




MEMORANDUM

To: Richard Doherty, PE, City Engineer
DPW- City Engineering Division (CED)

From: Hosam Hassanien, PG, CPG, Environmental Specialist III 
BSEED-Environmental Affairs (EA)

Date: 02/12/2024

Re: Public Highway Institutional Control (PHIC) Notification
Former Sunoco Gas Filling Station
1801 South Fort Street, Detroit, MI 48217
EGLE REF. NUMBER: PHIC-RRD-213-23-026
FACILITY ID NUMBER: 00005940

On behalf Evergreen Resources Group, Inc. (Evergreen), Stantec Consulting Services, Inc. has conducted environmental investigation, assessment, and remediation activities at the property located at 1801 South Fort Street, Detroit, MI 48217 (the subject property). The attached PHIC notification is being submitted to the City BSEED-EA for review as a result of 2 gasoline confirmed releases filed with EGLE in June 1991 and March 1998 (C-1309-91 & C-0194-98, respectively). Note, EGLE requires the legal entity proposing to implement the PHIC, as an alternative mechanism to site closure, to notify the local unit of government to confirm that the City of Detroit has no current plans to relocate, vacate or abandon the affected public roadways.

Based on a review of the proposed PHIC and supporting documentation, the investigative and remedial activities conducted at the subject property appear to be consistent with the rules and regulations of P.A. 451 of 1994, Part 213, Leaking Underground Storage Tanks Act, as amended; however residual petroleum contamination exceeding Part 213 Risk-Based Screening Levels remain in the subsurface soil and groundwater within 2 City of Detroit-owned and maintained alleyways located east of the subject property. Specifically, the affected alleyways are located near the intersections of Northbound South Fort Street & Schaefer Highway and Schafer Highway & Edsel Street. As such, Evergreen has prepared the subject PHIC notification to serve as an institutional control for reliance on existence of the unaltered use of the 2 affected alleyways described above as a public highway for the foreseeable future.

Based on its review, BSEED-EA recommends that DPW-CED sign off on the attached proposed PHIC form (EQP4506 (05/2020)) provided that the City has no current plans to relocate, vacate or abandon the above-listed affected public alleyways. Upon signoff, please make sure the subject PHIC is filed in your record for future reference.

Michael E. Duggan, MAYOR



Stantec Consulting Services Inc.
27280 Haggerty Road, Suite C-11
Farmington Hills MI 48331
Tel: (248) 489-5900

January 29, 2024

Mr. Ron Brundidge
Director of Public Works
Coleman A Young Municipal Center
2 Woodward Avenue, Suite 513
Detroit, Michigan 48226

Re: Public Highway Institutional Control EGLE Ref. Number: PHIC-RRD-213-23-026
1801 South Fort Street
Detroit, Michigan 48217
Facility ID: 00005940
Confirmed Releases: C-1309-91 and C-0194-98

Dear Mr. Brundidge,


Stantec Consulting Services Inc. (Stantec) has been contracted by Retail/Service Station Operations, a Series of Evergreen Resources Group, LLC (Evergreen), formerly known as Sunoco, Inc. (R&M), to address the confirmed releases, referenced above, relating to operations at the former Sunoco gas station that operated at 1801 South Fort Street, Detroit, Michigan 48217 (the Site).

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) has developed a form entitled Public Highway Institutional Control (PHIC). This Institutional Control (IC) is required when environmental contamination is proposed to remain in place beneath a public highway or right-of-way (ROW) owned or controlled by a county road commission or local unit of government. The public highways/ROWs pertaining to this PHIC are two City of Detroit Alleyways east of the Site.

Stantec, on behalf of Evergreen, is submitting this form to the City of Detroit Public Works Division for review and signature. Please complete and sign Section 5 and return the completed PHIC to me using the included prepaid FedEx return shipper. After we receive the completed PHIC from you we will send you a hard copy of the document.

Please contact me at (248) 949-2549 with any questions or comments you may have.

Regards,
STANTEC CONSULTING SERVICES INC.


Paul Bojesen, CPG
Associate Geologist
27280 Haggerty Road, Suite C-11
Farmington Hills MI 48331
paul.bojesen@stantec.com

cc: Susan Shirer, Evergreen

PUBLIC HIGHWAY INSTITUTIONAL CONTROL

When environmental contamination is proposed to remain in place within a public highway owned or controlled by a county road commission or local unit of government, the "Public Highway Institutional Control" may be used to satisfy all of the requirements under Section 21310a(3)(c) of Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). In addition, the "Public Highway Institutional Control" may serve as an alternative instrument, with department approval, pursuant to Section 20121(9) of Part 201, Environmental Remediation, of the NREPA. The party proposing this Institutional Control (IC) shall submit the completed form and all attachments with a Closure Report pursuant to Part 213 or a No Further Action Report pursuant to Part 201 to the appropriate District Office. Multiple signature pages may be necessary if there is more than one authority that owns or controls the public highway. The EGLE Reference Number can be obtained by contacting the Remediation and Redevelopment Division at deq-rrd@michigan.gov, or by calling 517-284-5153.

SECTION 1. FACILITY INFORMATION:EGLE REF. NUMBER **PHIC-RRD-213-23-026**SITE OR FACILITY NAME: *Former Sunoco DUNs#00086520*SITE OR FACILITY ID NUMBER: *00005940*STREET ADDRESS: *1801 South Fort Street (the Site) (Figures 1 and 2)*CITY: *Detroit*ZIP: *48217*COUNTY: *Wayne*NAME OF PARTY PROPOSING PUBLIC HIGHWAY IC:
*Retail/Service Station Operations, a Series of Evergreen Resources Group, LLC*EMAIL ADDRESS:
*svshirer@evergreenresmgt.com*STREET ADDRESS: *2 Righter Parkway, Suite 120*CITY: *Wilmington*STATE:
*DE*ZIP:
*19803*CONTACT PERSON: *Susan Shirer*PHONE: *(302) 513-0075*FAX: *NA*EGLE District Office: Cadillac Gaylord Grand Rapids Jackson Kalamazoo Lansing
 Saginaw Bay SE Michigan Upper Peninsula**SECTION 2. AFFECTED PUBLIC HIGHWAY INFORMATION:**

1. Name of affected public highway(s) and nearest intersection:

*Two City of Detroit Alleyways located east of the Site. The nearest intersections to the affected alleyways are the intersection of Northbound South Fort Street and Schaefer Highway and also the intersection of Schaefer Highway and Edsel Street.**The portions of the City of Detroit Alleyways that are subject to the institutional control are referred to as the Institutional Control Area in the following sections and are depicted on Figure 3.*

2. Known or suspected contaminant(s) type (Check all that apply):

 Petroleum Volatile organic compounds Metals Other3. Is residual/mobile nonaqueous-phase liquid present in the affected public highway: YES NO

4. Media contaminated:

a. Soil Depth to contaminated soil:*Approximately 2-10 feet below ground surface.*b. Groundwater Depth to contaminated groundwater:*Approximately 3-8 feet below ground surface. Predominant groundwater flow direction is approximately northeast, based on historical monitoring well gauging data collected from 1992 through 2008.*

5. Provide a scaled drawing of the portion of the public highway subject to the institutional control that depicts the area impacted by regulated substances and the location of utilities in the impacted area, including storm water systems and municipal separate storm water systems. At a minimum, the scaled drawing should include:
- A north arrow.
 - A graphical scale bar and scale statement (e.g. 1"=50').
 - The limits of the source property plotted, to scale, showing the relationship to the county road commission or local unit of government and other affected parcels.
 - The public highway(s) name identified.
 - A statement identifying the Township, Range, Section, and Quarter Section where the parcel is located.:
 - The limits of the affected public highway plotted to scale. This area should be hatched and labeled appropriately.
 - The location of significant site features such as buildings, drives, parking lots, and road surface.
 - Cross section illustrating affected public highway, media, utilities, and location and depth of contaminated media.
 - Most recent analytical data illustrating contaminant compounds and concentrations within the contaminated media.

Requested information is illustrated on Stantec Figures 1-9 attached.

6. Provide a complete list that identifies all parties with ownership and possessory or use property interests related to the public highway (including owners of real property, easement holders, utility franchise holders, and owners or operators of public utilities):

The following parties operate utilities within the Institutional Control Area:

- The City of Detroit Public Works Department operates combined sanitary/storm sewers.*
- DTE Energy operates overhead electrical lines.*
- Wayne County operates underground utilities.*

There are also underground utilities beneath the right-of-way (ROW) of eastbound Schaefer Highway, where they overlap the Institutional Control Area, which include underground electrical and natural gas utilities operated by DTE Energy and a municipal water line operated by the City of Detroit Public Works Department.

Wayne County owns and operates Schaefer Highway.

