

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT



Eastern Market MetroPark Pennsylvania Avenue, SE Washington, DC 20003

**Prepared for:
Government of the District of Columbia
Department of General Services
2000 14th Street, NW, 5th Floor
Washington DC 20009**

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1.0 EXECUTIVE SUMMARY

MTI Engineering and Testing, Inc. was retained by the Department of General Services (DGS) under contract No: DCAM-14-NC-0160S to perform a Phase I Environmental Site Assessment (ESA) of the Eastern Market MetroPark at 701 Pennsylvania Avenue SE, Washington, DC 20003. MTI performed this Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13. Any exceptions to or deletions from this practice are described in Section 9 of this report. This Executive Summary is an integral part of the Phase I ESA and MTI, Inc. recommends that the report be read in its entirety.

Based on observations and available data / records made through the performance of this Phase I ESA, the subject property does not appear to have been subjected to previous environmental contamination from any on-site or off-site sources.

2.0 OBJECTIVES / LIMITATIONS

The objectives of this Phase I ESA were to:

- Evaluate the probability of impact of the surface water, groundwater and/or soils within the property boundaries through a review of regulatory information and a reconnaissance of the subject site and vicinity;
- Evaluate historical conditions to identify previous usage that could impact the environmental condition of the site;
- Determine, if contamination is believed to have occurred, the potential on-site and offsite source material(s), location(s) and activities; and,
- Provide an evaluation of the potential for environmental impact at the site, and a list of specific conclusions.
- Reduce the threat of environmental liability for the current or future owner.

This investigation provides a means to raise pertinent questions, provide evidence, and identify potential issues that may document environmental contamination on the subject property or immediately adjacent to the subject property, as part of the due diligence effort to sufficiently satisfy the All Appropriate Inquiry (AAI) requirements for potential liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). As of December 30, 2013, EPA approved American Society of Testing and Materials (ASTM) E1527-13, *Standard Practice for Environmental Site Assessments: Phase I ESA Process and Guidelines*. The individuals performing this assessment of environmental conditions are in compliance with the definition of environmental professionals set forth in 40 CFR Part 312.

Site conditions may change significantly over a short period of time and additional data may become available. If so, data reported and conclusions drawn in this report are limited to the conditions observed during the field investigation and may not be relied upon at a significantly later date. This document does not address the requirements of any state or local laws or of any Federal laws including the requirements of the CERCLA Act of 1989, other than the all appropriate inquiry standards for CERCLA's innocent landowner defense.

This screening process is designed to develop a means of determining if the subject property has been or may potentially be contaminated with toxic substances and/or hazardous waste. A MTI environmental professional has reviewed recorded information that is reasonably ascertainable from those standard sources that are publicly available (within reasonable cost and time) and practically reviewable (without need of extraordinary analysis of irrelevant

data). Records that cannot be feasibly retrieved by reference to the subject property in which the subject property is located are not considered practically reviewable. Any data gaps occurring in this report are listed in Section 9.

The goal of the ESA is to identify and record any existing, potential or suspect “recognized environmental conditions” (REC) that may impose an environmental liability or restrict the land use activity within the subject property. A REC means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing or past release, or a material threat of a release of any hazardous substances or petroleum products on the properties or into the ground, groundwater or surface water. No ESA can wholly eliminate uncertainty regarding potential for REC(s) in connection with the subject property. Similarly, no environmental professional can be expected to visually observe every detail or record concerning a property. Therefore, the Phase I ESA and the professional judgment of the contributors to the report are intended to reduce, but not eliminate, uncertainty regarding the potential for REC(s) in connection with the subject property. In addition, the *level of inquiry is variable* and not every property will warrant the same level of assessment. According to Section 4.5.3, to remain consistent with good commercial and customary practice, the appropriate level of *environmental site assessment* will be guided by property 'type' undergoing assessment; the expertise and risk tolerance of the user; and the information developed in the course of the inquiry.

A registered environmental professional performed a site reconnaissance of existing physical conditions, on-site activities, and adjacent property impacts for any real or potential contamination on the subject property (i.e., RECs). A property condition assessment identifies current environmental conditions, which includes a baseline assessment for regulatory compliance status for the subject property but is not considered as an environmental compliance audit. A regulatory compliance audit is outside the scope of this investigation.

During a Phase I investigation, no invasive investigation of any kind is performed. Observation under floors, above ceilings, behind walls, within surface or subsurface soils, within confined spaces, or within any surface or groundwater has not been performed. Sampling for asbestos containing building material (ACBM), lead-based paint (LBP), lead-based water or polychlorinated biphenyls (PCBs) is beyond the scope of this investigation.

Nothing in this report constitutes a legal opinion or legal advice. For information regarding specific individual or organizational liability, MTI recommends consultation with an independent legal counsel. MTI and its representatives shall not be responsible for determining the validity or truthfulness of answers received during interviews or of information and records obtained from government agencies. This report is provided for the exclusive use of client and is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party’s sole risk and MTI disclaims liability for any such third party use or reliance.

3.0 SITE DESCRIPTION, HISTORY AND USE

Current/Past Use: Subject property is the Eastern Market MetroPark that encompasses two (2) concrete-covered open park areas and a

Eastern Market MetroPark, Washington, DC 5

Washington Area Metropolitan Transit Authority (WMATA)
Metro train station.

