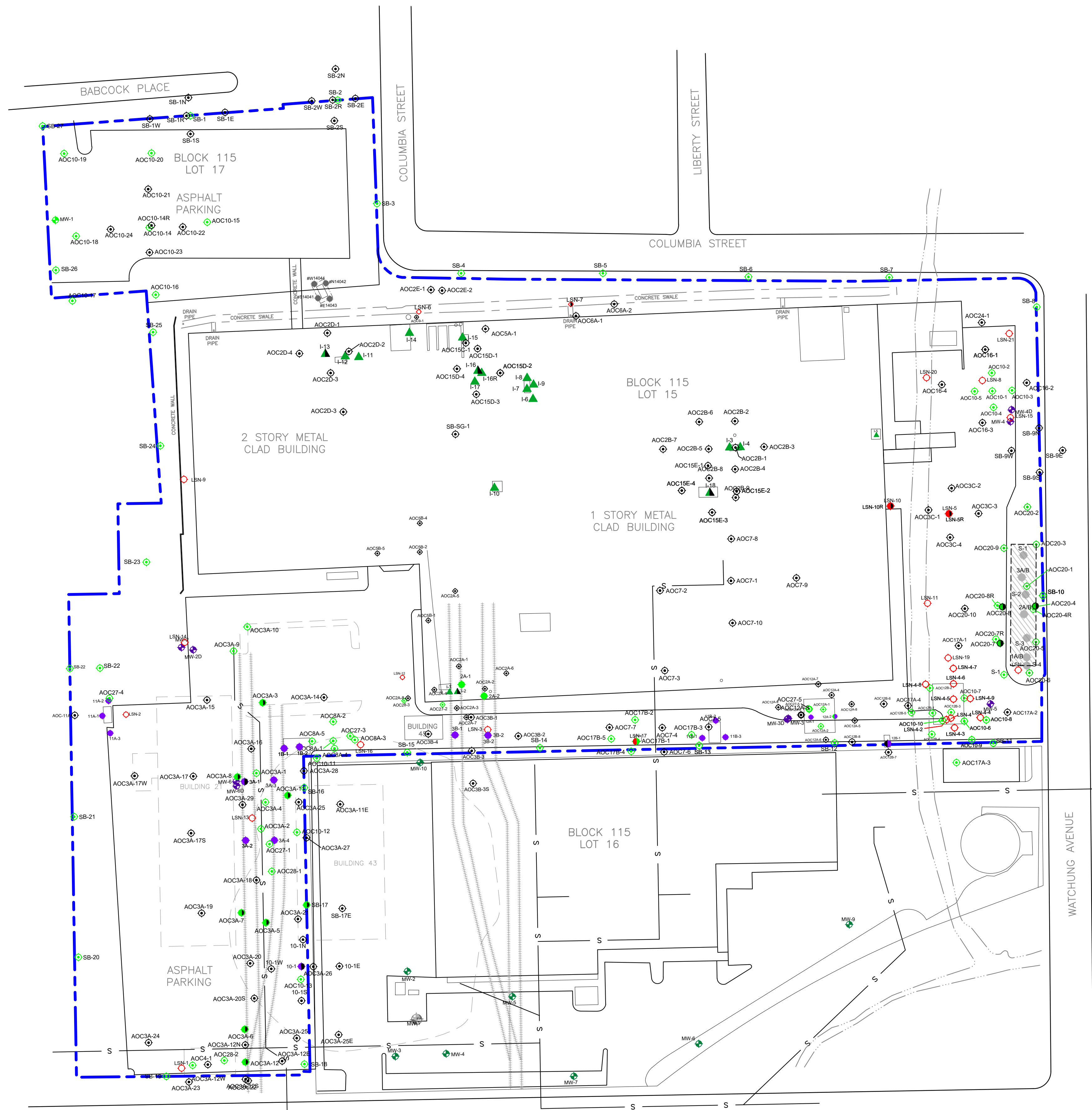
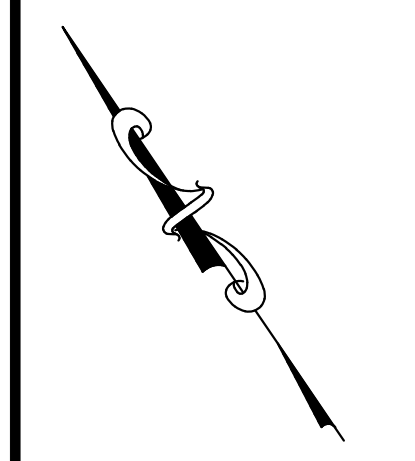
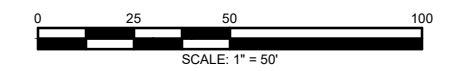


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- LEGEND**
- PROPERTY BOUNDARY
  - SITE FEATURES
  - FORMER SITE FEATURES
  - HISTORIC SEWER UTILITY LINE
  - WIGWAM CREEK BOUNDARY
  - FORMER RAIL LINES
  - 55 LAKESIDE AVENUE MONITORING WELL LOCATION
  - 25 LAKESIDE AVENUE MONITORING WELL LOCATION
  - FORMER 25 LAKESIDE AVENUE MONITORING WELL LOCATION
  - 1997 POST-EXCAVATION- SOIL BORING LOCATION
  - 2007 ECI - SOIL BORING LOCATION
  - 2007 ECI / 2022 MATRIX - SOIL BORING LOCATION
  - 2007 ECI / 2020 WOODARD & CURRAN - SOIL BORING LOCATION
  - 2008 ECI - SOIL BORING LOCATION
  - 2008 ECI/2022 MATRIX - SOIL BORING LOCATION
  - 2008 ECI - INDOOR SOIL BORING LOCATION
  - 2008 ECI / 2022 MATRIX INDOOR SOIL BORING LOCATION
  - 2020 WOODARD & CURRAN - SOIL BORING LOCATION
  - 2022 MATRIX - SOIL BORING LOCATION
  - 2022 MATRIX - SOIL BORING LOCATION



|              |     |
|--------------|-----|
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| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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**SOIL BORING LOCATION**  
**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

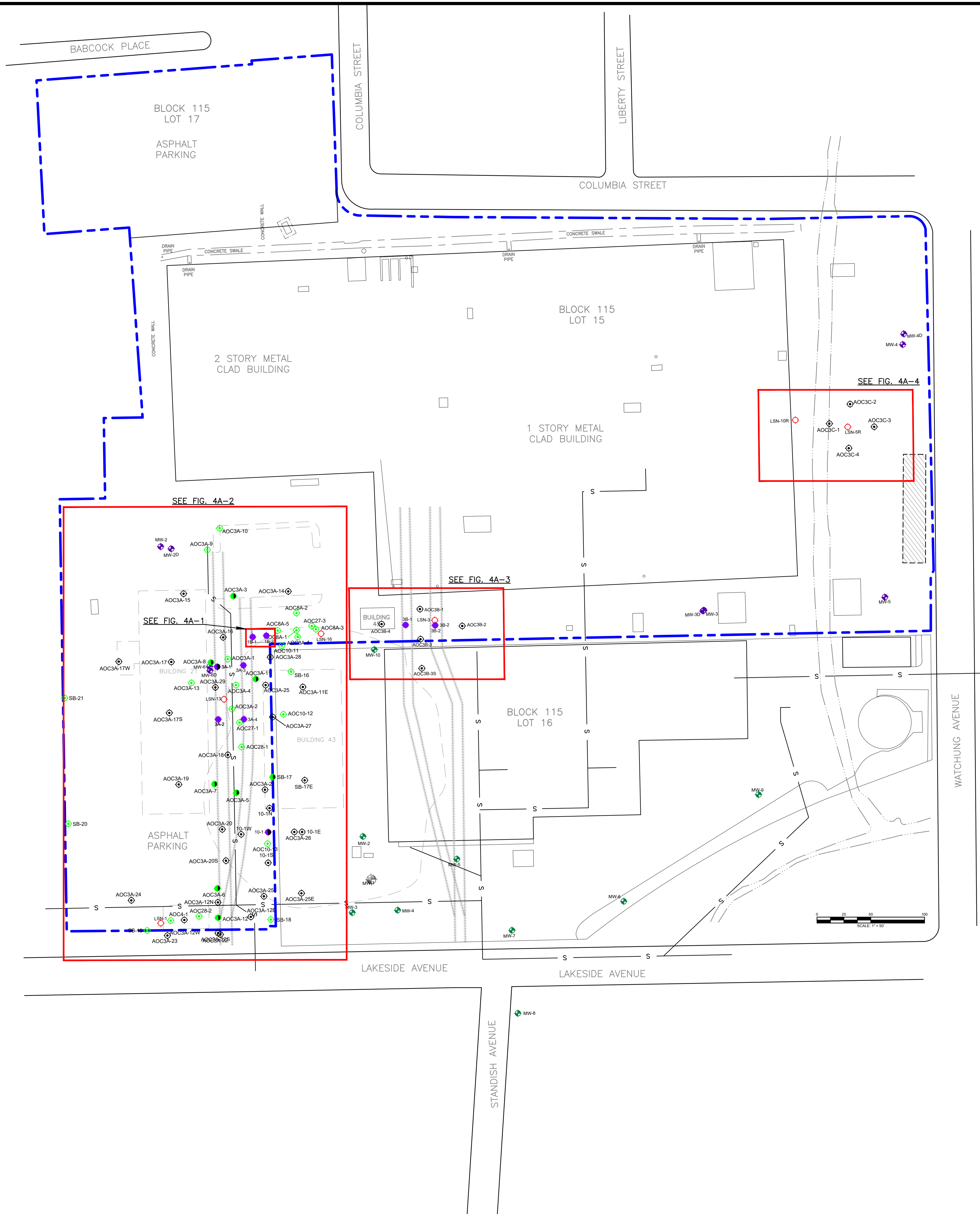
PROJECT NUMBER: 21-1041

DATE: 6/7/2022

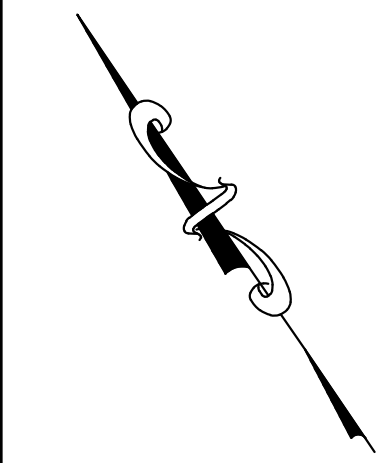
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**4**

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- LEGEND**
- PROPERTY BOUNDARY
  - SITE FEATURES
  - FORMER SITE FEATURES
  - HISTORIC SEWER UTILITY LINE
  - WIGWAM CREEK BOUNDARY
  - FORMER RAIL LINES
  - 55 LAKESIDE AVENUE MONITORING WELL LOCATION
  - 25 LAKESIDE AVENUE MONITORING WELL LOCATION
  - FORMER 25 LAKESIDE AVENUE MONITORING WELL LOCATION
  - 2007 ECI - SOIL BORING LOCATION
  - 2008 ECI - SOIL BORING LOCATION
  - 2008 ECI/2022 MATRIX - SOIL BORING LOCATION
  - 2020 WOODARD & CURRAN - SOIL BORING LOCATION
  - 2022 MATRIX - SOIL BORING LOCATION
  - 2022 MATRIX - SOIL BORING LOCATION



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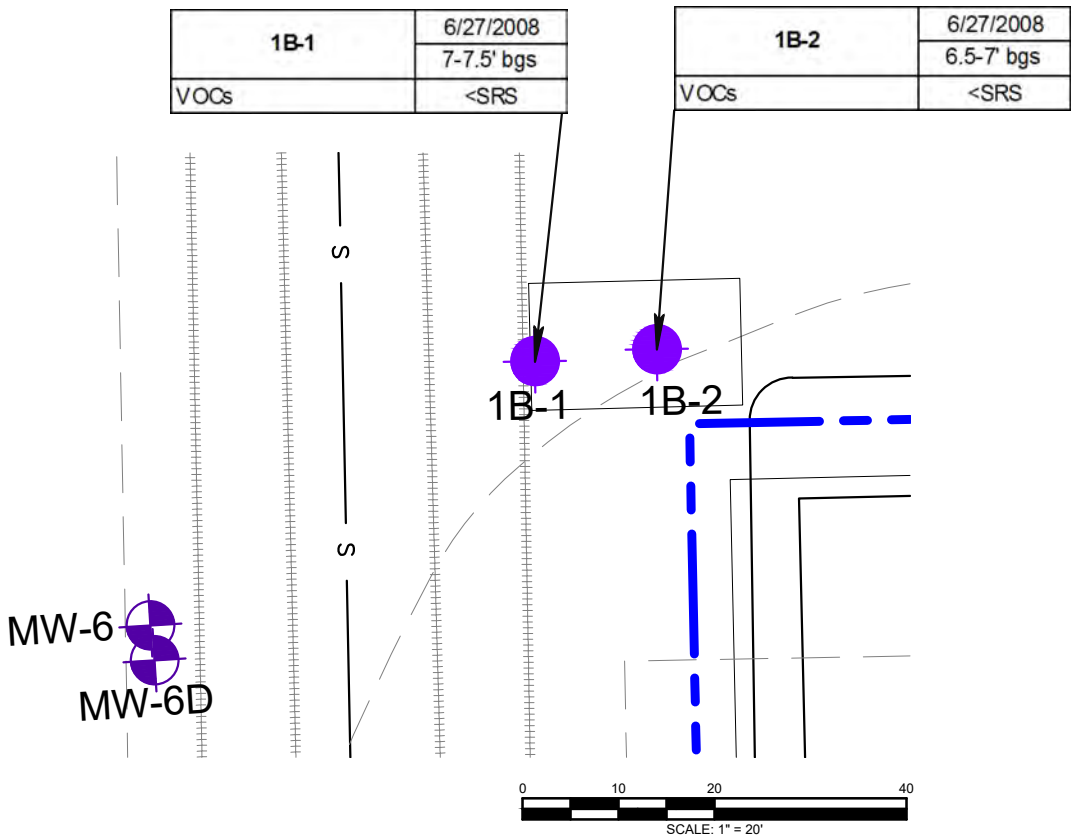
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**SOIL BORING LOCATIONS**  
**AOC-1, AOC-3A&B, AOC-4, AOC-8A, AOC-14**  
**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

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**4A**

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LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- HISTORIC SEWER UTILITY LINE
- FORMER RAIL LINES
- 55 LAKESIDE AVENUE MONITORING WELL LOCATION
- 2008 ECI – SOIL BORING LOCATION

NOTES:

- ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)
- FT. BGS FEET BELOW GROUND SURFACE
- ALL SAMPLE DEPTHS PRESENTED IN FT. BGS
- <# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)
- SATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S RIDSRs AND RISRS
- UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S MGWSRS
- MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RIDSRS RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRIDSRS NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4A FOR AOC LOCATION

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SOIL ANALYTICAL RESULTS

AOC-1

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

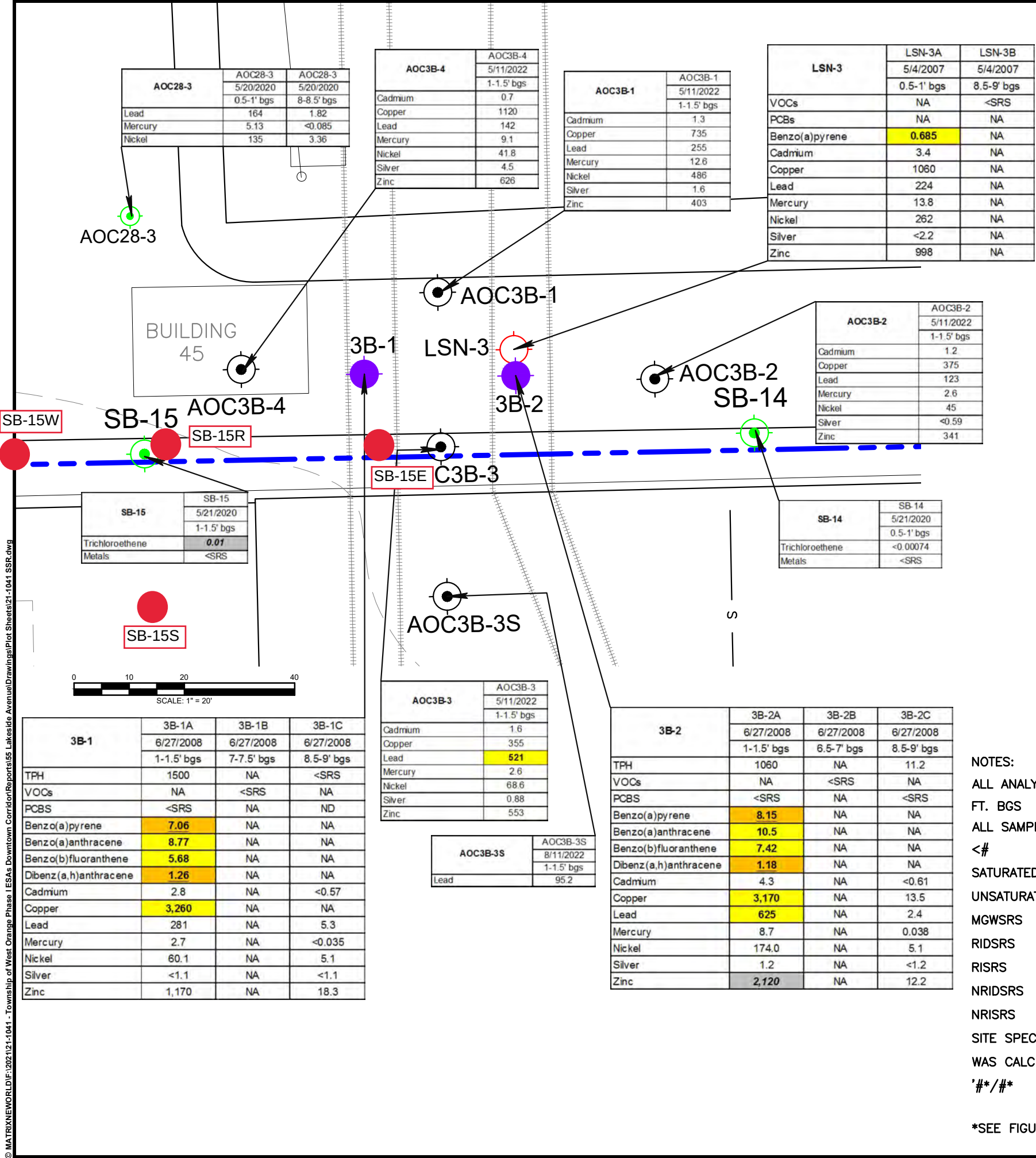
PROJECT NUMBER: 21-1041

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DATE: 6/16/2022

4A-1





**LEGEND**

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- FORMER RAIL LINES
- 2007 ECI – SOIL BORING LOCATION
- 2008 ECI – SOIL BORING LOCATION
- 2020 WOODARD & CURRAN – SOIL BORING LOCATION
- 2022 MATRIX – SOIL BORING LOCATION
- EXCEEDS THE NJDEP’S MGWSRS OR SS–MGWSRS
- EXCEEDS NJDEP’S RIDSRs OR RISRS
- EXCEEDS NJDEP’S NRIDSRs OR NRISRS

