October 3, 2014

Nazmul Haque, PhD, PE
Environmental Protection Specialist
Underground Storage Tank Branch
District Department of the Environment
1200 First Street, NE
5th Floor
Washington, D.C. 20002

Re: Corrective Action Plan
1124-1126 Florida Avenue NE
Washington, DC
LUST Case No: 2014-005
Apex Job No.: 13505.001

Dear Dr. Haque:

Apex Companies, LLC (Apex) is pleased to present this Corrective Action Plan (CAP) in response to the directive letter issued to Srours Florida Avenue, LLC from the District Department of the Environment (DDOE) Toxic Substances Division on March 12, 2014, associated with the above referenced Leaking Underground Storage Tank (LUST) case. The CAP details the procedures for removal of closed in place tanks remaining on site, managing petroleum contamination during mass removal of petroleum-contaminated soil, and treatment of groundwater from construction dewatering activities associated with the site redevelopment.

Based on the site characterization data generated to date including the Comprehensive Site Assessment (CSA) prepared by Apex (dated 9/2/14), a combination of remediation strategies is proposed including the excavation and off-site disposal of non-hazardous petroleum contaminated soil, dewatering/treatment of impacted groundwater during the site redevelopment, and installation of engineering control to mitigate vapors. Interim measures will include routine well gauging, product recovery (if applicable), and groundwater monitoring. The corrective action measures outlined in the CAP will remediate subsurface contamination from this site and eliminate any potential future risks to human health and the environment.

If you have any questions or comments, please call me at (301) 417-0200.

Sincerely,
Apex Companies, LLC

Final to be signed

Pradumna P. Neupane
Program Manager
Environmental Services Group

Enclosure

cc: Mr. Habte Sequar, Pierce Investment, LLC

CORRECTIVE ACTION PLAN

Designed for

1124-1126 Florida Avenue NE
Washington D.C. 20002

LUST Case ID: 2014-005
UST Site ID: 5-000510

Apex Job No.: 13505.001

October 3, 2014

Prepared for:

Mr. Habte Sequar
Pierce Investment, LLC
907 N Street NW
Washington D.C. 20001

Submitted To:

Nazmul Haque, PhD, PE
Environmental Protection Specialist
Underground Storage Tank Branch
District Department of the Environment
1200 First Street, NE
5th Floor
Washington, D.C. 20002

Prepared by:

Final to be signed

Matthew Voorhees
Project Manager
Environmental Services Group

Reviewed by:

Final to be signed

Pradumna P. Neupane
Program Manager
Risk Assessor/Closure Specialist
DCPRAC-010013)

TABLE OF CONTENTS

FIGURES

TABLES

ATTACHMENT

1.0 INTRODUCTION AND BACKGROUND

Apex Companies, LLC (Apex) has prepared this Corrective Action Plan (CAP) for the property located at 1124-1126 Florida Avenue, NE Washington, D.C. hereinafter referred to as the "subject property" or "site", on behalf of Pierce Investment, LLC, the potential purchaser of the subject property. The site consists of approximately 12,900 square feet (SF) of land and multiple buildings located in a mixed-use area of northeast D.C. The site has a long history of being operated as a gasoline and oil service station since the 1940's. According to the Notification for Underground Storage Tanks (UST) Report for the subject property, 15 USTs were removed from the ground and five USTs were properly closed in place (filled with sand) in May 1987. No active USTs currently exist at the site. A regional site location map is provided as **Figure 1.**

Evidence of petroleum releases from the former use of the site as a gas and oil service station were identified during prior subsurface investigations. An initial Leaking UST (LUST) case (#92-032) related to petroleum impacted soils discovered during utility installation was closed in July 2010 after several environmental investigations and implementation of a CAP employing enhanced natural attenuation. The current open LUST case (#2014-005) was opened by DDOE following the submittal of the Phase II Environmental Site Assessment (ESA) report by ICOR, LTD. (ICOR) in February 2014. DDOE opened the current LUST based on documentation of elevated petroleum contamination which was reportedly higher than that detected when the previous LUST case was closed, including potential exposure of construction workers to residual petroleum contamination during future site redevelopment. The LUST case number 2014-005 currently remains open at the site. Apex completed a Comprehensive Site Assessment (CSA) during July/August 2014 in order to delineate the extent and magnitude of the petroleum impact in subsurface soil and groundwater at the subject property. The Apex CSA Report dated September 2, 2014 was submitted to DDOE.

Apex used the soil and groundwater data gathered during the CSA to perform a potential impact assessment. Apex concluded that the potential risks from on-site contaminants are primarily to the future residents and construction workers. Since the site is currently vacant, there is no complete exposure pathway between the documented contaminant sources (petroleum-impacted soil and groundwater) and human receptors. Because the site is currently planned for redevelopment, and that process will involve mass excavation, Apex concluded that a CAP would be prepared that proposes remediation by excavation and off-site disposal during redevelopment as the primary corrective action for soils at the site. Until the redevelopment commences, an interim monitoring including monthly gauging of onsite wells and quarterly groundwater sampling are also proposed to assess existing conditions and prevent further environmental degradation of the site and/or surrounding properties pending site redevelopment. Additionally, five USTs that are closed in place at the site will also be removed concurrent with the redevelopment. A proposed building plan for the site is included as **Attachment 1**.

CAP Objectives

The activities proposed in this CAP have been developed in accordance with the findings primarily from the ICOR Phase II ESA (2014) and Apex CSA (2014) activities, and the assessment of potential risks posed by site contamination. In general, the chemicals of potential concern (COPCs) in soil and groundwater include total petroleum hydrocarbons for gasoline and diesel range organics (TPH-GRO/DRO), and volatile organic compounds (VOCs) including benzene, toluene, ethyl benzene, xylenes (BTEX), and naphthalene. A Health and Safety Plan (HASP) will be prepared to address the safety and health hazards associated with implementation of this CAP, such as general construction safety and contact with contaminants, and will include the requirements and procedures for appropriate worker protection.

The goals of this CAP are to remove petroleum contaminated soil during excavation activities associated with site redevelopment, and treat contaminated groundwater during construction dewatering. Since the excavation for the proposed construction does not extend to the depths impacted by TPH, additional removal of “hot-spot” soils at select locations will be conducted during the excavation activities. Although the redevelopment is scheduled to start in spring 2015, a start date is yet to be confirmed; therefore, this CAP proposes interim monitoring prior to redevelopment and corrective actions during redevelopment. Based on the current site use and extent and magnitude of dissolved phase petroleum hydrocarbons, Apex concluded in its CSA that there are no existing unacceptable risks at the site or surrounding areas.

The measures proposed in this CAP are designed to eliminate future risks to human health and the environment. The final goal of the CAP is to secure a No Further Action (NFA) letter and a LUST Case Closure determination for the site by demonstrating to the satisfaction of the DDOE UST Division that the objectives of the CAP have been met.

2.0 COMPREHENSIVE SITE ASSESSMENT SUMMARY

2.1 Site Description

The subject property currently consists of two lots and is improved with two buildings used as service garages and offices, including at-grade parking lots and driveways. The site is currently vacant and is planned for redevelopment. The future site use will be mixed – commercial as well as residential. Five USTs that are closed in place currently remain on the property. One LUST case (#2014-005) with DDOE currently remains open at the site. The site and surrounding area are served by a municipal water supply from D.C. Water and Sewer Authority (DC Water).

2.2 Review of Data Collection Activities

Apex's CSA included the advancement of twelve soil borings to a maximum depth of 30 feet below ground surface (bgs). Soil boring and monitoring well locations are presented in **Figure 2**. Borings were advanced to approximately 15 to 20 feet below the shallow groundwater table as observed during the field activities. Two of the interior borings were completed with installation of one-inch diameter monitoring wells and one exterior boring was completed with installation of a two-inch diameter monitoring well for groundwater characterization. After installation, each of the wells was developed to ensure adequate communication with the aquifer. Static water levels were measured (**Table 1**) to create a groundwater potentiometric map across the study area.

