



BROWNFIELD REDEVELOPMENT
AUTHORITY MEETING

Thursday, September 24, 2020 – 9:00 a.m.

Zoom Meeting

Meeting ID: 867 2217 7703

Password: 606954

AGENDA

1. **Roll Call**

2. **Approval of Agenda**

3. **Approval of Items on the Consent Agenda**
 - A. **June 26, 2020 Minutes**

4. **22145 Farmington Road Redevelopment Project – Review of Brownfield Plan**

5. **Public Comment**

6. **Brownfield Redevelopment Authority Comment**

7. **Adjournment**

DRAFT

BROWNFIELD REDEVELOPMENT AUTHORITY
June 26, 2020

A meeting of the City of Farmington Brownfield Redevelopment Authority Board was held on Friday, June 26, 2020 via the Zoom virtual meeting platform. Notice of the meeting was posted in compliance with Public Act 267-1976.

The meeting was called to order by Chair Joe LaRussa at 12:02 pm.

BOARD MEMBERS PRESENT: Joe LaRussa, Kevin Christiansen, Kate Knight, Chuck Eudy

CITY REPRESENTATIVES PRESENT: Mary Mullison, Beth Saarela, Chris Weber

OTHERS PRESENT: Jeremy McCallion from AKT Peerless Environmental

APPROVAL OF AGENDA

MOTION by Knight, seconded by Christiansen to approve the Agenda as presented.
MOTION CARRIED UNANIMOUSLY.

MINUTES OF PREVIOUS MEETING

MOTION by Christiansen, seconded by Eudy to approve the Minutes of June 19, 2020.
MOTION CARRIED UNANIMOUSLY.

VILLAGE MALL REDEVELOPMENT PROJECT – REVIEW OF GLP FINANCIAL SERVICES BROWNFIELD INTERLOCAL AGREEMENT AND REIMBURSEMENT AGREEMENT

A. Interlocal Agreement To Use Local Tax Increment Revenues For The GLP Brownfield Redevelopment Project

Jeremy McCallion from AKT Peerless Environmental summarized the interlocal agreement with the DDA. Saarela noted any changes made in the agreement. Weber spoke to the fees to be used. Discussion ensued about the ramifications of possible revenue discontinuance on the agreement.

MOTION by Christiansen, supported by Eudy to approve the Interlocal Agreement To Use Local Tax Increment Revenues For The GLP Brownfield Redevelopment Project and forward the agreement to City Council for their review and consideration.
MOTION CARRIED UNANIMOUSLY.

DRAFT

Brownfield Redevelopment Authority

June 26, 2020

-2-

B. GLP Brownfield Redevelopment Agreement

Discussion ensued about a recently reworked agreement. Saarela went through all changes suggested to the agreement and explained why they were made.

MOTION by Christiansen, supported by Knight to approve the proposed Brownfield Reimbursement Agreement for the Village Mall submitted by GLP Financial Services for the Farmington State Savings Bank (aka Village Mall) and allow the City Attorney to make minor changes necessary. Any substantive changes must come back before the Brownfield Authority before being forward to the City Council.

MOTION CARRIED UNANIMOUSLY.

PUBLIC COMMENT

There was no public comment heard.

BROWNFIELD REDEVELOPMENT AUTHORITY COMMENT

Christiansen thanked all for members for input today.

LaRussa appreciated the flexibility of the Brownfield Authority and the ability to be nimble with regard to required instruments. He is proud that the City can achieve that flexibility and speed and not compromise on expectations for completeness and attention to detail.

ADJOURNMENT

MOTION by Eudy, supported by Christiansen to adjourn the meeting .

MOTION CARRIED UNANIMOUSLY.

The meeting adjourned at 12:30 pm.

Mary J. Mullison, Secretary

**CITY OF FARMINGTON
BROWNFIELD REDEVELOPMENT AUTHORITY**

BROWNFIELD PLAN

**PROPOSED GAS STATION REDEVELOPMENT
LOCATED AT 22145 FARMINGTON
FARMINGTON, MICHIGAN**

September 18, 2020

Approved by BRA:
Approved by City Council:

Prepared on Behalf of:

SLR Investments, LLC
1710 Hilton Road
Ferndale, Michigan 48220
Contact Person: Mr. Jamie Robinson
Telephone: (248) 840-9477

Prepared By:

PM Environmental, Inc.
4080 West Eleven Mile Road
Berkley, Michigan 48072
Contact Person: Ginny Dougherty
Telephone: (248) 414-1436



TABLE OF CONTENTS

PROJECT SUMMARY	1
I. INTRODUCTION AND PURPOSE	2
II. GENERAL PROVISIONS	2
A. Description of the Eligible Property (Section 13 (2)(h)) and Project	2
B. Basis of Eligibility (Section 13 (2)(h) and Section 2(o)).....	4
C. Summary of Eligible Activities and Description of Costs (Sec. 13 (2)(a-b)).....	5
D. Estimate of Captured Taxable Value and Tax Increment Revenues (Sec. 13 (2)(c)).....	6
E. Method of Brownfield Plan Financing and Description of Advances by the Municipality (Sec. 13 (2)(d))	6
F. Maximum Amount of Note or Bonded Indebtedness (Sec. 13 (2)(e))	7
G. Duration of Brownfield Plan (Sec. 13 (2)(f)).....	7
H. Estimated Impact of Tax Increment Financing on Revenues of Taxing Jurisdictions (Sec. 13 (2)(g))	7
I. Legal Description, Property Map, Statement of Qualifying Characteristics and Personal Property (Sec. 13 (2)(h))	8
J. Displacement/Relocation of Individuals on Eligible Property (Sec. 13 (2)(i-l)).....	8
K. Other Material that the Authority or Governing Body Considers Pertinent (Sec. 13 (2)(n))	8

APPENDICIES

Appendix A	Legal Description
Appendix B	Property Location Boundary
Appendix C	Preliminary Site Plans and Renderings
Appendix D	Documentation of Eligibility

TABLES

Table 1: Estimated Costs of Eligible Activities
Table 2: Tax Increment Revenue Capture Estimates
Table 3: Tax Increment Reimbursement Estimates

PROJECT SUMMARY

Project Name:	Proposed Gas Station Redevelopment
Project Location:	The property is located at 22145 Farmington Road in Township one north (T.1N), Range nine east (R.9E), Section 28, Farmington, Oakland County Michigan 48336 (the "Property").
Type of Eligible Property:	The property is determined to be a "property" and "site" in accordance with Part 213 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.
Eligible Activities:	Pre-Approved Activities, Department Specific Activities, Demolition, and Preparation and Implementation of a Brownfield Plan.
Developer Reimbursable Costs:	\$308,482 (includes eligible activities and 15% contingency)
Years to Complete Reimbursement:	30 Years from start of capture
Estimated Capital Investment:	Approximately \$2 million (including Acquisition, Hard and Soft Costs)
Project Overview:	This project includes demolition of the current vacant convenience store and construction of a new, approximately 3,800 square foot gas station and convenience store. The project also involves the addition of a new underground storage tank, new landscaping at the property perimeter and along the public rights of way, and resurfacing of the existing fuel pump canopies. It is estimated that approximately 50 construction jobs and 7 new permanent jobs will be created in association with this redevelopment.

I. INTRODUCTION AND PURPOSE

In order to promote the revitalization of environmentally distressed, historic, functionally obsolete and blighted areas within the boundaries of Farmington (“the City”), the City has established the Farmington Brownfield Redevelopment Authority (“FBRA”) the “Authority” pursuant to the Brownfield Redevelopment Financing Act, Michigan Public Act 381 of 1996, as amended (“Act 381”).

The purpose of this Brownfield Plan (the “Plan”) is to promote the redevelopment of and investment in the eligible “Brownfield” Property within the City and to facilitate financing of eligible activities at the Brownfield Property. Inclusion of Brownfield Property within any Plan in the City will facilitate financing of eligible activities at eligible properties, and will provide tax incentives to eligible taxpayers willing to invest in revitalization of eligible sites, commonly referred to as “Brownfields.” By facilitating redevelopment of the Brownfield Property, this Plan is intended to promote economic growth for the benefit of the residents of the City and all taxing units located within and benefited by the Authority.

The identification or designation of a developer or proposed use for the Brownfield Property that is subject to this Plan shall not be integral to the effectiveness or validity of this Plan. This Plan is intended to apply to the eligible property identified in this Plan and, to identify and authorize the eligible activities to be reimbursed utilizing tax increment revenues. Any change in the proposed developer or proposed use of the eligible property shall not necessitate an amendment to this Plan, affect the application of this Plan to the eligible property, or impair the rights available to the Authority under this Plan.

This Plan is intended to be a living document, which may be modified or amended in accordance with and as necessary to achieve the purposes of Act 381. The applicable sections of Act 381 are noted throughout the Plan for reference purposes.

This Brownfield Plan contains information required by Section 13(2) of Act 381, as amended.

II. GENERAL PROVISIONS

A. Description of the Eligible Property (Section 13 (2)(h)) and Project

The Eligible Property consists of one (1) legal parcel totaling approximately 0.52 acres with a street address of 22145 Farmington Road, Farmington, Oakland County, Michigan. The parcels and all tangible personal property located thereon will comprise the eligible property and is referred to herein as the “Property.”

The Property is located on the Farmington Road corridor, bounded by Farmington Road to the east, Nine Mile Road to the south, and the property line to the north and west. Individual parcel information is outlined below.

Property Address	Parcel ID	Approximate Acreage	Eligibility
22145 Farmington Road	20-23-28-477-005	0.52 acres	“property” and “site”

SLR Investments, LLC, a development entity of Royal Gas and Oil Co., or any affiliate, or such other developer as approved by the Authority, are collectively the project developer (“Developer”).

Royal Gas & Oil began business in 1928 based out Royal Oak, Michigan; a marketer for Sinclair Oil as a home fuel oil supplier. As times changed, they started delivering to service stations. Royal Gas also operated and supplied their own service stations in Royal Oak, Southfield, Ferndale and Clawson. Royal Gas has had multiple suppliers over our 92 years in business. The brands include Sinclair, Arco, Gulf, Boron, BP, and Amoco. The Robinson Family is currently beginning its Fourth Generation in management positions within Royal Gas & Oil.

The parcel is currently zoned C3: General Commercial. The Property is commercially developed with a vacant gas station and convenience store building in an area characterized by commercial uses. Zoning will remain the same and permits the proposed future use.

Standard and historical sources were able to document the subject property consisted of vacant land from at least 1940 until between 1952 and 1956 when a gasoline service station was constructed in the northwestern portion. The service station was demolished in 1967 when the current convenience store and gasoline dispensing station was constructed. The current metal canopies in the eastern and southern portions were constructed in 1988. Gasoline dispensing station operations reportedly ceased in 2010, and the subject property has been unoccupied since that time. The interior of the convenience store was last renovated in January 2018.

The Property's legal description is included in Appendix A. Property location maps are included in Appendix B.

The proposed redevelopment includes demolition of the current approximately 450 square foot convenience store located in the central portion of the property. A new 3,800 square foot convenience store will be constructed in the northwest portion of the property. In addition, the redevelopment of the gas station will include the installation of a new 4,000-gallon underground storage tank (UST) and resurfacing of the existing fuel pump canopies. Site work will include resurfacing of the asphalt paved parking areas and drive aisles, as well as new landscaping along the property perimeter. Special attention will be given to landscaping along Farmington and Nine Mile Roads, including new property signage. New utilities will be installed as part of the building construction, including the relocation of a DTE electrical pole and service line.

The interior of the convenience store includes a hot beverage and food counter, a cold beverage counter, reach-in coolers, and a walk-in cooler for alcoholic beverages in a modern and efficient layout. The exterior of the convenience store will be finished split face block, half-high block, and corrugated metal paneling. The storefront system includes an automatic sliding door with low-e glazed windows. The building is accented by louvered metal canopies, wall sconces, and stone address signage.

Resurfacing of the fuel pump canopies includes wrapping the existing posts with split face block, including an accent band and half-high block. The canopy roof will be wrapped in a new fascia with an accent bullnose and new signage. New pump fixtures will also be installed.

Demolition activities are anticipated to begin in the fall of 2020 with new construction and site work to take place through the winter. Construction completion is estimated for early 2021. SLR Investments, LLC will invest an estimated \$2 million in the development and create approximately 50 construction jobs and approximately 7 permanent jobs.

Preliminary site plans and renderings are included in Appendix C.

B. Basis of Eligibility (Section 13 (2)(h) and Section 2(o))

The Property is considered "Eligible Property" as defined by Act 381, Section 2 because: (a) it was previously utilized or is currently utilized for a commercial purpose; and, (c) the parcel comprising the Property has been determined to be a "property" and "site" in accordance with Part 213 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.

The subject property is a closed Leaking Underground Storage Tank (LUST) site with two releases (Leak ID Nos. C-0899-85 and C-0068-96) reported in August 1988 and January 1996, which were granted a Tier I Restricted Closure on June 9, 1999. The subject property is also an open LUST site with one release (Leak ID No. C-0150-10) reported on October 21, 2010.

The 1988 release was reported during the removal of the former two 10,000-gallon gasoline USTs. The 1996 release was reported during general maintenance activities to the UST system. Site assessment activities associated with the 1988 and 1996 releases have included various soil and groundwater sampling events, and the removal of approximately 400 cubic yards of contaminated soil. The releases were granted a Tier I closure with deed restrictions on June 9, 1999. The deed restrictions include maintaining the surface pavement in the area of impact at the subject property to prevent direct contact with impacted soils and groundwater, allowing regulatory agencies to monitor the subject property adequately, and prohibiting soil removal from the property unless it is characterized to determine if it can be relocated without being a threat to the public health, safety, welfare or environmental in the new location.

The subject property is also an open LUST site for the October 21, 2010 release identified during general site investigation activities associated with the termination of gasoline dispensing operations. Site investigation activities completed between 2010 and 2015 included soil and groundwater sampling activities, and groundwater monitoring events. The 2015 investigations were conducted by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) using triage funds, due to the responsible party not being financially viable to pursue LUST closure. Analytical results following the August 12, 2015 groundwater sampling event identified that various gasoline volatile organic compounds (VOCs) exceed the current Part 213 Residential and Nonresidential Risk Based Screening Levels (RBSLs), and the EGLE Proposed Volatilization to Indoor Air Inhalation Pathway (VIAP) screening levels (Draft VIAP screening levels; May 14, 2020) indicating a vapor intrusion risk may be present. PM reviewed regulatory correspondence, which indicates that EGLE had attempted to contact the previous owner of the subject property multiple times between 2015 and 2018 to obtain access for additional groundwater sampling events. However, access has not been granted and/or obtained by EGLE since August 2015.

On February 21, 2020, PM completed a scope of work that consisted of the completion of a geophysical survey investigation using ground penetrating radar (GPR), the advancement of three soil borings (SB-1, SB-2, and SB-3), the installation of one temporary monitoring well (SB/TMW-2), and the collection of five soil samples and one groundwater sample to assess the Recognized Environmental Conditions (RECs) identified in PM's January 2020 Phase I ESA. Samples were submitted to Merit Laboratories Inc. for analysis of VOCs, polynuclear aromatic compounds (PNAs), polychlorinated biphenyls (PCBs), and metals (cadmium, chromium, and lead), or some combination thereof.

No anomalies consisted with the presence of an orphan UST were identified during completion of the GPR survey.

The soil and groundwater analytical results for the samples collected from the subject property during the previous and current site investigations were compared with the EGLE Cleanup Criteria Requirements for Response Activity (R299.1 – R299.5), December 30, 2013 in accordance with Section 21323a(1)(b)(i) using the applicable RBSLs, and EGLE Proposed VIAP screening levels (Draft VIAP screening levels; May 14, 2020). In addition, Gasoline Range Organic (GRO) concentrations (calculated) were compared to the light non-aqueous phase liquid (LNAPL) screening levels per the June 2014 EGLE Non-Aqueous Phase Liquid Characterization, Remediation, and Management for Petroleum Releases resource materials document.

Concentrations of gasoline VOCs were identified in the soil and groundwater samples collected from the subject property during the current and previous site investigations above the Part 213 Residential and Nonresidential Drinking Water/Drinking Water Protection (DWP/DW), Groundwater Surface Water Interface Protection/Groundwater surface Water Interface (GSIP/GSI), Soil Volatile to Indoor Air Inhalation/Groundwater Volatile to Indoor Air Inhalation (SVII/GVII), Ambient Air Volatile Soil Inhalation (VSI), and Direct Contact (DC) RBSLs and the Csat, LNAPL, and Draft VIAP screening levels. Based on the identified exceedances of the Part 213 RBSLs and the closed and open LUST status, the subject property meets the definition of a "Property" and a "Site" in accordance with Part 213 of P.A. 451, as amended, and the rules promulgated thereunder.