| PARAMETER              | NJDEP<br>MGWSRS<br>(m g/kg) | NJDEP<br>RIDSRs<br>(m g/kg) | NJDEP<br>NRIDSRs<br>(m g/kg) | NJDEP<br>RISRS<br>(m g/kg) | NJDEP<br>NRISRS<br>(m g/kg) |
|------------------------|-----------------------------|-----------------------------|------------------------------|----------------------------|-----------------------------|
| PCBs                   | 1.6                         | 0.25                        | 1.1                          | NA                         | NA                          |
| Benzo(a)pyrene         | NA                          | 0.51                        | 2.3                          | 3500                       | 16000                       |
| Benzo(a)anthracene     | 20.9/5*                     | 5.1                         | 23                           | 78000                      | 370000                      |
| Benzo(b)fluoranthene   | NA                          | 5.1                         | 23                           | 780000                     | NA                          |
| Dibenzo(a,h)anthracene | NA                          | 0.51                        | 2.3                          | 7800                       | 37000                       |
| Cadmium                | 5.6*/1.9                    | 71                          | 1100                         | 2600                       | 12000                       |
| Copper                 | 5270*/910                   | 3100                        | 52000                        | NA                         | NA                          |
| Lead                   | 2840/1200*                  | 400                         | 800                          | NA                         | NA                          |
| Mercury                | 90/20.8*                    | 23                          | 390                          | 520000                     | NA                          |
| Nickel                 | 4930/544*                   | 1600                        | 26000                        | 20000                      | 93000                       |
| Silver                 | 34.4/234*                   | 390                         | 6500                         | NA                         | NA                          |
| Zinc                   | 1260*/930                   | 23000                       | 390000                       | NA                         | NA                          |

**NOTES:**

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S RIDSRs AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRs RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRs NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS–MGWSRS) WAS CALCULATED FOR EACH USING NJDEP’S SPLP SPREADSHEET

\*#/#\* SS–MGWSRS FOR HISTORIC FILL MATERIAL/ SS–MGWSRS FOR NATIVE MATERIAL

\*SEE FIGURE 4A FOR AOC LOCATION

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**SOIL ANALYTICAL RESULTS**  
AOC-3B

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

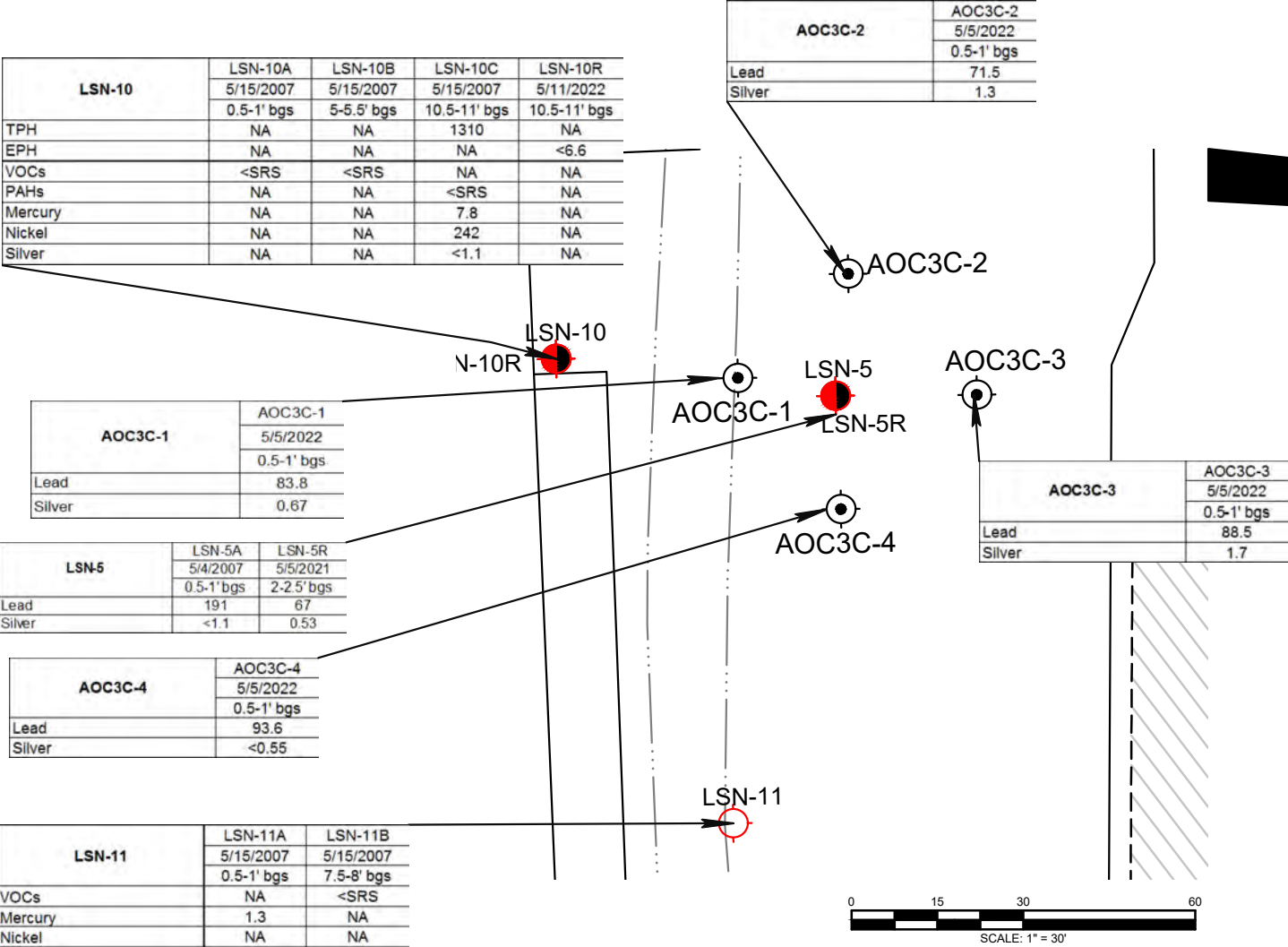
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SCALE: AS SHOWN

DATE: 6/16/2022

**4A-3**

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LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- S

HISTORIC SEWER UTILITY LINE
- WIGWAM CREEK BOUNDARY
- 2007 ECI SOIL BORING LOCATION
- 2007 ECI / 2022 MATRIX SOIL BORING LOCATION
- 2022 MATRIX SOIL BORING LOCATION

| PARAMETER | NJDEP      | NJDEP | NJDEP | NJDEP  | NJDEP |
|-----------|------------|-------|-------|--------|-------|
| EPH       | NA         | 5300  | 75000 | NA     | NA    |
| Lead      | 2840/1200* | 400   | 800   | NA     | NA    |
| Mercury   | 90/20.8*   | 23    | 390   | 520000 | NA    |
| Nickel    | 4930/544*  | 1600  | 26000 | 20000  | 93000 |
| Silver    | 34.4/234*  | 390   | 6500  | NA     | NA    |

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRs AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRs RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

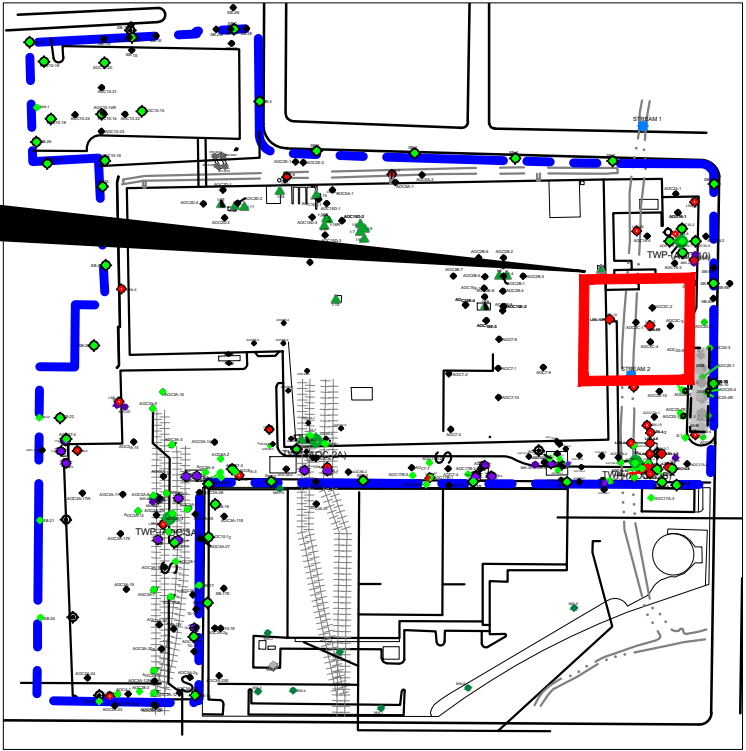
NRIDSRs NON-RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS-MGWSRS)

WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET

'#/'#\* SS-MGWSRS FOR HISTORIC FILL MATERIAL/ SS-MGWSRS FOR NATIVE MATERIAL



KEY MAP  
NOT TO SCALE

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SOIL ANALYTICAL RESULTS  
AOC-3C & AOC 8B

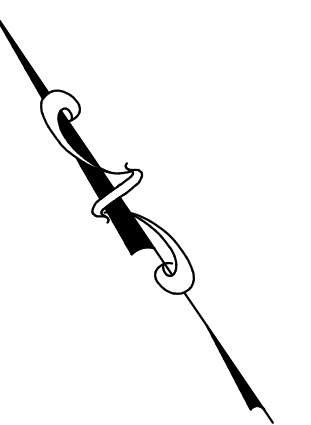
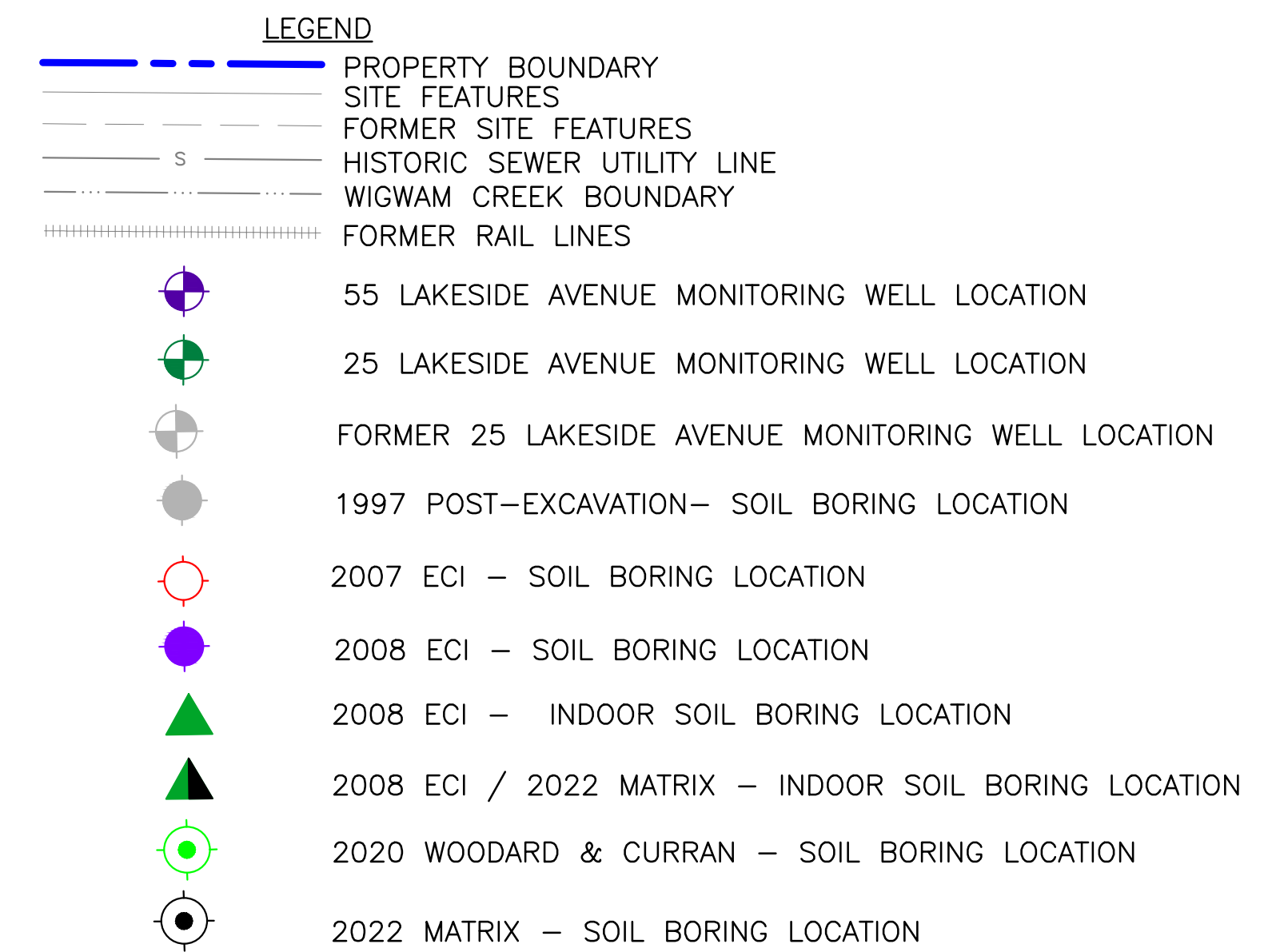
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55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041

SCALE: AS SHOWN

DATE: 6/13/2022

4A-4



|              |       |
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**SOIL BORING LOCATIONS**  
**AOC-2**

**FORMER BARTON PRESS NUDEP PI No.**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
**ESSEX COUNTY, NEW JERSEY**

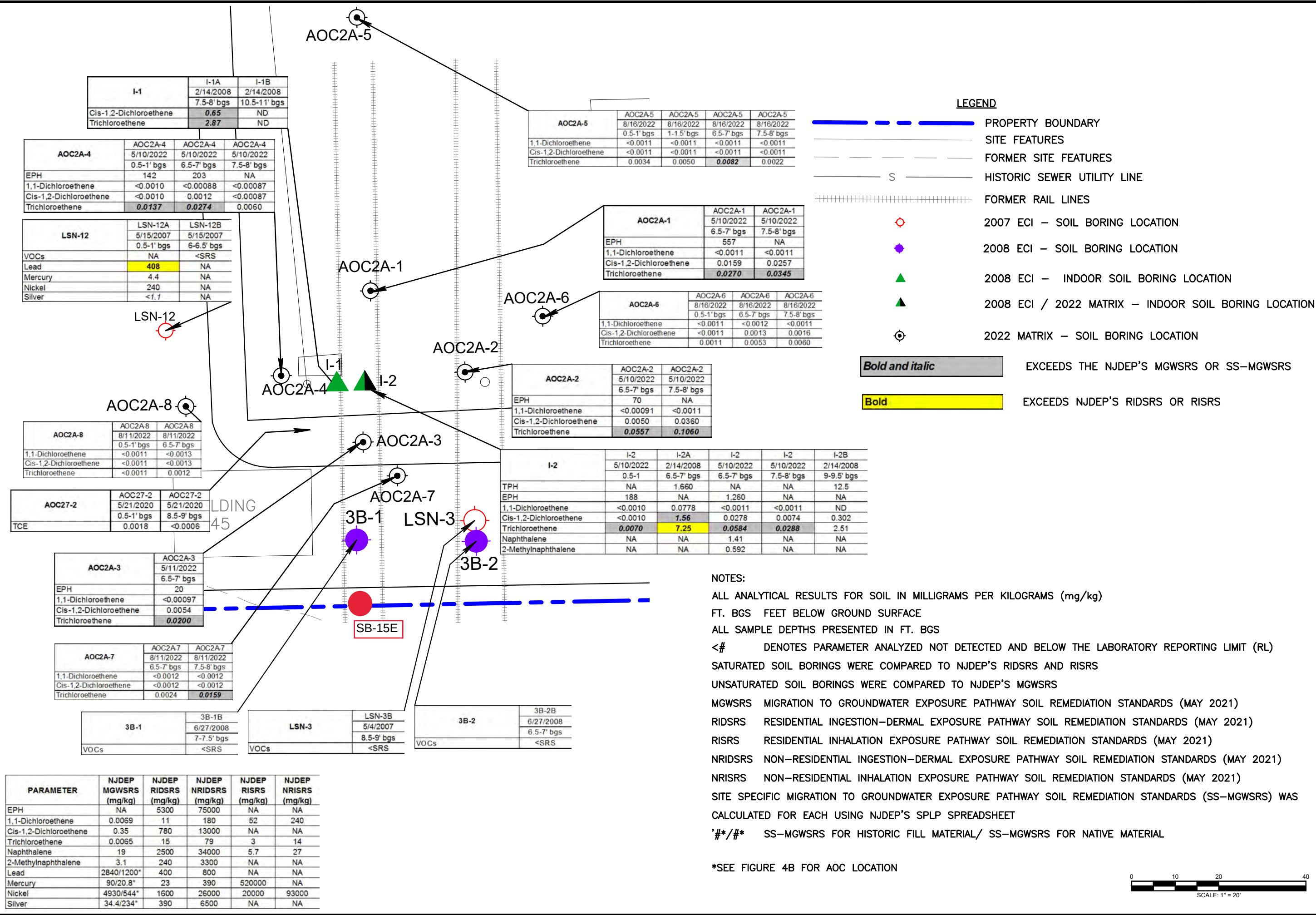
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**DATE:** 6/7/2022

