PM ENVIRONMENTAL
Risk Well Managed

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Berkley **Bay City**
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January 10, 2020

Mr. Paul Owens
Mr. Andrew Hartz
Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Warren District Office
27700 Donald Court
Warren, Michigan 48092

Response to:

December 11, 2019 Order to Restore
5851 West Jefferson Avenue, Detroit Michigan
Compliant Submission No.: HNV-Y8T9-CH85H6
Site Name: 82-5851 West Jefferson Avenue-Detroit

and

December 11, 2019 Compliance Communication: Notice of Section 20107a of Part 201 Obligations
Former Revere Copper and Brass
5851 West Jefferson, Detroit, Wayne County, Michigan
EGLE Site ID No. 82000136

Dear Messrs. Owens and Hartz,

On behalf of Revere Dock, LLC and Ericksons, Inc., PM Environmental, Inc. (PM) is providing a response to the above-referenced Order to Restore and Compliance Communication, which were issued in association with a bank failure of approximately 200-feet of shoreline at 5851 West Jefferson Avenue in Detroit, Michigan (the subject property; Figure 1) on November 26, 2019.

While the cause of the bank collapse is not fully understood at this time, an aggregate pile present in the collapse area at the time of the incident was removed and the remaining gravel material was graded over the area to provide erosion control and a barrier to contact with underlying soils. G2 Consulting, Group (G2) has been retained to evaluate geotechnical conditions at the subject property, including the area of the bank collapse, and actions for restoring the river bank. Initial evaluations conducted by G2 indicate that the river bank is not at risk of further collapse in its present state.

Consistent with a Nonresidential property use as defined under Michigan Part 201, the subject property is used as a storage yard for aggregate materials and is surrounded by a concrete security wall that is present along the north, east, and west property boundaries, with a security gate and staffed security office located adjacent to the northern property boundary, which prevents public access to the subject property. The Detroit River boarders the subject property to the south.

Surface cover at the subject property consists of concrete driveway/approach/walkway areas to the north, an asphalt parking area to the west and areas of seeded topsoil and landscaping along the northern property boundary. The remainder of the subject property is covered with compacted gravel, including the majority of the area of the bank failure. Some areas along the southern area

of the subject property where the bank failure occurred contain surface cracking that have not been filled with gravel due to geotechnical concerns associated with the added weight of a gravel blanket in that area. However, that area of the subject property has been isolated with temporary fencing to prevent access. An additional gravel berm was also installed along the southern boundary of the bank collapse area where water has accumulated, to further control erosion and provide sedimentation control (refer to Figure 2).

Approximately 200-linear feet of turbidity control curtains (five-foot curtain depth) with linked surface flotation elements/buoys are present in the water along the southern property boundary, which surround the bank failure area, and are anchored to the river bottom in accordance with manufacturer recommendations. The turbidity control curtains and associated linked surface floatation elements/buoys prevent access to the bank collapse area via the water and also act to control and contain potential suspended sediments in addition to reducing wave action in the area.

Collectively these surface cover and related features prevent access to the subject property by the public, provide a barrier to dermal contact with contaminated soils, and prevent dermal contact exposures in accordance with Section 7a of Part 201 and the Part 10 Rules.

Human Exposure Pathway Evaluation

As indicated on Page 1, the subject property is used for Nonresidential purposes, with pavement, gravel, and seeded topsoil/landscaping surface cover present across the property, which act as a dermal contact barrier. Fencing and turbidity curtains are in-place in the area of the collapse to prevent access to those areas.

The subject property is serviced by municipal water, sanitary sewer, and natural gas utilities, with no water supply wells present.

Subsurface investigations have been conducted at the subject property dating back to the 1990s, summaries of which remain on file with EGLE, including the July 14, 2015 Baseline Environmental Assessment (BEA) prepared for Revere Dock, LLC and Ericksons, Inc. Those investigations document the presence of various volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), and metals in soil, and metals in groundwater exceeding Michigan's Part 201 Generic Cleanup Criteria (GCC), including the Residential and Nonresidential Drinking Water/Drinking Water Protection (DW/DWP) criteria, Groundwater Surface Water Interface/Groundwater Surface Water Interface Protection (GSIP) criteria, and Direct Contact (DC) criteria. No exceedances of other Nonresidential GCC were identified.

Based on its current Nonresidential use, lack of water supply wells, and the results of subsurface investigations, the potentially complete human exposure pathway at the subject property, including the bank collapse area is the direct contact pathway. However, as indicated above surface cover and other measures have been implemented to prevent dermal contact exposures to site occupants, prevent erosion/siltation, and the subject property is not accessible to the general public. Therefore, the direct contact exposure pathway is not complete.