One soil sample was submitted for laboratory analysis from each of twelve boring locations. Additionally, a second soil sample was also analyzed from five of the soil borings based on findings from field screening with a PID in order to provide vertical delineation of the petroleum impact. Soil samples were analyzed for TPH-DRO/GRO, BTEX, tert-butyl alcohol (TBA), 1,2-Dichloroethane (EDC), 1,2-Dibromoethane (EDB), methyl-t-butyl ether (MTBE) and polyaromatic hydrocarbons (PAHs). Fourteen soil samples for TPH-GRO, eight for TPH-DRO, 13 for benzene, one for MTBE, and 14 samples for naphthalene exceeded the DDOE Tier 1 Risk Based Screening Levels (Tier 1 RBSLs) for a residential adult (risks due to vapor inhalation pathway). The detected concentrations of other analytes were below the respective DDOE Tier 1 RBSLs.

Groundwater samples were collected from all five existing and one newly installed monitoring wells using low-flow sampling methodology and were also analyzed for TPH-GRO/DRO, BTEX, TBA, EDC, EDB, and MTBE. Since liquid phase hydrocarbons (LPH) were measured in two of the newly installed monitoring wells installed during the CSA activities, a groundwater sample was not collected for laboratory analysis. Only one groundwater sample exceeded the DDOE Tier 1 RBSLs for benzene for a residential adult. The detected

concentrations of other analytes were below the respective DDOE Tier 1 RBSLs. Laboratory analytical results from soil and groundwater sampling conducted by Apex during its CSA activities are presented on **Table 2** and **Table 3**, respectively.

2.3 Discussion of Site Conditions - Extent of Contamination

Based on the Geologic Map of Maryland (Maryland Geologic Survey, 1968), which includes the District of Columbia, the underlying sediments at the site are mapped as Pleistocene age lowland deposits consisting of gravel, sand, silt, and clay. These sediments are characterized by medium-to coarse-grained sand and gravel with cobbles and boulders near the base of the unit. Based on Apex's field observations during soil boring installation, site soils generally consisted of fill (sand, silt and clay) material from just below the surface to approximately five to 10 feet bgs. The fill was underlain by silt/clay with gravel from between depths of approximately five feet bgs to 15 feet bgs, and clay from depths below 15 feet bgs. Groundwater was apparent in at depths ranging from five to 10 feet bgs. Detailed lithologic descriptions of soils encountered during drilling are presented in the soil boring logs provided in the CSA.

Based on the potentiometric map, the primary direction of groundwater flow from the site was predicted to the north/northeast with an approximate gradient of 0.025 ft/ft. As stated in the CSA, it appeared that varying well depths in heterogeneous soils, including old building foundation, history of multiple tank removals/backfill with various material, layers of impermeable soils, likely leaking sewer line, etc. may have affected the perched groundwater at the site and contributed to an inconsistent groundwater elevation gradient across the site. These observations are consistent with the findings by others who had performed site investigations at the site in the past. **Figure 3** illustrates the groundwater potentiometric surface and inferred flow direction. LPH was identified in two wells installed during CSA; however, the LPH thicknesses were diminished during the subsequent gauging events following well installation. Based on relatively low detected concentrations of petroleum constituents in groundwater sample, the petroleum hydrocarbon plume has been delineated underneath the site. The CAP proposes interim monitoring including monthly gauging of all site wells.

Under the current land-use scenario, there is no complete exposure pathway between the documented contaminant sources (petroleum-impacted soil and groundwater) and human receptors. The site is currently vacant. Current contaminant concentrations in soil and groundwater may present a complete exposure pathway for possible future building occupants as well as construction workers for the planned redevelopment project at the site. Therefore, this CAP has been prepared to address on-site contamination to mitigate those risks. A site-specific

HASP will also be prepared to address risks to the construction workers associated with implementation of planned corrective actions during the redevelopment project.

3.0 CORRECTIVE ACTION PROPOSAL

The corrective actions planned for the site include the following elements:

- Interim measures:
  - Monthly well gauging;
  - Quarterly groundwater monitoring.
- Disposal characterization of soils;
- Conduct daily contaminated soil excavation oversight;
- Removal (excavation) and disposal of contaminated soils as part of the construction project;
- Confirmatory soil sampling;
- Obtain a Temporary Discharge Authorization (TDA) from DC Water for de-watering during excavation;
- Install and operate a temporary groundwater treatment system to remediate water generated during construction dewatering prior to discharge;
- Engineering Controls – Vapor Mitigation on new structures built onsite.

The planned corrective actions for this site have been developed through an understanding of site conditions, the known extent of absorbed- and dissolved-phase contamination in the subsurface, the assessment of risks posed by site contamination, planned use of the site, as well as Apex's past experience with similar projects. The following sections detail the specific activities of the corrective action to be implemented at the site. These corrective action measures represent an adequate and effective remedial strategy for this site. Although alternative remedial technologies are available for the type of contamination present at this site, mass excavation of soil, dewatering and treatment of impacted groundwater is the most effective strategy and has been selected for remediation of the site. Other technologies, such as soil vapor extraction (SVE), pump and treat, dual-phase vacuum extraction (DPVE), bioslurping, steam and/or surfactant injection, in-situ biological/chemical oxidation, etc. are commonly utilized for the remediation of petroleum contaminated sites. However, given the relatively lower concentration of petroleum constituents in groundwater, and since the redevelopment plan at the site includes mass excavation below the shallow water table, including removal of certain "hot-spot" soils, the selected corrective action measures are the most effective, economically feasible and appropriate remedies for the site. If during the interim monitoring, site conditions worsen, as evident by increase in LPH thickness or significant increase in the dissolved phase contaminant concentration, DDOE will be notified and a CAP Addendum will be prepared to address the issues.

3.1 Interim Remedial Measures – Removal of Free Product and Routine Groundwater Monitoring

The Apex CSA has demonstrated that soil and groundwater underneath the site is impacted with petroleum constituents including the presence of free product in multiple on-site wells. Pending commencement of site redevelopment activities, removal of free product and routine groundwater monitoring are proposed interim measures to begin recovery of free phase product and monitor groundwater conditions. Free product recovery will consist of manual recovery from wells that exhibit measurable free product. Monthly gauging and product recovery will take place on a monthly basis until redevelopment commences or until recoverable free product (>0.01 feet) is no longer measured in the monitoring wells. Recovered liquids will be stored in drums located onsite and transported off-site for proper disposal at a liquid treatment/disposal facility. Manifests (bills of lading) will be provided to document volume of liquid recovered. A summary of each gauging/recovery event will be included in a quarterly status report submitted to DDOE.

Routine groundwater monitoring will be conducted on a quarterly basis until the commencement of the excavation activities. Routine groundwater monitoring will include quarterly groundwater sampling of the eight monitoring wells located onsite. Samples will not be collected from wells that exhibit LPH. Routine groundwater monitoring will include quarterly groundwater sampling of the all existing monitoring wells on site. Prior to sample collection, the water level in each well will be recorded. Each well will be purged prior to sampling so that collected samples are representative of aquifer conditions. Groundwater samples will be collected using low-flow sampling methods for laboratory analysis of TPH-DRO/GRO, BTEX, MTBE, and PAHs. Groundwater samples will be collected using the appropriate purging equipment, placed in appropriate bottleware, and preserved as necessary. All sampling equipment will be decontaminated properly. Analytical results from the sampling events will be summarized in quarterly reports submitted to the DDOE.

3.2 Removal of USTs

Because the subject property is planned for redevelopment, and that process involves mass excavation, the USTs that were closed in place will be removed during the early phases of site redevelopment. If additional USTs are encountered during the mass excavation associated with site redevelopment, they will also be properly removed and disposed.

For UST removal, an excavator will be used to uncover the soil, cut open the top of tank to remove the filled material, and pull the USTs out of the ground. The UST removal will be conducted by a D.C. certified UST technician and be overseen by an experienced geologist who will inspect soils and conduct field screening with a calibrated photoionization detector (PID).

DDOE will be notified prior to the UST removal so that an inspector can be present to oversee the tank removal and inspect the tank and site conditions. Soils that exhibit evidence of petroleum impacts such as odors, visible staining, and elevated PID readings (>10 ppm), will be segregated and transported to a disposal facility. An EPA-certified tank disposal company will properly transport and dispose of the USTs. Confirmatory soil sampling will be performed as described in Section 5.2 Once the USTs have been properly removed, a tank closure report(s) will be provided summarizing all removal activities, manifests, and disposal certificates.

