CITY of NOVI CITY COUNCIL

Agenda Item 2
February 26, 2018

SUBJECT: Approval and adoption of:

(A) Resolution of Understanding authorizing the Oakland County Brownfield Redevelopment Authority (OCBRA) to undertake review of a Brownfield Plan proposal for the Villas at Stonebrook Development, 26700 Wixom Road, and to collect various fees in connection with the proposal;

(B) Resolution Concurring in the Provisions of a Brownfield Plan adopted by the OCBRA utilizing tax increment financing for a period of five years ending no later than 2025.

SUBMITTING DEPARTMENT: City Manager's

CITY MANAGER APPROVAL:

BACKGROUND INFORMATION:

Earlier in the agenda, City Council considered a tentative, request of Pulte Homes of Michigan for a Planned Suburban Low-Rise (PSLR) Overlay Development Agreement Application and Concept Plan for the Villas at Stonebrook at 26700 Wixom Road. The site is currently home to the former Profile Steel operation. Pulte Homes plans to redevelop the property with 43 duplex units (86 units in total). The development will be "age-targeted" ranch-style homes. The site requires some environmental clean up, and Pulte has engaged PM Environmental to prepare a Brownfield Redevelopment Plan. Pulte Homes/PM Environmental went before the Oakland County's Brownfield Redevelopment Authority (OCBRA) on January 18th. The OCBRA approved the Plan unanimously on the condition that the City of Novi is in support.

The OCBRA was established by the County Board of Commissioners in 2001 to assist in brownfield redevelopment in communities that have not established their own such authorities. The County will not generally proceed without knowing that the municipality in which the property is located is in support of the project. The next step in the County's process is for the Plan to be approved by the Oakland County Board of Commissioners, after notice and a public hearing as provided by statute. The Board, however, will not process the Plan until it gets a more formal indication of the City's support. It therefore requires the City to adopt a form of resolution first indicating that the City wants the County to undertake the process and acknowledging that the County will require certain fees for doing so (the Resolution of Understanding) and then indicating that the City Council has read the Brownfield Plan and supports it (the Resolution Concurring in the Provisions of a Brownfield Plan). These are the two resolutions that have been prepared for consideration by the Council and attached for its review, along with the Brownfield Plan, which is also attached.

Staff believes that this project merits consideration. The site in question fits the mold for a Brownfield site, given its excellent location and high potential for growth, but has continuously been passed over due to its status as an environmental facility. The preliminary estimates to remediate the site, not including administrative fees and revolving fund deposits, is just under $1 million. Taxes associated with the Novi school district will be unaffected. The City of Novi will benefit from the increase in tax base created by development on, to date, an undevelopable site.

The City Council last approved a Brownfield Plan back in 2016 for the Dunhill Park at the northwest corner of Beck and 8 Mile roads. Approval of the enclosed resolution is contingent on Pulte Homes receiving approval on their PSLR at a later date.

RECOMMENDED ACTION: Approval and adoption (subject to PSLR Concept Plan and Agreement approval and site plan approval) of:
(A) Resolution of Understanding authorizing the Oakland County Brownfield Redevelopment Authority (OCBRA) to undertake review of a Brownfield Plan proposal for the Villas at Stonebrook Development, 26700 Wixom Road, and to collect various fees in connection with the proposal;
(B) Resolution Concurring in the Provisions of a Brownfield Plan adopted by the OCBRA utilizing tax increment financing for a period of five years ending no later than 2025.

CITY OF NOVI

COUNTY OF OAKLAND, MICHIGAN

RESOLUTION OF UNDERSTANDING AUTHORIZING OAKLAND COUNTY BROWNFIELD REDEVELOPMENT AUTHORITY (OCBRA) TO UNDERTAKE BROWNFIELD PLAN REVIEW AND COLLECT FEES THEREFOR.

Minutes of a Meeting of the City Council of the City of Novi, County of Oakland, Michigan, held in the City Hall of said City on February 26, 2018, at ____o'clock P.M. Prevailing Eastern Time.

PRESENT:

Councilmembers_____

ABSENT:

Councilmembers_____

The following preamble and Resolution were offered by Councilmember _____ and supported by Councilmember _____.

WHEREAS, the City of Novi has been approached by a developer, Pulte Homes, with a request for a Brownfield project in connection with a development known as the Villas at Stonebrook; and

WHEREAS, the City would like the project reviewed and processed by the Oakland County Brownfield Redevelopment Authority; and

WHEREAS, the Oakland County Brownfield Redevelopment Authority (OCBRA) was created by Oakland County pursuant to MCL 125.2651 *et seq.* to assist jurisdictions like the City of Novi, which does not have its own Brownfield Authority; and

WHEREAS, the OCBRA is prepared to assist City of Novi by reviewing the proposed the Villas at Stonebrook project, provided that City of Novi acknowledges certain rights that the OCBRA has, to wit:

- OCBRA intends to collect an administrative fee of $5,000.00 per year for the length of the Brownfield plan; and
- OCBRA will capture and collect an amount of $50,000 from the project that will be placed in the OCBRA revolving loan fund for future remediation projects.

WHEREAS, the City of Novi will have the opportunity to provide public comment on any Brownfield Plan (including the amount of the administrative fee to be collected and the amount that will be captured for the revolving loan fund) before it is finally adopted by the OCBRA and/or the Oakland County Board of Commissioners;

NOW BE IT THEREFORE RESOLVED that City of Novi requests that the OCBRA undertake review of the Villas at Stonebrook Project.

IT IS FURTHER RESOLVED THAT City of Novi acknowledges and understands that OCBRA intends to collect certain administrative fees and certain taxes for its revolving loan fund, which will be specified in detail in any Brownfield Plan before it is finally adopted.

AYES:
NAYS:

RESOLUTION DECLARED ADOPTED.

_____
Dawn Spaulding, Acting City Clerk

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi, County of Oakland, and State of Michigan, at a regular meeting held this 26 day of February, 2018, and that public notice of said meeting was given pursuant to and in full compliance with Act No. 267, Public Acts of Michigan, 1976, and that the minutes of said meeting have been kept and made available to the public as required by said Act.

_____
Dawn Spaulding, Acting City Clerk
City of Novi

CITY OF NOVI

COUNTY OF OAKLAND, MICHIGAN

RESOLUTION CONCURRING WITH THE PROVISIONS OF A BROWNFIELD PLAN ADOPTED BY THE OAKLAND COUNTY BROWNFIELD REDEVELOPMENT AUTHORITY FOR THE VILLAS AT SONEBROOK PROJECT

Minutes of a Meeting of the City Council of the City of Novi, County of Oakland, Michigan, held in the City Hall of said City on February 26, 2018, at ____o'clock P.M. Prevailing Eastern Time.

PRESENT:

Councilmembers_____

ABSENT:

Councilmembers_____

The following preamble and Resolution were offered by Councilmember _____ and supported by Councilmember _____.

WHEREAS, the Oakland County Board of Commissioners, pursuant to and in accordance with the provisions of the Brownfield Redevelopment Financing Act, being Act 381 of the Public Acts of the State of Michigan of 1996, as amended (the "Act"), has established a Brownfield Redevelopment Authority and Board (OCBRA) to facilitate the clean-up and redevelopment of Brownfields within Oakland County's communities; and

WHEREAS, the City of Novi has been informed and believes that the property located at 26700 Wixom Road (the "Property"), in the City of Novi, is an environmental hazard, and a "facility' under state statute; and

WHEREAS, a Brownfield clean up and redevelopment plan (the "Plan") has been prepared to restore environmental and economic viability to this parcel, which such Plan the OCBRA has reviewed and approved; and

WHEREAS, pursuant to OCBRA by-laws, a local committee has been appointed, participated in discussions regarding the proposed Plan and project, reviewed the Plan, and recommends its approval; and

WHEREAS, the OCBRA, pursuant to and in accordance with Section 13 of the Act, shall consider recommending that the Oakland County Board of Commissioners approve the Plan to be carried out within the City of Novi, relating to the redevelopment of the property; and

WHEREAS, the City has reviewed the Plan, and has been provided a reasonable opportunity to express its views and recommendations regarding the Plan in accordance with Sections 13(13) of the Act.

NOW BE IT THEREFORE RESOLVED the City of Novi hereby concurs with the provisions of the Plan, including approval of the Plan by the Oakland County Board of Commissioners, and implementation of the Plan by the Oakland County Brownfield Redevelopment Authority.

IT IS FURTHER RESOLVED the City of Novi acknowledges and understands that OCBRA intends to collect certain administrative fees and certain taxes for its revolving loan fund, which will be specified in detail in any Brownfield Plan before it is finally adopted.

AYES:
NAYS:

RESOLUTION DECLARED ADOPTED.

_____
Dawn Spaulding, Acting City Clerk

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi, County of Oakland, and State of Michigan, at a regular meeting held this 26 day of February, 2018, and that public notice of said meeting was given pursuant to and in full compliance with Act No. 267, Public Acts of Michigan, 1976, and that the minutes of said meeting have been kept and made available to the public as required by said Act.

_____
Dawn Spaulding, Acting City Clerk
City of Novi

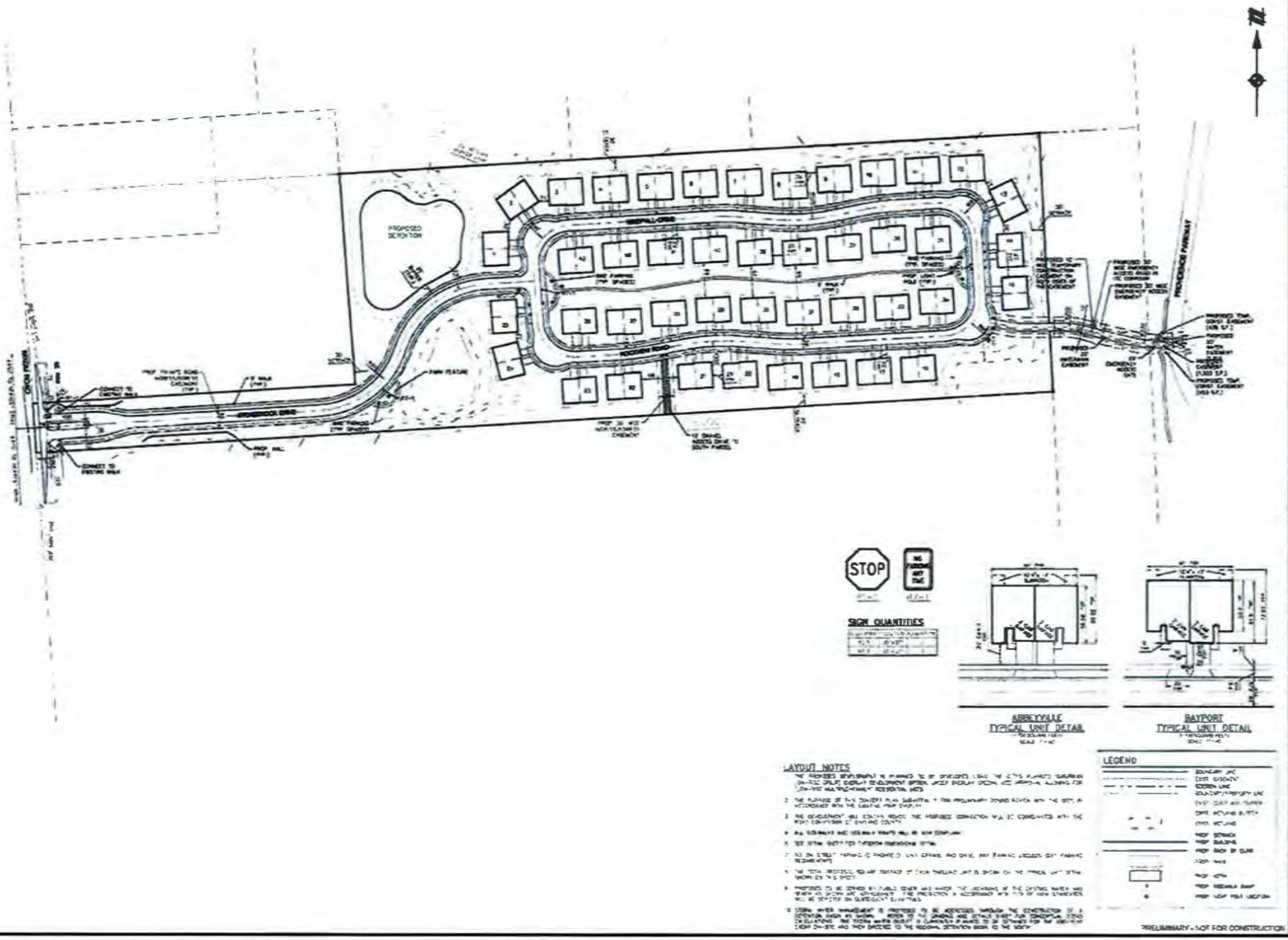
26700 Wixom Road

0 215 430 860 1,290 Feet

1 inch = 375 feet

Map Print Date:
1/11/2018

City of Novi
45175 Ten Mile Rd
Novi, MI 48375
cityofnovi.org



811
Know what's below. Call before you dig.

ATWELL

SECTION 17
TOWN 01 NORTH, RANGE 09 EAST
CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