Additional documentation and description of the property's "property" and "site" status is provided in Appendix D.

C. Summary of Eligible Activities and Description of Costs (Sec. 13 (2)(a-b))

Tax Increment Financing revenues will be used to reimburse the costs of "eligible activities" (as defined by Section 2 of Act 381) as permitted under the Brownfield Redevelopment Financing Act that include: Pre-Approved Activities, Department Specific Activities, Demolition, and preparation and implementation of a Brownfield Plan. A complete itemization of these activities and associated expenses is included in Table 1.

The following eligible activities and budgeted costs are intended as part of the development of the property and are to be financed solely by the developer. All activities are intended to be "Eligible Activities" under the Brownfield Redevelopment Financing Act. The Authority is not responsible for any cost of eligible activities and will incur no debt.

1. Pre-Approved Activities include Phase I and Phase II Environmental Site Assessments (ESAs), Hazardous Materials Survey, and Due Care Compliance planning conducted on the property at a total cost of \$20,425.
2. Department Specific Activities include the installation of a vapor barrier system; contaminated soil transport and disposal associated with development activities; groundwater management; utility corridor migration barriers and, oversight, sampling, and reporting by an environmental professional at a total estimated cost of \$204,941.
3. Demolition Activities includes building demolition, foundation removal, removal of asphalt paving and saw cuts, removal of curbs and gutters, removal of sidewalks, removal of property signage and light pole bases, removal of active utilities, and fees related to demolition engineering and design at an estimated of \$32,500.

4. Preparation and Implementation of the Brownfield Plan at a cost of approximately \$15,000.
5. A 15% contingency of \$35,616 is established to address unanticipated environmental and/or other conditions that may be discovered through the implementation of site activities. This excludes the cost of Pre-approved Activities and preparation of the Brownfield Plan.

All activities are intended to be "Eligible Activities" under the Brownfield Redevelopment Financing Act. The total estimated cost of Eligible Activities subject to reimbursement from tax increment revenues is \$272,866 with a potential \$35,616 contingency, resulting in a total cost of \$308,482. Therefore, the total cost for reimbursement to the applicant is a not-to-exceed amount of \$308,482 (including contingency), unless the Plan is amended and approved by the BRA and City Council.

D. Estimate of Captured Taxable Value and Tax Increment Revenues (Sec. 13 (2)(c))

Incremental taxes on real property included in the redevelopment project will be captured under this Plan to reimburse eligible activity expenses. The base taxable value of the Property shall be determined by the use of the 2020 tax year tax values, which is \$125,320. Tax increment revenue capture will begin when tax increment is generated by redevelopment of the Property, which is expected to begin in 2021 or when full redevelopment is completed whichever occurs first. The estimated taxable value of the completed development is \$450,000. An annual increase in taxable value of 1% has been used for calculation of future tax increments in this Plan. Tables 2 details the estimate of captured tax increment revenues for each year of the Plan from the eligible property.

The FBRA has established a Local Brownfield Revolving Fund (LBRF). Current estimates project that developer reimbursement will require 30 years of tax increment revenue capture to be fully reimbursed. However, if eligible activities are reimbursed prior to 30 years the LBRF reserves the right to capture tax increment revenues for up to five years following developer reimbursement. The funds deposited into the LBRF as part of this Plan will be used in accordance with the requirements of Act 381, as amended.

Prior to reimbursement of tax increment revenue to the Developer, payment of Brownfield Redevelopment Authority Administrative fees will occur first.

E. Method of Brownfield Plan Financing and Description of Advances by the Municipality (Sec. 13 (2)(d))

Eligible activities will be financed by SLR Investments, LLC. The Developer will be reimbursed for eligible costs as described in Section C and outlined in Table 1. Costs for Eligible Activities funded by SLR Investments, LLC will be repaid under the Michigan Brownfield Redevelopment Financing Program (Michigan Public Act 381, as amended) with incremental taxes generated by future development of the property. The estimated amount of tax increment revenue capture that will be used to reimburse the Developer and Brownfield Redevelopment Authority is \$366,703. This includes Brownfield Plan preparation and Brownfield Redevelopment Authority Administrative fees.

No advances will be made by the FBRA for this project. All reimbursements authorized under this Plan shall be governed by the Reimbursement Agreement.

F. Maximum Amount of Note or Bonded Indebtedness (Sec. 13 (2)(e))

No note or bonded indebtedness will be incurred by any local unit of government for this project.

G. Duration of Brownfield Plan (Sec. 13 (2)(f))

In no event shall the duration of the Plan, exceed 35 years following the date of the resolution approving the Plan, nor shall the duration of the tax capture exceed the lesser of the period authorized under subsection (4) and (5) of Section 13 of Act 381 or 30 years. Further, in no event shall the beginning date of the capture of tax increment revenues be later than five years after the date of the resolution approving the Plan. The Property will become part of this Plan on the date this Plan is approved by the City of Farmington City Council.

H. Estimated Impact of Tax Increment Financing on Revenues of Taxing Jurisdictions (Sec. 13 (2)(g))

Taxes will continue to be generated to taxing jurisdictions on local and school captured millages at the base taxable value of \$125,320 throughout the duration of this Plan totaling approximately \$216,393 or \$7,213.10 annually.

Non-capturable millages; including debt millages, the zoo authority and art institute, will have an immediate increase in tax revenue following redevelopment of approximately \$41,483 throughout the duration of this Plan.

A summary of the impact to taxing jurisdictions for the life of the Plan is summarized below, the amount captured is the sum of developer eligible activity reimbursement, administrative fees and the state brownfield revolving fund.

Millage	Rate	Amount Captured	Taxes Preserved for Taxing Unit
State Education Tax (SET)	6.0000	\$2,757	\$22,558
School Operating Tax	18.0000	\$8,271	\$67,673
Subtotal	24.0000	\$11,028	\$90,230
County Operating	4.0200	\$47,812	\$15,114
OIS Alloacted	0.1918	\$2,281	\$721
OIS Voted	3.0362	\$36,111	\$11,415
OCC Voted	1.5184	\$18,059	\$5,709
City Operating	14.0000	\$166,510	\$52,634
City 2018 (CAP)	2.0000	\$23,787	\$7,519
City 2018 (OP)	0.9115	\$10,841	\$3,427
City Streets	1.4444	\$17,179	\$5,430
Library	1.5209	\$18,089	\$5,718
County Pk & Rec	0.2310	\$2,747	\$868
HCMA	0.2104	\$2,502	\$791
OCPTA	0.9851	\$11,716	\$3,704

<i>Subtotal</i>	<i>30.0697</i>	<i>\$357,637</i>	<i>\$113,050</i>
<i>Total Capturable Millages</i>	<i>54.0697</i>	<i>\$368,665</i>	<i>\$203,280</i>
Non-Capturable Millages	Rate	New Taxes Generated	Taxes Preserved for Taxing Unit
Zoo Authority (County)	0.0965	\$1,148	\$363
Art Institute (County)	0.1913	\$2,275	\$719
School Debt	3.2000	\$38,060	\$12,031
<i>Total Non-Capturable Millages</i>	<i>3.4878</i>	<i>\$41,483</i>	<i>\$13,113</i>

See Table 2 for a complete breakdown of estimated available tax increment revenue and Table 3 for the estimated annual reimbursement.

I. Legal Description, Property Map, Statement of Qualifying Characteristics and Personal Property (Sec. 13 (2)(h))

The legal description of the Property included in this Plan is attached in Appendix A.

A property location map is included in Appendix B.

Documentation of characteristics that qualify the property as eligible property is provided in Appendix D.

Personal property will be included as part of the eligible property to the extent that it is taxable personal property.

J. Displacement/Relocation of Individuals on Eligible Property (Sec. 13 (2)(i-l))

No displacement of residents or families is expected as part of this project.

K. Other Material that the Authority or Governing Body Considers Pertinent (Sec. 13 (2)(n))

The Brownfield Redevelopment Authority and the City Council as the Governing Body, in accordance with the Act, may amend this Plan in order to fund additional eligible activities associated with the Project described herein.

Appendix A



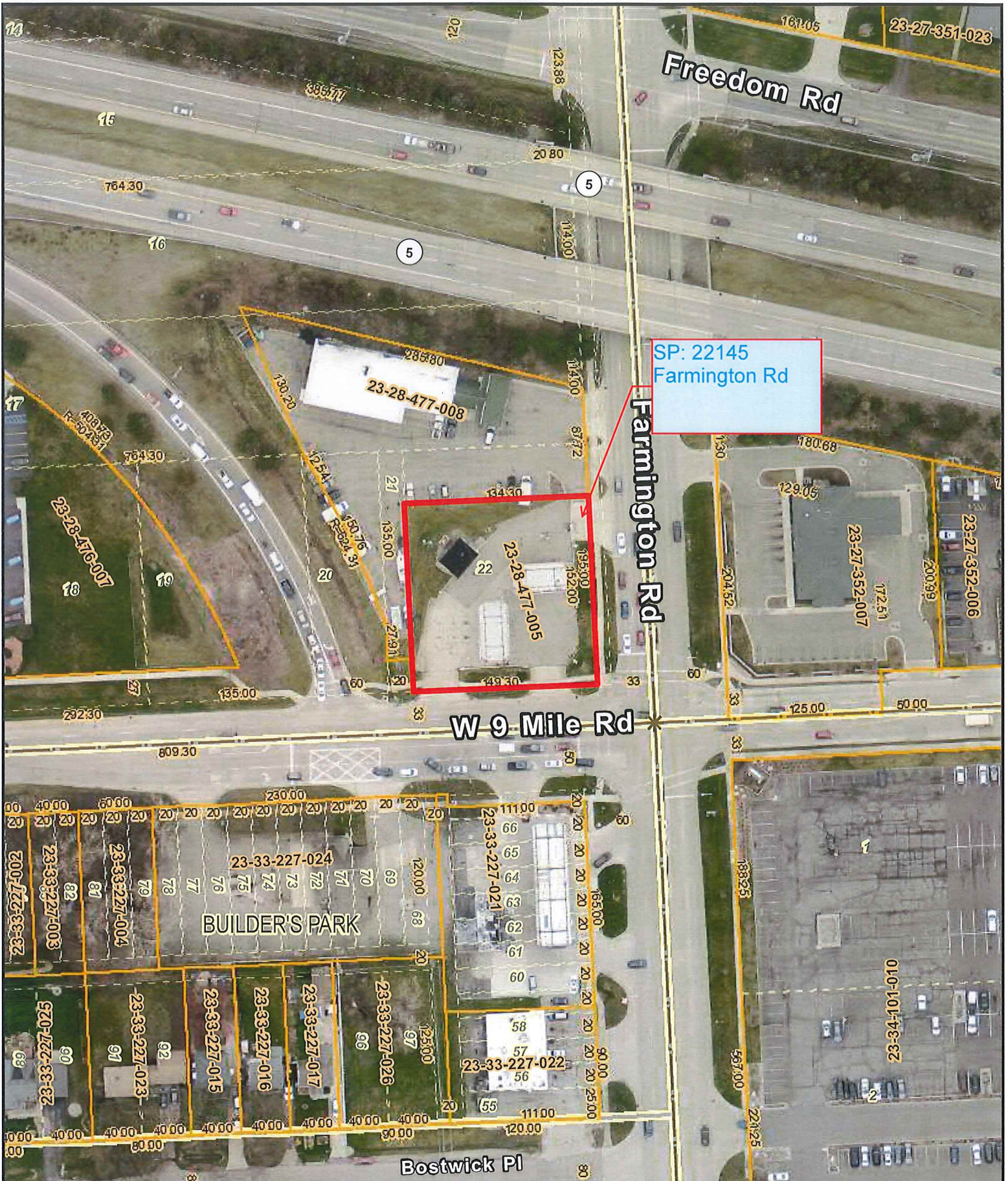
Legal Description:

T1N, R9E, SEC 28 ASSESSOR'S PLAT NO 1 S 152 FT OF LOT 22

Appendix B



map



SP: 22145
Farmington Rd

BUILDER'S PARK

- 2 Foot Contours
- 5 Foot Contours
- FEMA Base Flood Elevations
- FEMA Cross Sections
- 100 yr - FEMA Floodplain
- 100 yr (detailed) - FEMA Floodplain
- 500 yr - FEMA Floodplain
- FLOODWAY - FEMA Floodplain

Disclaimer: The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise. FEMA Floodplain data may not always be present on the map.

OAKLAND COUNTY MICHIGAN
Economic Development & Community Affairs
David Coulter
Oakland County Executive

Date Created: 12/31/2019

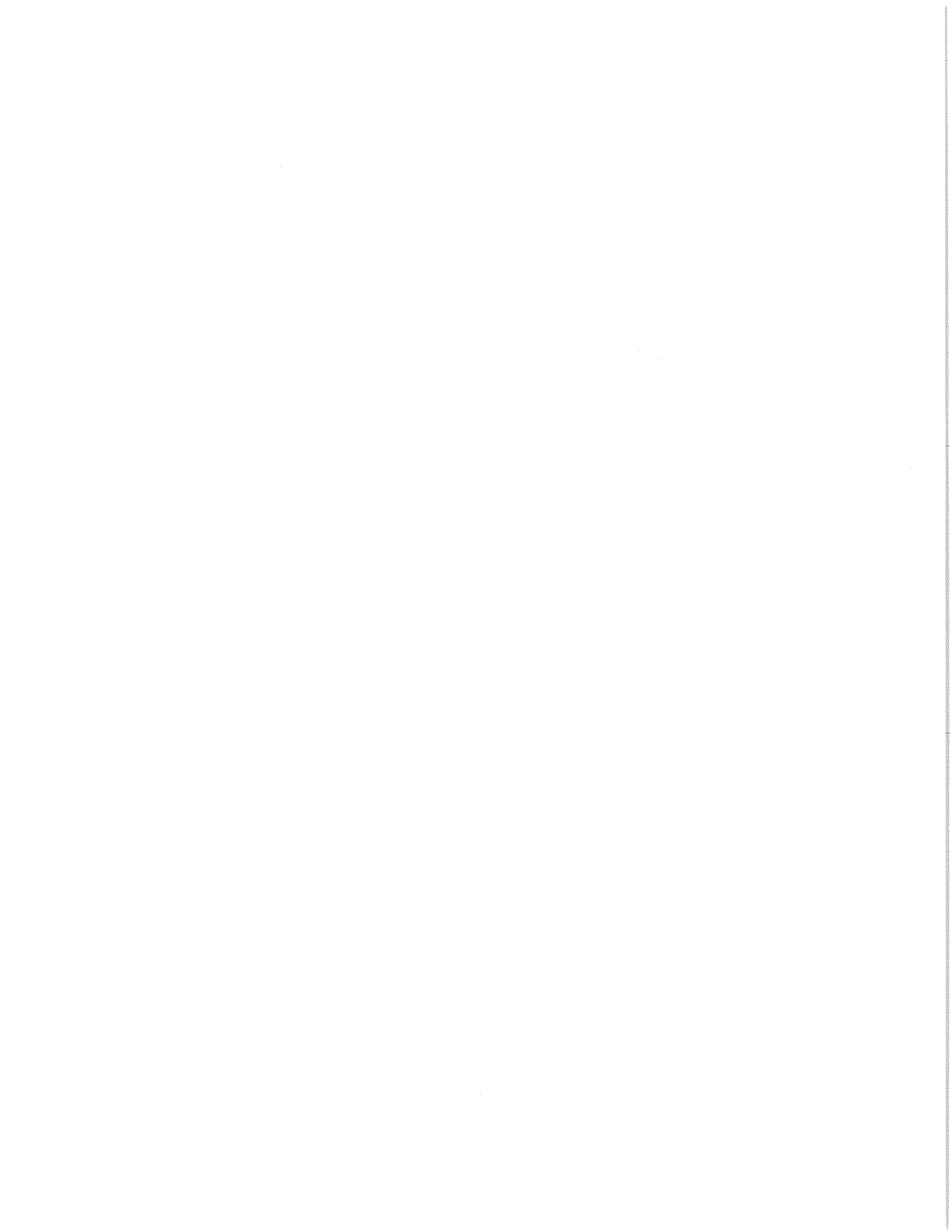
NORTH
1 inch = 100 feet

Appendix C



ABBREVIATIONS

&	AND	FL.	FLOOR	PROP.	PROPE
@	AT	F.O.	FACE OF	P.M.	PROJE
A/C	AIR CONDITIONING	FT.	FOOT	P.S.F.	PER €
A.D.	AREA DRAIN	F.GLAS	FIBERGLASS	PT.	PAINT
A.F.F.	ABOVE FINISH FLOOR	F.F.E.	FURNITURE, FIXTURE & EQUIPMENT	P.S.I.	POUNI
ALUM.	ALUMINUM	FURN.	FURNITURE	P.V.C.	POLY
ALT.	ALTERNATE	GA.	GAUGE	Q.T.	QUARF
APPROX.	APPROXIMATE	GALV.	GALVANIZED	QTY.	QUAN
A.O.	ARCHED OPENING	GYP. BD.	GYPSUM BOARD	R.	RADIU
ACCES.	ACCESSIBLE	HDWD.	HARDWOOD	RAD.	RADIU
ASPH.	ASPHALT	HDR.	HEADER	REF.	REFRI
BD.	BOARD	H.M.	HOLLOW METAL	REINF.	REINF
BLDG.	BUILDING	HORIZ.	HORIZONTAL	REV.	REVIS
B.O.S.	BOTTOM OF STEEL	HT.	HEIGHT	REQ'D	REQUI
BSMT.	BASEMENT	H.V.A.C.	HEATING, VENTILATION & AIR CONDITIONING	RESIL.	RESIL
BTWN.	BETWEEN	I.D.	INSIDE DIAMETER	RM.	ROOM
BTM.	BOTTOM	INSUL.	INSULATION	R.O.	ROUGH
☉	CENTER LINE	INT.	INTERIOR	SCHED.	SCHEI
C.L.	CENTER LINE	JT.	JOINT	SEC.	SECTI
C.T.	CERAMIC TILE	JSTS.	JOISTS	S.F.	SQUAI
C.J.	CONTROL JOINT	KIT.	KITCHEN	SHT.	SHEE
CLG.	CEILING	LAM.	LAMINATE	SHTG.	SHEA
CLOS.	CLOSET	LAV.	LAVATORY	SIM.	SIMIL
CM	CONSTRUCTION MGR.	L.L.V.	LONG LEG VERTICAL	SPEC.	SPECI
CMU	CONC. MASONRY UNIT	L.L.H.	LONG LEG HORIZONTAL	SQ.	SQUAI
COL.	COLUMN	LVL	LAMINATED VENEER LUMBER	S.S.	STAIN
CONC.	CONCRETE	LT.	LIGHT	STD.	STANI
CONT.	CONTINUOUS	MAS.	MASONRY	STL.	STEEL
CONST.	CONSTRUCTION	MAX.	MAXIMUM	STRUCT.	STRUC
C.S.	CONSTRUCTION SPECIFICATIONS	MECH.	MECHANICAL	SUSP.	SUSPE
DEPT.	DEPARTMENT	MTL.	METAL	T. & G.	TONGI
				TEL.	TELEI
				THK	THICK



LEGEND

- ■ EX. CATCH BASIN
- EX. MANHOLE
- ▶ EX. END SECTION
- ⓪ EX. OVERFLOW STRUCTURE
- ⊙ EX. CLEANOUT
- ⊕ EX. HYDRANT
- ⊗ EX. WATER SHUTOFF
- FDG EX. FIRE DEPT. CONNECTION
- Ⓜ EX. WATER WELL
- ⊙ EX. LIGHTPOLE
- EX. UTILITY POLE
- ← EX. GUY ANCHOR
- ⊗ EX. TRAFFIC SIGNAL
- ⊙ EX. GAS SHUTOFF
- ∇ EX. GAS VENT
- EX. HANDHOLE
- EX. PEDESTAL
- ⊞ EX. TRANSFORMER
- Ⓜ EX. GENERATOR
- ⊙ EX. GAS METER
- ⊙ EX. ELECTRIC METER
- ↑ EX. UTILITY MARKER
- ⊞ EX. AIR CONDITIONER
- ⊗ EX. RAILROAD SIGNAL
- EX. SIGN
- Ⓟ EX. POST/BOLLARD
- Ⓟ EX. FLAGPOLE
- Ⓜ EX. MAILBOX
- Ⓟ EX. PARKING METER
- ↗ EX. SATELLITE DISH
- EX. SOIL BORING
- Ⓜ EX. MONITOR WELL
- FOUND IRON
- SET IRON
- ◇ EX. BOULDER
- ⊞ EX. TREE STUMP
- ⊙ EX. TREE
- ⊕¹⁰²³ EX. TREE TAG & NUMBER
- ~ ~ ~ EX. TREE LINE
- // — EX. FENCE
- — — EX. SANITARY SEWER
- — — EX. STORM SEWER
- — — EX. WATER MAIN
- · · · EX. ELECTRIC CABLE
- · · · EX. COMMUNICATION
- · — EX. GAS LINE
- · — · — EX. OVERHEAD LINE

GENERAL DEMO

1. THE INTENT OF ALL DEMOLITION IS TO REMOVE THE EXISTING STRUCTURE. THE GENERAL NATURE OF THE WORK IS TO REMOVE THE EXISTING STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND VERIFYING THE EXISTING CONDITIONS. THE CONTRACTOR SHOULD IMMEDIATELY REPORT ANY DISCREPANCIES.
2. CAUSE NO DAMAGE TO EXISTING STRUCTURES, UTILITIES, OR AREAS NOT TO BE DEMOLISHED. TAKE CARE NOT TO ENCLOSE, DAMAGE, OR REMOVE ANY EXISTING FINISHES OR MATERIALS WHICH ARE TO REMAIN.
3. USE ALL MEANS NECESSARY TO CONTROL DUST TO ADJACENT AREAS.
4. CONDUCT DEMOLITION OPERATIONS TO ENSURE MINIMUM DEBRIS TO ENSURE MINIMUM WALKS, AND OTHER ADJACENT AREAS. COMPLY WITH ALL APPLICABLE REQUIREMENTS FOR RECYCLING TO BE RECYCLED.
5. DISPOSE OF ALL DEMOLITION DEBRIS LEGALLY, OFF THE SITE. COMPLY WITH ALL APPLICABLE REQUIREMENTS AND DISPOSAL REQUIREMENTS.
6. THE ARCHITECT HAS NO KNOWLEDGE OF ANY ASBESTOS-CONTAINING MATERIALS ON THE JOB SITE.

LANDSCAPING NOTES:

PLANTING

1. INSTALLATION OF ALL PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS FOR NURSERY STOCK SET FORTH BY THE CITY OF FARMINGTON, MICHIGAN.
2. THE PLANT MATERIALS SHALL CONFORM TO THE TYPE STATED ON THE LIST AND THE MINIMUM STATED ON THE PLANT LIST OR LARGER. ALL MEASUREMENTS SHALL BE TO THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
3. THE PLANT MATERIAL SHALL BE NURSERY GROWN AND INSPECTED BEFORE PLANTING. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANTING.
4. PLANTS DESIGNATED "B&B" SHALL BE BALLED AND BURLAPPED WITH ONE (1) PART TOPSOIL AND ONE (1) PART SAND.
5. DIG SHRUB PITS ONE FOOT (1') LARGER THAN THE SHRUB ROOTBALL, AND TREE PITS ONE (1) FOOT LARGER THAN THE TREE ROOTBALL AND BACKFILL WITH ONE (1) PART TOPSOIL AND ONE (1) PART SAND. IN WET, CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS SLIGHTLY DEEPER THAN THE LISTED.
6. THE CONTRACTOR IS RESPONSIBLE FOR PLANTING THE MATERIALS AT THE SPECIFIED GRADE. THE PLANTS SHALL BE ORIENTED TO GIVE THE BEST APPEARANCE.
7. WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE BACKFILLED AND GRADUALLY FILLING, PATTING, AND SETTLING WITH WATER.
8. TREES IN LAWN AREAS TO HAVE A FOUR FOOT (4') CIRCLE OF MULCH WITH A MINIMUM DEPTH OF THREE INCHES (3"). SHRUB BEDS ARE TO BE MULCHED WITH A MINIMUM DEPTH OF THREE INCHES (3"). ONLY NATURAL COLOR MULCH IS ACCEPTED.
9. REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TOP ONE THIRD (1/3) OF TREE TRUNKS. REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM BRANCHES AND STEMS.
10. ALL PLANT MATERIALS SHALL BE PRUNED AND INJURIES REPAIRED. PRUNING IS LIMITED TO THE REMOVAL OF DEAD OR INJURED LIMBS AND TO CORRECTING DEFECTS IN TRANSPLANTING. CUTS SHOULD BE FLUSH, LEAVING NO STUBS. CUTS SHOULD BE PAINTED WITH TREE PAINT. SHRUBS ALONG THE SITE PERIMETER SHALL BE TRIMMED TOGETHER IN A NATURAL FORM.
11. ORGANIC, FRIABLE TOPSOIL SHALL BE EVENLY DISTRIBUTED AND FINISHED TO A DEPTH OF FOUR INCHES (4") AFTER SETTLEMENT.
12. ALL LAWN AREAS SHALL BE SODDED WITH A GRADE A KENTUCKY BLUEGRASS.
13. ALL PLANTINGS SHALL BE COMPLETED WITHIN THREE (3) MONTHS, AT THE DATE OF ISSUANCE OF A CERTIFICATE OF OCCUPANCY IF SUCH IS ISSUED DURING THE APRIL 1 THRU SEPTEMBER 30 PERIOD; IF THE CERTIFICATE IS ISSUED OUTSIDE OF THIS PERIOD, THE PLANTING SHALL BE COMPLETED NO LATER THAN THE DATE OF ISSUANCE OF THE CERTIFICATE. THEREAFTER BE REASONABLY MAINTAINED, INCLUDING PERMANENCE OF PLANTINGS. PROVIDE A SCREEN TO ABUTTING PROPERTIES AND INCLUDING THE PERIMETER OF THE PROJECT.
14. PLANT TREES AND SHRUBS NO CLOSER THAN THE FOLLOWING MINIMUM DISTANCES TO DRIVEWAYS AND PARKING STALLS:

A. SHADE/CANOPY TREES	FIVE FEET (5')
B. ORNAMENTAL/FLOWERING TREES	TEN FEET (10')
C. EVERGREEN TREES	FIVE FEET (5')
D. EVERGREEN/FLOWERING SHRUBS	FOUR FEET (4').
15. BACKFILL DIRECTLY BEHIND ALL CURBS AND ALONG SIDEWALKS AND DRIVEWAYS TO SUPPORT VEHICLE AND PEDESTRIAN WEIGHT WITHOUT SETTLING.
16. ALL LANDSCAPE AREAS, ESPECIALLY PARKING LOT ISLANDS AND LANDSCAPE ISLANDS, SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A MINIMUM DEPTH OF SIX INCHES (6") AND BACKFILLED WITH GOOD, MEDIUM-TEXTURED PLANTING MIXTURE. ADD FOUR INCHES TO SIX INCHES (4"-6") OF TOPSOIL OVER THE FILL MIXTURE. FINISH TO THE LANDSCAPE PLAN.
17. CONVERSION OF ALL ASPHALT AND GRAVEL AREAS TO LANDSCAPE PAVING SHALL BE IN THE FOLLOWING MANNER:

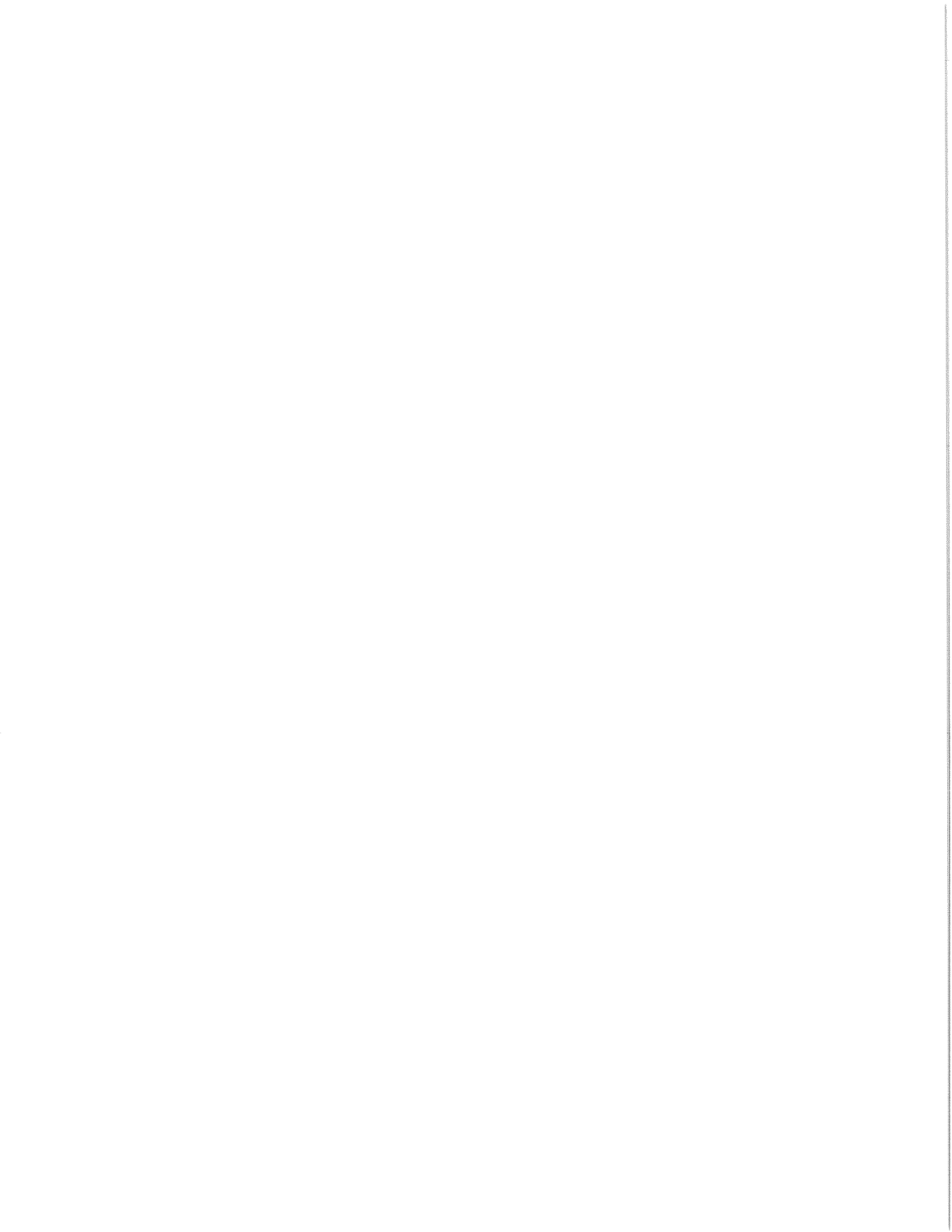
A. REMOVE ALL ASPHALT, GRAVEL, AND COMPACTED EARTH TO A DEPTH OF SIX (6") TO EIGHTEEN (18") DEPENDING ON THE DEPTH OF THE SUB BASE AND DISPOSE OF THE MATERIAL AT AN APPROVED LOCATION.
B. CALL THE CITY FOR AN INSPECTION PRIOR TO BACKFILLING;
C. REPLACE EXCAVATED MATERIAL WITH GOOD, MEDIUM-TEXTURED PLANTING MIXTURE.

NOTE:

- CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION.
- PERENNIALS TO BE PLANTED UP TO THE EDGE OF THE SAUCER AROUND A TREE OR SHRUB BED.

- ① SEE PLANT LIST FOR SPACING DISTANCE.
- ② SHREDDED HARDWOOD BARK OF A NATURAL COLOR MULCH AT TWO INCH (2") MINIMUM DEPTH.
- ③ 3/16" x 4" ALUMINIUM EDGING (OR

①



Appendix D





Environmental & Engineering Services Nationwide



ENVIRONMENTAL SERVICES

BUILDING ARCHITECTURE,
ENGINEERING & SCIENCE

INDUSTRIAL HYGIENE SERVICES

BROWNFIELDS & ECONOMIC
INCENTIVES CONSULTING

BASELINE ENVIRONMENTAL ASSESSMENT

Gasoline Dispensing Station

22145 Farmington Road | Farmington, Michigan
PM Project Number 01-11841-1-0001

Prepared for:

Royal Gas & Oil Co.
1710 Hilton Road
Ferndale, Michigan 48220

Prepared by:

PM Environmental, Inc.
4080 West Eleven Mile Road
Berkley, Michigan 48072

Know Your Risk.
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Baseline Environmental Assessment Submittal Form

This form is for submittal of a Baseline Environmental Assessment (BEA), as defined by Part 201, Environmental Remediation and Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for the purpose of establishing an exemption to liability pursuant to Section 20126(1)(c) and Section 21323a(1)(b) for a new owner or operator of property that is a facility as defined by Section 20101(1)(s) or Property as defined by Section 21303(d). The BEA report must be conducted either prior to or within 45 days after becoming the owner or operator, whichever is earliest. This form and the BEA report must be submitted prior to or within 6 months of becoming the owner or operator whichever is earliest. A separate BEA is required for each legal entity that is or will be a new owner or operator of the property. To maintain the exemption to liability, the owner and operator must also disclose the BEA to any subsequent purchaser or transferee before conveying interest in the property pursuant to Section 20126(1)(c) and Section 21323a(1)(b). An owner or operator of a facility or Property also has due care obligations under Section 20107a and Section 21304c with respect to any existing contamination to prevent unacceptable exposure; prevent exacerbation; take reasonable precautions; provide reasonable cooperation, assistance, and access to authorized persons taking response activities at the property; comply with land use restrictions associated with response activities; and not impede the effectiveness of response activities implemented at the property. Documentation of due care evaluations, all conducted response activities, and compliance with 7a or 4c need to be available to the MDEQ, but not submitted, within 8 months of becoming the owner or operator of a facility and/or Property.