4.0 HEALTH AND SAFETY PLAN

A Site-Specific HASP will be prepared before the initiation of mass excavation activities. A copy of the HASP will be kept on site and available for review by site workers, visitors and regulators. The HASP will summarize the requirements and procedures for employee protection from health and safety hazards associated with hydrocarbon contamination at the site. This plan will meet or exceed the requirements of Occupational Safety and Health Administration (OSHA), 29 CFR 1910.120, for a site-specific health plan.

The HASP will apply to all contractors, sub-contractors and visitors present at the work site. The HASP prepared by Apex will supplement the safety program for the general contractor (GC) and its subcontractors, and is not intended to be a replacement to the GC's overall safety program. A Site Safety and Health Officer (SSHO) will be designated by the general contractor for the project and will be responsible for site health and safety during completion of the project. Prior to the start of each work shift at the site, the SSHO or a designated representative will conduct a pre-shift "tailgate" health and safety meeting. In this meeting, the hazards associated with the day's planned activities will be communicated to all site workers and discussed openly.

4.1 Disposal Characterization of Soils

Because on-site soils are known to be impacted by petroleum contamination, segregation of impacted soils from clean soils will be required during excavation. To gain acceptance at the appropriate disposal facilities, soil samples will be analyzed for disposal characterization parameters as required by the receiving facilities. Any specific disposal facilities have not been identified at this time. However, disposal characterization analytical data and the name/location of the selected facilities will be provided to DDOE prior to excavation activities.

4.2 Excavation and Disposal of Petroleum Impacted Soils

As mentioned earlier, since the site is planned for redevelopment, and that process involves mass excavation, the CAP proposes remediation by excavation and off-site disposal during redevelopment as the primary corrective action for soils at the site. Based on the findings of the ICOR and Apex 2014 CSA, the documented contaminant mass at the site will be removed during the site redevelopment and disposed off-site. Mass excavation of the site will also result in the removal of the onsite monitoring wells installed during the CSA.

A track-mounted excavator or similar equipment will be used to remove soils and direct-load into dump trucks. Temporary on-site stockpiling may be required depending on site conditions and analytical testing schedules. However, attempts will be made to minimize on-site stockpiling. On-site stockpile of contaminated soils will be kept covered to avoid stormwater contact. Proper sediment and erosion control measures will also be installed. Contaminated

soils, as indicated by PID or other field instrument reading, soil sampling data, and/or visual or olfactory evidence, will be managed appropriately. Each truck transporting contaminated soil will be provided with a signed manifest. Non-hazardous petroleum contaminated soils will then be hauled to a local soil treatment/disposal facility (e.g. Soil Safe in Brandywine, MD or Clean Earth in Upper Marlboro, MD) in accordance with applicable Department of Transportation regulations (DDOT and MD State Highway Administration). A certificate of disposal/recycling will be provided for all contaminated soils disposed from the site.

5.0 UTILITIES

Prior to the initiation of intrusive activities, all underground utilities at the site will be identified and located. Miss Utility will be notified and an onsite meeting will be scheduled to verify the Markout. Soft digging will be performed as necessary to verify and identify utilities. Excavations and trenching for new utilities at the site will follow the soil handling protocols established for mass excavation.

5.1 Soil Excavation Oversight

During mass excavation activities, an experienced geologist will conduct on-site screening and testing of excavated soils and ensure that the contaminated soils are properly field-screened and segregated by the excavation contractor for disposal. Soil removed as part of excavation activities will be screened using a PID and visual and olfactory methods. All soils known to be contaminated based upon the previous subsurface investigations and through field screening during excavation, will be removed from the property and disposed of at a licensed soil treatment and disposal facility. Daily Field Notes will be maintained by the field geologist that summarize and document on-site work activities. The on-site geologist will be responsible for ensuring that wastes generated during site redevelopment are properly characterized, segregated, manifested, and disposed. Daily records of the excavation, testing, segregation, and disposal activities will be maintained to document successful implementation of this plan.

5.2 Confirmatory Soil Sampling

Upon completion of the soil excavation, approximately 20 post-excavation soil samples (or as directed by DDOE personnel) will be collected from the bottom of the excavation for laboratory analysis of TPH-GRO/DRO, BTEX, MTBE, and PAHs to confirm post-excavation conditions. Samples will be collected in a grid pattern from the base of the excavation prior to new construction. Confirmatory soil samples will also be collected from the bottom of excavation from “hot-spot” removal and prior to backfill. Confirmatory soil analytical results will be included in the Closure Report submitted to DDOE.

5.3 Groundwater Discharge Permit and Reporting

Petroleum contaminated groundwater are expected to be encountered during redevelopment and will require proper management during temporary construction dewatering. Extracted groundwater will be analyzed and treated accordingly, prior to discharge, in accordance with the requirement of DC Water. A TDA permit will be obtained for the dewatering activities prior to discharge of any site groundwater. A copy of the TDA Permit will be provided to the DDOE UST Division. As part of TDA requirements, flow will be recorded and system water effluent samples will be collected for laboratory analysis of required parameters (typically TPH, pH, oil and grease, and VOCs). Results of these analyses will be compiled into a Discharge

Monitoring Report (DMR) and submitted to DC Water. Copies of the DMRs will be provided to the DDOE UST Division.

5.4 Dewatering and Operation of Temporary Treatment System

Based on data from site investigations and redevelopment plans, the proposed redevelopment will require temporary dewatering to permit excavation and new construction activities below the water table. Because site groundwater is known to be impacted, treatment of dissolved-phase hydrocarbons in groundwater will be necessary prior to discharge.

The specific dewatering methods that will be employed during redevelopment (e.g. deep wells, well-point system, sumps) have not been determined at this time. However, regardless of the methods, the objective will be to remove groundwater that accumulates in the excavation or prevent groundwater from migrating into the excavation. The result will be a net removal of groundwater from the site and the depression of the water table around the site. This water removal will provide for remediation of the documented contamination in the site groundwater.

Because the removed groundwater is known to be contaminated, a temporary groundwater treatment system will be mobilized to the site concurrent with the dewatering operation. The proposed treatment system will likely consist of a primary sediment control tank (e.g. frac tank), particulate filtration units, granular activated carbon (GAC) filtration units, flow meter, and associated appurtenances. The treatment system will be designed to remove suspended solids from the extracted groundwater, and remove dissolved hydrocarbons and VOCs prior to discharge. The size and number of treatment system components will be determined based on the groundwater extraction rate calculated by the dewatering contractor, the contaminant concentrations of the pumped water, and the TDA permit requirements. A generalized schematic of the treatment system components is presented as **Figure 4**. Discharge of the treated groundwater will be routed to a combined sewer main according to the site-specific conditions outlined in the DC Water TDA permit.

Operation and Maintenance (O&M) of the system will include routine inspections, required sampling, and cleaning of system components. O&M activities will be performed as needed and will include replacement of particulate filters (e.g. bag filters), removal of accumulated sediment in tanks, and replacement of spent carbon media. System components will also be emptied and cleaned prior to demobilization. Wastes generated during O&M and demobilization of the treatment system will be properly characterized and disposed. Waste disposal records will be maintained and included in the closure report. Influent and effluent water samples will be collected, analyzed, and reported per TDA Permit requirements.

6.0 VAPOR MITIGATION

Some residual soil and groundwater contamination is anticipated to remain following the excavation for redevelopment. This contamination may present a potential source of petroleum vapors to a future resident and/or commercial worker at the site due to vapor intrusion. To address the potential vapor intrusion risk from residual petroleum contamination in soil and groundwater to the future workers/residents, a vapor mitigation system will be included in the design of the new building. This system will incorporate vapor barriers to prevent vapors from migrating into the building.

7.0 TIMETABLE AND REPORTING

7.1 CAP Schedule

Depending on DDOE review and approval of this CAP, the anticipated schedule for the planned corrective actions at the subject property is as follows:

- Interim Remedial Measures: commences 4th quarter 2014:
  - Monthly Well Gauging (November 2014 through the start of redevelopment);
  - Quarterly groundwater monitoring and reporting events (Starting 4th Qtr. 2014).
- Site Construction Activities Commence: TBD;
- UST Removal: Upon Demolition of Existing Building Structures;
- Well Abandonment: Start of the Construction Activities for Redevelopment;
- Soil excavation, oversight, testing, and disposal of contaminated soils: 2 months;
- Installation and operation of temporary groundwater treatment system: 3 months;
- Confirmatory Soil Sampling,
- Submit Closure Report: within 30 days from the completion of excavation.

