RECEIVED
By Alameda County Environmental Health 12:23 pm, Apr 26, 2017

20 April 2017

Mr. Karel Detterman, P.G.
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
San Francisco, CA 94102

Re: Post Construction Soil and Groundwater Management Plan
Dated 20 April 2017
3093 Broadway, Oakland, CA
Site Cleanup Program Case No. Ro0000199

Dear Ms. Detterman,

Please find attached *Post Construction Soil and Groundwater Management Plan,* dated 20 April 2017 for the Former Connell Oldsmobile site, located at 3093 Broadway in Oakland, California. The Report was prepared by Langan.

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

OWNER:

3093 BROADWAY HOLDINGS, L.L.C.

By: 3093 BROADWAY VENTURE, L.L.C.,
as its sole member

By: CV 3093 Broadway, LLC,
as its Administrative Member

By: _____

Name: Stephen Siri

Title: VP

POST CONSTRUCTION SOIL AND GROUNDWATER MANAGEMENT PLAN
3093 Broadway
Oakland, California

Prepared For:

3093 Broadway Holdings, L.L.C.
Two Embarcadero Center, 8th Floor
San Francisco, California 94611

Prepared By:

Langan Engineering and Environmental Services, Inc.
555 Montgomery Street, Suite 1300
San Francisco, California 94111

Tyler Houghton
Senior Staff Geologist

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER N. GLENN
C 66866
EXP. 9/30/2018
CIVIL
STATE OF CALIFORNIA

Christopher Glenn, PE, LEED GA
Senior Project Engineer

20 April 2017
Project No. 731637001

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

20 April 2017

Ms. Karel Detterman, PG
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: Post Construction Soil and Groundwater Management Plan
3093 Broadway
Oakland, California
Langan Project No.: 731637001

Dear Ms. Detterman:

On behalf of 3093 Broadway Holdings, L.L.C. (Broadway Holdings), Langan Engineering and Environmental Services, Inc. (Langan) has prepared the enclosed Post Construction Soil and Groundwater Management Plan (PCSGMP) for the former Connell Oldsmobile Site, located at 3093 Broadway in Oakland, California (site, Figure 1). Broadway Holdings is developing a mixed-use project at the site.

This report was prepared by Langan under the supervision of the Professional Engineer whose seal and signature appear hereon. The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, after being prepared in accordance with generally accepted professional engineering practice. No warranty is expressed or implied.

If you have any questions or require additional information, please call us at (415) 955-5200.

Sincerely yours,
Langan Engineering and Environmental Services, Inc.

Tyler Houghton
Senior Staff Geologist

Christopher Glenn
Senior Project Engineer

cc: Mr. Stephen Siri, 3093 Broadway Holdings, L.L.C.
Two Embarcadero Center, 8th Floor
San Francisco, CA 94611

\\Langan.com\data\SFO\data0\731637001\Office Data\Reports\731637001.31 TH_Post Construction SGMP Report.docx

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 BACKGROUND INFORMATION 1
2.1 Site History 1
2.2 Current Site and Nearby Uses 2
2.3 Site Geology and Hydrogeology 2
2.4 Summary of Subsurface Impacts 3
2.5 Summary of Corrective Actions 4

3.0 DEVELOPMENT 4

4.0 ENVIRONMENTAL MEASURES 5
4.1 Health and Safety of Personnel 5
4.1.1 Site-Specific Health and Safety Plan 6
4.1.2 Health and Safety Officer 6
4.2 Site Access Control 6
4.3 Soil Sampling for Waste Disposal Profiling 6
4.4 Soil Management 7
4.4.1 Segregation, Stockpiling, and Reuse of Petroleum-Impacted Soil 7
4.4.2 Soil Sampling for Disposal 7
4.4.3 Equipment Decontamination 8
4.5 General Soil Handling Procedures 8
4.5.1 Dust Control 9
4.5.2 Vapor and Odor Control 9
4.5.3 Management of Open Excavations 10
4.5.4 Off-site Soil Disposal 10
4.5.5 Utility Repairs 11
4.6 Groundwater Management 11
4.7 Storm Water Pollution Controls 12
4.8 Unknown/Unexpected Conditions 12
4.9 Completion Records 13

5.0 LIMITATIONS 13

REFERENCES 14

REFERENCES

FIGURES

FIGURES

Figure 1 Site Location Map

Figure 2 Site Plan with Monitoring Wells

Figure 3 Remediation Boring and Monitoring Well Locations – September 2016

POST CONSTRUCTION SOIL AND GROUNDWATER MANAGEMENT PLAN 3093 BROADWAY OAKLAND, CALIFORNIA

1.0 INTRODUCTION

On behalf of 3093 Broadway Holdings, L.L.C. (Broadway Holdings), Langan Engineering and Environmental Services, Inc. (Langan) has prepared this Post Construction Soil and Groundwater Management Plan (PCSGMP) for the site located at 3093 Broadway in Oakland, California (site; Figure 1). Broadway Holdings is developing a mixed-use project, including construction of a building that will cover nearly the entire footprint of the site. Development is currently underway and has included excavation of the upper 0 to 18 feet of the property; the ground floor will be approximately level with Broadway. As part of the development activities the shallow soil from beneath the former service bay area was excavated as part of the soil corrective action implementation described in the 21 May 2015 Feasibility Study and Correction Action Plan (FS/CAP; Langan, 2015). This PCSGMP provides a framework for managing soil, soil vapor, and groundwater at the site for future soil handling activities and excavation work that may become necessary following site development, and presents procedures for handling, management, and disposal of impacted soil and groundwater. Given that the development under construction covers the entire site footprint, it is anticipated that future soil and groundwater handling will be generally limited to minor excavation or trenching beneath the building slab needed for tenant improvement, utility installation, and utility repair.

2.0 BACKGROUND INFORMATION

This section describes the site history and nearby uses, the environmental site investigation history and the site hydrogeology.

2.1 Site History

The site was occupied by St. Mary's College until 1928, after which the college's buildings were demolished. Thereafter, the site was occupied by several auto businesses, including the Connell Motor Company. A review of historical photographs and maps indicates that the former automobile dealership structures that occupied the site prior to the current development activities were likely constructed in the late 1940s or early 1950s.

Three underground storage tanks (USTs) that previously contained gasoline, diesel, and waste oil were removed from the northern area of site in December 1989 (Figure 2). Environmental investigations were conducted from 1990 through 2015 to evaluate the extent of contamination and remediate product from the three former USTs. Soil and groundwater investigations and interim remedial actions, including free product removal and operation of an air sparge and dual phase extraction (AS/DPE) system, were conducted starting in 1990 and continuing through May 2015.

The site was formerly occupied by a vacant, two-story concrete structure that was formerly an automobile dealership. The structure consisted of an auto repair shop, offices, and showrooms along the existing site grade with raised mezzanine areas accessible from interior stairwells. Asphalt and concrete paved access ways extended along the south and west sides of the structure; sidewalks extend along the north, east, and west perimeters of the site. The remainder of the site consisted of asphalt paved parking areas, which were used for the parking/storage of new and used vehicles associated with nearby automotive dealerships.

2.2 Current Site and Nearby Uses

The site is located in Oakland, California, in a mixed-use area, near commercial, medical, and residential properties. The approximately 3.4-acre site is bounded by Hawthorne Street to the north, Broadway to the east, Webster Street to the west, and a grocery store to the south. The current use of adjoining properties includes a parking garage and various medical facilities to the north, commercial facilities and automotive repair shops to the east, a Sprouts Farmers Market to the south, and private residences and medical centers to the west.

With the exception of the showroom wall at the corner of Hawthorne and Broadway, the former automobile dealership was demolished in 2016 and the site was excavated to approximately level with Broadway. Prior to excavation, the ground surface elevation ranged from approximately 52 to 68 feet above mean sea level (a-msl), and the site sloped downward to the southeast, from Webster Street to Broadway. The site has been graded to approximately 52 feet a-msl. Construction for the mixed-use development, as discussed in Section 3.0, will be ongoing through 2017.

2.3 Site Geology and Hydrogeology

The site is predominantly underlain by fine-grained, low permeability deposits consisting of clayey to sandy silts and silty clay, with occasional thin beds of sand and silty sand.

Unconsolidated sediments were observed to 50 feet below ground surface (bgs) during geotechnical drilling, performed by Langan in 2014. Regional geologic maps show the site surficial geology as the Temescal Formation, which consists of quaternary age alluvial fan deposits comprised of interbedded layers of silt, sand, clay, and gravel (Radbrush, 1957). Alluvial fan deposits are characterized by laterally discontinuous and heterogeneous layers of irregular thickness. Near the eastern site boundary, along Broadway, the regional geology is shown as transitioning from older to younger alluvial deposits.

The groundwater elevations reported for site monitoring wells have ranged from approximately 23.41 to 41.84 feet a-msl, based on the 2014 BKF Engineers site survey (BKF, 2015). Historical site data indicates an annual water level fluctuation on the order of one to four feet. The predominant site-scale groundwater flow direction is to the east-southeast. The interpreted groundwater flow directions at the site have ranged from southeast to east. Based on literature values for the observed soil types, the groundwater seepage velocity at the site is low to very low, with estimated groundwater seepage velocities ranging from approximately 0.2 to 20 feet per year.

2.4 Summary of Subsurface Impacts

Residual petroleum impacts to soil, soil gas, and groundwater from the former petroleum systems were addressed by the *Feasibility Study and Corrective Action Plan* (FS/CAP, Langan, 2015), which Langan implemented in 2016 and summarized in the *Corrective Action Completion Report* (Langan, 2016). Prior to implementation of the FS/CAP, onsite groundwater beneath and downgradient of the former USTs was impacted by petroleum compounds, primarily benzene, toluene, ethylbenzene, and xylenes (BTEX), 1,2-dichloroethane, and naphthalene. An AS/DPE remediation system operated at the site from 1990 through May 2015 for removal of free product. When the AS/DPE remediation system was shutdown, free product was not detected at the site. However, residual petroleum remained in soils, primarily within the following two site areas: (1) immediately south of the former USTs beneath the former service bay area, and (2) beneath the former parking lot area south of the former showroom (Figure 3). Deeper soil gas, near the water table, was impacted by petroleum compounds, and, in general, petroleum concentrations in soil gas decreased with distance from the water table.

The following documents prepared by Langan summarize the pre-CAP implementation, environmental investigation results for the site:

- Conceptual Site Model, 24 October 2014;
- Additional Investigation Results, 5 December 2014;
- Groundwater Sampling and Enhanced Bioremediation Pilot Study Work Plan, 17 April 2015;
- Feasibility Study and Corrective Action Plan, 21 May 2015;
- Soil Investigation Report, 1 July 2015;
- Enhanced Bioremediation Pilot Study Report and Full Scale Implementation Plan, 30 July 2015;
- Petroleum Vapor Intrusion Risk Evaluation, 1 October 2015;
- Groundwater Well Installation and Monitoring Report, Third Quarter 2015, 7 October 2015.

2.5 Summary of Corrective Actions

In the FS/CAP, Langan recommended enhanced bioremediation combined with soil excavation to address residual petroleum impacts at the site. To provide electron acceptors to stimulate biological degradation of petroleum hydrocarbons in site groundwater, gypsum powder was emplaced in borings drilled into the source zones. In 2015, gypsum (calcium sulfate) was installed beneath the water table to provide an ongoing source of sulfate (an electron acceptor) to groundwater. During site development, excavation removed impacted soils above approximately 52 feet a-msl. A vapor mitigation system (VMS) was contemplated as a potential contingency measure, and was found to be unnecessary based on a site-specific evaluation of risk of vapor intrusion to the development.

3.0 DEVELOPMENT

3093 Broadway Holdings, L.L.C. is constructing a seven-story, mixed-use building that will occupy nearly the entire property. A paseo connecting Broadway to Webster will be located at the southern property boundary. The ground floor of the development will consist of approximately 20,000 square feet commercial and retail units fronting Broadway. The first and

second levels (aside from the commercial and retail fronting Broadway) will contain parking; with the remaining levels consisting of 423 residential units.

Site excavation for the development reduced the existing grade by approximately 0 to 18 feet, to an elevation roughly level with Broadway. The ground floor elevation is projected to be approximately 52 feet a-msl (North American Datum 83), and the foundation bottom elevations are conservatively assumed to be 47 feet a-msl. The site excavation was performed within unsaturated soils located above the groundwater table elevation.

4.0 ENVIRONMENTAL MEASURES

A SGMP was prepared and followed during construction; this PCSGMP has been prepared for future soils handling that may be needed for utility maintenance or needs. The PCSGMP is intended for soil handling of potentially impacted soils beneath the development footprint, not for work within clean soils that may have been imported during construction. The procedures in this PCSGMP are designed to meet ACEH requirements relating to the soil and groundwater impacts at the site. In addition, the procedures in this PCSGMP are intended to facilitate compliance with applicable federal, state, and local laws and regulations, applicable to earth work activities at the site for future soil handling and excavation work (e.g., utility repairs) following site development.

As referenced in the sections below, the Owner is 3093 Broadway Holdings, L.L.C. or the entity that currently owns the development. The General Contractor is the Owner's or tenants general contractor performing the soil handling. The Environmental Engineer is the owner's designated environmental consultant (currently Langan Engineering) or a future environmental engineer hired by the Owner or tenant as needed.

4.1 Health and Safety of Personnel

Potential health risk to on-site construction workers and the public from soil and/or groundwater handling will be addressed by developing and implementing a health and safety program. The General Contractor will be responsible for establishing and maintaining proper health and safety procedures to minimize worker and public exposure to site contaminants during construction. It is the General Contractor's responsibility to communicate the site information, including this PCSGMP, to its subcontractors. As part of its health and safety program, the General Contractor will prepare a site-specific HASP and identify a Health and Safety Officer, as outlined in the subsections, below.

4.1.1 Site-Specific Health and Safety Plan

The General Contractor will prepare a site-specific HASP signed by a certified industrial hygienist (CIH). The purpose of the HASP will be to establish procedures to address potential chemical and physical hazards to field personnel and off-site receptors that may result from excavation of impacted soils at the site. The HASP will describe the health and safety requirements, i.e. trained in accordance with Section 1910.120 of 29 Code of Federal Regulations (HazWoper training), specific personal hygiene, and monitoring equipment that will be used during construction to protect and verify the health and safety of construction workers and the general public from exposure to constituents in the soil. In addition, emergency response actions will be described in the HASP. The General Contractor is responsible for verifying that on-site project personnel have read and will adhere to the procedures established in the HASP. A copy of the plan will be kept on site during field activities. The HASP will be reviewed and updated as necessary during implementation of the soil excavation.

4.1.2 Health and Safety Officer

The site health and safety officer (HASO) identified in the HASP will be on site during excavation activities to oversee implementation of the health and safety plan. The HASO will have authority to direct and stop construction activities to maintain compliance with the HASP.

4.2 Site Access Control

Vehicle and personnel access to the work areas will be controlled when subsurface soil is exposed. Appropriate methods will be used to prevent unauthorized access to the work area.

4.3 Soil Sampling for Waste Disposal Profiling

In general, the small volumes of soil removed from the subsurface during tenant improvement or utility installation or remain are expected to be placed directly into roll-off bins for profiling and disposal as described in Section 4.4. The remainder of this section is recommended only if excavation and disposal of a large volume of soil becomes necessary.

Should excavation and disposal of a large volume of soil become necessary, pre-characterization of soils using historical soil data if available in the particular location or through the collection of soil samples is recommended to allow for direct loading soils onto trucks for transportation and disposal. Soil samples, if needed, will be collected from access locations (e.g. coring through the slap and drilling or temporary hatches in the slab) to pre-characterize the soil that will be excavated and disposed off-site.

If drilling is necessary to collect the samples, a permit to drill exploratory borings will be obtained from the Alameda County Public Works Agency, Water Resources Department. Underground Service Alert will be contacted to locate and mark subsurface utilities in the vicinity. A private utility locator will be subcontracted to confirm the presence/absence of subsurface utilities at the excavation locations. A site-specific Health and Safety Plan will be prepared for the soil sampling effort and this document will be adhered to by personnel performing sampling work at the site.