PULTE HOMES
WIXOM ROAD
MULTI-FAMILY
PSLR OVERLAY CONCEPT PLAN

LAYOUT PLAN

AUGUST 30, 2017

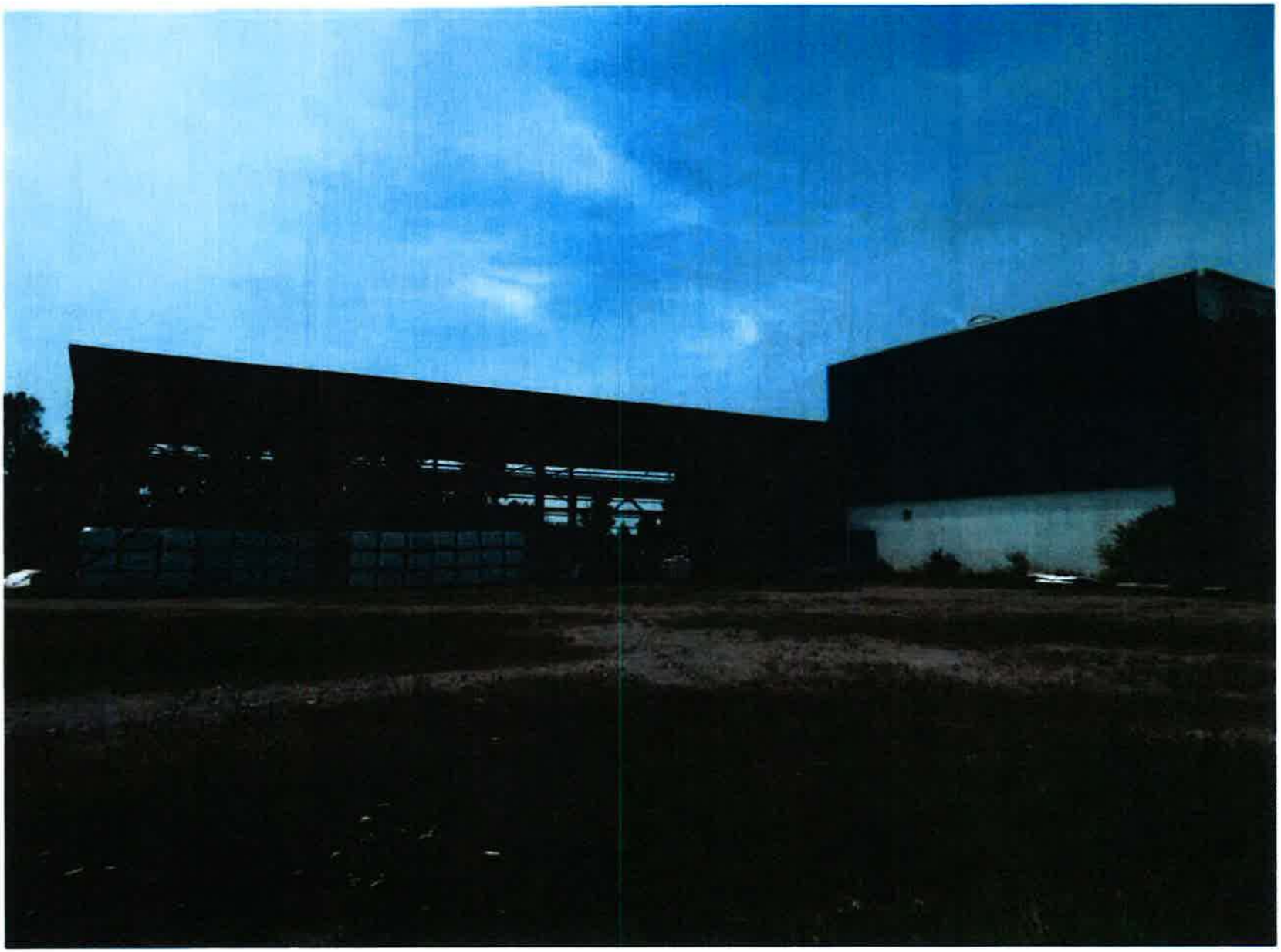
REVISIONS

SCALE: 1" = 100 FEET

DR: JL CHK: MD
PM: M. ANDERSON
DESIGN:
JOB: 17000933

SHEET NO.
05

26700 Wixom Rd. Profile Steel and Wire



OAKLAND COUNTY
BROWNFIELD REDEVELOPMENT AUTHORITY

BROWNFIELD PLAN

FOR THE VILLAS AT STONEBROOK DEVELOPMENT LOCATED AT 26700 WIXOM ROAD, NOVI, MICHIGAN

January 9, 2018

Approved by BRA:
Approved by Board of Commissioners:

Prepared on Behalf of:

Pulte Homes of Michigan, LLC
100 Bloomfield Hills Parkway, Suite 150
Bloomfield Hills, MI 48304
Contact Person: Mr. Joe Skore
Telephone: (248) 330-3069
Email: joe.skore@pultegroup.com

Prepared By:

PM Environmental, Inc.
4080 West Eleven Mile Road
Berkley, Michigan 48072
Contact Person: Jessica DeBone
Telephone: (616) 328-5297
Email: debone@pmenv.com

PM ENVIRONMENTAL
Risk Well Managed

TABLE OF CONTENTS

APPENDICIES

TABLES

PROJECT SUMMARY

Project Name:	The Villas at Stonebrook
Project Location:	The property consists of one (1) parcel located in Novi, Oakland County, Michigan, 48374 in Township one north (T.1N), Range 8 east (R.8E), Section 17.
Type of Eligible Property:	The property is determined to be a "Facility"
Eligible Activities:	Baseline Environmental Site Assessment Activities, Due Care Activities, Demolition, and Preparation of a Brownfield Plan and Act 381 Work Plan
Developer Reimbursable Costs:	$934,408 (includes eligible activities and 15% contingency)
Years to Complete Developer Reimbursement :	An estimated 3 years from project completion
Estimated Capital Investment:	Approximately $27 million
Project Overview:	The proposed project entails the demolition of the existing building and site improvements for the construction of an estimated 88 residential homes. The community will be age-restricted catering exclusively to residents that are 55 years or older. The existing drive will include a new boulevard to help slow traffic and improve the aesthetic appeal of the community entrance. A park feature with bike parking will be incorporated as you approach the residences. The project is anticipated to generate approximately 50 construction jobs.

I. INTRODUCTION AND PURPOSE

In order to promote the revitalization of environmentally distressed, historic, functionally obsolete and blighted areas within the boundaries of Oakland County ("the County"), the County has established the Oakland County Brownfield Redevelopment Authority ("OCBRA") 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 County and to facilitate financing of eligible activities at the Property. Inclusion of Property within any Plan in the County will facilitate financing of eligible activities at eligible properties and will provide tax incentives to eligible taxpayers willing to invest in the revitalization of eligible sites, commonly referred to as "Brownfields." By facilitating redevelopment of the Property, this Plan is intended to promote economic growth for the benefit of the residents of the County and all taxing units located within and benefited by the Authority.

This Plan is intended to apply to the eligible property identified in this Plan and to identify and authorize the eligible activities to be funded. If significant changes are made to the proposed redevelopment and proposed use, the Brownfield Redevelopment Authority and the County Commission as the Governing Body, in accordance with the Act, may amend 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 25.98 acres, referred to within this plan as the "Property." The parcel is located within the City of Novi, Oakland County, Michigan as outlined below.

Parcel ID Number	Address	City	Approx. Acreage	Eligibility	Current Zoning
50-22-17-300-013	26700 Wixom Road	Novi	25.98	"Facility"	I-2

Pulte Homes of Michigan, LLC, or any related entity, or such other developer as approved by the Authority, are collectively the project developer ("Developer").

TLC Property, LLC is the current ownership entity, Pulte Homes of Michigan, LLC has the Property under contract and intends to take ownership in early 2019.

The Property consists of light industrial land in an area characterized by residential, commercial and public (school, park) uses. The property zoning is anticipated to remain the same I-2 (General Industrial) with a Planned Suburban Low-Rise (PLSR) overlay

The Property is currently developed with a single story 38,949 square foot building located in the central portion of the property with canopies present on the north side of the building and at the southeast corner of the building. A concrete paved parking lot is present west of the building allowing access through a driveway extending from Wixom Road. A gravel drive extends along the southern side of the building toward the eastern portion of the Property, and also extends to the south and onto the south adjoining property. An isolated concrete paved area is present south of the southeastern building canopy.

Standard and historical sources document the Property was developed with agricultural fields prior to 1940. The current pond has been present in the southern portion of the Property since 1940 and an apparent low lying area was present to the east in 1940. Between 1963 and 1970, agricultural activities ceased, the low lying area was filled, and the Property was redeveloped with the construction of the current building. The building originally extended slightly farther on the west side than the current layout. This building portion housed a tall chimney stack and was demolished between 1990 and 1997. The entire northern building canopy was constructed in 1987. The original building portion also included only the western portion of the southeastern canopy, and an addition was constructed to the east side of the southeastern canopy in 1988. The building was occupied by Concrete Components from at least 1971 to 1972 (and likely until at least 1978), was vacant in the early to mid-1980s, and has been occupied by various steel fabrication companies since at least 1989. The canopies have generally been used for exterior storage. In at least 1974 and 1990, exterior storage, debris, and/or ground disturbance was present on an unpaved area to the northwest of the building, on paved rows located east and north of the subject building, near a paved area to the south of the southeast canopy, and to the south of the building. An unknown structure (possibly a concrete mixing plant) was also present to the south of the building in 1974. The amount of exterior storage, debris, and ground disturbance diminished in the 1980s and has been limited since 1997.

The proposed project entails the demolition of the existing building and site improvements for the construction of an estimated 88 residential single family or duplexed homes. The final site plan variation is pending the review and approval of the City. The community will be a 55+ age-restricted community, providing new housing options for the empty nester and active adult residents. The existing drive will include a new boulevard to help slow traffic and improve the aesthetic appeal of the community entrance. A park feature with bike parking will be incorporated as you approach the residences. A connection to Providence Parkway will be created for emergency access. Cement pedestrian pathways are proposed on Providence Parkway to connect with existing pathways. Pulte has more than 65 years of homebuilding experience with a dedication to quality that strives to exceed homeowner expectations. This project will be no different and will bring an area back to productive use with a more appropriate land use for the surrounding parcels, which include a hospital, park, and school.

Remediation and development activities are anticipated to commence in late 2019 with an estimated completion in 2022.

The Developer will invest an estimated $27 million in the project and create approximately 50 construction jobs during development activities.

A preliminary site plan and rendering is included in Appendix C. The final site plan and design of the site is contingent upon the approval of the City of Novi.

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) the Property was previously utilized or is currently utilized for a commercial and/or industrial purpose; and (b) the parcel comprising the Property has been determined to be a "facility."

The parcel identified as 26700 Wixom Road meets the definition of a "facility" as defined under Part 201, based on concentrations of contaminants identified in soil and groundwater identified during previous site investigations. Results of the most recent investigations are summarized below.

On April 3 and 4, 2017, PM Environmental, Inc. (PM) completed subsurface investigation activities at the Property that consisted of the advancement of 24 soil borings, the installation of seven temporary monitoring wells, the installation of one sub-slab soil gas sampling point, and the collection of 19 soil samples, seven (7) groundwater samples, and one (1) sub-slab soil gas sample for laboratory analysis of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), and/or polychlorinated biphenyls (PCBs), and/or Michigan 10 metals to assess the Recognized Environmental Conditions (RECs) identified in the March 2017 Phase I ESA.

Based on the concentrations detected in the soil samples analyzed, additional assessment activities were conducted to assess the vertical and horizontal extent of soil impact identified, consisting of the advancement of 21 soil borings and the collection of 47 soil samples for laboratory analysis of VOCs, PNAs, and/or PCBs.

Soil analytical results identified concentrations of trichloroethylene (TCE), 1,2,3,-trimethylbenzene (TMB), and 1,2,4,-TMB and phenanthrene above the MDEQ Part 201 Residential and Nonresidential Drinking Water Protection (DWP) and/or Groundwater Surface Water Interface Protection (GSIP) cleanup criteria and/or MDEQ Residential and/or Nonresidential Recommended Interim Action Screening Levels (RIASLs). Concentrations of PCBs were identified above the Toxic Substance Control Act (TSCA) cleanup standards and the Part 201 Residential and Nonresidential Direct Contact (DC) cleanup criteria.

Groundwater analytical results identified concentrations of TCE and 1,2,3-TMB above the Part 201 Residential and Nonresidential DW and/or GSI cleanup criteria and/or MDEQ Residential and Nonresidential RIASLs.

Additional documentation and description of the locality of the identified contaminants and the Property's "facility" 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: Baseline Environmental Site Assessments, Due Care Activities, Demolition and preparation of a Brownfield Plan and Act 381 Work 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 listed below and will incur no debt for these activities.

1. Baseline Environmental Site Assessment Activities include Phase I Environmental Site Assessments (ESAs), Phase II ESAs, Baseline Environmental Assessment (BEA), Documentation of Due Care Compliance (DDCC) and an Asbestos Containing Materials Survey as part of the pre-purchase due diligence conducted on the Property at a total cost of $57,658.

2. Due Care Activities includes contaminated soil and groundwater excavation, transport, disposal and restoration/backfill in the excavation area, and the necessary oversight, sampling, and reporting required, at a total estimated cost of $500,000.

3. Demolition Activities includes the demolition of the existing 38,949 square foot building, site demolition (asphalt, pavement, improvements, etc.) and fill/compaction/rough grading to balance the site where the improvements are located at an estimated cost of $245,000.

4. Preparation and implementation of the Brownfield Plan and Act 381 Work Plan including associated management activities (e.g. meetings with BRA etc.) at a cost of approximately $20,000.

5. A 15% contingency of $111,750 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 Baseline Environmental Assessment Activities and preparation of the Brownfield Plan and Act 381 Work Plan.

The total estimated cost of Eligible Activities subject to reimbursement from tax increment revenues is $822,658 with a potential $111,750 contingency resulting in a total reimbursement to the Developer in a not-to-exceed amount of $934,408.

This plan also allots capture for local administrative fees of $5,000 annually as outlined in Table 2.

The OCBRA has established a Local Brownfield Revolving Fund (LBRF). Capture for the LBRF is included in this plan following developer reimbursement, currently estimated at $934,408. The funds deposited into the LBRF as part of this Plan will be used in accordance with the requirements of Act 381, as amended.

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 2017 tax year tax values. The base taxable value for the Property is $1,189,320.

Tax increment revenue capture is proposed to begin when tax increment is generated by redevelopment of the Property, which is expected to begin in 2022 or when redevelopment is completed whichever occurs first. The estimated taxable value of the completed development is $18,700,000, which is based on a true cash value of $425,000 per home. An annual increase in taxable value of 1% has been used for calculation of future tax increments in this Plan. Table

2 details the estimate of captured tax increment revenues for each year of the Plan from the eligible property.

Prior to reimbursement of tax increment revenue to the Developer, payment of OCBRA 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 the Developer. The Developer will be reimbursed for eligible costs as described in Section C and outlined in Table 1. Costs for Eligible Activities funded by the Developer 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 OCBRA is $1,888,816. This includes Brownfield Plan preparation, OCBRA Administrative fees and LBRF deposits.

No advances will be made by the OCBRA 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 Oakland County Board of Commissioners.

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 $1,189,320 throughout the duration of this Plan totaling approximately $141,688. This amount accounts for a reduction in taxes for homesteaded properties, which is anticipated to apply to this project.

Non-capturable millages; including debt millages, the zoo authority and art institute, will see an immediate increase in tax revenue following redevelopment and will provide new tax revenue of approximately $544,816 throughout the duration of this Plan.