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**SOIL ANALYTICAL RESULTS**  
AOC-2A

**FORMER BARTON PRESS NJDEP PI No. 027166**  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

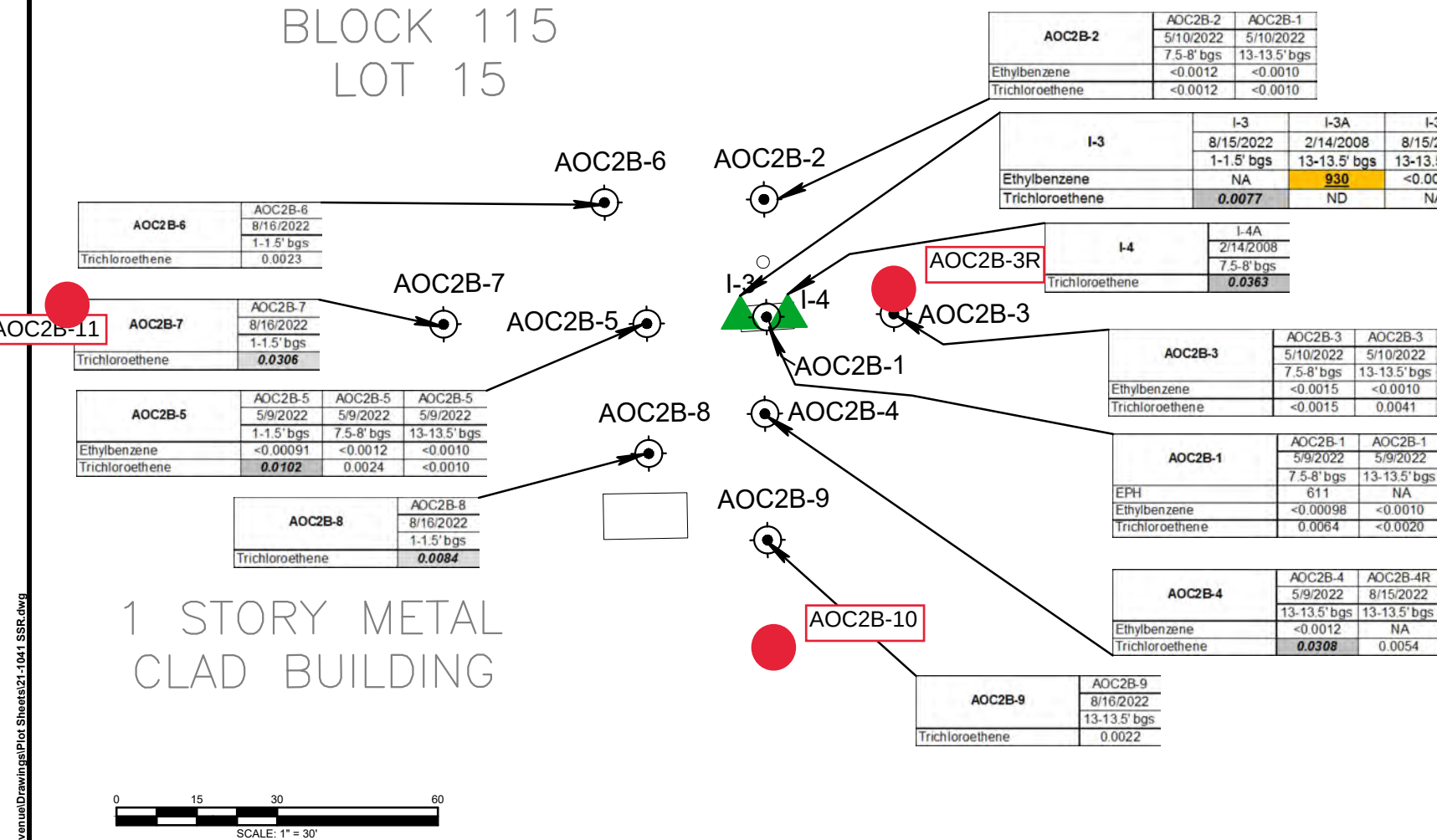
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**4B-1**

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#### NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

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UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRS RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

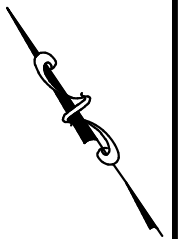
RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON-RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

| PARAMETER       | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH             | NA                         | 5300                       | 75000                       | NA                        | NA                         |
| Ethylbenzene    | 15                         | 7800                       | 13000                       | 10                        | 48                         |
| Trichloroethene | 0.0065                     | 15                         | 79                          | 3                         | 14                         |

\*SEE FIGURE 4B FOR AOC LOCATION



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**SOIL ANALYTICAL RESULTS**  
**AOC-2B**  
**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

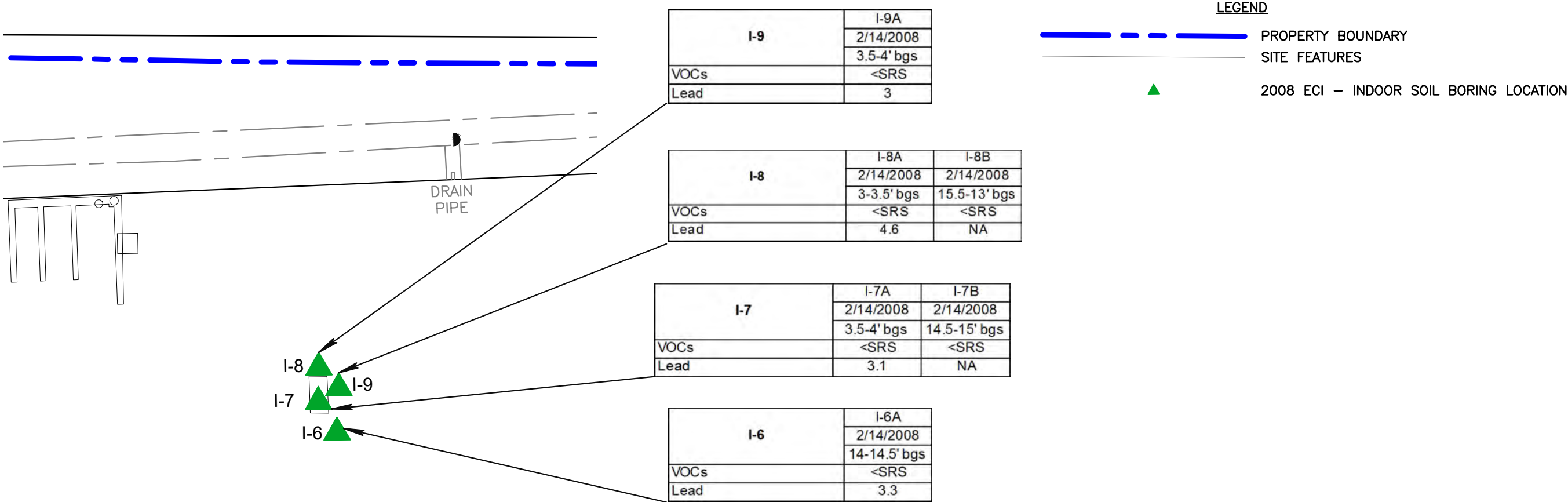
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**4B-2**

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| PARAMETER | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRs<br>(mg/kg) | NJDEP<br>NRIDSRs<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Lead      | 90                         | 400                        | 800                         | NA                        | NA                         |

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

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RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRs NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4B FOR AOC LOCATION

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SOIL ANALYTICAL RESULTS

AOC-2C

FORMER BARTON PRESS NJDEP PI No. 027166

55 LAKESIDE AVENUE

BLOCK 115, LOTS 15 & 17

TOWNSHIP OF WEST ORANGE

ESSEX COUNTY, NEW JERSEY

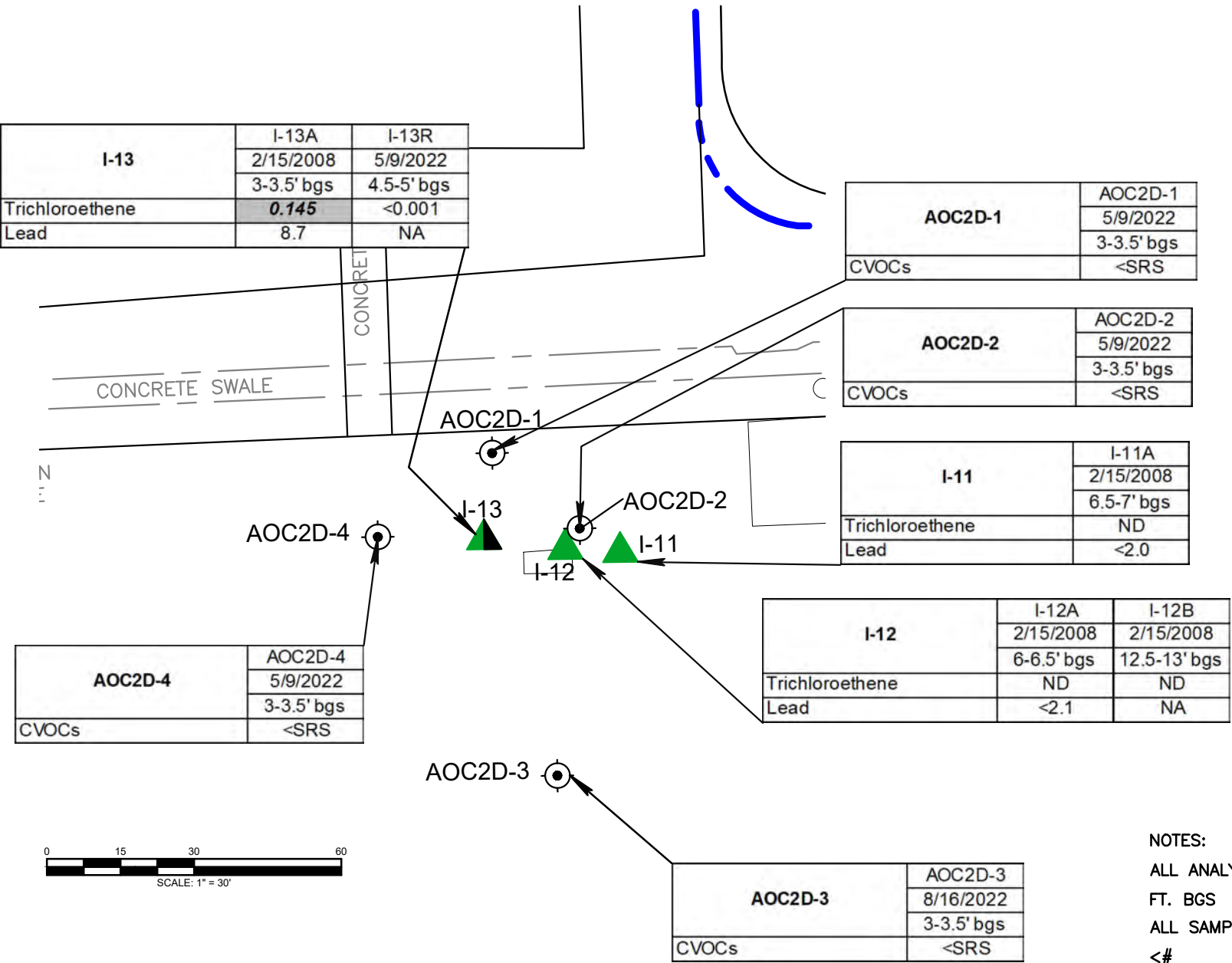
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4B-3

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NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S RIDSRS AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRS RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4B FOR AOC LOCATION

| PARAMETER       | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Trichloroethene | 0.0065                     | 15                         | 79                          | 3                         | 14                         |

|              |     |
|--------------|-----|
| DESIGNED BY: | MED |
| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

DRAFT

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Engineering Progress

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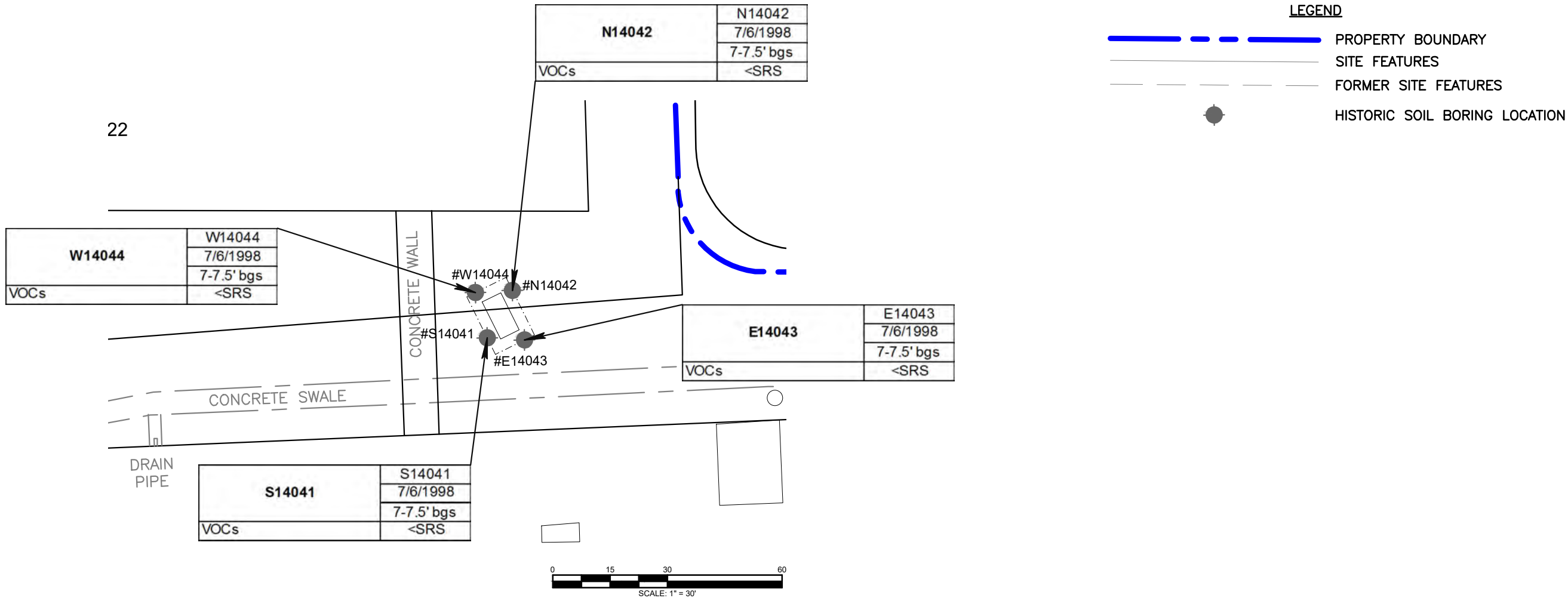
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SOIL ANALYTICAL RESULTS  
AOC-2D

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

|                         |
|-------------------------|
| PROJECT NUMBER: 21-1041 |
| SCALE: AS SHOWN         |
| DATE: 6/13/2022         |

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NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRS AND RISRS

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NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4B FOR AOC LOCATION

|              |     |
|--------------|-----|
| DESIGNED BY: | MED |
| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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SOIL ANALYTICAL RESULTS