SSL: Square Suffix Lot (SSL) 901

Ward: 6 Capital Hill

Size: approximately 7 acres - 770 feet long (east to west) by
370 feet wide (north to south)

Primary Zoning: Parks and Open-space

Coordinates: Latitude (North)/Longitude (West) 38.8842890 / -76.9949150

Elevation: 78 feet above sea level

Areas adjacent to the subject property that are zoned commercial are: 'D' Street SE (south of Penn Ave.) between 7th and 9th Streets SE (SSL's 902 & 829); eastbound lane of Pennsylvania Avenue west of 7th Street SE (SSL 874) and east of 9th Street SE (SSL 948). North of Pennsylvania (Penn) Avenue SE it is zoned commercial along the westbound lane west of 7th Street SE (SSL 873) and east of 9th Street SE (SSL 947). Low-to-medium density housing is zoned north of 'D' Street SE between 7th Street SE and 9th Street SE (SSL 925); and Institutional at the Southeast Library (SSL 875). The site of the former Hine Junior High School (SSL 901) has been changed to Local Public prior to the purchase of the property by Stanton Development, East Banc.

A **chain-of-title** was not provided to MTI. District of Columbia has reportedly owned the site prior to the late 1800s. Prior to that, the site was comprised of several smaller, privately-owned parcels. Past ownership was through review of aerial photos, Sanborn maps, city directories, and local municipal documents.

Aerial Photos Reviewed

Year	Source	Comment
2015	Google Maps	Subject property is as it appears today.
2014	“	Subject property is as it appeared in the previous photo except the Hine school is demolished.
2011	EDR	Subject property is as it appeared in the previous photo.
2009	“	Subject property is as it appeared in the previous photo.
2007	“	Subject property is as it appeared in the previous photo.
2005	“	Subject property is as it appeared in the previous photo.
2002	“	Subject property is as it appeared in the previous photo.
2000	“	Subject property is as it appeared in the previous photo.
1998	“	Subject property is as it appeared in the previous photo.
1994	“	Subject property is as it appeared in the previous photo.
1988	“	Subject property is as it appeared in the previous photo.
1984	“	Subject property is as it appeared in the previous photo.

1981	“	Subject property is as it appeared in the previous photo except the presence of the Eastern Market MetroPark and train station.
1971	“	Subject property is as it appeared in the previous photo.
1968	“	Subject property is as it appeared in the previous photo except that South Carolina Ave was closed for traffic and the site was converted into a 6-parcel Plaza and Park 'Capitol Hill Town Square' run by the National Park Service. Landscape conditions are as they exist today.
1963	“	Subject property is as it appeared in the previous photo.
1957	“	Subject property is as it appeared in the previous photo.
1951	“	Subject property is as it appeared in the previous photo except that the Wallach School was replaced by the Hine School. An open-air plaza is located east across 7 th Street from the library.
1949	“	Subject property is dissected by Penn and South Carolina Avenues and bordered by 7 th and 9 th Streets with two (2) grass-covered triangular parcels that are lined with an urban tree canopy.

Other Reviewed Sources

MAP	SOURCE	COMMENT
Watershed	DC Atlas	Potomac River
FEMA Floodplain Map	1100010030B	Not within the 100-year flood plain.
National Wetlands Inventory (NWI)	Washington East	The last update shows the subject property as not being located within or adjacent to any wetlands.
USGS Topo	Washington East 38076H8	The subject property is located on a flat topographic plateau.

USGS Topographic Maps

Surface topography of the subject property is predominantly flat that slopes gently to the east. Surface elevation of the Eastern Market MetroPark is 78 feet above mean sea level. Properties located south and southeast of the subject property are considered topographically downgradient. The general topography of the surrounding area is a gentle slope from the center of the subject property (8th St and Penn Ave. intersection) towards the east and west borders and from the north edge to the south edge which is consistent with this area’s original natural slope to the Anacostia River.

No structures or markers were located on the subject property in any of the 17 topographic maps reviewed (from 1899 through 2013) that were provided by EDR. It could not be determined if any development occurred on the subject property from topographic maps, city directories or historic drawings prior to the Civil War drawings. Except for a small pond located east of 9th Street SE between Grace Baptist Church and northbound lane of Pennsylvania Avenue depicted on a Pre-Civil War map, no earthen structures or other

significant topographic features (i.e. body of water), are noted on the subject property any historic USGS topographic map.

Sanborn Maps

Sanborn fire insurance maps for the years 1888, 1904, 1928, 1959, 1977, 1984, 1988, 1990, 1991, 1992, 1994, and 1998 were reviewed and all indicated the subject property was void of any structures. The 1959 Sanborn map also indicated that a gas station was located at the southwest corner of the Pennsylvania Avenue / 9th Street SE intersection (823 Pennsylvania Avenue).

City Directories

C&P Telephone City Directory does not list anything at subject property from 1969 through 1993 and there was nothing listed on any of the other directories (R.L. Polk) from 1922 through 1964. Other city directories were not reviewed due to the substantial historical coverage provided by other sources.