A summary of the impact to taxing jurisdictions for the life of the Plan is summarized below, outlining the total taxes generated and the taxes that will continue to be captured by taxing jurisdictions. This summary assumes taxes are captured throughout the duration of the Plan as estimated in Table 2.

Taxes Generated and Preserved Over Life of Plan			
Millage	**Rate**	**Taxes Generated by the Property (Incl. base value)**	**Taxes Preserved for Taxing Unit**
Oak ISD Voted	3.1113	$236,239	$14,801
Oak ISD Alloc	0.1966	$14,928	$935
OCCC	1.5555	$118,108	$7,400
Novi School Sinking Fund	0.4879	$37,046	$2,321
General	4.9206	$373,619	$23,409
Streets	1.4708	$111,677	$6,997
Police/Fire	1.4003	$106,324	$6,662
Parks & Rec	0.3780	$28,701	$1,798
Drains	0.2648	$20,106	$1,260
Library	0.7567	$57,456	$3,600
Cap Imp	0.9856	$74,836	$4,689
OC Parks & Rec	0.2368	$17,980	$1,127
HCMA	0.2140	$16,249	$1,018
OC Operating	4.0400	$306,755	$19,219
Subtotal	***20.0189***	**$1,520,025**	**$95,236**
Novi School Operating (All)	2.7951	$212,231	$13,297
Novi School Recreation	0.9695	$73,614	$4,612
SET	6.0000	$455,577	$28,544
Subtotal*	***9.7646***	**$741,421**	**$46,453**
Total Capturable Millages	***29.7835***	**$2,261,446**	**$141,688**
Novi Debt	7.0000	$531,506	$531,506
2008 Libr Debt	0.3608	$27,395	$27,395
Zoo Authority	0.0980	$7,441	$7,441
Art Institute	0.1961	$14,890	$14,890
Total Non-Capturable Millages	***7.6549***	**$581,233**	**$581,233**
Total Millages	***37.4384***	**$2,842,679**	**$722,921**

**For the purposes of the above estimates, school operating taxes are not included as it is estimated that a principal residence exemption will apply.*

For a complete breakdown of the captured millages and developer reimbursement please see Table 2.

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.

Property location maps are included in Appendix B.

Documentation of characteristics that qualify the property as “Eligible Property” is provided in Appendix D.

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. Local Brownfield Revolving Fund ("LBRF") (Sec. 13 (2)(m))

The OCBRA has established a LBRF. Capture for the LBRF is included in this plan for up to five (5) years, following developer reimbursement, currently estimated at $934,408. The funds deposited into the LBRF as part of this Plan will be used in accordance with the requirements of Act 381, as amended.

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

The OCBRA and the County Commission 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

PM ENVIRONMENTAL Environmental & Engineering Services

Legal Description

26700 Wixom Road, Novi, Oakland County, MI

Parcel ID: 50-22-17-300-013

T1N, R8E, SEC 17 PART OF SW 1/4 BEG AT PT DIST N 01-03-30 W 2010.00 FT FROM SW SEC COR, TH N 01-03-30 W 117.64 FT, TH N 89-39-40 E 770.00 FT, TH N 01-03-30 W 510.00 FT, TH N 89-39-40 E 1665.34 FT, TH S 00-07-10 W 627.61 FT, TH S 89-39-40 W 2422.44 FT TO BEG 25.98 A

Appendix B

PM ENVIRONMENTAL Environmental & Engineering Services

Map with Adjoinings

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 Flooplain data may not always be present on the map.

OAKLAND COUNTY MICHIGAN
Economic Development & Community Affairs

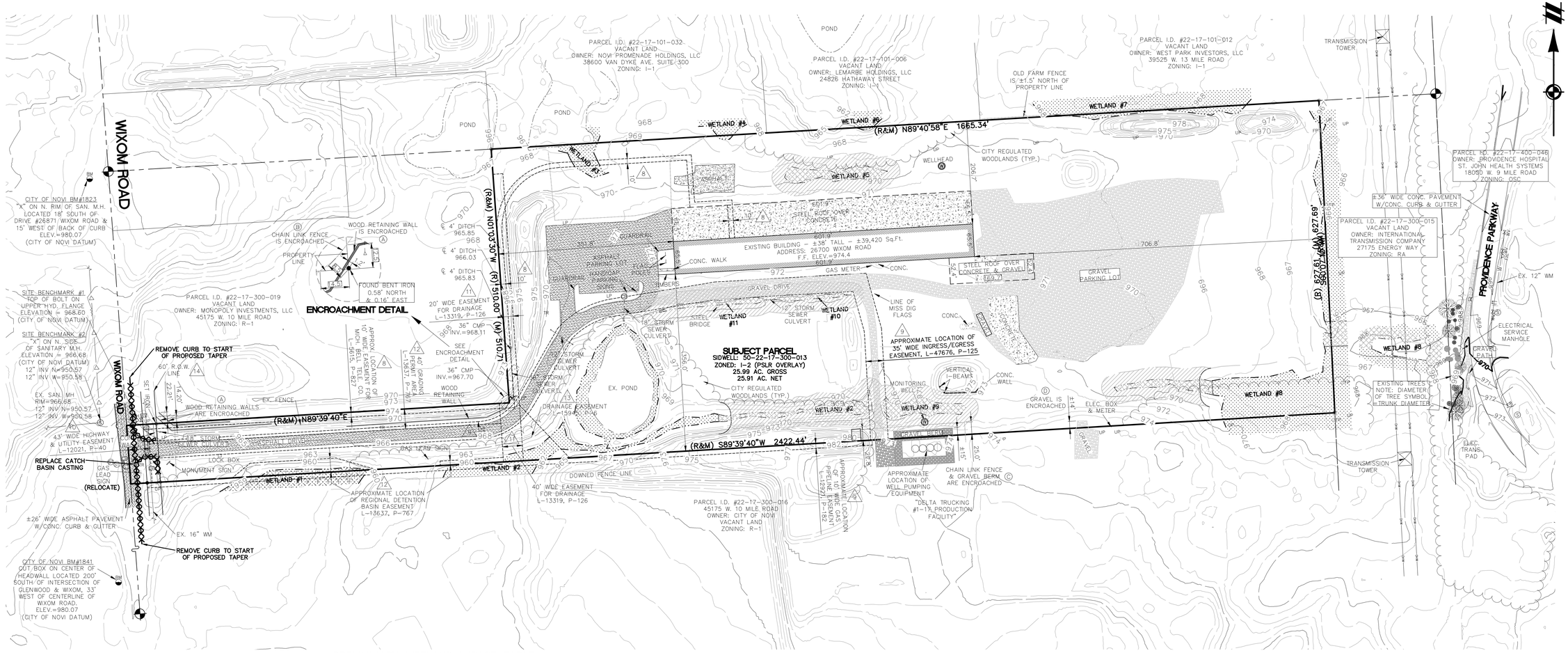
L. Brooks Patterson
Oakland County Executive

Date Created: 1/30/2017

NORTH

1 inch = 400 feet

Oakland County One Stop Shop 2100 Pontiac Lake Road Bldg. 41 West Waterford, MI 48328 Phone: 248-858-0721 Web: www.advantageoakland.com



SOILS TABLE

Map unit symbol	Map unit name	Depth to Water Table Rating (inches)	Flood Frequency	Ponding Frequency
11B	Capac sandy loam, 0 to 4 percent slopes	18	None	None
12	Brookston and Colwood loams	0	None	Frequent
27	Houghton and Adrian mucks	0	None	Frequent
59	Urban Lland	-	-	-
W	Water	-	-	-

SOILS MAP
1" = 250'

PRELIMINARY WETLAND IMPACT TABLE

Wetland	MDEQ Regulated	Wetland Impact Area (SF)	Wetland Impact Area (AC)
1	Yes	0	0.00
2	Yes	0	0.00
3	Yes	0	0.00
4	Yes	0	0.00
5	Yes	4,356	0.10
6	Yes	0	0.00
7	Yes	0	0.00
8	Yes	11,761	0.27
9	Yes	8,276	0.19
10	Yes	1,307	0.03
11	Yes	1,742	0.04
Total (MDEQ)		**16,117**	**0.63**
MITIGATION RATIO		--	**1.5**
OFF-SITE MITIGATION		--	**0.95**

TITLE COMMITMENT REFERENCE NUMBER	DESCRIPTION	STATUS ON PLAT	AFFECT ON PROPERTY
1	Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or by making inquiry of persons in possession of the Land.	NOT SHOWN	AFFECTS PARCEL
2	Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.	NOT SHOWN	AFFECTS PARCEL
3	Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title including discrepancies, conflicts in boundary lines, shortage in area, or any other facts that would be disclosed by an accurate and complete land survey of the Land, and that are not shown in the Public Records.	SHOWN	AFFECTS PARCEL
4	Any lien or right to lien for services, labor or material imposed by law and not shown by the Public Records.	NOT SHOWN	AFFECTS PARCEL
5	Taxes and assessments not due and payable at Commitment Date.	NOT SHOWN	AFFECTS PARCEL
6	The interest of TLC Property, LLC a Michigan limited liability company, vendee(s), from Novi Properties, Inc., a Michigan corporation, vendor(s), and the Terms, Covenants, Conditions and Provisions of said Land Contract, as disclosed by Memorandum of Land Contract dated November 18, 2014, recorded December 1, 2014, in Liber 47642, page 811.	NOT SHOWN	AFFECTS PARCEL
7	Assignment of Leases and Rents executed by TLC Property, LLC, a Michigan limited liability company to Novi Properties, Inc., a Michigan corporation, dated November 18, 2014, recorded December 1, 2014, in Liber 47642, page 815.	NOT SHOWN	AFFECTS PARCEL
8	Right of Way in favor of Michigan Bell Telephone Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 5615, page 827.	SHOWN	AFFECTS PARCEL
9	Oil, Gas and Mineral Lease in favor of Somoco, Inc., a Michigan corporation, as disclosed by instrument dated May 20, 1985, and recorded in Liber 9680, page 339, Mutual Consent Agreement dated December 30, 1986 as evidenced by Affidavit recorded in Liber 12926, page 186, Surface Agreement recorded in Liber 12921, page 182 and Surface Use Agreement recorded in Liber 47676, page 125, and Mesne Assignments thereof. This exception does not constitute a statement as to the ownership of this interest or right. There may be leases, grants, exceptions or reservations of such interests that are not listed.	SHOWN	AFFECTS PARCEL
10	Highway & Utility Easement in favor of the City of Novi and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 12021, page 40.	SHOWN	AFFECTS PARCEL
11	Drainage Easement in favor of City of Novi and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 13319, page 126.	SHOWN	AFFECTS PARCEL
12	Regional Detention Basin Easement in favor of City of Novi and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 13637, page 767.	SHOWN	AFFECTS PARCEL
13	Drainage Easement in favor of City of Novi and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 15945, page 6.	SHOWN	AFFECTS PARCEL
14	Any rights, title interest or claim thereof to that portion of the land taken, used or granted for streets, roads or highways.	SHOWN	AFFECTS PARCEL
15	The following matters as referenced by survey dated August 8, 2014, prepared by Greentech Engineering, Inc., being Job No. 14–256: a. Overhead lines crossing property and property lines. b. Storm sewers, telephone pedestals, light poles, and monitoring wells on property. c. Fence inside Northerly and Southerly property lines and crossing Northerly, Southerly, and Westerly property lines. d. Retaining wall inside and crossing Northerly property line.	SHOWN	AFFECTS PARCEL
16	Interest of others in oil, gas and mineral rights, if any, recorded in the public records or unrecorded.	NOT SHOWN	AFFECTS PARCEL
17	Interest, if any, of the United States, State of Michigan, or any political subdivision thereof, in the oil, gas and minerals in and under and that may be produced from the captioned land.	NOT SHOWN	AFFECTS PARCEL
18	Rights of tenants, if any, under any unrecorded leases.	NOT SHOWN	AFFECTS PARCEL
19	Lien for outstanding water or sewer charges, if any.	NOT SHOWN	AFFECTS PARCEL

NOTES

1. SURVEY INFORMATION PROVIDED BY DIFFIN–UMLOR, DATED 07–13–17.
2. BEARINGS ARE BASED ON HELD BEARING OF N01°03'30"W ALONG THE WEST LINE SECTION 17 PER DEEDED LEGAL DESCRIPTION.
3. SOILS INFORMATION REFERENCED FROM USDA NRCS WEB SOILS SURVEY, ACCESSED 2016.
4. ALL ON–SITE ASPHALT, GRAVEL AND STRUCTURES SHALL BE REMOVED.
5. CITY REGULATED WOODLAND LIMITS HAVE BEEN DEPICTED PER CITY WOODLAND MAP.
6. CONTOUR INFORMATION REFERENCED FROM COUNTY GIS SYSTEM.

SURVEY NOTES

1. UTILITY INFORMATION SHOWN IS FROM OBSERVED EVIDENCE ONLY, CONTACT MISS DIG PRIOR TO ANY CONSTRUCTION OR EARTHWORK.
2. ACCORDING TO THE NATIONAL FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 26125C0606F DATED SEPTEMBER 29, 2006 AND 26125C0607F DATED SEPTEMBER 29, 2006; THE SUBJECT PARCEL IS LOCATED IN ZONE "X" WHICH IS DEFINED AS AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

LEGAL DESCRIPTION AS SURVEYED

PART OF THE SOUTHWEST 1/4 OF SECTION 17, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 17; THENCE N01°03'30"W, ALONG THE WEST LINE OF SAID SECTION 17, 2010.72 FEET TO THE POINT OF BEGINNING; THENCE, CONTINUING ALONG SAID WEST LINE OF SECTION 17, N01°03'30"W 117.55 FEET; THENCE N89°40'58"E 770.12 FEET; THENCE N01°04'20"W 510.09 FEET TO A POINT ON THE EAST–WEST 1/4 LINE OF SAID SECTION 17; THENCE N89°40'58"E, ALONG SAID EAST–WEST 1/4 LINE, 1665.21 FEET; THENCE S00°07'08"W 627.60 FEET; THENCE S89°40'58"W 2422.31 FEET TO THE POINT OF BEGINNING. SAID PARCEL CONTAINS 25.98 ACRES OF LAND, MORE OR LESS, AND IS SUBJECT TO THAT PART NOW USED AS WIXOM ROAD.