The interim CAP measures will begin immediately after DDOE approval of the CAP. Because the redevelopment schedule is subject to change, DDOE will be updated with a revised schedule as new information becomes available.

7.2 Reporting

The following submittals will be generated and provided to DDOE as part of this CAP:

- Quarterly Groundwater Monitoring/Sampling Reports pending commencement of site redevelopment activities - Quarterly monitoring reports documenting the groundwater sampling and monthly gauging events will be submitted to DDOE. These reports will include a summary of the dates when events were completed, well gauging data, laboratory analytical data tables with certificates of analysis, updated groundwater potentiometric maps.
- Copies of DC Water Discharge Monitoring Reports;
- Site Closure Report / Request for NFA.

The Site Closure will include the following:

- A summary of site activities,
- Health and safety monitoring,
- Volumes of material excavated,
- Weight of material removed from site for recycling/treatment,
- Transportation manifests,

- Treatment certificates from the disposal facility,
- Volume of water extracted/treated,
- Soil sampling methods, locations and results,
- Water sampling methods and results,
- Confirmation sampling summary,
- Vapor Mitigation System Information, and
- Additional recommendations, if appropriate.

8.0 REMEDIAL END POINTS

Petroleum contaminated soils located underneath the site will be excavated and removed from the property during the site redevelopment. Impacted groundwater will be removed during construction dewatering and properly treated prior to discharge.

The remedial endpoint for soil shall be the Tier 0 standards for soil as set forth in §6208 of the DC UST Regulations. The Tier 0 standards for soil are as follows:

a) TPH-GRO or DRO shall be no greater than 100 ppm;
b) Total BTEX shall be no greater than 10 ppm;
c) Benzene concentrations shall be no greater than 1 ppm.

Soil excavation will occur to a depth below the apparent water table. Impacted soils in the dewatered zone will be excavated and removed from the site. Mass excavation and dewatering will also remove the impacted groundwater on the site. Groundwater will be treated prior to discharge until levels of contaminants are below DC Water discharge limitations.

The endpoints of groundwater remediation shall be the District of Columbia Water Quality Standards for Ground Water (21 DCMR Chapter 11, published at 40 D.C. Register 4203, July 2, 1993). To verify successful groundwater remediation, influent groundwater will be monitored on a regular basis during construction dewatering to verify that post-excavation concentrations meet the D.C. Water Quality Standards, which are as follows:

a) TPH-GRO shall be no greater than 34.5 ppm;
b) TPH-DRO shall be no greater than 34.5 ppm;
c) BTEX concentrations shall be no greater than 0.005 ppm, 1 ppm, 0.7 ppm and 10 ppm, respectively;
d) MTBE concentration shall be no greater than 0.022 ppm;
e) Naphthalene concentration shall be no greater than 0.000268 ppm or the lowest laboratory detection limit.

As a result of the mass excavation and site-wide dewatering activities, shallow groundwater incursion into the property from off-site and adjoining properties will likely occur and impact onsite groundwater quality. If the influent groundwater concentrations at the completion of redevelopment construction activities exceed the D.C. Water Quality Standards as mentioned above, and the site will be evaluated using the DC RBCA Guidance Documents to verify if the groundwater concentrations at the completion of dewatering project pose a risk to future occupants of the new building. Engineering controls (e.g. vapor mitigation) will be installed to address the vapor intrusion risks, if warranted.

Figure 1

Site Location Map
Former Hessick Oil Terminal
1124-1126 Florida Avenue, NE
Washington, D. C.

