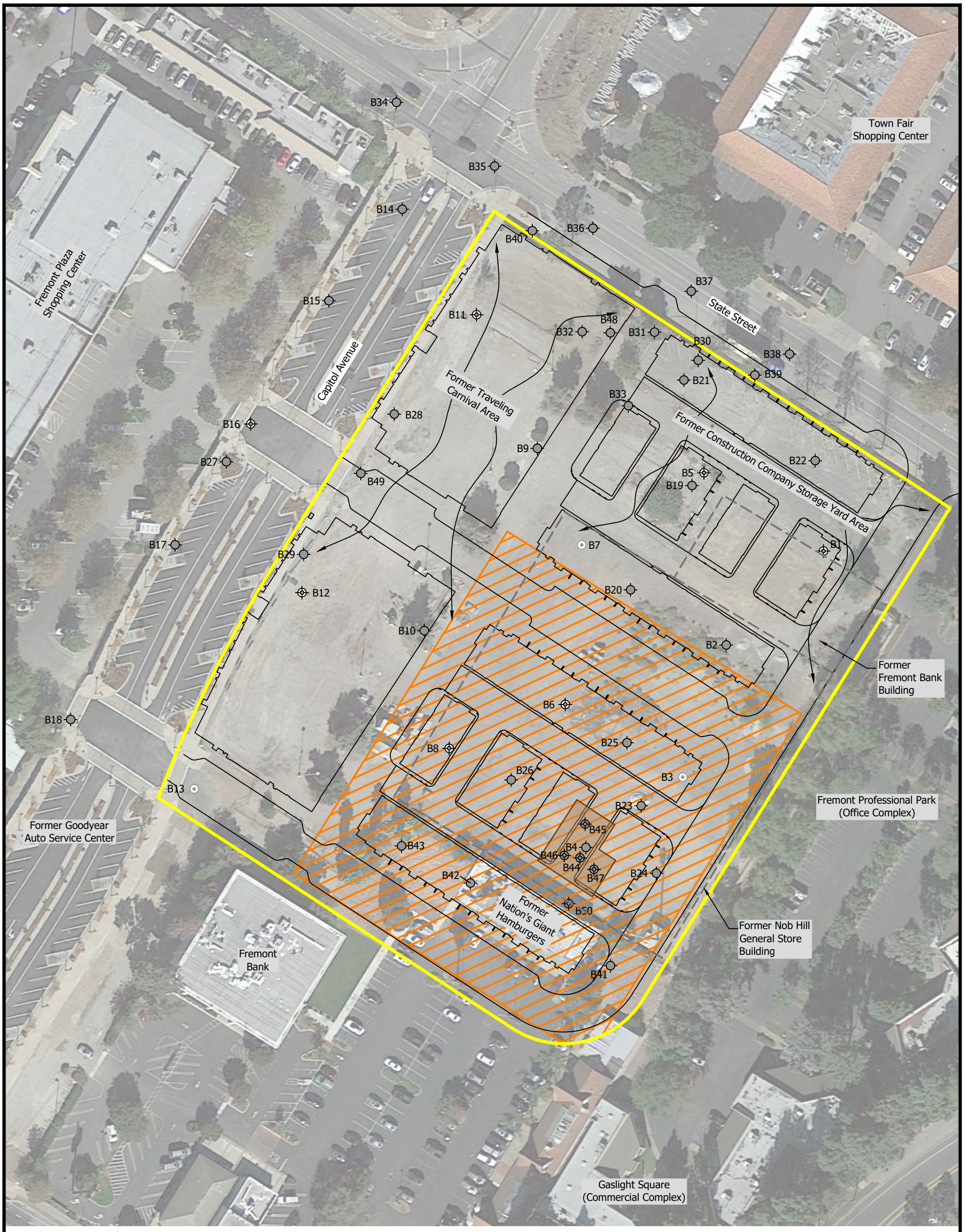
Aerial Photo: August 28, 2012 (Google 2014)

PES Environmental, Inc.
Engineering & Environmental Services

Site Location and Vicinity
Work Plan for Soil Excavation Addendum
39155, 39180, and 39183 State Street
Fremont, California

PLATE 1

220.003.03.001	22000303001_WPSE_1	GDT	1/17
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Approximate Property Boundary
- Proposed Development Plan
- Approximate Former Building Location
- B17 — Soil Vapor Sampling Location (PES)
- B6 — Soil Vapor and Soil Sampling Location (PES)
- B13 — Soil Sampling Location (PES)
- Benzene and Petroleum Hydrocarbon Excavation Area (July/August 2016)
- Area 1: Excavation and filling completed in September 2016 as part of site grading and construction activities (Engeo, 2016). Soil was excavated down 3.5 feet from preconstruction grades and offhauled. Fill subsequently placed 2 feet below to 1 foot above preconstruction grades.

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SCALE IN FEET

N

Aerial Photo: October 30, 2015 (Google 2016)

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Excavation Areas
Work Plan for Soil Excavation Addendum
39155, 39180, and 39183 State Street
Fremont, California

PLATE
2

220.003.03.001	22000303001_WPSE_2	GDT	1/17
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

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Proposed CTB Sample Locations
Work Plan for Soil Excavation Addendum
39155, 39180, and 39183 State Street
Fremont, California

PLATE
3

220.003.04.002	22000303001_WPSE_3	GDT	1/17
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE