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October 17, 2014

Ms. Carmen Santos
United States Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Subject: CAP Modification Plan for the Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case Number RO0000411)

Dear Ms. Santos:

Enclosed is the CAP Modification Plan for the Former Pacific Electric Motors Site 1009 66th Avenue, Oakland, California; Alameda County Environmental Health (ACDEH) Fuel Leak Case Number RO0000411 ("the Site"). This plan is provided for your review and approval in preparation for construction of the proposed Bldg. 300.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments, please call Erica Kalve of ARCADIS at (415) 491-4530 extension 22, or me at (510) 434-5071.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Simon".

Tim Simon
Aspire Public Schools

Enclosure

College for Certain, LLC

Cap Modification Plan

Former Pacific Electric Motors Facility, 1009 66th
Avenue, Oakland, California
(Fuel Leak Case Number RO0000411)

October 17, 2014



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Expires Sept. 30, 2015

Mandy Giampaolo
Project Engineer

Cap Modification Plan

Former Pacific Electric Motors
Facility, 1009 66th Avenue,
Oakland, California

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College for Certain, LLC

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Date:
October 17, 2014

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ACEH	Alameda County Department of Environmental Health
ARCADIS	ARCADIS U.S., Inc.
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAP	Corrective Action Plan
CFC	College for Certain, LLC
CMP	Cap Modification Plan
COPCs	constituents of potential concern
DTSC	Department of Toxic Substances Control
HASP	health and safety plan
mg/kg	milligram per kilogram
MTBE	methyl tertiary-butyl ether
O&M	Operation and Maintenance
PCBs	polychlorinated biphenyls
PEM	Former Pacific Electric Motors
RWQCB	Regional Water Quality Control Board
Site	former Pacific Electric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California
SMP	Soil Management Plan
SVE/AS	soil-vapor extraction/air sparging
TBA	tert-Butyl alcohol
TPH	total petroleum hydrocarbons
TPHg	total petroleum hydrocarbons as gasoline
TSCA	Toxic Substance Control Act
USEPA	United States Environmental Protection Agency
VIM	vapor intrusion mitigation

1. Introduction

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this Cap Modification Plan (CMP) for the Former Pacific Electric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California (“the Site”; Figures 1 and 2). This CMP covers modifications to an existing land cover system that is in place to protect persons from direct exposure to polychlorinated biphenyls (PCBs) in soil. The scope of the CMP is in accordance with items discussed via conference call on June 25 and August 15, 2014 with representatives of the United States Environmental Protection Agency (USEPA), Alameda County Department of Environmental Health (ACEH), Aspire Public Schools (Aspire on behalf of CFC), and ARCADIS.

The purpose for the proposed scope of work included in this CMP is to accommodate construction of a new one-story gym and recreation building on the Site (Building 300, Figure 2). This CMP has been developed to mitigate any potential exposure to PCB-affected soil that is beneath the cap and to ensure that the cap is replaced in such a way as to maintain the integrity of the cap and mitigate potential exposure to affected soil.

A vapor barrier is being installed to address potential vapor intrusion concerns in the newly constructed building. Mitigation of potential exposure is also accomplished by implementing measures that prevent direct contact with affected soil during construction activities and long-term operation of the Site. A separate design report will be prepared that provides further information with respect to the design of the vapor mitigation system.

This CMP includes the following sections:

- Section 2 provides background information, including site history, the current site layout, environmental conditions, and soil management protocols.
- Section 3 provides an overview of the proposed Building 300 foundation plan and vapor barrier that will be part of the modified cap.
- Section 4 describes the pre-demolition soil sampling plan, which targets soil sampling in the areas where native soil will be exposed during construction activities.

- Section 5 describes the demolition limits required for construction of the modified cap.
- Section 6 describes the demolition and waste segregation plan that will be used to manage soil during construction activities.
- Section 7 describes how the proposed building plans will serve as the modified cap and the updated operation, maintenance, and monitoring activities that will be implemented. Agency notifications and the proposed implementation schedule are also provided in Section 7.
- Section 8 provides a summary of references cited throughout the CMP.

Elevations referenced in this report are measured in feet and refer to the City of Oakland Vertical Datum.

2. Background Information

2.1 Site Description

The Site is 2.51 acres and is located on the western side of 66th Avenue between East 14th Street (to the north) and San Leandro Street (to the south). The area around the Site is developed with a mixture of commercial, industrial, government, and multi-family residential buildings. The Site is bounded by a residential development to the north, Oakland Fire Department Station Number 2 to the east across 66th Avenue, Fruitvale Business Center to the south, and Northstar International Container Freight and Container Consolidation Services to the west.

The Site was redeveloped as the Aspire Golden State College Preparatory Academy, which serves grades 6 through 12 and has capacity for 570 students; the school opened in August 2011 (see Figure 2). The school occupies approximately 1.4 acres and consists of the following site features:

- Six two-story buildings (approximately 41,430 square feet total including 24 full-sized classrooms, 4 labs, 3 girls and 3 boys restrooms, and 4 staff restrooms)
- Asphalt-paved parking area with access via two driveways on 66th Avenue (one for ingress and one for egress)

- Asphalt-paved area for recreation
- Asphalt-paved and concrete pedestrian walkways
- Planter and landscaped areas

The structures formerly associated with Pacific Electric Motors (and infrastructure) on the Site have all been demolished.

As part of the redevelopment of the Site, the ground surface comprised of roadways, sidewalks, parking areas, buildings, and planter areas is serving as a cap to mitigate potential exposure to remaining PCBs containing soil at the Site.

2.2 Corrective Actions

The Revised Corrective Action Plan (Revised CAP) summarized the results of previous investigations, presented the site conceptual model, quantified the baseline risk of constituents of potential concern (COPCs), developed site-specific risk-based cleanup goals, evaluated potential remedies, and presented an implementation plan for the selected remedies (ARCADIS 2009a). The Revised CAP was approved by the ACEH in their letter to Aspire Charter Schools dated August 13, 2009 (ACEH 2009).

Several remedial actions were implemented in accordance with the Revised CAP including:

- Soil excavation and removal of approximately 8,662 tons of soil containing elevated concentrations of lead, arsenic, PCBs, benzene, and total petroleum hydrocarbons as gasoline (TPHg) (ARCADIS 2014a);
- Air injection and soil-vapor extraction to reduce concentrations of TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), tert-Butyl alcohol (TBA), and methyl tertiary-butyl ether (MTBE) in groundwater, soil, and soil gas. Two phases of soil-vapor extraction/air sparging (SVE/AS) were implemented and an estimated 798 pounds of fuel vapors were recovered from the Site (ARCADIS 2014a).
- Areas of PCB-containing soil (and building materials) were remediated in accordance with the Revised CAP and Self-Implementing Cleanup Plan (ARCADIS 2009b; USEPA 2009a; ARCADIS 2009c, USEPA 2009b; ARCADIS 2014b).

The implementation of the Revised CAP was reported to ACEH (and USEPA) in the report titled, Soil Removal Action Completion Report, dated September 15, 2010 (ARCADIS 2010b). Removal of soil and building materials affected by PCBs was documented in a letter report that was prepared in accordance with the Toxic Substance Control Act (TSCA) and transmitted to USEPA on August 13, 2010 (“the TSCA Report”; ARCADIS 2010a).

In accordance with ACEH requirements, an additional vapor intrusion evaluation is currently being conducted to evaluate the potential for soil gas to affect indoor air quality at the Site. This includes an evaluation of soil gas and crawl space air quality in the vicinity of existing Building 200 and soil gas quality in the vicinity of proposed Building 300 (ARCADIS 2014e, 2014f). The vapor intrusion evaluation of the area associated with proposed Building 300 was recently submitted for ACEH review and approval for installation of a proposed vapor intrusion mitigation (VIM) system (described in Section 3).

2.3 Toxic Substance Control Act Cap

Remedial actions were highly effective in removing PCB affected soil (and building materials) from the Site. However, confirmation soil sampling indicates that areas of the Site still contain PCB-affected soil at concentrations greater than the cleanup criteria of 0.130 milligram per kilogram (mg/kg). The locations of the confirmation soil samples that contained PCB-affected soil at concentrations greater than the cleanup criteria are illustrated on Figure 2. In addition to the confirmation soil samples that failed the cleanup criteria, approximately 10 yards of soil that contained PCBs at concentrations greater than the cleanup criteria was encapsulated in the area of the Site where affected PCBs were already to remain in place (Figure 2). The encapsulated soil was wrapped in geotextile fabric and placed at a depth of approximately 3 to 8 feet below the surface of the pavement in this area of the Site.

As presented in the Soil Removal Action Completion Report (ARCADIS 2010b), the following procedures have been implemented at the Site to ensure that the potential exposure to the PCB-affected soil will be mitigated:

- Installation of a “TSCA cap” across the surface of the Site.
- Preparation of an operation and maintenance plan (O&M) Plan.
- Preparation of a deed notification.

The configuration of the TSCA cap was presented in a letter to the USEPA by ARCADIS dated April 25, 2011 (ARCADIS 2011a) and the configuration of the cap was approved by the USEPA in a letter dated June 16, 2011 (USEPA 2011a, 2011b). CFC installed the cap in accordance with the approved configuration. Details regarding this cap are provided in Figure 2 and include surface cover across the entire Site consisting of both hardscaped (i.e., roadways, sidewalks, parking areas, buildings) and landscaped /planter areas. The O&M Plan was finalized in May 2014 (ARCADIS 2014c), and the deed notification will be developed following completion of this CMP.

2.4 Cleanup Goals for Soil

Risk-based cleanup goals were developed for the Site with an emphasis on health protection by incorporating conservative assumptions in the risk-based calculations. Cleanup goals were calculated by algebraically transforming the standard human health risk assessment equations to solve for a concentration given a target cancer risk of 1×10^{-6} or Hazard Index of 1.

Recommended cleanup goals resulting from this process are presented below:

Total Petroleum Hydrocarbons (TPH)

- TPH as motor oil: 2,500 mg/kg
- TPH as diesel: 180 mg/kg

Metals

- arsenic: 7 mg/kg (site-specific background level)
- cadmium: 7.4 mg/kg
- chromium: 750 mg/kg
- cobalt: 80 mg/kg
- copper: 230 mg/kg
- lead: 80 mg/kg

- zinc: 600 mg/kg

Organic Compounds

- PCBs: 0.130 mg/kg

The analytical results for each of the constituents should be less than the cleanup goals summarized above or the final Environmental Screening Levels for shallow soil (less than 1 meter below ground surface) for commercial and industrial properties where the groundwater is not a potential source of drinking water (Table B-2, Regional Water Quality Control Board [RWQCB 2013]), with the exception of Arsenic. Arsenic concentrations should be less than the site-specific background concentration of 7 mg/kg (see discussion presented in Appendix B of the CAP [ARCADIS 2009a]).

2.5 Soil Management Plan

At the request of the USEPA and ACEH, ARCADIS prepared and submitted for approval a Soil Management Plan (SMP), dated May 16, 2014 (ARCADIS 2014d), for the Site, and included in Appendix A. The SMP outlined sampling and health and safety procedures to be implemented during future site modifications that could disturb site soil, such as the repair of a subsurface utility at the Site. Since the SMP has not yet been formally approved, relevant sections of the SMP have been incorporated into this CMP.

The purpose of the SMP is to communicate the presence of chemicals identified in soil at the Site so that appropriate safety measures can be implemented to protect persons doing invasive site work and to appropriately manage soils at the Site. The SMP provides general protocols for the proper management of soil encountered and/or disturbed during excavation, construction, utility work, site redevelopment, and other work that may encounter impacted soil at the Site. The protocols outlined in the SMP will be followed during the implementation of this CMP, as described in the following sections.

2.5.1 Soil Management Strategy

Soil will be reused at the Site to the extent possible (only if soil does NOT contain contaminants of concern at concentrations greater than the cleanup criteria). Suspected contaminated soil (e.g., soil exhibiting discoloration, oily liquids, powders, or other substances, odors, or detections on field equipment) will be stockpiled and

tested. This soil will only be reused if it meets the remedial goals discussed in Section 2.4.

2.5.2 Requirements for Imported Fill

Soil that is imported to the Site for use as fill must be sampled prior to being brought on site. A four-point composite sample will be collected for every 500 cubic yards of fill material imported to the Site and submitted for the following analyses:

- Volatile organic compounds by USEPA Method 8260B (solvent extraction USEPA method 3540C)
- California Assessment Manual 17 metals by USEPA Method 6010B
- Semivolatile organic compounds by USEPA Method 8270
- PCBs by USEPA Method 8082A Soxhlet extraction, USEPA method 3540C
- Organochlorine pesticides by USEPA Method 8081
- TPH by USEPA Method 8015M

The analytical results for each of the constituents should be less than the cleanup goals provided in Section 2.4.

2.5.3 Stockpile Management

Potentially impacted soil generated from construction activities will be stockpiled on site. The stockpiles will likely be located at the northern portions of the Site but will depend on the location of the work. The stockpiles will be placed on, and covered with, polyethylene sheeting (tarps) to provide separation and prevent off-site soil migration due to wind and water erosion. In addition, a berm made of hay bales or another accepted material will be placed around each stockpile to capture any potential runoff from the stockpile. No stockpiled soils will be removed from the Site without Aspire's written permission.

Dust control measures will be used during excavation/work activities such that no visible dust migration is observed. Typically, misting with water and the use of anchored tarps can be used to control dust emissions. Mitigation procedures to prevent

wind erosion of an active stockpile will include applying sufficient water or other accepted material to keep the soil slightly damp, but not so much water to create runoff from oversaturation. Stockpiles will not be piled excessively high (less than approximately 20 feet above the ground surface) to further prevent airborne transport of stockpile material.

2.5.4 Soil Characterization and Off-Site Reuse/Disposal

Soils will be adequately sampled and characterized/profiled as presented below prior to disposal to an off-site and appropriately licensed facility. Prior to characterization, the receiving facility will be identified and acceptance criteria will be provided to Aspire and ARCADIS for review and approval. No soil samples will be collected and/or analyzed without prior written approval of Aspire.

Sample collection and analyses will be required prior to transporting the soil off site for disposal or reusing the soil on site. The samples will be collected using the protocol described in the Soil Sampling Plan for imported soil for landscaping, dated June 24, 2011 (ARCADIS 2011b). The proposed sampling will conform to the California Department of Toxic Substances Control (DTSC) Information Advisory – Clean Import Fill Material as follows:

- Up to 1,000 cubic yards – one sample per 250 cubic yards
- 1,000 to 5,000 cubic yards – four samples for the first 1,000 cubic yards plus one sample for each additional 500 cubic yards
- Greater than 5,000 cubic yards – 12 samples for the first 5,000 cubic yards plus one sample for each additional 1,000 cubic yards

Soils for removal and off-haul can be profiled either in-place or from the stockpile. Subsequent to permission by Aspire, all soils removed from the Site for disposal will be disposed of at a disposal facility approved by Aspire and that meets the regulatory and permitting requirements to accept the waste. All soil transportation and disposal documentation must be forwarded to Aspire upon completion of the disposal activities. All documentation regarding soil removal and disposal must be submitted to USEPA within 14 days after disposal.

3. Site Modifications

Site modifications include construction of a new gymnasium and recreation facility (Building 300) with associated utility connections, parking areas and pedestrian walkways. As shown on Figure 2, proposed Building 300 will be situated in-line with the existing structures at the Site, furthest from 66th Avenue in the northwest third of the Site. It will be positioned generally west of Building 200 in an area of the Site that is currently paved for parking and pedestrian use. The proposed building is approximately 9,300 square feet, and covers a rectangular footprint of about 104-foot by 89-foot oriented in a northwest-southeast direction. Drawings showing the proposed building construction are provided in Appendix B and include: proposed site demolition (Drawing C1), site grading and paving (Drawing C2), site plumbing (Drawing C3), site civil details (Drawing C4), and building foundation drawings (Drawings S2 and S3).

Existing grades within the proposed Building 300 footprint vary from El. 8.4 to 8.94. The proposed building area is partially surrounded by a concrete curb that has four inches of concrete on top of four inches of aggregate base rock. The remaining area in the vicinity of proposed Building 300 is currently paved with two to two and a half inches of asphalt on four to eight inches of aggregate base rock. An 18-inch thick layer of native soil treated with 5-percent Portland cement underlies the aggregate base rock as the bottom layer above untreated native soil. These layers comprise the existing cap in this area, which ranges in thickness from 24- to 31-inches. Profiles of the existing cap materials at the proposed Building 300 area are shown in Figure 2.

3.1 Foundation Building Plan

The building foundation will consist of a concrete slab on grade and shallow footings. The slab on grade consists of a 5-inch thick reinforced concrete slab covering an area of approximately 8,900 square foot. The elevation of the proposed top of slab varies from 8.52 in the gymnasium portion of the building to El. 8.70 throughout the remaining area. A 1-inch thick layer of sand (optional; sand layer may not be included in final construction) may be installed below the concrete slab and over the vapor collection. A 4-inch thick layer of washed aggregate rock will be installed below the vapor barrier system.

Foundation footings consist of a 6-foot-wide continuous footing along the building perimeter. An interior continuous footing, also 6 feet in width, will extend the width of the building and is positioned approximately 20 feet from and parallel to the proposed buildings northeast perimeter wall. Continuous footings will be founded at a depth of

approximately 18 inches below finished grade. Additional deep concrete footings will be installed in select locations along the perimeter of the exterior foundation for support of the building canopies. These canopy footings will be 4-foot square and founded at a depth of approximately 30-inches below finished grade. The limits of the proposed footing foundations are shown on Figure 3.

3.2 Vapor Intrusion Mitigation System

A soil vapor assessment was completed by ARCADIS on August 26, 2014 to assess the potential for vapor intrusion to occur into the proposed Building 300. Results and recommendations of the soil vapor assessment are presented in the report titled Soil Vapor Intrusion Assessment Report for Proposed Gymnasium, dated September 23, 2014 (ARCADIS 2014e). The report summarizes field activities and the results of the installation and sampling of five shallow vapor probes at the site as well as providing recommendations for the proposed gymnasium building to mitigate potential vapor intrusion.

To assess the vapor intrusion potential in the vicinity of the proposed gymnasium, five soil vapor probes were installed within the footprint of the proposed gymnasium. Soil gas concentrations were measured in each probe and screened against health based screening criteria. Results of the screening evaluation indicated that vapor intrusion mitigation for the proposed Building 300 is appropriate. A VIM system was recommended in the report to prevent subsurface vapors from contacting building occupants at concentrations associated with health concerns.

The VIM system will be comprised of a vapor barrier membrane and a passive sub-slab soil vapor depressurization system. Details of the system are shown on Figure 4. The system will be installed beneath the proposed building slab. It consists of installation of a fluid applied gas barrier (Geo-Seal ® system) beneath the 1-inch sand layer (optional; sand layer may not be included in final construction). A separate VIM system design report will be prepared that provides further information with respect to the design of the system and includes design drawings and specifications. It is included in this CMP because the vapor collection system is part of the revised cap for this portion of the Site.

A network of vapor collection trenches is included in the VIM system for the proposed building. A low profile, flexible vapor collection system (strip geocomposite by Vapor-Vent TM) will be placed along the alignment of each trench, in conjunction with the gas barrier layer. The vapor collection trenches will run in a generally north-south direction

within the building footprint, each extending between the northeast and southwest perimeter footings and spaced approximately 30 to 40 feet apart. Each Vapor-Vent™ strip geocomposite will connect to a Schedule 40 riser pipe at two locations in the northeastern area of the building. The riser pipes will be incorporated into the building's plumbing chase and extend to the top of the building for venting above the roofline.

3.3 Site Utilities

Installation of the site utilities will require removal of cap materials. Currently proposed site utilities are shown on Drawing C3 of Attachment A and include connections to the site's existing storm drainage system (four lines) and fire service (one line). Installation of the utilities for sanitary and water services are anticipated; alignments will be determined after the locations of existing sanitary and water lines are determined.

4. Pre-Demolition Soil Sampling Plan

The purpose of the pre-demolition soil sampling plan is to assess soil quality within the area of the cap (canopy footings, site utilities) that will be modified down to native soil; specifically, to assess in advance of construction if soil that will be handled during construction activities can be reused on site. Analytical data collected from proposed soil borings will be used to manage soil that will be excavated during the construction of Building 300 in accordance with the SMP. ARCADIS will update the Site-specific health and safety plan (HASp) to identify the potential health and safety risks associated with the proposed scope of work. The pre-demolition soil sampling plan includes advancement of five soil borings, soil sample collection and laboratory analysis as described below.