- a. Are any of the parties listed above affected by the contamination: YES NO
- b. Have all of the parties above affected by the contamination received notification of the existing conditions as part of a corrective action plan or pursuant to the due care requirements: YES NO

7. Exposure risks:

a. Due to groundwater contamination (Check all that apply):

Drinking water Indoor air inhalation Surface water

b. Due to soil contamination (Check all that apply):

Direct contact Ambient air Inhalation Indoor air inhalation Leaching from soil to groundwater

Direct transport to surface water Soil excavation/relocation

Based on the exposure risks identified above, insert a paragraph below which describes the affected media, the nature and extent of the hazardous substances, the cleanup criteria exceeded, the routes of potential exposure, any response activities or corrective actions that have been taken to address the contamination, and any activities that could result in exposure to hazardous substances that would cause this institutional control to not be protective of public health, safety, and welfare (e.g. use of the groundwater for consumption, irrigation, or any other use, management and disposal of groundwater for dewatering for construction purposes; any excavation or intrusive activity that would result in contaminated soils to be placed at the ground surface or otherwise exacerbate the extent of contamination).

The following gasoline releases at the Site were reported to the State of Michigan Fire Marshal: C-1309-91 (June 28, 1991) and C-0194-98 (March 13, 1998). Confirmed release C-1309-91 occurred during Sunoco ownership of the property and confirmed release C-0194-98 occurred after Sunoco divested the property to Mr. Jamal Jamil in July of 1996. Ownership of the property has changed numerous times since Sunoco divested the property. The current owner of the Site is Trinity Chapel Funeral Home, Inc.

Confirmed release C-1309-91 was discovered as part of a station upgrade during product line testing. The leak source was discovered beneath the southeast dispenser island. Sunoco personnel supervised the repair, and the product line was retested and put back into service. Confirmed release C-0194-98 was discovered during underground storage tank (UST) system maintenance activities when maintenance personnel discovered a leak in the double walled economy dispenser, also located beneath the southeast dispenser island.

Approximately 1,643 cubic yards (2,465 tons) of hydrocarbon impacted soil were removed from beneath the adjacent property to the south (1909 South Fort Street) during excavation activities conducted in June 2008 (conducted on behalf of Sunoco/Evergreen and overseen by Stantec Consulting Services Inc. (Stantec)). Verification of soil remediation samples were collected following the excavation.

Approximately 10,167 tons of hydrocarbon impacted soil were removed from beneath the Site during excavation activities conducted from April to August 2018 (conducted on behalf of the State of Michigan and overseen by AECOM).

Historical corrective actions conducted at the Site and adjacent property to the south have cumulatively resulted in the removal of approximately 38,498 gallons of hydrocarbon impacted groundwater, 12,632 tons of hydrocarbon impacted soil, and removal of 2,368 gallons of waste gasoline and water from the USTs prior to their removal.

Analytical results from the 2008 excavation sampling activities (at 1909 South Fort Street) indicate that constituents of concern (COCs) were detected above applicable screening levels in verification of soil remediation samples collected from the northern wall of the excavation (the northern property line of 1909 South Fort Street) and from one floor sample collected near the southeast portion of the excavation. Since the excavation of impacted soil from beneath the Site was not planned at that time, the impacted soil along the north wall of the excavation at the property line was left in place. An impermeable polyvinyl chloride (PVC) barrier was installed along the northern wall of the excavation before the excavation at 1909 South Fort Street was backfilled with clay.

Analytical results of soil samples collected between 2000 and 2012 from within the Institutional Control Area adjacent to the east side of the Site indicate that samples contained one or more COCs that exceeded one or more applicable screening levels.

Analytical results from the 2018 excavation sampling activities (at the Site) indicate that COCs were not detected above applicable screening levels in samples collected from the excavation floor. The excavation extended laterally to the site boundaries in each direction and verification of soil remediation samples were collected. Analytical results indicate that soil collected from sampling locations along the west, north, and east sidewalls of the excavation contained concentrations of COCs exceeding one or more applicable screening levels. COCs were not detected above applicable screening levels in samples collected from the south excavation sidewalls. The feasibility of extending the excavation further to the west, north, and east was limited by the presence of roadways and underground utilities; therefore, soil with residual hydrocarbon impacts were left in place at these locations.

Based on this, soil impacts containing one or more COCs exceeding applicable screening levels may be present east of the Site beneath the adjacent alleyway (owned by the City of Detroit) exceeding one or more of the DWP, GSIP, and VIAP screening levels.

The most recent groundwater analytical results are from May 2015. Analytical results from the May 2015 groundwater sampling event indicate that groundwater may remain beneath the Site and adjacent roadways/ROWs/alleyways with concentrations of one or more COCs exceeding drinking water (DW), groundwater surface water interface (GSI), and/or VIAP screening levels. All monitoring wells that could be located by AECOM were abandoned prior to the 2018 excavation by TTL Associates, Inc.

Since the residual soil and groundwater impacts are located at depths near known utilities beneath the roadways/ROWs/alleyways, exposure risks during repair and maintenance of existing utilities are possible. The installation of drinking water production wells in the roadways/ROWs/alleyways is unlikely as is the potential for construction of aboveground structures.

To prevent unacceptable exposures to regulated substances in soil and groundwater and to ensure the effectiveness and integrity of the Corrective Action beneath the Institutional Control Area, the following activities shall be prohibited:

The construction of wells or other devices used to extract groundwater for consumption, irrigation, or any other purposes, except as provided below:

- Wells and other devices constructed for the purpose of evaluating groundwater quality or to remediate subsurface contamination associated with a release of regulated substances into the environment are permitted, provided the construction of the wells or devices complies with all applicable local, state, and federal laws and regulations and does not cause or result in a new release, exacerbation of existing contamination, or any other violation of local, state, or federal laws or regulations.
- Management and disposal of the groundwater for short-term dewatering for construction purposes should be conducted in accordance with all applicable local state, and federal laws and regulations and in a manner that does not cause or result in a new release, exacerbation of existing contamination, or any other violation of local, state, and federal environmental laws and regulations.

Additionally, management of all contaminated soils, media and/or debris shall be in accordance with the applicable requirements of Section 20120c or Section 21304b of the NREPA; Part 111, Hazardous Waste Management, of the NREPA; Subtitle C of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq.; the administrative rules promulgated thereunder; and all other relevant state and federal laws. Excavation and intrusive activities are prohibited unless a site-specific health and safety plan is adhered to in order to address potential direct contact exposures to impacted soil.

SECTION 3. STORM SEWER SYSTEM CERTIFICATION:

Is contamination present in or does the contamination have the potential to enter the storm sewer system (including separate storm sewer systems and combined sewers) as a result of the release from the underground storage tank system:

YES NO

If yes, please provide information below and attach any drawings, tables, etc. that clearly identifies the nature and extent of the contamination that enters or has the potential to enter the storm sewer system.

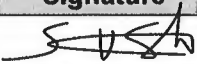
The potential exists for hydrocarbon impacted groundwater to enter the combined storm sewer system beneath the Institutional Control Area either through groundwater communication with the combined storm sewer edge drains or by direct communication with the combined storm sewer itself.

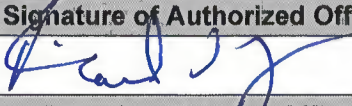
Hydrocarbon concentrations in groundwater samples collected during the May 2015 groundwater sampling event are presented on provided figures, which clearly identify the nature and extent of contamination in the vicinity of the Institutional Control Area with the potential to enter the combined storm sewer system.

The potential exists for hydrocarbon impacted soil remaining beneath and adjacent to the Institutional Control Area to leach residual contamination into surrounding groundwater. The nature and extent of soil contamination is defined based on analytical results obtained during sampling events conducted from 1993 to 2018 and is presented on the provided figures.