Soil samples, if needed, shall be collected by placing soil in clean a 2" x 6" brass or stainless steel liners from a backhoe bucket of soil excavated at the desired sampling depth or in Acetate liners from a continuous core from a direct push drill rig. Ends of these sample liners will be covered with Teflon™ tape, capped, and appropriately labeled. The samples will be placed into an ice-chilled cooler until delivery under chain-of-custody protocol to a California-certified analytical laboratory.

4.4 Soil Management

During all soil disturbing activities, soil management measures will be implemented to reduce potential exposure.

4.4.1 Segregation, Stockpiling, and Reuse of Petroleum-Impacted Soil

Small volumes of excavated petroleum-impacted soil could be placed directly into secured drums or roll-off bins and characterized for disposal. Soils may also be re-used to re-fill trenches or small excavations provided they are placed at the same location and depth from which they were excavated, and that these soils meet any non-environmental soil requirements (e.g., geotechnical or structural requirements).

If a large volume of soil is expected to be excavated and disposed, soil segregation based on field observations of odor or staining may be performed to reduce disposal costs. Petroleum-impacted soil stockpiles may be temporarily placed on top of one layer of 10-mil polyethylene sheeting (or equivalent) in a designated stockpile area. When stockpiled soil is not actively being handled, top sheeting will be secured and will cover surface areas, to prevent erosion or run-off, and to limit petroleum vapors and odors.

4.4.2 Soil Sampling for Disposal

If disposal of soil is necessary, soil should be profiled for off-site disposal, in accordance with the requirements of the receiving facility. Soil samples will be collected by driving a 2" x 6"

brass or stainless steel liner into the stockpile using a wooden mallet. Soil sampling equipment will be decontaminated between each sample location. Soil samples will be sealed with Teflon™ tape and capped, and stored on ice pending submittal to a State of California-certified laboratory for analysis. Soil samples will be transported under chain-of-custody protocol. Pending confirmation by the receiving facility, soil samples will be analyzed for the following compounds:

- TPHd and TPHmo using United States Environmental Protection Agency (EPA) Method 8015B;
- TPHg, BTEX and MTBE using EPA Method 8021B/8015B;
- PAHs (including naphthalene) using EPA Method 8270C; and
- Total lead using EPA Method 6020 and, where the total lead concentration exceeds 50 mg/kg, TCLP and California WET to assess the STLC.

Potential additional laboratory analyses required by a receiving facility may include:

- VOCs using EPA Method 8260B;
- Semi-Volatile Organic Compounds (SVOCs) using EPA Method 8270C;
- Polychlorinated biphenyls (PCBs) and pesticides using EPA Method 8081A/8082;
- CAM17 metals using EPA Method 6020 and 3050B; and
- pH by 9045D.

4.4.3 Equipment Decontamination

Decontamination procedures will be established and implemented by the General Contractor to reduce the potential for construction equipment and vehicles to leave soils within the work area or transfer potentially impacted soil onto public roadways or other off-site areas. Excess soil should be removed from construction equipment using dry methods (e.g., brushing or scraping) prior to moving equipment off-site.

4.5 General Soil Handling Procedures

The soil handling procedures described in this section are intended to support compliance with federal, state, and local requirements, reduce the potential for offsite migration, and reduce the potential for exposure by construction workers, residents and workers, and pedestrians, to

constituents in site soil and groundwater. Because the development will cover most of the site, most of the soil handling is likely to be completed in a closed garage area.

4.5.1 Dust Control

Future soil handling is anticipated to disturb limited volumes of soil through trenching or small excavations and to occur within the enclosed first level (e.g., garage area), therefore a dust control plan is not required. Should handling of large volumes of soil within outdoor areas become required, the following dust control strategies are recommended.

If necessary, recommended dust control best management practices include:

- Exposed soil will be watered frequently enough to prevent visible dust from migrating off-site.
- Soil stockpiled in 10 cubic yards (cy) bins will be covered or stabilized with a soil binder if left idle for 7 days or more.
- Water will be misted or sprayed during the loading of soil bins onto trucks for off haul.
- Trucks transporting soil bins will be covered with a tarpaulin or other cover.
- The wheels of the trucks exiting the site will be cleaned prior to entering public streets.
- Public streets will be swept daily if soil is visible.
- Excavation and loading activities will be suspended if the hourly average wind speed exceeds 25 miles per hour.

4.5.2 Vapor and Odor Control

Petroleum vapors or odors may be encountered when performing earth work within the former service bay near the former USTs. There is also the potential for vapors or odor to be released to the atmosphere or to indoor air during deeper excavation (i.e., below an elevation of approximately 42 feet a-msl) in the former showroom area. The General Contractor is responsible for maintaining acceptable indoor air quality during earthwork activities. Vapor and odor control measures, if needed, include:

a) Limiting the area of open excavations.

b) Covering soil piles or open excavations with tarps and other covers.

c) If outdoors, limiting soil excavation or loading to times when meteorological conditions are conducive to conducting operations (e.g., the predominant wind direction does not direct vapors or odors toward a sensitive receptor).

d) Spraying water or water containing a non-toxic biodegradable deodorizer, odor suppressing foam, or other odor mitigating agents onto exposed soil during excavation and loading (e.g., Simple Green, ODEX, or BioSolve).

e) Use of spray or misting systems around the work area.

f) If indoors, providing supplemental ventilation.

To minimize the risk of construction delays, the General Contractor will be prepared to implement odor suppression measures during excavation in the service bay area. The General Contractor will notify the ACEH of complaints, if any, and record them in a log book kept by the General Contractor.