AOC-2E

FORMER BARTON PRESS NJDEP PI No. 027166

55 LAKESIDE AVENUE

BLOCK 115, LOTS 15 & 17

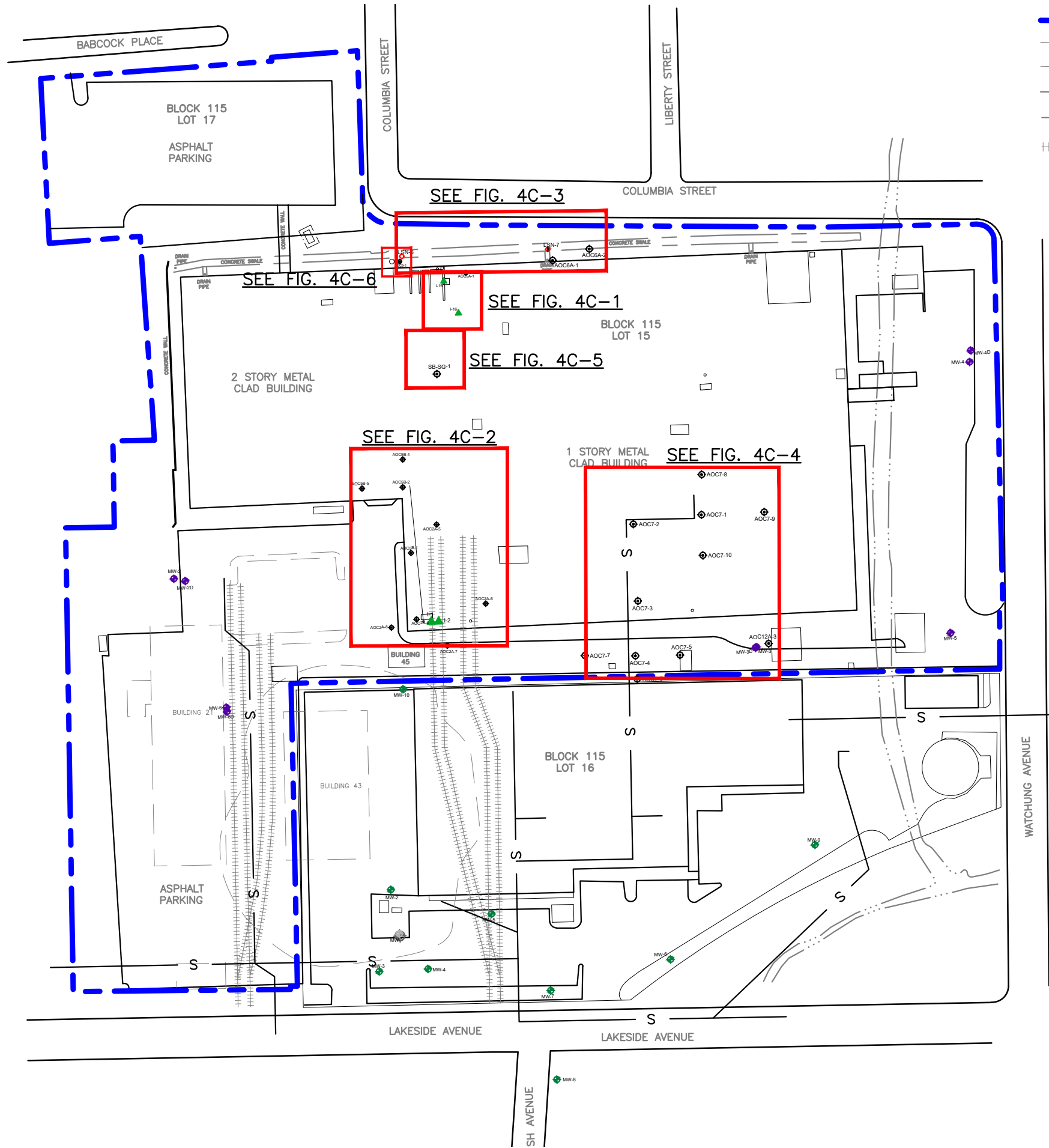
TOWNSHIP OF WEST ORANGE

ESSEX COUNTY, NEW JERSEY

|                         |
|-------------------------|
| PROJECT NUMBER: 21-1041 |
| SCALE: AS SHOWN         |
| DATE: 6/13/2022         |

4B-5

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LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- HISTORIC SEWER UTILITY LINE
- WIGWAM CREEK BOUNDARY
- FORMER RAIL LINES
- 55 LAKESIDE AVENUE MONITORING WELL LOCATION
- 25 LAKESIDE AVENUE MONITORING WELL LOCATION
- FORMER 25 LAKESIDE AVENUE MONITORING WELL LOCATION
- 2007 ECI - SOIL BORING LOCATION
- 2008 ECI - INDOOR SOIL BORING LOCATION
- 2022 MATRIX - SOIL BORING LOCATION

|              |     |
|--------------|-----|
| DESIGNED BY: | MED |
| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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SOIL BORING LOCATIONS  
AOC-5, AOC-6, AOC-7, AOC-9 & AOC-28

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

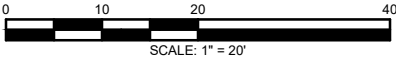
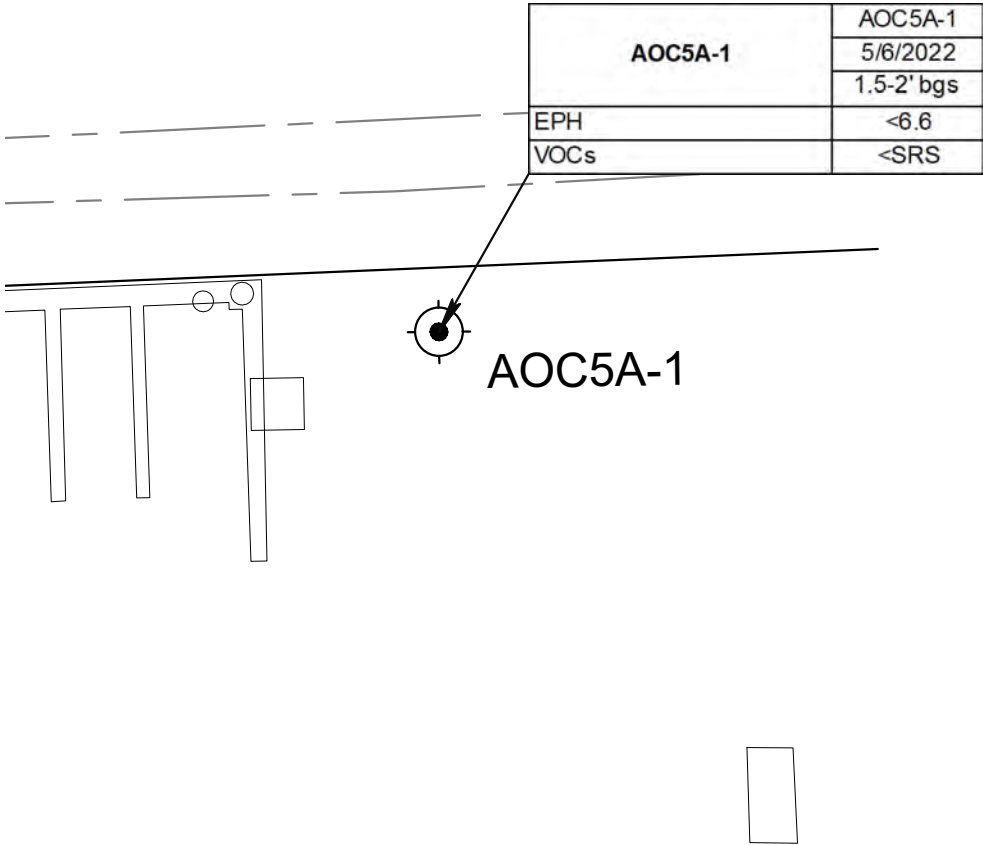
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4C

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| PARAMETER | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH       | NA                         | 5300                       | 75000                       | NA                        | NA                         |

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S RIDSRS AND RISRS

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MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRS RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

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NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4C FOR AOC LOCATION

DESIGNED BY:  
MED

REVIEWED BY:  
AM

RELEASED BY:  
AM

DRAFT

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SOIL ANALYTICAL RESULTS  
AOC-5A

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041

SCALE: AS SHOWN

DATE: 6/13/2022

4C-1

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|                 |            |
|-----------------|------------|
| AOC5B-4         | AOC5B-4    |
|                 | 8/16/2022  |
|                 | 1-1.5' bgs |
| Trichloroethene | 0.0062     |

AOC5B-4

AOC5B-5

|                 |            |
|-----------------|------------|
| AOC5B-5         | AOC5B-5    |
|                 | 8/16/2022  |
|                 | 1-1.5' bgs |
| Trichloroethene | 0.0051     |

|                    |            |
|--------------------|------------|
| AOC5B-1            | AOC5B-1    |
|                    | 5/10/2022  |
|                    | 1-1.5' bgs |
| EPH                | 590        |
| Trichloroethene    | 0.0041     |
| Benzo(a)anthracene | 1.22       |
| Benzo(a)pyrene     | 0.963      |
| Antimony           | 11.1       |
| Lead               | 122        |
| Mercury            | 1.4        |
| Nickel             | 255        |
| Silver             | <0.55      |

AOC5B-2

AOC5B-1

AOC2A-5

| AOC5B-2            | AOC5B-2    | AOC5B-2    | AOC5B-2    |
|--------------------|------------|------------|------------|
|                    | 5/10/2022  | 8/16/2022  | 8/16/2022  |
|                    | 1-1.5' bgs | 2-2.5' bgs | 4.5-5' bgs |
| EPH                | 134        | NA         | NA         |
| Trichloroethene    | 0.028      | 0.0112     | 0.0035     |
| Benzo(a)anthracene | 0.235      | NA         | NA         |
| Benzo(a)pyrene     | 0.262      | NA         | NA         |
| Antimony           | <2.2       | NA         | NA         |
| Lead               | 98.9       | NA         | NA         |
| Mercury            | 11.2       | NA         | NA         |
| Nickel             | 175        | NA         | NA         |
| Silver             | 0.69       | NA         | NA         |

| AOC2A-5                | AOC2A-5    | AOC2A-5    |
|------------------------|------------|------------|
|                        | 8/16/2022  | 8/16/2022  |
|                        | 0.5-1' bgs | 1-1.5' bgs |
| 1,1-Dichloroethene     | <0.0011    | <0.0011    |
| Cis-1,2-Dichloroethene | <0.0011    | <0.0011    |
| Trichloroethene        | 0.0034     | 0.0050     |

|                        |            |
|------------------------|------------|
| AOC2A-6                | AOC2A-6    |
|                        | 8/16/2022  |
|                        | 0.5-1' bgs |
| 1,1-Dichloroethene     | <0.0011    |
| Cis-1,2-Dichloroethene | <0.0011    |
| Trichloroethene        | 0.0011     |

| AOC2A-4            | AOC2A-4    | AOC2A-4    | AOC2A-4    |
|--------------------|------------|------------|------------|
|                    | 5/10/2022  | 5/10/2022  | 5/10/2022  |
|                    | 0.5-1' bgs | 6.5-7' bgs | 7.5-8' bgs |
| EPH                | 142        | 203        | NA         |
| Trichloroethene    | 0.0137     | 0.0274     | 0.0060     |
| Benzo(a)anthracene | 0.569      | NA         | NA         |
| Benzo(a)pyrene     | 0.508      | NA         | NA         |
| Antimony           | <2.0       | NA         | NA         |
| Lead               | 111        | NA         | NA         |
| Mercury            | 20.8       | NA         | NA         |
| Nickel             | 544        | NA         | NA         |
| Silver             | 0.59       | NA         | NA         |

|         |            |
|---------|------------|
| AOC27-2 | AOC27-2    |
|         | 5/21/2020  |
|         | 0.5-1' bgs |
| TCE     | 0.0018     |

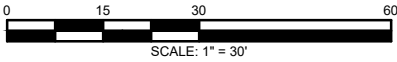
#### LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- HISTORIC SEWER UTILITY LINE
- FORMER RAIL LINES
- 2020 WOODARD & CURRAN SOIL BORING LOCATION
- 2022 MATRIX – SOIL BORING LOCATION
- EXCEEDS THE NJDEP'S MGWSRS OR SS-MGWSRS
- EXCEEDS NJDEP'S RIDSRs OR RISRS

|                        |            |
|------------------------|------------|
| AOC2A-8                | AOC2A-8    |
|                        | 8/11/2022  |
|                        | 0.5-1' bgs |
| 1,1-Dichloroethene     | <0.0011    |
| Cis-1,2-Dichloroethene | <0.0011    |
| Trichloroethene        | <0.0011    |

AOC2A-8

AOC28-3

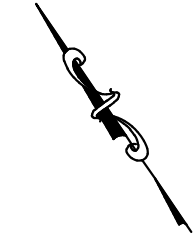


| PARAMETER              | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRs<br>(mg/kg) | NJDEP<br>NRIDSRs<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|------------------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH                    | NA                         | 5300                       | 75000                       | NA                        | NA                         |
| 1,1-Dichloroethene     | 0.0069                     | 11                         | 180                         | 52                        | 240                        |
| Cis-1,2-Dichloroethene | 0.35                       | 780                        | 13000                       | NA                        | NA                         |
| Trichloroethene        | 0.0065                     | 15                         | 79                          | 3                         | 14                         |
| Naphthalene            | 19                         | 2500                       | 34000                       | 5.7                       | 27                         |
| 2-Methylnaphthalene    | 3.1                        | 240                        | 3300                        | NA                        | NA                         |
| Lead                   | 2840/1200                  | 400                        | 800                         | NA                        | NA                         |
| Mercury                | 90/20.8*                   | 23                         | 390                         | 520000                    | NA                         |
| Nickel                 | 4930/544*                  | 1600                       | 26000                       | 20000                     | 93000                      |
| Silver                 | 34.4/234*                  | 390                        | 6500                        | NA                        | NA                         |

#### NOTES:

- ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)
- FT. BGS FEET BELOW GROUND SURFACE
- ALL SAMPLE DEPTHS PRESENTED IN FT. BGS
- <# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)
- SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRs AND RISRS
- UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS
- MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RIDSRs RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRIDSRs NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS–MGWSRS) WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET
- '#\*/#\* SS–MGWSRS FOR HISTORIC FILL MATERIAL/ SS–MGWSRS FOR NATIVE MATERIAL

\*SEE FIGURE 4C FOR AOC LOCATION



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RELEASED BY: AM

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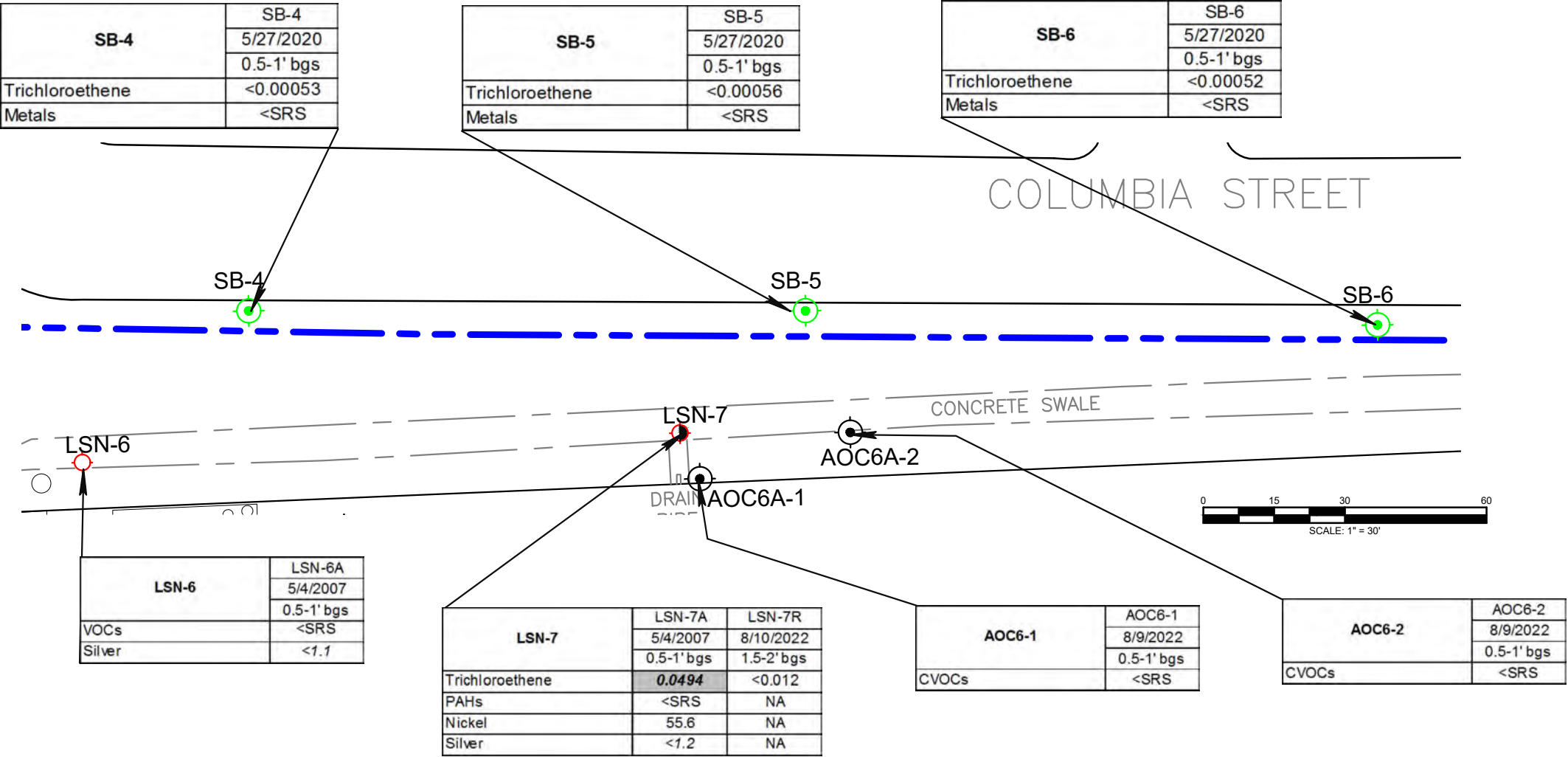
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NEW JERSEY CERTIFICATE OF AUTHORIZATION No. 24GA27962300

**SOIL ANALYTICAL RESULTS**  
**AOC-5B**  
**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
**ESSEX COUNTY, NEW JERSEY**

PROJECT NUMBER: 21-1041  
SCALE: AS SHOWN  
DATE: 6/13/2022

**4C-2**

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| PARAMETER       | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Trichloroethene | 0.0065                     | 15                         | 79                          | 3                         | 14                         |
| Nickel          | 4930/544*                  | 1600                       | 26000                       | 20000                     | 93000                      |
| Silver          | 34.4/234*                  | 390                        | 6500                        | NA                        | NA                         |

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

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RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS–MGWSRS) WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET

'#\*/#\* SS–MGWSRS FOR HISTORIC FILL MATERIAL/ SS–MGWSRS FOP NATIVE MATERIAL

\*SEE FIGURE 4C FOR AOC LOCATION

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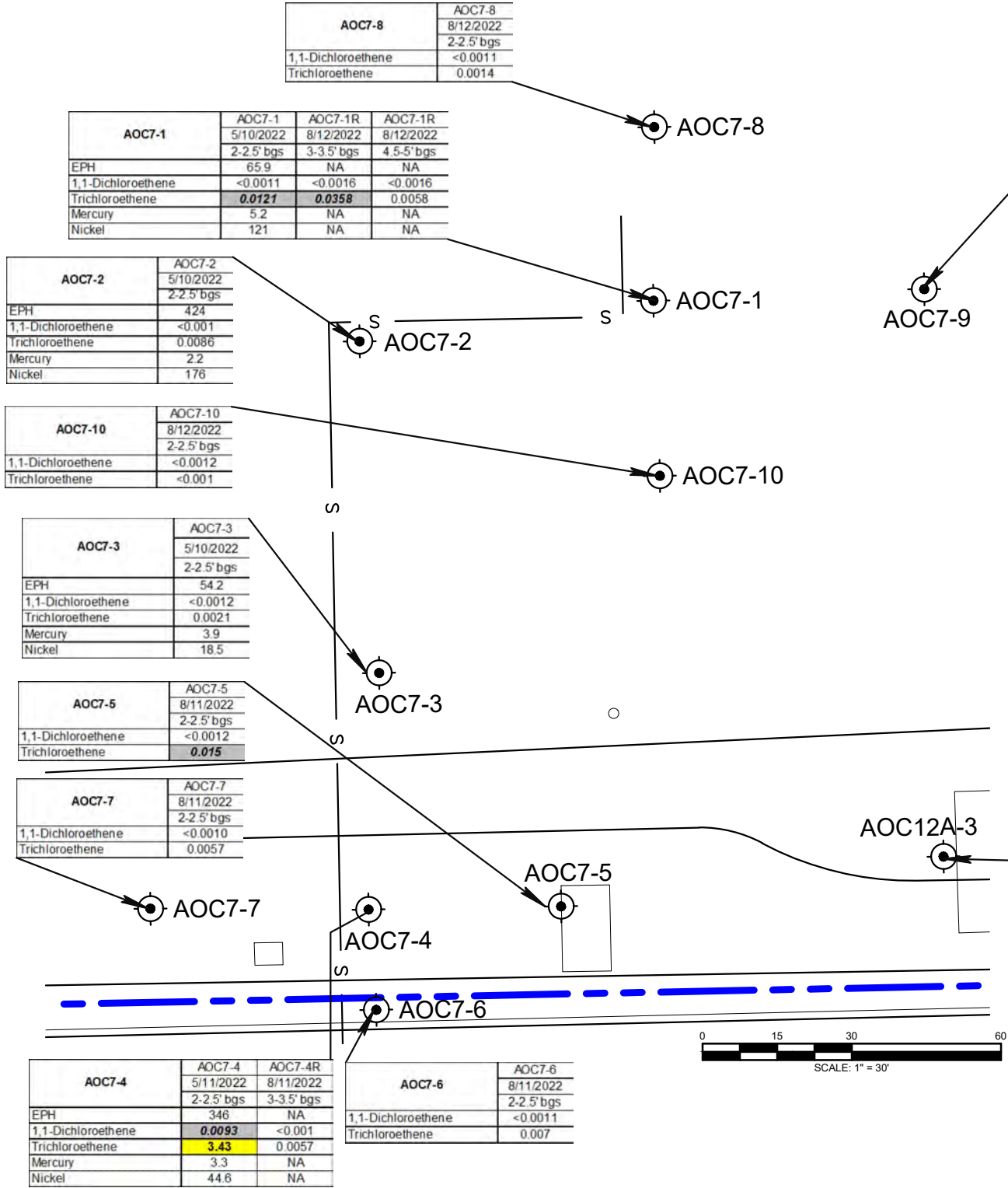
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SOIL ANALYTICAL RESULTS  
AOC-6

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041  
SCALE: AS SHOWN  
DATE: 6/13/2022  
4C-3

| PARAMETER          | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|--------------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH                | NA                         | 5300                       | 75000                       | NA                        | NA                         |
| 1,1-Dichloroethene | 0.0069                     | 11                         | 180                         | 52                        | 240                        |
| Trichloroethene    | 0.0086*                    | 15                         | 79                          | 3                         | 14                         |
| Mercury            | 90/20.8*                   | 23                         | 390                         | 520000                    | NA                         |
| Nickel             | 4930/544*                  | 1600                       | 26000                       | 20000                     | 93000                      |



NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRs AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

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RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON-RESIDENTIAL INGESTION-DETMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS-MGWSRS) WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET

'#\*/\*# SS-MGWSRS FOR HISTORIC FILL MATERIAL/ SS-MGWSRS FOR NATIVE MATERIAL

\*SEE FIGURE 4C FOR AOC LOCATION

**LEGEND**

PROPERTY BOUNDARY

SITE FEATURES

FORMER SITE FEATURES

HISTORIC SEWER UTILITY LINE

2022 MATRIX - SOIL BORING LOCATION

**Bold and italic** EXCEEDS THE NJDEP'S MGWSRS OR SS-MGWSRS

**Bold** EXCEEDS NJDEP'S RIDSRs OR RISRS

DESIGNED BY: MED  
REVIEWED BY: AM  
RELEASED BY: AM

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**SOIL ANALYTICAL RESULTS**  
AOC-7

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041

SCALE: AS SHOWN

DATE: 6/13/2022

**4C-4**

SB-SG-1

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRS AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRS RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON-RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

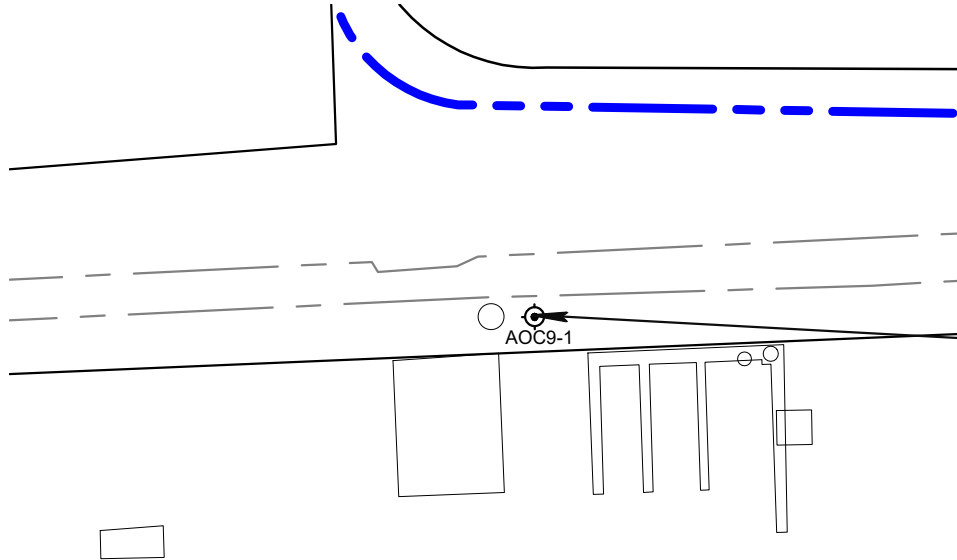
NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4C FOR AOC LOCATION

| PARAMETER | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Mercury   | 0.1                        | 23                         | 390                         | 520000                    | NA                         |

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| PARAMETER | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH       | NA                         | 5300                       | 75000                       | NA                        | NA                         |



NOTES:

- ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)
- FT. BGS FEET BELOW GROUND SURFACE
- ALL SAMPLE DEPTHS PRESENTED IN FT. BGS
- <# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)
- SATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S RIDSRs AND RISRS
- UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S MGWSRS
- MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RIDSRS RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRIDSRS NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4C FOR AOC LOCATION

LEGEND

PROPERTY BOUNDARY

SITE FEATURES

FORMER SITE FEATURES

2022 MATRIX – SOIL BORING LOCATION

DESIGNED BY: MED

REVIEWED BY: AM

RELEASED BY: AM

DRAFT

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SOIL ANALYTICAL RESULTS

AOC-9

FORMER BARTON PRESS NJDEP PI No. 027166

55 LAKESIDE AVENUE

BLOCK 115, LOTS 15 & 17

TOWNSHIP OF WEST ORANGE

ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041

SCALE: AS SHOWN

DATE: 6/13/2022

4C-6

| PARAMETER              | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDRS<br>(mg/kg) | NJDEP<br>NRIDRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Benzene                | 0.0094                     | 2                         | 16                         | 2.2                       | 11                         |
| Cis-1,2-Dichloroethene | 0.0063                     | 7                         | 36                         | 4.8                       | 23                         |
| Trichloroethene        | 0.0065                     | 15                        | 79                         | 3                         | 14                         |
| Benzo(a)pyrene         | NA                         | 0.51                      | 2.3                        | 3500                      | 16000                      |
| Benzo(a)anthracene     | 0.71/5*                    | 5.1                       | 23                         | 78000                     | 370000                     |
| Benzo(b)fluoranthene   | NA                         | 5.1                       | 23                         | 78000                     | NA                         |
| Dibenz(a,h)anthracene  | NA                         | 0.51                      | 2.3                        | 7800                      | 37000                      |
| Indeno(1,2,3-cd)pyrene | NA                         | 5.1                       | 23                         | 78000                     | 370000                     |
| Antimony               | 2020*/5.4                  | 31                        | 520                        | NA                        | NA                         |
| Copper                 | 5270*/910                  | 3100                      | 52000                      | NA                        | NA                         |
| Lead                   | 2840/1200*                 | 400                       | 800                        | NA                        | NA                         |
| Mercury                | 90/20.8*                   | 23                        | 390                        | 520000                    | NA                         |
| Nickel                 | 4930/544*                  | 1600                      | 26000                      | 20000                     | 93000                      |
| Selenium               | 19.3*/11                   | 390                       | 6500                       | NA                        | NA                         |
| Silver                 | 34.4/234*                  | 390                       | 6500                       | NA                        | NA                         |

| AOC10-21               | 8/9/2022     |
|------------------------|--------------|
| Benzene                | 14.5-15' bgs |
| Cis-1,2-Dichloroethene | 0.012        |
| Trichloroethene        | 0.0068       |
| Benzo(a)anthracene     | 4.11         |
| Benzo(a)pyrene         | 3.69         |
| Dibenz(a,h)anthracene  | 0.779        |
| Cadmium                | <5.6         |
| Cobalt                 | 34.1         |
| Copper                 | 7540         |
| Lead                   | 678          |
| Mercury                | 79.9         |
| Nickel                 | 6000         |
| Selenium               | <22          |
| Silver                 | <5.6         |
| Zinc                   | 1230         |

| AOC10-24               | 8/9/2022     |
|------------------------|--------------|
| Benzene                | 14.5-15' bgs |
| Cis-1,2-Dichloroethene | 0.0014       |
| Trichloroethene        | <0.0011      |
| Benzo(a)anthracene     | 20.9         |
| Benzo(a)pyrene         | 15.5         |
| Benzo(b)fluoranthene   | 16.8         |
| Dibenz(a,h)anthracene  | 2.81         |
| Indeno(1,2,3-cd)pyrene | 0.69         |
| Antimony               | 2025         |
| Cadmium                | 2.6          |
| Cobalt                 | 1820         |
| Copper                 | 1820         |
| Lead                   | 355          |
| Mercury                | 41.5         |
| Nickel                 | 4930         |
| Selenium               | 3.3          |
| Silver                 | <5.6         |
| Zinc                   | 1280         |

| AOC10-18           | AOC10-18     |
|--------------------|--------------|
| VOCs               | 5/28/2020    |
| Benzo(a)anthracene | 10-10.5' bgs |
| Benzo(a)pyrene     | <SRS         |
| Metals             | 1.1          |

| SB-26           | SB-26      |
|-----------------|------------|
| Trichloroethene | 5/28/2020  |
| Metals          | 0.5-1' bgs |

| AOC10-17           | AOC10-17     |
|--------------------|--------------|
| VOCs               | 5/28/2020    |
| Benzo(a)anthracene | 10-10.5' bgs |
| Nickel             | 0.75         |

| AOC10-14               | AOC10-14  | AOC10-14R | AOC10-14R |
|------------------------|-----------|-----------|-----------|
| Benzene                | 5/28/2020 | 8/9/2022  | 8/9/2022  |
| Cis-1,2-Dichloroethene | 0.013     | <0.00098  | NA        |
| Trichloroethene        | 0.93      | <0.0030   | NA        |
| Benzo(a)pyrene         | 1.9       | <0.0020   | NA        |
| Benzo(a)anthracene     | 23        | 0.877     | 10        |
| Benzo(b)fluoranthene   | 27        | 0.833     | 10.8      |
| Dibenz(a,h)anthracene  | 28        | 1.1       | 11.2      |
| Indeno(1,2,3-cd)pyrene | 2.8       | 0.205     | 1.87      |
| Antimony               | 15        | 0.776     | 6.97      |
| Cadmium                | 8.66      | <25       | <2.3      |
| Cobalt                 | 2.22      | <6.2      | 1.7       |
| Copper                 | 21.2      | 25.5      | 12.2      |
| Lead                   | 2920      | 5270      | 10900     |
| Mercury                | 544       | 428       | 361       |
| Nickel                 | 162       | 50.6      | 66.8      |
| Selenium               | 4970      | 3920      | 1900      |
| Silver                 | 8.97      | 12.6      | <12       |
|                        | 1.28      | 1.3       | <2.9      |

| SB-1W           | SB-1W      |
|-----------------|------------|
| Trichloroethene | 8/9/2022   |
| Lead            | 1-1.5' bgs |
| Mercury         | 0.0216     |
| Nickel          | 156        |
| Silver          | 33.6       |

| SB-1N           | SB-1N      |
|-----------------|------------|
| Trichloroethene | 8/9/2022   |
| Lead            | 1-1.5' bgs |
| Mercury         | 6-6.5' bgs |
| Nickel          | <0.0014    |
| Selenium        | 9.8        |

| SB-1            | SB-1      | SB-1R     | SB-1R     | SB-1R    |
|-----------------|-----------|-----------|-----------|----------|
| Trichloroethene | 5/28/2020 | 1/26/2021 | 1/26/2021 | 8/9/2022 |
| Copper          | 3.5       | 0.008     | NA        | 0.0068   |
| Lead            | 3870      | 3880      | 1.75      | NA       |
| Mercury         | 1860      | 646       | 2.72      | NA       |
| Nickel          | 147       | 179       | <0.07     | NA       |
| Selenium        | 4670      | 5140      | 4.57      | NA       |

| SB-1S           | SB-1S      |
|-----------------|------------|
| Trichloroethene | 8/9/2022   |
| Lead            | 1-1.5' bgs |
| Mercury         | <0.0015    |
| Nickel          | 134        |
| Silver          | 7          |

| SB-1E           | SB-1E    |
|-----------------|----------|
| Trichloroethene | 8/9/2022 |
| Lead            | <0.0012  |
| Cadmium         | <11      |
| Copper          | <2.7     |
| Lead            | 2840     |
| Mercury         | 90       |
| Nickel          | 3440     |
| Selenium        | 12.1     |
| Silver          | <2.7     |

| SB-2W    | SB-2W      |
|----------|------------|
| Cadmium  | 8/9/2022   |
| Cobalt   | 0.5-1' bgs |
| Copper   | <3.0       |
| Lead     | 40.9       |
| Mercury  | 4580       |
| Nickel   | 641        |
| Selenium | 105        |
| Silver   | 4660       |

| SB-2N    | SB-2N       |
|----------|-------------|
| Copper   | 8/9/2022    |
| Lead     | 0.5-1' bgs  |
| Mercury  | 9.5-10' bgs |
| Nickel   | 14          |
| Selenium | 7.3         |

| SB-2            | SB-2       | SB-2R      |
|-----------------|------------|------------|
| Trichloroethene | 5/28/2020  | 8/9/2022   |
| Mercury         | 0.5-1' bgs | 2-2.5' bgs |

| SB-2E    | SB-2E      |
|----------|------------|
| Copper   | 8/9/2022   |
| Lead     | 0.5-1' bgs |
| Mercury  | 248        |
| Nickel   | 60.8       |
| Selenium | 4.8        |

| SB-2S    | SB-2S      |
|----------|------------|
| Copper   | 8/9/2022   |
| Lead     | 0.5-1' bgs |
| Mercury  | 342        |
| Nickel   | 85.8       |
| Selenium | 2.8        |

| SB-3            | SB-3       |
|-----------------|------------|
| Trichloroethene | 5/28/2020  |
| Metals          | 0.5-1' bgs |

| AOC10-15           | AOC10-15     |
|--------------------|--------------|
| VOCs               | 5/28/2020    |
| Benzo(a)anthracene | 10-10.5' bgs |
| Benzo(a)pyrene     | <SRS         |
| Metals             | <SRS         |

| AOC10-22               | AOC10-22     |
|------------------------|--------------|
| Benzene                | 8/9/2022     |
| Cis-1,2-Dichloroethene | 14.5-15' bgs |
| Trichloroethene        | <0.0067      |
| Benzo(a)pyrene         | 0.0054       |
| Benzo(a)anthracene     | <0.0013      |
| Benzo(b)fluoranthene   | 0.0187       |
| Dibenz(a,h)anthracene  | 0.0245       |
| Indeno(1,2,3-cd)pyrene | 0.024        |
| Antimony               | <0.041       |
| Cadmium                | <0.64        |
| Cobalt                 | 10           |
| Copper                 | 20           |
| Lead                   | 30.1         |
| Mercury                | 2.2          |
| Nickel                 | 17.6         |
| Selenium               | <2.6         |
| Silver                 | 0.71         |

| AOC10-23               | AOC10-23     |
|------------------------|--------------|
| Benzene                | 8/9/2022     |
| Cis-1,2-Dichloroethene | 14.5-15' bgs |
| Trichloroethene        | <0.0060      |
| Benzo(a)pyrene         | 0.0043       |
| Benzo(a)anthracene     | 0.0083       |
| Benzo(b)fluoranthene   | 0.331        |
| Dibenz(a,h)anthracene  | 0.35         |
| Indeno(1,2,3-cd)pyrene | 0.421        |
| Antimony               | <0.17        |
| Cadmium                | 0.288        |
| Cobalt                 | <2.1         |
| Copper                 | 1.3          |
| Lead                   | 6.8          |
| Mercury                | 231          |
| Nickel                 | 42.4         |
| Selenium               | 0            |
| Silver                 | 398          |

| SB-25           | SB-25      |
|-----------------|------------|
| Trichloroethene | 5/28/2020  |
| Metals          | 1-1.5' bgs |

| AOC10-16           | AOC10-16     |
|--------------------|--------------|
| VOCs               | 5/28/2020    |
| Benzo(a)anthracene | 10-10.5' bgs |
| Benzo(a)pyrene     | <SRS         |
| Metals             | <SRS         |

LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- 55 LAKESIDE AVENUE MONITORING WELL LOCATION
- 2020 WOODARD & CURRAN SOIL BORING LOCATION
- 2020 WOODARD & CURRAN/2022 MATRIX - SOIL BORING LOCATION
- 2022 MATRIX - SOIL BORING LOCATION
- EXCEEDS THE NJDEP'S MGWSRS OR SS-MGWSRS
- EXCEEDS NJDEP'S RIDRS OR RISRS
- EXCEEDS NJDEP'S NRIDRS OR NRISRS

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

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MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

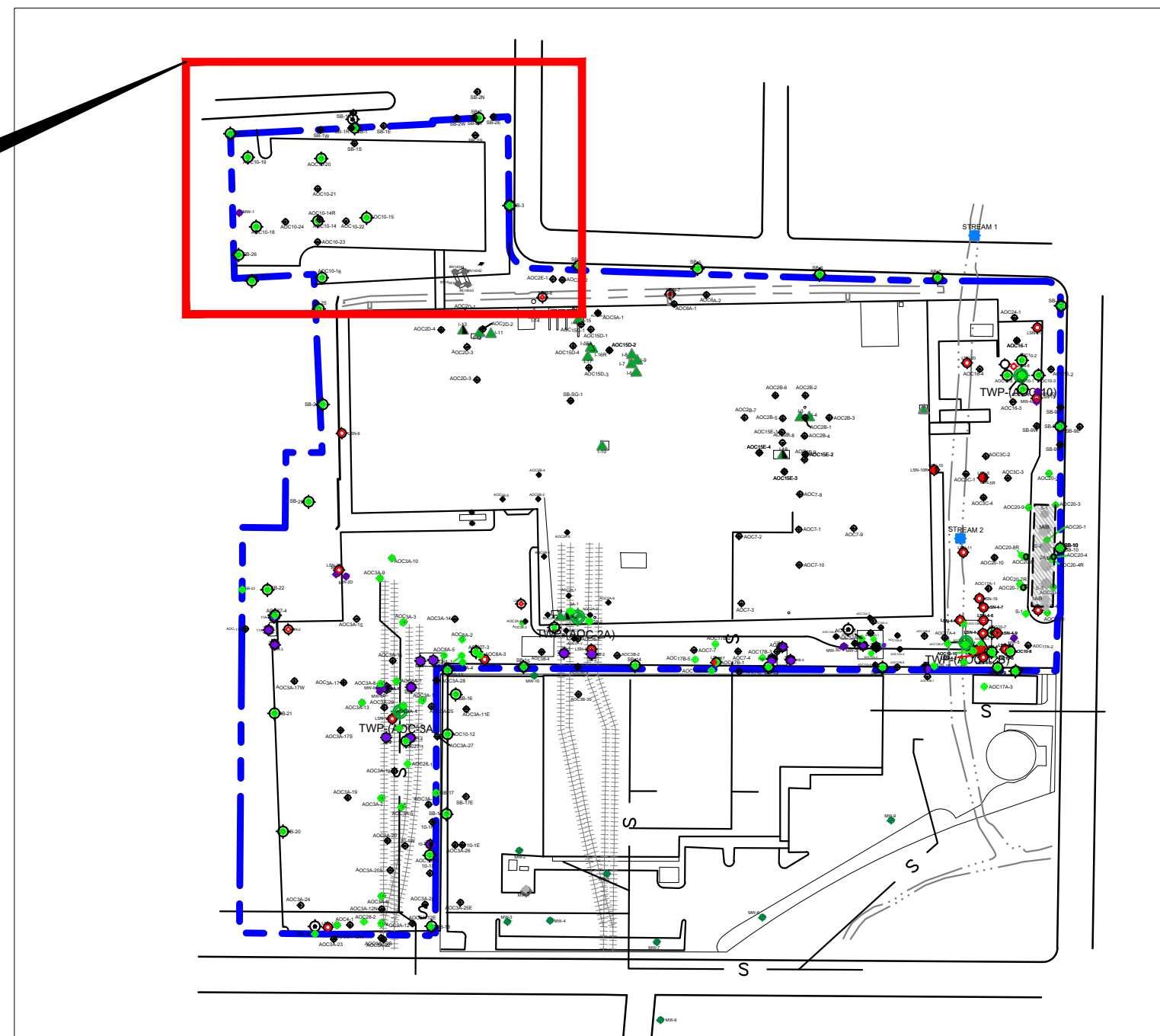
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RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDRS NON-RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*#/#\* SS-MGWSRS FOR HISTORIC FILL MATERIAL/ SS-MGWSRS FOR NATIVE MATERIAL



DESIGNED BY: MED

REVIEWED BY: AM

RELEASED BY: AM

**DRAFT**

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**SOIL ANALYTICAL RESULTS**  
AOC-10

**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

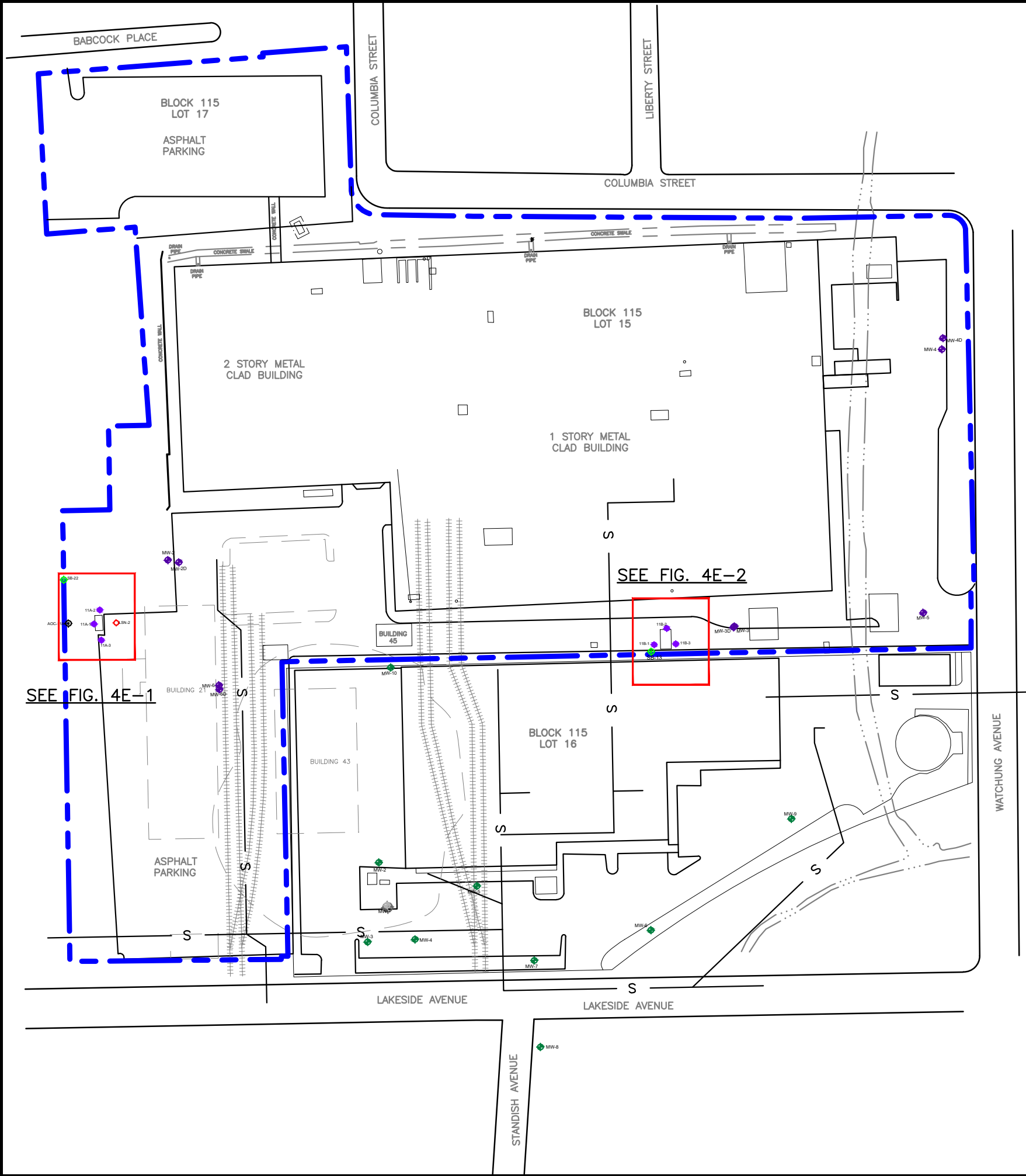
PROJECT NUMBER: 21-1041

DATE: 6/15/2022

SCALE: AS SHOWN

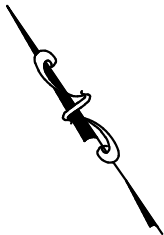
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LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- HISTORIC SEWER UTILITY LINE
- WIGWAM CREEK BOUNDARY
- FORMER RAIL LINES
- 55 LAKESIDE AVENUE MONITORING WELL LOCATION
- 25 LAKESIDE AVENUE MONITORING WELL LOCATION
- FORMER 25 LAKESIDE AVENUE MONITORING WELL LOCATION
- 2007 ECI – SOIL BORING LOCATION
- 2008 ECI – SOIL BORING LOCATION
- 2020 WOODARD & CURRAN SOIL BORING LOCATION
- 2022 MATRIX – SOIL BORING LOCATION



|              |     |
|--------------|-----|
| DESIGNED BY: | MED |
| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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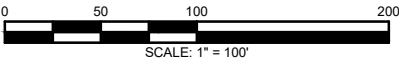
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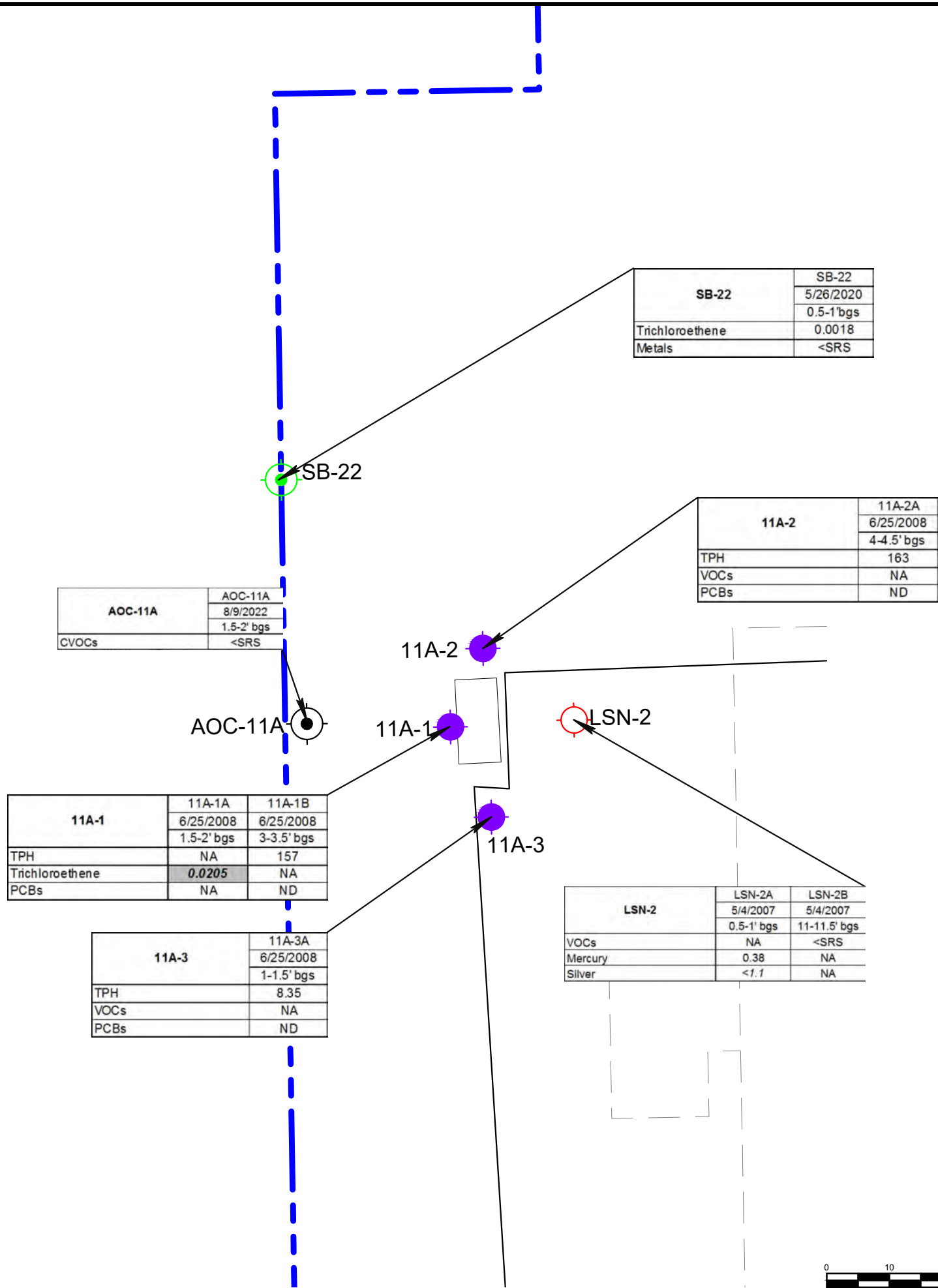
SOIL BORING LOCATIONS  
AOC -11

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

|                 |          |
|-----------------|----------|
| PROJECT NUMBER: | 21-1041  |
| SCALE:          | AS SHOWN |
| DATE:           | 6/7/2022 |



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**LEGEND**

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- 2007 ECI – SOIL BORING LOCATION
- 2008 ECI – SOIL BORING LOCATION
- 2020 WOODARD & CURRAN SOIL BORING LOCATION
- 2022 MATRIX – SOIL BORING LOCATION
- Bold and italic** EXCEEDS THE NJDEP’S MGWSRS OR SS–MGWSRS

| PARAMETER       | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Trichloroethene | 0.0065                     | 15                         | 79                          | 3                         | 14                         |
| PCBs            | 1.6                        | 0.25                       | 1.1                         | NA                        | NA                         |
| Mercury         | 90/20.8*                   | 23                         | 390                         | 520000                    | NA                         |
| Silver          | 0.5                        | 390                        | 6500                        | NA                        | NA                         |

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

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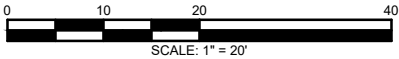
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NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS–MGWSRS) WAS CALCULATED FOR EACH USING NJDEP’S SPLP SPREADSHEET

\*#\*/#\* SS–MGWSRS FOR HISTORIC FILL MATERIAL/ SS–MGWSRS FOR NATIVE MATERIAL

\*SEE FIGURE 4E FOR AOC LOCATION



DESIGNED BY: MED

REVIEWED BY: AM

RELEASED BY: AM

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SOIL ANALYTICAL RESULTS  
AOC - 11A

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TOWNSHIP OF WEST ORANGE  
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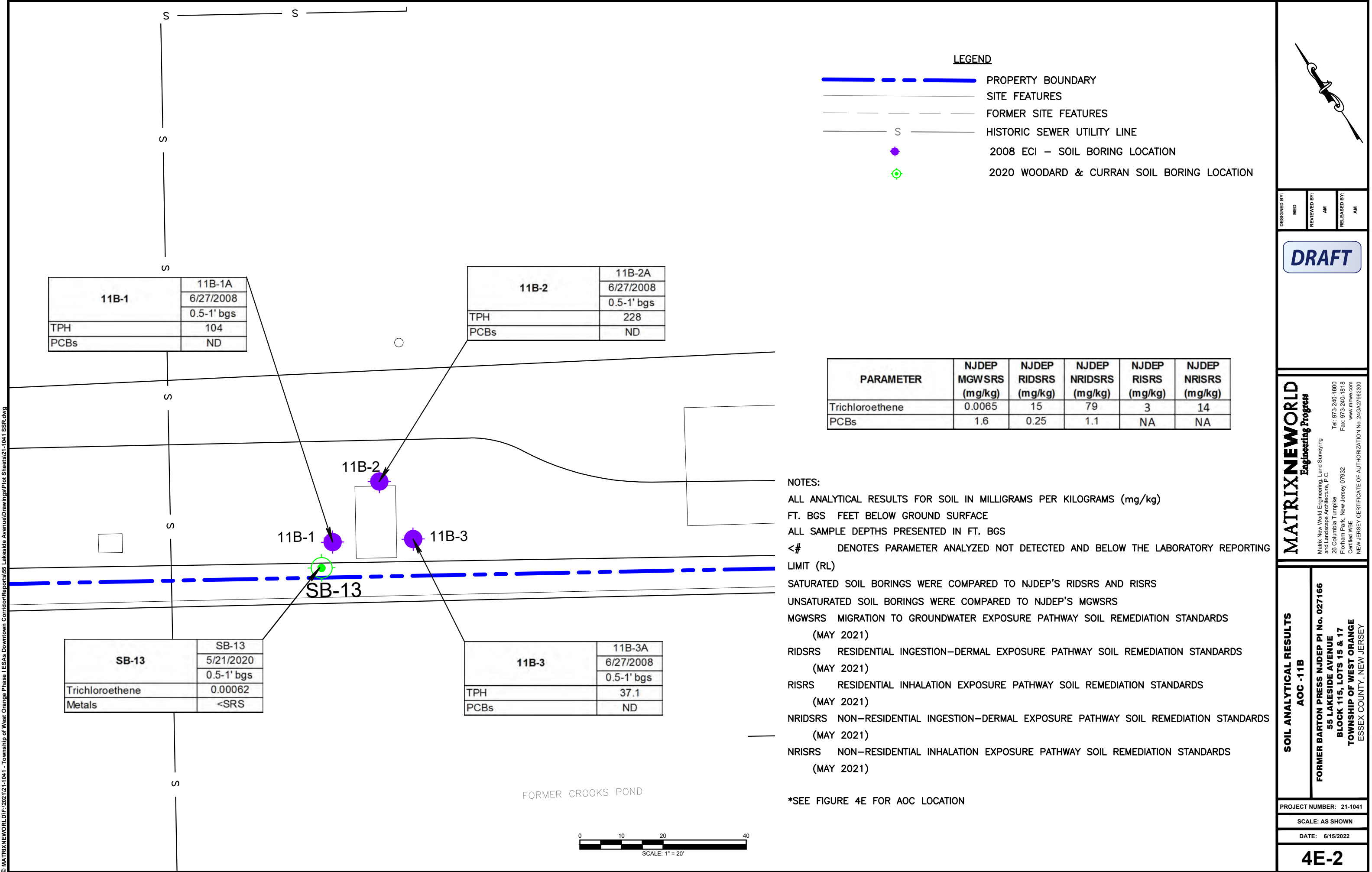
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**SOIL ANALYTICAL RESULTS**  
AOC -11B