Section A: Legal Entity Information

<p>Name of legal entity that does or will own or operate the property: <u>Royal Gas & Oil Co.</u></p> <p>Address: <u>1710 Hilton Road</u></p> <p>City: <u>Ferndale</u> State: <u>Michigan</u> ZIP: <u>48220</u></p> <p>Contact Person (Name & Title):</p> <p><u>Mr. Jamie Robinson, President</u></p> <p>Telephone: <u>313-299-0712</u> Email: <u>jrobinson@royalgasandoil.com</u></p>	<p>Contact for BEA questions if different from submitter: Name & Title: <u>Mr. Jacob Bloom, Staff Consultant</u></p> <p>Company: <u>PM Environmental Inc.</u></p> <p>Address: <u>4080 West 11 Mile Road</u></p> <p>City: <u>Berkley</u> State: <u>Michigan</u> ZIP: <u>48072</u></p> <p>Telephone: <u>248-414-1423</u> Email: <u>bloom@pmenv.com</u></p>
--	--

Section B: Property Information

<p>Street Address of Property: City: <u>22145 Farmington Road</u> State: <u>Michigan</u> Zip: <u>48336</u></p> <p>Property Tax ID (include all applicable IDs): <u>20-23-28-477-005</u></p> <p>Address according to tax records, if different than above (include all applicable addresses): _____ City: _____ State: _____ Zip: _____</p> <p>Status of submitter relative to the property (check all that apply):</p> <table style="width: 100%; border: none;"> <tr> <td></td> <td style="text-align: center;">Former</td> <td style="text-align: center;">Current</td> <td style="text-align: center;">Prospective</td> </tr> <tr> <td>Owner</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Operator</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		Former	Current	Prospective	Owner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Operator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>County: <u>Oakland</u> City/Village/Township: <u>Farmington</u></p> <p>Town: <u>1N</u> Range: <u>9E</u> Section: <u>28</u> Quarter: <u>NW</u> Quarter-Quarter: <u>SE</u></p> <p>Decimal Degrees Latitude: <u>45.45533</u> Decimal Degrees Longitude: <u>-83.37637</u></p> <p>Reference point for latitude and longitude: Center of site <input checked="" type="checkbox"/> Main/front door <input type="checkbox"/> Front gate/main entrance <input type="checkbox"/> Other <input type="checkbox"/></p> <p>Collection method: Survey <input type="checkbox"/> GPS <input type="checkbox"/> Interpolation <input checked="" type="checkbox"/></p>
	Former	Current	Prospective										
Owner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
Operator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

Section C: Source of contamination at the property (check all that are known to apply):

Facility regulated pursuant to Part 201, other source, or source unknown Part 201 Site ID, if known: _____	<input type="checkbox"/>
Property - Leaking Underground Storage Tank regulated pursuant to Part 213 Part 211/213 Facility ID, if known: <u>00012280</u>	<input checked="" type="checkbox"/>
Oil or gas production and development regulated pursuant to Part 615 or 625	<input type="checkbox"/>
Licensed landfill regulated pursuant to Part 115	<input type="checkbox"/>
Licensed hazardous waste treatment, storage, or disposal facility regulated pursuant to Part 111	<input type="checkbox"/>

Section D: Applicable Dates (provide date for all that are relevant):

Date All Appropriate Inquiry (AAI) Report or Phase I Environmental Assessment Report completed:	MM/DD/YYYY <u>01/31/2020</u>
Date Baseline Environmental Assessment Report conducted:	<u>03/13/2020</u>
Date submitter first became the owner:	Not applicable

Date submitter first became the operator:	Not applicable
Date submitter first became the operator (if prior to ownership):	Not applicable
Anticipated date of becoming the owner for prospective owners:	04/01/2020
Anticipated date of becoming the operator for prospective operators:	Not applicable
If former owner or operator of this property, prior dates of being the owner or operator:	Not applicable

Section E: Check the appropriate response to each of the following questions:

	YES	NO
1. Is the property at which the BEA was conducted a "facility" as defined by Section 20101(1)(s) or a Property as defined by Section 21303(d)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Was the All Appropriate Inquiry (AAI) completed in accordance with Section 20101(1)(f) and or 21302(1)(b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Was the BEA, including the sampling, conducted either prior to or within 45 days of the date of becoming the owner, operator, or of foreclosure, whichever is earliest?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Is this BEA being submitted to the department within 6 months of the submitter first becoming the owner or operator, or foreclosing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Does the BEA provide sufficient rationale to demonstrate that the data is reliable and relevant to define conditions at the property at the time of purchase, occupancy, or foreclosure, even if the BEA relies on studies of data prepared by others or conducted for other purposes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Does this BEA contain the legal description of the property addressed by the BEA?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Does this BEA contain the environmental analytical results, a scaled map showing the sample locations, and the basis for the determination that the property is a facility as defined by Section 20101(1)(s) or the basis for the determination that the property is a Property as defined by Section 21303(d)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Section F: Environmental Consultant Signature:

I certify to the best of my knowledge and belief, that this BEA and all related materials are true, accurate, and complete. I certify that the property is a facility as defined by Section 20101(1)(s) or a Property as defined by Section 21303(d) and have provided the sampling and analyses that support that determination. I certify that any exceptions to, or deletions from, the All Appropriate Inquiry Rule are described in Section 1 of the BEA report.

Signature: _____ Date: March 13, 2020

Printed Name: Jacob Bloom
 Company: PM Environmental Inc.
 Mailing Address: 4080 West 11 Mile Road City: Berkley State: Michigan Zip: 48072
 Telephone: (248) 414-1423 E-Mail: bloom@pmenv.com

Section G: Legal Entity Signature:

With my signature below, I certify that to the best of my knowledge and belief, this BEA and all related materials are true, accurate, and complete.

Signature: _____ Date: _____

(Person legally authorized to bind the legal entity)
 Printed Name: Mr. Jamie Robinson
 Title and Relationship of signatory to submitter: President, Royal Gas & Oil Co.
 Address: 1710 Hilton Road City: Ferndale State: Michigan Zip: 48220
 Telephone: 313-299-0712 E-Mail: jrobinson@royalgasandoil.com

Submit the BEA report and this form to the MDEQ District Office for the county in which the property is located. [An office map](#) is located at www.michigan.gov/deqrrd.



Corporate Headquarters
Lansing, Michigan
3340 Ranger Road, Lansing, MI 48906
f: 877.884.6775
t: 517.321.3331

Michigan Locations
Berkley Bay City
Grand Rapids Chesterfield
Lansing Oak Park

March 13, 2020

District Supervisor
Michigan Department of Environment, Great Lakes, and Energy
Southeastern Michigan District Office
27700 Donald Court
Warren, Michigan 48092

**RE: Baseline Environmental Assessment of the Gasoline Dispensing Station
Located at 22145 Farmington Road, Farmington, Michigan
Parcel ID: 20-23-28-477-005
PM Environmental, Inc. Project No. 01-11841-1-0001**

Dear District Supervisor:

Enclosed is a copy of the Baseline Environmental Assessment prepared for the above referenced subject property in accordance Section 21323a(1)(b)(i) of Part 213, of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

If you have any questions regarding the information in this report, please contact us at 800.313.2966.

Sincerely,
PM ENVIRONMENTAL, INC.

Jacob Bloom
Staff Consultant

Christie Santiago, Q.C.
Senior Project Engineer



Corporate Headquarters
Lansing, Michigan
3340 Ranger Road, Lansing, MI 48906
f: 877.884.6775
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Michigan Locations
Berkley Bay City
Grand Rapids Chesterfield
Lansing Oak Park

March 13, 2020

Mr. John Robinson
Royal Gas & Oil Co.
1710 Hilton Road
Ferndale, Michigan 48220

**RE: Baseline Environmental Assessment of the Gasoline Dispensing Station
Located at 22145 Farmington Road, Farmington, Michigan
Parcel ID: 20-23-28-477-005
PM Environmental, Inc. Project No. 01-11841-1-0001**

Dear Mr. Bazzi:

Enclosed is a copy of the Baseline Environmental Assessment prepared for the above referenced subject property in accordance Section 21323a(1)(b)(i) of Part 213, of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

THIS BASELINE ENVIRONMENTAL ASSESSMENT WAS PREPARED FOR THE EXCLUSIVE USE OF ROYAL GAS & CO., THE STATE BANK, AND U.S. SMALL BUSINESS ADMINISTRATION, WHOM MAY RELY ON THE REPORT'S CONTENTS.

If you have any questions regarding the information in this report, please contact our office at 800.313.2966.

PM ENVIRONMENTAL, INC.

Jacob Bloom
Staff Consultant

Christie Santiago, Q.C.
Senior Project Engineer

TABLE OF CONTENTS

1.0	INTRODUCTION AND DISCUSSION	1
1.1	Owner/Operator Information.....	1
1.2	Intended Use of the Subject Property.....	1
1.3	Summary of All Appropriate Inquiry Phase I Environmental Site Assessment	1
1.3.1	Phase I ESA Exceptions or Deletions	2
1.3.2	Phase I ESA Data Gaps	3
1.4	Summary of Previous Site Investigations	3
1.5	Summary of Current Site Investigation.....	4
1.6	Subsurface Investigations Techniques and QA/QC Procedures.....	5
1.7	Geology and Hydrogeology.....	6
2.0	LOCATION OF CONTAMINATED MEDIA ON THE SUBJECT PROPERTY.....	6
2.1	Summary of Analytical Results (Previous Site Investigation).....	7
2.2	Summary of Analytical Results (Current Site Investigation).....	9
2.3	Subject Property Site Status	10
3.0	PROPERTY INFORMATION.....	10
3.1	Legal Description of Subject Property	10
3.2	Survey Map of Subject Property.....	10
3.3	Subject Location and Analytical Summary Maps.....	10
3.4	Subject Property Location Map	10
3.5	Subject Property Address.....	11
3.6	Subject Spatial Data.....	11
4.0	SITE STATUS OF SUBJECT PROPERTY.....	11
4.1	Summary Data Tables	11
4.2	Laboratory Reports and Chain of Custody Documentation.....	11
5.0	IDENTIFICATION OF BEA AUTHOR.....	11
6.0	AAI REPORT OR ASTM PHASE I ESA	12
7.0	REFERENCES.....	12

FIGURES

- Figure 1: Property Vicinity Map
- Figure 2: Generalized Diagram of the Subject Property and Adjoining Properties
- Figure 3: Soil Boring/Temporary Monitoring Well Location Map with Soil and Groundwater Analytical Results

Adopted from ECT's Baseline Environmental Assessment

- Figure 2A: Soil Sample Results
- Figure 2B: Groundwater Sample Results

Adopted from Compliance Inc.'s Statewide Expanded Triage Project Report

- Figure 2: 2015 SWET Boring Locations

TABLES

- Table 1: Summary of Soil Analytical Results – VOCs, PNAs, PCBs, and Metals
- Table 2: Summary of Groundwater Analytical Results – VOCs, PNAs, and Metals
- Table 3: Summary of Soil Analytical Results from Compliance Inc. and EGLE's 2015 Site Investigation – VOCs
- Table 4: Summary of Groundwater Analytical Results Compliance Inc. and EGLE's 2015 Site Investigation – VOCs

APPENDICES

- Appendix A: Phase I ESA, PM, January 2020
- Appendix B: Previous Site Investigations Figures and Tables, ECT's 2010 and Compliance Inc. and EGLE's 2015
- Appendix C: Soil Boring/Temporary Monitoring Well Logs, PM, February 2020
- Appendix D: Laboratory Analytical Reports, PM, February 2020
- Appendix E: Assessing Information
- Appendix F: Professional Qualification Statements

1.0 INTRODUCTION AND DISCUSSION

PM has completed this Baseline Environmental Assessment (BEA) for the gasoline dispensing station located 22145 Farmington Road, Farmington, Oakland County, Michigan hereafter referred to as the "subject property") in accordance with 21323a(1)(b)(i) of Part 213 of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

The subject property consists of one parcel totaling 0.52 acres and is located on the northwest corner of West 9 Mile Road and Farmington Road in Farmington, Michigan (Figure 1). The subject property is a vacant gasoline dispensing station that is developed with one single-story slab-on-grade convenience store building containing 443 square feet and located in the northwestern portion of the property. The remainder of the subject property consists of asphalt and concrete paved driveways and parking areas and groomed grass (Figure 2).

The current underground storage tank (UST) system consists of two 10,000-gallon gasoline USTs located in a single basin south of the convenience store building, product piping, and four dispenser ports located east and south of the convenience store building that are covered by two separate metal canopies. The dispensers themselves were removed and the USTs are reportedly empty.

Standard and historical sources were able to document the subject property consisted of vacant land from at least 1940 until between 1952 and 1956 when a gasoline service station was constructed in the northwestern portion. The service station was demolished in 1967 when the current convenience store and gasoline dispensing station was constructed. The current metal canopies in the eastern and southern portions were constructed in 1988. Gasoline dispensing station operations reportedly ceased in 2010, and the subject property has been unoccupied since that time. The interior of the convenience store was last renovated in January 2018.

The subject property is a closed Leaking Underground Storage Tank (LUST) site with two releases (Leak ID Nos. C-0899-85 and C-0068-96) reported in August 1988 and January 1996. These two releases were granted a Tier I Restricted Closure on June 9, 1999. The subject property is also an open LUST site with one release (Leak ID No. C-0150-10) reported on October 21, 2010. Refer to Section 1.4 for additional information.

1.1 Owner/Operator Information

Royal Gas and Oil Co., having an address at 1710 Hilton Road in Ferndale, Michigan 48220, intends to purchase the subject property by April 1, 2020.

1.2 Intended Use of the Subject Property

Royal Gas & Oil Co. intends to demolish the current gasoline dispensing station and redevelop the subject property for gasoline dispensing station operations in the future.

The subject property is serviced by municipal water, municipal sewer, electric, and natural gas utilities.

1.3 Summary of All Appropriate Inquiry Phase I Environmental Site Assessment

PM prepared a Phase I Environmental Site Assessment (ESA) for the subject property dated January 31, 2020, in conformance with the scope and limitations of ASTM Practice E1527-13

(i.e., the 'ASTM Standard'). A copy of the January 2020 Phase I ESA, including photographs of the subject property, is included in Appendix A.

The following onsite recognized environmental conditions (RECs) were identified for the subject property in PM's January 2020 Phase I ESA:

- The subject property is an open and closed LUST site with three reported releases in 1988, 1996, and 2010. Previous site investigation activities completed in 1996 through 2015 document that soil and groundwater contamination exists on-site above the current Part 213 Residential and Nonresidential Risk Based Screening Levels (RBSLs). In addition, soil and groundwater concentrations were detected above the Recommended Interim Action Screening Levels (RIASLs). Based on the open and closed LUST status and the previous analytical results, the subject property meets the definition of a "property" and "site" in accordance with Part 213 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.
- The subject property was historically occupied by a gasoline service station from at least 1956 until 1967. Historical interior waste streams associated with the former service operations would have consisted of general hazardous substances and/or petroleum products. The previous site investigation activities did not adequately assess the former gasoline service station location. This time period preceded major environmental regulations and current waste management and disposal procedures. The historical waste management practices associated with the former gasoline service station operations are unknown and may be a source of subsurface contamination.
- The former service garages likely contained in-ground hydraulic hoists. In-ground hoists have an underground reservoir for hydraulic fluids, which can contain polychlorinated biphenyls (PCBs). The potential exists that a release occurred from the former hydraulic hoist system and/or underground reservoir.
- PM was unable to obtain information regarding the historical UST system associated with the former gasoline service station located in the northwestern portion of the subject property from at least 1956 until 1967. Additionally, the previous site investigation activities did not complete a ground penetrating radar survey within the area of the former building and did not assess for the potential of former fueling and/or waste oil UST(s) to be present on the subject property. The potential exists for orphan USTs to be present on the property and/or for a release to have occurred.