4.5.3 Management of Open Excavations

For excavations that must be left open after the end of a work day, the need for dust control measures will be evaluated and implemented as necessary to prevent dust generation while the excavation is unattended. If necessary to reduce odor emissions, plastic sheeting may be placed over the affected area until excavation resumes.

4.5.4 Off-site Soil Disposal

The General Contractor, on behalf of the owner, will be responsible for tracking final soil dispositions. Excavated soil considered Federal RCRA or State of California non-RCRA hazardous waste will be tracked using the Uniform Hazardous Waste Manifest System (USEPA Form 8700-22), as applicable. Soil not considered hazardous waste will be tracked using non-hazardous bills of lading. These two systems will be used to comply with appropriate state and local requirements. Copies of manifests and bills of lading will be provided to the Environmental Engineer during the excavation activities.

The General Contractor will arrange for transportation of wastes off-site. The excavated material waste will be transported to the appropriate disposal facility using a permitted, licensed, and insured transportation company. Transporters of hazardous waste must meet the requirements of 40 CFR 263 and 22 CCR 66263. Trucks transporting bulk hazardous waste will be lined and covered with compatible materials.

In the event soil that will be exported off-site will be classified as a hazardous waste, an appropriate USEPA Generator Identification Number will be recorded on the hazardous waste manifests used to document transport of hazardous waste off-site. The hazardous waste transporter, disposal facility, and U.S. Department of Transportation (DOT) waste description required for each manifest will be determined on a case-by-case basis. A description of the number of containers being shipped, the type of container, and the total quantity of waste being shipped will also be included on each manifest.

The General Contractor will be responsible for accurate completion of the hazardous waste manifests and nonhazardous bills of lading. Records of wastes shipped off-site will be maintained by the owner. The final destination of wastes transported off-site will be documented in the Completion Report.

The following records will be kept by the owner for the indicated length of time:

- Copies of uniform hazardous waste manifests signed by the designated waste disposal facility will be retained for at least five years from the date the waste was accepted by the initial transporter;

- Records pertaining to the characterization of hazardous or nonhazardous waste will be retained for a minimum of three years.

4.5.5 Utility Repairs

Utility corridor trenches, when uncovered or newly created, will be backfilled with "clean fill" or non-impacted soil from the site. If soil is to be imported from another site, the criteria for screening clean fill will follow the guidelines established by Department of Toxic Substances Control (DTSC) *Information Advisory Clean Imported Fill Material*. Available documents detailing the source of the fill and sampling results will be submitted to the Owner for their records.

4.6 Groundwater Management

Groundwater elevations have ranged from 10 to 29 feet below the slab from 1990 to 2014. It is not anticipated that future earthwork will require dewatering but, perched water, separate from the underlying shallow aquifer, may be encountered. Perched groundwater has been encountered in the northwestern portion of the site. Limited volumes of water may be stored in drums and disposed off-site in accordance with local, state and federal laws.

Dewatering of a large volume of groundwater is not anticipated. Should a large enough volume of groundwater handling and disposal necessitate local discharge of the water rather than storage and off-site disposal, applicable discharge permits should be obtained (e.g., a National Pollutant Discharge Elimination System (NPDES) permit for discharge to the storm drain, or a Wastewater Discharge Permit for discharge to the sanitary sewer system operated by the East Bay Municipal Utility District.

4.7 Storm Water Pollution Controls

A SWPPP is not required for the anticipated indoor soil and groundwater handling anticipated at this site following development. However, outdoor activities that disturb an area of one acre or greater of impacted soils will require storm water pollution controls implemented to minimize storm water runoff and sediment transport from the site. A SWPPP will be prepared by the General Contractor for earthwork-related activities. The SWPPP will identify Best Management Practices (BMPs) for activities as specified by the California Storm Water Best Management Practices Handbook (Stormwater Quality Task Force, 1993). The SWPPP will include protocol (i.e., earth dikes and drainage swales) to control storm water contact with, or runoff from petroleum-impacted soil, during wet weather conditions.

4.8 Unknown/Unexpected Conditions

The corrective actions performed previously at the site, as described in Section 2.5 and 3.0, removed known historical subsurface features and structures related to the former automotive service operations and the historical use of the property by Saint Mary's college. In the unlikely event that additional unknown subsurface features or structures (i.e., underground tanks or pipelines) are encountered during future subsurface activities, the following will be followed.

- Stop work in the area where the suspect material is encountered and cover with plastic sheets;

- Notify the General Contractor's site safety officer and site superintendent. The General Contractor will request that the Environmental Engineer conduct a site inspection and will consult with the Environmental Engineer regarding appropriate follow-up actions in the suspect area. The Environmental Engineer will notify the ACEH of site conditions that indicate a material threat to human health or the environment;

- Review the existing health and safety plan for revisions, if necessary, and have appropriately trained personnel on-site to work with the affected materials, once directed by the General Contractor;

If necessary, notifications will be performed, permits will be in place prior to subsurface feature removals, and permit conditions will be followed.

If stained soil or odors are noted in association with an unknown subsurface feature, plastic sheeting will be placed over the affected area and the Environmental Engineer will be contacted for inspection and appropriate action. If the stained or odor-containing soil is excavated, the soil will be stockpiled onto plastic sheeting and covered with plastic sheeting. The Environmental Engineer will collect and analyze soil samples to determine disposal of the material and the extent of the unexpected area of apparent petroleum impacted soil. Soil samples collected from beneath fuel pipelines, if any, will be collected beneath joints and elbows and at a frequency of one sample per 20 linear feet.

