MEMO

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Date:

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Arcadis Project No.:

30121887

Subject:

PCB Area #20 – Former Oil Interceptor #2 TSCA Deed Restriction

RACER Buick City Site, Flint, Michigan

EXECUTIVE SUMMARY

PCB Area #20 is the former Oil Interceptor #2, which removed oil from the Outfall 003 storm sewer system. Oil Interceptor #2 decommissioning was completed in January/February 2023. As part of decommissioning activities, a sample of the sediment remaining in the structure detected PCBs at a concentration of 2 milligrams per kilogram (mg/kg). In addition, six wipe samples were collected from the sheet pile wall remaining in the ground, which detected PCBs at concentrations ranging from 3 to 24 micrograms per 100 centimeters squared (ug/100cm^2). Therefore, a ***low occupancy deed restriction*** is planned for the footprint of the remaining structure.

1.1 Background

Oil Interceptor #2 is located in the Northend of the Site (**Figure 1**) along the Outfall 003 storm sewer system (**Figure 2**). The interceptor was installed in the 1980's to collected oil infiltrating the storm sewer. As part of the Outfall 003 reroute completed in 2021, the section of storm sewer that Oil Interceptor #2 serviced was abandoned. Oil Interceptor #2 was constructed with a concrete floor and sheet pile sidewalls, with approximate dimensions of approximately 20 ft x 90 ft x 18 ft deep. The Oil Interceptor #2 structure decommissioning was completed in January/February 2023.

1.1 Overview of Decommissioning Activities

A brief overview of decommissioning activities is summarized below.

- Absorbent booms and pads were utilized to collect residual oil from the interior sheet pile sidewalls of the interceptor structure. Oil impacted waste media was containerized into drums for offsite disposal.
- Prior to backfill, the sediment remaining in the interceptor structure was regraded to an approximate two-foot thickness across the bottom of the structure.
- The internal components of the oil interceptor which included an above grade building and an open stairwell to a lower-level catwalk were removed for offsite disposal.
- Imported fill material was placed in 12" loose lifts and compacted to approximately seven feet below final grade.
- Surface wipe samples were collected from six locations on the interior sheet pile walls of the interceptor structure at a depth of 7 feet below ground surface. One sample did not detect PCBs and the remaining 5 samples detect PCBs at concentrations ranging from 3 to 24 ug/100cm^2.
- Existing soils along the perimeter of the interceptor were removed to a depth of five and a half feet. Soils were temporarily stockpiled for reuse.
- The sheet pile sidewalls of the interceptor were cut at five feet below grade, removed for offsite disposal.
- Imported fill material was placed six inches above the top of the remaining embedded sheet pile structure across the excavation area and then compacted with a roller.
- A 60mil geomembrane liner was installed (one continuous wide roll, with no panel seams)
- Six ounce nonwoven geotextile (12" overlap on adjacent sides) was then installed directly above the liner to serve as a protective layer.
- The liner system was then keyed into the ground outside of the footprint of the former interceptor walls, backfilled and compacted.
- A one-foot layer of Imported clay material was placed and compacted above the liner system.
- An additional layer of 6oz nonwoven geotextile was placed atop of the clay (one foot above the top of the liner) to act as a demarcation layer.
- Imported fill material was placed in 12" loose lifts and compacted with a roller to surface grade.

Figure 3 shows a cross section of the remaining Oil Interceptor #2 structure and cap.

A photo log of the construction activities are included in this memo.

1.2 PCB Impacts

1.2.1 Oil Interceptor #2 Impacts

Following decommissioning of Oil Interceptor #2, only the sediments and portion of the structure remain. Laboratory analysis detected PCBs in the samples at the following concentrations:

- Sediment sample – 2 mg/kg
- Wipe samples
    - Wipe 1 – 24 ug/100cm^2
    - Wipe 2 – 11 ug/100cm^2
    - Wipe 3 – 3 ug/100cm^2
    - Wipe 4 – 6.4 ug/100cm^2
    - Wipe 5 – 24 ug/100cm^2
    - Wipe 6 – Not detected