15850 Crabbs Branch Way
Suite 200
Rockville, MD 20855
Telephone: (301) 417-0200

Not to Scale

Source: Google Earth

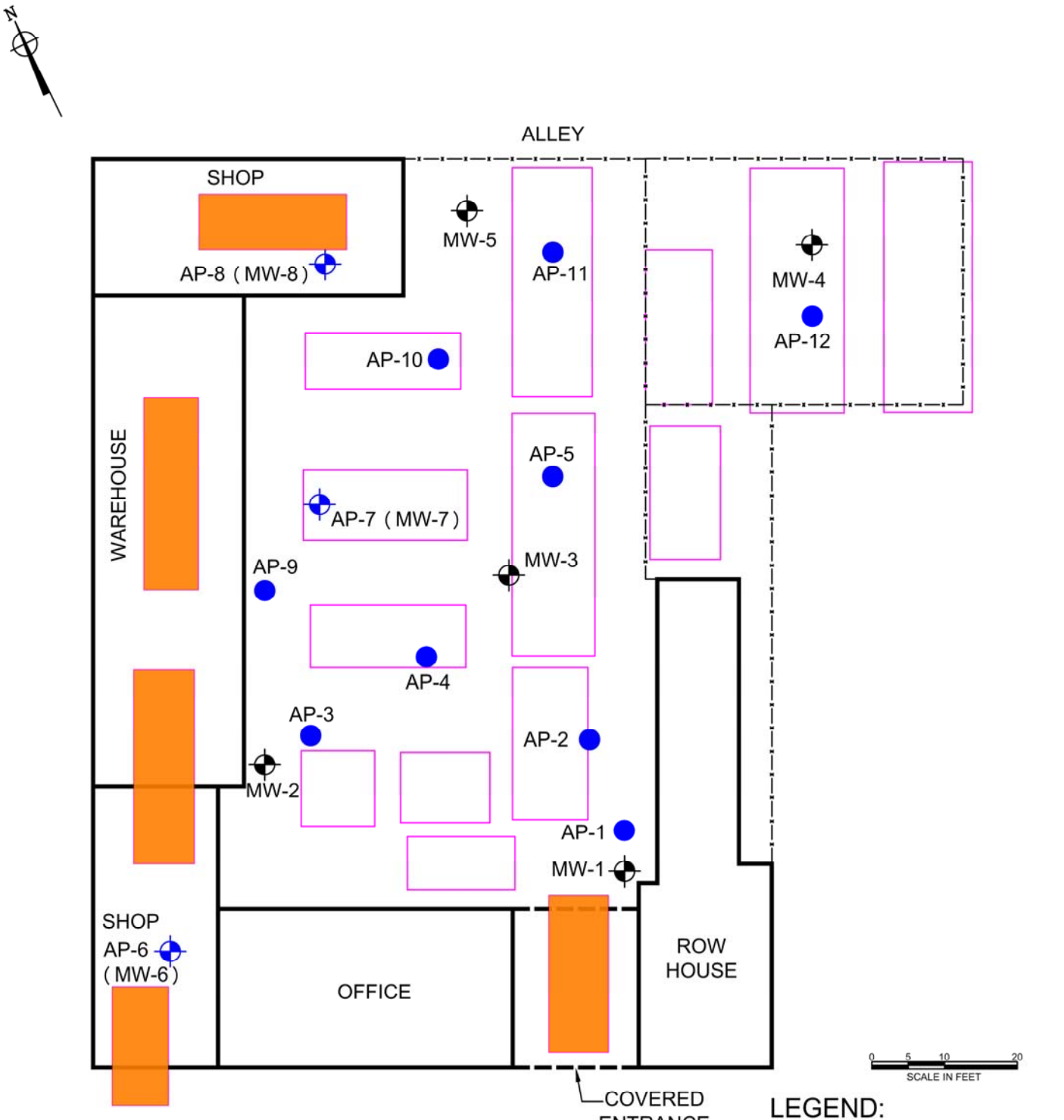
APEX

Project: CSA

Client: Pierce Investment

Apex Job #: 13505.001

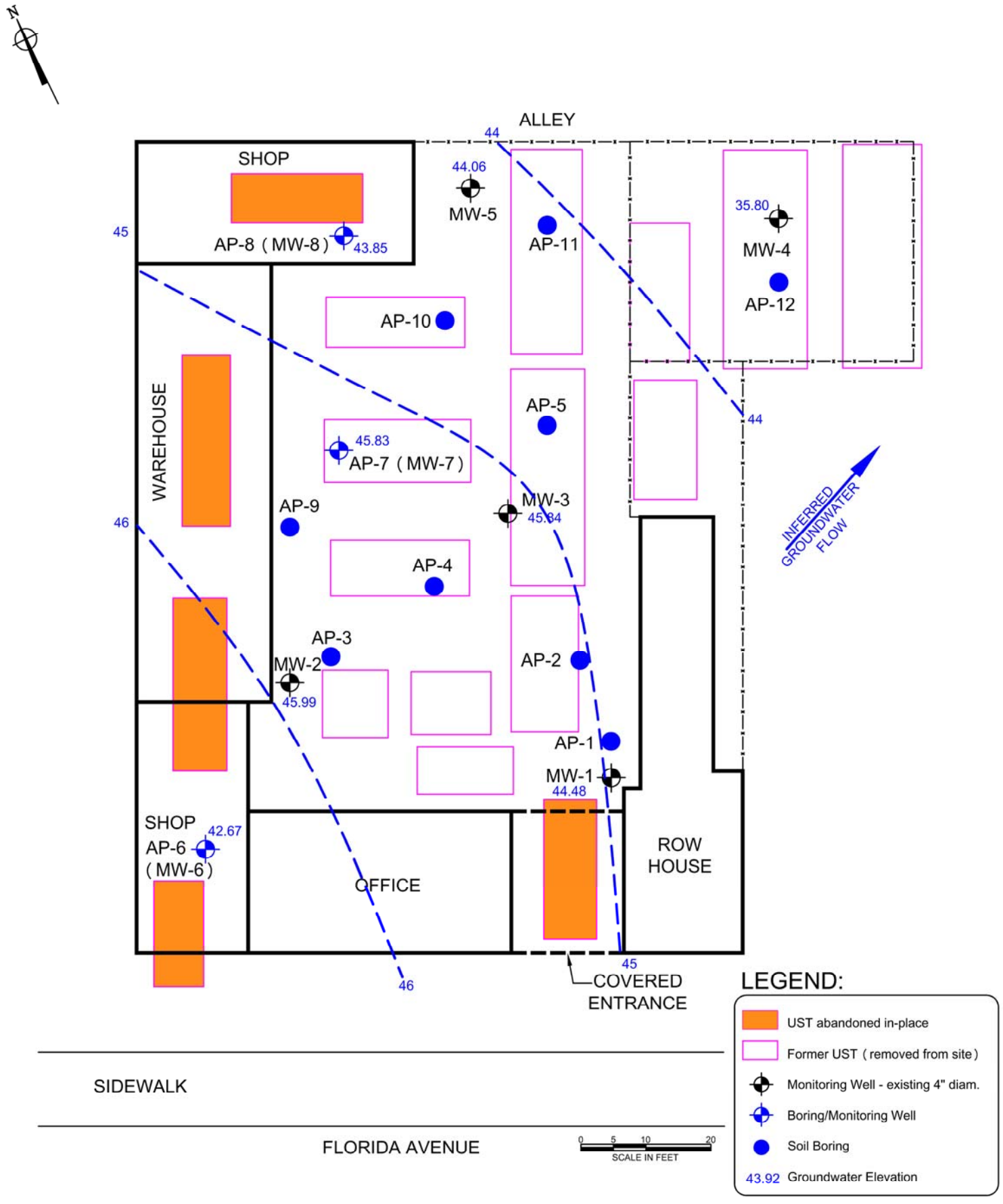
Date: May 15, 2014



APEX COMPANIES, LLC
15850 CRABBS BRANCH WAY, SUITE 200
ROCKVILLE, MD 20855
PHONE: (301) 417-0200
FAX: (301) 975-0169

FIGURE 2
SITE PLAN WITH BORING LOCATIONS

Project Title: 1124-1126 FLORIDA AVE. NE WASHINGTON, DC		
Date: 7-28-14	Drawn By: MJO	Project Number: 13505.001
CAD File: SITE.DWG	Approx. Scale: 1"=20'	Client: PIERCE INVESTMENTS



APEX COMPANIES, LLC
15850 CRABBS BRANCH WAY, SUITE 200
ROCKVILLE, MD 20855
PHONE: (301) 417-0200
FAX: (301) 975-0169

FIGURE 3
SITE PLAN SHOWING GROUNDWATER ELEVATIONS AND FLOW DIRECTIONS - 8/14/14

Project Title: 1124-1126 FLORIDA AVE. NE WASHINGTON, DC		
Date: 8–19–14	Drawn By: MJO	Project Number: 13505.001
CAD File: SITE.DWG	Approx.Scale: 1"=20'	Client: PIERCE INVESTMENTS

FIGURE 4
GROUNDWATER TREATMENT SYSTEM FLOW DIAGRAM

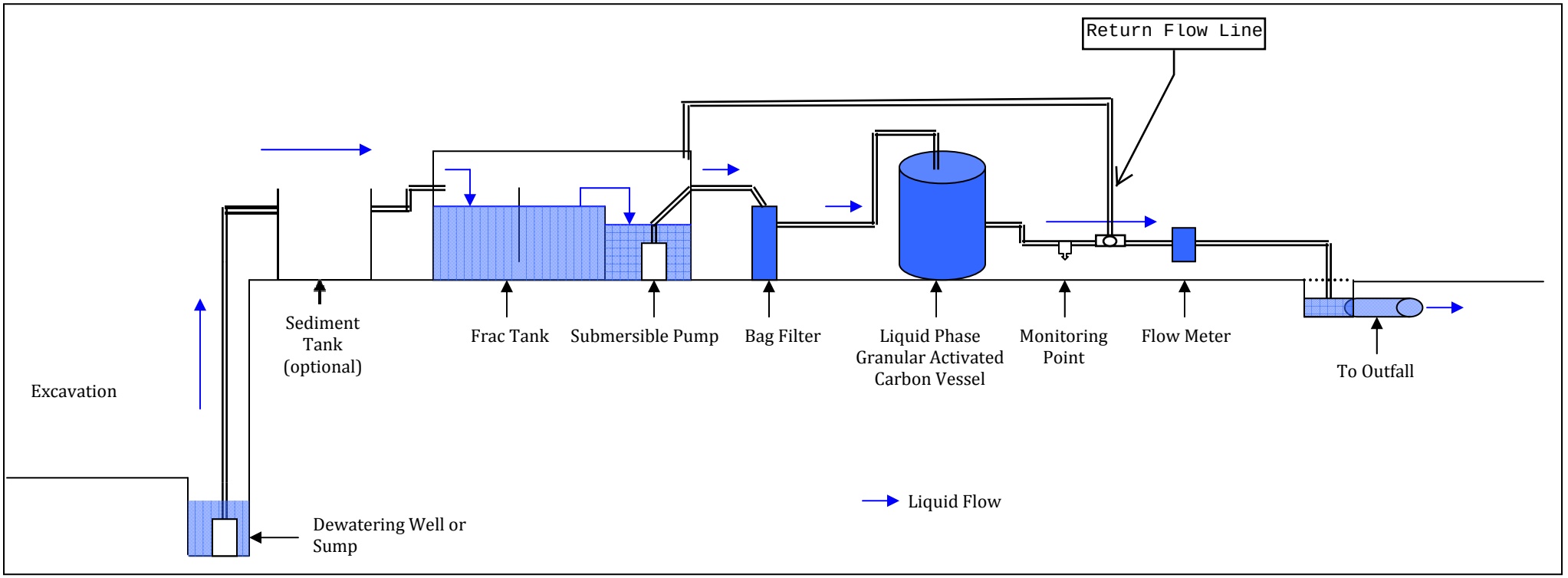


Table 1
Gauging Data
1124-1126 Florida Ave, NE
Washington, D.C.