LEGEND

BOUNDARY LINE
EXIST. EASEMENT
SECTION LINE
BOUNDARY/PROPERTY LINE
EXIST. CONTOUR
EXIST. DEMO
EXIST. CURB AND GUTTER
EXIST. FENCE
EXIST. GUARDRAIL
EXIST. BUILDING
EXIST. SOIL BOUNDARY
EXIST. SOILS TYPE
EXIST. TREE
EXIST. WATER MAIN
EXIST. SANITARY
EXIST. STORM
EXIST. OVERHEAD ELEC. LINE
EXIST. CULVERT
EXIST. CATCH BASIN/INLET
EXIST. HYDRANT
EXIST. VALVE
EXIST. SANITARY SEWER
EXIST. UNSPECIFIED UTILITY
EXIST. SIGN
EXIST. LIGHT POLE
EXIST. UTILITY POLE
EXIST. REGULATED WETLAND
EXIST. WETLAND BUFFER
EXIST. REGULATED WOODLAND

PRELIMINARY - NOT FOR CONSTRUCTION

Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

ATWELL
866.850.4200 www.atwell-group.com
123 N. ASHLEY, SUITE 105
ANN ARBOR, MI 48104
734.994.4000

SECTION 17
TOWN 01 NORTH, RANGE 08 EAST
CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

CLIENT
PULTE HOMES
WIXOM ROAD
MULTI-FAMILY
PSLR OVERLAY CONCEPT PLAN
EXISTING CONDITIONS

DATE
AUGUST 30, 2017

REVISIONS

SCALE 0 75 150
1" = 150 FEET

DR.	JL	CH.	KB

P.M. W. ANDERSON
BOOK --
JOB 17000993
SHEET NO. 02

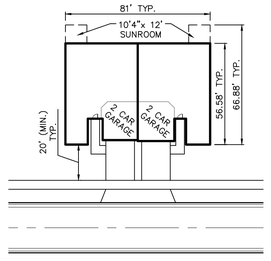
CAD FILE: 17000930C-02-EC.DWG

Appendix C

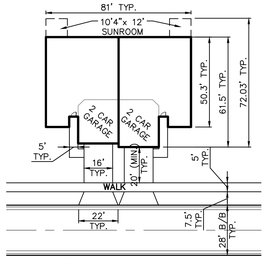
PM ENVIRONMENTAL Environmental & Engineering Services

SIGN QUANTITIES

SIGN TYPE	SIGN SIZE	QUANTITY
R1-1	30"x30"	1
R1-2	36"x36"	1
R7-1	18"x12"	3



ABBEYVILLE
TYPICAL UNIT DETAIL
(1,700 SQUARE FEET)
SCALE: 1" = 40'



BAYPORT
TYPICAL UNIT DETAIL
(1,710 SQUARE FEET)
SCALE: 1" = 40'

LAYOUT NOTES

1. THE PROPOSED DEVELOPMENT IS PLANNED TO BE DEVELOPED USING THE CITY'S PLANNED SUBURBAN LOW-RISE (PSLR) OVERLAY DEVELOPMENT OPTION, UNDER OVERLAY SPECIAL USE APPROVAL ALLOWING FOR "LOW-RISE MULTIPLE-FAMILY" RESIDENTIAL USES.
2. THE PURPOSE OF THIS CONCEPT PLAN SUBMITTAL IS FOR PRELIMINARY ZONING REVIEW WITH THE CITY. IN ACCORDANCE WITH THE EXISTING PSLR OVERLAY.
3. THE DEVELOPMENT WILL CONTAIN PRIVATE ROADS. THE PROPOSED CONNECTION WILL BE COORDINATED WITH THE CITY OF NOVI.
4. ALL SIDEWALKS AND SIDEWALK RAMPS WILL BE ADA COMPLIANT.
5. SEE DETAIL SHEET FOR EYEBROW DIMENSIONAL DETAIL.
7. NO ON-STREET PARKING IS PROPOSED. UNIT GARAGE AND DRIVE WAY PARKING EXCEEDS CITY PARKING REQUIREMENTS.
8. THE TOTAL PROPOSED SQUARE FOOTAGE OF EACH DWELLING UNIT IS SHOWN ON THE TYPICAL UNIT DETAIL SHOWN ON THIS SHEET.
9. PROPOSED TO BE SERVED BY PUBLIC SEWER AND WATER. THE LOCATIONS OF THE EXISTING WATER AND SEWER AS SHOWN ARE APPROXIMATE. FIRE PROTECTION IN ACCORDANCE WITH CITY OF NOVI STANDARDS WILL BE DEPICTED ON SUBSEQUENT SUBMITTALS.
10. STORM WATER MANAGEMENT IS PROPOSED TO BE ADDRESSED THROUGH THE CONSTRUCTION OF A DETENTION BASIN AS SHOWN. REFER TO THE GRADING AND DETAILS SHEET FOR CONCEPTUAL SIZING CALCULATIONS. THE STORM WATER OUTLET IS CURRENTLY PLANNED TO BE DETAINED FOR THE 100-YEAR EVENT ON-SITE AND THEN DIRECTED TO THE REGIONAL DETENTION BASIN TO THE SOUTH.

LEGEND

- BOUNDARY LINE
- EXIST. EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- EXIST. CURB AND GUTTER
- EXIST. WETLAND BUFFER
- EXIST. WETLAND
- PROP. SETBACK
- PROP. BUILDING
- PROP. BACK OF CURB
- PROP. WALK
- PROP. ASPH.
- R — PROP. SIDEWALK RAMP
- PROP. LIGHT POLE LOCATION

PRELIMINARY - NOT FOR CONSTRUCTION

ATWELL
866.850.4200 www.atwell-group.com
123 N. ASHLEY, SUITE 105
ANN ARBOR, MI 48104
734.994.4000

SECTION 17
TOWN 01 NORTH, RANGE 08 EAST
CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

CLIENT
PULTE HOMES

WIXOM ROAD
MULTI-FAMILY
PSLR OVERLAY CONCEPT PLAN

LAYOUT PLAN

DATE
AUGUST 30, 2017

11-13-2017 PER CITY
12-29-2017 DUPLEX UNITS

REVISIONS

SCALE 0 50 100
1" = 100 FEET

DR. JL | CH. KB
P.M. W. ANDERSON
BOOK --
JOB 17000933
SHEET NO. 05

CAD FILE: 17000933C-03-LOW6

Appendix D

PM ENVIRONMENTAL Environmental & Engineering Services

PM ENVIRONMENTAL
Risk Well Managed

Environmental & Engineering Services Nationwide

ENVIRONMENTAL SERVICES

BUILDING ARCHITECTURE, ENGINEERING & SCIENCE

INDUSTRIAL HYGIENE SERVICES

BROWNFIELDS & ECONOMIC INCENTIVES CONSULTING

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Work with the Experts.

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PHASE II ENVIRONMENTAL SITE ASSESSMENT

26700 Wixom Road | Novi, Michigan
PM Project Number 01-8090-2-0001

Prepared for:

Pulte Homes of Michigan, LLC
100 Bloomfield Hills Parkway, Suite 150
Bloomfield Hills, Michigan 48304

Prepared by:

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

PM ENVIRONMENTAL
Risk Well Managed

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 **Detroit**
Chesterfield **Lansing**

September 15, 2017

Mr. Joe Skore
Pulte Homes of Michigan, LLC
100 Bloomfield Hills Parkway, Suite 150
Bloomfield Hills, Michigan 48304

Re: Phase II Environmental Site Assessment of the Light Industrial Property Located at 26700 Wixom Road, Novi, Michigan
PM Environmental, Inc. Project No. 01-8090-2-0001

Dear Mr. Skore:

PM Environmental, Inc. (PM) completed a Phase II Environmental Site Assessment (ESA) of the Light Industrial Property located at 26700 Wixom Road, Novi, Oakland County, Michigan (hereafter referred to as the "subject property") in general accordance with ASTM Standard Practice E1903-11 to assess the Recognized Environmental Conditions (RECs) identified in PM's March 1, 2017 Phase I ESA. This Phase II ESA Report summarizes the activities conducted by PM in April, June, and July 2017, the geology encountered, and the sample analytical results.

THIS PHASE II ESA REPORT WAS PERFORMED FOR THE EXCLUSIVE USE OF PULTE HOMES OF MICHIGAN, LLC, WHO MAY RELY ON ITS CONTENTS AND CONCLUSIONS.

INTRODUCTION AND BACKGROUND

The subject property consists of one 25.98 acre parcel located on the east side of Wixom Road, north of West Eleven Mile Road and south of Grand River Avenue in Novi, Michigan (Figure 1). The subject property is developed with a single story 38,949 square foot building located in the central portion of the property with canopies present on the northern side of the building and at the southeastern corner of the building. A concrete paved parking lot is present west of the building allowing access through a driveway extending from Wixom Road. A gravel drive extends along the southern side of the building toward the eastern portion of the property, and also extends to the south and onto the south adjoining property. An isolated concrete paved area is present south of the southeastern building canopy. Lastly, a mounded soil pile is present in the area of the septic field, which is located northeast of the subject building. A water well is located on the north side of the building to the west of the septic field. Lastly, a pond is present in the southwestern portion of property (Figure 2).

Standard and historical sources document the subject property was developed with agricultural fields prior to 1940. The current pond has been present in the southwestern portion of the property since 1940 and an apparent low lying area was present to the east of the pond in 1940. Between 1963 and 1970, agricultural activities ceased, the low lying area was filled, and the property was redeveloped with the construction of the current subject building. The western portion of the original building housed a tall chimney stack and was demolished between 1990 and 1997. The entire northern building canopy was constructed in 1987. The original building portion also included only the western portion of the southeastern canopy, and an addition was constructed to the east side of the southeastern canopy in 1988. The building was occupied by Concrete Components from at least 1971 to 1976 and Corvo Iron in at least 1981, was vacant in the mid-

1980s, and has been occupied by various steel fabrication companies since at least 1989, some of whose operations included painting activities. The canopies have generally been used for covered exterior storage.

In at least 1974 and 1990, exterior storage, debris, and/or ground disturbance was present on an unpaved area to the northwest of the building, on paved rows located east and north of the subject building, near a paved area to the south of the southeast canopy, and to the south of the building. An unknown structure (possibly a concrete mixing plant) was also present to the south of the building in 1974. The amount of exterior storage, debris, and ground disturbance diminished in the 1980s and has been limited since 1997.

PM completed a Phase I ESA for the subject property dated March 1, 2017, which identified the following onsite RECs:

- Previous subsurface investigations have been completed to assess the long term light industrial operations since 1970, and associated exterior storage activities and septic system, which detected soil and groundwater concentrations exceeding the current Part 201 Residential and Nonresidential Generic Cleanup Criteria. Based on these analytical results, the subject property would be classified as a "facility," as defined by Part 201 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended; and a Baseline Environmental Assessment (BEA) was prepared for the current owner.

- Additionally, review of the 1994 Phase I ESA identified a concentration of polychlorinated biphenyls (PCBs) above the former Type B cleanup standards near paint stained surface soils located in the eastern portion of the subject property. However, the report did not include the specific concentration of PCBs detected and the potential exists for additional concentrations of PCBs to be present.

- During previous site investigation activities completed between 1994 and 2005, only two soil borings were advanced inside the building and under the southeastern canopy, which is insufficient to assess the long term light industrial operations and/or exterior storage activities since 1970. The potential exists for additional subsurface contamination to be present in these areas associated with the long term industrial operations.

No adjoining and/or nearby RECs were identified.

PREVIOUS SITE INVESTIGATIONS

PM reviewed the following previous environmental reports for the subject property. The figures and tables from the previous environmental reports are included in Appendix A. Relevant portions of the reports are included in Appendix C of PM's March 2017 Phase I ESA.

Name of Report	Date of Report	Company that Prepared Report
Draft Phase I ESA, Limited Suspect Asbestos-Containing Materials, and Preliminary Subsurface Investigation	1/14/1994	Clayton Environmental Consultants, Inc.
Subsurface Investigation	2/16/1994	Clayton Environmental Consultants, Inc.

Name of Report	Date of Report	Company that Prepared Report
Additional Soil Sampling Analysis Results	8/4/1994	CTI and Associates, Inc. (CTI)
Remedial Excavation	4/12/1995	CTI
Phase I ESA	2/10/1998	The Traverse Group
Environmental Audit	2/16/1998	The Traverse Group
Phase I ESA	7/5/2005	The Dragun Corporation
Phase II ESA	7/5/2005	The Dragun Corporation
Draft Progress Report	8/1/2013	McDowell & Associates
Phase I ESA	9/18/2014	Applied Ecosystems, Inc.
BEA	9/18/2014	Applied Ecosystems, Inc.
Due Care Plan (DCP)	9/18/2014	Applied Ecosystems, Inc.

1994 Draft Phase I ESA, Limited Suspect Asbestos-Containing Materials, and Preliminary Subsurface Investigation

This report was completed for the subject property and the northeast adjoining vacant property. The following RECs were identified associated with the subject property:

- The presence of potentially hazardous materials (e.g. solvents, waste oil, lubricants, paints, unlabeled and unidentifiable drums and buckets, sandblasting material, empty 55-gallon drums, a stake truck) and nonhazardous general refuse (e.g., vehicle frames, truck trailers, wood, scrap metal) inside the building and in the eastern exterior portion of the property;

- The presence of heavy potential oil-based staining throughout the production area;

- Large areas of potential oil-based staining on the concrete floor surrounding two machinery pits (with an average depth of three inches) located in the center of the production area. The pits appeared to contain a black, oil-soaked material;

- The presence of one visible and/or odorous evidence of a petroleum-like substance in a rectangular-shaped floor pit (with an average depth of four feet) located east of the machinery pits and two large areas of potential oil-based staining on the concrete floor surrounding the floor pit. The floor pit appeared to contain oil and metal shavings;

- The presence of visible and/or odorous evidence of a petroleum-like substance in a round catch basin located in the south central portion of the production area. The catch basin appeared to contain a liquid and sludge material; and

- The presence of visible and/or odorous evidence of a petroleum-like substance in a floor drain located on the south side of the production area in the industrial building.

No adjoining and/or nearby RECs were identified.

On December 21, 1993, Clayton collected an oily liquid sample from the floor pit in the production area; one surficial soil sample in the area of the paint-stained soil and one surface water sample on the eastern portion of the property; one water sample from the production well, one water sample from the catch basin in the production area, and one water sample from the septic tank; and three wipe samples from the stained floor of the production area. The samples were submitted for laboratory analysis of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), PCBs, and Michigan 10 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), or some combination thereof.