1.2.2 Soil Investigation Activities4

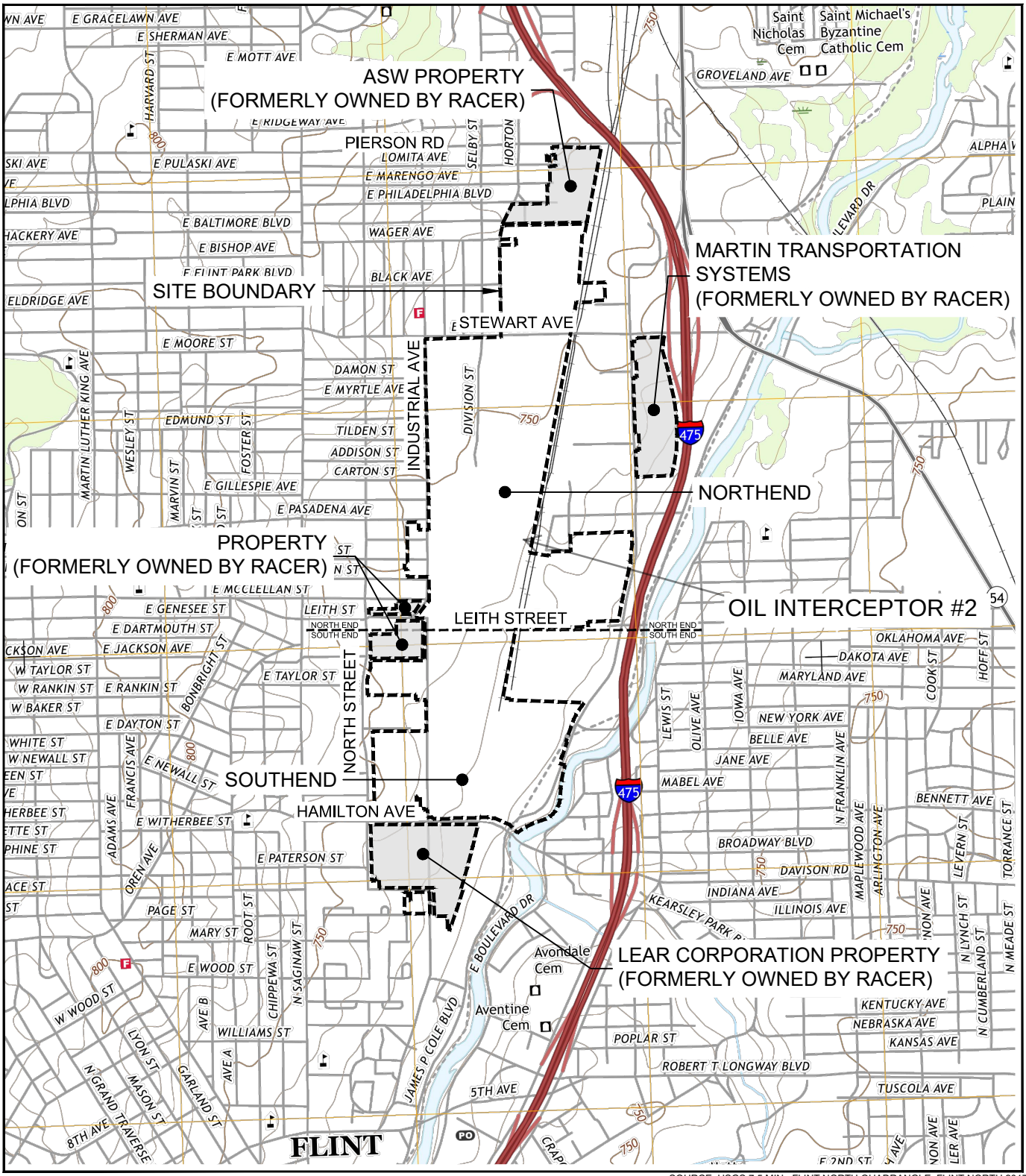
During various Site investigation activities five borings (**Figure 4**) have been completed adjacent to Oil Interceptor #2 as detailed below:

- As part of 1993 investigation work, soil samples were collected from three borings (SB-26A and SB-27A) and submitted for PCB analysis. Two soil samples were collected from each boring from 5 to 7 ft bgs and 10 to 12 ft bgs. There were no detections of PCBs.
- As part of 2001 RFI investigation activities surface soil samples collected from 0 to 2 ft bgs at soil borings RFI-81-15 and RFI-81-16 and submitted for PCB analysis. There were no detections of PCBs.
- In addition, as part of the laser-induced fluorescence (LIF) investigation one boring was completed near the discharge point of Oil Interceptor #2 to investigate for the presence of LNAPL impacts in soil. The boring was completed to a depth of 25.4 ft bgs. No evidence of LNAPL impacts were observed in the boring.