Well ID	TOC Elevation (ft)	Date	Depth to Product (ft bgs)	Depth to Groundwater (ft bgs)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-1	50.00	3/10/1997*	--	5.51	--	44.49
		7/24/2014	--	6.30	--	43.70
		7/31/2014	--	6.01	--	43.99
		8/4/2014	--	6.09	--	43.91
		8/14/2014	--	5.52	--	44.48
MW-2	50.40	3/10/1997*	--	3.42	--	46.58
		7/24/2014	--	5.35	--	45.05
		7/31/2014	--	7.51	--	42.89
		8/4/2014	--	5.49	--	44.91
		8/14/2014	--	4.41	--	45.99
MW-3	49.93	3/10/1997*	--	8.16	--	42.24
		7/24/2014	--	4.51	--	45.42
		7/31/2014	--	4.35	--	45.58
		8/4/2014	--	4.27	--	45.66
		8/14/2014	--	4.09	--	45.84
MW-4	49.21	3/10/1997*	--	4.60	--	45.33
		7/24/2014	--	8.41	--	40.80
		7/31/2014	--	16.30	--	32.91
		8/4/2014	--	15.62	--	33.59
		8/14/2014	--	13.41	--	35.80
MW-5	49.00	3/10/1997*	--	9.51	--	39.70
		7/24/2014	--	4.78	--	44.22
		7/31/2014	--	5.10	--	43.90
		8/4/2014	--	5.08	--	43.92
		8/14/2014	--	4.94	--	44.06
MW-6	49.56	7/24/2014	6.48	6.49	0.01	43.08
		7/31/2014	6.62	6.80	0.18	42.91
		8/4/2014	6.81	6.84	0.03	42.75
		8/14/2014	6.88	6.92	0.04	42.67
MW-7	49.88	7/24/2014	--	4.92	--	44.96
		7/31/2014	--	4.30	--	45.58
		8/4/2014	--	4.25	--	45.63
		8/14/2014	--	4.05	--	45.83
MW-8	47.97	7/24/2014	4.26	4.53	0.27	43.67
		7/31/2014	4.19	4.44	0.25	43.74
		8/4/2014	4.12	4.19	0.07	43.84
		8/14/2014	4.10	4.22	0.12	43.85

Notes:
* = Gauged by others
-- = No Product encountered

Table 2
Soil Sample Results
1124-1126 Florida Ave, NE
Washington, D.C.

Sample ID	AP-1 @ 8'-10'	AP-1 @ 13'-15'	AP-2 @ 15'-17'	AP-3 @ 20'-25'	AP-3 @ 8'-10'	AP-4 @ 18'-20'	AP-5 @ 18'-20'	AP-6 @ 13'-15'	AP-7 @ 15'-17'	AP-8 @ 5'-7'	AP-8 @ 8'-10'	AP-9 @ 17'-19'	AP-10 @ 8'-10'	AP-10 @ 13'-15'	AP-11 @ 7'-9'	AP-12 @ 8'-10'	AP-12 @ 13'-15'	DDOE Tier 1 RBSLs*
Sample Depth (ft. bgs)	8-10	13-15	15-17	20-25	8-10	18-20	18-20	13-15	15-17	5-7	8-10	17-19	8-10	13-15	7-9	8-10	13-15	
Sample Date	7/24/14																	
TPH-DRO (mg/kg)	1,800	**5,100**	1,900	**2,900**	**4,400**	1,900	1,500	**5,200**	1,300	420	**2,500**	**2,400**	2,000	2,000	450	**2,900**	**10,000**	*2,120*
TPH-GRO (mg/kg)	**63**	**430**	**150**	31	**750**	**140**	35	**100**	**82**	**58**	**63**	**140**	**91**	4.7	**76**	**95**	**61**	*54.4*
VOCs (mg/kg)																		
Benzene	ND	**0.067**	**0.23**	**7.1**	**1.6**	**1.7**	**0.046**	**0.048**	**0.037**	**0.61**	ND	**2.0**	**0.086**	**0.012**	ND	ND	**0.041**	*0.005*
Toluene	ND	ND	0.10	0.33	0.12	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*100*
Ethylbenzene	ND	**0.75**	**1.5**	**10**	**0.39**	**7.6**	**0.071**	ND	**0.048**	ND	ND	**1.8**	ND	0.02	ND	**0.35**	ND	*0.041*
Total Xylenes	ND	0.44	3.5	3.2	0.92	2.2	ND	ND	ND	ND	ND	0.86	ND	0.004	ND	0.8	0.046	*3.86*
MTBE	ND	ND	ND	ND	ND	ND	0.004	ND	ND	ND	ND	ND	**0.26**	0.022	0.21	ND	ND	*0.233*
Naphthalene	**0.3**	**2.7**	**2.0**	**13**	**2.3**	**1.7**	**4.5**	**2.1**	**1.4**	0.17	0.16	**9.8**	**0.44**	0.11	**0.320**	**4.2**	**0.99**	*0.188*
TBA	ND	ND	ND	ND	ND	ND	0.055	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*NA*
EDB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*NA*
EDC	ND	ND	ND	0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*NA*
Acenapththene	0.77	1.1	0.2	1.7	2	0.28	0.62	2.1	0.096	0.48	0.55	1.4	1.1	0.029	1.0	1.4	3.600	*NA*
Acenapthylene	0.33	0.79	0.11	1.1	0.89	0.18	0.43	1.1	0.072	0.26	0.28	0.85	0.59	0.026	0.069	0.63	1.700	*NA*
Anthracene	0.5	0.69	0.19	1.5	1.3	0.19	0.42	1.2	0.12	0.48	0.26	1.1	0.63	0.042	1.9	0.84	1.400	*NA*
Benzo(a)anthracene	0.019	ND	0.012	0.074	0.46	0.038	0.044	ND	0.017	0.032	0.051	0.043	0.078	ND	3.6	0.32	0.200	*103*
Benzo(a)pyrene	0.007	ND	0.007	ND	0.37	0.025	ND	ND	0.011	0.015	0.031	ND	0.056	ND	3.5	0.24	0.200	*453*
Benzo(b)fluoranthene	0.012	ND	0.012	0.047	0.5	0.029	ND	ND	0.012	0.019	0.037	ND	0.054	ND	4.1	0.29	0.170	*3,460*
Benzo(g,h,i)perylene	0.006	ND	0.006	ND	0.24	0.011	ND	ND	0.006	0.008	0.015	ND	ND	ND	1.9	0.16	0.160	*NA*
Benzo(k)fluoranthene	0.006	ND	0.005	ND	0.21	0.018	ND	ND	0.004	0.009	0.015	ND	ND	ND	1.6	0.16	0.053	*3,770*
Chrysene	0.045	0.06	0.025	0.089	0.48	0.043	0.13	0.039	0.052	0.034	0.056	ND	0.13	0.004	3.2	0.4	0.720	*2,120*
Dibenz(a,h)anthracene	ND	ND	ND	ND	0.043	0.004	ND	ND	ND	ND	0.005	ND	ND	ND	0.36	0.049	0.052	*NA*
Fluoranthene	0.077	0.15	0.078	0.27	1.2	0.14	0.13	0.17	0.043	0.13	0.18	0.2	0.3	0.008	8.1	0.66	0.390	*NA*
Fluorene	1.6	2.8	0.74	4.1	3.9	0.81	2	4.8	0.28	1.1	1.2	3.6	3	0.12	1.1	3	7.000	*NA*
Indeno(1,2,3-cd)pyrene	0.005	ND	0.005	ND	0.22	0.012	ND	ND	0.005	0.006	0.012	ND	ND	ND	1.7	0.12	0.090	*NA*
Phenanthrene	4.2	5.2	2.6	8.9	8.6	1.8	4.1	11	0.73	2.5	2.3	7.9	5.8	0.28	6.7	6	14.000	*NA*
Pyrene	0.35	0.6	0.25	0.64	1.4	0.19	0.38	4.5	0.076	0.19	0.25	0.39	0.67	0.034	6.8	1.1	1.200	*NA*

Notes:
All Results are expressed in milligrams per kilogram (mg/kg)
ND - Not detected at or above laboratory reporting limits
* - Risk Based Screening Level (RBSL) based on Indoor inhalation for an adult resident *(updated June 2011)
NA - Not Analyzed
- = Not Available

Table 3

Groundwater Sample Results

1124-1126 Florida Ave, NE

Washington, D.C.