Notices were submitted to the Detroit Public Lighting Department, the Detroit Water and sewer Authority, and DTE Energy in July 2015 informing those utilities that contamination exists at the subject property exceeding the Part 201 GCC and that appropriate precautions must be taken if sub-grade work is to be conducted at the subject property.

During interim response and bank restoration activities planned for the subject property (refer to the next section), due care will be evaluated in accordance with Section 7a of Part 201 and the Part 10 Rules, and appropriate actions taken to prevent unacceptable human exposures and exacerbation of existing contamination, and to take precautions against the reasonably foreseeable acts or omissions of a third party. Following bank restoration, a post-construction Documentation of Due Care Compliance report will be prepared that documents the activities conducted and the due care compliance status of the subject property.

All potential third party contractors who may work sub-grade or in contact with potentially contaminated media on the subject property during interim response and bank restoration activities will be notified of the presence of contaminants, that site workers must adhere to OSHA 29 CFR 1910.120 Worker Protection Regulations, and must practice management actions for impacted media during those activities.

Interim Response Actions and Restoration Plan Submittal

The feasibility of interim actions to further control potential erosion of the bank collapse area, and permanent actions to restore the river bank are currently being evaluated.

Based upon the current stability of the bank and presence of contaminants in soil in the collapse area, and to avoid further movement of the material or the potential release of contaminated soils/sediments to the river, PM and G2 have recommended that the collapse material be left in-place until further geotechnical evaluation and characterization of the collapse material is completed.

As indicated above, gravel surface cover, a gravel berm, and turbidity control curtains have been installed at the subject property as erosion and sedimentation control measures. The following additional actions will be undertaken to address the bank failure in compliance with Michigan Parts 31 and 301:

Up to 400-linear feet of additional turbidity control curtains with a 20-foot curtain depth will be installed in a secondary boundary beyond the existing turbidity curtains during the week of January 30, 2020. The 20-foot turbidity curtains will provide additional sediment and turbidity control, and will be anchored to the river bottom in accordance with manufacturer recommendations. The curtain depth will be maintained at least one-foot from the river bottom to prevent disturbing river sediments and the turbidity curtains will be maintained per manufacturer recommendations to ensure their effectiveness. Notice will be provided to EGLE, the United States Army Core of Engineers (USACE), and the United States Environmental Protection Agency (USEPA) prior to installing the 20-foot turbidity curtains.

By January 24, 2020, an Interim Response Plan will be submitted for EGLE review and approval that will include the following elements:

- Feasibility evaluation for additional erosion controls based on geotechnical stability and load-bearing capacity of the collapse area, along with a plan for the installation of recommended controls;

- Workplan for characterization of the collapse material and underlying sediments including sampling procedures, analytical methods, and associated reporting. It is anticipated that river depth measurements collected prior to and after the bank collapse, as well as the results of previous onsite subsurface investigations and river sediment sampling data in

the area of the subject property will be used to develop the characterization workplan;

- Schedule for implementation.

Following the collapse material and sediment characterization activities, a Restoration Plan will be prepared and submitted for EGLE review and approval, which will include the following components:

- Geotechnical evaluation and feasibility analysis for permanent bank restoration;
- Description of the selected bank restoration action, including approach and design drawings;
- A summary of permits or approvals to be obtained from relevant regulatory agencies/authorities prior to initiating bank restoration activities;
- Procedures for removal, management, relocation, placement, and/or disposal of collapse material; sediment, and water removed from the collapse area; and restoration of the collapse area. This will include management procedures for characterizing, handling, temporarily storing (if needed) and disposal of contaminated media;
- Engineering controls required to comply with due care obligations for materials relocated to onsite locations (if any), and post restoration conditions;
- Reporting and regulatory submittals, including as-built documentation;
- Preparation of a post-construction Documentation of Due Care Compliance report;
- Schedule for implementation.

Revere Dock, LLC and Ericksons, Inc. are committed to addressing the November 2019 bank collapse in accordance with all applicable environmental regulations. If you have questions regarding the contents of this letter, please contact us at 800-313-2966.
Sincerely,

PM Environmental, Inc.