Based on available investigation data no PCB impacts were identified outside the Oil Interceptor #2 structure.

1.3 Proposed Restrictions

At PCB Area #20, PCBs were detected at concentrations up to 24 ug/100cm^2 from the wipe samples collected from remaining Oil Interceptor #2 structure. The proposed area to be restricted is the footprint of the Oil Interceptor #2 structure, shown on **Figure 4**. No evidence of PCB impacts has been identified outside of the structure. Based on available data a ***low occupancy deed restriction*** is being requested for PCB Area #20.



SOURCE: USGS 7.5 MIN., FLINT NORTH QUADRANGLE, FLINT NORTH 2017

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SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

OIL INTERCEPTOR #2

LINE CONNECTION TERMINATED

BULKHEAD

10”

12”

LINE CONNECTION TERMINATED

BULKHEAD

LINE CONNECTION TERMINATED

EXISTING BULKHEAD

66”

12”

12”

8”

8”

3 15

3 17-1

3 16

3 17

3 12

3 38

3 38-1

IE 731.37

(ABANDONED)

18”

60”

BURIED

IE 72

LEGEND:

- PROPERTY BOUNDARY
- BUILDING
- DECKING
- SEWER LINE
- FIRE WATER
- PROCESS WASTE

0 16' 32'

GRAPHIC SCALE

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OIL INTERCEPTOR #2 DECOMMISSIONING