4.1 Soil Borings

ARCADIS will advance twelve soil borings using hand auger equipment to a total depth of between 2 and 3 feet below ground surface (bgs). Soil boring locations are shown on Figure 3. The proposed locations are positioned along the perimeter of the proposed building to collect data for excavation that will encounter native soils (i.e., canopy footings and site utilities). Native soils are expected to be encountered at a depth of about 26 inches bgs.

4.2 Soil Sample Collection

Twenty-four soil samples will be collected from twelve soil boring locations using hand auger sampling techniques. Soil samples will be collected at depths of approximately 0.5 to 1.0 feet bgs and 2.5 to 3.0 feet bgs at each location, specifically in areas where the native soils will be disturbed during construction. Samples will be collected from both the cement treated native soil layer and native soils. One duplicate soil sample will be collected (2 samples at each interval for a total of 10 soil samples). The soil samples will be transferred into clean, laboratory-provided sample containers, labeled stored in an ice-chilled cooler, and transported under chain-of-custody protocol to the laboratory for analysis.

4.3 Laboratory Analyses

Soil samples will be submitted to a state-certified laboratory for the following analyses:

- TPHg by USEPA test method 8015, modified
- benzene, using USEPA test method 8260
- arsenic and lead by USEPA test method 6010B
- PCBs by USEPA test method 8082

In order for the soil to be re-used at the Site, the analytical results should be less than the site specific clean up goals listed in Section 2.4.

4.4 Reporting

ARCADIS will transmit the analytical results for these samples to the USEPA within 10 days of receiving the analytical results.

5. Demolition Plan

The demolition plan includes the disturbance or removal of the existing cap located at Building 300 (see Figure 3 and Drawing C1). In order to prepare the construction area, the asphalt and concrete surfaces proposed for removal will be saw cut and removed using earth moving equipment. The surface material (asphalt and concrete) will be segregated and managed separately than the subsurface material (aggregate base

rock and soil). Management of removed surface and subsurface materials is described in the waste segregation plan. It is anticipated that the following quantities of cap materials will be removed as part of this CMP:

Cap Material	Estimated Removal Quantity (cy)
Concrete	20 to 23
Asphalt	74 to 66
Aggregate Base	114 to 126
Cement Treated Soil	240 to 265
Native Soil	7 to 10

In order to construct the proposed foundation, existing pavement will be demolished and portions of the underlying cap materials (aggregate base rock and cement treated native soils) will be removed. The limits of pavement demolition are shown on Figure 3. Excavation for the building slab and footings is anticipated to be limited to the extents of the concrete foundation (as shown on Figure 3) and not require over-excavation to accommodate formwork. The resulting excavation for slab and footing construction would penetrate the cap in specific areas, as follows:

- Slab: Based on existing grade within the proposed Building 300 footprint, it is estimated that a thickness of between 9 and 15 inches of the existing cap will be removed for construction of the concrete slab and underlying stone and sand layers. This includes two inches of asphalt and four inches of aggregate base rock (where present at depth), and a portion of the cement treated native soils. The removal of cement treated native soil varies across the proposed slab, depending upon the existing grade and proposed slab elevation. Within the gymnasium portion of the slab (depressed slab area) between 5 and 8 inches of cement treated native soil will be removed. In the remaining areas of the proposed building, it is estimated that 2 to 3 inches of cement treated native soil will be removed for slab construction.
- Between 15 and 17 inches in thickness of the cap will be removed to accommodate construction of the proposed perimeter and interior footings, as shown on Drawing S2. This includes additional removal of any remaining aggregate base rock and removal of up to 11 inches of treated soil.

- Approximately 30 inches of surface material will be removed to accommodate the deeper canopy footings. In these limited areas within the construction area, the cap and up to three inches of native soil will be removed. These areas are very limited in extent and are no more than 16 square feet each. In total, eight deep footings will be installed and up to 128 square feet of untreated native soil may be briefly exposed until footings are filled with concrete, as shown on Drawing S3.

For the areas beyond the proposed building footprint, the asphalt pavement and concrete pedestrian walkways will be removed to expose the existing aggregate base rock layer. Removal of the existing aggregate base rock layer may be required, depending upon existing grades, to accommodate installation of new concrete paving to the proposed design grade. If the design grade is lower in elevation than the existing grade, removal of the underlying aggregate base rock layer may be needed so that installation of the new concrete cap can be accomplished and not exceed the proposed design grade.

Installation of new site utilities will require excavation of the aggregate base rock layer and treated soil. There is the potential that these utility excavations will extend through the treated native soil layer and require removal of the native soil for installation of pipe and bedding materials. Proposed utility alignments are shown on Drawing C3 in Appendix B. Excavation widths for the utilities are anticipated to be 3 to 4 feet in width.

6. Waste Segregation and Disposal Plan

In accordance with the SMP, the segregated surface material (asphalt and concrete) will be transported to a local recycling center to be processed and recycled into re-usable construction material.

Subsurface materials that underlie the asphalt and concrete surface will be handled in accordance with the SMP and analytical results of the pre-demolition soil samples as specified in the pre-demolition soil sampling plan. Subsurface materials primarily contain a mixture of imported aggregate base rock and cement treated native soil (containing 5-percent Portland cement). It is anticipated that material at depths to 30 inches below surface grade will be removed within the proposed modified cap area. Some native soil will be removed during site activities, primarily where the deep footings will be installed, as shown in the profile on Figure 3. Material will be visually inspected for evidence of impacts and/or screened using a photoionization detector as applicable. Native soil will be stockpiled and characterized following the SMP action guidelines for screening soil (ARCADIS 2014d).

Excavated soil will be reused at the Site to the extent possible (i.e. only if soil does not contain contaminants of concern at concentrations greater than the site specific cleanup criteria outlined above). Subsequent to permission by Aspire, soil removed from the Site for disposal will be transported to a facility approved by Aspire and that meets the regulatory and permitting requirements for disposal. All documentation regarding soil removal and disposal will be submitted to USEPA within 14 days after disposal.

7. New Cap Plan

7.1 Description of Revised Cap

This cap modification plan incorporates the proposed Building 300 foundation and VIM system, and surrounding pavement areas into the existing cap. Components of the new cap are described in detail below, shown on supporting Figures 3 and 4, and on the design drawings in Appendix B.

The modifications to the cap system at the proposed building continue the use of hardscape materials (asphalt and concrete) as engineering controls for the Site. Within the building footprint, the existing asphalt hardscape will be replaced with a concrete slab. Beyond the building footprint, the hardscape materials for pedestrian use will continue to be a mix of concrete and asphalt pavement. The existing planter areas will remain vegetated. These capping modifications will ensure potential exposure to the PCB-affected soil will continue to be mitigated.

Within the proposed building footprint, the new cap will consist of the building foundation elements as shown in Figure 3 and drawings S2 and S3 of Appendix B. The cap will include the following foundation elements:

- Approximate 8,900 square foot reinforced concrete slab on grade, 5-inches in thickness, and bearing on a 6-inch thick layer of sand and aggregate rock.
- 6-foot-wide footings around the building perimeter and beneath an interior wall positioned approximately 20 feet southwest of the proposed building's northeast wall.
- Total of eight deep foundations consisting of 4-foot square, 18-inch thick concrete footings.

Beneath the building's slab on grade, the new cap will also include the components of the VIM system as described in Section 3.2 above. The total thickness of the capping components is estimated to vary from 24 to 30 inches. A general profile of the capping system within the building footprint is shown on Figure 3.

Beyond the building footprint, the new cap will consist of 4-inch thick reinforced concrete pavement. It will extend from the exterior walls of the building to the limits of existing cap demolition. In general, the new cap will be integrated with the existing cap by concrete to concrete contact at either the edge of the existing curb or at the saw cut pavement face. The total thickness of the cap at the edges will be approximately 26-inches thick and will be comprised of treated soil, aggregate base rock, and concrete.

Drawing C4 in Appendix B provides general details related to paving for the proposed building site. Additional information pertaining to the connection of new and existing pavement materials follows:

- Where new concrete abuts the existing curb, the concrete will be placed directly against the curb and the curb will act as the formwork for the pavement section.
- For those areas where the new concrete abuts a saw cut concrete surface or an asphalt edge (i.e., eastern edge of Site), a fiber board (1/4-inch in thickness) will be installed between the two surfaces. The new concrete will be placed directly against the fiber board.
- Existing landscape planters are located along the eastern side of the proposed building area. Where new concrete pavement abuts the planters, a redwood header will be placed along the vegetated area and the new concrete placed against the redwood header.

7.2 Monitoring and Maintenance/Inspections

Following installation of the cap modifications, monitoring and maintenance of the new cap will be completed in accordance with the existing operations and maintenance plan for the Site. Procedures for monitoring and maintenance of the cap are provided in the report titled Operation and Maintenance (O&M) Plan for Cap Mitigation Measures dated May 16, 2014 (ARCADIS 2014c). The O&M Plan for the cap includes procedures for:

- Long-term operation, maintenance, monitoring (inspection), and repair of the engineering controls (i.e., the cap [including all of its components]) in perpetuity; and
- Management of soils containing PCBs and other contaminants at the Site.

Measures for operation and maintenance of the vapor collection system will be addressed in a separate plan.

7.3 Notifications and Schedule

The O&M Plan for the cap provided notification requirements for proposed modification and/or disturbances to the cap. In accordance with the O&M Plan, a work plan must be provided to the ACEH and USEAP for review and approval prior to commencing with the work. The USPEA and ACEH will be notified of a proposed change to the surface cap at least two weeks prior to the scheduled work.

This CMP serves as the required work plan for these proposed cap modifications. It will be submitted to the USEPA and ACEH for review and approval two weeks prior to schedule start of work.

The following implementation schedule is anticipated for this CMP:

- The CMP will be reviewed and approved by the USEPA as it is designed for protection from PCB affected soils.
- The VIM System design (which is incorporated in the CMP as it is related to the building foundation) will be reviewed and approved by the ACEH as it is designed for the protection from potential vapor intrusion of soil gas to indoor air.
- The building will be constructed following appropriate pre-construction soil characterization (as described in Section 4), and agency approval of the CMP and VIM System design.

In addition, notifications will be completed prior to the pre-demolition sampling activities. In accordance with the SMP, the persons indicated in the table below must be notified within 48 hours if subsurface disturbance is anticipated or if unexpected affected soil is encountered. Additionally, if soil is to be transported from the Site to an

appropriate landfill, the following contacts must be notified. These contacts will also be notified prior to implementation of the pre-demolition activities discussed in Section 4.

Emergency Contacts

Contact	Telephone
Owner – Aspire Public Schools Contact: Tim Simon, Project Manager	510.434.5071 or 831.710.1865
Alameda County Environmental Health Contact: Jerry Wickham	510.567.6791
USEPA Contact: Carmen Santos	415.972.3360 office
Environmental Consultant – ARCADIS Contact: Erica Kalve	510.652.4500 office 510.501.1789 cell
Site Construction Manager Contact: *** to be designated before work begins***	*** to be designated before work begins***

8. References

Alameda County Environmental Health (ACEH). 2009. Final CAP Approval for Fuel Leak Case No. RO0000411 and GeoTracker Global ID T0600101950, Pacific Electric Motor, 1009 66th Avenue, Oakland, CA 94621. August 13.

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- . 2014a. Groundwater Monitoring Report for the Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California. February 28.

- . 2014b. Revised PCB Cleanup Completion Report, College for Certain, 1009 66th Avenue, Oakland, California. May 16.

- . 2014c. Operation and Maintenance Plan for Cap Mitigation Measures, Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California (Fuel Leak Case Number RO0000411). May 16.

- . 2014d. Soil Management Plan, Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California (Fuel Leak Case Number RO0000411). May 16.

- . 2014e. Soil Vapor Intrusion Assessment Report for Proposed Gymnasium, Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California. September 23.

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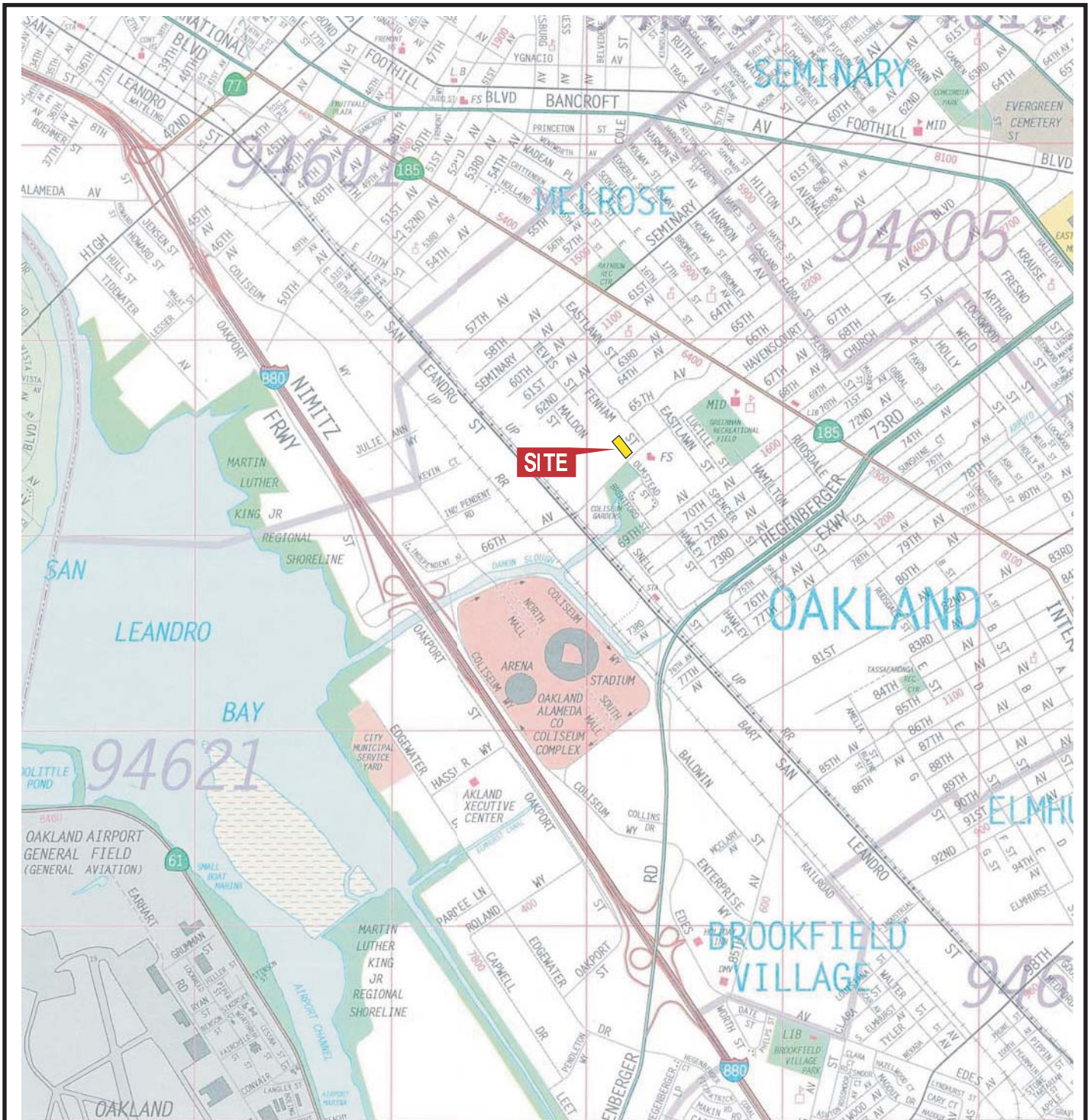
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Subject: PCBs: Aspire School Site in Oakland, California - Conditional Approval
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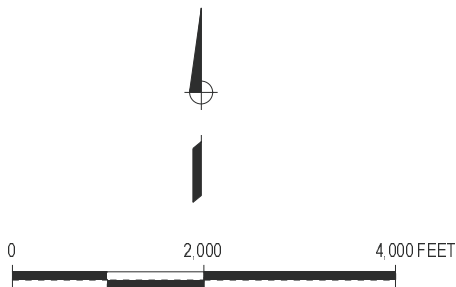
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April 5.

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16.

Figures



MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition



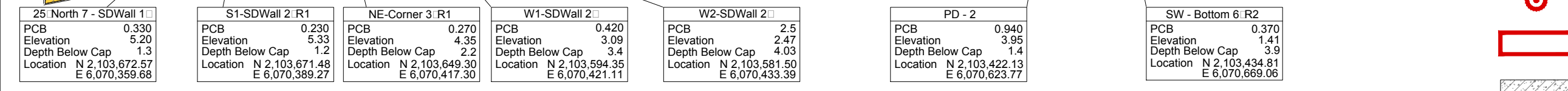
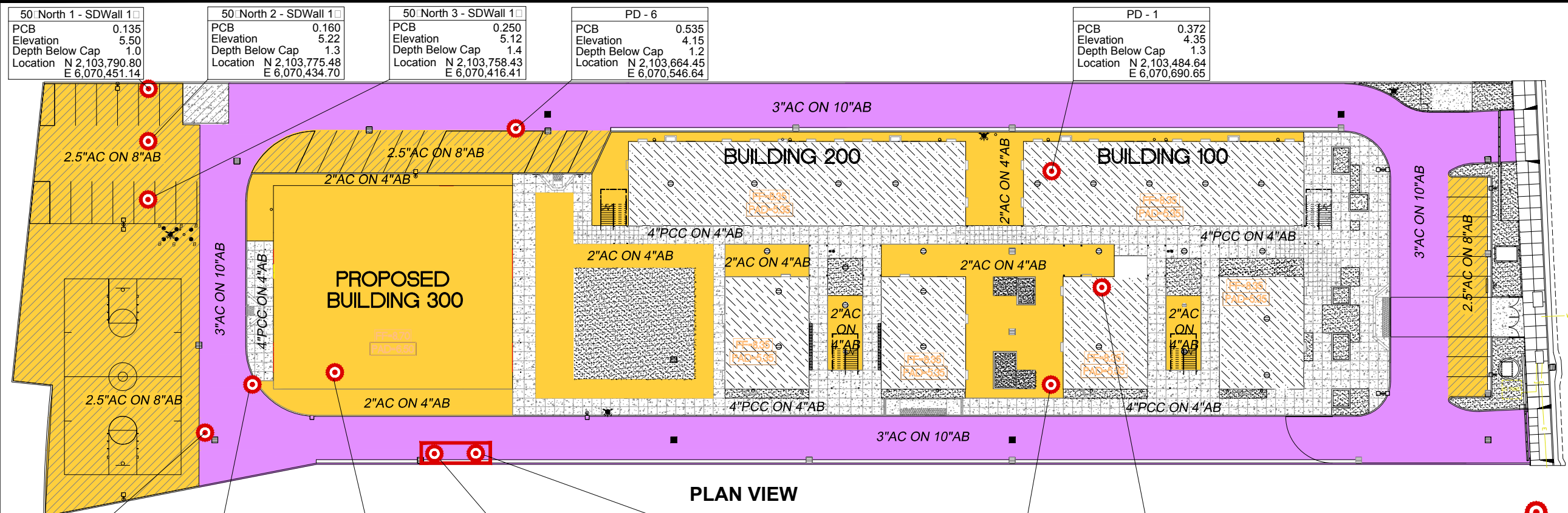
1009 66TH AVENUE, OAKLAND, CALIFORNIA