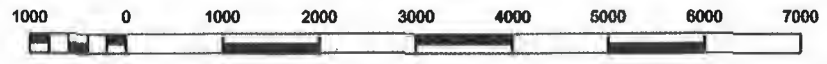
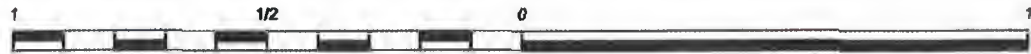
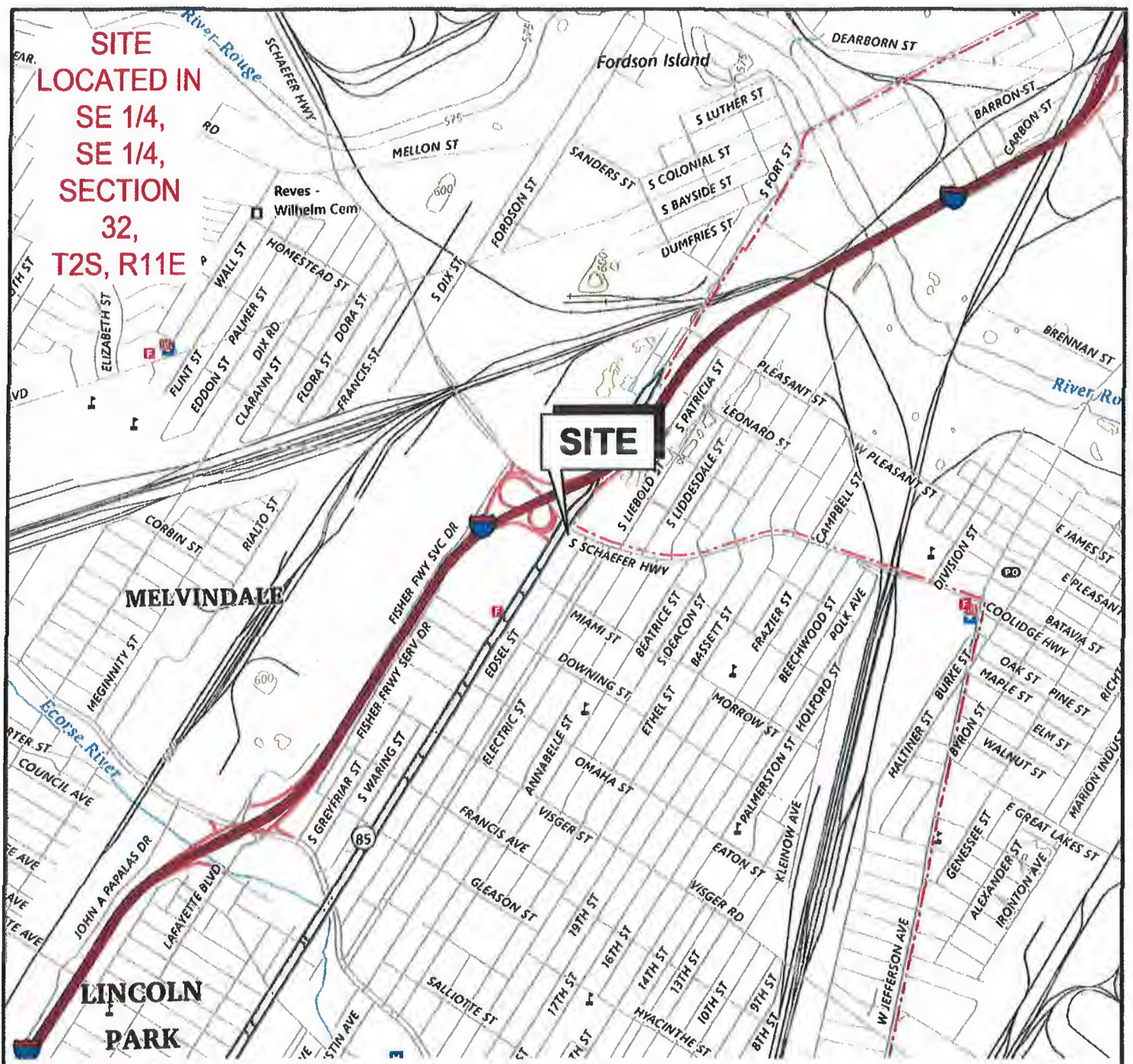
SECTION 4. SUBMITTER INFORMATION:

I, as the submitter identified in Section 1, or the qualified consultant authorized to complete this document on the submitter's behalf, hereby attest to the accuracy of the statements in this document and all attachments, and have provided this document to the county road commission or local unit of government.

Signature	Print	Date
	Susan Shirer	1/8/2024
Name of Company (if applicable)	Address, City, State, Zip	
Retail/Service Station Operations, a Series of Evergreen Resources Group, LLC	2 Righter Parkway, Suite 120, Wilmington, DE, 19803	

Phone Number	Fax Number	Email Address
(302) 513-0075	NA	svshirer@evergreenresmgmt.com
SECTION 5. COUNTY ROAD COMMISSION OR LOCAL UNIT OF GOVERNMENT CONFIRMATION:		
Name of county road commission or local unit of government: <i>City of Detroit Public Works Department</i>		
The aforementioned local unit of government hereby confirms that there are no current plans to relocate, vacate, or abandon the public highway. With my signature below, I certify that I am legally authorized to sign on behalf of the local unit of government .		
Signature of Authorized Official	Print Authorized Official	
	Mr. Ron Brundage <i>Richard Doherty</i>	
Title of Authorized Official	Date	
Director of Public Works <i>City Engineer</i>	<i>2/14/2024</i>	
Name of county road commission or local unit of government	Address, City, State, Zip	
<i>City of Detroit Public Works Department</i>	<i>Coleman A Young Municipal Center, 2 Woodward Avenue, Suite 513, Detroit, MI 48226</i>	
Phone Number	Fax Number	Email Address
(313) 224-3901	(313) 224-1464	NA

**SITE
LOCATED IN
SE 1/4,
SE 1/4,
SECTION
32,
T2S, R11E**



SCALE IN FEET
1" = 2000'
(original document at 8.5x11)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE;
DETROIT, MICHIGAN; 2023



27280 Haggerty Road, Suite C-11
Farmington Hills, MI 48331
PHONE: (248)489-5900

FOR:
FORMER SUNOCO SERVICE STATION
1801 SOUTH FORT STREET
DETROIT, MICHIGAN
DUNS #0008-6520

SITE LOCATION MAP

FIGURE:
1

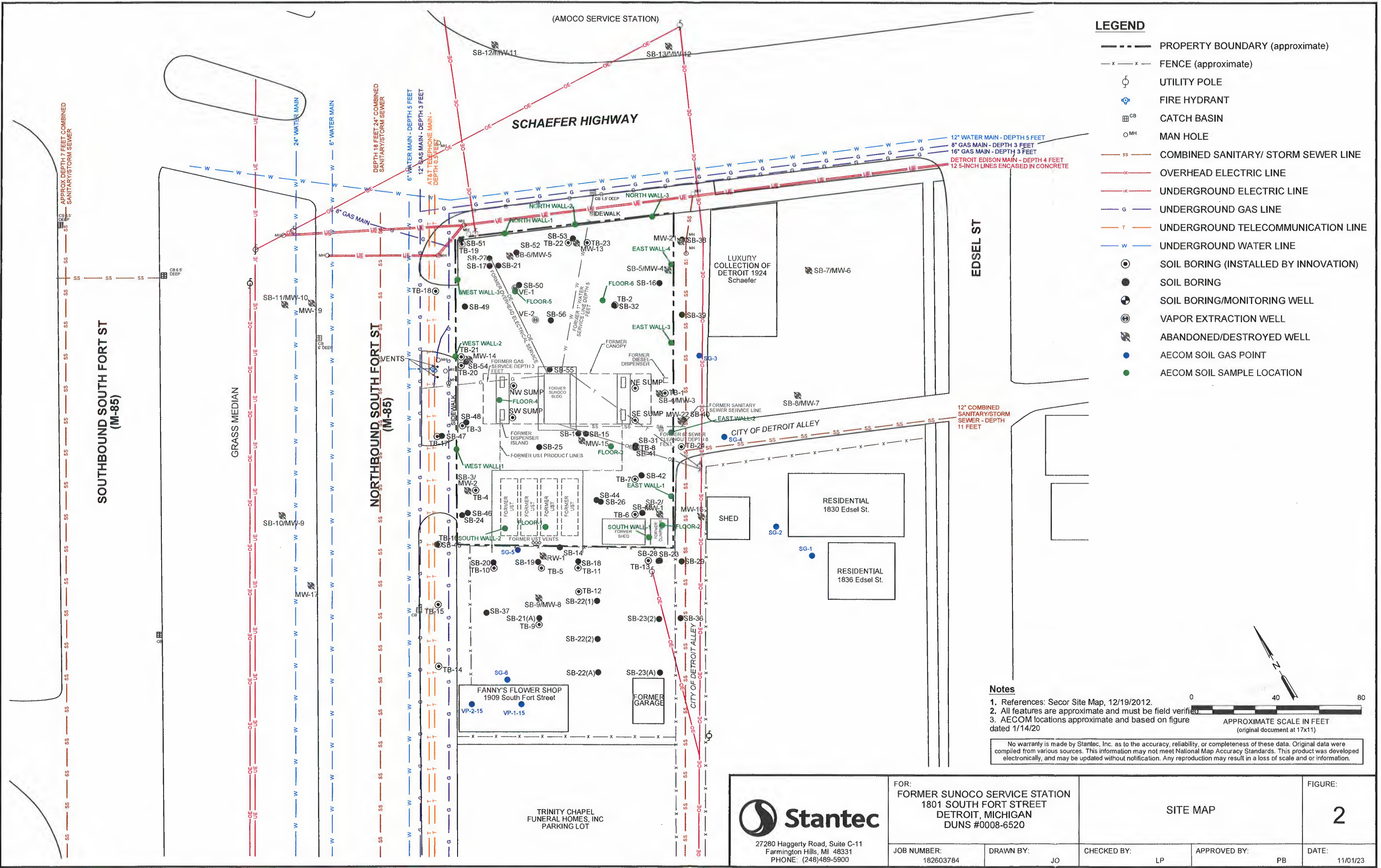
JOB NUMBER:
182603784

DRAWN BY:
JO

CHECKED BY:
LP

APPROVED BY:
PB

DATE:
11/01/23



- LEGEND**
- PROPERTY BOUNDARY (approximate)
 - x - x - FENCE (approximate)
 - ⊕ UTILITY POLE
 - ⊕ FIRE HYDRANT
 - ⊕ CB CATCH BASIN
 - ⊕ MH MAN HOLE
 - SS --- COMBINED SANITARY/ STORM SEWER LINE
 - OE --- OVERHEAD ELECTRIC LINE
 - UE --- UNDERGROUND ELECTRIC LINE
 - G --- UNDERGROUND GAS LINE
 - T --- UNDERGROUND TELECOMMUNICATION LINE
 - W --- UNDERGROUND WATER LINE
 - ⊕ SOIL BORING (INSTALLED BY INNOVATION)
 - SOIL BORING
 - ⊕ SOIL BORING/MONITORING WELL
 - ⊕ VAPOR EXTRACTION WELL
 - ⊕ ABANDONED/DESTROYED WELL
 - AECOM SOIL GAS POINT
 - AECOM SOIL SAMPLE LOCATION