Historical and Cultural Significant Areas

The subject property is not located within or adjacent to the District of Columbia Historical District. However; the nearest historic landmark is the Old Naval Hospital (built in 1865) which is located at 901 Pennsylvania Avenue 350 feet east of the subject property. Other historic buildings in the area are the white 5-story Haines Store (built in 1890's) at 801 Pennsylvania Avenue SE, and the Southeast Library (built in 1922), and the CVS Pharmacy (built in 1938). The Eastern Market located along 7th Street SE approximately 2000 feet northwest of the subject property is a cultural resource site that is run by the National Park Service (NPS). The Marine Barracks at 10th Street SE and 'G' Street SE is located 1500 feet south of the subject property. The closest cemetery is the Congressional Cemetery on the north bank of the Anacostia River, 4000 feet east of the site. The Heritage Trail runs south along of Pennsylvania Avenue then south along 8th Street SE with two (2) signs located along the southbound lane of Pennsylvania Avenue.

The subject property has always been shown to be an open area community hub that was devoid of any buildings or houses since its inception. The earliest depiction was in a 1791 drawing where it shown as a community square along Pennsylvania Avenue between 7th and 9th Streets. The earliest structures that bordered the square included the Tunnicliff's Tavern (i.e. Eastern Branch Hotel) in 1795 and two wooden townhouses on 8th Street SE and 'D' Street SE intersection built in the mid-1790. The 1857 Bosche map showed the Grace Baptist Church and buildings at the site of the current library and along 'D' Street SE (both north and south of Pennsylvania Ave between 8th St. and 9th St). Civil War maps depicted the construction of the Old Naval Hospital; the Wallach School on the square's northwest corner; and a horse-drawn rail line running south along Pennsylvania Avenue SE and then turning south onto 8th Street SE then continuing south to the Marine Barracks and the Navy Yard on the Anacostia River.

Besides the MetroPark gardens along the Pennsylvania Avenue Corridor (between the northbound and southbound lanes) and Eastern Market mentioned above, the NPS is responsible for four (4) parks within the Capitol Hill Parks Group that are located in the immediate vicinity of the subject property. The garden areas are the Seward Square Park on Pennsylvania Avenue SE (450 feet to the northwest); Marion Park on South Carolina Avenue SE and 6th Street SE (400 feet west); Folger Park on North Carolina Ave at 3rd Street SE

(400 feet to the southwest); and Lincoln Park at North Carolina and 11th Street SE (2000 feet to the north).

Summary

Based on a review of aerial photographs, Sanborn maps, USGS topographic maps, city directories, and other map sources there was no evidence of an apparent recognizable environmental condition (REC) that would indicate environmental impairment observed. No dwellings, infrastructure, surface impoundments, or other areas that might be considered as a REC for the subject property was indicated in the aerial photos or other map sources.

4.0 PHYSICAL SETTING

Location

The Eastern Market MetroPark, also described to as 'subject property' (cover photo) is located within the Capital Hill community of Washington, DC. The site is an approximately 7-acre parcel and that is divided into two (2) park plazas by the six-lane Pennsylvania Avenue with a 30-foot wide grass and landscaped median. The South Plaza contains the Eastern Market Metro Station and the North Plaza contains a children's playground and numerous benches. The subject property is located on Pennsylvania Avenue 4000 feet southeast of the Library of Congress and 1750 feet north of I-695 beltway. Two (2) Metro lines (Blue and Orange) pass through the station between Potomac Avenue Metro Station (east) and the Capitol South Metro Station (west).

Geology / Soil Conditions

The Coastal Plain Physiographic Province extends from the Fall Zone at the eastern edge of the Piedmont Province eastward to the Atlantic Ocean. The topography of the Coastal Plain is characterized by rolling upland terraces that act as stair-steps down to major rivers (i.e. Potomac River) or bays (i.e. Chesapeake Bay) and to the coast. These terraced landscapes are then underlain by complexly folded and faulted crystalline rocks. The risers (scarps) are former shorelines and the exposed beds are emergent bay and river bottoms. The higher, older beds located in western part of the Coastal Plain are more dissected by stream erosion than the lower, younger terrace beds. This landscape was formed over the last few million years as sea level rose and fell in response to the repeated melting and growth of large continental glaciers and as the Coastal Plain slowly uplifted. The Coastal Plain is underlain by a thick wedge of sediments that increases in thickness from a featheredge near the Fall Zone (west) to more than 12,000 feet thick under the continental shelf (east of the coastline). These sediments rest on an eroded surface of Precambrian to early Mesozoic rock. Two-thirds of this wedge is comprised of late Jurassic and Cretaceous dark gray to reddish-brown, micaceous, glauconitic, argillaceous, and fine-grained to coarse-grained sand, and gravel, which were stripped from the Appalachian mountains, carried eastward by rivers and deposited in deltas in the newly formed Atlantic Ocean basin. Sequences of thin, fossiliferous marine sands of Tertiary age overlie the older strata. Latest Tertiary and Quaternary sand, silt, and clay, which cover much of the Coastal Plain, were deposited during interglacial high stands of the sea under conditions similar to those that exist in the modern Chesapeake Bay and its tidal tributaries.