J. Adam Patton, CHMM
Vice President

FIGURES

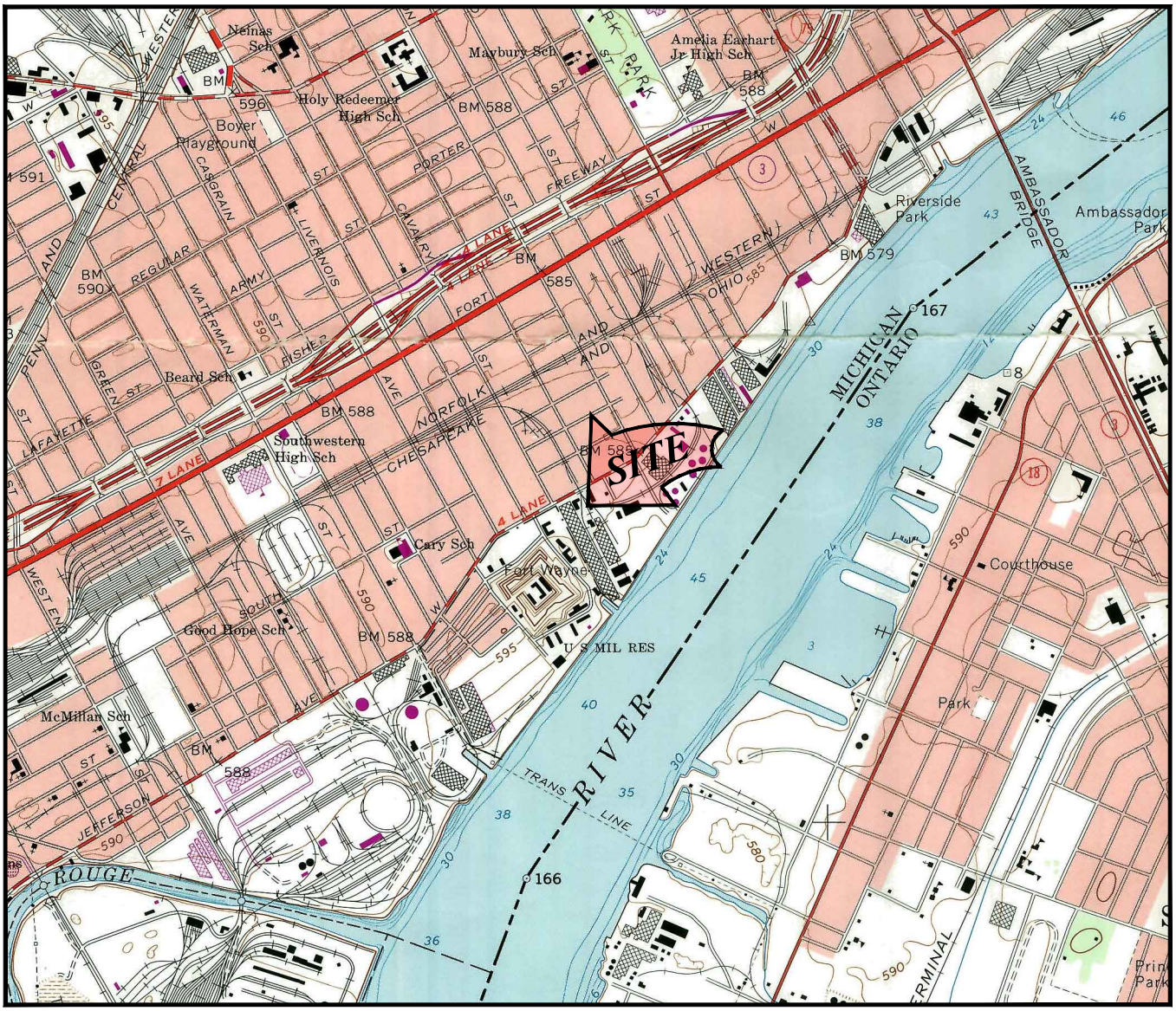
Figure 1: Property Vicinity Map
Figure 2: Surface Cover and Erosion/Sedimentation Control Map

cc:

Mr. Steve Erickson, Revere Dock, LLC
Mr. Greg Esper, Ericksons, Inc.
Mr. Mark Stapleton, P.E., G2 Consulting, Group
Mr. Noel Frye, Detroit Bulk Storage
Ms. Beth Vens, EGLE-RRD
Mr. Jeremy Richardson, EGLE-RRD

Figures

PM ENVIRONMENTAL Environmental & Engineering Services



MICHIGAN QUADRANGLE LOCATION

WAYNE COUNTY

SCALE 1:24,000

1 MILE 1/2 MILE 0 1 MILE

FIGURE 1

PROPERTY VICINITY MAP

USGS, 7.5 MINUTE SERIES

DETROIT, MI QUADRANGLE, 1968. PHOTO REVISED 1973 & 1980.