No figures were included and the analytical tables were not legible in the report copy provided for PM's review. Therefore, the analytical data could not be verified and compared to current cleanup criteria. According to the report summary, analytical results reportedly detected concentrations of PCBs detected above the former Michigan Department of Environmental Quality (MDEQ) Type B cleanup criteria and concentrations of metals were detected above the former MDEQ Type A cleanup criteria in a soil sample collected from the paint-stained soil and surface waste sample in the eastern portion of the property, concentrations of acetone and 2-butanone above the former MDEQ Type B cleanup criteria in a water sample collected from the septic tank, and concentrations of various metals detected above the former MDEQ Type B cleanup criteria in the water samples collected from the catch basin, septic tank, and production well. A concentration of lead was also detected in the water sample collected from the catch basin above hazardous waste characterization values.

Clayton recommended an additional subsurface investigation be completed to evaluate the vertical and horizontal extent of the PCB impacted soils in the paint stained areas and whether contamination detected in the septic tank had impacted the septic field. Clayton also recommended the floor pit, catch basin, and septic tank be cleaned and the contents be properly characterized and disposed.

1994 Subsurface Investigation

The 1994 Subsurface Investigation was completed to assess whether the septic system had adversely affected the soil and groundwater at the subject property. The report indicated three manholes for the septic tanks are located along the north side of the building and the associated 60 by 80 foot septic field is located to the northeast of the building.

On January 19, 27, and 28, 1994, Clayton advanced a total of 12 soil borings including: seven soil borings in the area of the septic field (SB-1, SB-2, SB-3, SB-9, SB-10, SB-11, and SB-12), four soil borings around the septic tanks (SB-4 through SB-7), and one soil boring adjacent to the septic tank (SB-8), to a maximum depth of 20.0 feet below ground surface (bgs). Clayton collected 17 soil and five groundwater samples for laboratory analysis of VOCs.

No concentrations of VOCs were detected in any of the soil samples collected from the subject property above laboratory method detection limits (MDLs). A concentration of acetone was detected in the groundwater sample collected at SB-3 above laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria. No other concentrations of VOCs were detected in any of the groundwater samples collected above laboratory MDLs.

Refer to Clayton's Site Map with Soil Boring Locations and Tables 1 and 2 for a summary of the analytical results.

1994 Additional Soil Sampling Analysis Results

On May 6, 1994, CTI completed additional investigation to assess the paint-stained soils on the eastern portion of the property. The scope of work consisted of the advancement of two hand augered borings (HA-1 and HA-2) located east and south of concrete pads located in the eastern portion of the subject property. Two soil samples were collected at a depth of 0.0 to 1.0 feet bgs and one surface water sample from the area located south of the concrete pad was collected. The soil samples and water sample were submitted for laboratory analysis of VOCs, PCBs, and total metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc).

Concentrations of ethylbenzene, toluene, xylenes, and 1,1,2,2-tetrachloroethane were detected in the soil sample collected at HA-1 and a concentration of 1,1,2,2-tetrachloroethane was detected in the soil sample collected at HA-2 above laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria. However, the concentrations of 1,1,2,2-tetrachloroethane detected in the soil samples collected at HA-1 and HA-2 were above the current MDEQ Residential and Nonresidential Recommended Interim Action Screening Levels (RIASLs).

No concentrations of PCBs were detected in either of the soil samples collected above laboratory MDLs.

A concentration of total chromium was detected in the soil sample collected at HA-2 above Part 201 Residential and Nonresidential Drinking Water Protection (DWP), Groundwater Surface Water Interface Protection (GSIP), and Ambient Air Particulate Soil Inhalation (PSI) cleanup criteria. Concentrations of total chromium and selenium were also detected in the soil sample collected at HA-1 above Part 201 Residential and Nonresidential DWP and/or GSIP cleanup criteria. Concentrations of barium, cadmium, lead, and zinc were detected in the soil samples collected at HA-1 and HA-2 above the Statewide Default Background Levels (SDBLs), but below the most restrictive Part 201 Residential cleanup criteria. The total chromium concentrations were not compared to hexavalent chromium cleanup criteria based on the lack of hexavalent chromium concentrations detected during the 2017 site investigation.

No concentrations of VOCs and PCBs were detected in the surface water sample collected at HA-1 above laboratory MDLs.

Concentrations of lead and mercury were detected in the surface water sample collected at HA-1 above the current Part 201 Residential and Nonresidential Drinking Water (DW) and/or Groundwater Surface Water (GSI) cleanup criteria.

Refer to CTI's Site Map for sample locations and Tables 1 and 2 for a summary of the analytical results.

On July 15, 1994, Clayton completed additional activities to vertically and horizontally delineate the impacted soils located at HA-1 and HA-2. The scope of work consisted of advancing two soil borings in the location of HA-1 and HA-2 and four additional soil borings (SS-1 through SS-10) in each direction of the original boring locations and the collection of 10 soil samples each at a depth of 0.0-1.0 feet bgs for laboratory analysis of VOCs and total metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc).

No concentrations of VOCs were detected in any of the soil samples collected above laboratory MDLs. A concentration of selenium was detected in the soil sample collected at SS-10 above the Part 201 GSIP cleanup criteria. Concentrations of various other metals were also detected in each of the soil samples analyzed above SDBLs, but below the most restrictive Part 201 Residential cleanup criteria.

Refer to CTI's Hand Auger Soil Boring Location Map. No analytical tables were available for SS-1 through SS-10.

1995 Remedial Excavation

CTI submitted eight of the previous soil samples collected (SS-1 through SS-5, SS-7, SS-9, and SS-10) for leachate testing to determine if the total chromium concentrations detected were likely to leach to groundwater. Based on the results, CTI determined the total chromium concentrations were not likely to leach to groundwater.

On February 2, 1995 CTI conducted oversight activities for the excavation of approximately 6.0 cubic yards of soil from the HA-1 and SS-1 through SS-5 locations. The soil was disposed at Woodland Meadows Recycling and Disposal Facility in Wayne, Michigan. No VSR samples were collected.

1998 Phase I ESA

This report was completed for the subject property and the following RECs were identified:

- Potential soil and/or groundwater impact associated with the observed waste oil tank located on the subject property. Evidence of potential release(s) was observed including minor staining of the concrete surface underneath the waste oil tank and the vacuum unit located along the southern building border underneath the overhang; and

- Potential soil and/or groundwater impact associated with the improper disposal of floor cleaning solution and petroleum-like products collected off the shop floor. The floor cleaner waste is emptied into a utility basin that is constructed of concrete approximately 1.0 foot by 1.0 foot and 2.0 to 3.0 inches high. The utility basin has a drain in the bottom that is connected to a septic tank. The septic tank drains to the septic field, located to the northeast of the subject building.

No adjoining and/or nearby RECs were identified.

1998 Environmental Audit

The following relevant findings were identified during the environmental audit:

- Four abandoned drums containing a white unknown substance located on the property, three of which were located south of the building and one was located north of the building adjacent to a pond;

- An unlabeled and uncovered 600-gallon used oil collection tank and the lack of secondary containment, characterization data, manifests, and disposal record keeping;

- Disposal of a highly basic pH detergent in a sink that discharges to the septic field; and

- Use of a mineral spirits parts washer and lack of waste disposal or manifest record keeping.

2005 Phase I ESA

This report was completed for the subject property and the west adjoining property. The following RECs were identified:

- Outdoor storage of unidentifiable materials "on engineered structures" was identified in the 1978 and 1997 aerial photographs;

- The property was used for industrial operations from at least 1970 to present;

- Staining was observed at the former location of the historic waste oil tank in an open canopy area on the south side of the building. The current occupant, Profile Steel and Wire, does not conduct any operations in this area;

- Staining was observed in the building on the concrete floor and outside the covered canopy area adjacent to the dumpster. A septic system has been present on the property since 1970;

- Fill material consisting of broken concrete is present throughout the surface of the eastern portion of the property; and

- A monitoring well (MW-1) was observed on the south side of the property (for monitoring of the south adjoining oil and gas production well).

No adjoining and/or nearby RECs were identified.

2005 Phase II ESA

The 2005 Phase II ESA was completed to assess the RECs identified in the 2005 Phase I ESA. On June 2, 2005, a total of nine soil borings (DSB-1 through DSB-8 and HA-1) were advanced to a maximum depth of 12.0 feet bgs, two temporary monitoring wells (TW-1 and TW-2) were installed, and nine soil samples and two groundwater samples were collected for laboratory analysis of VOCs, semi-volatile organic compounds (SVOCs), PCBs and/or metals. A groundwater sample was also collected from an existing groundwater monitoring well located in the southern portion of the property (MW-1).

No concentrations of VOCs were detected in any of the soil samples collected from the subject property above laboratory MDLs.

Concentrations of several SVOCs were reportedly detected in each of the soil samples collected from the subject property above laboratory MDLs, some of which reportedly exceeded the Part 201 DWP and GSIP cleanup criteria. However, the complete analytical data for SVOCs detected in the soil samples collected was not provided.

A concentration of PCBs was detected in the soil sample collected at DSB-5 (4.0-5.0 feet bgs) above the Toxic Substance Control Act (TSCA) Residential and Nonresidential cleanup

standards. Concentrations of PCBs were also detected in the soil samples collected at DSB-6 (4.0-5.0 feet bgs) and DSB-7 (5.0-6.0 feet bgs) above laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria and TSCA Residential cleanup standards.

A concentration of arsenic was detected in the soil sample collected at DSB-2 (1.0-2.0 feet bgs) above the Part 201 Residential and Nonresidential DWP, GSIP, and Residential DC cleanup criteria. Concentrations of selenium were detected in several soil samples collected (DSB-1, DSB-3, DSB-6, DSB-7, and DSB-8 at varying depths between 1.0 and 6.0 feet bgs) above the Part 201 GSIP cleanup criteria. The complete analytical data for metals detected in the soil samples collected was not provided.

Concentrations of benzene, toluene, xylenes, 1,2,4-TMB, and ethylene dibromide were detected in groundwater samples collected above laboratory MDLs. There is no indication that these concentrations exceeded the most restrictive Part 201 Residential cleanup criteria. However, the complete analytical data for VOCs detected in the groundwater samples collected was not provided.

No concentrations of SVOCs were detected in any of the groundwater samples collected from the subject property above laboratory MDLs.

Concentrations of chromium and selenium were detected in the groundwater sample collected at TW-1 above Part 201 GSI cleanup criteria. No other concentrations of metals were detected in any of the groundwater samples above the most restrictive Part 201 Residential cleanup criteria.

Refer to Dragun's Figure 2 for soil boring locations and Tables 1 through 7 for a summary of the analytical results.

2005 Progress Report

On September 9, 2005, McDowell began a Soils Investigation for geotechnical purposes; however, and during the completion of boring 22 and test pit 23, odorous fill soils were encountered.

On September 15, 2005, four test pits were completed in each direction of boring 22 (22N, 22E, 22S, and 22W), three test pits were completed between boring 22 and the south adjoining property (E1, E2, and E3), and two additional test pits were also completed on the south side of the subject building to the west of test pit 23 (23B and 23C). Buried concrete rubble and metal re-rod pieces were encountered within test pits E1 through E3. Perched groundwater was encountered in test pits 23, 23B, 23C, and 22N.

A total of three soil samples and two groundwater samples were collected from the test pits for laboratory analysis of VOCs and SVOCs/PNAs.

Concentrations of 1,2,3-TMB and 1,2,4-TMB were detected in the soil sample collected from test pit 23 above laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria. No other concentrations of VOCs were detected in any of the soil samples collected above laboratory MDLs.

Concentrations of 2-methylnaphthalene and 1,2,3-TMB were detected in the groundwater sample collected from test pit 22W above the Part 201 GSI cleanup criteria. Concentrations of various

other VOCs were detected in each of the groundwater samples collected below the most restrictive Part 201 Residential cleanup criteria.

Concentrations of various PNAs were detected in the groundwater sample collected from test pit 22W above the Part 201 GSI cleanup criteria. No concentrations of PNAs were detected in the remaining groundwater sample collected above laboratory MDLs.

Refer to McDowell's Test Pit Location Map and Tables 1 through 3 for a summary of the analytical results.

2014 Phase I ESA

This report was completed for the subject property and a REC was identified based on the documented soil and groundwater contamination detected in 2005.

2014 BEA and DDCC

A BEA and DDCC were completed in 2005 on behalf of TLC Property, LLC and was based on the documented soil and groundwater contamination detected in 2005. The BEA was submitted to the MDEQ (BEA #6479).

CURRENT SITE INVESTIGATIONS

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. PM also cleared all soil boring locations of private utilities prior to installation with ground penetrating radar (GPR).

On April 3 and 4, 2017, PM completed subsurface investigation activities at the subject property that consisted of the advancement of 24 soil borings (SB-1 through SB-24) to a maximum depth of 20.0 feet below ground surface (bgs), the installation of seven temporary monitoring wells (SB/TMW-1, SB/TMW-6, SB/TMW-12, SB/TMW-16, SB/TMW-17, SB/TMW-19, and SB/TMW-21), the installation of one sub-slab soil gas sampling point (SSG-1), and the collection of 19 soil samples, seven groundwater samples, and one sub-slab soil gas sample to assess the RECs identified in the March 2017 Phase I ESA. The soil and groundwater samples were submitted to Merit Laboratories, Inc. (Merit), in East Lansing, Michigan for laboratory analysis of volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), polychlorinated biphenyls (PCBs), Michigan 10 metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, selenium, silver, and zinc), hexavalent chromium, or some combination thereof. The soil gas sample was also submitted to Merit for laboratory analysis of VOCs.

Based on the concentrations detected in the soil samples analyzed, additional assessment activities were conducted to assess the vertical and horizontal extent of soil impact identified at SB-6, SB-12, SB-17, SB-19, SB-21, SB-22, and SB-24. On June 19, 2017 and July 7, 2017, PM completed a scope of work consisting of the advancement of 21 soil borings (SB-17R, SB-19R, and SB-25 through SB-43) and the collection of 47 soil samples for laboratory analysis of VOCs, PNAs, and/or PCBs.