Bedrock types are typically deeply weathered highly metamorphosed sedimentary deposits and the land surface has been dissected by erosion. The soils encountered in this area are the residual product of in-place chemical weathering of bedrock presently underlying the subject property. According to the USDA – Natural Resources Conservation Service SSURGO Soils, the subject property is underlain with disturbed soils (Fluvaquents & Udifluents)-Urban Complex (95%) and Matapeake silt loam (5%):

Typical Soil Layers:

- A - 0 to 2 inches: silt loam (fine-to-moderately fine textures)
- E - 2 to 9 inches: gravelly loam
- Bt1 - 9 to 12 inches: gravelly loam
- Bt2 - 12 to 24 inches: clay loam
- 2BC - 24 to 34 inches: loamy sand
- 3C - 34 to 72 inches: gravelly silty clay loam

Soil Properties:

- Runoff class: 6 - very high
- Slope: 0 to 8 percent
- Depth to restrictive feature: More than 80 inches
- Natural drainage class: Well drained
- Capacity of the most limiting layer to transmit water; impeding downside percolation of ground water; moderately well-drained
- Depth to water table: More than 80 inches
- depth to bedrock: more than 72 inches
- Frequency of flooding: None
- Frequency of ponding: limited
- Available water storage in profile: Moderate (about 6.1 inches)
- Hydrologic Soil Group: C with slow filtration rates
- Minor Components:
 - Bourne: 5 percent
 - Croom: 5 percent
 - Sassafras: 5 percent
 - Unnamed soils: 5 percent

Surface Water / Groundwater

The closest large body of water is the Anacostia River 4,000 feet to the southeast of the subject property. No water bodies are designated on the property. Surface water runoff primarily flows off the subject property over paved surfaces in all four directions into below ground storm sewer inlets which drain into the Municipal Separate Storm Sewer System (MS-4) which empties into the Anacostia River. Groundwater flow is primarily east towards the Potomac River Basin (Chesapeake Bay). The District of Columbia GIS shows the subject property and surrounding area is on the public water/sanitary sewer system and that only one (1) well permit is shown at the site of the previous Hine School.

Actual local groundwater depths and flow directions can be influenced by factors such as underground structures, seasonal fluctuations, production wells and dewatering operations. Note: precise groundwater depths and flow directions can only be determined through installation of groundwater monitoring wells. In general, shallow unconfined groundwater movement within the overlying soils is controlled largely by topographic gradients. Recharge occurs primarily by infiltration along higher elevations and typically discharges

into streams or other surface water bodies. The elevation of the shallow water table is transient and can vary greatly with seasonal fluctuations in precipitation. Movement in this water table is generally from higher to lower elevations. As such, shallow groundwater would be expected to flow generally to the east towards Chesapeake Bay.

No subsurface investigation, groundwater gradients, or sampling for surface water contamination were performed. While discussion of apparent groundwater gradient may be included in this report, this gradient may not necessarily correspond with actual gradients. Site-specific groundwater gradients may only be determined through subsurface potentiometric investigation. MTI was not provided with any water quality data.

Assessment of the impact of contaminant migration generally has two (2) principal investigative components: groundwater flow direction and flow velocity. Groundwater 'direction' may be impacted by surface topography, hydrology, and hydrogeology, characteristics of the soil, and nearby wells. Groundwater 'velocity' is generally impacted by the nature of the geologic strata (aquifer). Based on the topography and distance to any major body of standing water, the depth to the groundwater table is probably quite high (>6 feet). Variations in the location of the long-term water table may occur as a result of changes in precipitation, evaporation, and surface runoff (rainfall). A shallow groundwater table will occur only in low-lying areas and adjacent to the existing stream. Therefore, the subsurface groundwater conditions at this site would be significantly influenced by surface water runoff and rainfall, especially during high precipitation seasons.

5.0 SITE RECONNAISSANCE

<p>Subject Property: A canopy-covered Metro entrance and cement-covered open area that is interspersed with trees, six (6) irregularly-shaped grassy areas, numerous park benches, and cement planters.</p>
<p>Adjoining Subject Property to the North: Pennsylvania Avenue that has two (2) three-lane asphalt streets that is separated by a 30-foot wide grass-covered median then North Plaza area then 'D' Street then multi-family dwellings and beyond to the north.</p>
<p>Adjoining Subject Property to the South: 'D' Street SE then a row of small commercial business then multi-family dwellings and beyond to the south.</p>
<p>Adjoins Subject Property to the West: A two-way city street (7th Street) then entrance to South Carolina Avenue (on the southwest) that is bordered by Southeast Library on the north; and CVS Pharmacy on the corner directly west of the Metro entrance then multi-family dwellings and beyond to the west.</p>
<p>Adjoins Subject Property to the East: A two-way city street (9th Street) then an animal wellness center, Grace Baptist Church, and entrance to South Carolina Avenue (on the northeast) then multi-family dwellings and beyond to the east.</p>

An environmental professional from Rox Engineering which is a MTI consultant conducted the field reconnaissance on February 7, 2016. The weather at the time of the reconnaissance was cold and sunny with the ground clear of snow. The professional engineer, registered by the District of Columbia (D.C.), was unescorted during the site reconnaissance. Observations of the property were made from a walking reconnaissance around the perimeter boundary,

around all buildings and structures and along several transects through the property. A Site Features Map is provided in the Appendix. The subject property is currently being used as a commuter transfer point for pedestrians, Metro bus riders, or cyclists desiring to access the below-grade Metro lines (Blue & Orange).