No adjoining and/or nearby RECs were identified in PM's January 2020 Phase I ESA.

1.3.1 Phase I ESA Exceptions or Deletions

During the completion of the January 2020 Phase I ESA, there were no exceptions or deletions from the Federal All Appropriate Inquiry Rule under 40 CFR 312, or the ASTM Standard. To the best of PM's knowledge, no special terms or conditions applied to the preparation of the Phase I ESA.

1.3.2 Phase I ESA Data Gaps

PM did not identify any significant data gaps during the completion of the January 2020 Phase I ESA.

1.4 Summary of Previous Site Investigations

PM reviewed the following previous environmental reports for the subject property. Relevant portions of the reports are included in Appendix C of PM's January 2020 Phase I ESA (Appendix A). In addition, relevant figures and tables are included within Appendix B of this report.

Name of Report	Date of Report	Company that Prepared Report
Leaking Underground Storage Tank (LUST) Initial Assessment Report	4-26-1996	ToITest Inc.
Audit of Corrective Actions	7-16-1999	Michigan Department of Environment, Great Lakes and Energy (EGLE, formerly MDEQ)
Phase I and Limited Phase II ESA	10-11-2010	Environmental Consulting & Technology, Inc. (ECT)
Baseline Environmental Assessment (BEA)	10-11-2010	ECT
Statewide Expanded Triage Project Report	8-12-2015	Compliance Inc. and EGLE

Open or Closed LUST Site:	Open and Closed
Release Identification(s):	C-0899-85; C-0068-96; C-0150-10
Release Date(s)	August 11, 1988; January 28, 1996; October 21, 2010
Is soil contamination present above an applicable regulatory level?	Yes
Is soil contamination delineated in all directions?	No
Is groundwater contamination present above an applicable regulatory level?	Yes
Is groundwater contamination delineated in all directions?	No
Significant deficiencies identified?	Yes; lack of sampling in the areas of former service operations; lack of ground penetrating radar (GPR) survey for potential orphan USTs completed throughout the entire subject property in the previous site investigation activities; and the current regulatory guidance suggests a potential vapor intrusion exists for the current building. These items were addressed by the Phase II ESA completed in February 2020. Refer to Section 1.5 for additional information.

The 1988 release was reported during the removal of the former two 10,000-gallon gasoline USTs. The 1996 release was reported during general maintenance activities to the UST basin. Site assessment activities associated with the 1988 and 1996 releases have included various soil and groundwater sampling events, and the removal of approximately 400 cubic yards of contaminated soil. The releases were granted a Tier I closure with deed restrictions on June 9, 1999. The deed restrictions include maintaining the surface pavement in the area of impact at the subject property to prevent direct contact with impacted soils and groundwater, allowing

regulatory agencies to monitor the subject property adequately, and prohibiting soil removal from the property unless it is characterized to determine if it can be relocated without being a threat to the public health, safety, welfare or environmental in the new location.

The subject property is also an open LUST site with the October 21, 2010 release identified during general site investigation activities associated with the cease of gasoline dispensing operations. Site investigation activities completed between 2010 and 2015 included soil and groundwater sampling activities, and groundwater monitoring events. The 2015 investigations were conducted by the EGLE using triage funds. Analytical results following the August 12, 2015 groundwater sampling event identify that various gasoline volatile organic compounds (VOCs) exceed the current Part 213 Residential and Nonresidential RBSLs, and the current EGLE RIASLs indicating a vapor intrusion may be present. PM reviewed regulatory correspondence, which indicates that EGLE has attempted to contact the current owner of the subject property multiple times between 2015 and 2018 to obtain access for additional groundwater sampling events. However, access has not been granted and/or obtained by EGLE since August 2015. No additional site activities have been completed on the subject property since 2015, and the release remains open.

1.5 Summary of Current Site Investigation

On February 21, 2020, PM completed a scope of work that consisted of the completion of a geophysical survey investigation using GPR, the advancement of three soil borings (SB-1 through SB-3), the installation of one temporary monitoring well (TMW-2), and the collection of five soil samples, and one groundwater sample to assess the RECs identified in PM's January 2020 Phase I ESA. Samples were submitted to Merit Laboratories Inc. for analysis of VOCs, polynuclear aromatic compounds (PNAs), PCBs and metals (cadmium, chromium, and lead), or some combination thereof. The soil and groundwater sample locations are depicted on Figure 3.

Prior to the commencement of field activities, MissDig, a utility locating service, was contacted to locate utilities on or adjacent to the subject property. Utilities were marked by the respective utility companies where they entered or were located adjacent to the subject property. Additionally, PM utilized GPR and a utility wand to clear the proposed soil boring locations of private subsurface utilities and to evaluate for potential orphan USTs (Figure 2).

The GPR survey was completed using a GSSI® SIR-4000 GPR control unit equipped with a 400 megahertz (MHz) antenna. The survey was completed utilizing 2-dimensional scanning methods in a 2-foot surface grid pattern (i.e., in north-south and east-west directions), to an average maximum depth of 4.0 feet below ground surface (bgs). In the event that surficial obstacles prohibited scanning in a 2-foot surface grid pattern, a non-grid approach was taken in order to avoid obstacles and scan the accessible areas of the parcel. Additionally, PM utilized an RD7100 Cable and Pipe Locator, which utilizes multiple pre-set frequencies to locate and clear the proposed soil boring locations of subsurface electrical utilities.

No anomalies consisted with the presence of an orphan UST were identified during completion of the GPR survey.

The table below summarizes PM's February 2020 site investigation activities:

Description of Soil Boring/Temporary Monitoring Well/Soil Gas Sample Locations

Location and Depth (feet bgs)	Sample Depth/ Screened Interval [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB-1 (20.0)	Soil: 1.0-2.0 and 8.0-9.0	VOCs, PNAs, PCBs, and metals	Assess former gasoline service station operations	Soil: A sample was collected from the interval with the highest PID reading (3.0 ppm), from the sand/clay interface, and approximate hoist depth. Groundwater: Not sampled
SB/TMW-2 (15.0)	Soil: 1.0-2.0 Groundwater: 1.25-6.25	VOCs, PNAs, PCBs, and metals	Assess former gasoline service station operations	Soil: A sample was collected from the interval with the highest PID reading (6.7 ppm). Groundwater: Sampled.
SB-3 (15.0)	Soil: 2.0-3.0 and 8.0-9.0	VOCs, PNAs, PCBs, and metals	Assess former gasoline service station operations	Soil: A sample was collected from the interval with the highest PID reading (2.3 ppm)/from the sand/clay interface, and approximate hoist depth. Groundwater: Not sampled.

PID = photoionization detector

ppm = parts per million

1.6 Subsurface Investigations Techniques and QA/QC Procedures

The soil borings were advanced to the desired depth using a hand auger equipped with a stainless steel bucket or a Geoprobe® drill rig. Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential and/or extent of soil and/or groundwater contamination at the subject property. Soil samples were generally collected on a continuous basis using a hand auger equipped with a stainless-steel bucket or a 5-foot long macro-core sampler, in the case of the Geoprobe® drill rig.

During drilling operations, the drilling equipment was cleaned to minimize the possibility of cross contamination. These procedures included cleaning equipment with a phosphate free solution (i.e., Alconox®) and rinsing with distilled water after each sample collection. Drilling and sampling equipment was also cleaned in this manner prior to initiating field activities. Soil collected from 1-foot sample intervals was screened using a PID to determine if VOCs were present. Soil from specific depths was placed in plastic bags and allowed to volatilize. The headspace within each bag was then monitored with the PID. The PID is able to detect trace levels of organic compounds in the air space within the plastic bag.

Soil samples for VOC analysis were preserved with methanol in accordance with United States Environmental Protection Agency (USEPA) Method 5035 modified.

A temporary monitoring well was installed in one of the soil borings (SB/TMW-2) advanced at the subject property for groundwater sample collection. A new well assembly, consisting of a 5-foot one-inch diameter, 0.010-inch slot, schedule 40, PVC screen and a one inch diameter PVC casing was lowered into the borehole to intersect the water table. After the screen for the well was set to the desired depth, an artificial sand pack or natural sands were allowed to collapse around the well screen. The groundwater sample for laboratory analyses was transferred directly from the

low-flow pump discharge line into appropriately labeled sample containers with Teflon lined lids. Purge water was maintained separate and returned to the well.

The soil and groundwater samples were placed in appropriately labeled containers with Teflon® lined lids and/or sanitized glass jars, then placed in an ice-packed cooler and transported under chain of custody procedures for laboratory analysis within applicable holding times to Merit Laboratories, Inc. in East Lansing, Michigan.

Upon completion of the investigation the temporary monitoring well was removed, and the soil borings were abandoned by placing the soil cuttings back into the borehole, filling the void with bentonite chips, hydrating the chips, resurfacing and returning the area to its pre-drilling condition.

1.7 Geology and Hydrogeology

Based upon a review of the current and previous subsurface investigations conducted for the subject property, the site-specific geology consists of sand, clayey sand, and sandy clays to a depth of 4.50 feet below ground surface (bgs), underlain by clay to 20 feet bgs, the maximum depth explored. Intermittent saturated sand intervals were identified at depths between 6.0 and 6.5 feet bgs that were generally less than one foot thick.

Groundwater was encountered at depths between 1.25 and 6.25 feet bgs during previous site investigations with a static water level measured at 2.84 feet bgs in a temporary monitoring well installed by PM in February 2020. Groundwater flow direction was historically calculated to the east.

The soil boring/temporary monitoring well logs from PM's February 2020 site investigation are included in Appendix C.

2.0 LOCATION OF CONTAMINATED MEDIA ON THE SUBJECT PROPERTY

The soil and groundwater analytical results for the samples collected from the subject property during the previous and current site investigations were compared with the EGLE Cleanup Criteria Requirements for Response Activity (R299.1 – R299.5), December 30, 2013 in accordance with Section 21323a(1)(b)(i) using the applicable RBSLs. Gasoline Range Organic (GRO) concentrations (calculated) were compared to the light non-aqueous phase liquid (LNAPL) screening levels per the June 2014 EGLE Non-Aqueous Phase Liquid Characterization, Remediation, and Management for Petroleum Releases resource materials document.

PM evaluated site conditions to determine whether generic volatilization to indoor air inhalation criteria apply in accordance with Part 201 Rule 14 and 24. The building is constructed in a manner consistent with the generic assumptions, including slab-on grade and the absence of sumps within the building. However, geology encountered at the property is not homogenous and perched groundwater was encountered at depths less than 3.0 meters bgs. Therefore, based on the information summarized above, the generic Soil and Groundwater Volatilization to Indoor Air Inhalation (SVII and GVII, respectively) Cleanup Criteria do not apply to the subject property. Therefore, the soil and groundwater analytical results were compared to the Media-Specific RIASLs (August 2017). Although not an enforceable standard or may not be a standard by which documentation of due care compliance may be demonstrated, the available RIASLs are consistent with EGLE-provided site-specific values and are a means to discuss risk and potential

due care requirements for a property prior to developing and/or obtaining site specific values, when applicable.

Copies of the laboratory analytical reports for the previous site investigations are on file with EGLE in the previously submitted reports. The laboratory analytical report from PM's February 2020 site investigation is included as Appendix D.

2.1 Summary of Analytical Results (Previous Site Investigation)

The soil and groundwater sample locations from ECT's 2010 and Compliance Inc. 2015 site investigations are included on ECT's Figure 2A and 2B and Compliance Inc.'s Figure 2. The 2015 soil and groundwater analytical data is also summarized in Table 3 and 4. The remaining relevant analytical tables and figures are included in Appendix B.

Summary of Soil and Groundwater Analytical Results

Location	Sample Depth/ Screened Interval (feet bgs)	Compounds Exceeding the Part 213 RBSLs/Screening Levels
ECT Site Investigations (2010)		
GP-1W	Groundwater: 11.0-12.0	DW(R/NR): benzene RIASLs(R/NR): benzene
GP-2	Soil: 2.0-4.0	GSIP: benzene, ethylbenzene, 2-methlnaphthalene, naphthalene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5 TMB, xylenes DW(R): 2-methlnaphthalene, naphthalene DW(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes VSI(R/NR): benzene Csat: 1,2,4-TMB, 1,3,5-TMB, xylenes RIASLs(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes
GP-3	Soil: 2.0-4.0	GSIP: benzene, ethylbenzene, 2-methlnaphthalene, naphthalene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5 TMB, xylenes DW(R): 2-methlnaphthalene, naphthalene DW(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes VSI(R/NR): benzene Csat: ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes RIASLs(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes
GP-6	Soil: 0.0-2.0	GSIP: benzene, ethylbenzene, 2-methlnaphthalene, naphthalene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5 TMB, xylenes DW(R): 2-methlnaphthalene, naphthalene DW(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes VSI(R/NR): benzene Csat: ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes RIASLs(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes

*Baseline Environmental Assessment of the Gasoline Dispensing Station
 Located at 22145 Farmington Road, Farmington, Michigan
 PM Project No. 01-11841-1-0001; March 13, 2020*

Location	Sample Depth/ Screened Interval (feet bgs)	Compounds Exceeding the Part 213 RBSLs/Screening Levels
GP-7	Soil: 2.0-4.0	GSIP: benzene, ethylbenzene, 2-methylnaphthalene, naphthalene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5 TMB, xylenes DW(R): 2-methylnaphthalene, naphthalene DW(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes VSI(R/NR): benzene Csat: ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes RIASLs(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes
GP-8	Soil: 0.0-2.0	GSIP: benzene, ethylbenzene, 2-methylnaphthalene, naphthalene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5 TMB, xylenes DW(R): 2-methylnaphthalene, naphthalene DW(R/NR): benzene, ethylbenzene, MTBE, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes VSI(R/NR): benzene Csat: ethylbenzene, xylenes RIASLs(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes
Compliance Inc. and EGLE's Site Investigation (2015)		
B-2	Soil: 4.0	GSIP: benzene, ethylbenzene, isopropyl benzene, 2-methylnaphthalene, naphthalene, 1,2,3-TMB DWP(R/NR): benzene, ethylbenzene, n-propylbenzene, 1,2,3-TMB, 1,2,4-TMB RIASLs(R/NR): benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, Xylenes
	Groundwater: 5.0-10.0	DW(R/NR): benzene, ethylbenzene, n-propylbenzene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes GSI: benzene, ethylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes RIASLs(R/NR): benzene, ethylbenzene, 1,2,4-TMB, 1,3,5-TMB, xylenes
B-3	Soil: 4.0-6.0	GSIP: benzene, ethylbenzene, 2-methylnaphthalene, naphthalene, toluene, 1,2,3-TMB, 1,2,4-TMB DW(R/NR): benzene, ethylbenzene, n-propylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB SVII(R/NR): benzene
	Groundwater: 0.0-5.0	DW (R): 2-methylnaphthalene DW(R/NR): benzene, ethylbenzene, MTBE, n-propylbenzene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes GSI: benzene, ethylbenzene, isopropyl benzene, 2-methylnaphthalene, naphthalene, toluene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes RIASLs(R/NR): benzene, ethylbenzene, toluene, 1,2,4-TMB, 1,3,5-TMB, xylenes
B-4	Soil: 4.0-6.0	GSIP: ethylbenzene, 2-methylnaphthalene, naphthalene DW(R): n-butylbenzene, ethylbenzene, n-propylbenzene RIASLs(R/NR): ethylbenzene, xylenes

Location	Sample Depth/ Screened Interval (feet bgs)	Compounds Exceeding the Part 213 RBSLs/Screening Levels
B-5	Soil: 4.0-6.0	GSIP: ethylbenzene, naphthalene, xylenes DW(R): n-propylbenzene DW(R/NR): benzene RIASLs(R/NR): benzene, ethylbenzene, xylenes
B-6	Soil: 4.0-6.0	GSIP: ethylbenzene, naphthalene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, DW(R/NR): benzene, ethylbenzene, 1,2,3-TMB, 1,2,4-TMB RIASLs(R/NR): benzene, ethylbenzene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes
B-7	Soil: 4.0-6.0	GSIP: ethylbenzene, 2-methylnaphthalene, naphthalene DW(R): n-butylbenzene, n-propylbenzene DW(R/NR): benzene, ethylbenzene RIASLs(R/NR): benzene, ethylbenzene
B-8	Soil: 4.0-6.0	GSIP: ethylbenzene, 2-methylnaphthalene, naphthalene, 1,2,4-TMB, xylenes DW(R): sec-butylbenzene, n-propylbenzene DW(R/NR): benzene, n-butylbenzene, ethylbenzene, n-propylbenzene, 1,2,3-TMB RIASLs(R/NR): benzene, ethylbenzene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes
B-9	Soil: 4.0-6.0	GSIP: ethylbenzene, isopropyl benzene, 2-methylnaphthalene, naphthalene, 1,2,3-TMB, 1,2,4-TMB DW(R): n-butylbenzene, 2-methylnaphthalene, naphthalene DW(R/NR): benzene, sec-butylbenzene, ethylbenzene, n-propylbenzene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB, xylenes RIASLs(R/NR): benzene, ethylbenzene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB Csat: 1,2,3-TMB, 1,2,4-TMB
	Groundwater: 5.0-10.0	DW(R): n-propylbenzene DW(R/NR): benzene, ethylbenzene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB GSI: ethylbenzene, isopropyl benzene, 2-methylnaphthalene, naphthalene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5-TMB RIASLs(R/NR): benzene, 1,2,4-TMB, 1,3,5-TMB

R – Residential

DWP – Drinking Water Protection

GSIP – Groundwater Surface Water Interface Protection

VSI – Ambient Air Volatile Soil Inhalation

Csat – Soil Saturation Concentration Screening Levels

MTBE – Methyl-tert-butyl ether

NR – Nonresidential

DW – Drinking Water

GSI – Groundwater Surface Water Interface

DC – Direct Contact

2-M – 2-methylnaphthalene

TMB - Trimethylbenzene

2.2 Summary of Analytical Results (Current Site Investigation)

The soil and groundwater sample locations and analytical summaries from PM's February 2020 site investigation are included on Figure 3 and in Tables 1 and 2.