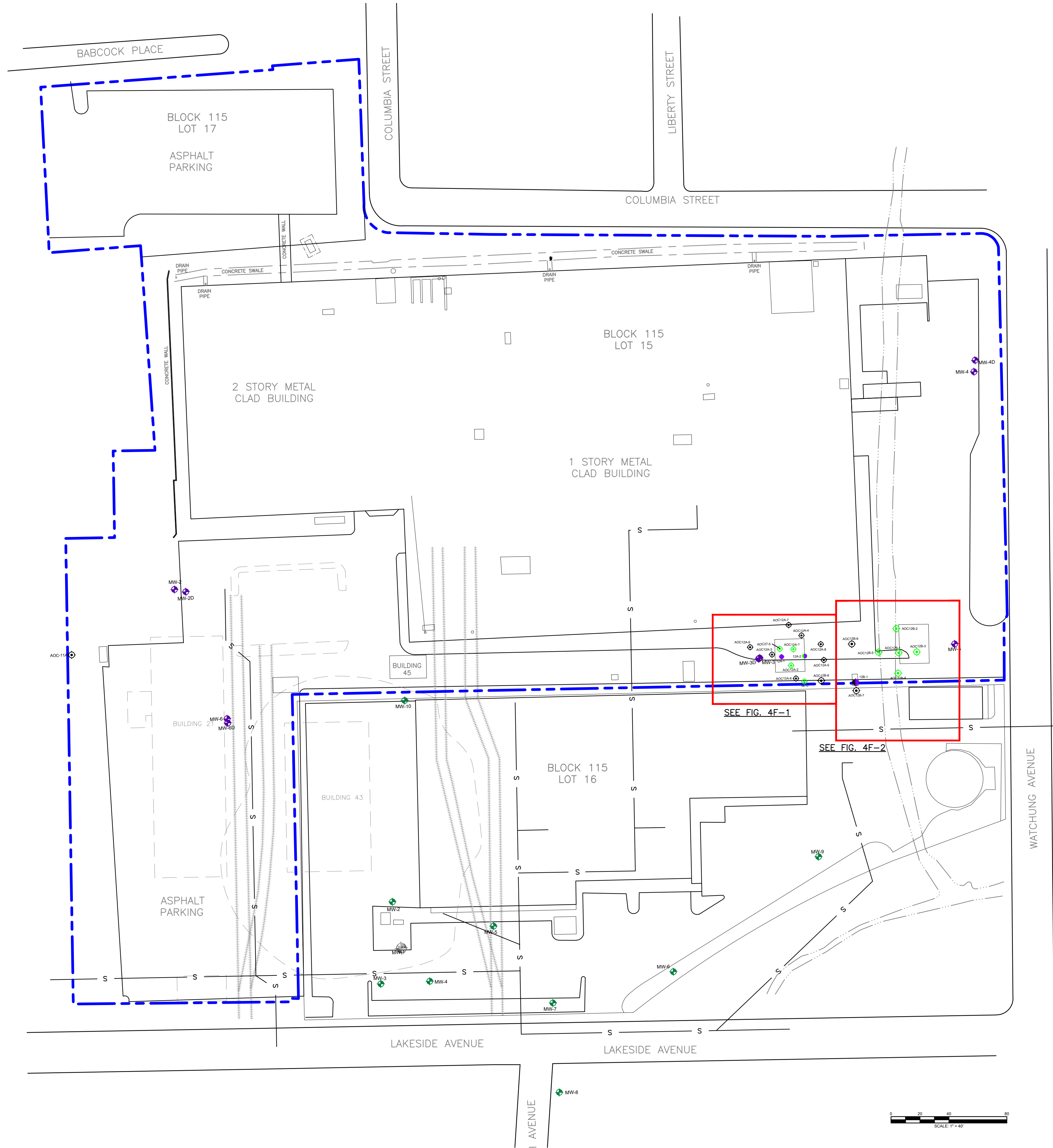
**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041

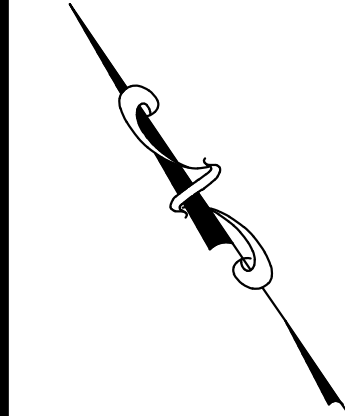
SCALE: AS SHOWN

DATE: 6/15/2022

**4E-2**



- LEGEND**
- PROPERTY BOUNDARY
  - SITE FEATURES
  - FORMER SITE FEATURES
  - HISTORIC SEWER UTILITY LINE
  - WIGWAM CREEK BOUNDARY
  - FORMER RAIL LINES
  - 55 LAKESIDE AVENUE MONITORING WELL LOCATION
  - 25 LAKESIDE AVENUE MONITORING WELL LOCATION
  - FORMER 25 LAKESIDE AVENUE MONITORING WELL LOCATION
  - 2008 ECI - SOIL BORING LOCATION
  - 2008 ECI / 2022 MATRIX - SOIL BORING LOCATION
  - 2020 WOODARD & CURRAN SOIL BORING LOCATION
  - 2022 MATRIX SOIL BORING LOCATION



|              |     |
|--------------|-----|
| DESIGNED BY: | MEB |
| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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**SOIL BORING LOCATIONS**  
**AOC-12A-12B**

**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

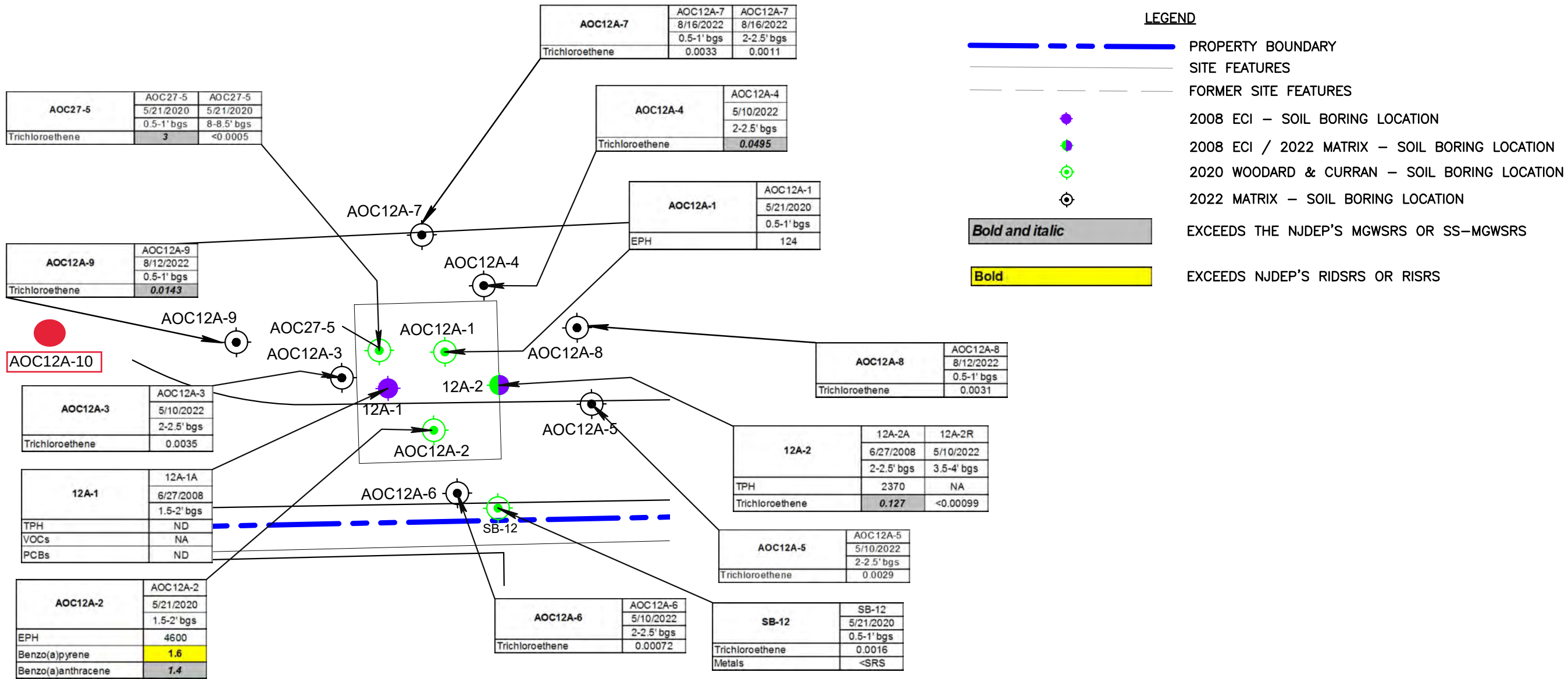
PROJECT NUMBER: 21-1041

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SCALE: AS SHOWN

**4F**

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NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S RIDSRs AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRS RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

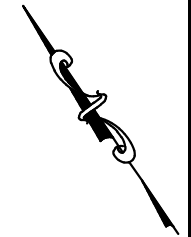
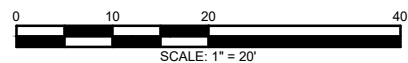
NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS–MGWSRS)

WAS CALCULATED FOR EACH USING NJDEP’S SPLP SPREADSHEET

\*#/#\* SS–MGWSRS FOR HISTORIC FILL MATERIAL/ SS–MGWSRS FOP NATIVE MATERIAL

\*SEE FIGURE 4F FOR AOC LOCATION



DESIGNED BY: MED  
REVIEWED BY: AM  
RELEASED BY: AM

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**SOIL ANALYTICAL RESULTS**  
**AOC -12A**  
**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

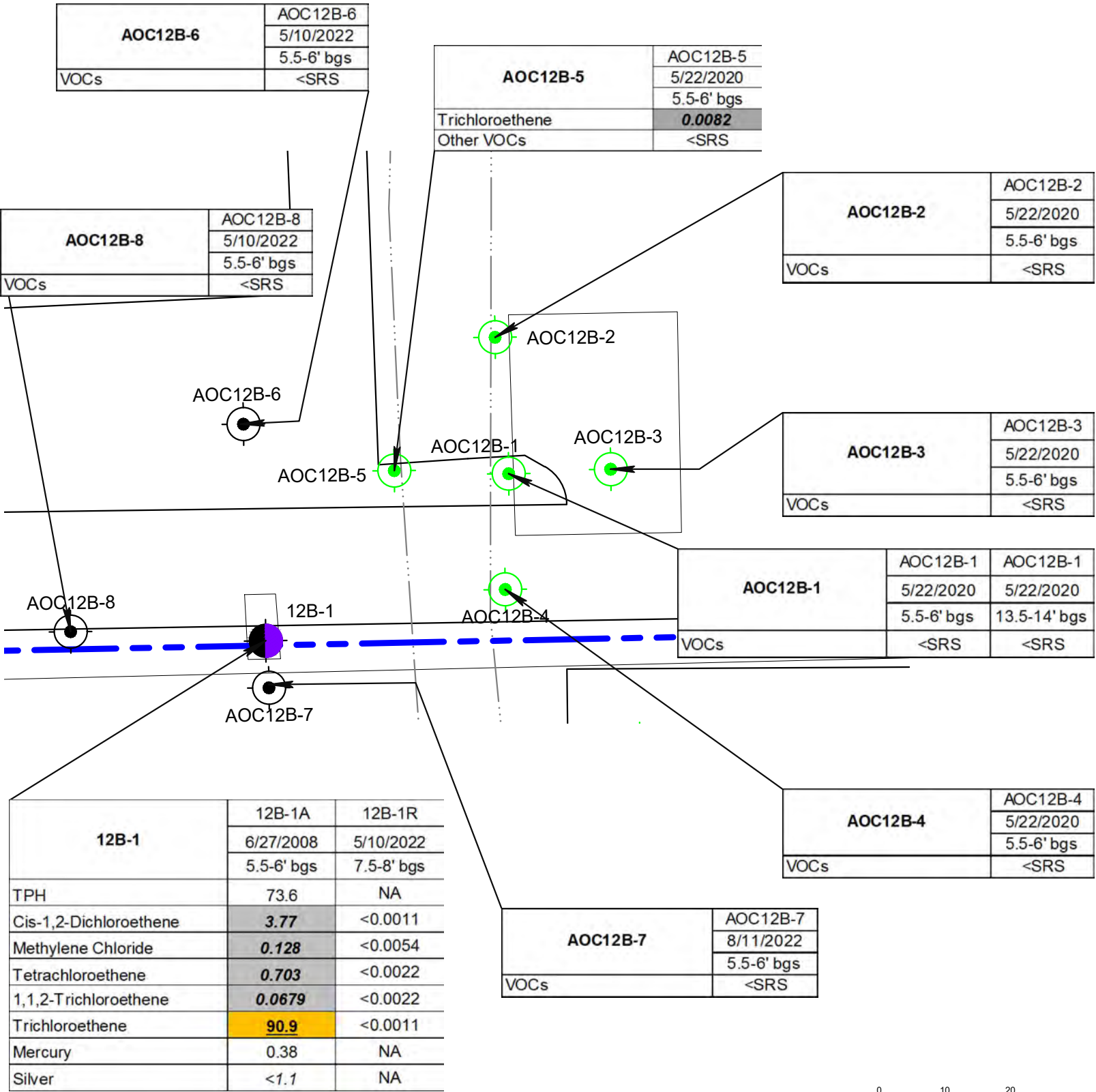
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SCALE: AS SHOWN

DATE: 6/15/2022

**4F-1**

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**LEGEND**

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- WIGWAM CREEK BOUNDARY
- 2008 ECI / 2022 MATRIX – SOIL BORING LOCATION
- 2020 WOODARD & CURRAN – SOIL BORING LOCATION
- 2022 MATRIX – SOIL BORING LOCATION

**Bold and italic** EXCEEDS THE NJDEP’S MGWSRS OR SS–MGWSRS

**Bold and underline** EXCEEDS NJDEP’S NRIDSRS OR NRISRS

| PARAMETER              | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|------------------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Cis-1,2-Dichloroethene | 0.35                       | 780                        | 13000                       | NA                        | NA                         |
| Methylene Chloride     | 0.013                      | 50                         | 260                         | 1400                      | NA                         |
| Tetrachloroethene      | 0.0065                     | 330                        | 1700                        | 47                        | NA                         |
| 1,1,2-Trichloroethene  | 0.017                      | 12                         | 64                          | NA                        | NA                         |
| Trichloroethene        | 0.0065                     | 15                         | 79                          | 3                         | 14                         |
| Mercury                | 90/20.8*                   | 23                         | 390                         | 520000                    | NA                         |
| Silver                 | 34.4/234*                  | 390                        | 6500                        | NA                        | NA                         |

**NOTES:**

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

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\*#\*/#\* SS–MGWSRS FOR HISTORIC FILL MATERIAL/ SS–MGWSRS FOP NATIVE MATERIAL

\*SEE FIGURE 4F FOR AOC LOCATION

DESIGNED BY: MED

REVIEWED BY: AM

RELEASED BY: AM

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**SOIL ANALYTICAL RESULTS**  
AOC -12B