The subject property is bordered to the south and southeast by 'D' Street SE with small commercial businesses including delicatessens, a health center, Radio Shack, a bank, salon, FedEx, a realtor, and a government office. The subject property is bordered to the west and southwest by CVS Pharmacy and the Southeast Library.

Ecological Setting

The subject property (MetroPark) is primarily an open park covered by concrete and red-bricks and has a varying degree of landscape conditions with cement benches, planted trees, walking paths, landscaped-grass and trees. Over 40 planter polygons with UFA (Urban Forestry Administration)-approved trees are located along 'D' Street SE, Pennsylvania Avenue SE, 7th Street SE and 9th Street SE. A mixture of street trees, flowering understory trees to include a small grove of Japanese pagoda trees and numerous shrubs are located within planting beds. With varying tree sizes from newly planted (2-inches in diameter) to mature trees (24 to 30-inches in diameter). Trees show significant urban stress including impervious soils; restricted root growth; girdled roots and trunk and limb damage by vehicles impede longevity. In addition, two (2) irregularly-shaped grassy areas occur south of Pennsylvania Avenue and two (2) north of Pennsylvania Avenue.

According to WMATA, the Eastern Market MetroPark in comparison to other District parks has considerably higher amounts of impervious hardscape area. Planted areas comprise approximately 50% of the total site whereas in other parks, 65% to 75% of the total area is planted. The low area of planting relative to the overall area of the site has resulted in fewer sustainable opportunities such as combating the heat island effect through increased tree canopy cover: 51% planted not including roadbeds and 38% planted including roadbeds.

Infrastructure

Above Grade

Curbside on-street parallel parking spaces (34 south of & 38 north of Penn Ave.) are located along both curbs of 'D' Street SE (south of Penn Ave.) between 7th and 8th Streets; both curbs of 'D' Street SE between 8th and 9th Streets SE (north of Penn Ave.); and the South Plaza of MetroPark and along 9th Street SE on the North Plaza side of MetroPark. There are no parking areas within the North or South Plaza areas of MetroPark. Cement curbs, driveway entrances, fire hydrants, and stormwater drop inlets are located along both sides 7th Street SE, 8th Street SE, and 9th Street SE. Emergency walkouts and handicap ramps occur along 8th Street SE. Bicycle lanes are located along both the northbound and southbound lanes of Pennsylvania Avenue with a bicycle racks along the southbound lane west of 8th Street SE intersection. Traffic signals are at the three (3) intersections along Pennsylvania Avenue and stop signs are located at all the 'D' Street and South Carolina Avenue intersections. Six (6) vent grates located along the southbound lane of Pennsylvania Avenue median that provide air circulation to the below-grade Metro tunnels and lower-level station and service rooms. Fourteen (14) sewer manholes are located underground along the right-of-ways for both 'D' Streets (north and south of Penn. Ave.); along east and westbound

Pennsylvania Avenue; and under 7th, 8th, and 9th Streets. No electrical poles were observed on or immediately adjacent to the subject property.

No permanent structures, parking lots, or vehicle access areas are located within the MetroPark grounds. Several sidewalks transect the site, and no perimeter security, such as a fence, is located on the grounds. Over 40 above-ground cement benches are located within the park area (23 - north and 17 - south of Penn Ave.). Five (5) semi-enclosed bus stop shelters are located around the North Plaza. One (1) small circular children's playground is located in the North Plaza.

The Metro entrance is located 75 feet southeast of the northwest corner of the Pennsylvania Avenue / 7th Street SE intersection in the northwest corner of the south portion of MetroPark. Two (2) bike lockers are in back of the Metro entrance; two (2) bike racks are located between the entrance and the bus stop located adjacent to the eastbound lane of Pennsylvania Avenue; and a handicap accessible elevator is located just south of the entrance. An overhead canopy covers the Metro entrance and escalators.

Below Grade

The escalators take the Metro riders down to the lower-level which is approximately 20 feet below street level. The lower level serves both as a mezzanine platform (station agent, ticket purchasing, east service rooms, emergency egress stairs, and a cross-over to trains) which is located in the east half of the station. On the bottom level is the island platform used for boarding trains which has several benches, a handicap-accessible elevator, and two (2) rail car tunnels. One tunnel runs northward to the Capitol South Metro Station and one southward to the Potomac Avenue Metro Station. Underground utilities are comprised of a plethora of numerous water mains and sewer lines that follow along the thoroughfares and converge at an axial cross point (20-foot in radius) located under the southwest corner of the 8th Street SE / Pennsylvania Avenue SE intersection:

- 66-inch diameter water main running southbound on 8th Street then southeast on Pennsylvania Avenue.
- Undisclosed size water mains east/west bound 'D' Streets (north & south of Penn).
- 18-inch sewer along south/north bound 7th and 8th Streets that connect with lines running east to west on 'D' Street.
- 24-inch sewer running southbound on 7th Street in front of the library.
- 36-inch sewer running east-west along 'D' Street south of Pennsylvania Avenue and then another running north to south along 7th Street.

These below-grade utility lines present formidable obstacles to any proposed construction (i.e., a monuments or water features) particularly where they converge between the existing lower-level platform and the proposed tunnel to the Southeast Library underneath 7th Street SE.