Summary of Soil and Groundwater Analytical Results

Location and Depth (feet bgs)	Sample Depth/ Screened Interval [DTW] (feet bgs)	Analysis	Compounds Exceeding the Part 213 RBSLs/Screening Levels
SB-1 (20.0)	Soil: 1.0-2.0 and 8.0-9.0	VOCs, PNAs, PCBs, and metals	None
SB/TMW-2 (15.0)	Soil: 1.0-2.0	VOCs, PNAs, PCBs, and metals	None
	Groundwater: 1.25-6.25		None
SB-3 (15.0)	Soil: 2.0-3.0 and 8.0-9.0	VOCs, PNAs, PCBs, and metals	None

2.3 Subject Property Site Status

Concentrations of target analytes were identified in the soil and groundwater samples collected from the subject property during the current and previous site investigations above the Part 213 Residential and Nonresidential DWP/DW, GSIP/GSI, VSI, and DC RBSLs and the Csat and RIASL screening levels. Based on the identified exceedances of the Part 213 RBSLs and the open LUST status, the subject property meets the definition of a "Site" and a "Property" in accordance with Part 213 of P.A. 451, as amended, and the rules promulgated thereunder.

3.0 PROPERTY INFORMATION

3.1 Legal Description of Subject Property

A copy of assessing information with the legal description for the subject property is included in Appendix E.

3.2 Survey Map of Subject Property

A map of the subject property that depicts the property/parcel boundaries is included as Figure 2.

3.3 Subject Location and Analytical Summary Maps

Figures 2 and 3 provide scaled maps of the subject property with site structure. The sample locations and a summary of the soil and groundwater analytical results from PM's February 2020 site investigation are included on Figure 3. The soil and groundwater sample locations from ECT's 2010 and Compliance Inc. 2015 site investigations are included on ECT's Figure 2A and 2B and Compliance Inc.'s Figure 2.

3.4 Subject Property Location Map

Figure 1 provides a scaled area map depicting the subject property location in relation to the surrounding area. Figure 2 provides a scaled map of the subject property with site and utility features.

3.5 Subject Property Address

As indicated in Section 1.0, the subject property is located at 22145 Farmington Road, Farmington, Oakland County, County, Michigan (Figures 1 and 2).

3.6 Subject Spatial Data

As depicted in Figure 1, the subject property is located in Township three north (T.01N), Range eleven east (R.09E), Section 28, in Farmington, Oakland County, Michigan.

According to the EGLE GeoWebFace Website, the subject property is located at latitude 42.45534 north and a longitude of -83.37641 west.

4.0 SITE STATUS OF SUBJECT PROPERTY

As indicated in Section 2.3 based upon documented soil and groundwater exceedances of the Part 213 Residential and Nonresidential DWP/DW, GSIP/GSI, VSI, and DC RBSLs and Csat and RIASL screening levels and the open LUST status, the subject property is a "Site" and a "Property" as defined under Part 213 of P.A. 451, as amended, and the rules promulgated thereunder.

4.1 Summary Data Tables

The soil and groundwater analytical results for the samples collected during PM's February 2020 site investigation are summarized on Tables 1 and 2. The soil and groundwater analytical results for samples collected during the previous site investigations are included in Tables 3 and 4 and/or included within Appendix B.

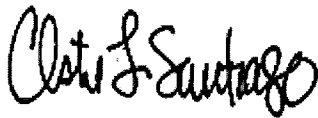
4.2 Laboratory Reports and Chain of Custody Documentation

The laboratory analytical reports and associated laboratory chain of custody documentation for the samples collected during PM's February 2020 site investigation are included as Appendix D. The laboratory analytical reports for the previous site investigations are on file with EGLE in the previously submitted reports.

5.0 IDENTIFICATION OF BEA AUTHOR

This BEA was conducted on March 13, 2019 by Mr. Jacob Bloom, Staff Consultant, and reviewed by Ms. Christie Santiago, Senior Project Engineer, PM Environmental, Inc., which is prior to or within 45 days of initial operation. Qualification statements are provided as Appendix F.

I declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professionals* as defined in §312.10 of 40 CFR 312 and 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 all appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.



Christie Santiago, Q.C.
Senior Project Engineer

6.0 AAI REPORT OR ASTM PHASE I ESA

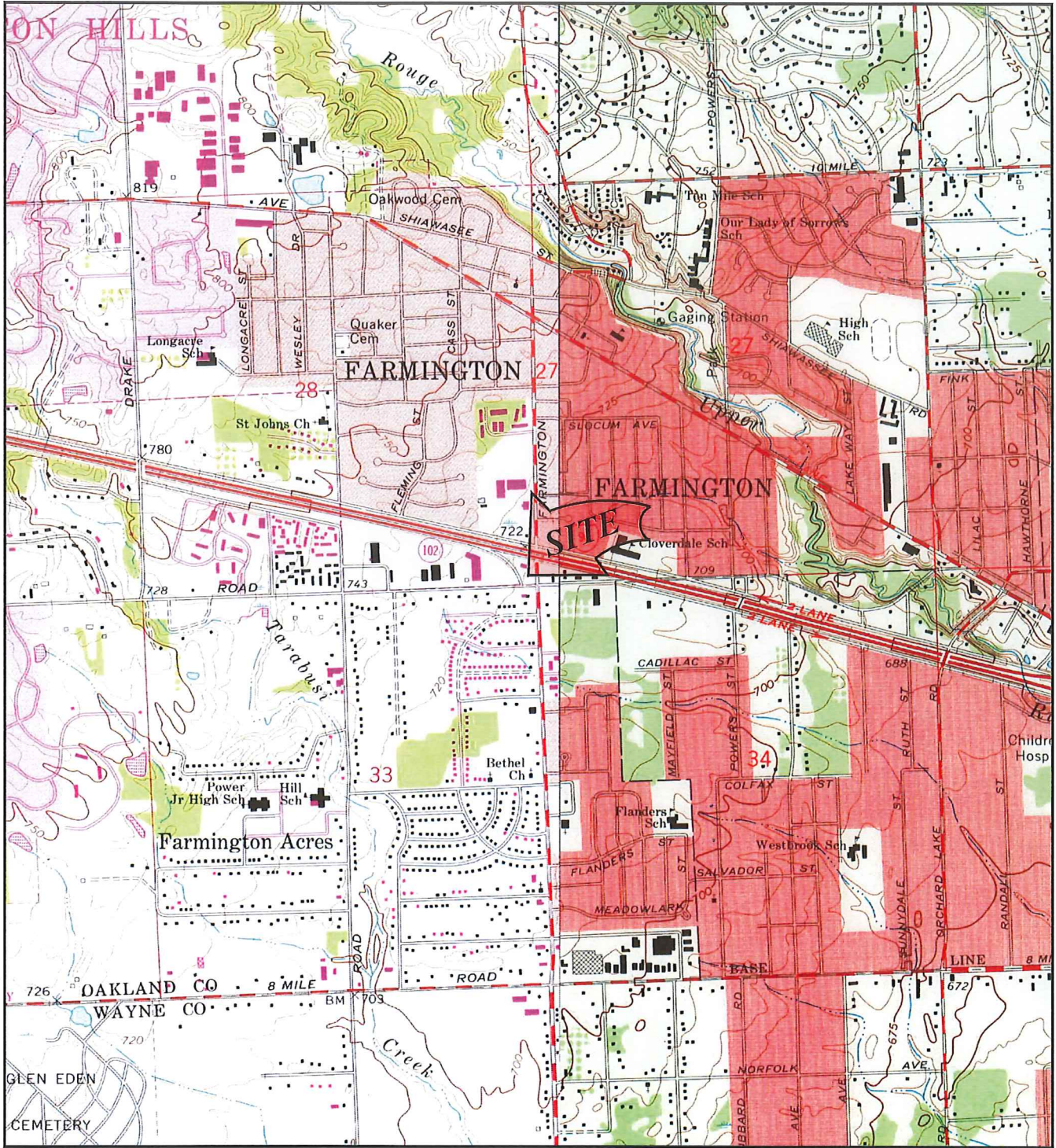
As indicated in Section 1.3, PM performed a Phase I ESA of the subject property dated January 31, 2020, in conformance with the scope and limitations of ASTM Practice E 1527-13 for the subject property located at 22145 Farmington Road, Farmington, Oakland County, Michigan. The scope of the Phase I ESA included consideration of hazardous substances as defined in Section 20101(1)(x) of P.A 451 of 1994, as amended, and constituted the performance of an All Appropriate Inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

A copy of PM's January 2020 Phase I ESA is included in Appendix A.

7.0 REFERENCES

- Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM, ASTM Designation E 1527-13, Published November 2013;
- "Part 201 Cleanup Criteria and Part 213 Risk-Based Screening Levels," Revised December 2013 and in accordance with Section 20120a(1);
- EGLE Operational Memorandum No. 2 "Sampling and Analysis," October 22, 2004, Revised July 5, 2007;
- EGLE NAPL Characterization, Remediation, and Management for Petroleum Releases Guidance Document, June 2014;
- EGLE Guidance Document for The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013 (with the exception of the rescinded portions, June 2017) Appendix B.3 and Appendix D;
- EGLE Media-Specific Volatilization to Indoor Air Interim Action Screening Levels (August 2017);
- EGLE Baseline Environmental Assessment Submittal Form EQP 4025 (July 2017);
- Phase I ESA, Phase II ESA, BEA, Environmental Consulting & Technology, Inc., October 11, 2010;
- Statewide Expanded Triage Project Report, Compliance Inc. and EGLE, August 2015; and
- Phase I ESA, PM, January 31, 2020.

Figures



OAKLAND COUNTY

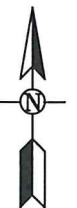
FIGURE 1

PROPERTY VICINITY MAP

UNITED STATES GEOLOGICAL SURVEY, 7.5 MINUTE SERIES

NORTHVILLE, MI QUADRANGLE, 1969. PHOTOREVISED 1973 AND 1980

REDFORD, MI QUADRANGLE, 1968.



PROJ:
GASOLINE DISPENSING STATION
22145 FARMINGTON ROAD
FARMINGTON, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE

0 2,000'

IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

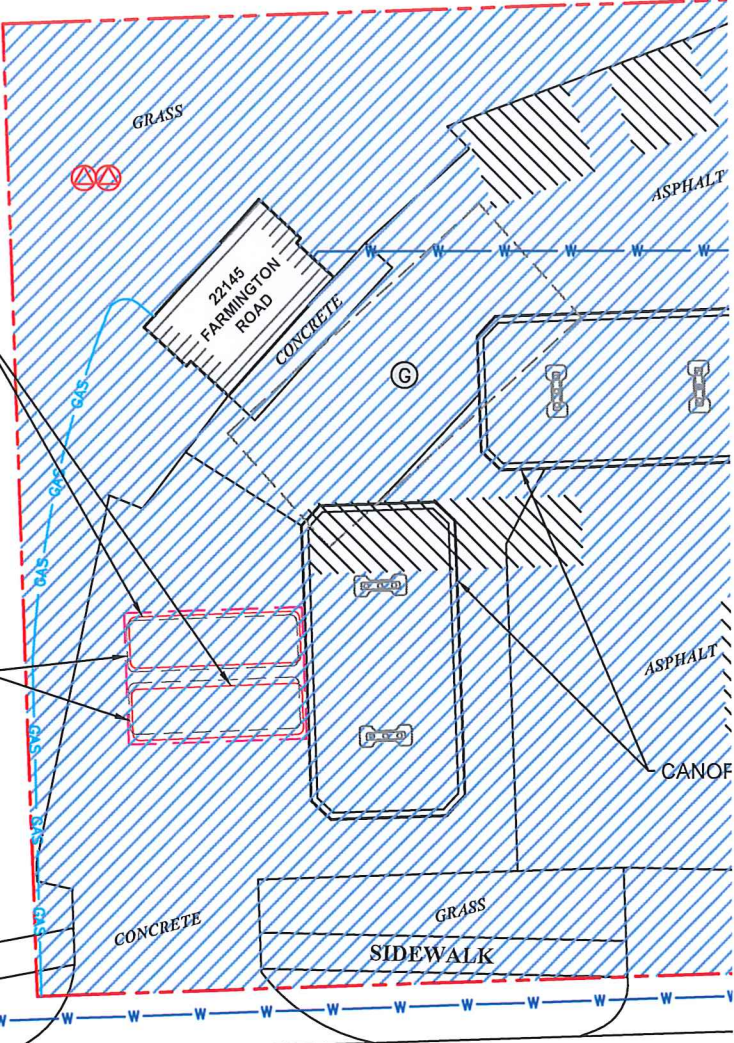
DRN BY:	BP	DATE:	1/29/2020
CHKD BY:	JB	SCALE:	1" = 2,000'
FILE NAME:	01-11841-1-001FOOR00		

22455 FARMINGTON ROAD
ADVANCED AUTO SPORT

(2) CURRENT 10,000-GALLON
GASOLINE UST INSTALLED 1988

(2) FORMER 10,000-GALLON
GASOLINE UST INSTALLED 1988

33500 WEST 9
MILE ROAD
COLONIAL CAR
WASH



WEST 9 MILE ROAD

33443 WEST 9 MILE ROAD
ADVANCED BODYWORK AND
MASSAGE CLINIC

22063 FARMINGTON ROAD
SUNOCO GASOLINE
DISPENSING STATION

SB-2		TMW-2	
2/21/2020		2/21/2020	
1.0 ~ 2.0'		1.25 ~ 6.25' SCREEN	
UNITS	ug/Kg	UNITS	ug/L
VOCs	<MDL	VOCs	<MDL
PNAs	<MDL	PNAs	<MDL
PCBs	<MDL	PCBs	<MDL
Cd	340	Cd	<0.5
Cr	3,560	Cr	<5
Pb	13,900	Pb	<3

SB-1		SB-1	
2/21/2020		2/21/2020	
1.0 ~ 2.0'		8.0 ~ 9.0'	
UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL
PNAs	<MDL	PNAs	<MDL
PCBs	<MDL	PCBs	<MDL
Cd	<200	Cd	<200
Cr	3,020	Cr	4,270
Pb	10,700	Pb	5,390