4.9 Completion Records

Relevant records associated with soil and groundwater handling performed in accordance with this PCSGMP shall be provided to the Owner, at the Owner's discretion, for their records. These records may include a summary of soil sample analytical results, the soil disposal manifests, soil handling activities, and repair documentation. The records may also include photographs, figures, and copies of back-up documentation such as waste manifests, analytical reports, and the Field Observation Reports as necessary.

5.0 LIMITATIONS

This PCSGMP has been prepared on behalf of 3093 Broadway Holdings, L.L.C. The conclusions and recommendations in this report concerning the site are the professional opinions of the Langan personnel involved with the project, and this report should not be considered a legal interpretation of existing environmental regulations. Opinions presented herein apply to site conditions existing at the time of our assessment, and cannot necessarily be taken to apply to site changes or conditions of which we are not aware and have not had the opportunity to evaluate.

REFERENCES

BKF, 2015. Storm Water Pollution Prevention Plan, 3093 Broadway, Oakland. 17 July.

Department of Toxic Substances Control (DTSC), 2001. Information Advisory Clean Imported Fill Materials. October.

Langan, 2014. Conceptual Site Model, 3093 Broadway, Oakland, California. ACEH Case No.: RO0000199. 24 October.

Langan, 2014. Additional Investigation Results, 3093 Broadway, Oakland, California. 5 December.

Langan, 2015. Groundwater Sampling and Enhanced Bioremediation Pilot Study, 3093 Broadway, Oakland, California. ACEH Case No.: RO0000199. 17 April.

Langan, 2015. Feasibility Study and Corrective Action Plan, 3093 Broadway, Oakland, California. ACEH Case No.: RO0000199. 21 May.

Langan, 2015. Soil Investigation Report, 3093 Broadway, Oakland, California. ACEH Case No.: RO0000199. July 1.

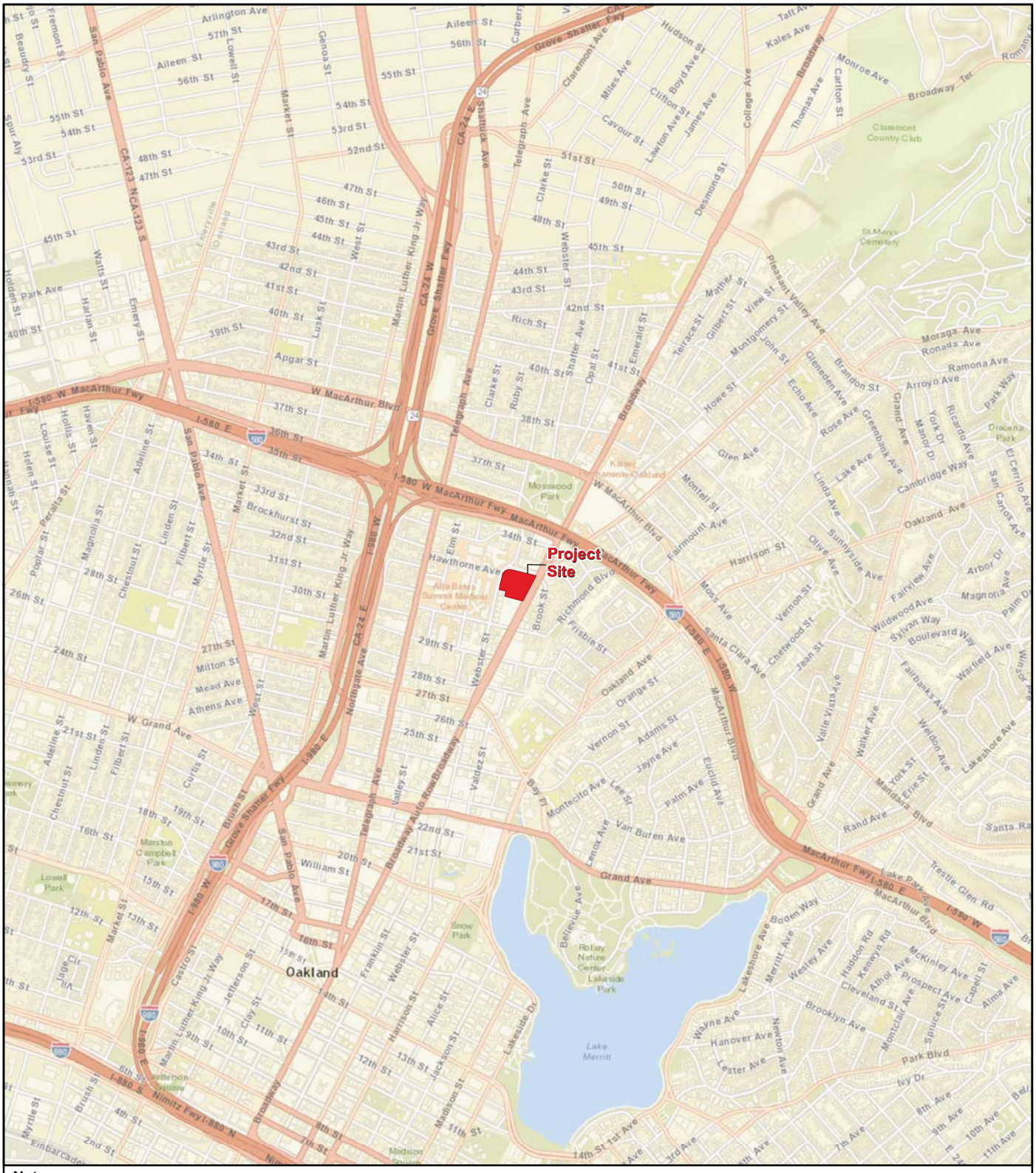
Langan, 2015. Enhanced Bioremediation Pilot Study Technical Report, 3093 Broadway, Oakland, California. ACEH Case No.: RO0000199. 30 July.