Emergency Services

A fire station (Engine-18) is located at 414 8th Street SE along the northbound side of 8th Street SE one block south of 'D' Street SE. The Regional Evacuation Route is along Pennsylvania Avenue.

Solid Waste

No regulated solid waste mounds or piles of fill material were observed within or adjacent to the subject property.

Hazardous Contamination**On-Site**

A walking reconnaissance of the property boundary and public places was conducted on February 7, 2016 (see attached Environmental Due Diligence Checklist and photos taken during the visit). The weather at the time of the reconnaissance was cold and sunny with the ground surface clear of snow. No release of hazardous materials / waste had been witnessed or reported on the subject property. There were no signs of contamination / evidence of any facility that could have stored / treated discharged industrial wastewater present on-site. The following were observed (O) or not observed (NO) during the site reconnaissance:

Aboveground Storage Tank (AST)	NO
Underground Storage Tank (UST)	NO
Surface Waters	NO
Pools of unidentified petroleum-based liquids or hazardous substances	NO
Drums or containers that may contain these liquids	NO
Stained soil	NO
Stained pavement	NO
Stressed vegetation	NO
Foul odors	NO
Dead animals	NO
Wastewater Discharge	NO
Fill and excavation areas	NO
Groundwater wells	NO
Septic tanks, cesspools or cisterns	NO
Material Safety Data Sheets (MSDS)	NO
Waste handling areas	NO
Pollution control equipment	NO
Biomedical waste	NO
Floor drains and sump pumps	NO
Sludge or solids	NO
Septic System or cesspools	NO

Off-site

No pits, ponds, lagoons, or waste water discharges were observed on the adjacent properties. No evidence of hazardous substance or petroleum products spills or remediation systems were observed on adjacent properties except for the on-going remediation at Hine Junior High School at 335 8th Street SE. Based on our observation, no physical evidence of an off-site contamination source was identified. There was no evidence of exterior chemical or hazardous waste storage, dumping or landfills located on adjacent properties. There was no visible contamination observed on property that immediately adjoins the subject property. There was no evidence of any hazardous substance or petroleum products generation, usage, storage, treatment, disposal, discharge or re-cycling observed during the on-site reconnaissance. There were no commercial or industrial facilities that could pose any environmental threat to the project.

Summary

Based on the site reconnaissance performed, there does not appear to be any evidence of RECs in connection with the subject property. There were no signs of any portion of the subject property that had ever been used to store and/or treat discharged industrial wastewater. There does not appear to be any physical indicators of contamination or environmental concerns associated with the subject property. It does not appear that the subject property has been used in any manner which would indicate the release of hazardous materials or waste.

6.0 NON-SCOPE ISSUES

ASTM guidelines identify the presence of non-scope issues (i.e. ACBM, LBP, lead in drinking water, mold, PCBs and radon) that have the potential to be an environmental risk are beyond the scope of this practice. However, observations of conditions that would indicate the possible occurrence of these non-scope issues are listed below. MTI was not authorized to conduct or requested to conduct any non-scope services or review of regulatory compliance audits for the subject property.

Asbestos-Containing Building Material (ACBM)

The Metro station was constructed prior to 1970 and the majority of the station has bare concrete walls, ceilings and floors. If ACBM does exist, it may be present in only a few localized areas (i.e. behind wall-coverings or floor tiles). If construction occurs in those areas, precautionary measures should be used to limit exposure to ACBM dust to air circulation.

Lead-based Paint (LBP)

The Metro station was constructed prior to 1970 and the majority of the station has bare concrete walls, hand rails, and ceilings. If LBP does exist, it may be present in only a few localized areas where there is a painted surface. If construction occurs in those areas, precautionary measures should be used to limit exposure to LBP dust to air circulation.

Mold

During our site visit, we observed mold on the wall and ceiling on the mezzanine platform of the lower level leading to the elevator (see Photos 2a & 2b).

Polychlorinated biphenyls (PCBs)

PCBs are toxic coolants or lubricating oils used in some electrical transformers, light ballasts, electrical panels, or other similar equipment. PCB content in electrical transformers has been categorized into three classifications by the federal government. Those units that contain less than 50 parts per million (ppm) are defined as non-PCB. Units that contain between 50 ppm and less than 500 ppm of PCB's are defined as PCB-contaminated. Units with a PCB content of 500 ppm and greater are classified as PCB transformers. No known or suspect PCB-containing equipment were observed on the subject property (does not include light ballasts).

Radon

A radon survey was not conducted as part of this ESA due to the non-residential nature of the subject property. The National Radon Database has been developed by the USEPA and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The subject location is an area where radon gas levels are minimum 0.5 pCi/L and maximum radon level of 34.8 pCi/L based on number of 325 sites tested by EPA Region 3 Statistical Summary Readings for Zip Code: 20003.

Unique Construction Requirements

MTI was not provided with any engineering drawings. Based on the Scope of Work an underground extension under 7th Street SE from the mezzanine platform to the SE Branch Library at 403 7th Street SE is planned.