SITE VICINITY MAP



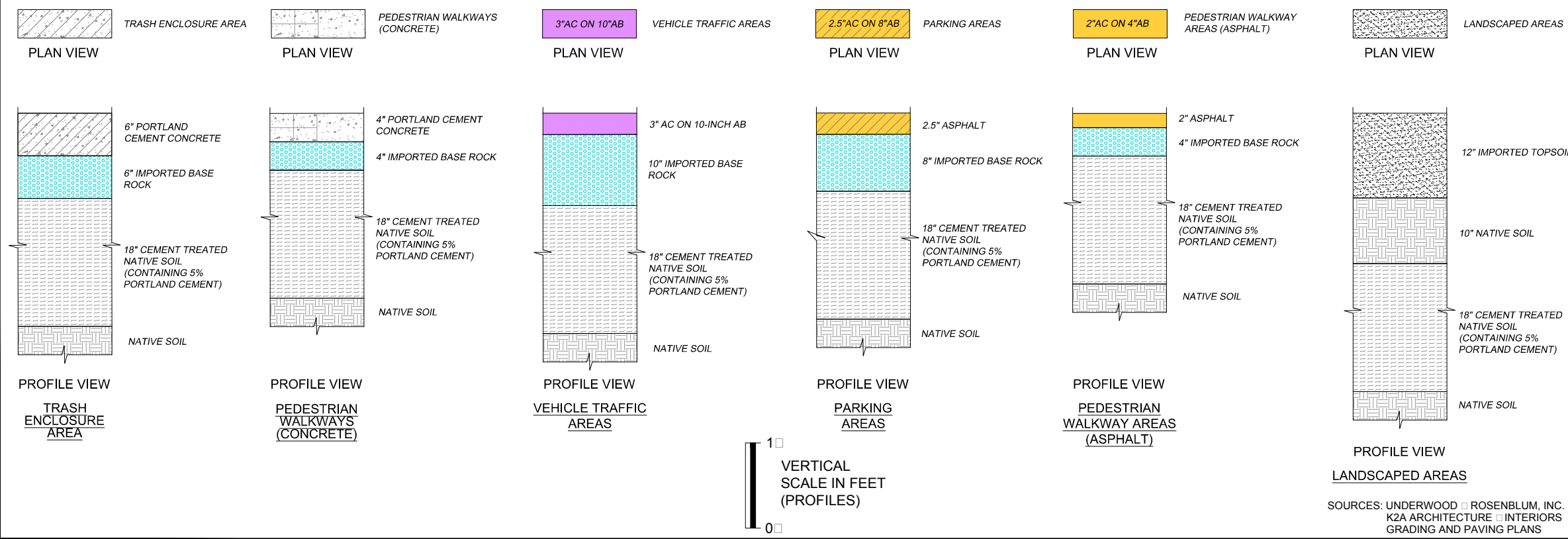
FIGURE
1

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- ### LEGEND
- SOIL SAMPLE FAILED POLYCHLORINATED BIPHENYLS (PCB) CRITERIA OF 0.130 mg/kg
 - LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
 - EXISTING CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
 - EXISTING CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
 - EXISTING AC PAVEMENT-TRAFFIC SECTION (3" AC ON 10" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
 - EXISTING AC PAVEMENT-PARKING SECTION (2.5" AC ON 8" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%))
 - EXISTING AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
 - LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. ORANGE WARNING NETTING UNDERNEATH CAP.
 - RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS: 2" AC ON 4" CLASS 2 AB
- mg/kg = MILLIGRAMS PER KILOGRAM

EXISTING PAVEMENT/CAP DETAILS



PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

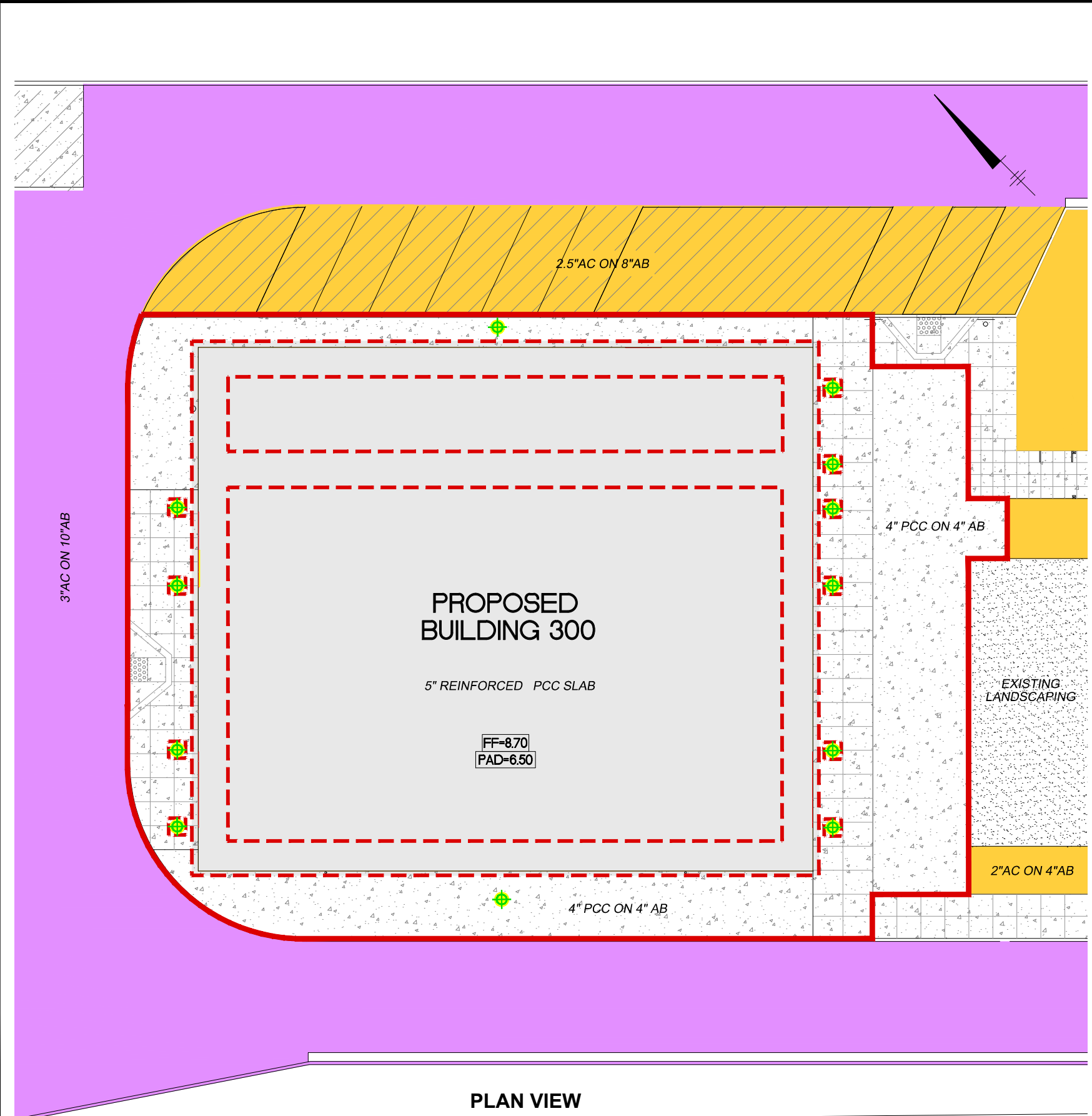
SITE PLAN EXISTING PAVEMENT/CAP

SOURCES: UNDERWOOD ROSENBLUM, INC. K2A ARCHITECTURE INTERIORS GRADING AND PAVING PLANS

ARCADIS

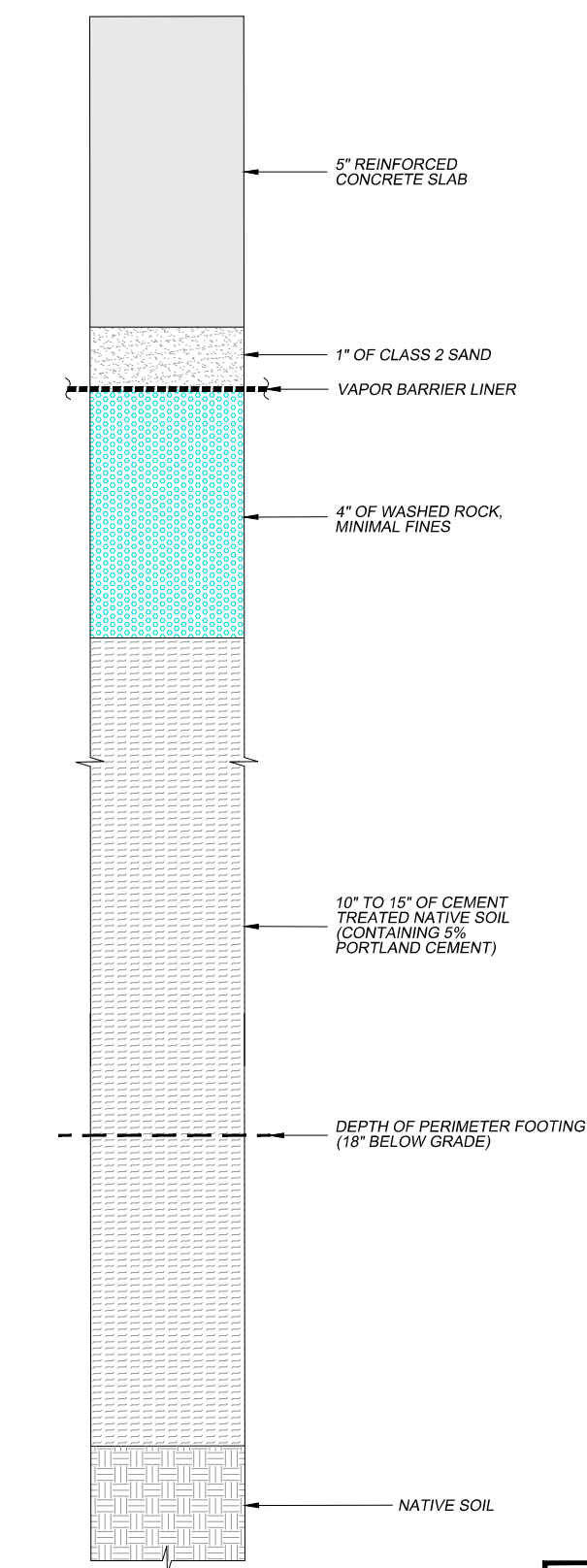
FIGURE 2

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0 10 20
APPROXIMATE SCALE IN FEET

SOURCES:
 UNDERWOOD ROSENBLUM, INC.
 K2A ARCHITECTURE INTERIORS GRADING AND PAVING PLANS



0"
1"
2"
3"
VERTICAL SCALE (PROFILES)

LEGEND

- [Red dashed line] LIMITS OF CAP MODIFICATION
- [Red solid line] LIMITS OF PROPOSED BUILDING FOOTING FOUNDATIONS
- [Red dashed square] LIMITS OF PROPOSED CANOPY FOOTING
- [Green crosshair] PROPOSED PRE-DEMOLITION SOIL BORING
- [Grey rectangle] NEW CONCRETE BUILDING SLAB (5" REINFORCED PCC, SEE PROFILE THIS FIGURE)
- [Grid pattern] NEW CONCRETE PEDESTRIAN WALKWAY SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB)
- [Dotted pattern] EXISTING LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. PLACE ORANGE WARNING NETTING UNDERNEATH CAP.
- [Purple rectangle] EXISTING AC PAVEMENT-TRAFFIC SECTION (3" AC ON 10" CLASS 2 AB)
- [Yellow rectangle] EXISTING AC PAVEMENT-PARKING SECTION (2.5" AC ON 8" CLASS 2 AB)
- [Orange rectangle] EXISTING AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB)

NOTE:
 1. SEE FIGURE 4 FOR LAYOUT DETAILS OF VAPOR COLLECTION SYSTEM.

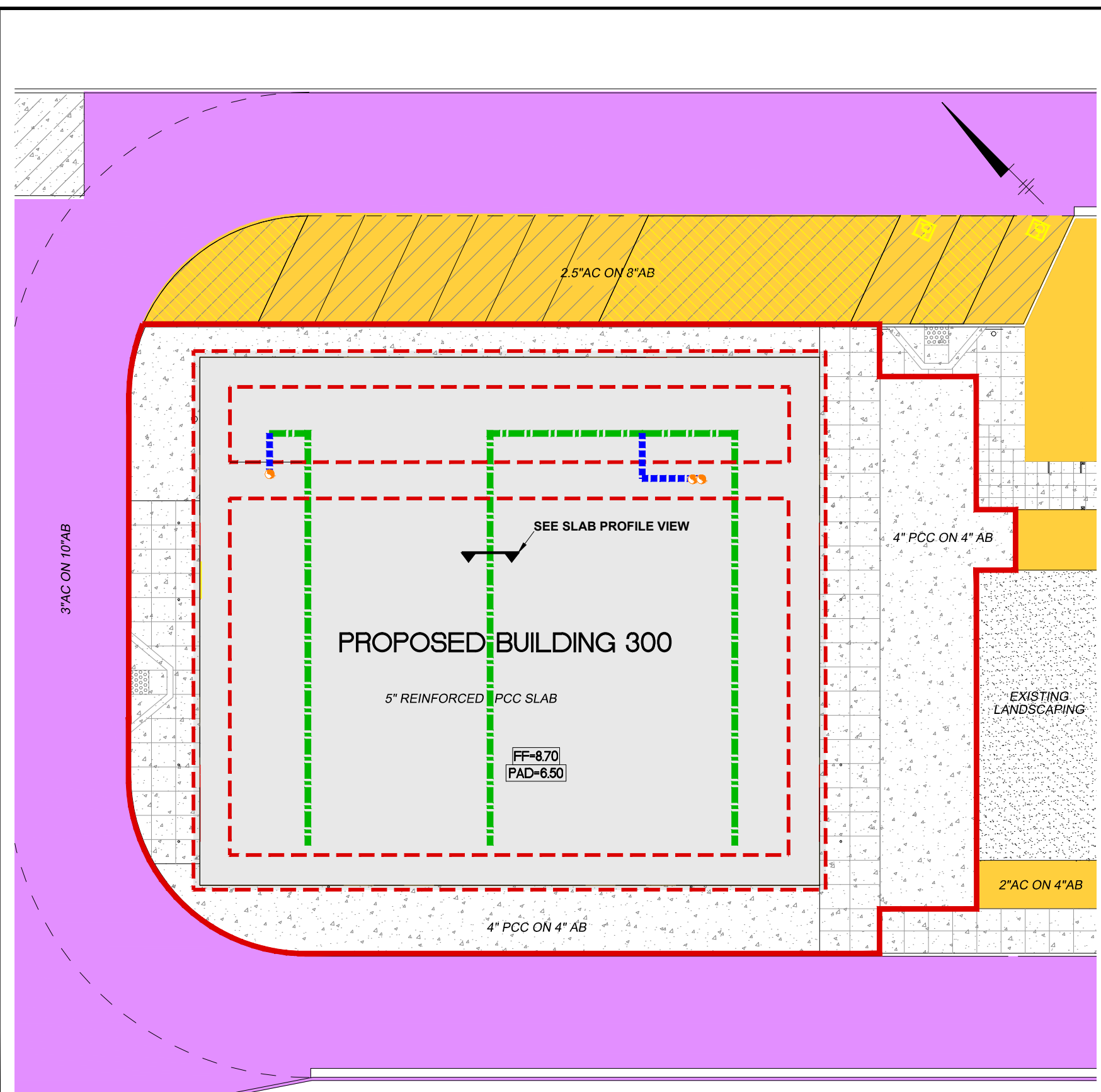
PROPOSED CHARTER SCHOOL SITE
 1009 66TH AVENUE, OAKLAND, CALIFORNIA

BUILDING 300 CAP MODIFICATION PLAN

ARCADIS

FIGURE **3**

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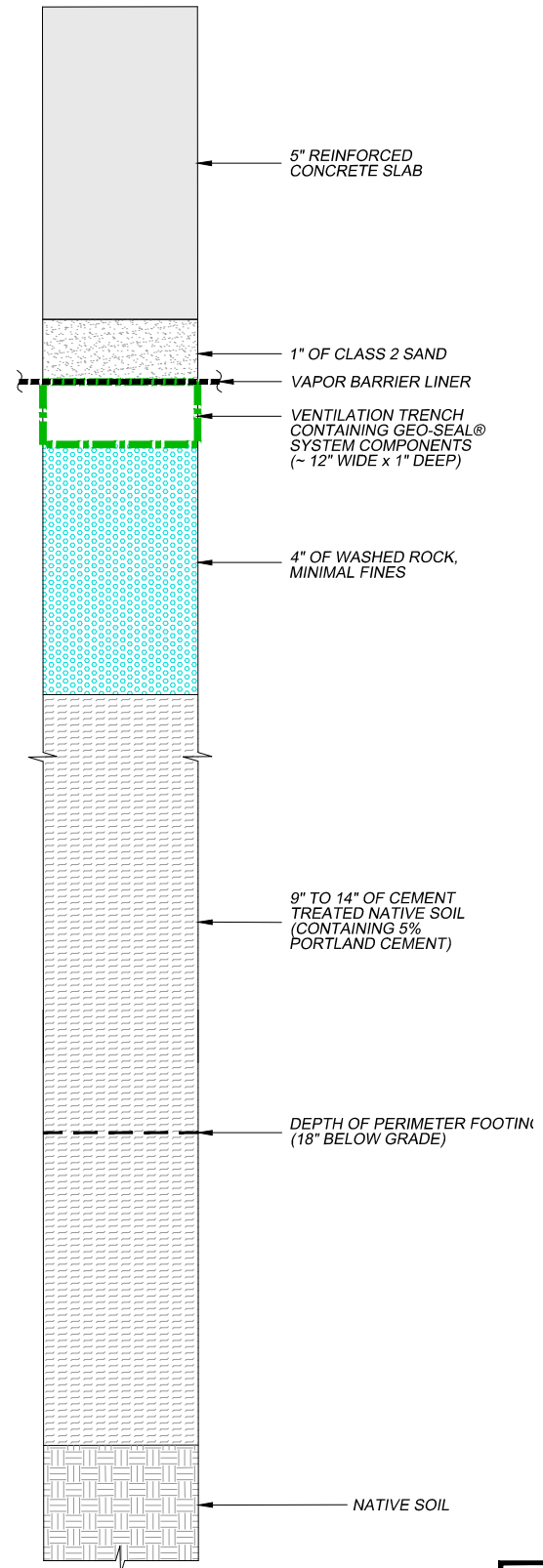


PLAN VIEW

0 10 20
 APPROXIMATE SCALE IN FEET

SOURCES:
 UNDERWOOD ROSENBLUM, INC.
 K2A ARCHITECTURE INTERIORS GRADING AND PAVING PLANS

**BUILDING 300
 SLAB PROFILE VIEW
 AT VENTILATION TRENCH**



0"
 1"
 2"
 3"
 VERTICAL SCALE
 (PROFILES)

LEGEND

- LIMITS OF CAP MODIFICATION
- LIMITS OF PROPOSED BUILDING FOOTING FOUNDATIONS
- NEW CONCRETE BUILDING SLAB (5" REINFORCED PCC, SEE PROFILE THIS FIGURE)
- NEW CONCRETE PEDESTRIAN WALKWAY SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB)
- EXISTING LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. PLACE ORANGE WARNING NETTING UNDERNEATH CAP.
- 3" AC ON 10" AB EXISTING AC PAVEMENT-TRAFFIC SECTION (3" AC ON 10" CLASS 2 AB)
- 2.5" AC ON 8" AB EXISTING AC PAVEMENT-PARKING SECTION (2.5" AC ON 8" CLASS 2 AB)
- 2" AC ON 4" AB EXISTING AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB)
- INTERIOR VENTILATION TRENCH CONTAINING VAPOR-VENT™ SOIL GAS COLLECTION SYSTEM
- INTERIOR SCH. 40 PVC VENT RISER
- EXTERIOR SCH. 40 PVC VENT RISER

PROPOSED CHARTER SCHOOL SITE
 1009 66TH AVENUE, OAKLAND, CALIFORNIA

BUILDING 300 VAPOR COLLECTION SYSTEM LAYOUT

FIGURE
4



Appendix A

Soil Management Plan

**Aspire Public Schools - College for
Certain, LLC**

Soil Management Plan

Former Pacific Electric Motors Site
1009 66th Avenue, Oakland, California
(Fuel Leak Case Number RO0000411)

May 16, 2014



Ron Goloubow, P.G.
Principal Geologist

Soil Management Plan

Former Pacific Electric Motors
Site, 1009 66th Avenue, Oakland,
California (Fuel Leak Case
Number RO0000411)

Prepared for:
Aspire Public Schools
1001 22nd Avenue Suite 100
Oakland, California 94606

Prepared by:
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2000 Powell Street
7th Floor
Emeryville
California 94608
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Our Ref.:
RV009155.0009

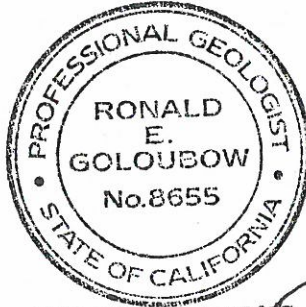
Date:
May 16, 2014

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Certification

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an ARCADIS U.S., Inc., Professional Geologist.