Well ID	Sample Date	*Benzene*	*Toluene*	*Ethylbenzene*	*Total Xylenes*	*MTBE*	*Naphthalene*	*TBA*	*EDB*	*EDC*	*TPH-DRO*	*TPH-GRO*
MW-1	10/31/2006	ND	ND	ND	ND	NA	NA	NA	NA	NA	4.0	ND
	3/25/2010	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND
	7/31/2014	ND	ND	ND	ND	ND	NA	ND	ND	ND	0.5	ND
MW-2	10/31/2006	**0.306**	0.007	0.017	0.045	NA	NA	NA	NA	NA	4.0	2.0
	3/25/2010	0.013	ND	ND	ND	ND	0.006	NA	NA	NA	ND	ND
	7/31/2014	**0.22**	0.003	0.001	0.004	0.002	NA	ND	ND	ND	1.8	1.1
MW-3	10/31/2006	0.003	ND	ND	ND	NA	NA	NA	NA	NA	1.0	ND
	3/25/2010	ND	ND	ND	ND	0.012	0.005	NA	NA	NA	0.8	ND
	7/31/2014	ND	ND	ND	ND	0.008	NA	0.002	ND	ND	1.1	ND
MW-4	10/31/2006	0.009	0.003	0.01	0.012	NA	NA	NA	NA	NA	5.0	0.5
	3/25/2010	0.002	ND	0.002	0.001	0.009	0.042	NA	NA	NA	2.0	ND
	7/31/2014	0.002	0.0009	0.002	0.003	0.008	NA	0.007	ND	ND	7.9	0.12
MW-5	10/31/2006	ND	ND	ND	ND	NA	NA	NA	NA	NA	2.0	1.1
	3/25/2010	ND	ND	ND	ND	0.140	0.022	NA	NA	NA	1.2	0.2
	7/31/2014	ND	0.0005	ND	0.002	0.084	NA	0.012	ND	ND	1.5	0.12
MW-7	7/31/2014	0.029	0.005	0.005	0.017	0.03	NA	0.034	ND	ND	6.8	0.3
DDOE Tier 1 RBSLs*		*0.0676*	*900*	*0.206*	*20.5*	*16.1*	*0.191*	*-*	*0.00989*	*0.0763*	*245*	*38.8*

Notes:

All Results are expressed in **milligrams per liter** (mg/L)

ND - Not detected at or above laboratory reporting limits

- = Not Available

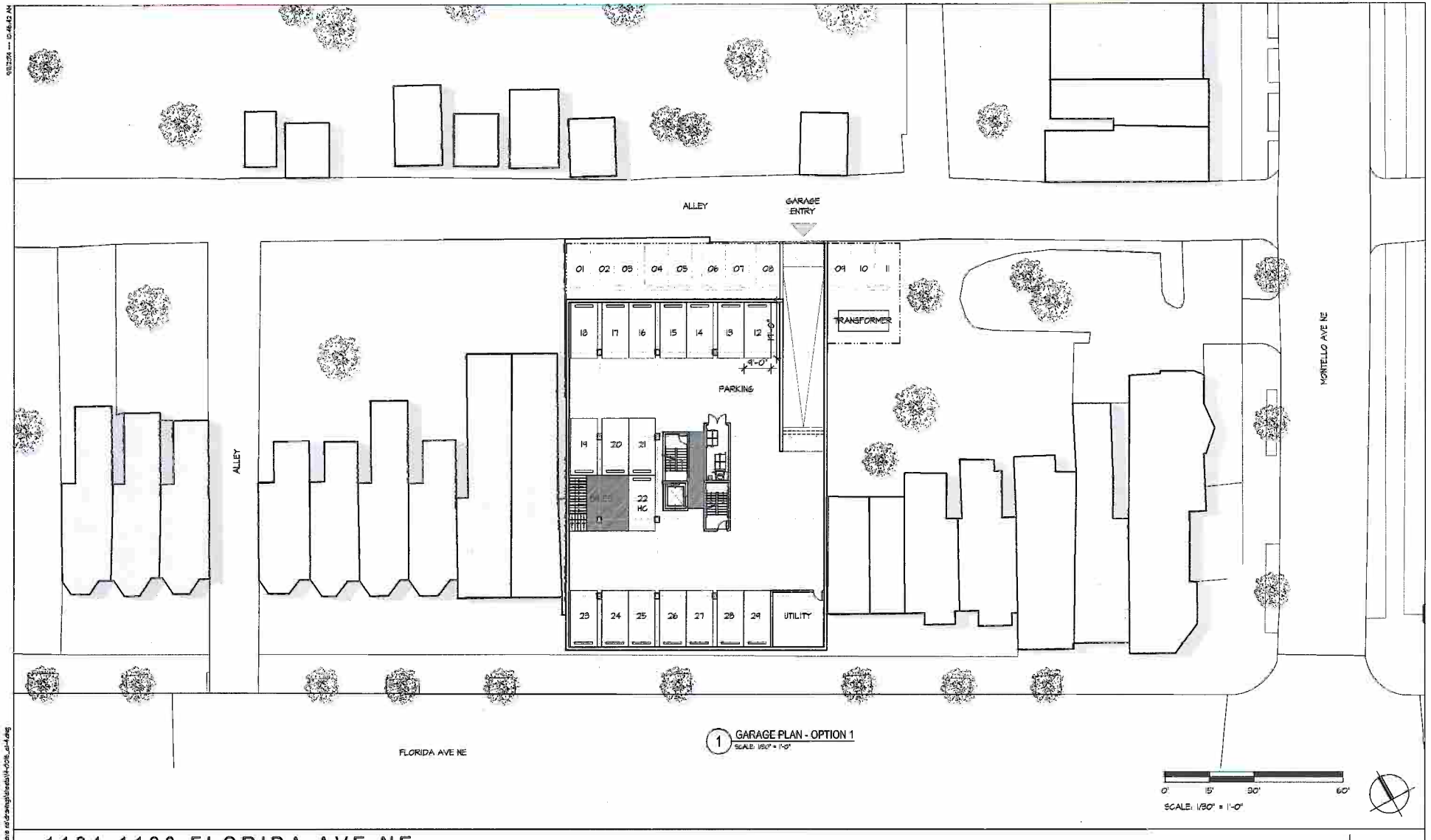
* - Risk Based Screening Level (RBSL) based on Indoor inhalation for an adult resident (Updated June 2011)

NA = Not Analyzed

Historical data (2006 & 2010) provided in **Table 2** of the Corrective Action Monitoring Report (EDC report dated April 29, 2010)

ATTACHMENT

Proposed Building Plan



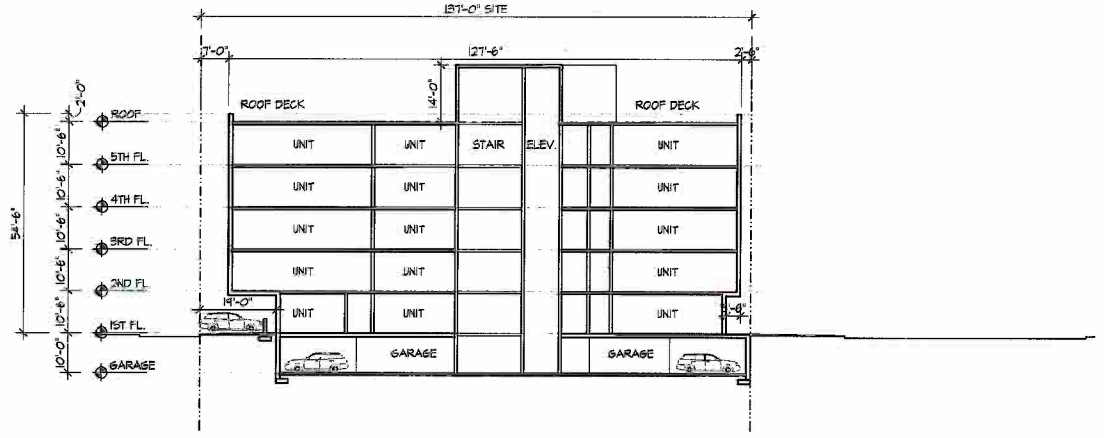
1124-1126 FLORIDA AVE NE

GARAGE PLAN - OPTION 1 | A 1-4

2014-09-11

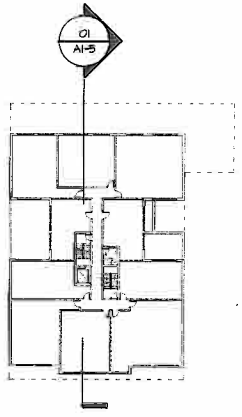
1124-1126 Florida Ave NE
Washington, DC 20002
Square: 4070 Lot No: 0808 Zone: C-2-A

PGN Architects, PLLC
210 7th Street SE - Suite 201
Washington, DC 20003
(P) 202-822-6595 (F) 202-823-6300