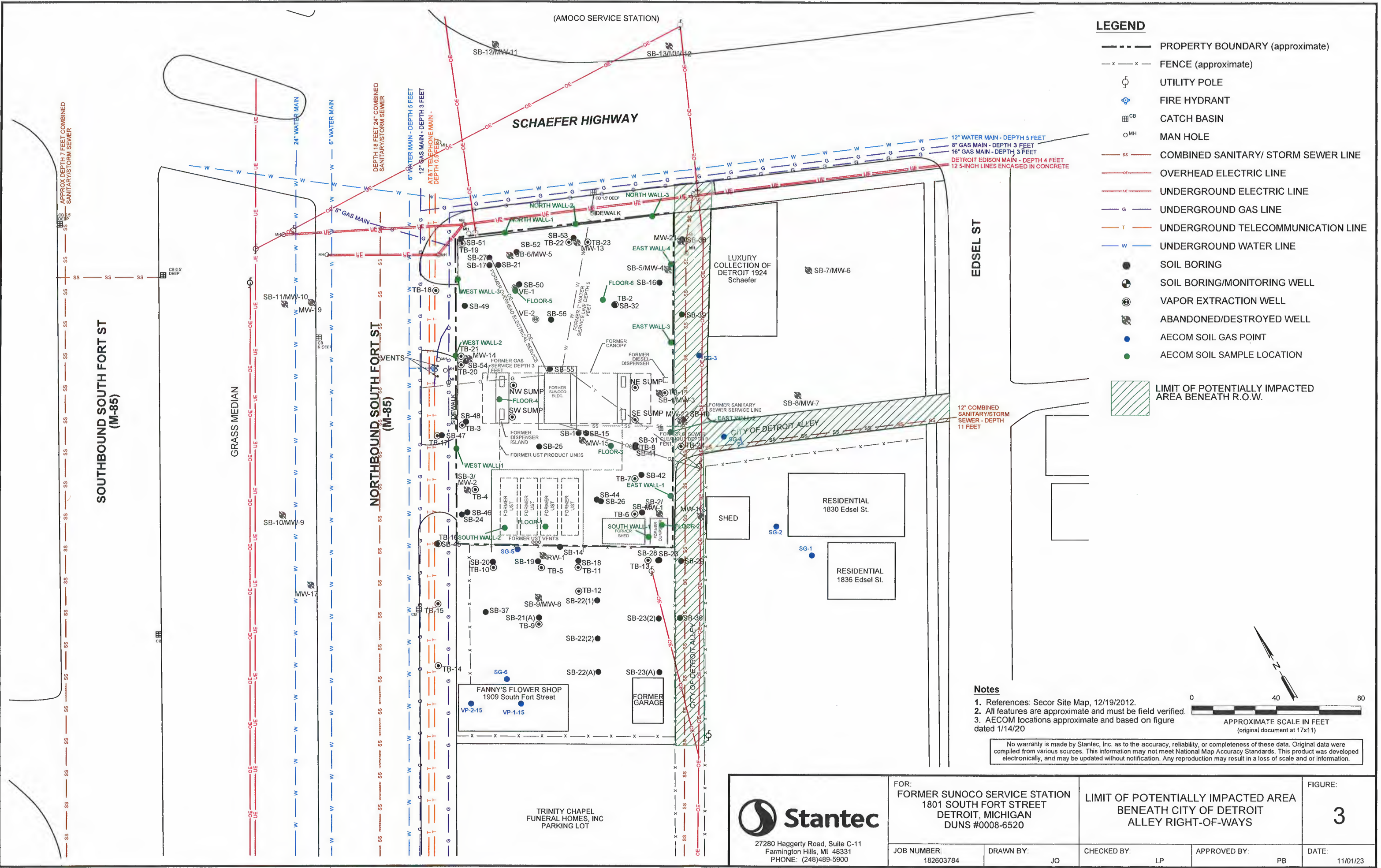
Notes

- References: Secor Site Map, 12/19/2012.
- All features are approximate and must be field verified.
- AECOM locations approximate and based on figure dated 1/14/20

APPROXIMATE SCALE IN FEET
(original document at 17x11)

No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

<p>27280 Haggerty Road, Suite C-11 Farmington Hills, MI 48331 PHONE: (248)489-5900</p>	FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520		FIGURE: <h1 style="text-align: center;">2</h1>	
	JOB NUMBER: 182603784	DRAWN BY: JO	CHECKED BY: LP	APPROVED BY: PB

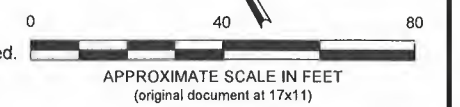


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LIMIT OF POTENTIALLY IMPACTED AREA BENEATH R.O.W.

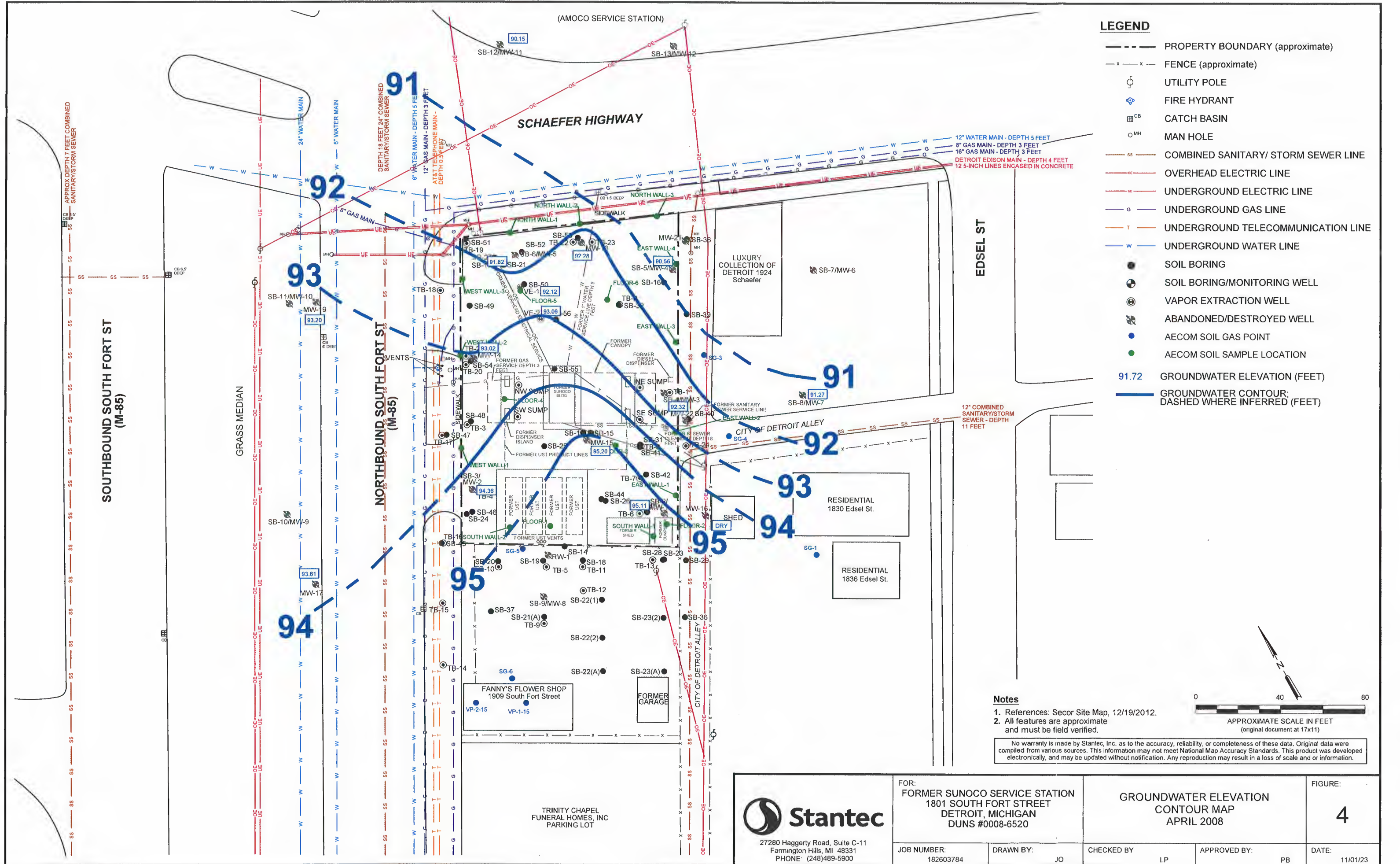
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 27280 Haggerty Road, Suite C-11 Farmington Hills, MI 48331 PHONE: (248)489-5900	FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520		LIMIT OF POTENTIALLY IMPACTED AREA BENEATH CITY OF DETROIT ALLEY RIGHT-OF-WAYS		FIGURE: 3
	JOB NUMBER 182603784	DRAWN BY: JO	CHECKED BY: LP	APPROVED BY: PB	DATE: 11/01/23