Expires Nov. 30, 2015

5/16/14
Date

Ron Goloubow, P.G. 8655
Principal Geologist
California Professional Geologist (8655)

1. Introduction

ARCADIS has prepared this Soil Management Plan (SMP) on behalf of Aspire Public Schools (Aspire) and College for Certain, LLC (CFC) for the former Pacific Electric Motors site located at 1009 66th Avenue in Oakland, California (the Site; Figures 1 and 2). The Site has been redeveloped into the Aspire Golden State College Preparatory Academy, which serves grades 6 through 12 and has capacity for 570 students; the school opened in August 2011. The school occupies approximately 1.4 acres and consists of:

- 3 two-story buildings (approximately 41,430 square feet total including 24 full-sized classrooms, 4 labs, 3 girls and 3 boys restrooms, and 4 staff restrooms);
- An asphalt-paved parking area with access via two driveways on 66th Avenue (one for ingress and one for egress);
- An asphalt-paved area for basketball; and
- Several planter areas.

This report is intended to comply with a request from the United States Environmental Protection Agency (USEPA) and Alameda County Environmental Health (ACEH) to prepare an SMP for the Site.

This SMP outlines sampling and health and safety procedures to be implemented during future site modification that could disturb site soil, such as the repair of a subsurface utility at the Site.

This SMP is intended to apply to any subsurface disturbance at the Site. The purpose of this SMP is to communicate the presence of chemicals identified in soil at the Site so that appropriate safety measures can be implemented to protect persons doing invasive site work and to appropriately manage soils at the Site. This SMP provides general protocols for the proper management of soil encountered and/or disturbed during excavation, construction, utility work, site redevelopment, and other work that may encounter impacted soil at the Site.

This SMP is not intended to replace federal, state, or local regulations or regulations addressing worker exposure including Federal and California Occupational Safety and Health Administration (OSHA) training and worker protection rules and regulations,

Code of Federal Regulations (CFR) Title 29, Part 1910.120, or California Code of Regulations (CCR) Title 8, § 5192. It is the responsibility of the Property Owner to ensure that all workers, tenants, contractors, and subcontractors are made aware of the existing conditions, specifically the known presence and magnitude of chemicals so that the appropriate protective measures are implemented.

Issues not addressed in this document include construction and general OSHA worker safety requirements, including the Hazardous Waste Operations and Emergency Response Standard. Contractors who perform the site work are responsible for the health and safety of their own employees and must prepare a health and safety plan that is satisfactory to the owner, Aspire, prior to beginning work at the Site. All work at the Site must be completed in compliance with the federal, state, and local requirements not addressed in this document.

2. Project Overview

The site area is 2.51 acres and is located on the western side of 66th Avenue between East 14th Street (to the north) and San Leandro Street (to the south). The area around the Site is developed with a mixture of commercial, industrial, government, and multi-family residential buildings. The Site is bounded by a residential development to the north, Oakland Fire Department Station Number 2 to the east across 66th Avenue, Fruitvale Business Center to the south, and Northstar International Container Freight and Container Consolidation Services to the west.

The structures formerly associated with Pacific Electric Motors (and infrastructure) have all been demolished. The areas of affected soil have been removed in accordance with the Revised Corrective Action Plan, Proposed Aspire High School Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case No. RO0000411; the CAP) submitted to the ACEH on July 17, 2009 (ARCADIS 2009a). In addition, areas of polychlorinated-biphenyl (PCB)-containing soil were remediated in accordance with the CAP, the Self-Implementing Cleanup Plan (SICP) submitted to the USEPA on October 23, 2009 (ARCADIS 2009b), the response letter from USEPA dated November 13, 2009 (USEPA 2009), and LFR Inc.'s (now ARCADIS) response letters to EPA dated November 18, 2009 (ARCADIS 2009c) and January 14, 2010 (ARCADIS 2010). The configuration of the surface cap presented in Section 3 was presented in a letter to the USEPA by ARCADIS dated April 25, 2011 and the configuration of the cap was approved by USEPA in a letter dated June 16, 2011.

A new school (the Golden State College Preparatory Academy) was developed on the property in 2010 as depicted on Figure 2. As part of the redevelopment of the Site, the ground surface comprised of roadways, sidewalks, parking areas, buildings, and planter areas is serving as a cap to mitigate the potential exposure to the affected soil at the Site.

3. Known or Potentially Chemical-Impacted Soil

Prior to redeveloping the Site, remedial tasks were conducted at the Site to remove soil containing elevated concentrations of lead, arsenic, PCBs, benzene, and total petroleum hydrocarbons as gasoline (see Figures 2, 3, and 4). The removal action for the PCB-containing soil was completed in accordance with the following:

- No. 40 CFR §761.61(a) 40 CFR 761.61 (c) of Toxic Substances Control Act (TSCA) regulations, EPA's conditional approval of the SICP, and EPA's amendments to its approvals.

Although the remedial actions were highly effective in removing the affected soil, the analytical results for 12 confirmation soil samples collected as part of the removal action for the PCB-containing soil indicated that PCBs were present at concentrations greater than the cleanup goal of 0.130 milligrams per kilogram (mg/kg) established for the Site (see the table below and Figure 3 and 4). Due to geotechnical work conducted to strengthen site soils for the redevelopment of the Site, the soil currently in those 12 locations was mixed during the cement treatment of the upper 18 inches of soil across the Site. Thus the PCB-containing soil may be at locations that are not represented by the samples collected in those locations before the geotechnical and grading work. Thus, the PCB concentrations detected in the 12 samples are no longer representative of the PCB concentrations at the Site due to mixing of the soils. The geotechnical work to strengthen the soil included the cement treatment of the upper 18 inches of soil across the Site. This may have resulted in the mixing/cement treatment of the soil at the 12 locations where PCBs were detected at concentrations greater than the cleanup goal.

Sample ID	Depth below TSCA Cap - current ground surface (in feet)	PCBs (in mg/kg)
50' North 1 - SDWALL1'	1.0	0.135
50' North 2 - SDWALL1'	1.3	0.160
50' North 3 - SDWALL1'	1.4	0.250
25' North 7 - SDWALL1'	1.3	0.330
S1-SDWALL 2' R1	1.2	0.230
NE-CORNER 3' R1	2.2	0.270
W1-SDWALL 2'	3.4	0.420
W2-SDWALL 2'	4.0	2.500
SW-Bottom 6' R2	3.9	0.370
PD-1	1.3	0.372
PD-2	1.4	0.940
PD-6	1.2	0.535

Notes: The depth of the samples below the TSCA cap was established by subtracting the sample elevation from the finished floor elevation of the top of the TSCA cap.

To mitigate the human health risk posed by the affected soil, a surface cap was installed over the ground surface of the entire Site. The configuration of the cap summarized below was presented in a letter to the USEPA by ARCADIS dated April 25, 2011 and the configuration of the cap was approved by USEPA in a letter dated June 16, 2011.

- **Trash Enclosure Area**
 - Native soil
 - 18 inches of cement-treated native soil
 - 6 inches of imported aggregate base rock
 - 6 inches of Portland cement concrete (ground surface)

- **Pedestrian Walkway Areas – Concrete**
 - Native soil
 - 18 inches of cement-treated native soil
 - 4 inches of imported aggregate base rock
 - 4 inches of Portland cement concrete (ground surface)

- **Vehicle Traffic Areas**
 - Native soil
 - 18 inches of cement-treated native soil
 - 10 inches of imported aggregate base rock
 - 3 inches of asphalt concrete (ground surface)

- **Parking Areas**
 - Native soil
 - 18 inches of cement-treated native soil
 - 8 inches of imported aggregate base rock
 - 2.5 inches of asphalt concrete (ground surface)

- **Pedestrian Walkway Areas – Asphalt**
 - Native soil
 - 18 inches of cement-treated native soil
 - 4 inches of imported aggregate base rock
 - 2 inches of asphalt concrete (ground surface)

- **Landscaped Areas**
 - Native soil
 - 18 inches of cement-treated native soil
 - 10 inches of native soil
 - 12 inches of imported top soil (ground surface)

4. Cleanup Goals Established for Soil

Risk-based cleanup goals were developed for the Site with an emphasis on health protection by incorporating conservative assumptions in the risk-based calculations. Cleanup goals were calculated by algebraically transforming the standard human health risk assessment equations to solve for a concentration given a target cancer risk of 1×10^{-6} or Hazard Index of 1.

Recommended cleanup goals resulting from this process are presented below:

Total Petroleum Hydrocarbons (TPH)

- TPH as motor oil: 2,500 mg/kg
- TPH as diesel: 180 mg/kg

Metals

- arsenic: 7 mg/kg (site-specific background level)
- cadmium: 7.4 mg/kg
- chromium: 750 mg/kg
- cobalt: 80 mg/kg
- copper: 230 mg/kg
- lead: 80 mg/kg
- zinc: 600 mg/kg

Organic Compounds

- PCBs: 0.130 mg/kg

5. Soil Management During General Construction Activities

The following sections present the contingency protocols to be followed if unknown contamination is encountered during general site maintenance activities.

5.1 Potential Soil Disturbance Activities

Activities that may cause soil disturbance at the Site include: grading, grubbing, utility line repair-replacement, removal/excavation of soil, trenching, and performing other construction activities. If these or other subsurface activities are performed, this SMP will be followed.

5.2 Notifications

Prior to performing invasive activities, Aspire will notify USEPA and the ACEH a minimum of two weeks prior to conducting the proposed activities. A letter describing the scope of the work to be conducted will be provided to describe the nature of the invasive activities. The work will not begin until USEPA and the ACEH have provided approval of the scope of work. At the direction of Aspire, observation of the activities may be provided by ARCADIS. However, the USEPA and ACEH may conduct field oversight of these activities.

5.2.1 Emergency Contacts

The persons indicated in the table below must be notified within 48 hours if subsurface disturbance is anticipated or if unexpected affected soil is encountered. Additionally, if soil is to be transported from the Site to an appropriate landfill, the following contacts must be notified.

Emergency Contacts

Contact	Telephone
Owner – Aspire Public Schools Contact: Tim Simon, Project Manager	510.434.5071 or 831.710.1865
Alameda County Environmental Health Contact: Jerry Wickham	510.567.6791
USEPA Contact Carmen Santos	415.972.3360 office
Environmental Consultant – ARCADIS Contact: Ron Goloubow	510.652.4500 office 510.501.1789 cell
Site Construction Manager Contact: *** to be designated before work begins***	*** to be designated before work begins***

If an emergency situation requiring medical attention, containment assistance, or other emergency assistance arises, workers should call 911 and follow emergency procedures provided in the Contractor’s Health and Safety Plan.

5.3 Soil Screening

Prior to conducting intrusive activities at the Site, analytical data for soil samples collected in the area where the work is proposed to take place will be reviewed to assess disposal options. If analytical data for soil samples is not available within approximately 100 feet of the proposed work area, additional soil samples will be collected for the analysis of PCBs prior to commencing with the intrusive work. During intrusive activities, excavated soil will be visually inspected for evidence of impacts and/or screened using a photoionization detector as applicable. The following actions shall be taken for excavated soil:

- Stockpile potentially impacted soil separately on plastic and in accordance with the SMP (see Section 5.4.2 below);
- Characterize the stockpiled soils as specified in Section 5.4.3, and dispose of stockpiled soil at an appropriately licensed facility (to be determined based on the analytical results of the samples collected from the stockpiled soil);
- Document and report the results of the soil samples to the USEPA and ACEH; and
- Replace the surface cap according to the description in Section 3.

Information relevant to each of these actions is described in more detail in the following sections.

5.4 Soil Management Strategy

Soil will be reused at the Site to the extent possible (only if soil does NOT contain contaminants of concern at concentrations greater than the cleanup criteria). Suspected contaminated soil (e.g., soil exhibiting discoloration, oily liquids, powders, or other substances, odors, or detections on field equipment) will be stockpiled and tested. This soil will only be reused if it meets the remedial goals discussed in Section 4.

5.4.1 Requirements for Imported Fill

Soil that is imported to the Site for use as fill must be sampled prior to being brought on site. A four-point composite sample should be collected for every 500 cubic yards of fill material imported to the Site and submitted for the following analyses:

- Volatile organic compounds by USEPA Method 8260B (solvent extraction EPA method 3540C)
- California Assessment Manual 17 metals by USEPA Method 6010B
- Semivolatile organic compounds by USEPA Method 8270
- PCBs by USEPA Method 8082A Soxhlet extraction, USEPA method 3540C

- Organochlorine pesticides by USEPA Method 8081
- TPH by USEPA Method 8015M

The analytical results for each of the constituents should be less than the cleanup goals provided in Section 4 of the SMP or the final Environmental Screening Levels for shallow soil (less than 1 meter below ground surface) for commercial and industrial properties where the groundwater is not a potential source of drinking water (Table B-2, RWQCB 2013), with the exception of Arsenic. Arsenic concentrations should be less than the site-specific background concentration of 7 mg/kg (see discussion presented in Appendix B of the CAP).

5.4.2 Stockpile Management

Potentially impacted soil generated from construction activities will be stockpiled on site. The stockpiles will likely be located at the northern portions of the Site but will depend on the location of the work. The stockpiles will be placed on, and covered with, polyethylene sheeting (tarps) to provide separation and prevent off-site soil migration due to wind and water erosion. In addition, a berm made of hay bales or another accepted material will be placed around each stockpile to capture any potential runoff from the stockpile. No stockpiled soils will be removed from the Site without Aspire's written permission.

Dust control measures will be used during excavation/work activities such that no visible dust migration is observed. Typically, misting with water and the use of anchored tarps can be used to control dust emissions. Mitigation procedures to prevent wind erosion of an active stockpile will include applying sufficient water or other accepted material to keep the soil slightly damp, but not so much water to create runoff from oversaturation. Stockpiles will not be piled excessively high (less than approximately 20 feet above the ground surface) to further prevent airborne transport of stockpile material.

5.4.3 Soil Characterization and Off-Site Reuse/Disposal

Soils will be adequately sampled and characterized/profiled as presented below prior to disposal to an off-site and appropriately licensed facility. Prior to characterization, the receiving facility will be identified and acceptance criteria will be provided to Aspire and ARCADIS for review and approval. No soil samples will be collected and/or analyzed without prior written approval of Aspire.

Sample collection and analyses will be required prior to transporting the soil off site for disposal or reusing the soil on site. The samples will be collected using the protocol described in the Soil Sampling Plan for imported soil for landscaping, dated June 24, 2011 (ARCADIS 2011). The proposed sampling will conform to the California Department of Toxic Substances Control (DTSC) Information Advisory – Clean Import Fill Material as follows:

- Up to 1,000 cubic yards – one sample per 250 cubic yards
- 1,000 to 5,000 cubic yards – four samples for the first 1,000 cubic yards plus one sample for each additional 500 cubic yards
- Greater than 5,000 cubic yards – 12 samples for the first 5,000 cubic yards plus one sample for each additional 1,000 cubic yards

Soils for removal and off-haul can be profiled either in-place or from the stockpile. Subsequent to permission by Aspire, all soils removed from the Site for disposal will be disposed of at a disposal facility approved by Aspire and that meets the regulatory and permitting requirements to accept the waste. All soil transportation and disposal documentation must be forwarded to Aspire upon completion of the disposal activities. All documentation regarding soil removal and disposal must be submitted to USEPA within 14 days after disposal.

6. References

ARCADIS. 2009a. Revised Corrective Action Plan, Proposed Aspire High School Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case No. RO0000411) 1009 66th Avenue, Oakland, Alameda County, California. July 17.

ARCADIS. 2009b. Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California. October 23.

ARCADIS. 2009c. Conditional Approval of the Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California. November 18.

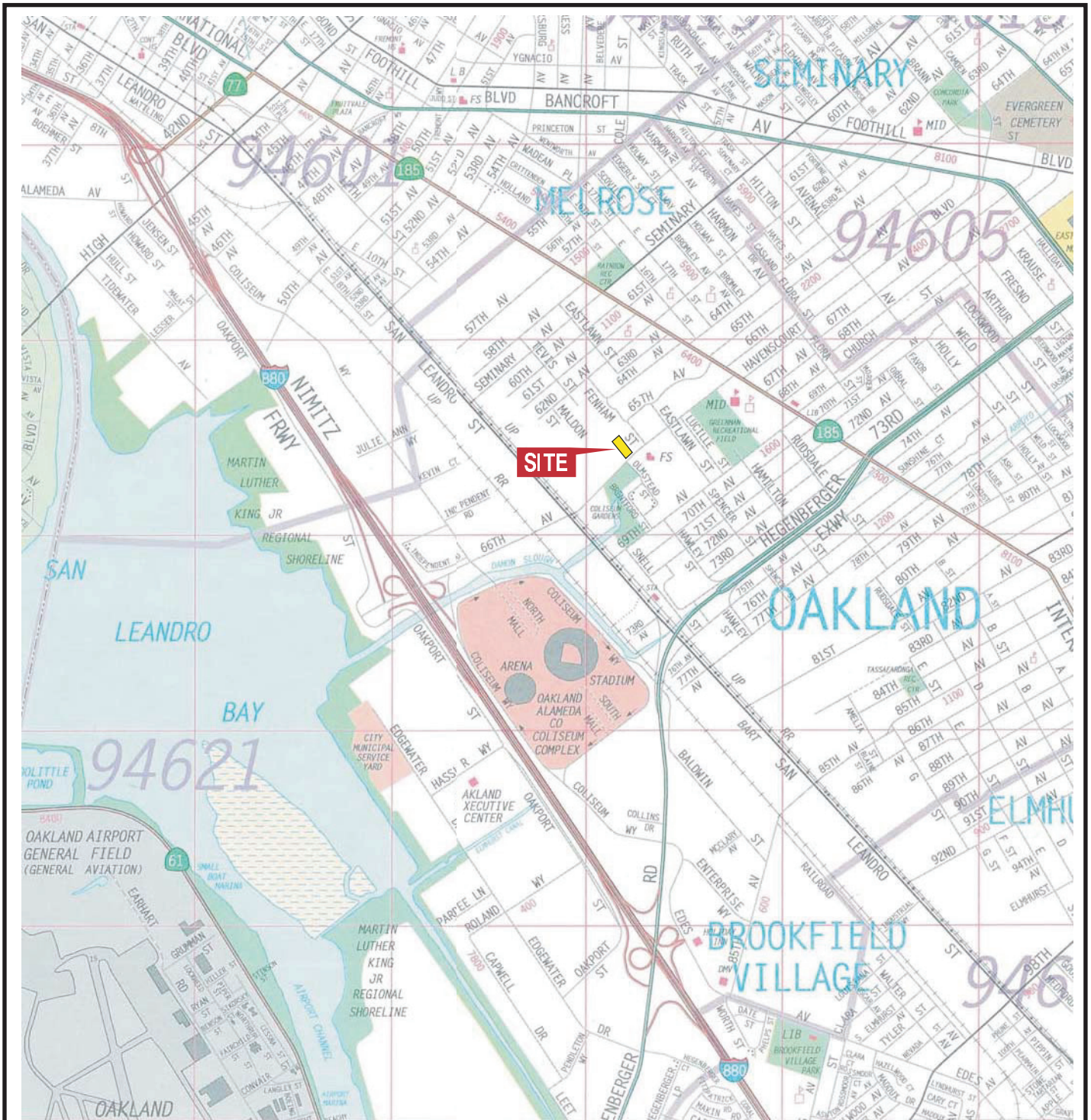
ARCADIS. 2010. Toxic Substance Control Act Risk-Based Cleanup Notification and Certification 40 CFR 761.61(c), Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. January 14.

ARCADIS. 2011. Soil Sampling Plan for Soil to be Imported for Use in the Proposed Landscaped Areas at the Former Pacific Electric Motors Facility, 1009 66th Avenue, in Oakland, California. June 24.

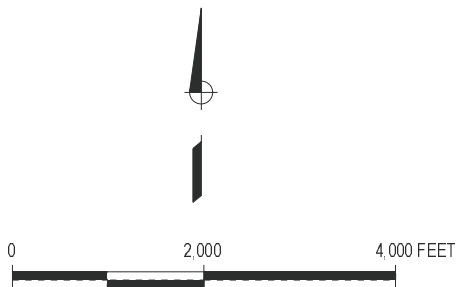
Department of Toxic Substances Control (DTSC). 2001. Information Advisory - Clean Import Fill Material http://www.dtsc.ca.gov/Schools/upload/SMP_FS_Cleanfill-Schools.pdf. October.

Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). 2013. Revised Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Revised. February.

United States Environmental Protection Agency (USEPA). 2009. Polychlorinated Biphenyls – USEPA Conditional Approval Under 40 C.F.R. § 761.61(a), Toxic Substance Control Act - "Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California." November 13.



MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition



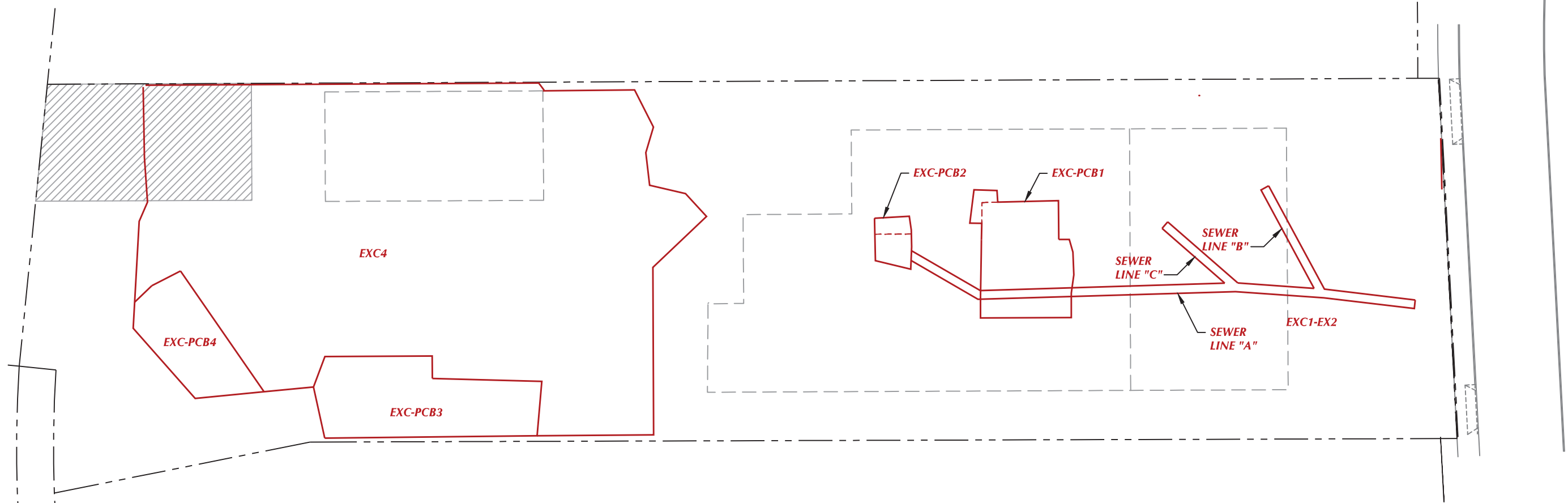
1009 66TH AVENUE, OAKLAND, CALIFORNIA

SITE VICINITY MAP







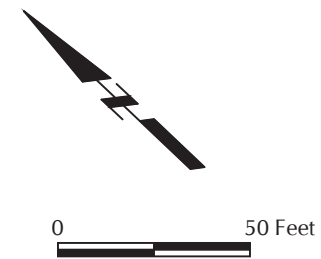
FIGURE
1


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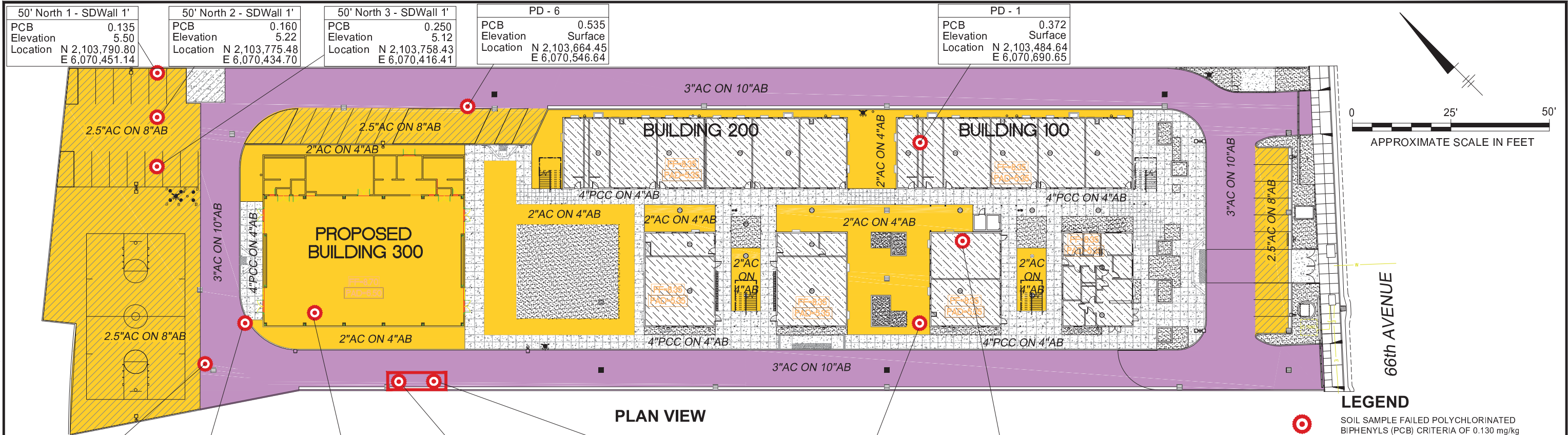


EXPLANATION:

-  Property Line
-  Former Warehouse Building
-  Area of Excavation of PCB-Affected Soil
-  Reported Area of Excavation of PCB-Affected Soil in 1992



PROPOSED CHARTER SCHOOL SITE 1009 66TH AVENUE, OAKLAND, CALIFORNIA	
SITE PLAN	
	FIGURE 2



50' North 1 - SDWall 1'
PCB 0.135
Elevation 5.50
Location N 2,103,790.80
E 6,070,451.14

50' North 2 - SDWall 1'
PCB 0.160
Elevation 5.22
Location N 2,103,775.48
E 6,070,434.70

50' North 3 - SDWall 1'
PCB 0.250
Elevation 5.12
Location N 2,103,758.43
E 6,070,416.41

PD - 6
PCB 0.535
Elevation Surface
Location N 2,103,664.45
E 6,070,546.64

PD - 1
PCB 0.372
Elevation Surface
Location N 2,103,484.64
E 6,070,690.65

25' North 7 - SDWall 1'
PCB 0.330
Elevation Surface
Location N 2,103,672.57
E 6,070,359.68

S1-SDWall 2' R1
PCB 0.230
Elevation 5.33
Location N 2,103,671.48
E 6,070,389.27

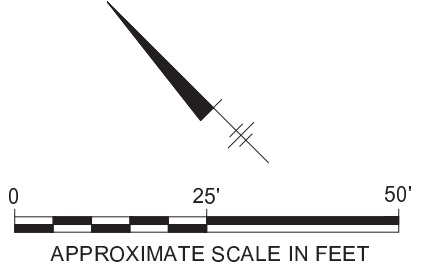
NE-Corner 3' R1
PCB 0.270
Elevation 4.35
Location N 2,103,649.30
E 6,070,417.30

W1-SDWall 2'
PCB 0.420
Elevation 3.09
Location N 2,103,594.35
E 6,070,421.11

W2-SDWall 2'
PCB 2.5
Elevation 2.47
Location N 2,103,581.50
E 6,070,433.39

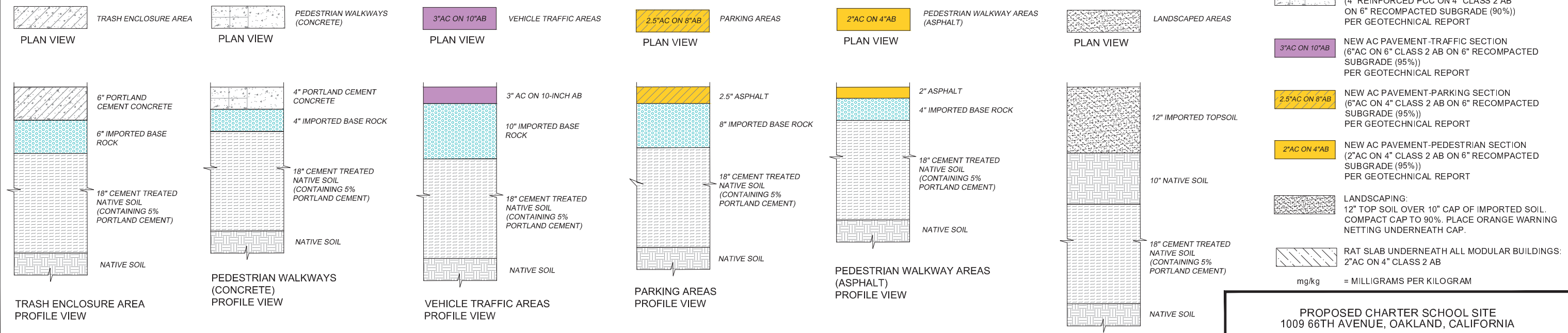
PD - 2
PCB 0.940
Elevation 7.34
Location N 2,103,422.13
E 6,070,623.77

SW - Bottom 6' R2
PCB 0.370
Elevation 1.41
Location N 2,103,434.81
E 6,070,669.06



PLAN VIEW

PAVEMENT DETAILS



- LEGEND**
- SOIL SAMPLE FAILED POLYCHLORINATED BIPHENYLS (PCB) CRITERIA OF 0.130 mg/kg
 - LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
 - NEW CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
 - NEW CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
 - NEW AC PAVEMENT-TRAFFIC SECTION (6" AC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
 - NEW AC PAVEMENT-PARKING SECTION (2.5" AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
 - NEW AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
 - LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. PLACE ORANGE WARNING NETTING UNDERNEATH CAP.
 - RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS: 2" AC ON 4" CLASS 2 AB
- mg/kg = MILLIGRAMS PER KILOGRAM

PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

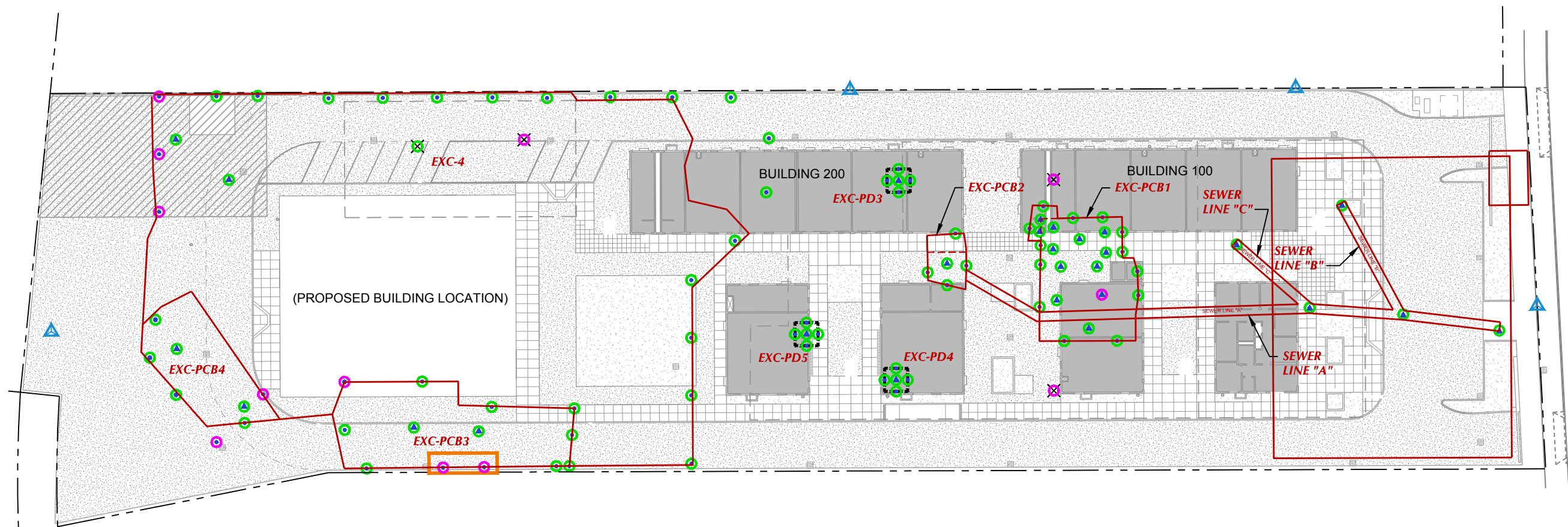
**SITE PLAN SHOWING
PAVEMENT PLAN / CAP AND IN-PLACE
SOIL EXCEEDING PCB CLEANUP GOALS**

SOURCES: UNDERWOOD & ROSENBLUM, INC.
K2A ARCHITECTURE + INTERIORS
GRADING AND PAVING PLANS

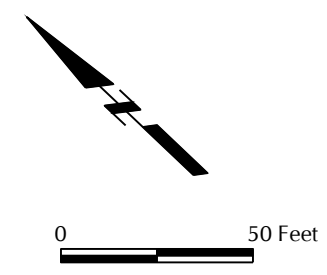


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- EXPLANATION:
- Property Line
 - Former Warehouse Building
 - Area of Excavation
 - Reported Area of Excavation of PCB-Affected Soil in 1992
 - ▲ Air Monitoring Station
 - Sidewall Confirmation Sample Location and ID
 - ▲ Bottom Confirmation Sample Location and ID
 - ⊠ Post Demolition Surface Soil Sample
 - Passed Polychlorinated Biphenyls (PCB) Criteria of 0.130 mg/kg
 - Failed PCB Criteria of 0.130 mg/kg
 - Location of PCB Affected Soil Encapsulated from Approximately 3 to 8 Feet Below Finished Grade
 - EXC-PD5 Post Demolition Excavation Areas. Excavated Soil Encapsulated in EXC PCB3.



PROPOSED CHARTER SCHOOL SITE
 1009 66TH AVENUE, OAKLAND, CALIFORNIA

SITE PLAN SHOWING EXCAVATION
 AREAS AND CONFIRMATION SAMPLE
 LOCATIONS

4



Appendix B

Building 300 Design Drawings



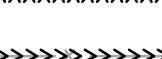
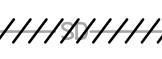
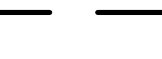



GENERAL NOTES

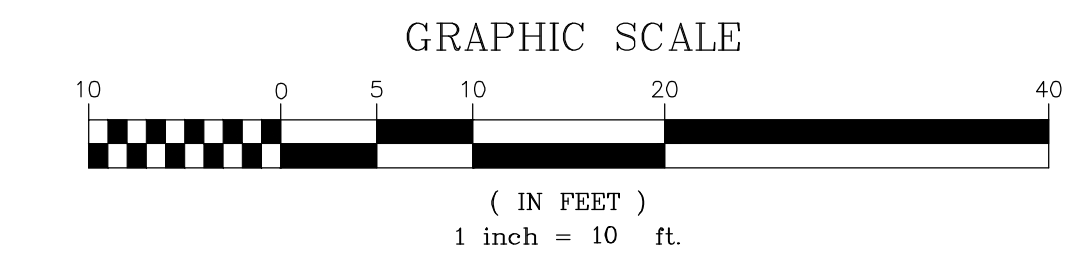
1. THE CONTRACTOR SHALL LAY OUT THE WORK, SETTING GRADE STAKES, ESTABLISHING LINES, BASE LINES, ELEVATIONS AND OTHER REFERENCE MARKERS AND INFORMATION NECESSARY TO COMPLETE THE WORK AND SHALL BE RESPONSIBLE FOR THE ACCURACY THEREOF.
2. ANY INCONSISTENCIES IN EXISTING OR PROPOSED ELEVATIONS SHALL BE BROUGHT TO THE NOTICE OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO CONSTRUCTION OR AS SOON AS DISCOVERED.
3. IN THE EVENT THAT ANY UNKNOWN UNDERGROUND TANKS OR STRUCTURES OR UTILITY LINES ARE DISCOVERED ON THE SITE, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE TO DETERMINE THE DISPOSITION OF THE STRUCTURE.
4. CONTRACTOR SHALL IMPORT REQUIRED MATERIALS OR EXPORT EXCESS AS REQUIRED TO ESTABLISH PLAN GRADES. EXCESS MATERIAL IF ANY SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT CONTRACTOR'S EXPENSE.
5. EXISTING WATER, STORM AND SANITARY INVERTS SHALL BE EXPOSED AND VERIFIED PRIOR TO ANY NEW CONSTRUCTION.

THE FOLLOWING SECTIONS OF THE STANDARD SITE WORK SPECIFICATIONS FOR THE CONSTRUCTION OF THIS PROJECT ARE APPLICABLE TO THE WORK SHOWN ON THIS DRAWING:

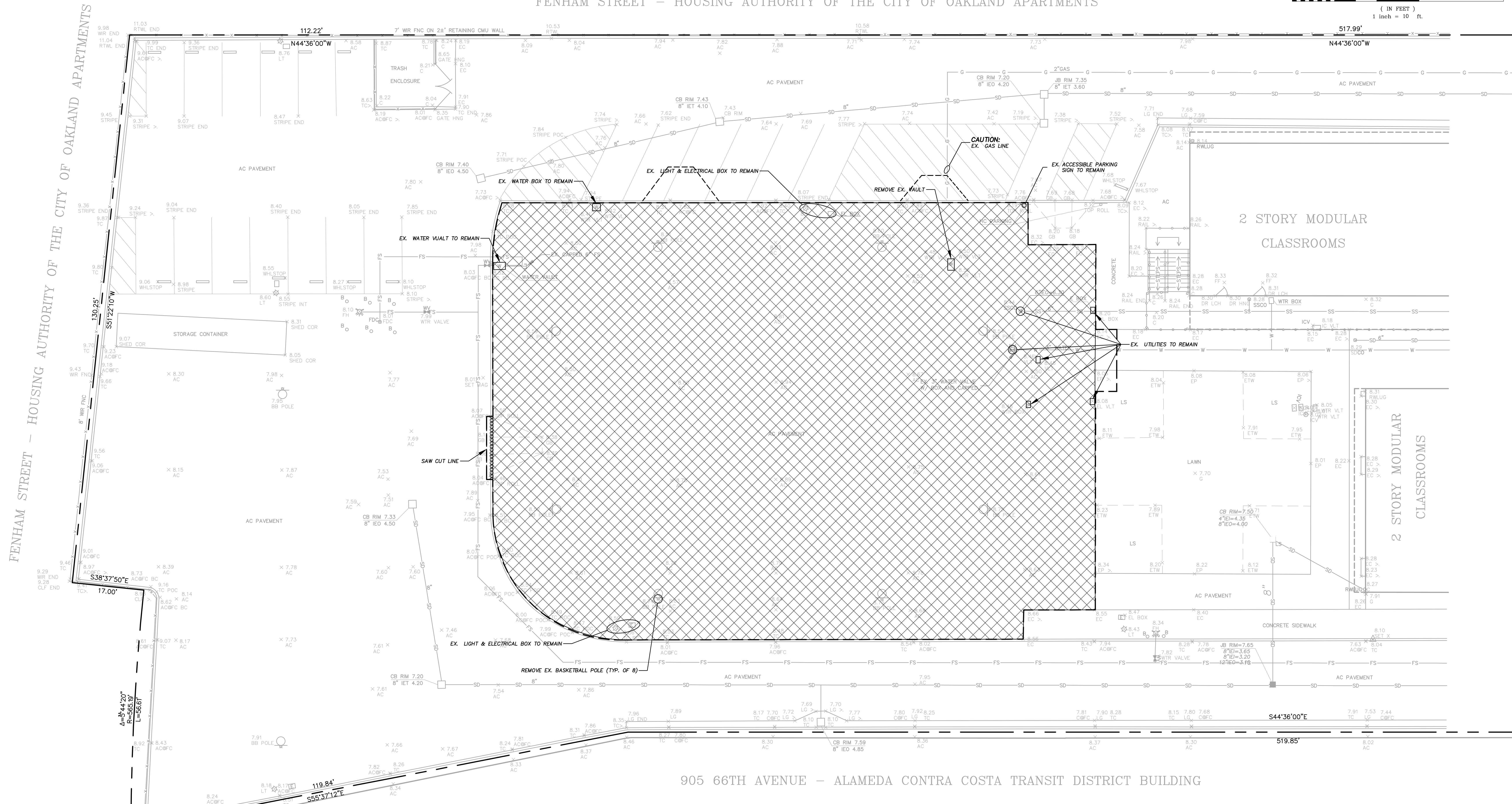
SECTION 311000 - SITE CLEARING

DEMOLITION LEGEND

-  REMOVE EXISTING PAVEMENT
-  REMOVE EXISTING TREE
-  REMOVE EXISTING CURB
-  REMOVE EXISTING FENCE
-  REMOVE EXISTING UNDERGROUND UTILITY
-  LIMIT OF SITE DEMOLITION, CLEARING AND GRADING
-  SAW CUT LINE
-  TEMPORARY CONSTRUCTION CHAIN LINK FENCE
- AC** ASPHALT CONCRETE
- AD** AREA DRAIN
- CB** CATCH BASIN
- CO** CLEAN OUT
- CONC.** CONCRETE
- EX., EXIST.** EXISTING
- TYP.** TYPICAL