22455 FARMINGTON ROAD
ADVANCED AUTO SPORT

33500 WEST 9
MILE ROAD
COLONIAL CAR
WASH

(2) CURRENT 10,000-GALLON
GASOLINE UST INSTALLED 1988

(2) FORMER 10,000-GALLON
GASOLINE UST INSTALLED 1988

GRASS

ASPHALT

SB-1

SB-3

SB/TMW-2

ASPHALT

CANOF

CONCRETE

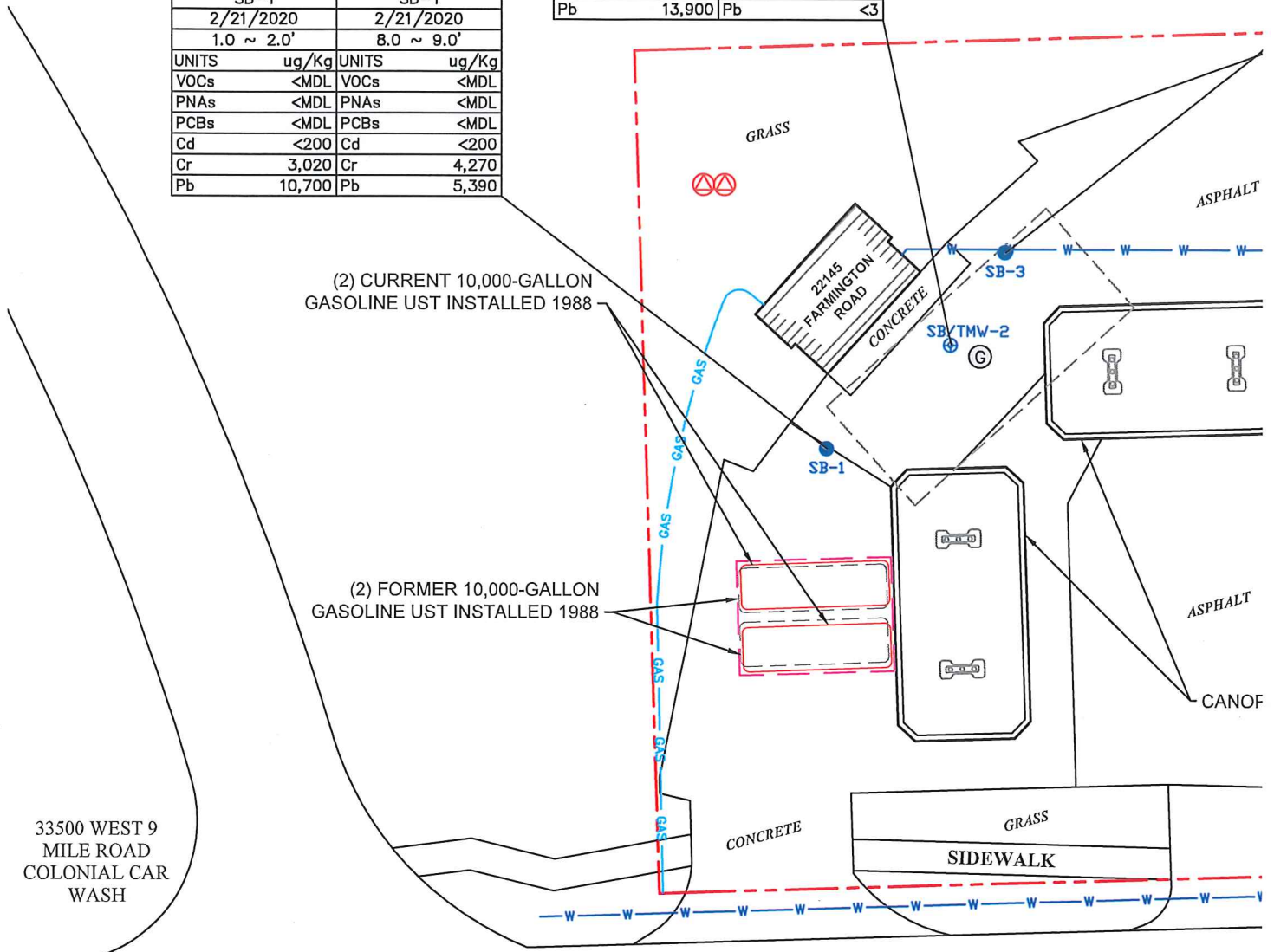
GRASS

SIDEWALK

WEST 9 MILE ROAD

33443 WEST 9 MILE ROAD
ADVANCED BODYWORK AND
MASSAGE CLINIC

22063 FARMINGTON ROAD
SUNOCO GASOLINE
DISPENSING STATION



Tables

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOCs, PNAs, PCBs, AND METALS
22145 FARMINGTON ROAD, FARMINGTON, MICHIGAN
PM PROJECT #01-11841-1-0001

Volatile Organic Compounds (VOCs), Polynuclear Aromatic Hydrocarbons (PNAs), Polychlorinated Biphenyls (PCBs), and Metals (µg/Kg)			VOCs	PNAs	PCBs	Cadmium	Chromium	Lead
Chemical Abstract Service Number (CAS#)			Various	Various	1336363	7440439	16065831	7439921
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs	PNAs	PCBs	Metals		
SB-1	02/21/2020	1.0-2.0	<MDLs	<MDLs	<330	<200	3,020	10,700
SB-1	02/21/2020	8.0-9.0	<MDLs	<MDLs	<330	<200	4,270	5,390
SB-2	02/21/2020	1.0-2.0	<MDLs	<MDLs	<330	340	3,560	13,900
SB-3	02/21/2020	2.0-3.0	<MDLs	<MDLs	<330	<200	2,350	6,150
SB-3	02/21/2020	8.0-9.0	<MDLs	<MDLs	<330	200	4,720	6,400
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 EGLE Media-Specific Volatilization to Indoor Air Interim Action Screening Levels, August 2017								
Residential (µg/Kg)								
Statewide Default Background Levels			NA	NA	NA	1,200	18,000	21,000
Drinking Water Protection (Res DWP)			Various	Various	NLL	6,000	30,000	7.00E+05
Groundwater Surface Water Interface Protection (GSIP)			Various	Various	NLL	4.3E+5 (G,X)	3,300	6.2E+7 (G,X)
Soil Volatilization to Indoor Air Inhalation (Res SVII)			Various	Various	1.2E+03	NLV	NLV	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)			Various	Various	2.40E+05	NLV	NLV	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			Various	Various	7.9E+06	NLV	NLV	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			Various	Various	7.9E+06	NLV	NLV	NLV
Ambient Air Particulate Soil Inhalation (Res PSI)			Various	Various	5.2E+06	1.70E+06	2.60E+05	NA
Direct Contact (Res DC)			Various	Various	(T)	5.50E+05	2.50E+06	4.00E+05
Nonresidential (µg/Kg)								
Drinking Water Protection (Nonres DWP)			Various	Various	NLL	6,000	30,000	7.00E+05
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)			Various	Various	1.6E+07	NLV	NLV	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)			Various	Various	8.10E+05	NLV	NLV	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			Various	Various	2.8E+07	NLV	NLV	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			Various	Various	2.8E+07	NLV	NLV	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)			Various	Various	6.5E+06	2.2E+06	2.40E+05	NA
Direct Contact (Nonres DC)			Various	Various	(T)	2.1E+06	9.20E+06	9.00E+05 (DD)
Screening Levels (µg/Kg)								
Soil Saturation Concentration Screening Levels (Csat)			Various	NA	NA	NA	NA	NA
Residential Soil Recommended Interim Action Screening Level (RIASL)			Various	NA	NL	NL	NL	NL
Nonresidential Soil Recommended Interim Action Screening Level (RIASL)			Various	NA	NL	NL	NL	NL

- Applicable Criterion/RBSL Exceeded
- BOLD** Value Exceeds Applicable Criterion/RBSL
- Value Exceeds Applicable Screening Level
- underline Applicable Screening Level Exceeded
- bgs Below Ground Surface (feet)
- NA Not Applicable
- NL Not Listed
- NLL Not Likely to Leach
- NLV Not Likely to Volatilize
- ID Insufficient Data
- {G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on
355 mg/L CaCO3 Hardness: Station ID 820077, Rouge River at 7 Mile Road, near Redford Township, MI.

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VOCs, PNAs, AND METALS
22145 FARMINGTON ROAD, FARMINGTON, MICHIGAN
PM PROJECT #01-11841-1-0001

Volatile Organic Compounds (VOCs), Polynuclear Aromatic Compounds (PNAs), and Metals (µg/L)				VOCs	PNAs	Cadmium	Chromium	Lead
Chemical Abstract Service Number (CAS#)				Various	Various	7440439	16065831	7439921
Sample ID	Sample Date	Screen Depth (bgs)	Depth to Groundwater (bgs)	VOCs	PNAs	Metals		
TMW-2	02/21/2020	1.25-6.25	2.84	<MDL	<MDL	<0.5	<5	<3
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Groundwater Cleanup Criteria Table 1: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 MDEQ Media-Specific Volatilization to Indoor Air Interim Action Screening Levels, August 2017								
Residential/Nonresidential (µg/L)								
Residential Drinking Water (Res DW)				Various	Various	5.0 (A)	100 (A)	4.0 (L)
Residential Health Based Drinking Water Values				Various	Various	NL	NL	NL
Nonresidential Drinking Water (Nonres DW)				Various	Various	5.0 (A)	100 (A)	4.0 (L)
Nonresidential Health Based Drinking Water Values				Various	Various	NL	NL	NL
Groundwater Surface Water Interface (GSI)				Various	Various	5.7E+0(G,X)	11	4.0E+1(G,X)
Residential Groundwater Volatilization to Indoor Air Inhalation (Res GVII) ¹				Various	Various	NLV	NLV	NLV
Nonresidential Groundwater Volatilization to Indoor Air Inhalation (Nonres GVII) ¹				Various	Various	NLV	NLV	NLV
Volatilization to Indoor Air Screening Levels (µg/L)								
Residential Shallow Groundwater RIASL				Various	Various	NL	NL	NL
Nonresidential Shallow Groundwater RIASL				Various	Various	NL	NL	NL
Residential Groundwater RIASL				Various	Various	NL	NL	NL
Residential Groundwater TSRIASL				Various	Various	NL	NL	NL
Nonresidential Groundwater RIASL				Various	Various	NL	NL	NL
Nonresidential Groundwater RIASL ₁₂				Various	Various	ID	ID	ID
Nonresidential Groundwater TSRIASL ₁₂				Various	Various	ID	ID	ID
Water Solubility				Various	Various	NA	NA	NA
Flammability and Explosivity Screening Level				Various	Various	ID	ID	ID

- Applicable Criteria/RBSL Exceeded
- BOLD** Value Exceeds Applicable Criteria
- bgs Below Ground Surface (feet)
- <MDL Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)
- ¹ Tier 1 GVII Criteria based on 3 meter (or greater) groundwater depth
- NA Not Applicable
- NL Not Listed
- NLV Not Likely to Volatilize
- ID Insufficient Data
- RIASL Recommended Interim Action Screening Levels
- TSRIASL Time Sensitive Recommended Interim Action Screening Levels
- RIASL₁₂ Nonresidential Recommended Interim Action Screening Levels appropriate for exposures less than 12 hours
- TSRIASL₁₂ Time Sensitive Recommended Interim Action Screening Levels appropriate for exposures less than 12 hours for structures not formerly residential homes.
- {G} Metal GISIP Criteria for Surface Water Not Protected for Drinking Water Use based on
355 mg/L CaCO₃ Hardness: Station ID 820077, Rouge River at 7 Mile Road, near Redford Township, MI.

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS FROM COMPLIANCE INC. AND EGL'S 2015 SITE INVESTIGATION
VOCs
22145 FARMINGTON ROAD, FARMINGTON, MICHIGAN
PM PROJECT #01-11841-1-0001

Volatile Organic Compounds (VOCs) (µg/Kg)			Benzene	n-Butylbenzene	sec-Butylbenzene	Ethyl benzene	Isopropyl benzene	p-Isopropyltoluene	Methyl-tert-butyl ether (MTBE)	2-Methylnaphthalene	Naphthalene	n-Propylbenzene	Toluene
Chemical Abstract Service Number (CAS#)			71432	104518	135988	100414	98828	99876	1634044	91576	91203	103551	108883
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs										
B-1	7/1/2015	15.0	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
B-1 Dup	7/1/2015	15.0	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
B-2	7/1/2015	4.0	2,400	<MDL	1,100	18,000	22,000	670	<MDL	9,800	8,200	8,000	1,500
B-3	7/1/2015	6.0	5,000	<MDL	220	4,100	430	80	<MDL	4,900	4,000	1,800	330
B-3	7/1/2015	4.0	10,000	<MDL	1,100	18,000	1,900	600	<MDL	17,000	11,000	8,100	55,000
B-4	7/1/2015	6.0	<MDL	1,800	580	1,100	<MDL	640	<MDL	6,600	3,600	3,700	<MDL
B-5	7/1/2015	6.0	12,000	290	91	1,100	690	<MDL	100	550	2,500	2,100	150
B-6	7/1/2015	6.0	1,300	730	220	2,500	320	<MDL	<MDL	3,400	1,900	1,500	<MDL
B-6	7/1/2015	4.0	2,100	<MDL	260	4,600	480	90	<MDL	2,400	2,300	2,000	<MDL
B-7	7/1/2015	6.0	1,600	3,000	800	2,600	1,200	<MDL	<MDL	16,000	7,000	5,700	<MDL
B-8	7/1/2015	4.0	1,000	5,900	1,600	9,600	2,200	410	<MDL	14,000	8,200	9,600	<MDL
B-8	7/1/2015	6.0	1,700	1,300	340	1,600	780	<MDL	<MDL	8,300	6,500	3,500	<MDL
B-9	7/1/2015	16.0	<MDL	22,000	6,500	36,000	7,700	<MDL	<MDL	59,000	26,000	33,000	<MDL
B-9	7/1/2015	2.0	1,900	<MDL	11,000	120,000	18,000	4,800	<MDL	86,000	80,000	68,000	850
B-10	7/1/2015	6.0	<MDL	730	360	<MDL	110	<MDL	<MDL	810	<MDL	530	<MDL
B-10	7/1/2015	10.0	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	110	<MDL	<MDL	<MDL	<MDL

Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, De
EGL Media-Specific Volatilization to Indoor Air Interim Action Screening Levels, August 2017

	Residential (µg/Kg)												
	100	1,600	1,600	1,500	91,000	NL	800	57,000	35,000	1,600	16,000		
Drinking Water Protection (Res DWP)	100	1,600	1,600	1,500	91,000	NL	800	57,000	35,000	1,600	16,000		
Groundwater Surface Water Interface Protection (GSIP)	4,000 (X)	ID	ID	360	3,200	NL	1.40E+05 (X)	4,200	730	ID	5,400		
Soil Volatilization to Indoor Air Inhalation (Res SVII)	1,600	ID	ID	87,000	4.0E+05 (C)	NL	9.9E+06 (C)	2.70E+06	2.50E+05	ID	3.3E+05 (C)	2.6E	
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	13,000	ID	ID	7.20E+05	1.70E+06	NL	2.50E+07	1.50E+06	3.00E+05	ID	2.80E+06	1.6	
Ambient Air Finite VSI for 5 Meter Source Thickness	34,000	ID	ID	1.00E+06	1.70E+06	NL	3.90E+07	1.50E+06	3.00E+05	ID	5.10E+06	3.1	
Ambient Air Finite VSI for 2 Meter Source Thickness	79,000	ID	ID	2.20E+06	2.80E+06	NL	8.70E+07	1.50E+06	3.00E+05	ID	1.20E+07	3.6	
Ambient Air Particulate Soil Inhalation (Res PSI)	3.80E+08	2.00E+09	4.00E+08	1.00E+10	5.80E+09	NL	2.00E+11	6.70E+08	2.00E+08	1.30E+09	2.70E+10	8.7	
Direct Contact (Res DC)	1.80E+05	2.50E+06	2.50E+06	2.2E+07 (C)	2.5E+07 (C)	NL	1.50E+06	8.10E+06	1.60E+07	2.50E+06	5.0E+07 (C)	3.2E	
	Nonresidential (µg/Kg)												
Drinking Water Protection (Nonres DWP)	100	4,600	4,600	1,500	2.60E+05	NL	800	1.70E+05	1.00E+05	4,600	16,000		
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	8,400	ID	ID	4.6E+05 (C)	7.3E+05 (C)	NL	1.8E+07 (C)	4.90E+06	4.70E+05	ID	6.1E+05 (C)	4.8E	
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	45,000	ID	ID	2.40E+06	2.00E+06	NL	3.00E+07	1.80E+06	3.50E+05	ID	3.30E+06	1.9	
Ambient Air Finite VSI for 5 Meter Source Thickness	99,000	ID	ID	3.10E+06	2.00E+06	NL	4.10E+07	1.80E+06	3.50E+05	ID	3.60E+07	4.6	
Ambient Air Finite VSI for 2 Meter Source Thickness	2.30E+05	ID	ID	6.50E+06	3.00E+06	NL	8.90E+07	1.80E+06	3.50E+05	ID	3.60E+07	4.6	
Ambient Air Particulate Soil Inhalation (Nonres PSI)	4.70E+08	ID	ID	1.30E+10	2.60E+09	NL	8.80E+10	2.90E+08	8.80E+07	5.90E+08	1.20E+10	3.6	
Direct Contact (Nonres DC)	8.40E+05 (C)	8.00E+06	8.00E+06	7.1E+07 (C)	8.0E+07 (C)	NL	7.1E+06 (C)	2.60E+07	5.20E+07	8.00E+06	1.6E+08 (C)	1.0E	
	Screening Levels (µg/Kg)												
Soil Saturation Concentration Screening Levels (Csat)	4.00E+05	1.00E+07	1.00E+07	1.40E+05	3.90E+05	NL	5.90E+06	NA	NA	1.00E+07	2.50E+05	9	
Nonresidential Soil Recommended Interim Action Screening Level (RIASL)	12	NL	NL	88	NL	NL	5.20E+02	NL	NL	NL	1.60E+04	2	