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PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE 0 2,000'

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

DRN BY: ES/CS/BP | DATE: 1/10/2020

CHKD BY: RF/AP | SCALE: 1" = 2,000'

FILE NAME: 01-5303-3-001F01R00

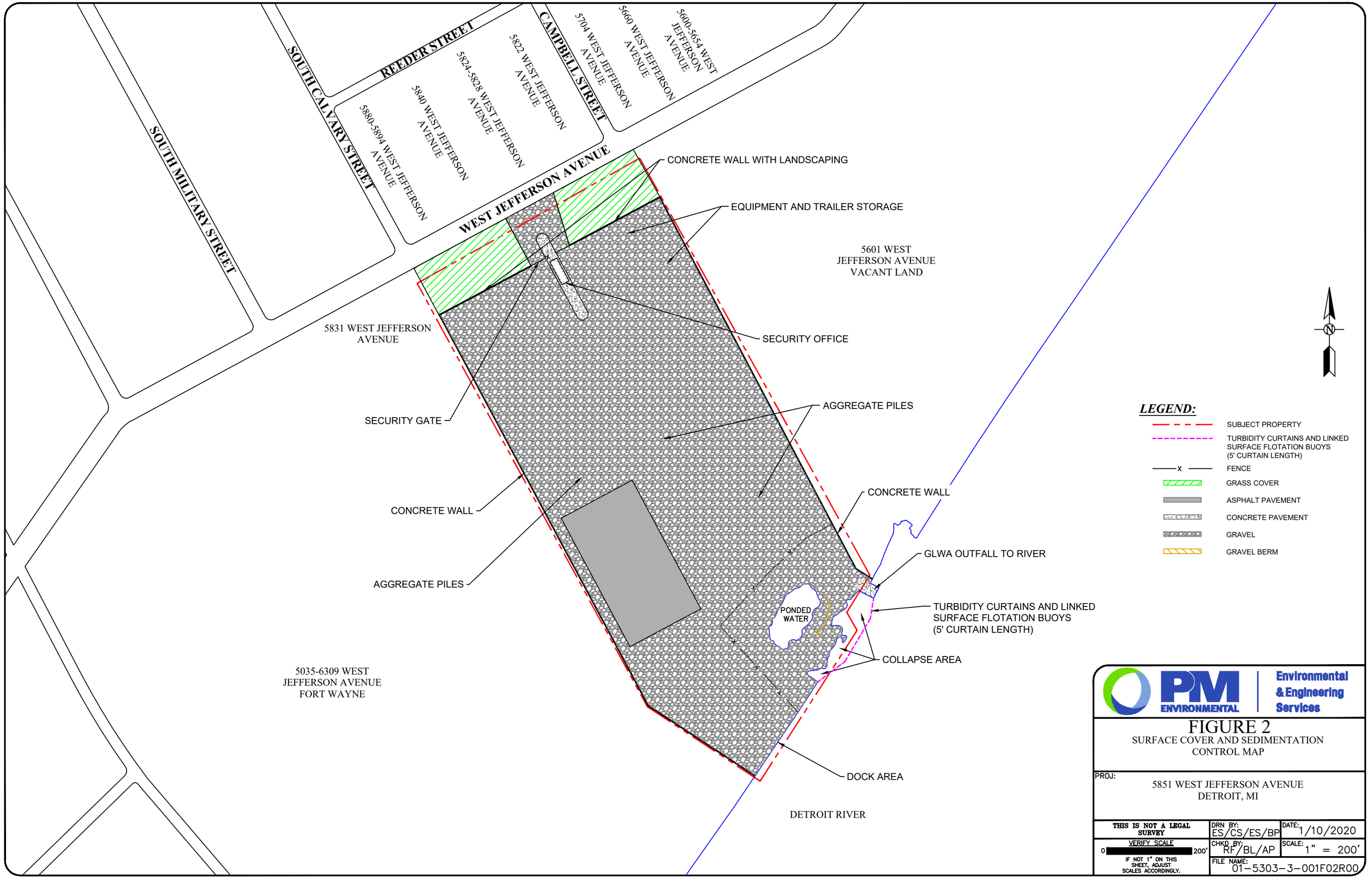

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FIGURE 2

SURFACE COVER AND SEDIMENTATION CONTROL MAP

PROJ:

5851 WEST JEFFERSON AVENUE
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS/ES/BP	DATE: 1/10/2020
VERIFY SCALE 0 — 200' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: RF/BL/AP	SCALE: 1" = 200'
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