FENHAM STREET - HOUSING AUTHORITY OF THE CITY OF OAKLAND APARTMENTS



905 66TH AVENUE - ALAMEDA CONTRA COSTA TRANSIT DISTRICT BUILDING

Client
College for Certain

Project Name
Aspire Golden State College Preparatory Academy

1009 66th Avenue
Oakland, CA 94621

Consultants
UNDERWOOD & ROSENBLUM, INC.
 civil engineers and surveyors
 PROJECT NO. J14038
 PLOT DATE: 7-12-2014



Sheet Name
SITE DEMOLITION PLAN

Approval Stamp

Revisions

Sheet Information
 Drawing Scale: 1"=10'
 Drawn By: MM
 Project Information
 Date: 07/12/2014
 Status: Permit Submittal - Rev. 1
 Project Number: 1406

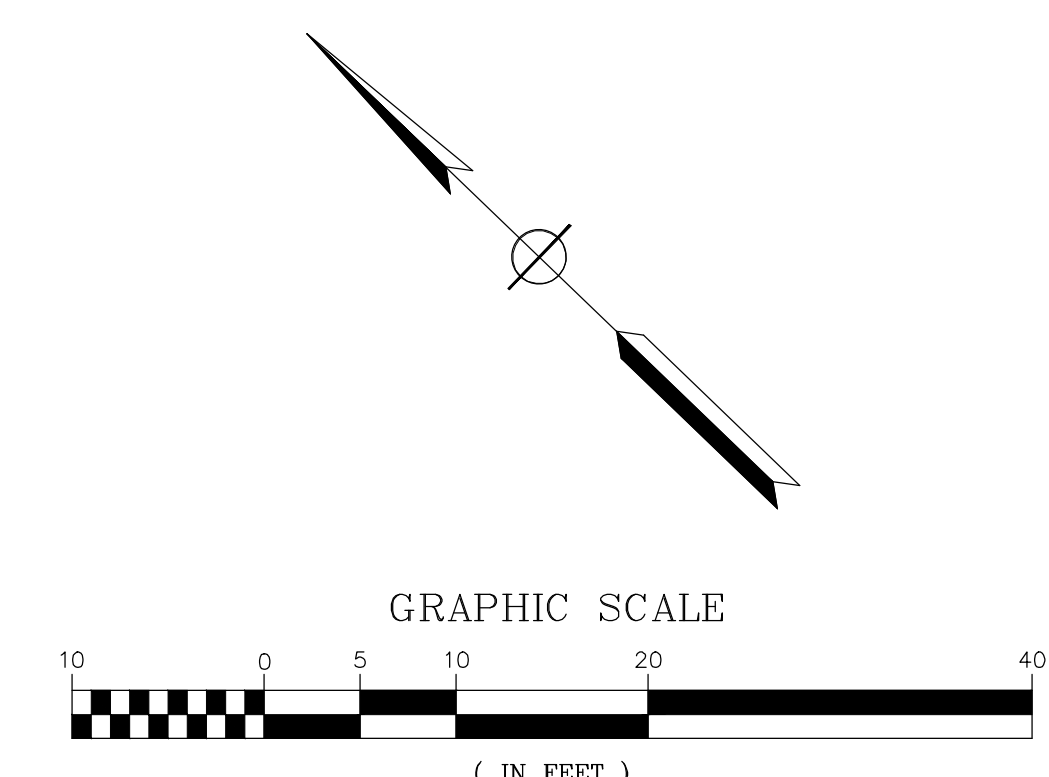
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GRADING & PAVING LEGEND

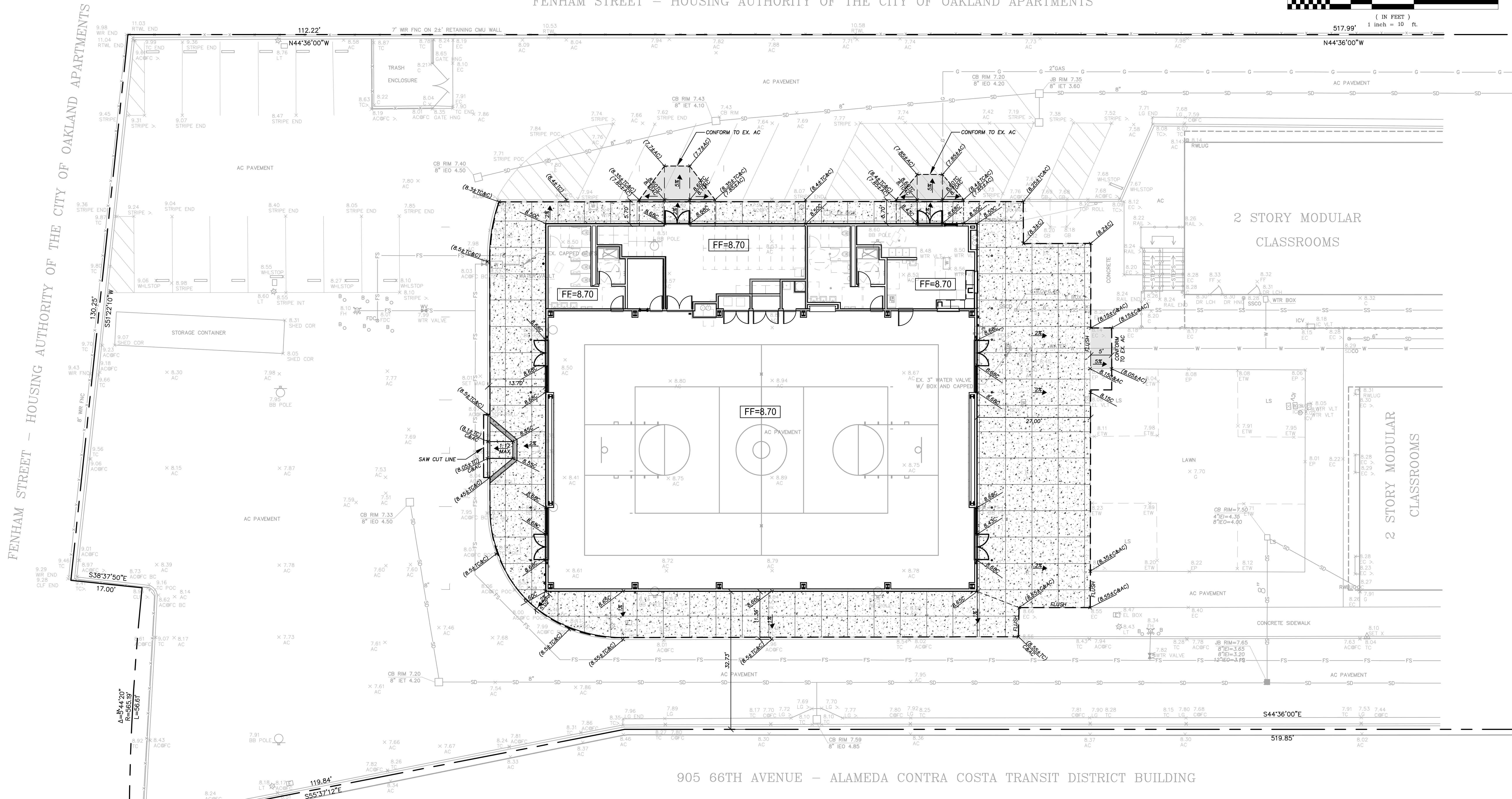
	NEW CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%))		ASPHALT CONCRETE
	NEW AC PAVEMENT (3" AC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%))		AREA DRAIN
	LIMIT OF GRADING		PORTLAND CEMENT CONCRETE
	SAW CUT LINE		CATCH BASIN
	DRAINAGE FLOW LINE		CLEAN OUT TO GRADE
	GRADE BREAK LINE		EXISTING
	RIDGE LINE		FINISH FLOOR
			FIRE HYDRANT
			FLOW LINE
			GROUND
			GRADE BREAK
			JUNCTION BOX
			STORM DRAIN MAINTENANCE HOLE
			SANITARY SEWER MAINTENANCE HOLE
			TOP OF CURB
			TOP OF WALL
			TYPICAL

GENERAL NOTES

1. THE CONTRACTOR SHALL LAY OUT THE WORK, SETTING GRADESTAKES, ESTABLISHING LINES, BASE LINES, ELEVATIONS AND OTHER REFERENCE MARKERS AND INFORMATION NECESSARY TO COMPLETE THE WORK AND SHALL BE RESPONSIBLE FOR THE ACCURACY THEREOF.
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 5. EXISTING WATER, STORM AND SANITARY INVERTS SHALL BE EXPOSED AND VERIFIED PRIOR TO ANY NEW CONSTRUCTION.
- THE FOLLOWING SECTIONS OF THE STANDARD SITE WORK SPECIFICATIONS FOR THE CONSTRUCTION OF THIS PROJECT ARE APPLICABLE TO THE WORK SHOWN ON THIS DRAWING:
- SECTION 311000 - SITE CLEARING
 - SECTION 312000 - EARTHMOVING
 - SECTION 321216 - ASPHALT PAVING
 - SECTION 321312 - CONCRETE PAVING
 - SECTION 321309 - REINFORCING STEEL



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Client
College for Certain

Project Name
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College Preparatory
Academy

1009 66th Avenue
Oakland, CA 94621

Consultants

UNDERWOOD & ROSENBLUM, INC.
civil engineers and surveyors
1630 Oakland Road Ste. 4114 San Jose, CA 95131
Tel. No. (408) 653-1222 www.usr.com

PROJECT NO. J14038
PLOT DATE: 7-12-2014



Sheet Name
GRADING AND PAVING PLAN

Approval Stamp

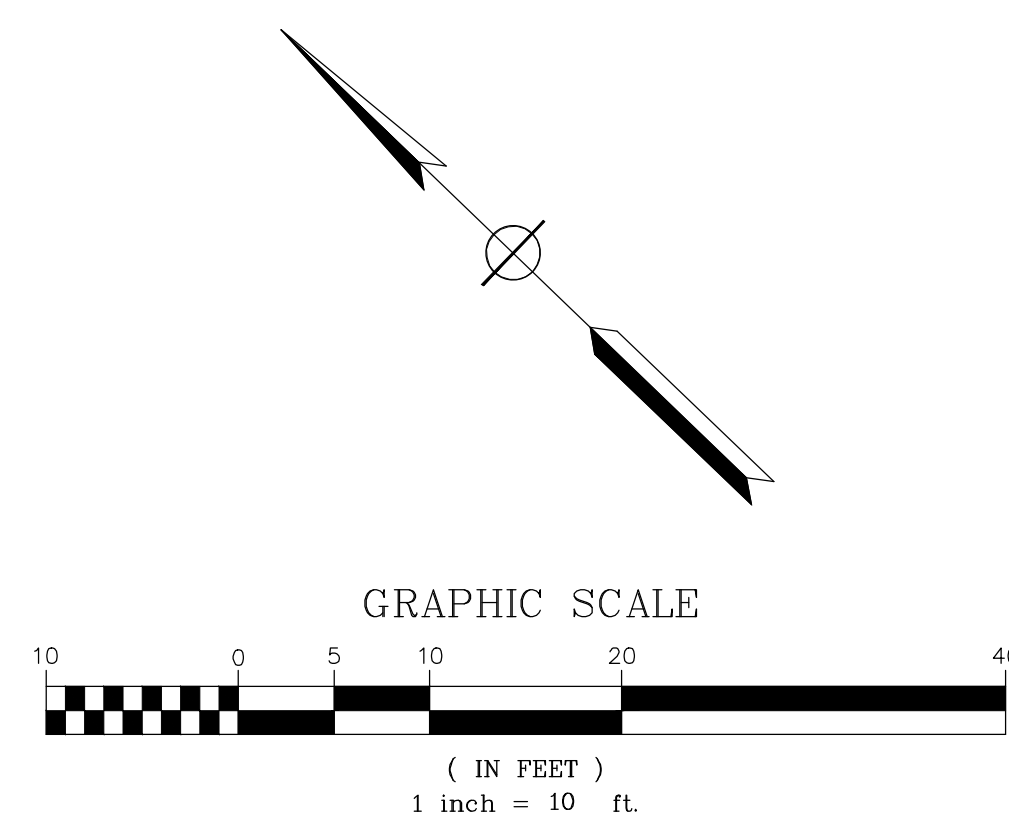
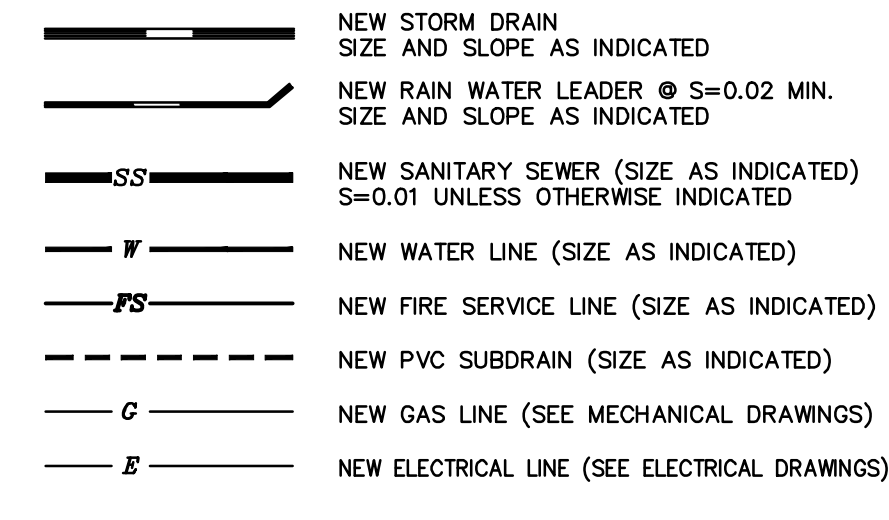
Revisions

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Drawn By: MM

Project Information
Date: 07/12/2014
Status: Permit Sub - Rev. 1
Project Number: 1406

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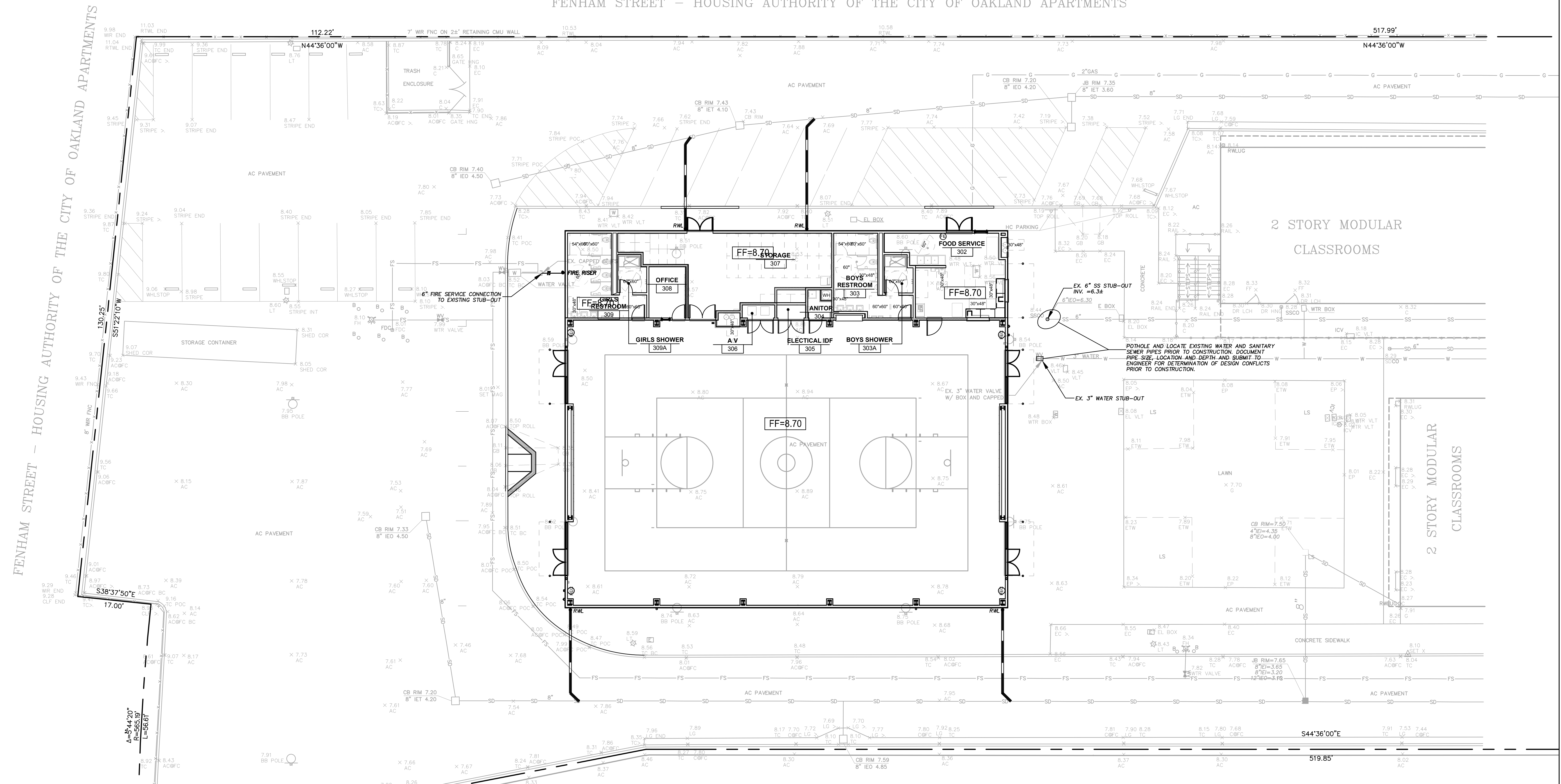
PLUMBING LEGEND



GENERAL NOTES

- THE CONTRACTOR SHALL LAY OUT THE WORK, SETTING GRADE STAKES, ESTABLISHING LINES, BASE LINES, ELEVATIONS AND OTHER REFERENCE MARKERS AND INFORMATION NECESSARY TO COMPLETE THE WORK AND SHALL BE RESPONSIBLE FOR THE ACCURACY THEREOF.
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 - EXISTING WATER, STORM AND SANITARY INVERTS SHALL BE EXPOSED AND VERIFIED PRIOR TO ANY NEW CONSTRUCTION.
 - PLUMBING CONTRACTOR TO PROVIDE TRACER WIRES ON ALL BURIED PLASTIC PIPING.
 - VALVE BOXES TO BE CHRISTY 10"x17" WITH BALL VALVES. BALL VALVES TO BE SET 12" BELOW GRADE. WATER LINES TO BE SET 24" BELOW GRADE.
 - WHEN WATER AND SEWER LINES ARE INSTALLED IN JOINT TRENCH, WATER LINES TO BE SET MINIMUM 1' HIGHER THAN SEWER LINES WITH MINIMUM 1' HORIZONTAL CLEARANCE.
 - UTILITY POINTS OF CONNECTION ARE 5' OUTSIDE OF BUILDING. SEE MECHANICAL AND PLUMBING DRAWINGS FOR UTILITY CONNECTION.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF LOCATIONS OF ALL EXISTING UTILITIES IN THE FIELD.
 - ALL UTILITY TRENCHES SHOULD BE BACKFILLED WITH COMPACTED FILL IN ACCORDANCE WITH LOCAL REQUIREMENTS OR THE RECOMMENDATIONS IN THE SOILS REPORT. FILL MATERIAL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES IN UNCOMPACTED THICKNESS AND SHOULD BE COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION (ASTM D-1557, LATEST EDITION) BY MECHANICAL MEANS ONLY, EXCEPT WHERE LOCAL REQUIREMENTS SPECIFY HIGHER REQUIREMENTS. IF IMPORTED SAND IS USED AS BACKFILL, THE UPPER THREE FEET IN BUILDING AND PAVEMENT AREAS SHALL BE COMPACTED TO 95 PERCENT. THE UPPER 6 INCHES OF BACKFILL IN ALL PAVEMENT AREAS SHALL BE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION.
- THE FOLLOWING SECTIONS OF THE STANDARD SITE WORK SPECIFICATIONS FOR THE CONSTRUCTION OF THIS PROJECT ARE APPLICABLE TO THE WORK SHOWN ON THIS DRAWING:
- SECTION 312333 - TRENCHING & BACKFILLING
 - SECTION 331100 - WATER UTILITY DISTRIBUTION PIPING
 - SECTION 333000 - SEWAGE UTILITIES
 - SECTION 334100 - STORM UTILITY DRAINAGE PIPING