Langan, 2015. Petroleum Vapor Intrusion Risk Evaluation, 3093 Broadway, Oakland, California. ACEH Case No.: RO0000199. October 1

Langan, 2016. Corrective Action Completion Report, 3093 Broadway, Oakland, California. ACEH Case No.: RO0000199. December 8.

San Francisco Bay Regional Water Quality Control Board (Water Board). 2013. Environmental Screening Levels. 2013.

FIGURES



Notes:

1. World street basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN.
2. Map displayed in California State Plane Coordinate System, Zone III, North American Datum of 1983 (NAD83), US Survey Feet.

0 1,000 2,000 4,000

Feet

N

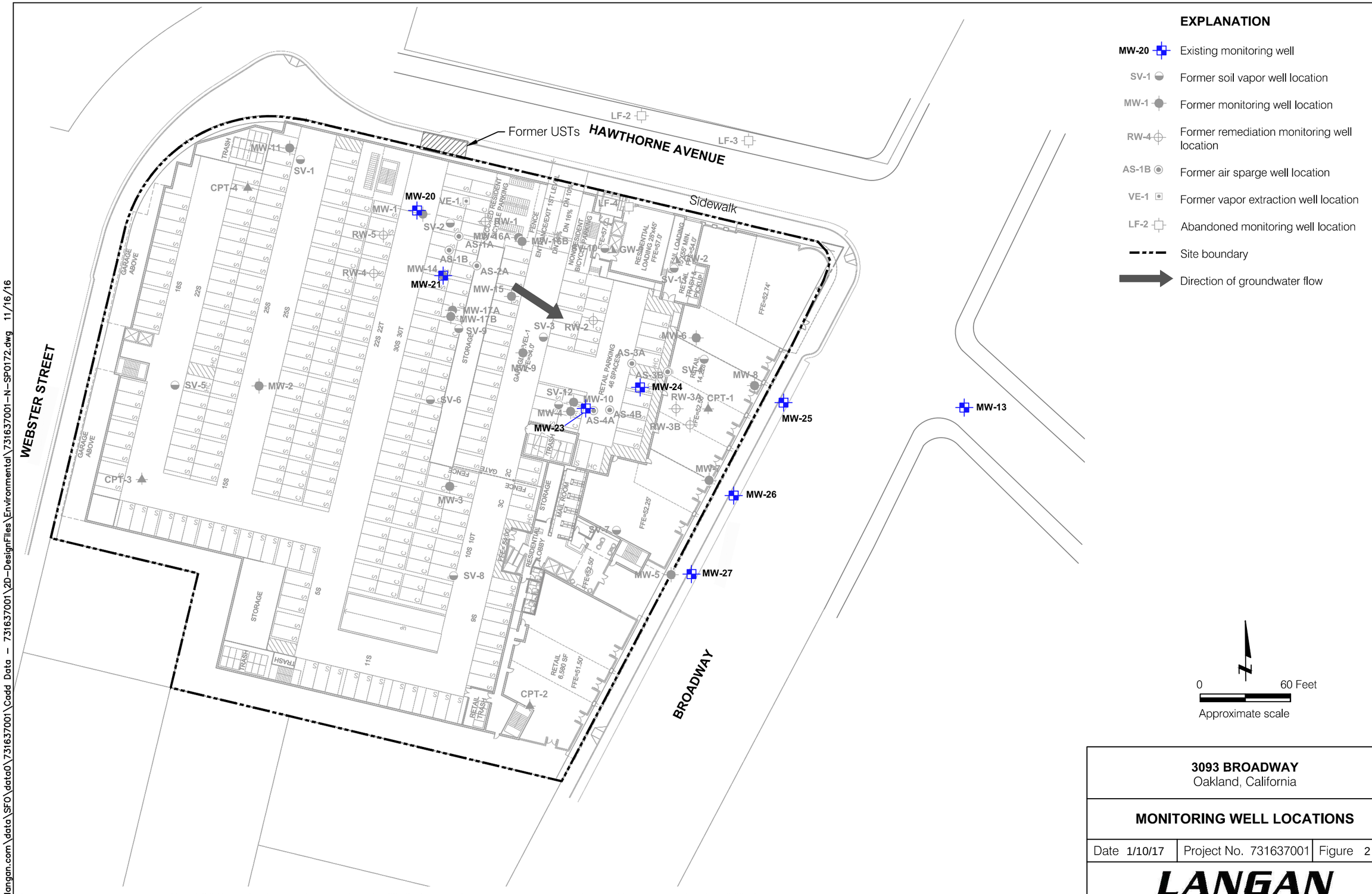
3093 BROADWAY
Oakland, California

SITE LOCATION MAP

LANGAN

Date 11/16/16	Project 7316317001	Figure 1

\\langan.com\data\SF\data0\7316317001\ArcGIS\ArcMap Documents\SiteLocation.mxd User: cstatham



EXPLANATION

- MW-20 — Existing monitoring well
- SV-1 — Former soil vapor well location
- MW-1 — Former monitoring well location
- RW-4 — Former remediation monitoring well location
- AS-1B — Former air sparge well location
- VE-1 — Former vapor extraction well location
- LF-2 — Abandoned monitoring well location
- Site boundary
- Direction of groundwater flow

Reference: Base map from a drawing titled "C2.0 Conceptual Grading Plan," by BKF, dated 08/19/14 and "First Floor Plan," by Van Tilburg, Babvard & Soderbergh, AIA, dated 10/03/14.