The following table summarizes the Phase II ESA activities including total boring/screen depth, objective of the soil borings/temporary monitoring well/soil gas sample point locations, analysis,

objective, and sample selection justification:

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

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB/TMW-1 (15.0)	**Soil:** 2.0-3.0 **Groundwater:** 7.23-12.23 [9.70]	VOCs, PNAs, Michigan 10 Metals	Assess current and historical light industrial operations	**Soil**: A sample was collected from the interval with the highest PID reading (2.7 ppm). **GW:** Sampled.
SB-2 (15.0)	**Soil:** 2.0-3.0	VOCs, PNAs, Michigan 10 Metals	Assess current and historical light industrial operations	**Soil**: A sample was collected from the interval with the highest PID reading (10.4 ppm). **GW:** Not encountered.
SB-3 (20.0)	**Soil:** 15.0-16.0	VOCs, PNAs, Michigan 10 Metals	Assess current and historical light industrial operations	**Soil**: A sample was collected from the interval with the highest PID reading (98.7 ppm). **GW:** Not encountered.
SB-4 (15.0)	**Soil:** 5.5-6.5	VOCs, PNAs, Michigan 10 Metals	Assess current and historical light industrial operations	**Soil**: A sample was collected at the sandy clay/clay interface, based on the lack of field evidence of contamination. **GW:** Not encountered.
SB-5 (15.0)	**Soil:** 12.0-13.0	VOCs, PNAs, Michigan 10 Metals	Assess current and historical light industrial operations	**Soil**: A sample was collected from the interval with the highest PID reading (10.8 ppm). **GW:** Not encountered.
SB/TMW-6 (15.0)	**Soil:** 2.0-3.0 **Groundwater:** 0.00-5.00 [3.35]	VOCs, PNAs, Michigan 10 Metals	Assess current and historical light industrial operations	**Soil**: A sample was collected above the saturated zone, based on the lack of field evidence of contamination. **GW:** Sampled.
SB/TMW-7 (15.0)	**Groundwater:** 7.30-12.30 [9.17]	NA	Assess septic system	**Soil**: Samples not analyzed, based on the lack of field evidence of contamination. **GW:** Sample not analyzed, based on the lack of field evidence of contamination.
SB-8 (15.0)	NA	NA	Assess septic system	**Soil**: Samples not analyzed, based on the lack of field evidence of contamination. **GW:** Not sampled.

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB/TMW-9 (15.0)	NA	NA	Assess septic system	**Soil**: Samples not analyzed due to the presence of previous data below criteria. **GW:** Sample not analyzed due to the presence of previous data below criteria.
SB-10 (15.0)	**Soil:** 2.0-3.0	VOC, PNAs, PCBs, Selenium	Assess septic system and system leach field	**Soil**: A sample was collected from the interval with the highest PID reading (65.4 ppm). **GW:** Not sampled.
SB-11 (15.0)	**Soil:** 4.0-5.0	VOCs, PNAs, PCBs, Total Chromium, Hexavalent Chromium, Selenium	Assess septic system and system leach field	**Soil:** A sample was collected at the clayey sand/sandy clay interface, based on the lack of field evidence of contamination. **GW:** Not sampled.
SB/TMW-12 (15.0)	**Soil:** 3.5-4.5	VOCs, PNAs, PCBs, Chromium, Selenium	Assess septic system and system leach field	**Soil**: A sample was collected at the gravelly sand/clay interface, based on the lack of field evidence of contamination. **GW:** Sampled.
	Groundwater: 7.30-12.30 [9.80]	VOCs, PNAs, Chromium, Selenium		
SB-13 (10.0)	**Soil:** 1.5-2.5	Chromium	Assess previously identified impact associated with DSB-1 (1.0-2.0 feet bgs) to determine if chromium concentrations are representative of chromium III or chromium VI	**Soil**: A sample was collected at the gravelly sand/clayey sand interface, based on the lack of field evidence of contamination. **GW:** Not sampled.
SB-14 (10.0)	**Soil:** 1.0-2.0	VOCs, PNAs, PCBs, Michigan 10 Metals	Assess previously identified impact associated with DSB-8/TW-2 (2.7-3.5 feet bgs)	**Soil**: A sample was collected from the interval with the highest PID reading (4.6 ppm). **GW:** Not encountered.
SB-15 (10.0)	**Soil:** 7.0-8.0	VOCs, PNAs, PCBs, Michigan 10 Metals	Assess previously identified impact associated with DSB-7 (5.0-6.0 feet bgs)	**Soil**: A sample was collected from the interval with the highest PID reading (2.2 ppm). **GW:** Not sampled.

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB/TMW-16 (15.0)	**Groundwater:** 2.25-7.25 [4.81]	VOCs and PNAs	Assess previously identified odorous soil, groundwater with a sheen, and impact associated with test pit 22W	**Soil**: Sample not analyzed, based on presence of shallow groundwater. **GW:** Sampled.
SB/TMW-17 (15.0)	**Soil:** 3.0-4.0	VOCs and PNAs	Assess former storage area previously identified impact associated with test pit 23	**Soil**: A sample was collected from the interval with the highest PID reading (89.0 ppm). **GW:** Sampled.
	Groundwater: 3.75-8.75 [5.93]	VOCs and PNAs		
SB-17R (20.0)	**Soil:** 3.0-4.0 7.0-8.0 19.0-20.0	VOCs and PCBs	Replicate and vertically define the soil contamination previously identified at SB-17	**Soil**: Samples were collected from the interval with the highest PID reading (85.1 ppm) and below for vertical delineation. **GW:** Not sampled.
SB-18 (15.0)	**Soil:** 3.5-4.5	VOCs, PNAs, PCBs, Arsenic, Cadmium, Chromium, Lead	Assess exterior storage area located under the northern canopy	**Soil**: A sample was collected at the gravelly sand/sandy clay interface, based on the lack of field evidence of contamination. **GW:** Not encountered.
SB/TMW-19 (15.0)	**Soil:** 3.5-4.5	VOCs, PNAs, PCBs, Arsenic, Cadmium, Chromium, Lead	Assess exterior storage area located under the northern canopy	**Soil**: A sample was collected at the gravelly sand/clay interface above the saturated zone. **GW:** Sampled.
	Groundwater: 8.45-13.45 [10.20]	VOCs, PNAs, Arsenic, Cadmium, Chromium, Lead		
SB-19R (10.0)	**Soil:** 3.5-4.5 6.0-7.0 9.0-10.0	PCBs	Replicate and vertically define the soil contamination previously identified at SB-19	**Soil**: Samples were collected from the interval with the highest PID reading (2.9 ppm) and below for vertical delineation. **GW:** Not encountered.
SB-20 (10.0)	**Soil:** 0.5-1.5	VOCs, PNAs, PCBs, Arsenic, Cadmium, Chromium, Lead	Assess exterior storage located to the north of the northern canopy	**Soil**: A sample was collected at the gravelly sand/sandy clay interface, based on the lack of field evidence of contamination. **GW:** Not encountered.

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB/TMW-21 (10.0)	**Groundwater:** 4.80-9.80 [6.20]	VOCs, PNAs, Chromium, Selenium	Assess septic system and leach field/mounded soil pile	**GW:** Sample not analyzed, based on shallow groundwater. **GW:** Sampled.
SB-22 (10.0)	**Soil:** 3.5-4.5	VOCs, PNAs, PCBs, Cadmium, Chromium, Lead, Selenium	Assess septic system and leach field/mounded soil pile	**Soil**: A sample was collected at the gravelly sand/clay interface, based on the lack of field evidence of contamination. **GW:** Not encountered.
SB-23 (15.0)	**Soil:** 1.0-2.0	VOCs, PNAs, PCBs, Chromium, Selenium	Assess septic system and leach field/mounded soil pile	**Soil**: A sample was collected above the saturated zone, based on the lack of field evidence of contamination. **GW:** Not sampled.
SB-24 (10.0)	**Soil:** 4.5-5.5	VOCs, PNAs, PCBs, Chromium, Selenium	Assess septic system and leach field/mounded soil pile	**Soil**: A sample was collected at the gravelly sand/clay interface, based on the lack of field evidence of contamination. **GW:** Not encountered.
SB-25 (20.0)	**Soil:** 3.0-4.0 and 13.0-14.0	VOCs and PCBs	Horizontally define the soil contamination previously identified at SB-17	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not sampled.
SB-26 (20.0)	**Soil:** 3.0-4.0, 8.0-9.0, and 19.0-20.0	VOCs and PCBs	Horizontally define the soil contamination previously identified at SB-17	**Soil**: Samples were collected from the interval with the highest PID reading (8.3 ppm) and below for vertical delineation. **GW:** Not sampled.
SB-27 (20.0)	**Soil:** 3.0-4.0, 8.0-9.0, and 19.0-20.0	VOCs and PCBs	Horizontally define the soil contamination previously identified at SB-17	**Soil**: **Soil**: Samples were collected from the interval with the highest PID reading (14.6 ppm) and below for vertical delineation. **GW:** Not sampled.
SB-28 (10.0)	**Soil:** 3.0-4.0 and 8.5-9.5	PCBs	Horizontally define the soil contamination previously identified at SB-19	**Soil**: Samples were collected from the interval with the highest PID reading (0.4 ppm) and below for vertical delineation. **GW:** Not encountered.
SB-29 (10.0)	**Soil:** 3.5-4.5, 5.5-6.5, and 8.0-9.0	PCBs	Horizontally define the soil contamination previously identified at SB-19	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB-30 (10.0)	**Soil:** 3.5-4.5 and 7.0-8.0	PCBs	Horizontally define the soil contamination previously identified at SB-19	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.
SB-31 (10.0)	**Soil:** 3.5-4.5 and 9.0-10.0	PCBs	Horizontally define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.
SB-32 (10.0)	**Soil:** 3.5-4.5 and 9.0-10.0	PCBs	Horizontally define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not sampled.
SB-33 (10.0)	**Soil:** 3.0-4.0 and 9.0-10.0	PCBs	Horizontally define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.
SB-34 (10.0)	**Soil:** 3.0-4.0 and 9.0-10.0	PCBs	Horizontally define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.
SB-35 (10.0)	**Soil:** 3.5-4.5 and 7.0-8.0	PCBs	Horizontally define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not sampled.

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB-36 (10.0)	**Soil:** 3.5-4.5 and 9.0-10.0	PCBs	Horizontally define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.
SB-37 (10.0)	**Soil:** 3.5-4.5, 5.0-6.0, and 9.0-10.0	PCBs	Replicate and vertically define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.
SB-38	**Soil:** 3.5-4.5 and 9.0-10.0	PCBs	Replicate and vertically define the soil contamination previously identified associated with the septic system leach field/mounded soil pile (SB-11, 21, 22, 24)	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not encountered.
SB-39 (10.0)	**Soil:** 3.0-4.0 and 7.0-8.0	VOCs and PNAs	Horizontally define the soil contamination previously identified at SB-27	**Soil**: Samples were collected from the interval with the highest PID reading (4.8 ppm) and below for vertical delineation. **GW:** Not encountered.
SB-40 (10.0)	**Soil:** 3.0-4.0 and 7.0-8.0	VOCs and PNAs	Horizontally define the soil contamination previously identified at SB-27	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not sampled.
SB-41 (10.0)	**Soil:** 3.0-4.0 and 7.0-8.0	VOCs and PNAs	Horizontally define the soil contamination previously identified at SB-26	**Soil**: Samples were collected at the previous sample depth and below for vertical delineation. **GW:** Not sampled.
SB-42 (10.0)	**Soil:** 2.5-3.5 and 7.0-8.0	VOCs and PNAs	Horizontally define the soil contamination previously identified at SB-17 and SB-26	**Soil**: Samples were collected from the interval with the highest PID reading (174 ppm) and below for vertical delineation. **GW:** Not encountered.

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB-43 (10.0)	**Soil:** 1.0-2.0	PCBs	Horizontally define the soil contamination previously identified at SB-17 and SB-26	**Soil**: A sample was collected from the interval with the highest PID reading (8.2 ppm). **GW:** Not sampled.
SG-1	**Soil Gas:** Sub-Slab	VOCs	Assess vapor intrusion pathway	**Soil Gas:** Sampled

DTW: Depth to water table NA: Not Applicable PID: photoionization detector
ppm: parts per million GW: Groundwater

Quality Assurance/Quality Control and Investigation Techniques

The soil borings were advanced to the desired depth using a model 6610 DT Geoprobe® drill rig or a model 6710 DT Geoprobe® drill rig and/or a hand auger equipped with a stainless steel bucket. Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential and/or extent of contamination at the subject property. Soil samples were generally collected on a continuous basis using a 5-foot macro-core sampler or hand auger equipped with a stainless steel bucket.

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 photoionization detector (PID) to determine if VOCs were present. Soil from specific depths was placed in plastic bags, sealed, 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. The PID utilizes a 10.6 electron volts (eV) lamp. Soil samples for VOC analysis were preserved with methanol, in accordance with United States Environmental Protection Agency (USEPA) method 5035. The soil samples were placed in appropriately labeled containers with Teflon lined lids and/or sanitized glass jars.

Temporary monitoring wells were installed at seven soil boring locations (SB/TMW-1, SB/TMW-6, SB/TMW-12, SB/TMW-16, SB/TMW-17, SB/TMW-19, and SB/TMW-21) for groundwater sample collection. At each monitoring well location, new well assembly, consisting of a 5-foot 0.010-inch slot, schedule 40, poly-vinyl chloride (PVC) screen and 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. Groundwater samples collected from the temporary monitoring wells were generally collected using low flow sampling methods and protocols using a peristaltic pump equipped with new, chemically inert, 3/8-inch diameter polyethylene and silicon tubing. The groundwater samples were collected with care taken to avoid the potential for cross contamination between the samples and to prevent loss of volatiles to the atmosphere. The groundwater samples for laboratory analyses were 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 wells.

The soil and groundwater samples were placed in an ice packed cooler and transported under chain of custody procedures for laboratory analysis within applicable holding times.

The soil gas sampling was completed in general accordance with the guidelines established in the May 2013 MDEQ Guidance Document for the Vapor Intrusion Pathway, which included the quality assurance/quality control (QA/QC) procedures outlined below.

Prior to the collection of the soil gas sample, the sampling apparatus was determined to be leak free utilizing an isolation chamber that encompassed tubing and associated connections as well as the sampling point. The chamber was charged with helium prior to purging the sampling point of a maximum of three volumes. A helium detector was then applied to the sampling line to ensure no leaks had occurred. The sample was collected using vacuum canister methods, for laboratory analysis of VOCs. The vacuum canister was regulated with a flow rate of 200 ml/minute, which was pre-set at the laboratory.

The soil gas sample was transported under chain of custody procedures for laboratory analysis within applicable holding times.