FENHAM STREET - HOUSING AUTHORITY OF THE CITY OF OAKLAND APARTMENTS



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1630 Oakland Street Ste. 4114 San Jose, CA 95131
Tel. No. (408) 653.1222
www.uwr.com

PROJECT NO. J14038
PLOT DATE: 7-12-2014



Sheet Name
SITE PLUMBING
PLAN

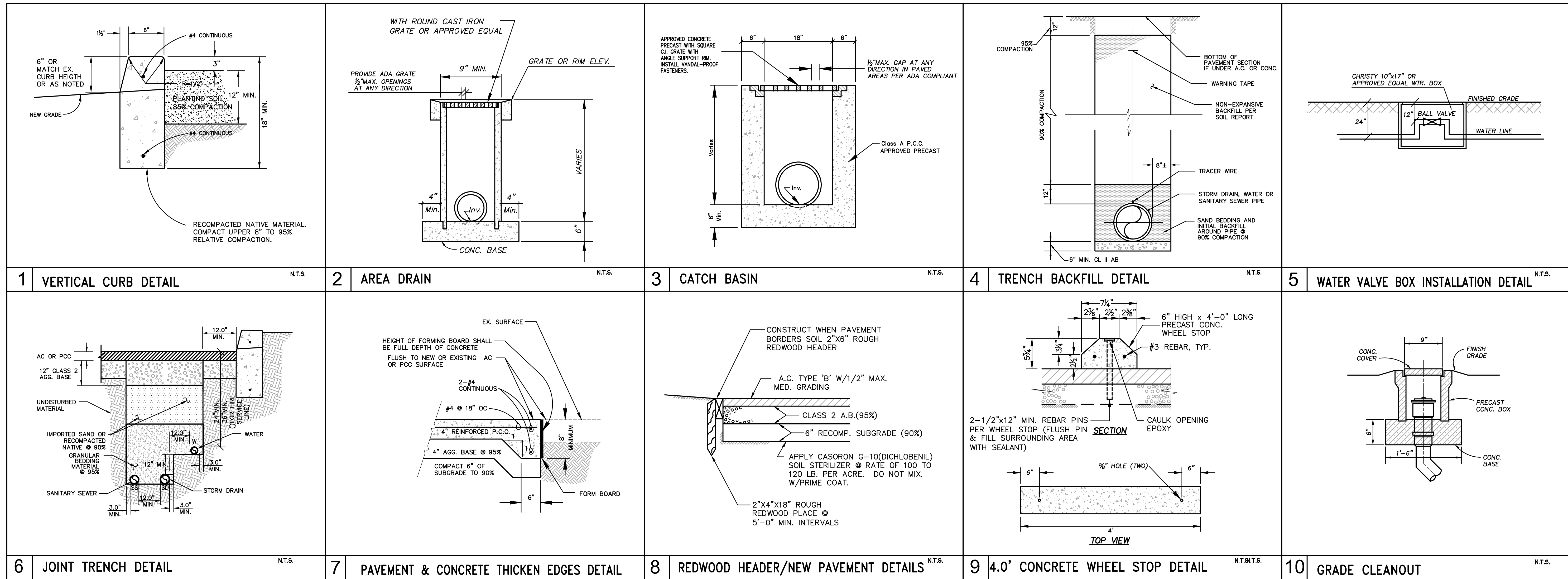
Approval Stamp

Revisions

Sheet Information
Drawing Scale: 1"=10'
Drawn By: MM

Project Information
Date: 07/12/2014
Status: Permit Submittal - Rev. 1
Project Number: 1406

Sheet



Client
 College for Certain

Project Name
 Aspire Golden State
 College Preparatory
 Academy

1009 66th Avenue
 Oakland, CA 94621

Consultants
UNDERWOOD & ROSENBLUM, INC.
 civil engineers and surveyors
 1630 Oakleaf Road Ste. 4114 San Jose, CA 95131
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ARCHITECTURE
+ INTERIORS

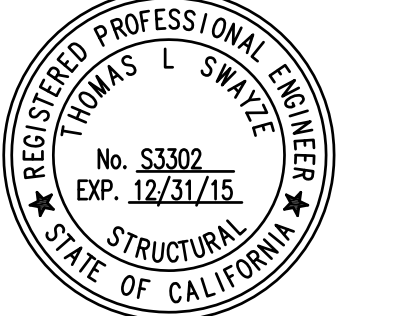
555 DeHaro Street, Suite 380
San Francisco, CA 94107
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fax 415.487.6909

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Oakland, CA 94621

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CORNERSTONE
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San Francisco, California 94107
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Sheet Name
**BUILDING 300 -
FOUNDATION PLAN**

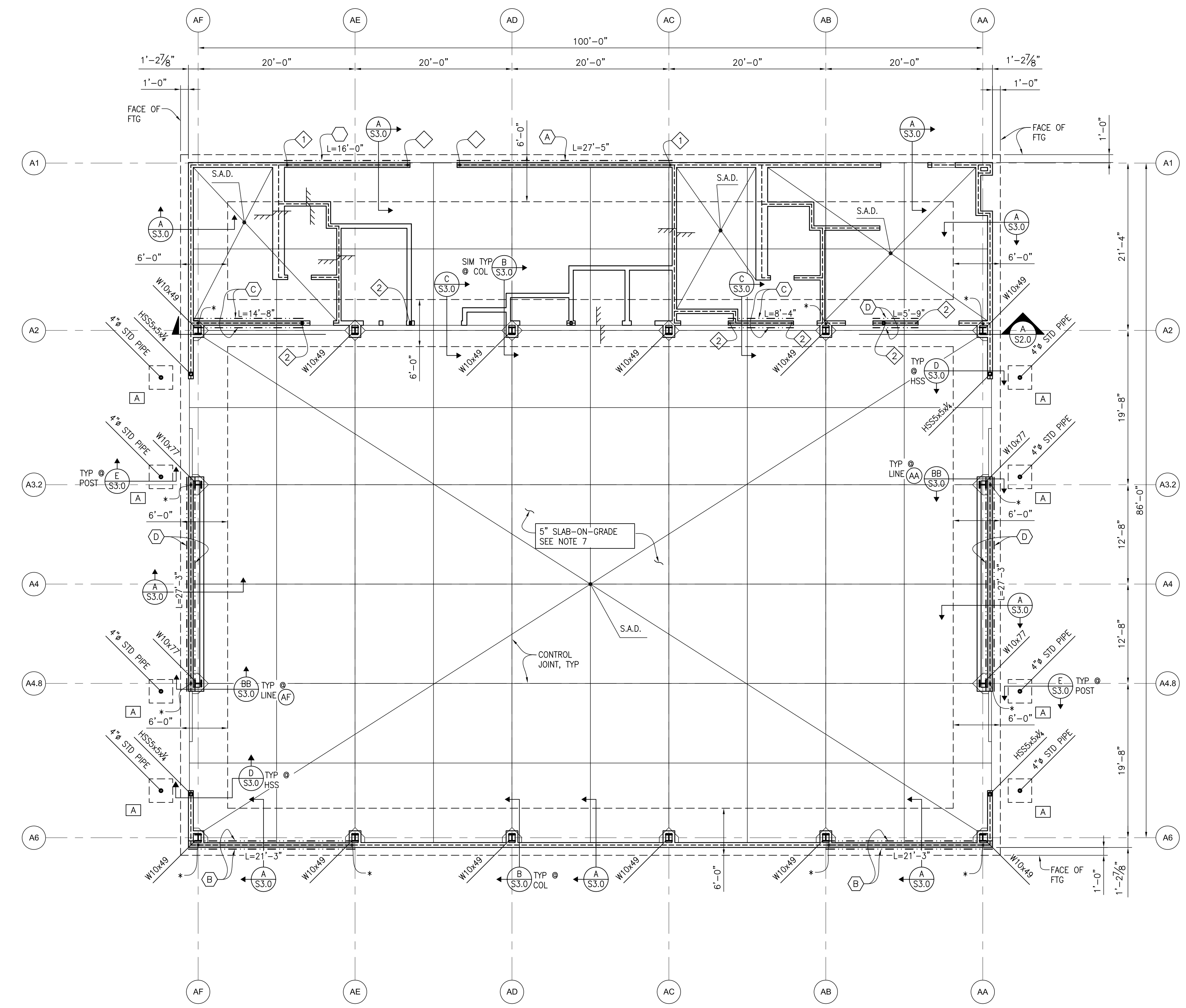
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Sheet Information
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Drawn By: DDA
Project Information
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Sheet

S2.0



FOUNDATION PLAN NOTES:

- TOP OF SLAB & GROUND FLOOR REFERENCE ELEVATION = +0.00 TYP. UNO.
- FOR DETAILED SOILS INFORMATION AND COMPLETE REQUIREMENTS, REFER TO SOILS REPORT.
- SEE SHEET S1.0 FOR TYPICAL FOUNDATION DETAILS.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND INFORM BOTH ARCHITECT AND ENGINEER OF ANY CONFLICTING INFORMATION.
- SEE ARCHITECTURAL DRAWINGS FOR EXTENTS OF COLORED CONCRETE. COORDINATE CONSTRUCTION JOINTS W/ COLORED CONCRETE EXTENTS.
- THE SIZE & LOCATION OF ALL FOOTING AND SLAB PENETRATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
- TYPICAL SLAB SECTION AS FOLLOWS:
- 5" THICK CONCRETE SLAB.
- #4 @ 12" OC, EACH WAY AT 2" BELOW TOP OF SLAB. SUPPORT AT 36" MAX EACH WAY.
- SHEET WATERPROOFING.
- 4" OF 3/4" CRUSHED ROCK.
- CONTROL JOINTS ARE TO BE INSTALLED @ 12'-8" OC MAX AS SHOWN.
- INDICATES SLAB DEPRESSION.
- INDICATES DEPRESSED SLAB ELEVATION. WHERE INDICATED, SEE ARCH DWGS FOR SLAB DEPRESSION ELEVATION. SEE ARCHITECTURAL DRAWINGS FOR LIMITS OF DEPRESSED AREAS.
- INDICATES FOOTING.
- INDICATES TOP OF FOOTING ELEVATION BELOW TOP OF SLAB. TOP OF FOOTING SHALL BE 1'-0" BELOW TOP OF SLAB, UNO.
- ANCHOR BOLTS AND BASE PLATES SHALL NOT BE WET SET.
- INDICATES FOOTING TYPE, SEE SCHEDULE.
- INDICATES HOLDDOWN, SEE SCHEDULE SHEET S1.3.
- INDICATES HOLDDOWN @ WF COL, SEE S1.3 & S1.3.

- ALL DIMENSIONS ARE TO CENTERLINE OF COLUMNS OR FACE OF CONCRETE, TYP UNLESS NOTED OTHERWISE.
- STUDWALL CONSTRUCTION SHALL BE:
- SEE SCHEDULE FOR STUD SIZE & SPACING.
- 2x6 PT SILL PLATE, UNO.
- 3/4" AB @ 48" OC W/ 8" MIN EMBED BELOW TOP OF SLAB.
- THE OUTSIDE FACE OF EXTERIOR WALLS SHALL BE SHEATHED W/ 1/2" CDX PLYWOOD. EDGE NAILING SHALL BE 8d @ 6" OC AND FIELD NAILING SHALL BE 8d @ 12" OC, UNO.
- INDICATES STUD WALL.
- INDICATES STUD WALL W/ CONC CURB.
- INDICATES SHEARWALL CONSTRUCTION WITH NAILING AND MINIMUM LENGTH. SEE SCHEDULE SHEET S1.3.
- ALL 4x & 6x POSTS SHALL BE SUPPORTED WITH SIMPSON AB POST BASES W/ 1/2" x 8" EMBED ANCHOR BOLTS, U.N.O.

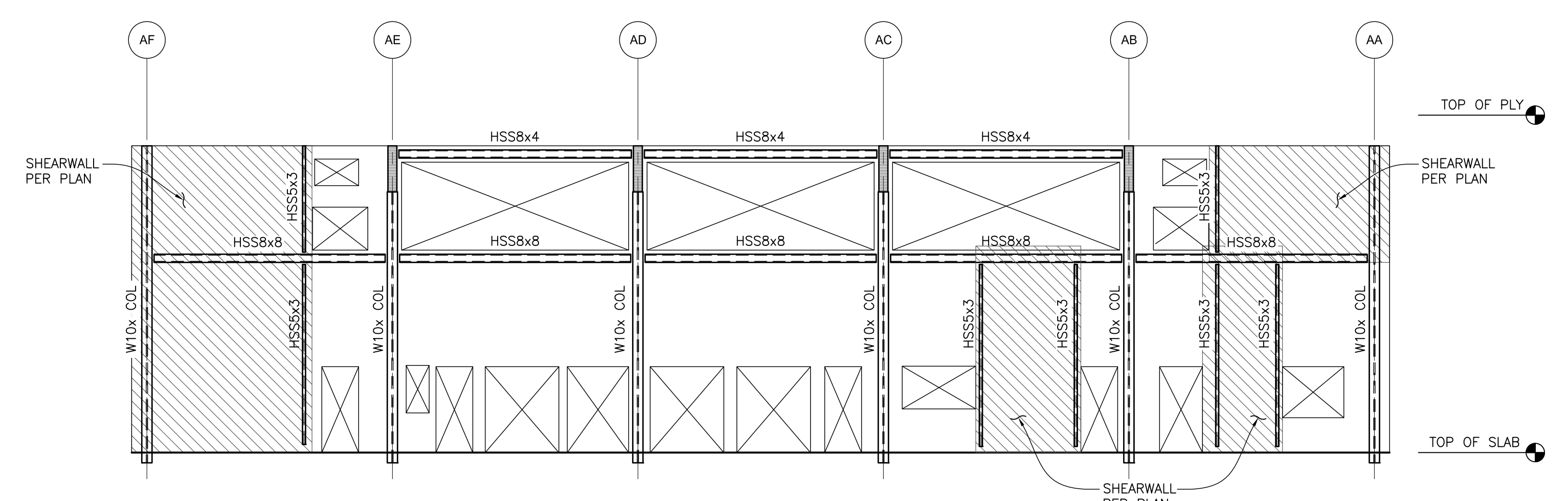
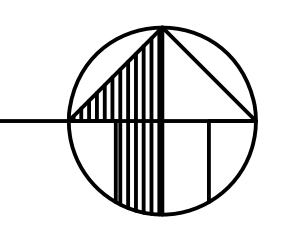
FOOTING SCHEDULE				
TYPE	SIZE	REINFORCING		REMARKS
		LONGITUDINAL	TRANSVERSE	
A	3'-0" x 3'-0"	3 - #5	3 - #5	2
B	4'-0" x 4'-0"	4 - #5	4 - #5	1,3

- NOTES:
- RUN CONTINUOUS STEEL THROUGH FOOTING.
 - REINFORCING INDICATES BOTTOM MAT ONLY.
 - REINFORCING INDICATES TOP AND BOTTOM MAT.

STUDWALL SCHEDULE	
LOCATION	STUDS
TYPICAL, U.N.O.	2x6 @ 16" OC
GRID (A2) & (A6)	3x6 @ 12" OC
GRID (AA) & (AF) BELOW HSS GIRT	3x6 @ 12" OC
GRID (AA) & (AF) ABOVE HSS GIRT	2-2x6 @ 12" OC INTERNAL W/ 16d @ 8" OC

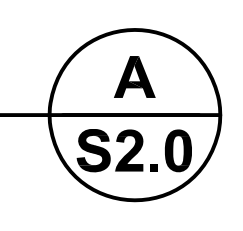
FOUNDATION PLAN

1/8" = 1'-0"



ELEVATION LINE A2

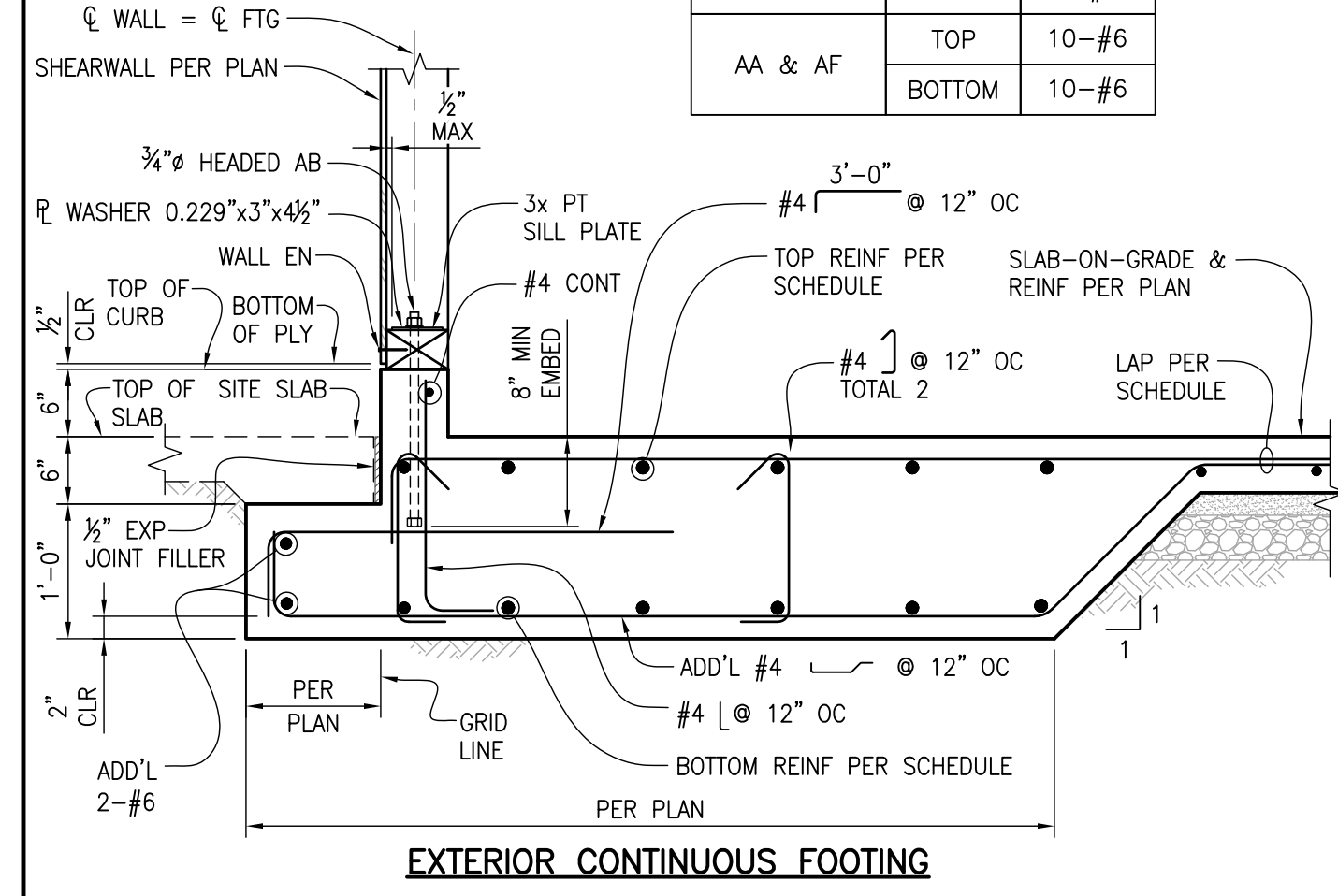
1/8" = 1'-0"