Applicable Criterion/RBSL Exceeded
BOLD Value Exceeds Applicable Criterion/RBSL
Value Exceeds Applicable Screening Level
underline Applicable Screening Level Exceeded
bgs Below Ground Surface (feet)
100 (M) Other Alpha notation, please refer to MDEQ Footnotes R 299.49 Footnotes for Generic Cleanup Criteria Tables, December 30, 2013
NA Not Applicable
NL Not Listed
ID Insufficient Data

T.
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FF

22145 FARMINGTON RO
PME PROJEC

Volatile Organic Compounds (VOCs) (µg/L)				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene
Chemical Abstract Service Number (CAS#)				67641	71432	104518	135988
Sample ID	Sample Date	Screen Depth (bgs)	Depth to Groundwater (bgs)				
B-1	7/1/2015	5.0-10.0	2.10	<MDL	<MDL	<MDL	<MDL
B-1 Dup	7/1/2015		2.10	60	<MDL	<MDL	<MDL
B-2	7/1/2015	5.0-10.0	1.50	<MDL	3,500	<MDL	<MDL
B-3	7/1/2015	0.0-5.0	2.56	<MDL	14,000	<MDL	<MDL
B-9	7/1/2015	5.0-10.0	3.5	<MDL	18	53	18
B-10	7/1/2015	5.0-10.0	1.2	<MDL	<MDL	8.2	4.9

Generic Groundwater Cleanup Criteria Table 1: Residential and Non-Residential Part 201 Generic Groundwater Cleanup Criteria
EGL Media-Specific Volatilization to Indoor Air
MDHHS Recommended Action and Trigger

	Residential/Non-Residential			
Residential Drinking Water (Res DW)	730	5.0 (A)	80	80
Residential Health Based Drinking Water Values	NL	NL	NL	NL
Nonresidential Drinking Water (Nonres DW)	2,100	5.0 (A)	230	230
Nonresidential Health Based Drinking Water Values	NL	NL	NL	NL
Groundwater Surface Water Interface (GSI)	1,700	200 (X)	ID	ID
Residential Groundwater Volatilization to Indoor Air Inhalation (Res GVII) ¹	1.0E+9 (D,S)	5,600	ID	ID
Nonresidential Groundwater Volatilization to Indoor Air Inhalation (Nonres GVII) ¹	1.0E+9 (D,S)	35,000	ID	ID
	Volatilization to Indoor Air			
Residential Groundwater RIASL	1.20E+07	14	NL	NL
Residential Groundwater TSRIASL	1.20E+07	82	NL	NL
Nonresidential Groundwater RIASL	4.70E+07	120	NL	NL
Nonresidential Groundwater RIASL ₁₂	4.70E+07	230	NL	NL
Nonresidential Groundwater TSRIASL ₁₂	1.60E+08	2,600	NL	NL
Water Solubility	1.00E+09	1.75E+06	NA	NA
Flammability and Explosivity Screening Level	1.50E+07	68,000	ID	ID

- Applicable Criteria/RBSL Exceeded
- BOLD** Value Exceeds Applicable Criteria
- Value Exceeds Applicable Screening Level
- underline Applicable Screening Level Exceeded
- bgs Below Ground Surface (feet)
- <MDL Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)
- ¹ Tier 1 GVII Criteria based on 3 meter (or greater) groundwater depth
- * 1,2,3-Trimethylbenzene RBSLs based on the more restrictive of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene
- NA Not Applicable
- NL Not Listed
- ID Insufficient Data
- RIASL Recommended Interim Action Screening Levels
- TSRIASL Time Sensitive Recommended Interim Action Screening Levels
- RIASL₁₂ Nonresidential Recommended Interim Action Screening Levels appropriate for exposures less than 12 hours
- TSRIASL₁₂ Time Sensitive Recommended Interim Action Screening Levels appropriate for exposures less than 12 hours for str
- 5.0 (A) Other Alpha notation, please refer to MDEQ Footnotes R 299.49 Footnotes for Generic Cleanup Criteria Tables, D

Tables

Table 1: Eligible Activities Cost Estimates

Item/Activity	Total Request	Local Only Eligible Activities	EGLE Act 381 Eligible Activities
Pre-Approved Activities			
Phase I ESA	\$ 2,650		\$ 2,650
Phase II ESA/BEA/DDCC	\$ 7,275		\$ 7,275
Due Care Planning - Vapor Barrier Design	\$ 9,000		\$ 9,000
Hazardous Materials Survey	\$ 1,500		\$ 1,500
Pre-approved Activities Sub-Total	\$ 20,425	\$ -	\$ 20,425
Department Specific Activities			
Vapor Barrier Installation	\$ 38,000	\$ 38,000	
Contaminated Soil Transport and Disposal	\$ 40,441	\$ 40,441	
Groundwater Management	\$ 21,750	\$ 21,750	
Utility Corridor Migration Barriers	\$ 7,500	\$ 7,500	
Oversight, Sampling and Reporting by Environmental Professional	\$ 97,250	\$ 97,250	
Department Specific Activities Sub-Total	\$ 204,941	\$ 204,941	\$ -
Demolition			
Building and Site Demolition Activities	\$ 32,500	\$ 32,500	
Demolition Sub-Total	\$ 32,500	\$ 32,500	\$ -
Preparation of Brownfield Plan and Act 381 Workplan			
Brownfield Plan Preparation and Implementation	\$ 15,000	\$ 15,000	
Brownfield Plan and Act 381 Workplan Sub-Total	\$ 15,000	\$ 15,000	
Eligible Activities Sub-Total	\$ 272,866	\$ 252,441	\$ 20,425
15% Contingency*	\$ 35,616	\$ 35,616	\$ -
Developer Eligible Reimbursement Total	\$ 308,482	\$ 288,057	\$ 20,425
Administrative Fee	\$ 75,000		
State Brownfield Fund	\$ 1,962		
Total	\$ 385,444	\$ 288,057	\$ 20,425

*15% Contingency excludes preparation of Brownfield Plan/381 Work Plan and Pre-Approved Activities

Estimated Taxable Value (TV) Increase Rate: 1% per year

Plan Year	0	1	2	
Calendar Year	2020	2021	2022	
*Base Taxable Value	\$ 125,320	\$ 125,320	\$ 125,320	\$
Estimated New TV		\$ 450,000	\$ 454,500	\$
Incremental Difference (New TV - Base TV)		\$ 324,680	\$ 329,180	\$

School Capture	Millage Rate							
State Education Tax (SET)	6.0000	\$	752	\$	1,948	\$	1,975	\$
School Operating Tax	18.0000	\$	2,256	\$	5,844	\$	5,925	\$
School Total	24.0000	\$	3,008	\$	7,792	\$	7,900	\$

Local Capture	Millage Rate							
County Operating	4.0200	\$	504	\$	1,305	\$	1,323	\$
OIS Alloacted	0.1918	\$	24	\$	62	\$	63	\$
OIS Voted	3.0362	\$	380	\$	986	\$	999	\$
OCC Voted	1.5184	\$	190	\$	493	\$	500	\$
City Operating	14.0000	\$	1,754	\$	4,546	\$	4,609	\$
City 2018 (CAP)	2.0000	\$	251	\$	649	\$	658	\$
City 2018 (OP)	0.9115	\$	114	\$	296	\$	300	\$
City Streets	1.4444	\$	181	\$	469	\$	475	\$
Library	1.5209	\$	191	\$	494	\$	501	\$
County Pk & Rec	0.2310	\$	29	\$	75	\$	76	\$
HCMA	0.2104	\$	26	\$	68	\$	69	\$
OCPTA	0.9851	\$	123	\$	320	\$	324	\$
Local Total	30.0697	\$	3,768	\$	9,763	\$	9,898	\$

Non-Capturable Millages	Millage Rate							
Zoo Authority (County)	0.0965	\$	12	\$	31	\$	32	\$
Art Institute (County)	0.1913	\$	24	\$	62	\$	63	\$
School Debt	3.2000	\$	401	\$	1,039	\$	1,053	\$
Total Non-Capturable Taxes	3.4878	\$	437	\$	1,132	\$	1,148	\$

Total Capturable Millages 54.0697

Total Tax Increment Revenue (TIR) Available for Capture \$ 17,555 \$ 17,799 \$

Estimated Taxable Value (TV) Increase Rate:

	Plan Year	11	12	13
	Calendar Year	2031	2032	2033
*Base Taxable Value	\$	125,320	\$ 125,320	\$ 125,320
Estimated New TV	\$	497,080	\$ 502,051	\$ 507,071
Incremental Difference (New TV - Base TV)	\$	371,760	\$ 376,731	\$ 381,751

School Capture	Millage Rate				
State Education Tax (SET)	6.0000	\$	2,231	\$	2,260
School Operating Tax	18.0000	\$	6,692	\$	6,781
School Total	24.0000	\$	8,922	\$	9,042

Local Capture	Millage Rate				
County Operating	4.0200	\$	1,494	\$	1,514
OIS Alloacted	0.1918	\$	71	\$	72
OIS Voted	3.0362	\$	1,129	\$	1,144
OCC Voted	1.5184	\$	564	\$	572
City Operating	14.0000	\$	5,205	\$	5,274
City 2018 (CAP)	2.0000	\$	744	\$	753
City 2018 (OP)	0.9115	\$	339	\$	343
City Streets	1.4444	\$	537	\$	544
Library	1.5209	\$	565	\$	573
County Pk & Rec	0.2310	\$	86	\$	87
HCMA	0.2104	\$	78	\$	79
OCPTA	0.9851	\$	366	\$	371
Local Total	30.0697	\$	11,179	\$	11,328

Non-Capturable Millages	Millage Rate				
Zoo Authority (County)	0.0965	\$	36	\$	36
Art Institute (County)	0.1913	\$	71	\$	72
School Debt	3.2000	\$	1,190	\$	1,206
Total Non-Capturable Taxes	3.4878	\$	1,297	\$	1,314

Total Capturable Millages 54.0697

Total Tax Increment Revenue (TIR) Available for Capture \$ 20,101 \$ 20,370 \$ 20,641

Estimated Taxable Value (TV) Increase Rate:

	Plan Year	22	23	24
	Calendar Year	2042	2043	2044
*Base Taxable Value	\$	125,320	\$ 125,320	\$ 125,320
Estimated New TV	\$	554,576	\$ 560,122	\$ 565,723
Incremental Difference (New TV - Base TV)	\$	429,256	\$ 434,802	\$ 440,403

School Capture	Millage Rate				
State Education Tax (SET)	6.0000	\$	2,576	\$	2,642
School Operating Tax	18.0000	\$	7,727	\$	7,927
School Total	24.0000	\$	10,302	\$	10,570

Local Capture	Millage Rate				
County Operating	4.0200	\$	1,726	\$	1,770
OIS Alloacted	0.1918	\$	82	\$	84
OIS Voted	3.0362	\$	1,303	\$	1,337
OCC Voted	1.5184	\$	652	\$	669
City Operating	14.0000	\$	6,010	\$	6,166
City 2018 (CAP)	2.0000	\$	859	\$	881
City 2018 (OP)	0.9115	\$	391	\$	401
City Streets	1.4444	\$	620	\$	636
Library	1.5209	\$	653	\$	670
County Pk & Rec	0.2310	\$	99	\$	102
HCMA	0.2104	\$	90	\$	93
OCPTA	0.9851	\$	423	\$	434
Local Total	30.0697	\$	12,908	\$	13,243

Non-Capturable Millages	Millage Rate				
Zoo Authority (County)	0.0965	\$	41	\$	42
Art Institute (County)	0.1913	\$	82	\$	84
School Debt	3.2000	\$	1,374	\$	1,409
Total Non-Capturable Taxes	3.4878	\$	1,497	\$	1,536

Total Capturable Millages 54.0697

Total Tax Increment Revenue (TIR) Available for Capture \$ 23,210 \$ 23,510 \$ 23,812

Developer Maximum Reimbursement	Total Proportionality	School & Local Taxes	Local-Only Taxes	Total
State	44.39%	\$ 9,066	\$ -	\$ 9,066
Local	55.61%	\$ 282,637	\$ -	\$ 282,637
TOTAL		\$ 291,703		\$ 291,703
EGLE	6.62%	\$ 20,425	\$ -	\$ 20,425
Local	93.38%		\$ 288,057	\$ 288,057

	1 2021	2 2022	3 2023	4 2024	5 2025
Total State Incremental Revenue	\$ 7,792	\$ 7,900			
State Brownfield Revolving Fund (50% of SET)	\$ 974	\$ 988			
State TIR Available for Reimbursement	\$ 6,818	\$ 6,913			
Total Local Incremental Revenue	\$ 9,763	\$ 9,898	\$ 10,035	\$ 10,173	\$ 10,311
BRA Administrative Fee	\$ 3,000	\$ 3,000	\$ 2,000	\$ 2,000	\$ 2,500
Local TIR Available for Reimbursement	\$ 6,763	\$ 6,898	\$ 8,035	\$ 8,173	\$ 7,811
Total State & Local TIR Available	\$ 13,581	\$ 13,811	\$ 8,035	\$ 8,173	\$ 7,811

	Beginning Balance	1 2021	2 2022	3 2023	4 2024	5 2025
DEVELOPER						
DEVELOPER Reimbursement Balance	\$ 308,482	\$ 294,901	\$ 285,755	\$ 277,720	\$ 269,547	\$ 261,731
Local Costs	\$ 288,057					
Local Tax Reimbursement		\$ 6,315	\$ 6,442	\$ 7,503	\$ 7,632	\$ 7,291
Total MSF Reimbursement Balance		\$ 281,742	\$ 275,300	\$ 267,797	\$ 260,165	\$ 252,871
EGLE Pre-approved Costs	\$ 20,425					
State Tax Reimbursement		\$ 6,818	\$ 2,248			
Local Tax Reimbursement		\$ 448	\$ 457	\$ 532	\$ 541	\$ 511
Total EGLE Reimbursement Balance		\$ 13,159	\$ 10,454	\$ 9,922	\$ 9,381	\$ 8,861
Total Annual Developer Reimbursement		\$ 13,581	\$ 9,146	\$ 8,035	\$ 8,173	\$ 7,811

	16	17	18	19	20	21
	2036	2037	2038	2039	2040	2041
Total State Incremental Revenue						
State Brownfield Revolving Fund (50% of SET)						
State TIR Available for Reimbursement						
Total Local Incremental Revenue	\$ 11,941	\$ 12,098	\$ 12,257	\$ 12,417	\$ 12,579	\$ 12,743
BRA Administrative Fee	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Local TIR Available for Reimbursement	\$ 9,441	\$ 9,598	\$ 9,757	\$ 9,917	\$ 10,079	\$ 10,243
Total State & Local TIR Available	\$ 9,441	\$ 9,598	\$ 9,757	\$ 9,917	\$ 10,079	\$ 10,243

DEVELOPER

<i>DEVELOPER Reimbursement Balance</i>	\$ 166,187	\$ 156,589	\$ 146,832	\$ 136,915	\$ 126,836	\$ 116,593
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Local Costs						
Local Tax Reimbursement	\$ 8,816	\$ 8,963	\$ 9,111	\$ 9,261	\$ 9,480	\$ 10,243
Total MSF Reimbursement Balance	\$ 163,649	\$ 154,687	\$ 145,576	\$ 136,315	\$ 126,836	\$ 116,593
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EGLE Pre-approved Costs						
State Tax Reimbursement						
Local Tax Reimbursement	\$ 625	\$ 636	\$ 646	\$ 657	\$ 599	
Total EGLE Reimbursement Balance	\$ 2,538	\$ 1,902	\$ 1,256	\$ 599	\$ -	
Total Annual Developer Reimbursement	\$ 9,441	\$ 9,598	\$ 9,757	\$ 9,917	\$ 10,079	\$ 10,243