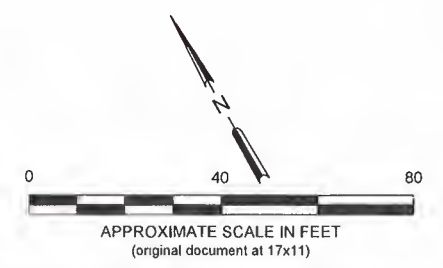


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 - ⊕ VAPOR EXTRACTION WELL
 - ⊕ ABANDONED/DESTROYED WELL
 - AECOM SOIL GAS POINT
 - AECOM SOIL SAMPLE LOCATION
 - 91.72 GROUNDWATER ELEVATION (FEET)
 - GROUNDWATER CONTOUR; DASHED WHERE INFERRED (FEET)

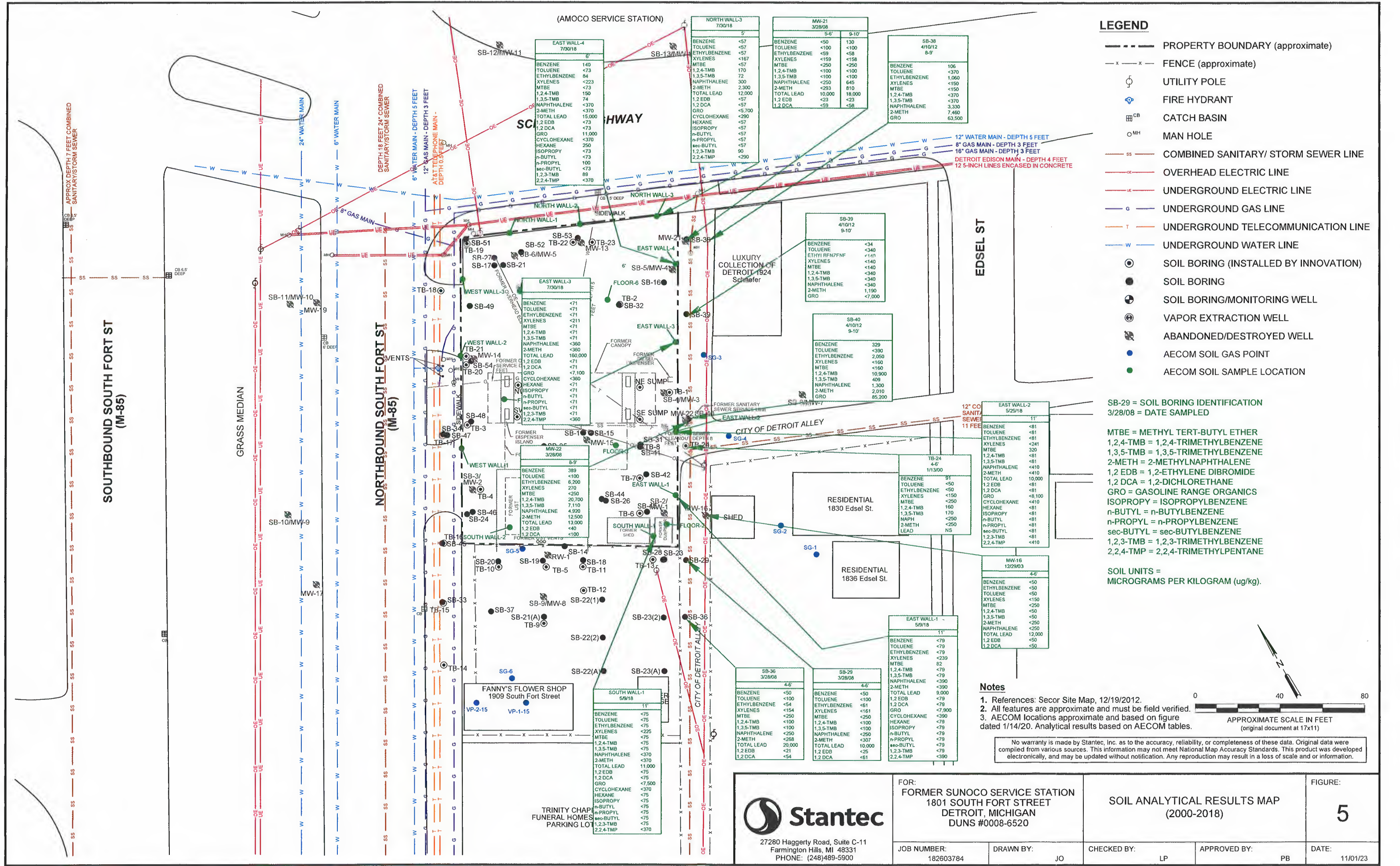
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<p>27280 Haggerty Road, Suite C-11 Farmington Hills, MI 48331 PHONE: (248)489-5900</p>	<p>FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520</p>		<p>GROUNDWATER ELEVATION CONTOUR MAP APRIL 2008</p>		<p>FIGURE: 4</p>
	<p>JOB NUMBER: 182603784</p>	<p>DRAWN BY: JO</p>	<p>CHECKED BY LP</p>	<p>APPROVED BY: PB</p>	<p>DATE: 11/01/23</p>



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 - ⊕ AECOM SOIL SAMPLE LOCATION

SB-29 = SOIL BORING IDENTIFICATION
3/28/08 = DATE SAMPLED

MTBE = METHYL TERT-BUTYL ETHER
1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE
2-METH = 2-METHYLNAPHTHALENE
1,2 EDB = 1,2-ETHYLENE DIBROMIDE
1,2 DCA = 1,2-DICHLORETHANE
GRO = GASOLINE RANGE ORGANICS
ISOPROPYL = ISOPROPYLBENZENE
n-BUTYL = n-BUTYLBENZENE
n-PROPYL = n-PROPYLBENZENE
sec-BUTYL = sec-BUTYLBENZENE
1,2,3-TMB = 1,2,3-TRIMETHYLBENZENE
2,2,4-TMP = 2,2,4-TRIMETHYLPENTANE

SOIL UNITS =
MICROGRAMS PER KILOGRAM (ug/kg).

Notes

1. References: Secor Site Map, 12/19/2012.
2. All features are approximate and must be field verified.
3. AECOM locations approximate and based on figure dated 1/14/20. Analytical results based on AECOM tables.

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<p>27280 Haggerty Road, Suite C-11 Farmington Hills, MI 48331 PHONE: (248)489-5900</p>	<p>FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520</p>	<p>SOIL ANALYTICAL RESULTS MAP (2000-2018)</p>		<p>FIGURE: 5</p>
	<p>JOB NUMBER: 182603784</p>	<p>DRAWN BY: JO</p>	<p>CHECKED BY: LP</p>	<p>APPROVED BY: PB</p>

(AMOCO SERVICE STATION)

LEGEND

- PROPERTY BOUNDARY (approximate)
- x - x - FENCE (approximate)
- ⊕ UTILITY POLE
- ⊕ FIRE HYDRANT
- ⊕ CB CATCH BASIN
- ⊕ MH MAN HOLE
- SS COMBINED SANITARY/ STORM SEWER LINE
- OE OVERHEAD ELECTRIC LINE
- UE UNDERGROUND ELECTRIC LINE
- G UNDERGROUND GAS LINE
- T UNDERGROUND TELECOMMUNICATION LINE
- W UNDERGROUND WATER LINE
- SOIL BORING
- ⊕ SOIL BORING/MONITORING WELL
- ⊕ VAPOR EXTRACTION WELL
- ⊕ ABANDONED/DESTROYED WELL
- AECOM SOIL GAS POINT
- AECOM SOIL SAMPLE LOCATION