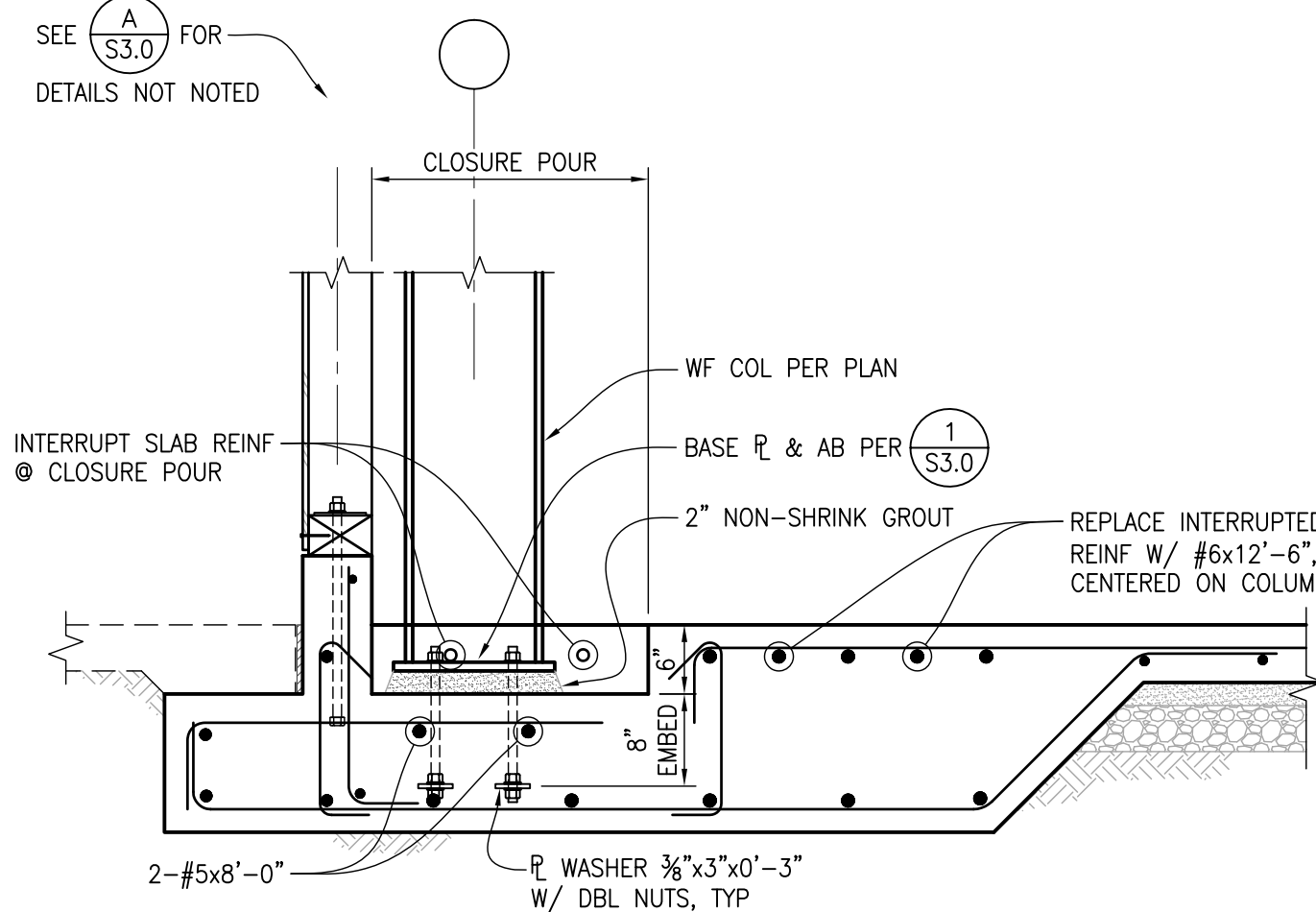
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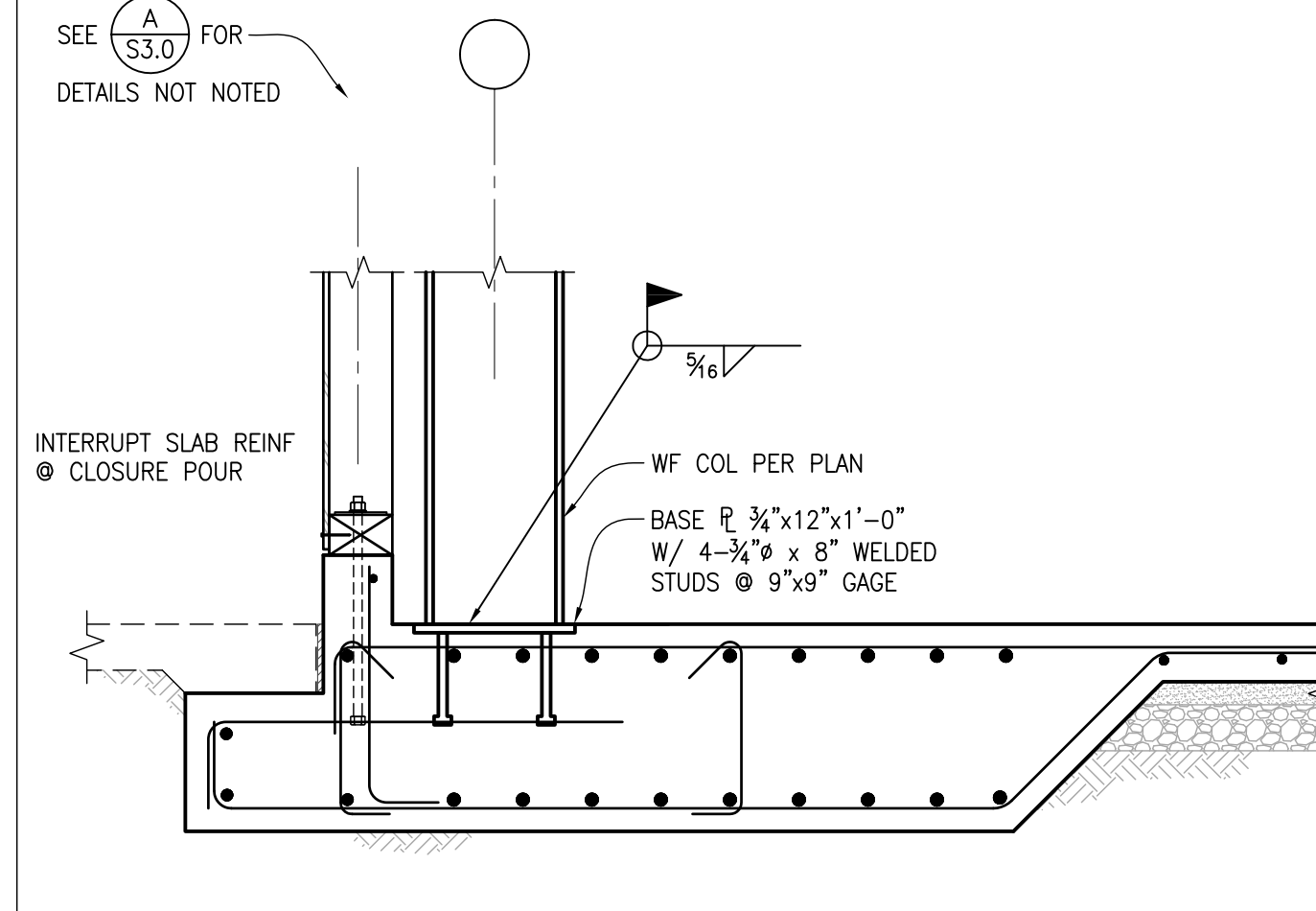
FOOTING GRIDLINE	REINFORCING
A1, A2, & A6	TOP 6-#6
	BOTTOM 6-#6
AA & AF	TOP 10-#6
	BOTTOM 10-#6



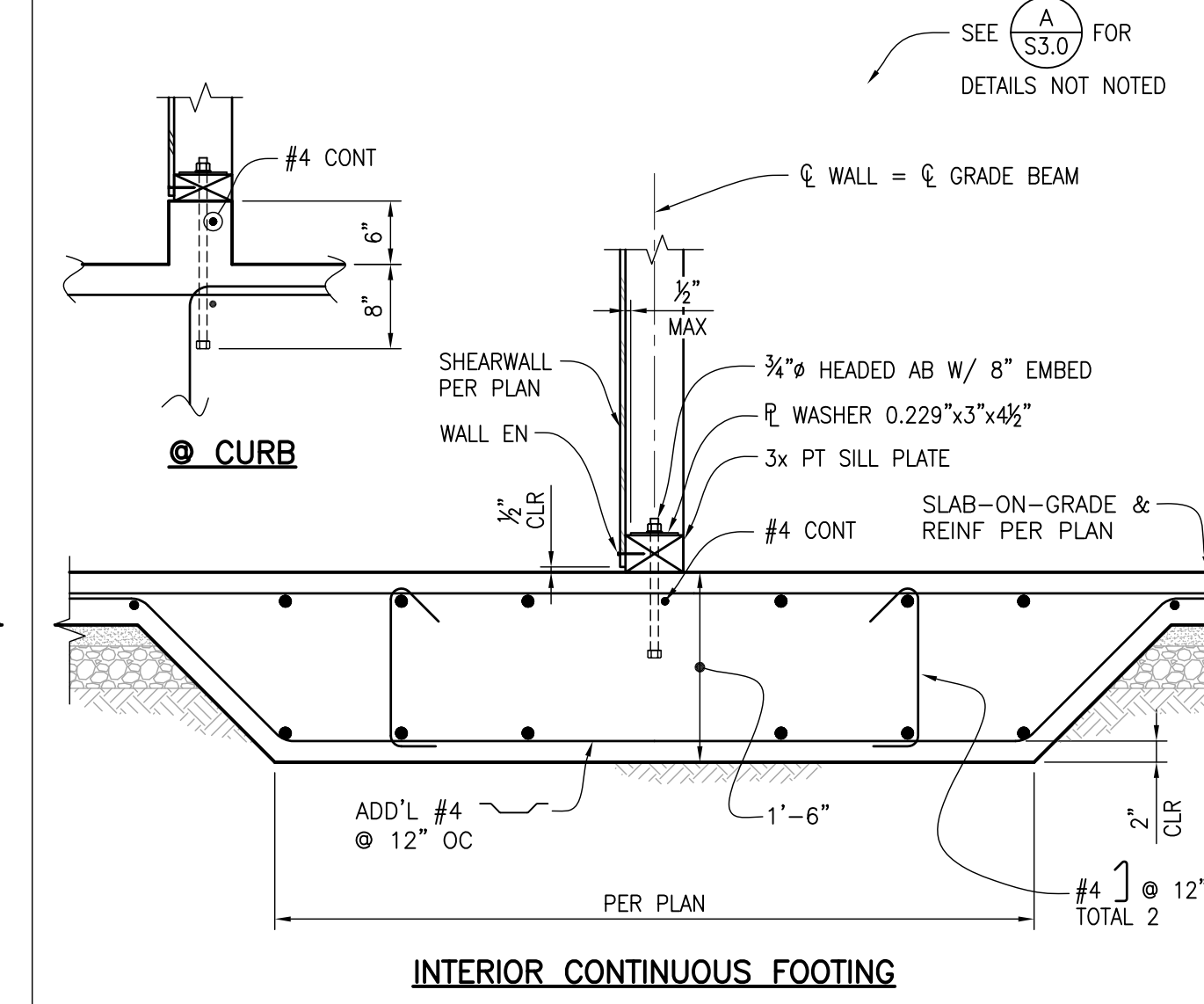
SECTION A
3/4"x1'-0"



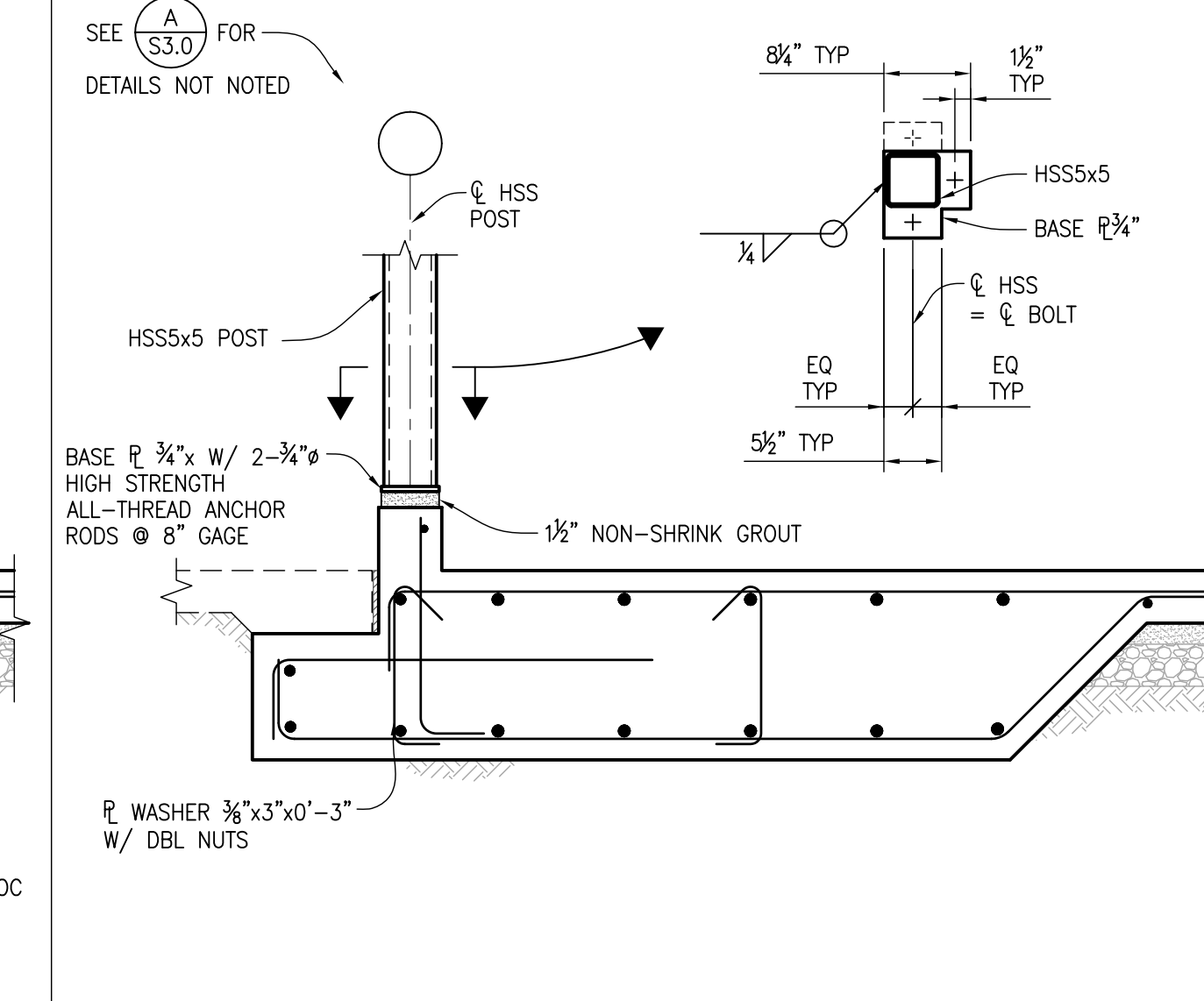
SECTION B
3/4"x1'-0"



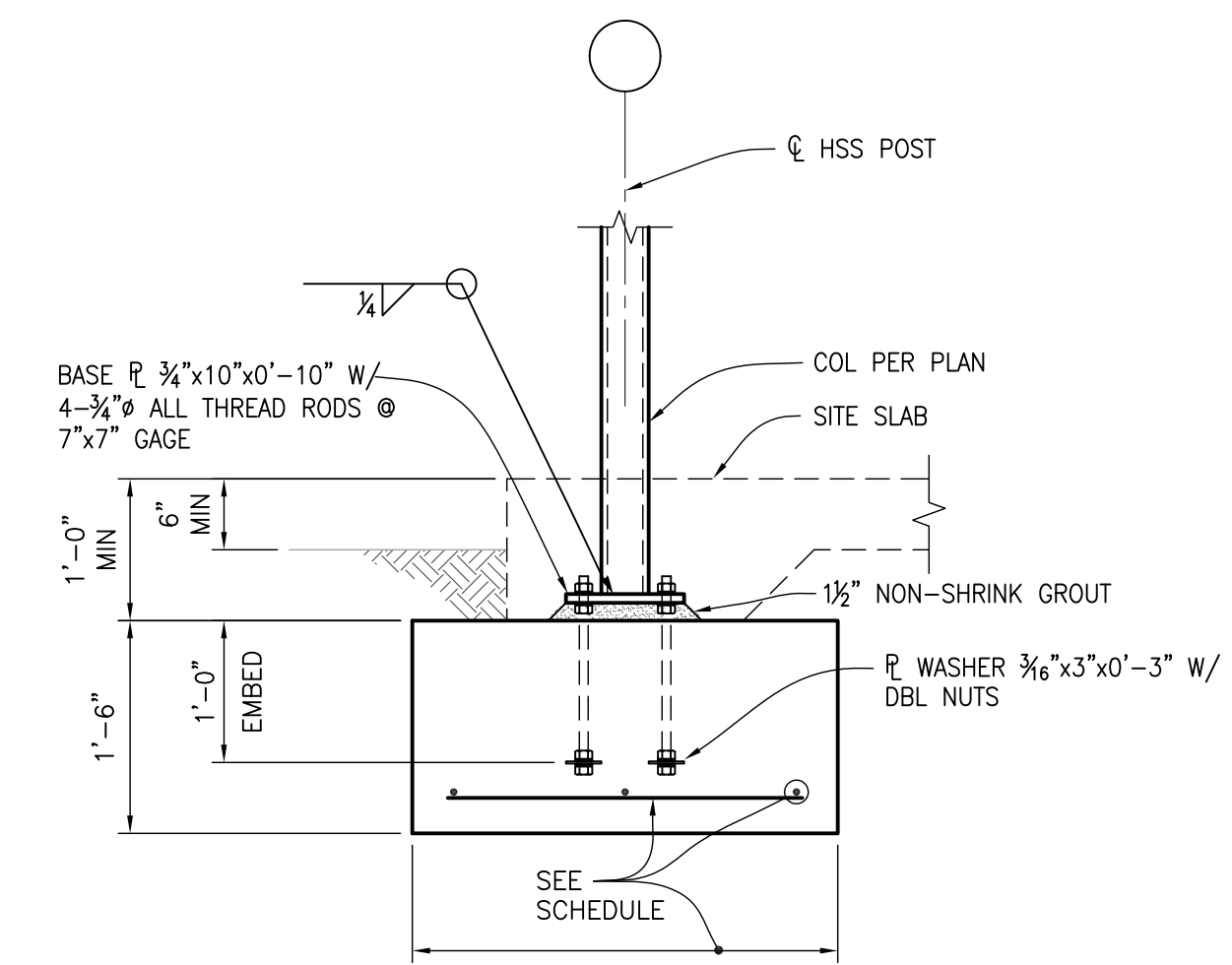
SECTION BB
3/4"x1'-0"



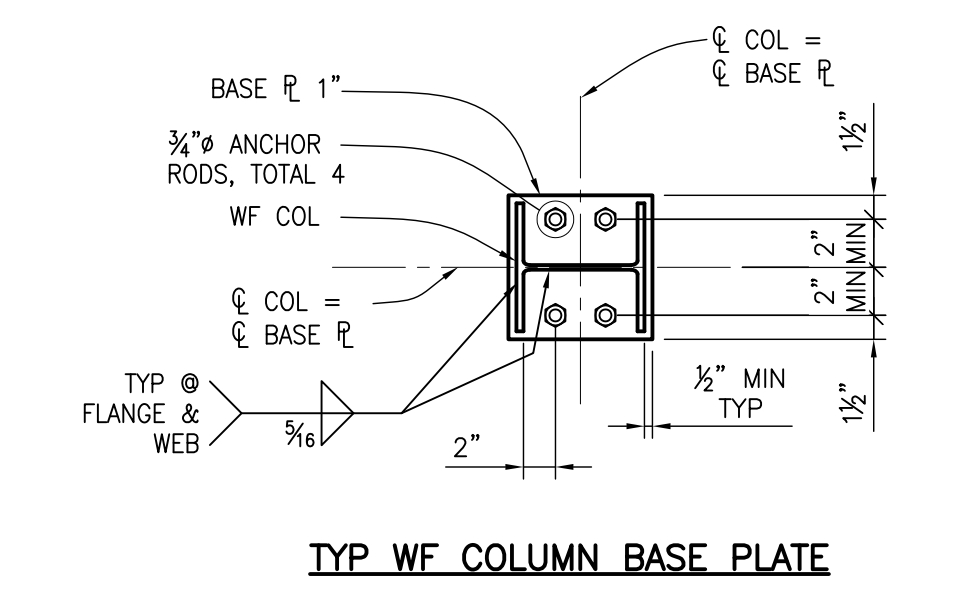
SECTION C
3/4"x1'-0"



SECTION D
3/4"x1'-0"



SECTION E
3/4"x1'-0"



TYPICAL DETAIL 1
1"x1'-0"



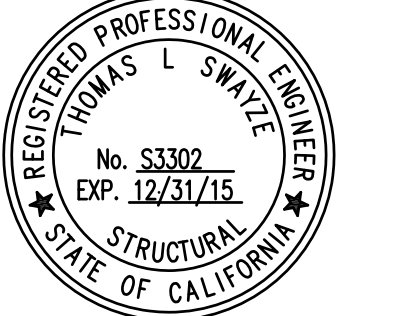
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