7.0 GOVERNMENT AGENCY RECORDS REVIEW

Environmental Records Review

A search of 11 federal and state regulatory databases was performed by EDR to determine if the subject property or properties within our specified search radii are listed on environmental regulatory agency databases. These databases track properties: 1) which generate, treat, store or dispose of hazardous waste or petroleum products; 2) where spills of hazardous waste or petroleum products are known to have occurred or where clean-up has been mandated; and 3) which are in violation of environmental laws or regulations. The database report provides a list of properties identified within ASTM-specified search radii from the subject property, an approximate distance and direction from the subject property and a map showing the properties approximate location. The search radii are the minimum specified by ASTM unless otherwise specified and justified by the environmental professional. A copy of the database report is provided in Appendix.

Some properties identified by the database company are not plotted due to inadequate address and geo-coding information. MTI reviewed the list of “unmappable” sites to verify their location and possible impact to the subject property. While this attempt at verification is made with due diligence, MTI cannot guarantee the accuracy of the records search beyond that of the databases reviewed.

The potential for soil and/or groundwater contamination was evaluated from a review of all existing / historical contamination or sources of contamination that may be a result of hazardous substances or toxic wastes. Any existing or potential on-site or off-site contamination occurrences by any regulated hazardous substance within the limits specified for the source list dictated by ASTM E1527-13 were identified / inventoried through a database search by Environmental Data Resources (EDR) of the following lists (see attached CERCLA Summary):

National Priorities (NPL) / Proposed NPL	1 mile radius
State Priorities (SPL)	1 mile “
CERCLA (CERCLIS)	½ mile “
No Further Remedial Action Planned (NFRAP)	½ mile “
RCRA - CORRACTS (corrective action)	1 mile “
RCRA -TSDF	½ mile “
RCRA (RCRIS) Generators:	¼ mile “
Large Quantity Generator (LQG)	
Small Quantity Generator (SQG)	
Conditional Exempt Small Quantity Generator (CESQG)	

RCRA Non-Generators	¼ mile “
Solid Waste Landfill (SWLF)	½ mile “
Spills	target property
HMIRS (Records of Emergency Release Reports)	target property
Liens	target property
Registered tanks:	
Leaking tanks / LUST	½ mile “
USTs / ASTs	¼ mile “
Oil Control Program Cases (OCP Cases)	½ mile “
Dry Cleaners	¼ mile “
Voluntary Cleanup/Remediation Program (VCP / VRP)	½ mile “
Institutional / Engineering Controls	½ mile “
Brownfields	½ mile “
High Risk Historical (auto /dry cleaners/USTs)	¼ mile “

Open Cases:

According to EDR, the subject property did not appear on any of databases EDR reviewed. However, EDR noted there are two (2) open LUST (Leaking Underground Storage Tank) sites that are located within a ½-mile radius of the subject property (see attached CERCLA Summary):

- **Hine Junior High School at 335 8th Street SE** is 384 feet northwest of the subject property at a higher elevation. The database reported soil and water contamination by heating oil and diesel occurred on or before March 27, 2012. Excavation of the site began in late July 2015 by Clark Construction for the construction of condominiums and retail stores. The contaminated soil had been removed and properly disposed and the contaminated groundwater is undergoing remediation as witnessed by the monitoring wells (See Photo 11a). A request was mailed to the D.C. Department of Environmental (DDOE) for obtaining updated information on the status of the ongoing mitigation. Upon receiving any pertinent information regarding the subject property, we will forward upon receipt.
- **Source Auto Center at 801 Virginia Avenue SE** is 2,232 feet south of the subject site and at a lower elevation. The database reported soil and groundwater contamination by heating oil occurred on or before June 5, 2005. A request was mailed to DDOE for information pertaining to existing environmental conditions for this property. Upon receiving any pertinent information regarding the subject property, we will forward upon receipt.

Closed Cases:

All of the other listed LUST cases or spill incidents are designated as **Closed** on the CERCLA Summary and it is expected that will now have no impact on the subject property based on distance from and topographic elevation relative to the subject property. The DC GIS shows closest reported USTs at: 801 Pennsylvania Avenue (between 8th & 9th Streets), 411 9th Street SE (south of 'D' St), and 901 9th Street SE (between South Carolina and 'D' St.). Based on the EDR report (between pages 61 and 159) there does not seem to be any factual evidence that the subject property is or has ever been contaminated by hazardous materials in the past.

Environmental Lien and Activity / Use Limitation (AUL) Review



According to EDR, based on their government inquiries, no known Notice of Environmental Violations (NOVs); Non-compliance; Cease or Desist Orders; Environmental Liens or any other activity / use limitations (AUL) were reported to have ever been or are now being executed on the subject property. The property in question is not involved in or has not received notification of lawsuits or administration proceedings alleging violation of Federal, state or local environmental laws and regulations. In addition, the subject property or any property in proximity of the site was not found to be under any investigation for violation of any environmental laws, regulations, or standards.

Summary

Based on the government records review, no incident causing leakage or HAZMAT penetration within the soil or into the groundwater has ever been observed / reported on the subject property.

8.0 INTERVIEWS

Resident / Owner

Mr. John Distads, owner of the BP Gas Station at 823 Pennsylvania Avenue, was interviewed. He stated the monitoring wells at this location were removed last year and the case has since been closed. In addition, he stated that since he has been in the area (over 10 years) he is unaware of any other environmental concerns.