MW-4 = MONITORING WELL IDENTIFICATION
 10-15' = SCREEN INTERVAL
 5/11/15 = DATE SAMPLED

MTBE = METHYL TERT-BUTYL ETHER
 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
 1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE
 2-METH = 2-METHYLNAPHTHALENE
 1,2,3-TMB = 1,2,3-TRIMETHYLBENZENE
 ISOPROP = ISOPROPYLBENZENE
 n-BUTYL = n-BUTYLBENZENE
 n-PROPYL = n-PROPYLBENZENE
 sec_BUTYL = sec-BUTYLBENZENE

GROUNDWATER UNITS =
 MICROGRAMS PER LITER (ug/L)

Notes

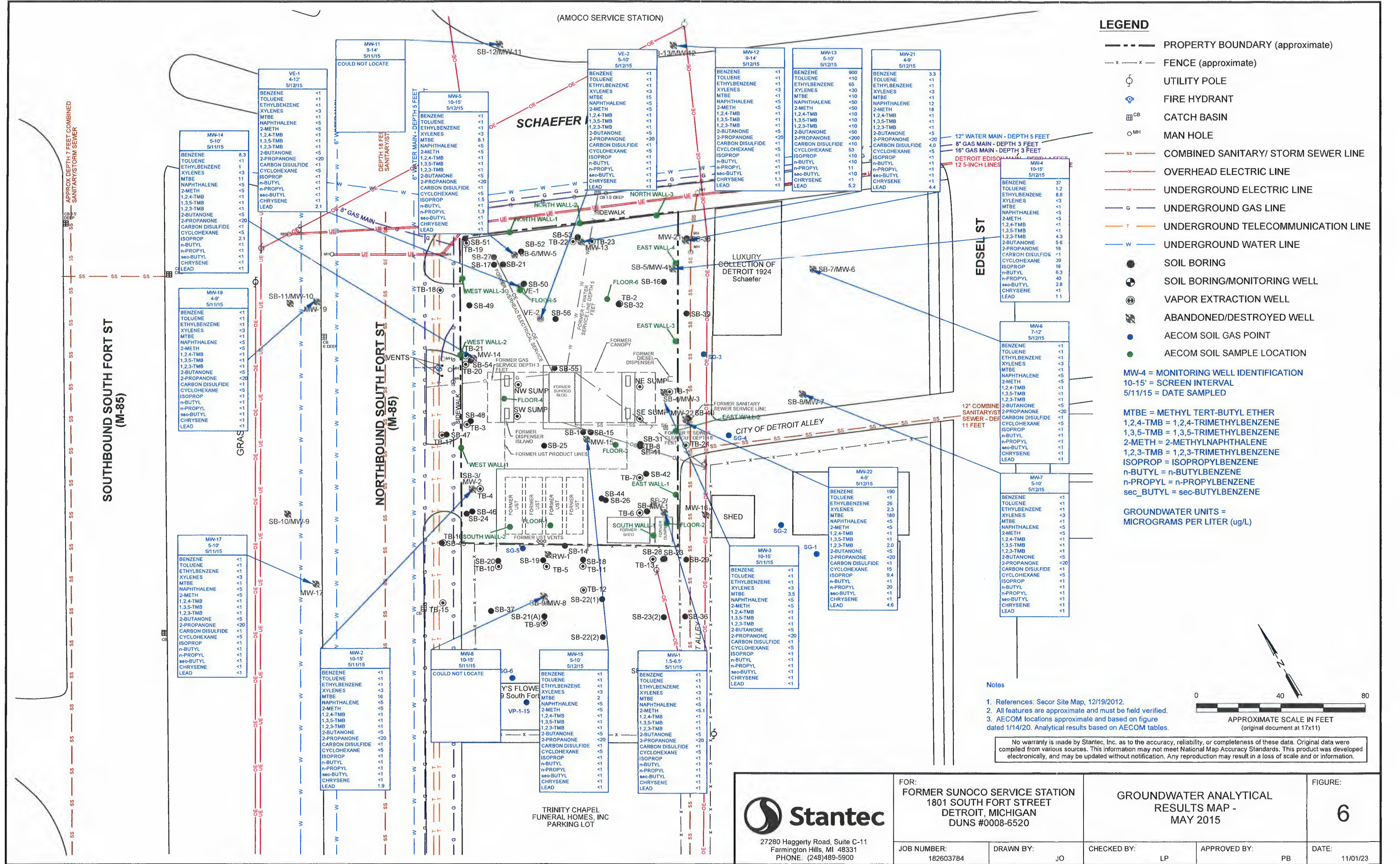
1. References: Secor Site Map, 12/19/2012.
2. All features are approximate and must be field verified.
3. AECOM locations approximate and based on figure dated 1/14/20. Analytical results based on AECOM tables.

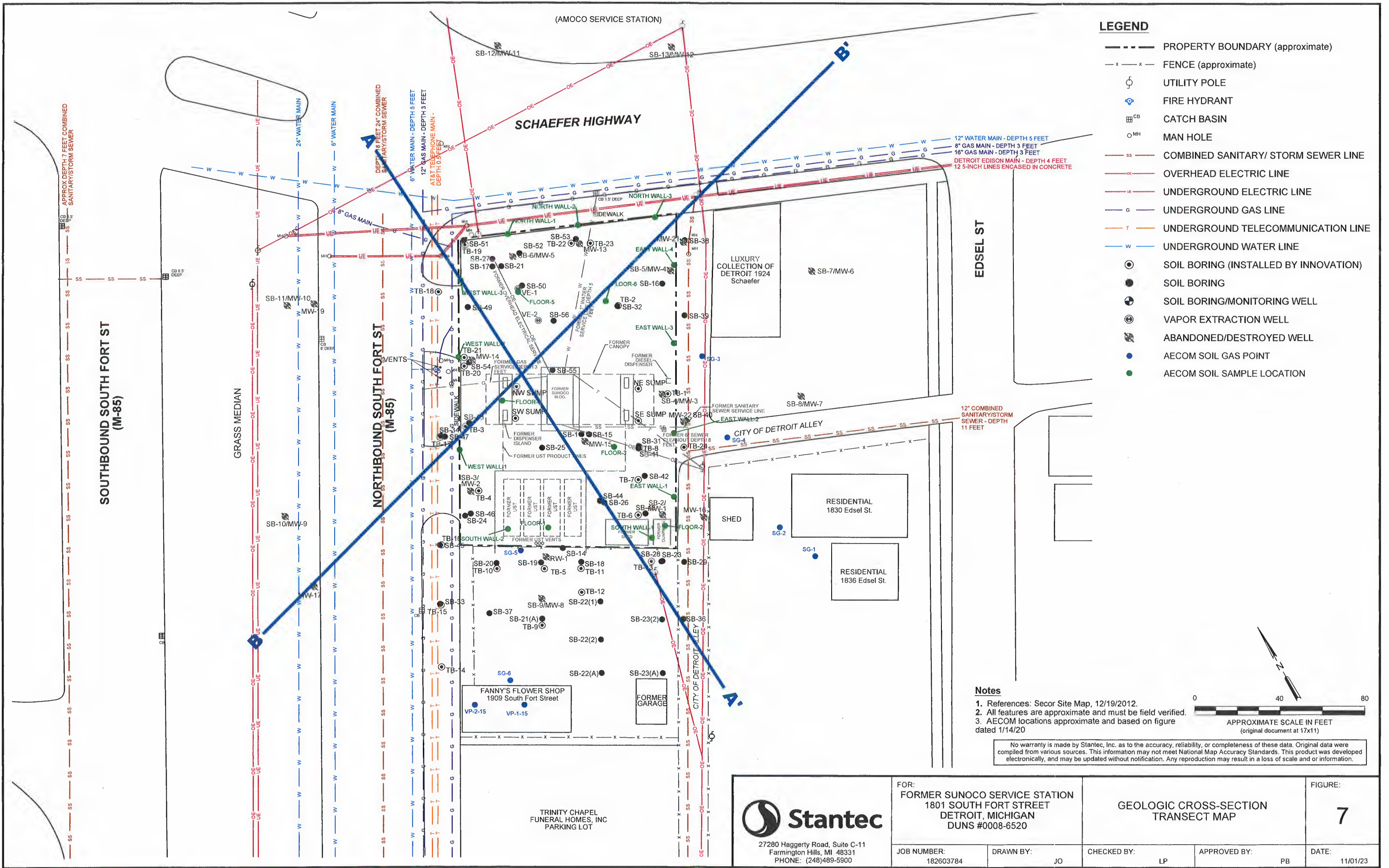


APPROXIMATE SCALE IN FEET
 (original document at 17x11)

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<p>27280 Haggerty Road, Suite C-11 Farmington Hills, MI 48331 PHONE: (248)489-5900</p>	FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520	GROUNDWATER ANALYTICAL RESULTS MAP - MAY 2015		FIGURE: 6
	JOB NUMBER: 182603784	DRAWN BY: JO	CHECKED BY: LP	APPROVED BY: PB