Upon completion of the investigation, the soil borings were abandoned by removing the temporary well materials/soil gas materials, 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.

GEOLOGY/HYDROGEOLOGY

Based on review of soil boring logs, the soil stratigraphy generally consists of gravelly sand to a depth of approximately 2.0 feet bgs; followed by layers of sand, clayey sand, or sandy clay to depths between 6.0 and 11.0 feet bgs, underlain by clay to a depth of 20.0 feet bgs, the maximum depth explored. A sand or gravelly sand seam was encountered between 9.0 and 15.0 feet bgs at SB-7through SB-13, SB-16, SB-17, SB-17R, SB-19, SB-23, SB-32, SB-41, and SB-43. A stone seam was encountered between 5.0 and 5.5 feet bgs at SB-37 and between 1.5 and 2.0 feet bgs at SB-38.

Limited and perched groundwater was encountered in 23 of the 43 soil boring locations at depths between 3.35 and 10.20 feet bgs. Additionally, an onsite water well is present on the subject property and is located north of the subject building. According to the water well log, static groundwater was encountered at 40.0 feet bgs.

The soil boring/temporary monitoring well logs, which consist of site specific geology, sample/screen depths, and PID readings, are included in Appendix B.

ANALYTICAL RESULTS

PM compared the current and previous analytical results from site investigation activities with the MDEQ Generic Cleanup Criteria and Screening Levels as presented in Part 201 Rules 299.1 through 299.50, dated December 30, 2013 entitled “Cleanup Criteria Requirements for Response Activity”, in accordance with Section 20120a(1) using the Residential and Nonresidential cleanup criteria. Additionally, the groundwater and soil gas analytical results were compared to the MDEQ Media Specific Volatilization to Indoor Air Interim Action Screening Levels, the MDEQ/Michigan Department of Health and Human Services (MDHHS) Residential and Commercial Action and

Trigger Levels, and the EPA Office of Solid Waste and Emergency Response (OSWER) Vapor Intrusion Screening Levels (VISLs). Appendix C contains the laboratory analytical reports.

Summary of 2017 Soil Analytical Results

The soil analytical results are summarized on Figure 3 and 6 and in Tables 1 and 4.

Concentrations of trichloroethylene (TCE), 1,2,3,-trimethylbenzene (TMB), and 1,2,4,-TMB, were detected in the soil sample collected at SB-17 (3.0-4.0 feet bgs) and SB-17R (3.0-4.0 feet bgs) above the MDEQ Part 201 Residential and Nonresidential DWP and/or GSIP cleanup criteria. Additionally, these concentrations and a concentration of 1,3,5-TMB detected at SB-17R exceeded the MDEQ Residential and/or Nonresidential RIASLs. Concentrations of TCE were detected in the soil samples collected at SB-27 (3.0-4.0 feet bgs) and SB-39 (3.0-4.0 feet bgs) above the Part 201 DWP cleanup criteria and the MDEQ Residential and Nonresidential RIASLs. Concentrations of various VOCs were detected at SB-17 (3.0-4.0 feet bgs), SB-17R (3.0-4.0 feet bgs), SB-26 (3.0-4.0 feet bgs) and SB-42 (2.5-3.5 feet bgs) above laboratory MDLs, but were below the most restrictive Part 201 Residential cleanup criteria. No other concentrations of VOCs were detected in any of the remaining soil samples collected above laboratory MDLs.

A concentration of phenanthrene was detected in the soil sample collected at SB-42 (2.5-3.5 feet bgs) above Part 201 GSIP cleanup criteria. A concentration of 2-methylnaphthalene was also detected in the soil sample collected at SB-42 above laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria. No other concentrations of PNAs were detected in any of the soil samples analyzed above laboratory MDLs.

Concentrations of PCBs were detected in the soil samples collected at SB-12 (3.5-4.5 feet bgs), SB-17 (3.0-4.0 feet bgs), SB-17R (3.0-4.0 feet bgs), SB-19 (3.5-4.5 feet bgs), SB-21 2.5-3.5 feet bgs), SB-22 3.5-4.5 feet bgs), SB-24 (4.5-5.5 feet bgs), SB-26 (3.0-4.0 feet bgs), SB-27 (3.0-4.0 feet bgs), SB-39 (3.0-4.0 feet bgs), SB-42 (2.5-3.5 feet bgs), and SB-43 (1.0-2.0 feet bgs) above the TSCA Residential and/or Nonresidential cleanup standards. Additionally, the concentrations of PCBs detected in the soil samples collected at SB-12 (3.5-4.5 feet bgs), SB-17 (3.0-4.0 feet bgs), SB-26 (3.0-4.0 feet bgs), SB-27 (3.0-4.0 feet bgs), SB-39 (3.0-4.0 feet bgs), SB-42 (2.5-3.5 feet bgs), and SB-43 (1.0-2.0 feet bgs) exceeded the Part 201 Residential and Nonresidential Direct Contact (DC) cleanup criteria. Concentrations of PCBs were also detected in the soil samples collected at SB-14 (1.0-2.0 feet bgs) and SB-34 (3.0-4.0 feet bgs) above laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria and TSCA Residential cleanup standards. No concentrations of PCBs were detected in the remaining soil samples collected above laboratory MDLs

Concentrations of selenium were detected in the soil samples collected at SB-1, SB-2, SB-4, SB-6, SB-14, SB-15, and SB-17 above the Part 201 GSIP cleanup criteria. These soil samples were further analyzed for Synthetic Precipitate Leaching Procedure (SPLP) to determine if the identified selenium concentrations would leach to groundwater. Analytical results from the SPLP analysis did not identify selenium concentrations above laboratory MDLs in the leachate; therefore, the selenium concentrations identified in the shallow soil samples will not leach to the groundwater at concentrations above the most restrictive Part 201 Residential cleanup criteria. Based on total chromium concentrations in SB-12, SB-13, SB-14, SB-19, and SB-22 above SDBLs, these soil samples were analyzed for hexavalent chromium for comparison to appropriate cleanup criteria. No concentrations of hexavalent chromium were detected above laboratory MDLs. Therefore, the total chromium concentrations were compared to trivalent chromium cleanup criteria, which

were not exceeded. Concentrations of various other Michigan 10 Metals were also detected in several of the soil samples collected above laboratory MDLs, but were below the SDBLs and/or the most restrictive Part 201 Residential cleanup criteria.

Summary of 2017 Groundwater Analytical Results

The groundwater analytical results are summarized on Figure 4 and in Table 2.

Concentrations of TCE and 1,2,3-TMB were detected in the groundwater sample collected from SB/TMW-17 above the Part 201 Residential and Nonresidential DW and/or GSI cleanup criteria. Additionally, the concentration of TCE detected at SB/TMW-17 exceeded the MDEQ Residential and Nonresidential RIASLs. Various other concentrations of VOCs were detected in the groundwater samples collected at SB/TMW-6 and SB/TMW-17 above laboratory MDLs, but were below the most restrictive Part 201 Residential cleanup criteria. No concentrations of VOCs were detected in any of the remaining groundwater samples collected from the subject property above laboratory MDLs.

No concentrations of PNAs were detected in any of the groundwater samples collected from the subject property above laboratory MDLs.

A concentration of selenium was detected in the groundwater sample collected from SB/TMW-6 above the Part 201 GSI cleanup criteria. Based on the absence of other target analytes in SB/TMW-6, the elevated selenium concentration is likely attributed to sediment in the sample collected from the temporary monitoring well, and not indicative of a release of selenium. No concentrations of any other Michigan 10 Metals were detected in any of the groundwater samples analyzed from the subject property above laboratory MDLs.

Summary of 2017 Soil Gas Analytical Results

The soil gas analytical results are summarized on Figure 5 and in Table 3.

Concentrations of various VOCs were detected in the soil gas sample collected from SG-1 above laboratory MDLs, but were below the MDEQ Media Specific Volatilization to Indoor Air Residential and Nonresidential Interim Action Screening Levels, the MDEQ/MDHHS Residential and Commercial Screening Levels, and the EPA OSWER Residential and Commercial VISLs.

CONCLUSIONS AND RECOMMENDATIONS

On April 3 and 4, 2017, PM completed subsurface investigation activities at the subject property that consisted of the advancement of 24 soil borings (SB-1 through SB-24), the installation of seven temporary monitoring wells (SB/TMW-1, SB/TMW-6, SB/TMW-12, SB/TMW-16, SB/TMW-17, SB/TMW-19, and SB/TMW-21), the installation of one sub-slab soil gas sampling point (SSG-1), and the collection of 19 soil samples, seven groundwater samples, and one sub-slab soil gas sample to assess the RECs identified in the March 2017 Phase I ESA. The soil and groundwater samples were submitted for laboratory analysis of VOCs, PNAs, PCBs, Michigan 10 metals, and hexavalent chromium, or some combination thereof. The soil gas sample (SSG-1) was submitted for laboratory analysis of VOCs.

Based on the concentrations detected in the soil samples analyzed, additional assessment activities were conducted to assess the vertical and horizontal extent of soil impact identified at

SB-6, SB-12, SB-17, SB-19, SB-21, SB-22, and SB-24. On June 19, 2017 and July 7, 2017, PM completed a scope of work consisting of the advancement of 21 soil borings (SB-17R, SB-19R, and SB-25 through SB-43) and the collection of 47 soil samples for laboratory analysis of VOCs, PNAs, and/or PCBs.

Concentrations of various VOCs were detected in the soil samples collected at SB-17 (3.0-4.0 feet bgs), SB-17R (3.0-4.0 feet bgs), SB-27 (3.0-4.0 feet bgs), and SB-39 (3.0-4.0 feet bgs) above the Part 201 Residential and Nonresidential DWP and/or GSIP cleanup criteria, and/or Residential and Nonresidential RIASLs. No concentrations of VOCs were detected in any of the remaining soil samples collected above laboratory MDLs and/or the most restrictive Part 201 Residential cleanup criteria/RIASLs.

A concentration of phenanthrene was detected in the soil sample collected at SB-42 (2.5-3.5 feet bgs) above Part 201 GSIP cleanup criteria. No other concentrations of PNAs were detected in any of the soil samples analyzed above laboratory MDLs and/or the most restrictive Part 201 Residential cleanup criteria.

Concentrations of PCBs were detected in the soil samples collected at SB-12 (3.5-4.5 feet bgs), SB-17 (3.0-4.0 feet bgs), SB-17R (3.0-4.0 feet bgs), SB-19, SB-21, SB-22, SB-24 (, SB-26 (3.0-4.0 feet bgs), SB-27 (3.0-4.0 feet bgs), SB-39 (3.0-4.0 feet bgs), SB-42 (2.5-3.5 feet bgs), and SB-43 (1.0-2.0 feet bgs) above the Part 201 Residential Direct Contact cleanup criteria and/or TSCA Residential and/or Nonresidential cleanup standards. No concentrations of PCBs were detected in the remaining soil samples collected above the most restrictive Part 201 Residential cleanup criteria and TSCA Residential cleanup standards.

Concentrations of various metals were detected in each of the soil samples collected above laboratory MDLs, but below the SDBLs and/or the most restrictive Part 201 Residential cleanup criteria.

Concentrations of various VOCs were detected in the groundwater sample collected from SB/TMW-17 above the Part 201 Residential and Nonresidential DW and/or GSI cleanup criteria and Residential and Nonresidential RIASLs. No concentrations of VOCs were detected in any of the remaining groundwater samples collected from the subject property above laboratory MDLs and/or the most restrictive Part 201 Residential cleanup criteria/RIASLs.

No concentrations of PNAs were detected in any of the groundwater samples collected from the subject property above laboratory MDLs.

A concentration of selenium was detected in the groundwater sample collected from SB/TMW-6 above the Part 201 GSI cleanup criteria; however, this elevated concentration is attributed to sediment in the sample and is not indicative of site conditions. No concentrations of any other metals were detected in any of the groundwater samples analyzed from the subject property above laboratory MDLs.

No concentrations of VOCs were detected in the soil gas sample collected from SG-1 above the MDEQ Media Specific Volatilization to Indoor Air Residential and Nonresidential Interim Action Screening Levels, the MDEQ/MDHHS Residential and Commercial Screening Levels, and the EPA OSWER Residential and Commercial VISLs.

Based on these analytical results, concentrations of target analytes were detected in the soil and groundwater samples collected from the subject property above the most restrictive Part 201 Residential cleanup criteria; therefore, the subject property would be considered a "facility," as defined in Section 20101(1)(r) of Part 201, of P.A. 451 of 1994, as amended. The purchaser would be eligible to complete a BEA for liability protection.

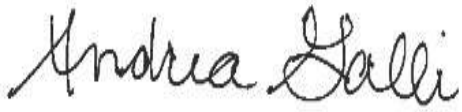
The RECs associated with the subject property identified in PM's March 2017 Phase I ESA have been adequately assessed. However, the owner of a "facility" has due care obligations to prevent unacceptable exposures. The areas of concern have been delineated horizontally and vertically to below Part 201 cleanup criteria. PM recommends excavation of impacted soil and perched groundwater to below applicable Part 201 Residential cleanup criteria and Residential RIASLs, which will eliminate complete/potentially complete exposure pathways.

If you have any questions related to this report, please contact our office at (800) 313-2966.

Sincerely,

PM Environmental, Inc.