Ms. Lisa Franklin, employed with CVS Pharmacy at 661 Pennsylvania Avenue for eight (8) years, was interviewed. Except for the leaking Underground Storage Tank located at the Hine School, she also, is unaware of any environmental concerns in the area.

Local / State Officials

We have contacted Brian Killian and Ricardo Eley of the Safety & Environmental Office for the D.C. Department of General Services (DGS) through emails. Mr. Eley stated that the only environmental concern within the vicinity of the subject area that he is aware of was the asbestos removal at Hine Junior High prior to the demolition of the building and the subsequent soil mitigation and the ongoing groundwater mitigation effort.

Other Agency Contacts

Freedom of Information Act (FOIA) requests have been submitted to the D.C. DDOE and D.C. Environmental Health Department and the Fire Marshal for any information pertaining to existing environmental conditions or facilities within the immediate vicinity of the subject property. However; we have not received responses from DDOE or Fire Marshal at this time. Upon receiving any pertinent information regarding the subject property, we will forward upon receipt.

9.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the property known as the Eastern Market Park in Washington, DC. As documented and qualified in this report, this assessment has revealed no evidence of recognized environmental conditions in connection with the property.

Summary of Findings

Based on observations and available data/records made through the performance of this Phase I ESA for the subject site at 701 Pennsylvania Avenue SE, Washington, DC 20003 was conducted in accordance with ASTM Practice E1527-13, we have found no evidence of recognized environmental conditions (RECs) in connection with present or past uses of the property that would cause any environmental problems for its further use of the subject property. Any exceptions to, or deletions from, the ASTM E1527 practice are described below. However, two (2) open LUST sites were found in the assessment were noted on the EDR database search: Hine Junior High School at 335 8th Street SE (384 feet northwest of the subject property) and the Source Auto Center at 801 Virginia Avenue (2,232 feet south of the subject property). A request has been made to DDOE for information pertaining to existing environmental conditions at these sites.

Recommendations / Action Plan

None at this time

Limiting Conditions / Deviations / Client Imposed Constraints

No limiting conditions, deletions, deviations, or client imposed constraints to this ASTM practice was made. Any exceptions to, or deletions from, this practice are described in Section 2 of this report.

Data Gaps

MTI was not provided with any proposed construction plans or any subsurface, geotechnical or environmental assessment reports in regards to the associated with the subject property. In addition, MTI was not provided with any geotechnical investigation report for any abutting and adjacent properties. No other data gaps due to a lack or inability to obtain information required by this practice despite good faith efforts by a MTI environmental professional occurred in gathering information for this report.

10.0 REFERENCES

- EDR Radius Map for Eastern Market MetroPark at 798 Pennsylvania Ave. SE, Washington, DC 20003 - dated January 26, 2016: Inquiry #4522280.2s; Sanborn Maps: Inquiry #4522280.3 dated January 27, 2016; Aerial Maps: Inquiry #4522280.9 dated January 27, 2016; Historical Topos: Inquiry #4522280.4 dated January 26, 2016 & City Directories: Inquiry #4522280.5 dated January 29, 2016.
- ASTM Standards on Environmental Site Assessments for Commercial Real Estate, Current Edition E1527-13 dated December 2013.
- District of Columbia Geographic Information System (GIS) accessed by Michael Munson on January 16 - February 16, 2016. @ atlasplus.dcgis.dc.gov/mar/
- District of Columbia Department of Environment (DDOE) accessed by Michael Munson on January 16 - February 16, 2016. doee@dc.gov.
- National Register of Historic Places (NRHP) accessed by Michael Munson on January 16 - February 16, 2016. @ www.nps.gov
- Historical Preservation Board accessed by Michael Munson on January 16 - February 16, 2016. @ planning.dc.gov/page/historic-preservation-review-board
- DC Regulatory Affairs accessed by Michael Munson on January 16 - February 16, 2016. @ dc.gov/agency/departments-consumer-and-regulatory-affairs
- Office Deputy Mayor, Planning and Development, District of Columbia accessed by Michael Munson on February 10, 2016. dmped@dc.gov
- Federal Emergency Management Agency (FEMA) accessed by Michael Munson on January 16 - February 16, 2016. @ msc.fema.gov/portal
- USDA Natural Resources Conservation Service (NCRS) Web Soil Survey accessed by Michael Munson on January 16 - February 16, 2016. @ websoilsurvey.sc.egov.usda.gov
- National Wetland Inventory (NWI) accessed by Michael Munson on January 16 - February 16, 2016. @ www.fws.gov/wetlands/Data/Mapper
- USGS topographic maps accessed by Michael Munson on January 16 - February 16, 2016. @ topoquest.com and MyTopo.com
- Google Maps and MapQuest accessed by Michael Munson on January 16 - February 16, 2016. Eastern Market Metro Station Park and Plaza, Urban Design Study, WMATA, January 2010.
- Johnson, Paul M., 1964. *Geology and Ground-Water Resources of Washington, D.C. and Vicinity*, Geological Survey Water-Supply Paper 1776, U.S. Government Printing Office Washington

11.0 ENVIRONMENTAL QUALIFICATIONS AND SIGNATURE

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professionals as defined in Paragraph 312.10 of 40 CFR Part 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the AAI in conformance with the standards and practices set forth in 40 CFR Part 312.

Respectfully submitted,
MTI Engineering and Testing, Inc.

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