- LEGEND**
- PROPERTY BOUNDARY (approximate)
 - x - x - FENCE (approximate)
 - ⊕ UTILITY POLE
 - ⊕ FIRE HYDRANT
 - ⊕ CB CATCH BASIN
 - ⊕ MH MAN HOLE
 - SS COMBINED SANITARY/ STORM SEWER LINE
 - OE OVERHEAD ELECTRIC LINE
 - UE UNDERGROUND ELECTRIC LINE
 - G UNDERGROUND GAS LINE
 - T UNDERGROUND TELECOMMUNICATION LINE
 - W UNDERGROUND WATER LINE
 - ⊕ SOIL BORING (INSTALLED BY INNOVATION)
 - SOIL BORING
 - ⊕ SOIL BORING/MONITORING WELL
 - ⊕ VAPOR EXTRACTION WELL
 - ⊕ ABANDONED/DESTROYED WELL
 - AECOM SOIL GAS POINT
 - AECOM SOIL SAMPLE LOCATION

Notes

- References: Secor Site Map, 12/19/2012.
- All features are approximate and must be field verified.
- AECOM locations approximate and based on figure dated 1/14/20

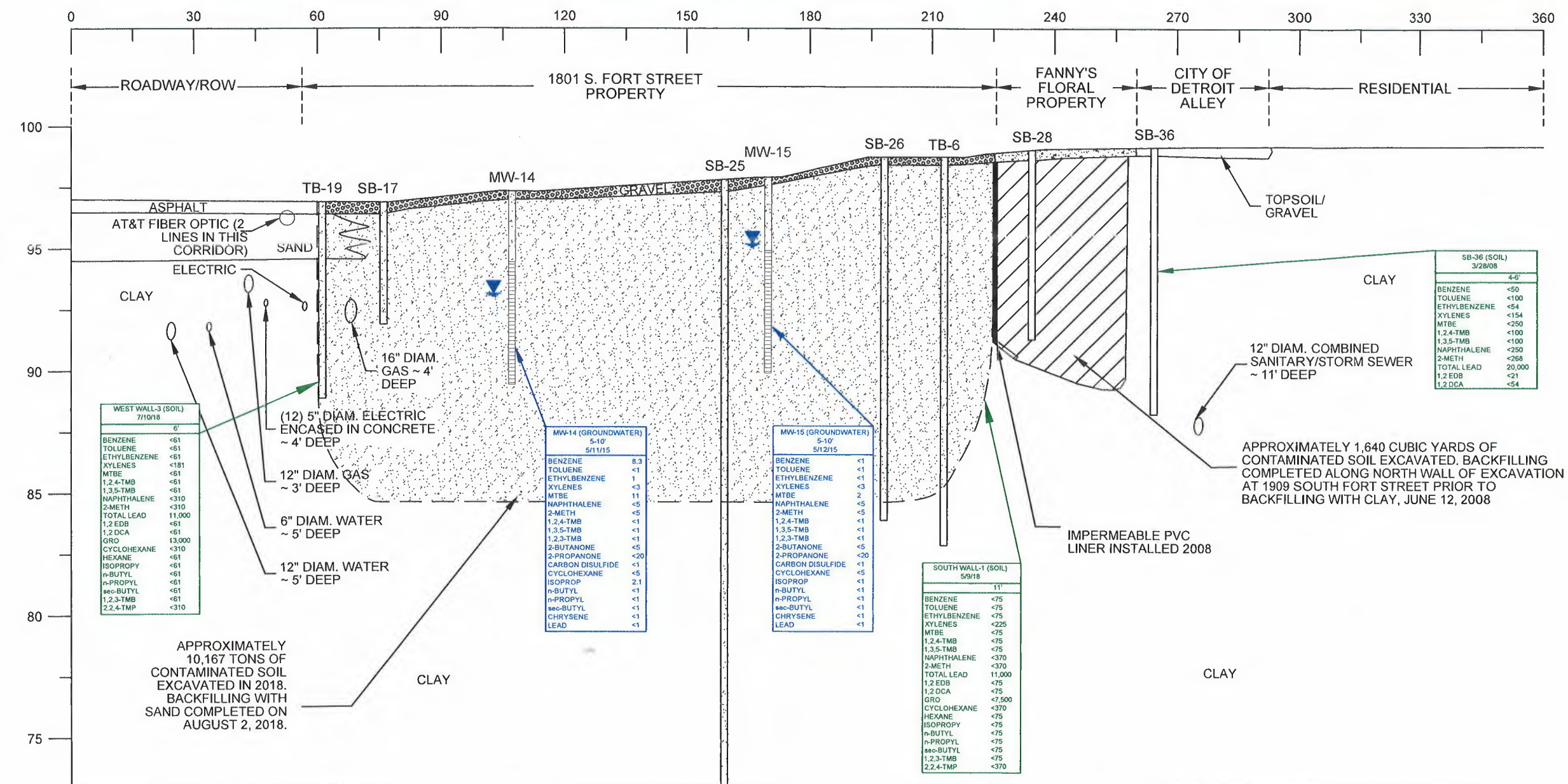
0 40 80
APPROXIMATE SCALE IN FEET
(original document at 17x11)

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<p>27280 Haggerty Road, Suite C-11 Farmington Hills, MI 48331 PHONE: (248)489-5900</p>	FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520		GEOLOGIC CROSS-SECTION TRANSECT MAP		FIGURE: 7
	JOB NUMBER: 182603784	DRAWN BY: JO	CHECKED BY: LP	APPROVED BY: PB	DATE: 11/01/23

CROSS-SECTION A-A'

NORTH A' SOUTH



WEST WALL-3 (SOIL) 7/10/18

6"	
BENZENE	<61
TOLUENE	<61
ETHYLBENZENE	<61
XYLENES	<181
MTBE	<61
1,2,4-TMB	<61
1,3,5-TMB	<61
NAPHTHALENE	<310
2-METH	<310
TOTAL LEAD	11,000
1,2 EDB	<61
1,2 DCA	<61
GRO	13,000
CYCLOHEXANE	<310
HEXANE	<61
ISOPROPYL	<61
n-BUTYL	<61
n-PROPYL	<61
sec-BUTYL	<61
1,2,3-TMB	<61
2,2,4-TMP	<310

MW-14 (GROUNDWATER) 5-10' 5/11/15

BENZENE	8.3
TOLUENE	<1
ETHYLBENZENE	1
XYLENES	<3
MTBE	11
NAPHTHALENE	<5
2-METH	<5
1,2,4-TMB	<1
1,3,5-TMB	<1
1,2,3-TMB	<1
2-BUTANONE	<5
2-PROPANONE	<20
CARBON DISULFIDE	<1
CYCLOHEXANE	<5
ISOPROP	2.1
n-BUTYL	<1
n-PROPYL	<1
sec-BUTYL	<1
CHRYSENE	<1
LEAD	<1

MW-15 (GROUNDWATER) 5-10' 5/12/15

BENZENE	<1
TOLUENE	<1
ETHYLBENZENE	<1
XYLENES	<3
MTBE	2
NAPHTHALENE	<5
2-METH	<5
1,2,4-TMB	<1
1,3,5-TMB	<1
1,2,3-TMB	<1
2-BUTANONE	<5
2-PROPANONE	<20
CARBON DISULFIDE	<1
CYCLOHEXANE	<5
ISOPROP	<1
n-BUTYL	<1
n-PROPYL	<1
sec-BUTYL	<1
CHRYSENE	<1
LEAD	<1

SOUTH WALL-1 (SOIL) 5/9/18

11'	
BENZENE	<75
TOLUENE	<75
ETHYLBENZENE	<75
XYLENES	<225
MTBE	<75
1,2,4-TMB	<75
1,3,5-TMB	<75
NAPHTHALENE	<370
2-METH	<370
TOTAL LEAD	11,000
1,2 EDB	<75
1,2 DCA	<75
GRO	<7,500
CYCLOHEXANE	<370
HEXANE	<75
ISOPROPYL	<75
n-BUTYL	<75
n-PROPYL	<75
sec-BUTYL	<75
1,2,3-TMB	<75
2,2,4-TMP	<370

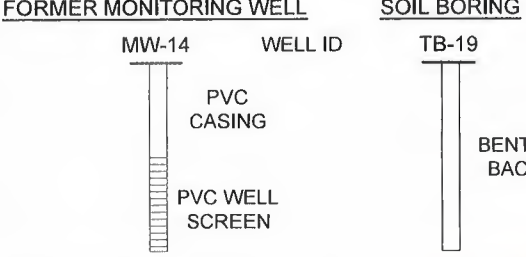
SB-36 (SOIL) 3/28/08

4-6'	
BENZENE	<50
TOLUENE	<100
ETHYLBENZENE	<54
XYLENES	<154
MTBE	<250
1,2,4-TMB	<100
1,3,5-TMB	<100
NAPHTHALENE	<250
2-METH	<268
TOTAL LEAD	20,000
1,2 EDB	<21
1,2 DCA	<54

APPROXIMATELY 10,167 TONS OF CONTAMINATED SOIL EXCAVATED IN 2018. BACKFILLING WITH SAND COMPLETED ON AUGUST 2, 2018.