1 SECTION - OPTION 1
SCALE: 1/30" = 1'-0"

LOT AREA = 12,884 SF				
FLOOR	GSF	FAR	L.O. (SF)	L.O. (%)
GARAGE	10,384 SF	N/A	N/A	N/A
FIRST	8,230 SF	8,230 SF	9,167	71.12%
SECOND	8,238 SF	8,238 SF	8,238 SF	63.91%
THIRD	8,238 SF	8,238 SF	8,238 SF	63.91%
FOURTH	8,238 SF	8,238 SF	8,238 SF	63.91%
FIFTH	8,238 SF	8,238 SF	8,238 SF	63.91%
TOTAL	51,566 SF	41,182 SF (3.20)		



0' 15' 30' 60'
SCALE: 1/30" = 1'-0"

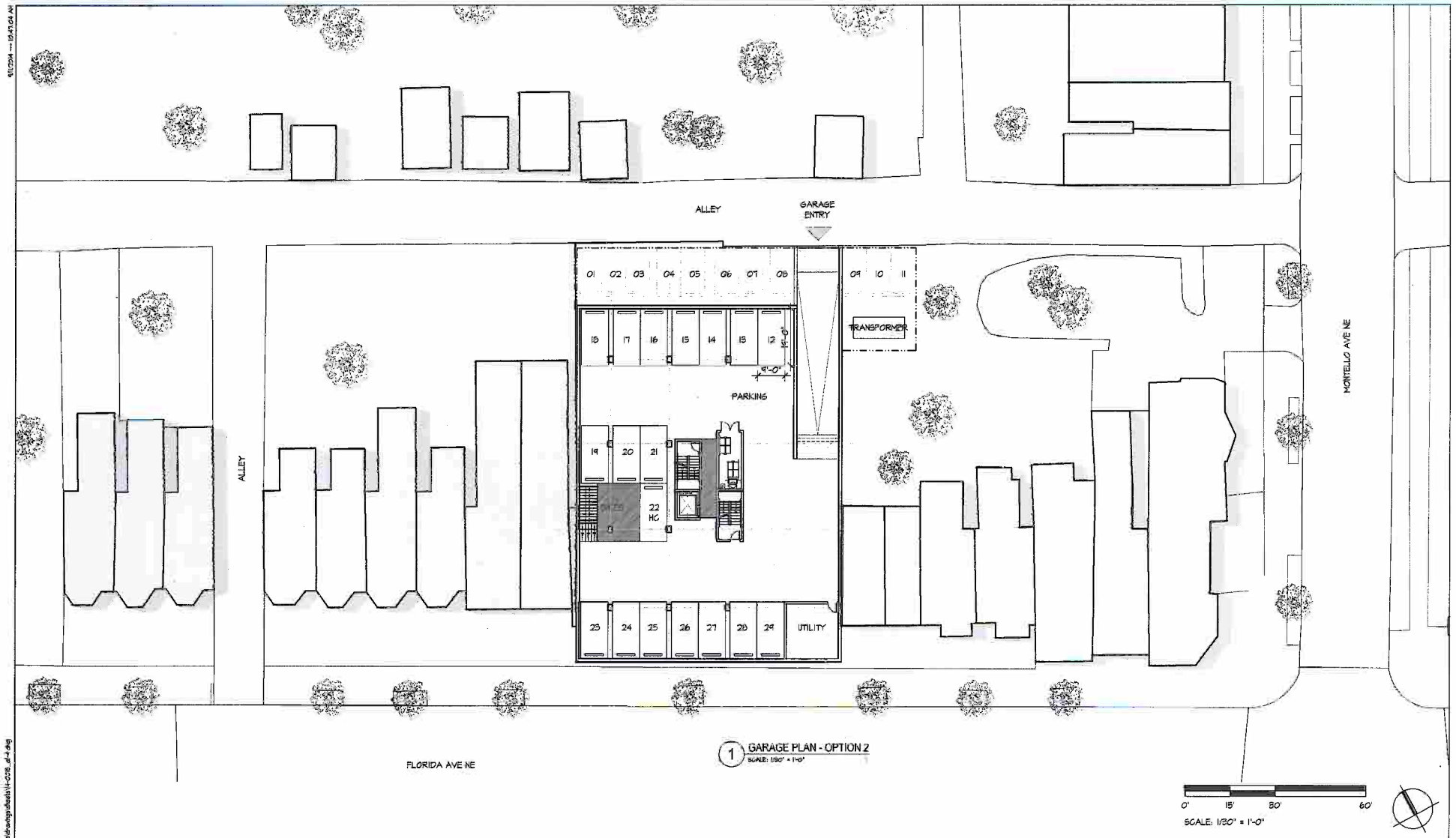
1124-1126 FLORIDA AVE NE

SECTION & SQUARE FOOTAGES - OPTION 1 | A 1-5

2014-09-11

1124-1126 Florida Ave NE
Washington, DC 20002
Square: 4070 Lot No: 0808 Zone: C-2-A

PGN Architects, PLLC
210 7th Street SE - Suite 201
Washington, DC 20003
(P) 202-822-5399 (F) 202-822-0388



1124-1126 FLORIDA AVE NE

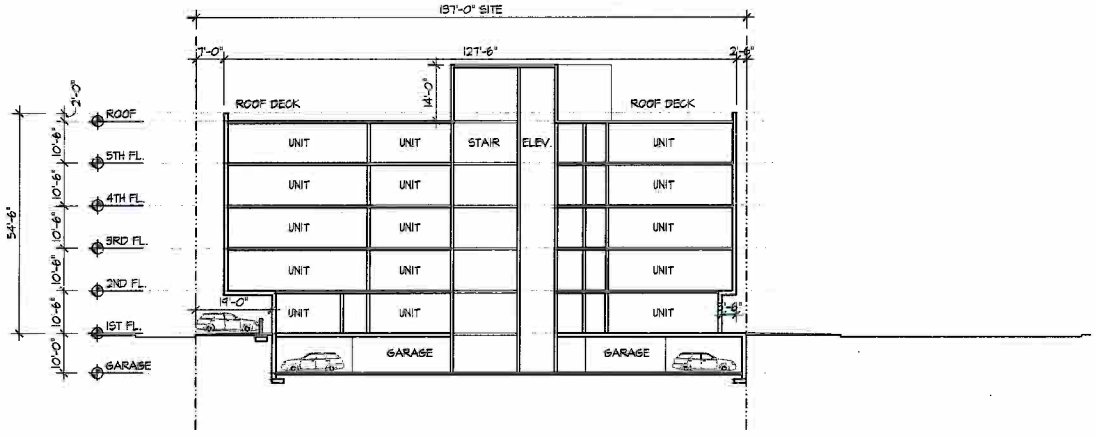
GARAGE PLAN - OPTION 2 | A 2-4

2014-09-11

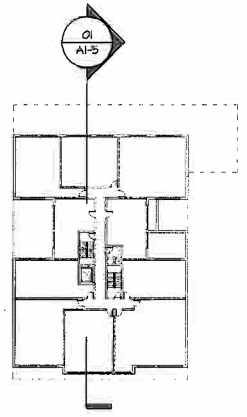
1124-1126 Florida Ave NE
Washington, DC 20002
Square: 4070 Lot No: 0808 Zone: C-2-A

PGN Architects, PLLC
210 7th Street SE - Suite 201
Washington, DC 20003
(P) 202-622-5595 (F) 202-622-0809

LOT AREA = 12,884 SF				
FLOOR	GSF	FAR	L.O. (SF)	L.O. (%)
GARAGE	10,384 SF	N/A	N/A	N/A
FIRST	8,230 SF	8,230 SF	9,167	71.12%
SECOND	9,154 SF	9,154 SF	9,154 SF	71.06%
THIRD	9,154 SF	9,154 SF	9,154 SF	71.06%
FOURTH	9,154 SF	9,154 SF	9,154 SF	71.06%
FIFTH	9,154 SF	9,154 SF	9,154 SF	71.06%
TOTAL	55,250 SF	44,886 SF (3.48)		



1 SECTION - OPTION 2
SCALE: 1/30" = 1'-0"



0' 15' 30' 60'
SCALE: 1/30" = 1'-0"

1124-1126 FLORIDA AVE NE

SECTION & SQUARE FOOTAGES - OPTION 2 | A 2-5

2014-09-11

1124-1126 Florida Ave NE
Washington, DC 20002
Square: 4070 Lot No: 0808 Zone: C-2-A

PGN Architects, PLLC
210 7th Street SE - Suite 201
Washington, DC 20003
(P) 202-822-5595 (F) 202-822-5815