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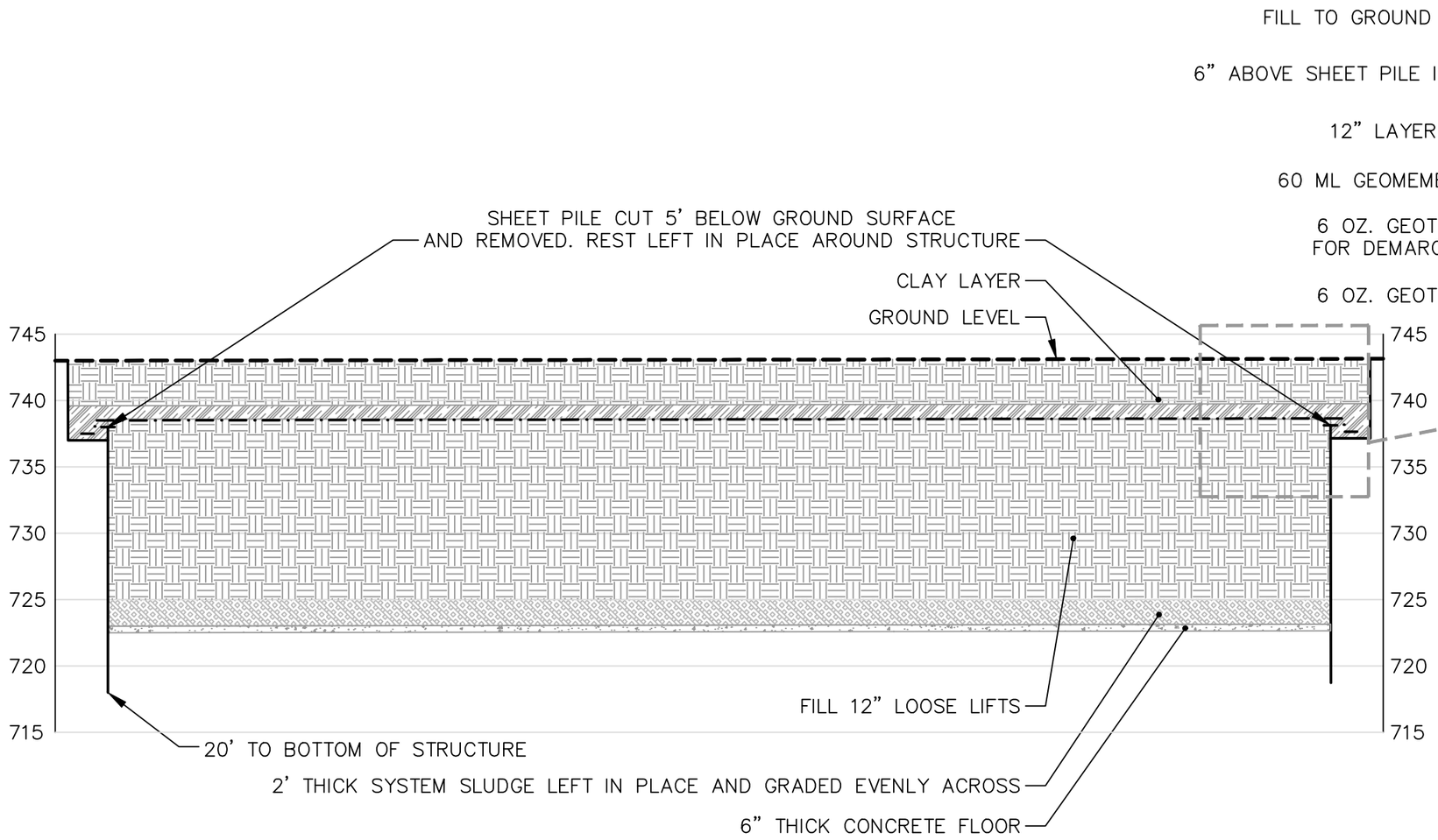
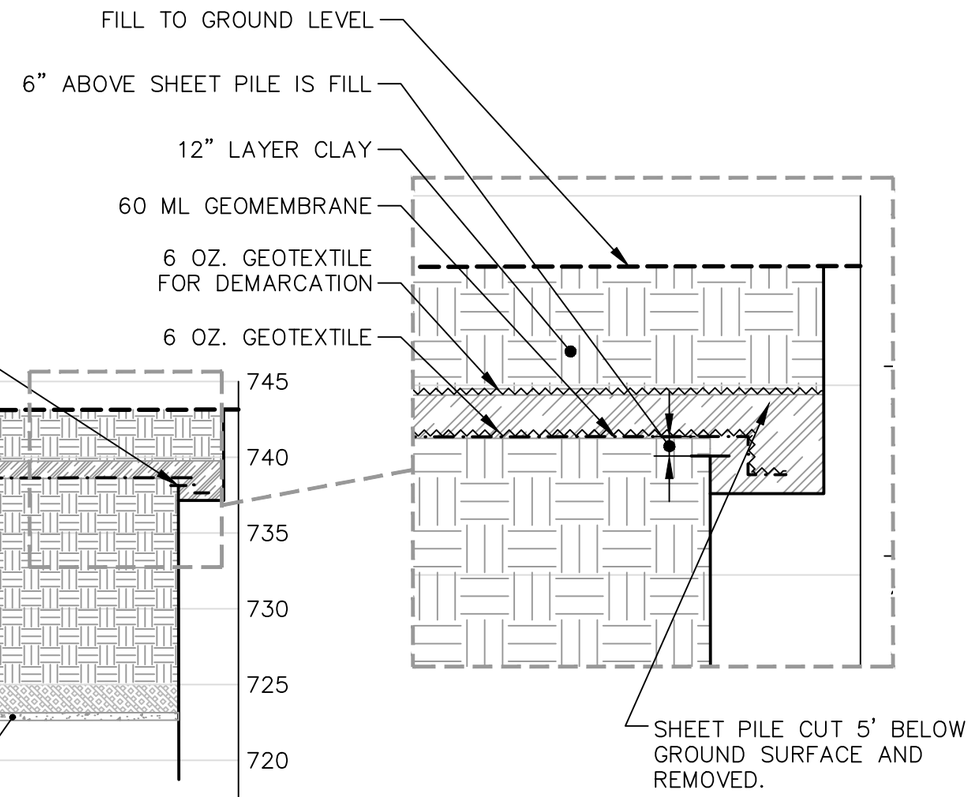
FIGURE 2