APPROXIMATELY 1,640 CUBIC YARDS OF CONTAMINATED SOIL EXCAVATED. BACKFILLING COMPLETED ALONG NORTH WALL OF EXCAVATION AT 1909 SOUTH FORT STREET PRIOR TO BACKFILLING WITH CLAY, JUNE 12, 2008

LEGEND



SOIL ANALYTICAL RESULTS
 MTBE = METHYL TERT-BUTYL ETHER
 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
 1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE
 2-METH = 2-METHYLNAPHTHALENE
 1,2 EDB = 1,2-ETHYLENE DIBROMIDE
 1,2 DCA = 1,2-DICHLORETHANE
 GRO = GASOLINE RANGE ORGANICS
 ISOPROPYL = ISOPROPYLBENZENE
 n-BUTYL = n-BUTYLBENZENE
 n-PROPYL = n-PROPYLBENZENE
 sec-BUTYL = sec-BUTYLBENZENE
 1,2,3-TMB = 1,2,3-TRIMETHYLBENZENE
 2,2,4-TMP = 2,2,4-TRIMETHYLPENTANE

SOIL UNITS = MICROGRAMS PER KILOGRAM (ug/kg)

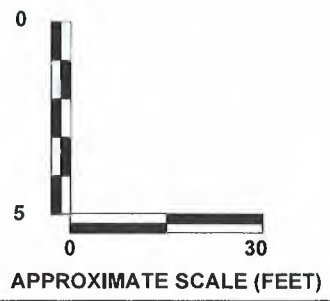
GROUNDWATER ANALYTICAL RESULTS
 MTBE = METHYL TERT-BUTYL ETHER
 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
 1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE
 2-METH = 2-METHYLNAPHTHALENE
 1,2,3-TMB = 1,2,3-TRIMETHYLBENZENE
 ISOPROPYL = ISOPROPYLBENZENE
 n-BUTYL = n-BUTYLBENZENE
 n-PROPYL = n-PROPYLBENZENE
 sec-BUTYL = sec-BUTYLBENZENE

GROUNDWATER UNITS = MICROGRAMS PER LITER (ug/L)

GROUNDWATER ELEVATION ON 4/16/08

Notes

- All features are approximate and must be field verified.
- AECOM locations approximate and based on figure dated 1/14/20. 2018 soil analytical results and 2015 groundwater analytical results based on AECOM tables.



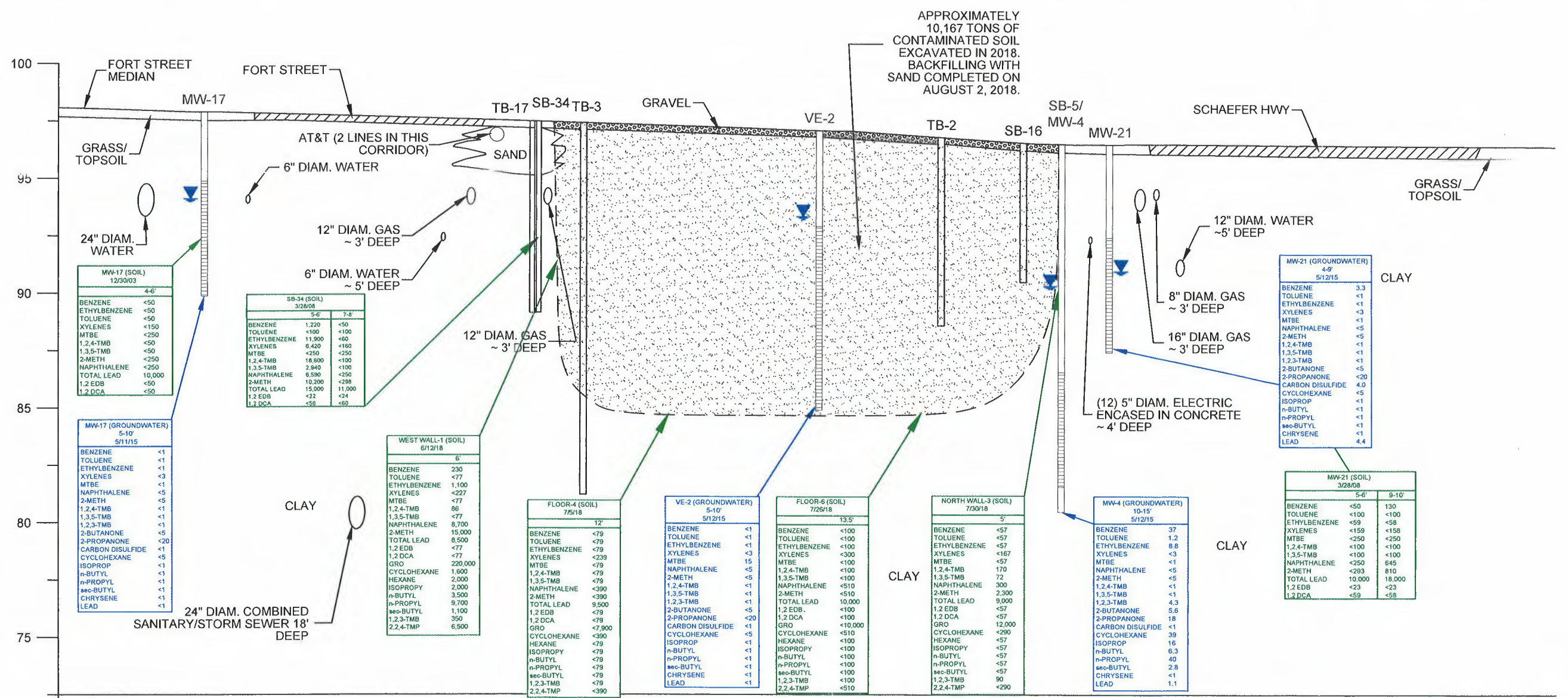
	FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520		GEOLOGIC CROSS-SECTION A-A'		FIGURE: 8
	JOB NUMBER: 182603784	DRAWN BY: JO	CHECKED BY: LP	APPROVED BY: PB	DATE: 11/01/23

CROSS-SECTION B-B'

WEST EAST



RELATIVE ELEVATION (FEET)



LEGEND

FORMER MONITORING WELL	WELL ID	SOIL BORING
MW-14		TB-17
PVC CASING		BENTONITE BACKFILL
PVC WELL SCREEN		

SOIL ANALYTICAL RESULTS
 MTBE = METHYL TERT-BUTYL ETHER
 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
 1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE
 2-METH = 2-METHYLNAPHTHALENE
 1,2 EDB = 1,2-ETHYLENE DIBROMIDE
 1,2 DCA = 1,2-DICHLORETHANE
 GRO = GASOLINE RANGE ORGANICS
 ISOPROPYL = ISOPROPYLBENZENE
 n-BUTYL = n-BUTYLBENZENE
 n-PROPYL = n-PROPYLBENZENE
 sec-BUTYL = sec-BUTYLBENZENE
 1,2,3-TMB = 1,2,3-TRIMETHYLBENZENE
 2,2,4-TMP = 2,2,4-TRIMETHYLPENTANE

SOIL UNITS =
 MICROGRAMS PER KILOGRAM (ug/kg)

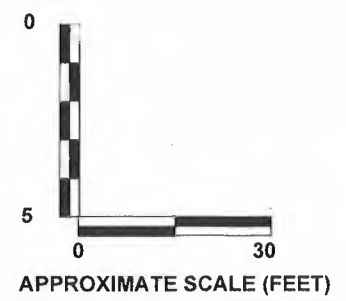
GROUNDWATER ANALYTICAL RESULTS
 MTBE = METHYL TERT-BUTYL ETHER
 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
 1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE
 2-METH = 2-METHYLNAPHTHALENE
 1,2,3-TMB = 1,2,3-TRIMETHYLBENZENE
 ISOPROPYL = ISOPROPYLBENZENE
 n-BUTYL = n-BUTYLBENZENE
 n-PROPYL = n-PROPYLBENZENE
 sec-BUTYL = sec-BUTYLBENZENE

GROUNDWATER UNITS =
 MICROGRAMS PER LITER (ug/L)

GROUNDWATER ELEVATION ON 4/16/08

Notes

- All features are approximate and must be field verified.
- AECOM locations approximate and based on figure dated 1/14/20. 2018 soil analytical results and 2015 groundwater analytical results based on AECOM tables.



	FOR: FORMER SUNOCO SERVICE STATION 1801 SOUTH FORT STREET DETROIT, MICHIGAN DUNS #0008-6520		GEOLOGIC CROSS-SECTION B-B'		FIGURE: 9
	JOB NUMBER: 182603784	DRAWN BY: JO	CHECKED BY: LP	APPROVED BY: PB	DATE: 11/01/23