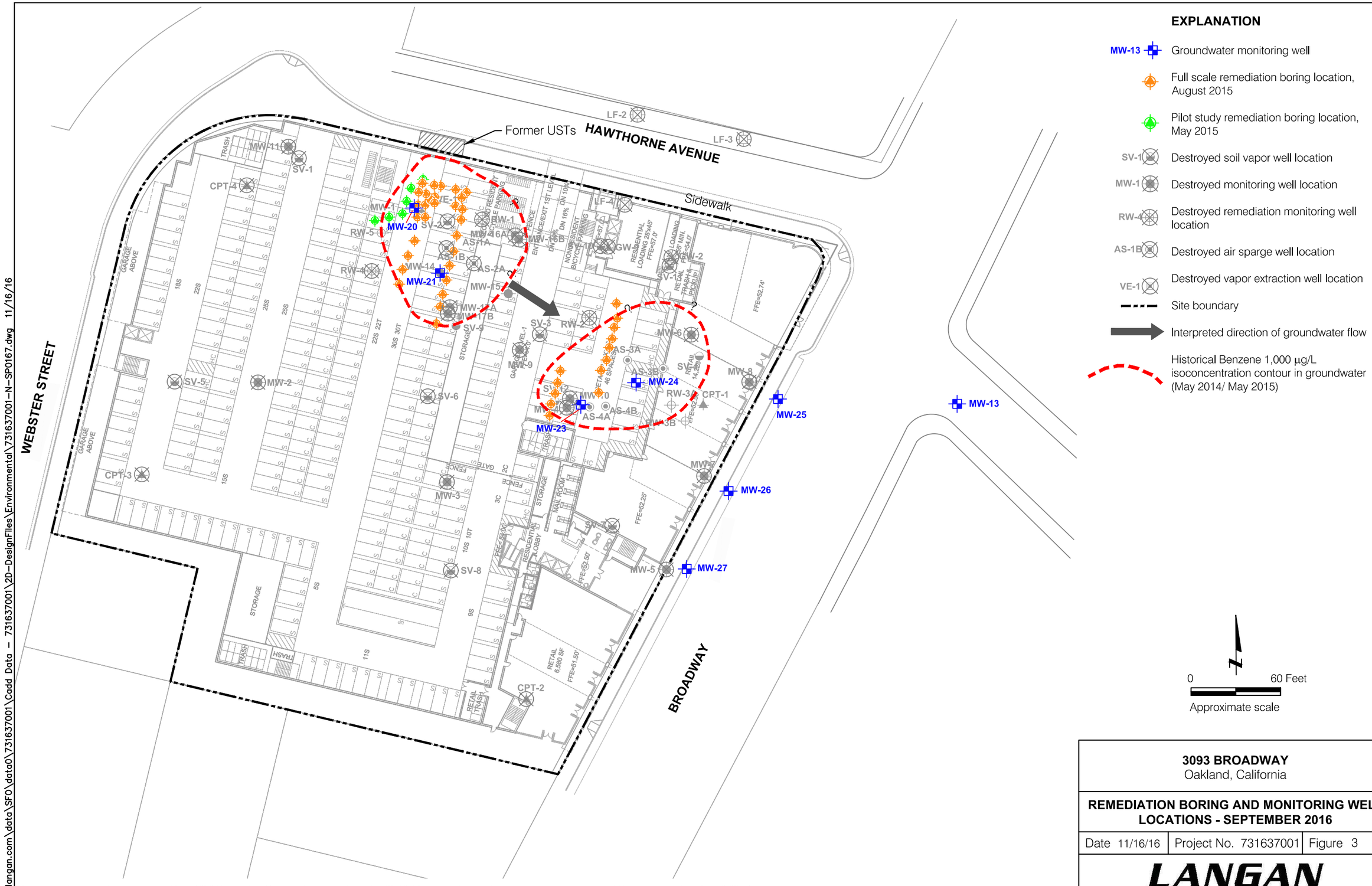
3093 BROADWAY
Oakland, California

MONITORING WELL LOCATIONS

Date 1/10/17	Project No. 731637001	Figure 2

LANGAN

\\langan.com\data\SFO\data0\731637001\Cadd Data – 731637001\2D-DesignFiles\Environmental\731637001-N-SP0172.dwg 11/16/16



EXPLANATION

- MW-13 — Groundwater monitoring well
- Full scale remediation boring location, August 2015
- Pilot study remediation boring location, May 2015
- SV-1 — Destroyed soil vapor well location
- MW-1 — Destroyed monitoring well location
- RW-4 — Destroyed remediation monitoring well location
- AS-1B — Destroyed air sparge well location
- VE-1 — Destroyed vapor extraction well location
- Site boundary
- Interpreted direction of groundwater flow
- Historical Benzene 1,000 µg/L isoconcentration contour in groundwater (May 2014/ May 2015)

Reference: Base map from a drawing titled "C2.0 Conceptual Grading Plan," by BKF, dated 08/19/14 and "First Floor Plan," by Van Tilburg, Babvard & Soderbergh, AIA, dated 10/03/14.

3093 BROADWAY
Oakland, California

REMEDIATION BORING AND MONITORING WELL LOCATIONS - SEPTEMBER 2016

Date 11/16/16	Project No. 731637001	Figure 3

LANGAN

\\langan.com\data\SFO\data0\731637001\Cadd Data – 731637001\2D-DesignFiles\Environmental\731637001-N-SP0167.dwg 11/16/16