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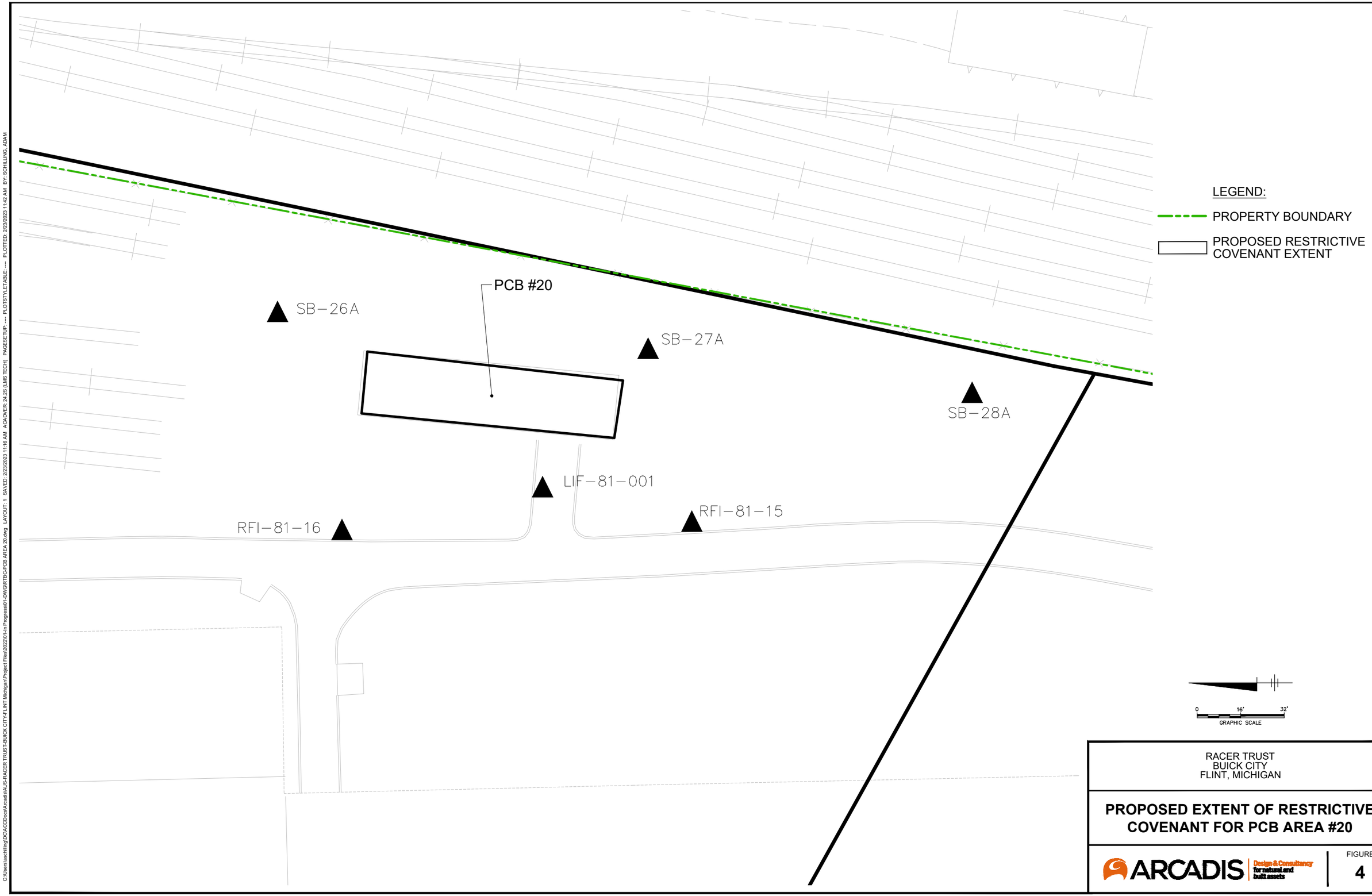
OIL INTERCEPTOR 2 DECOMMISSIONING CROSS SECTION

ARCADIS

FIGURE
3



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PROPOSED EXTENT OF RESTRICTIVE COVENANT FOR PCB AREA #20

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FIGURE
4

PHOTOGRAPH: 1

DIRECTION / VIEW:
N

DESCRIPTION:

Global Water Treatment System consisting of inline GAC vessels and dual bag filter housing units. ISCO sampling device shown towards front of the trailer mounted system.