REPORT PREPARED BY:



Andrea Galli
Staff Scientist

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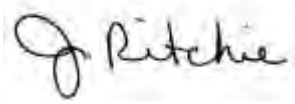

Jennifer Ritchie, CPG
Regional Site Investigation Manager

Tables

PM ENVIRONMENTAL Environmental & Engineering Services

Table 1: Eligible Activities Cost Estimates	
Item/Activity	**Total Request**
Baseline Environmental Assessments	
Phase II ESA	$ 47,208
BEA and DDCC	$ 5,500
Asbestos Survey, Sampling & Reporting Work	$ 4,950
Baseline Environmental Assessments Sub-Total	**$ 57,658**
Due Care Activities	
Soil and Perched Groundwater Excavation, Transport, Disposal and Restoration	$ 400,000
Post Excavation Groundwater Sampling and Monitoring	$ 50,000
Oversight, Sampling and Reporting by Environmental Professional	$ 50,000
Due Care Activities Sub-Total	**$ 500,000**
Demolition	
Building Demolition	$ 180,000
Site Demolition	$ 65,000
Demolition Sub-Total	**$ 245,000**
Preparation and Implementation of Brownfield Plan	
Brownfield Plan and Implementation	$ 20,000
Brownfield Plan and Act 381 Workplan Sub-Total	**$ 20,000**
Eligible Activities Sub-Total	**$ 822,658**
15% Contingency*	$ 111,750
Developer Eligible Reimbursement Total	**$ 934,408**
TIF Capture for Local Brownfield Revolving Fund	$ 934,408
Administrative Fee	$ 20,000
State Brownfield Fund	$ 213,517
Total	**$ 2,102,333**

*15% Contingency excludes preparation of Brownfield Plan/381 Work Plan and Baseline Environmental Assessments

Table 2: Tax Increment Financing Estimates

		2017	2022	2023	2024	2025	
			Year 1	Year 2	Year 3	Year 4	
Base Combined Taxable Value		$ 1,189,320	$ 1,189,320	$ 1,189,320	$ 1,189,320	$ 1,189,320	
Projected Taxable Value (estimated annual increase of 1%)			$ 18,700,000	$ 18,887,000	$ 19,075,870	$ 19,266,629	
Incremental Difference (Projected Tax Value *minus* Existing Tax Value)			$ 17,510,680	$ 17,697,680	$ 17,886,550	$ 18,077,309	
Local Taxes - Millage							
Oak ISD Voted	3.1113	$ 3,700	$ 54,481	$ 55,063	$ 55,650	$ 56,244	$ 221,438
Oak ISD Alloc	0.1966	$ 234	$ 3,443	$ 3,479	$ 3,516	$ 3,554	$ 13,992
OCCC	1.5555	$ 1,850	$ 27,238	$ 27,529	$ 27,823	$ 28,119	$ 110,708
Novi School Sinking Fund	0.4879	$ 580	$ 8,543	$ 8,635	$ 8,727	$ 8,820	$ 34,725
General	4.9206	$ 5,852	$ 86,163	$ 87,083	$ 88,013	$ 88,951	$ 350,210
Streets	1.4708	$ 1,749	$ 25,755	$ 26,030	$ 26,308	$ 26,588	$ 104,680
Police/Fire	1.4003	$ 1,665	$ 24,520	$ 24,782	$ 25,047	$ 25,314	$ 99,662
Parks & Rec	0.3780	$ 450	$ 6,619	$ 6,690	$ 6,761	$ 6,833	$ 26,903
Drains	0.2648	$ 315	$ 4,637	$ 4,686	$ 4,736	$ 4,787	$ 18,846
Library	0.7567	$ 900	$ 13,250	$ 13,392	$ 13,535	$ 13,679	$ 53,856
Cap Imp	0.9856	$ 1,172	$ 17,259	$ 17,443	$ 17,629	$ 17,817	$ 70,147
OC Parks & Rec	0.2368	$ 282	$ 4,147	$ 4,191	$ 4,236	$ 4,281	$ 16,854
HCMA	0.2140	$ 255	$ 3,747	$ 3,787	$ 3,828	$ 3,869	$ 15,231
OC Operating	4.0400	$ 4,805	$ 70,743	$ 71,499	$ 72,262	$ 73,032	$ 287,536
Total Local Taxes (capturable)	**20.0189**	$ 23,809	$ 350,545	$ 354,288	$ 358,069	$ 361,888	$ 1,424,790
State School Taxes (capturable)							
Novi School Operating (All)	2.7951	$ 3,324	$ 48,944	$ 49,467	$ 49,995	$ 50,528	$ 198,933
Novi School Recreation	0.9695	$ 1,153	$ 16,977	$ 17,158	$ 17,341	$ 17,526	$ 69,001
SET	6.0000	$ 7,136	$ 105,064	$ 106,186	$ 107,319	$ 108,464	$ 427,033
School Operating*	17.8544	$ 21,235	$ -	$ -	$ -	$ -	
Total School Taxes (non-homestead only)**	**9.7646**	$ 11,613	$ 170,985	$ 172,811	$ 174,655	$ 176,518	$ 694,968
Total Capturable Millages**	**29.7835**	$ 35,422	$ 521,529	$ 527,099	$ 532,724	$ 538,406	$ 2,119,758
Non-Capturable Millages							
Novi Debt	7.0000	$ 8,325	$ 122,575	$ 123,884	$ 125,206	$ 126,541	$ 498,206
2008 Libr Debt	0.3608	$ 429	$ 6,318	$ 6,385	$ 6,453	$ 6,522	$ 25,679
Zoo Authority	0.0980	$ 117	$ 1,716	$ 1,734	$ 1,753	$ 1,772	$ 6,975
Art Institute	0.1961	$ 233	$ 3,434	$ 3,471	$ 3,508	$ 3,545	$ 13,957
Total Non-Capturable Millages	7.6549	$ 9,104	$ 134,043	$ 135,474	$ 136,920	$ 138,380	$ 544,816
Total Millages**	37.4384	$ 44,526	$ 655,572	$ 662,573	$ 669,644	$ 676,786	
Annual Local Incremental Taxes			$ 350,545	$ 354,288	$ 358,069	$ 361,888	
Annual School Incremental Taxes			$ 170,985	$ 172,811	$ 174,655	$ 176,518	
Local Admin Fee			$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 20,000
3 Mils from SET to State Brownfield Fund			$ 52,532	$ 53,093	$ 53,660	$ 54,232	$ 213,517
Annual Local Incremental Taxes Minus Admin Fee			$ 345,545	$ 349,288	$ 353,069	$ 356,888	
Annual School Incremental Taxes Minus State Fund			$ 118,453	$ 119,718	$ 120,995	$ 122,286	
Total Combined Yearly Captured Taxes			$ 463,997	$ 469,006	$ 474,064	$ 479,174	$ 1,886,241
Cumulative Combined Captured Taxes			$ 463,997	$ 933,003	$ 1,407,068	$ 1,886,241	
MDEQ Reimbursed Expenses							
Local Taxes			$ 345,545	$ 282,515	$ -		$ 628,060
School Taxes			$ 118,453	$ 119,718	$ 68,178		$ 306,348
Total			$ 463,997	$ 402,233	$ 68,178		$ 934,408
Unreimbursed MDEQ Eligible Expenses		$ 934,408	$ 470,411	$ 68,178	$ -		
Local Site Remediation Revolving Fund Capture							
Local Taxes					$ 318,641	$ 309,418	$ 628,060
School Taxes (DEQ Only)					$ 87,245	$ 219,103	$ 306,348
Total					$ 405,886	$ 528,522	$ 934,408

* Estimated that these taxes will not be available as a principal residence exemption will apply and therefore are not calculated in the totals within this table

** Non-homestead school operating taxes have been included in the total

Developer Maximum Reimbursement	Proportionality	School & Local Taxes	Local-Only Taxes	Total
Local	67.21%	$ 628,060	$ -	$ 628,060
State	32.79%	$ 306,348	$ -	$ 306,348
TOTAL	**100.00%**	$ 934,408	$ -	$ 934,408

LBRF Capture	Proportionality	School & Local Taxes	Total
Local	67.21%	$ 628,060	$ 628,060
State (MDEQ)	32.79%	$ 306,348	$ 306,348
TOTAL	**100%**	$ 934,408	$ 934,408

MICHIGAN ECONOMIC
DEVELOPMENT CORPORATION

BROWNFIELD REDEVELOPMENT AUTHORITY

Under the Brownfield Redevelopment Act PA 381 of 1996, as amended, a municipality may create a brownfield Redevelopment Authority (BRA) to develop and implement brownfield projects. A BRA is a resource that may use Tax Increment Financing (TIF) as a tool for property redevelopment.

WHO IS ELIGIBLE TO HAVE AN AUTHORITY?

Any city, village, township or county may create a BRA. A county BRA may be involved with eligible property throughout the county, but may not include a project in their brownfield plan unless the affected municipality concurs that the site in their community may be included in the county's plan.

HOW DOES IT WORK?

Once created, a BRA reviews proposals for the redevelopment of eligible property and determines what financial incentives are necessary to assist the redevelopment. The authority prepares a plan that identifies the brownfield projects. Each project section of the plan includes the description of the eligible property, the eligible activities, the TIF approach to be taken and other issues related to the subject parcels. The authority then recommends to the governing body of the municipality (city or village council, township board or county commission) that the decision-making body holds a public hearing regarding the plan and subsequently acts to approve with modifications or deny the plan. The authority would recommend revisions to the plan as new projects are submitted or revisions are requested on existing plan projects.

WHAT IS THE PROCESS?

The municipality may hold informational meetings to explain the purpose, powers and benefits of a BRA. In order to create an authority, the municipality must do the following:

1. The governing body of the municipality may adopt a resolution of intent to create an authority that includes a date for holding a public hearing on the adoption of a proposed resolution creating an authority.
2. The notice of the public hearing to create a BRA must include a date, time and place of the hearing.
3. The governing body holds a public hearing.
4. Not more than 30 days after the hearing the governing body adopts a resolution creating the BRA. A copy of the resolution must be filed with the Michigan Secretary of State promptly after its adoption.
5. The governing body designates the members of the authority. The authority members may be chosen from an existing downtown development authority (DDA), local development financing authority (LDFA), tax increment financing authority (TIFA), economic development corporation (EDC) or appointed at-large by the chief executive officer of the municipality.

Subsequently, the authority can hold meetings in order to elect officers of the board, to adopt by-laws of the authority and to adopt governing rules.

WHY WOULD A COMMUNITY WANT TO CREATE THIS AUTHORITY?

The creation of a BRA allows local decision-making in the various aspects of brownfield redevelopment. Through redevelopment, a municipality can:

- Focus development in existing service areas.
- Enhance tax base through private development.
- Receive multiple taxing jurisdiction participation in redevelopment financing.
- Provide reimbursement for eligible brownfield activities.

A BRA provides a municipality with the opportunity to create a local brownfield financing resource, enhance local economic development capacities and market difficult sites based on the private investment incentives.

SUPPORTING STATUTE

Public Act 381 of 1996

MICHIGAN ECONOMIC
DEVELOPMENT CORPORATION

COMMUNITY DEVELOPMENT BROWNFIELD PROGRAM OVERVIEW

The Brownfield Program uses tax increment financing (TIF) to reimburse brownfield related costs incurred while redeveloping contaminated, functionally obsolete, blighted or historic properties. It is also responsible for managing the Single Business Tax and Michigan Business Tax Brownfield Credit legacy programs (SBT/MBT Brownfield Credits).

The Michigan Strategic Fund (MSF) with assistance from the Michigan Economic Development Corporation (MEDC), administers the reimbursement of costs using state school taxes (School Operating and State Education Tax) for non-environmental eligible activities that support redevelopment, revitalization and reuse of eligible property. The MEDC also manages amendments to SBT/MBT Brownfield Credit projects approved by MSF. The Michigan Department of Environmental Quality (MDEQ) administers the reimbursement of environmental response costs using state school taxes for environmental activities, and local units of government sometimes use only local taxes to reimburse for eligible activities (i.e., "local-only" plans). The state statutory authority for the Brownfield Redevelopment Financing Act program is Act 381 of 1996, as amended (Act 381).

Two categories of eligible activities under TIF are available across the state; demolition and lead and asbestos abatement. Two additional eligible activities are available in any qualified local government unit[1] (QLGU) or on property owned by a land bank; site preparation and infrastructure improvements. Land banks may also be reimbursed for costs related to conveying and managing property that is in their possession. The non-environmental program generally targets industrial site reuse, and urban development with mixed-use components.

The Brownfield Redevelopment Authority (BRA) is the local jurisdiction entity that manages the development of brownfield plans. After approval of a brownfield plan by the local governing body, the BRA may request capture of state school taxes via a work plan submitted to the MEDC and/or MDEQ. There are 295 BRAs in Michigan, and approximately 467 brownfield plans that are active or have been completed across the state (as reported to the MEDC in September 2015). These authorities vary in terms of their participation with MSF and/or MDEQ to request state school taxes for TIF reimbursement.

MEDC staff recommends policy documents, school tax capture work plans, school tax capture amendments and amendments to SBT/MBT brownfield credits to the MSF for consideration. The MEDC manages all work plans and SBT/MBT brownfield credits approved by the board, including assuring reporting obligations and compliance.

Eligible program uses under TIF include:
- Demolition
- Lead and asbestos abatement
- Site preparation
- Infrastructure improvements
- Assistance to land banks and local government units

Eligible program uses under legacy SBT/MBT Brownfield Credits include:
- Demolition
- Lead and asbestos abatement
- Building renovation
- New construction
- Purchased or leased equipment

TAX INCREMENT FINANCING PROCESS

The work plan submission and approval is a multiple step process. Work plans are received on an ongoing basis and eligible activities must be in accordance with the Act 381 guidance issued by MEDC. Once a project is identified, the BRA or local government representative works with MEDC staff to perform the following steps:

I. Initial evaluation

a. Project scoping and submittal of a draft work plan and other supporting documentation provided to MEDC community assistance team or business development manager to determine initial support.

b. MEDC leadership consideration of initial support and if supported, letter of interest provided.

[1] *As defined in PA 146 of 2000, MCL 125.2781 to 125.2797*

II. Work plan submission, review and MSF consideration

a. BRA or local government representative submits a work plan or amended work plan, brownfield plan, approving resolutions, transmittal letter, and executed reimbursement agreement to MEDC after project is approved by local governing body.
b. Due diligence performed to verify that BRA is compliant with Act 381 reporting requirements. MEDC staff reviews proposed eligible activities for compliance with MSF guidance, and makes a recommendation to the MSF board or delegated representative.
c. MSF board or delegated representative determines support for the project.
d. Local government unit administers TIF capture and is subject to reporting requirements.

III. Reporting requirements (TIF work plans only)

a. BRA submits information annually to MEDC via online portal for each project currently collecting tax increment revenue
b. MEDC and MDEQ compiles information and provides report to legislature.

SBT/MBT BROWNFIELD CREDITS

I. Amendments

a. Amendment application is submitted and amendment request is vetted by brownfield program staff and brownfield program leadership.
b. If amendment is supported, remaining amendment request forms and any other materials required for review is submitted to brownfield program staff.
c. MSF board or delegated representative determines support for the project.

II. Project completion

a. Qualified taxpayer sends certificate of completion request to MEDC brownfield staff.
b. Certificate of completion request is reviewed and sent to MEDC compliance for review.
c. If certificate of completion request fulfills statutory requirements, certificate of completion is issued. Qualified taxpayer may then submit the certificate of completion to Department of Treasury for refund, or tax abatement

CONTACT INFORMATION

For more information, contact the MEDC customer contact center at 517.373.9808.