PHOTOGRAPH: 2

DIRECTION / VIEW:
N

DESCRIPTION:

2” submersible pump and generator installed near SW corner of Interceptor #2

PHOTOGRAPH: 3

DIRECTION / VIEW:
OUTSIDE

DESCRIPTION:

View from atop structure at intake location when the treatment system was shut down due to trickle flow water level

PHOTOGRAPH: 4

DIRECTION / VIEW:
N

DESCRIPTION:

View from within the structure of sediment and ponding water

PHOTOGRAPH: 5

DIRECTION / VIEW:
W

DESCRIPTION:

Observe 2” dia. PVC pipe within the structure. PVC lines have been previously cut & left in place terminating the run.

PHOTOGRAPH: 6

DIRECTION / VIEW:
NE

DESCRIPTION:

Observe a 12” dia. line entering the subsurface structure from the NE corner at a depth of ~10’ below top of the sheet pile wall.

PHOTOGRAPH: 7

DIRECTION / VIEW:
E

DESCRIPTION:

Contents from within the above grade structure removed prior to building demo.

PHOTOGRAPH: 8

DIRECTION / VIEW:
SE

DESCRIPTION:

Above grade building structure post demo.

PHOTOGRAPH: 9

DIRECTION / VIEW:
-

DESCRIPTION:

Removal of components from within the interior structure of the interceptor building

PHOTOGRAPH: 10

DIRECTION / VIEW:
-

DESCRIPTION:

Removal of components from within the interior structure of the interceptor building

PHOTOGRAPH: 11

DIRECTION / VIEW:
N

DESCRIPTION:

Contractor has completed excavation of soil along the West side of the structure to accommodate sheet pile wall removal after piles have been cut w/welding torch

PHOTOGRAPH: 12

DIRECTION / VIEW:
SE

DESCRIPTION:

Overview of Interceptor sheet pile and horizontal I-beam supports that remain in place

PHOTOGRAPH: 13

DIRECTION / VIEW:
SE

DESCRIPTION:

Contractor cutting sheet pile with welding torch prior to removal

PHOTOGRAPH: 14

DIRECTION / VIEW:
S

DESCRIPTION:

Structural bracing remains in place while sheet pile is cut

PHOTOGRAPH: 15

DIRECTION / VIEW:
W

DESCRIPTION:

Contractor placing material within the interceptor during backfill and compaction.

PHOTOGRAPH: 16

DIRECTION / VIEW:
E

DESCRIPTION:

Contractor utilizing mini excavator to grade and compact soil around structural bracing.

PHOTOGRAPH: 17

DIRECTION / VIEW:
E

DESCRIPTION:

The upper 5ft of the 4 sided sheet pile wall structure have been removed

PHOTOGRAPH: 18

DIRECTION / VIEW:
E

DESCRIPTION:

Contractor placing, grading, compacting clay soil 6” above the top of the cut sheet pile wall

PHOTOGRAPH: 19

DIRECTION / VIEW:
S

DESCRIPTION:

Backfill above liner system

PHOTOGRAPH: 20

DIRECTION / VIEW:
N

DESCRIPTION:

Backfill above liner system

PHOTOGRAPH: 21

DIRECTION / VIEW:
S

DESCRIPTION:

Backfill and grading above liner system

PHOTOGRAPH: 22

DIRECTION / VIEW:
N

DESCRIPTION:

Compaction of 12” loose lifts during backfill

PHOTOGRAPH: 23

DIRECTION / VIEW:
NE

DESCRIPTION:

Following placement and grading of 12” lift, contractor utilizing Compactor with sheep’s foot Pad front roller

PHOTOGRAPH: 24

DIRECTION / VIEW:
N

DESCRIPTION:

Mid morning progress photo