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

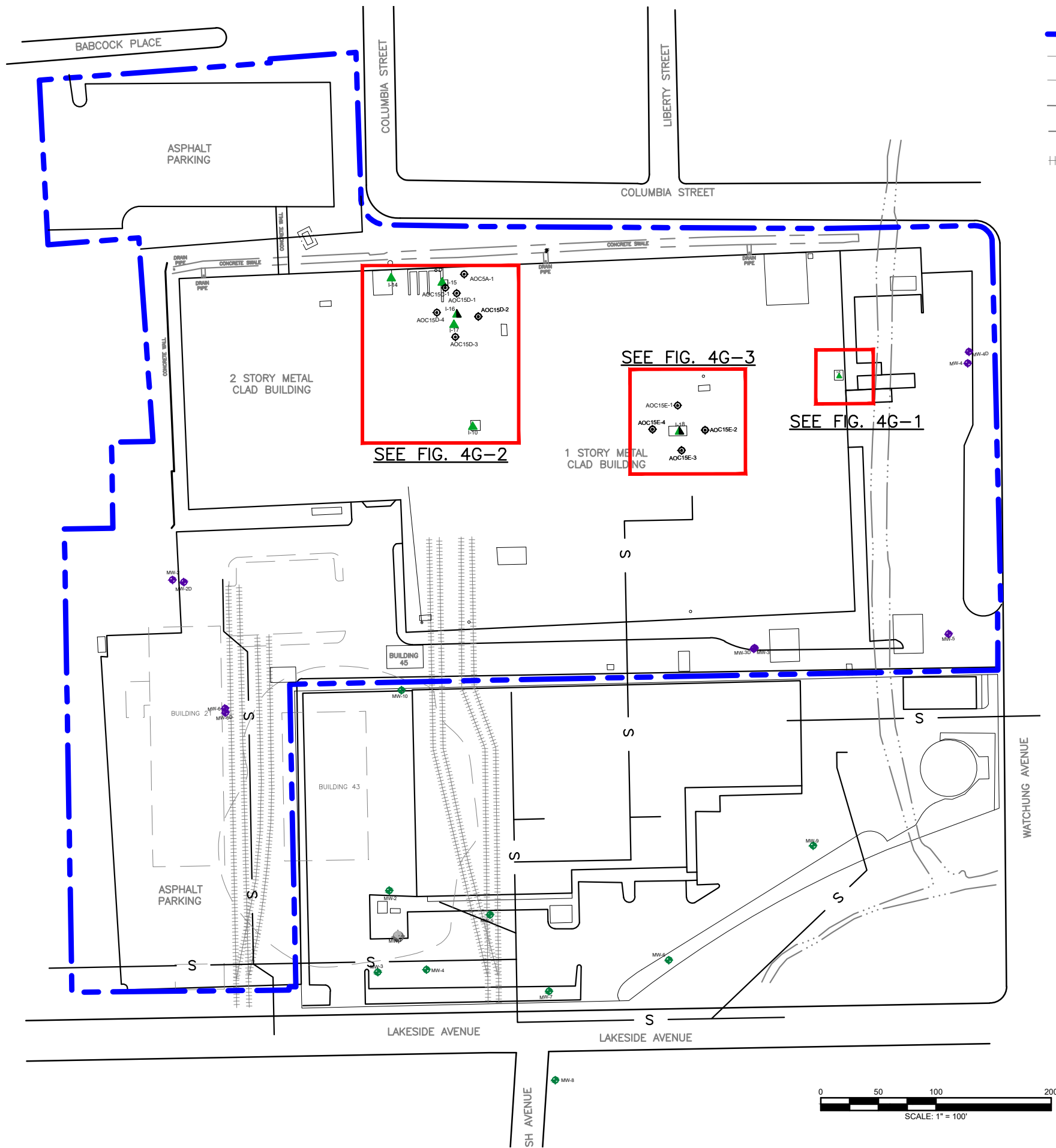
PROJECT NUMBER: 21-1041

SCALE: AS SHOWN

DATE: 6/15/2022

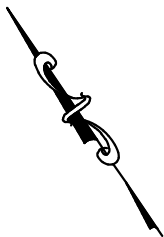
**4F-2**

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LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- HISTORIC SEWER UTILITY LINE
- WIGWAM CREEK BOUNDARY
- FORMER RAIL LINES
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- 2008 ECI – INDOOR SOIL BORING LOCATION
- 2008 ECI / 2022 MATRIX – INDOOR SOIL BORING LOCATION
- 2022 MATRIX – SOIL BORING LOCATION



|              |     |
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| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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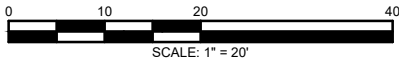
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SOIL BORING LOCATIONS  
AOC-15A, AOC-15B, AOC-15C, & AOC-15D  
FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

|                         |
|-------------------------|
| PROJECT NUMBER: 21-1041 |
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|      |            |
|------|------------|
| I-5  | I-5A       |
|      | 2/14/2008  |
|      | 8-8.5' bgs |
| TPH  | 104        |
| PAHs | <SRS       |



| LEGEND |                                        |
|--------|----------------------------------------|
|        | SITE FEATURES                          |
|        | FORMER SITE FEATURES                   |
|        | WIGWAM CREEK BOUNDARY                  |
|        | 2008 ECI – INDOOR SOIL BORING LOCATION |

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)  
FT. BGS FEET BELOW GROUND SURFACE  
ALL SAMPLE DEPTHS PRESENTED IN FT. BGS  
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RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)  
NRIDSRs NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)  
NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

\*SEE FIGURE 4G FOR AOC LOCATION

| PARAMETER | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRs<br>(mg/kg) | NJDEP<br>NRIDSRs<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH       | NA                         | 5300                       | 75000                       | NA                        | NA                         |

|              |     |
|--------------|-----|
| DESIGNED BY: | MED |
| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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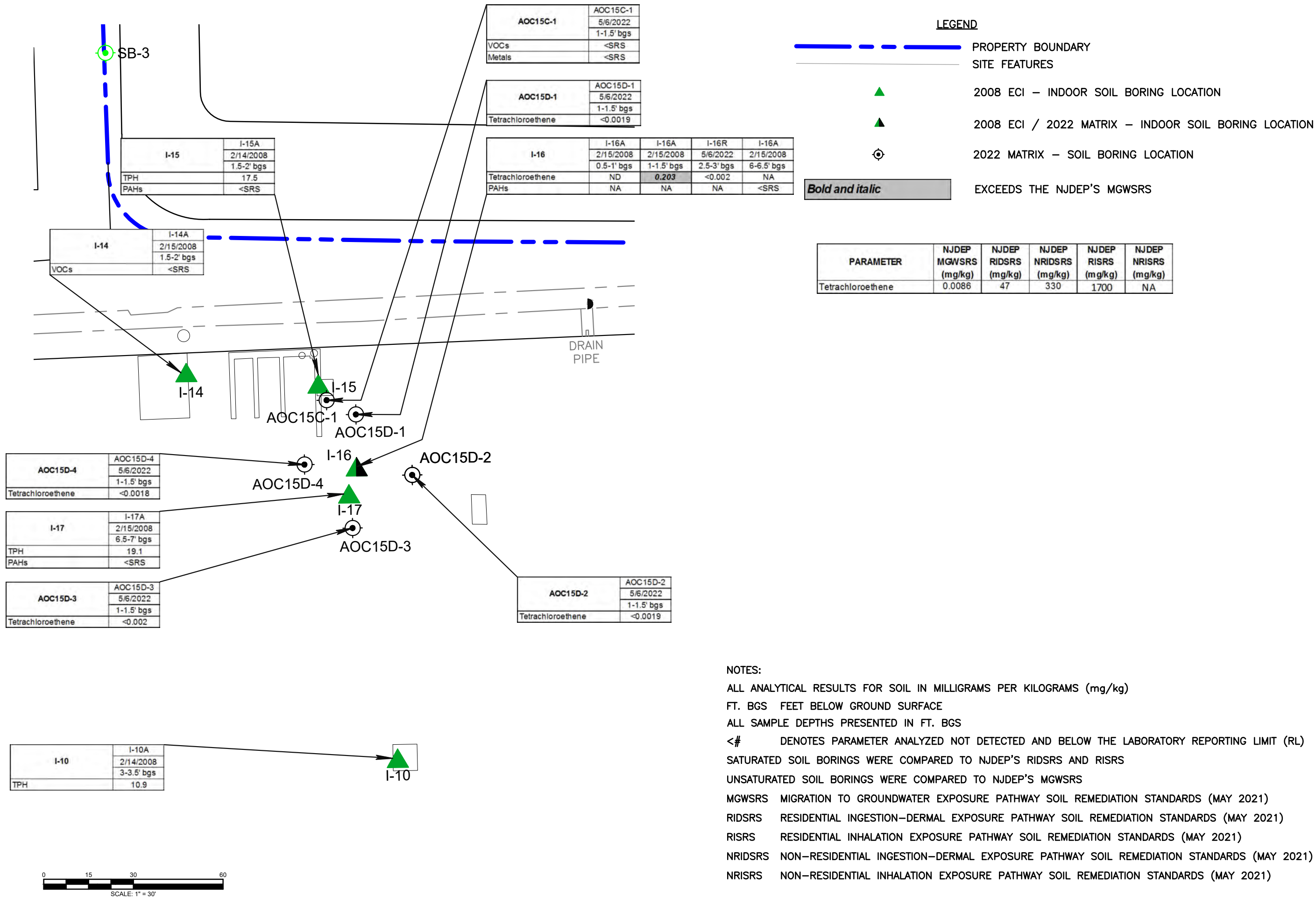
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SOIL ANALYTICAL RESULTS  
AOC-15A

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55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

|                         |
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| PROJECT NUMBER: 21-1041 |
| SCALE: AS SHOWN         |
| DATE: 6/15/2022         |

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**SOIL ANALYTICAL RESULTS**  
**AOC-15B, AOC-15C, & AOC-15D**

**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
**ESSEX COUNTY, NEW JERSEY**

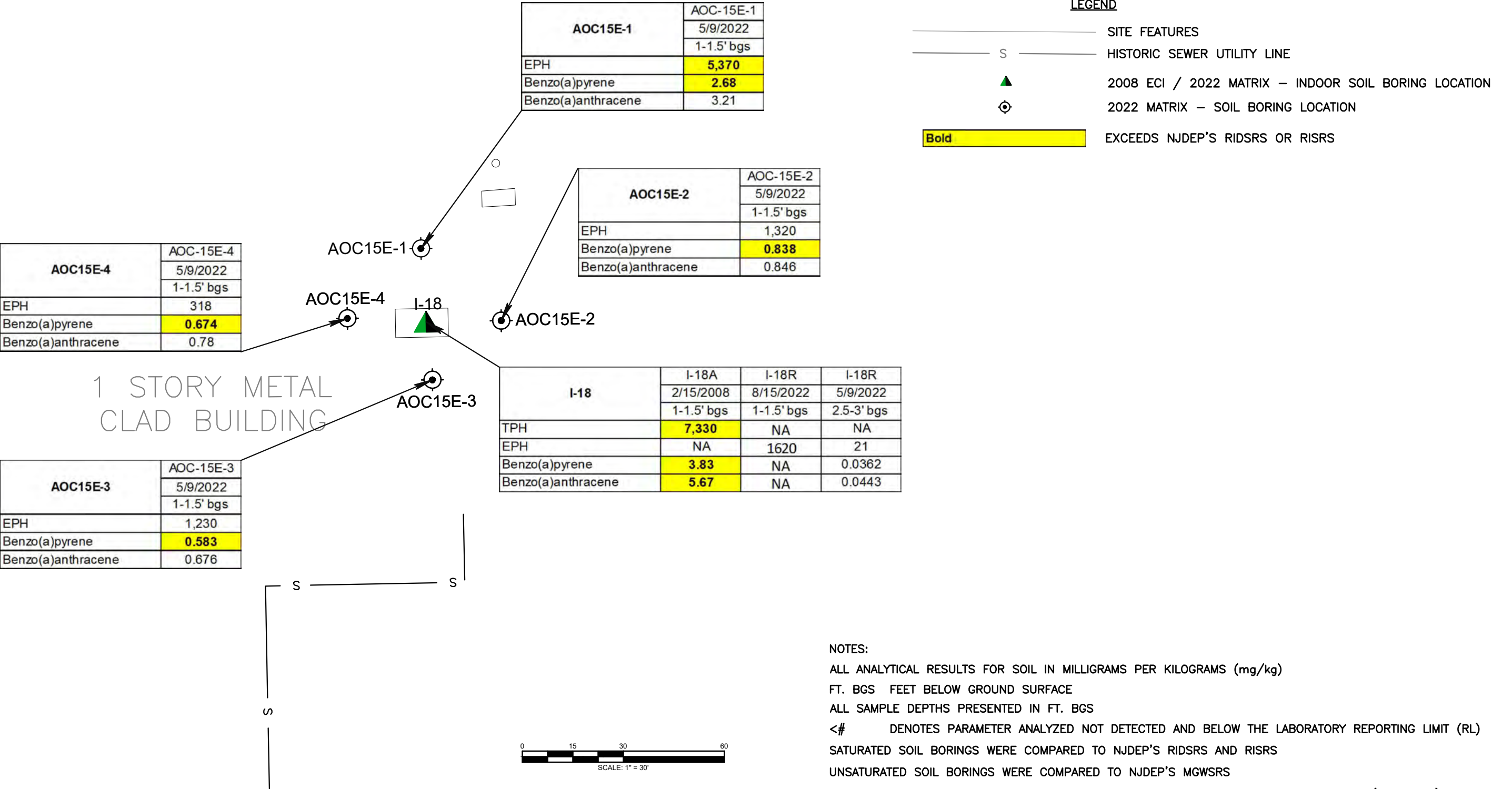
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DATE: 6/15/2022

**4G-2**

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| PARAMETER          | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRs<br>(mg/kg) | NJDEP<br>NRIDSRs<br>(mg/kg) | NJDEP<br>RISRs<br>(mg/kg) | NJDEP<br>NRISRs<br>(mg/kg) |
|--------------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH                | NA                         | 5300                       | 75000                       | NA                        | NA                         |
| Benzo(a)anthracene | 20.9/5*                    | 5.1                        | 23                          | 78000                     | 370000                     |
| Benzo(a)pyrene     | NA                         | 0.51                       | 2.3                         | 7800                      | 16000                      |

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SOIL ANALYTICAL RESULTS  
AOC-15E

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

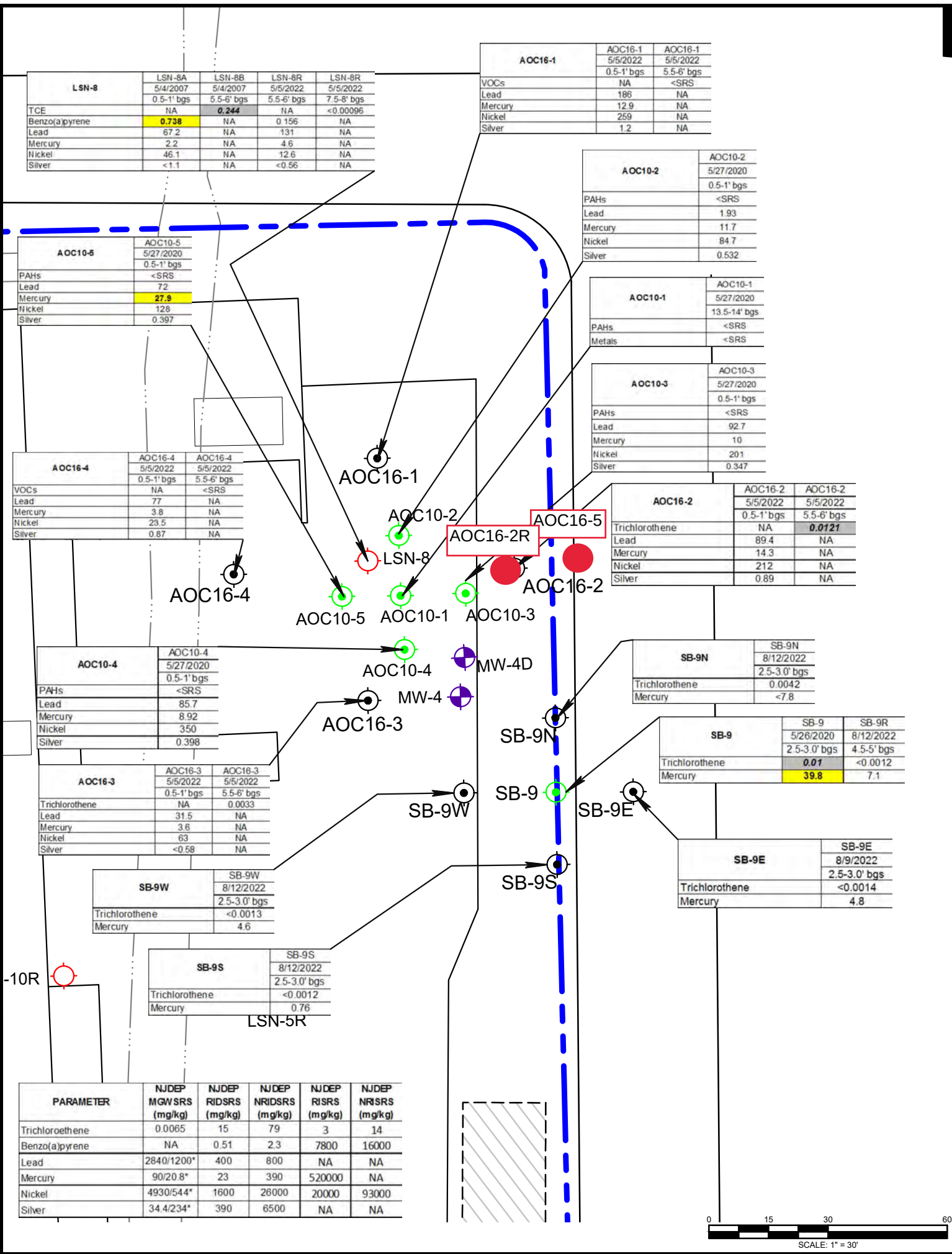
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DATE: 6/15/2022

4G-3

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**KEY MAP**  
NOT TO SCALE

**LEGEND**

- PROPERTY BOUNDARY
- SITE FEATURES
- WIGWAM CREEK BOUNDARY
- 55 LAKESIDE AVENUE MONITORING WELL LOCATION
- 2007 ECI – SOIL BORING LOCATION
- 2020 WOODARD & CURRAN/2022 MATRIX – SOIL BORING LOCATION
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- Bold and italic** EXCEEDS THE NJDEP'S MGWSRS OR SS-MGWSRS
- Bold** EXCEEDS NJDEP'S RIDSRS OR RISRS

**NOTES:**

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

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ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

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NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS–MGWSRS) WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET

'#\*/\*' SS–MGWSRS FOR HISTORIC FILL MATERIAL/ SS–MGWSRS FOP NATIVE MATERIAL

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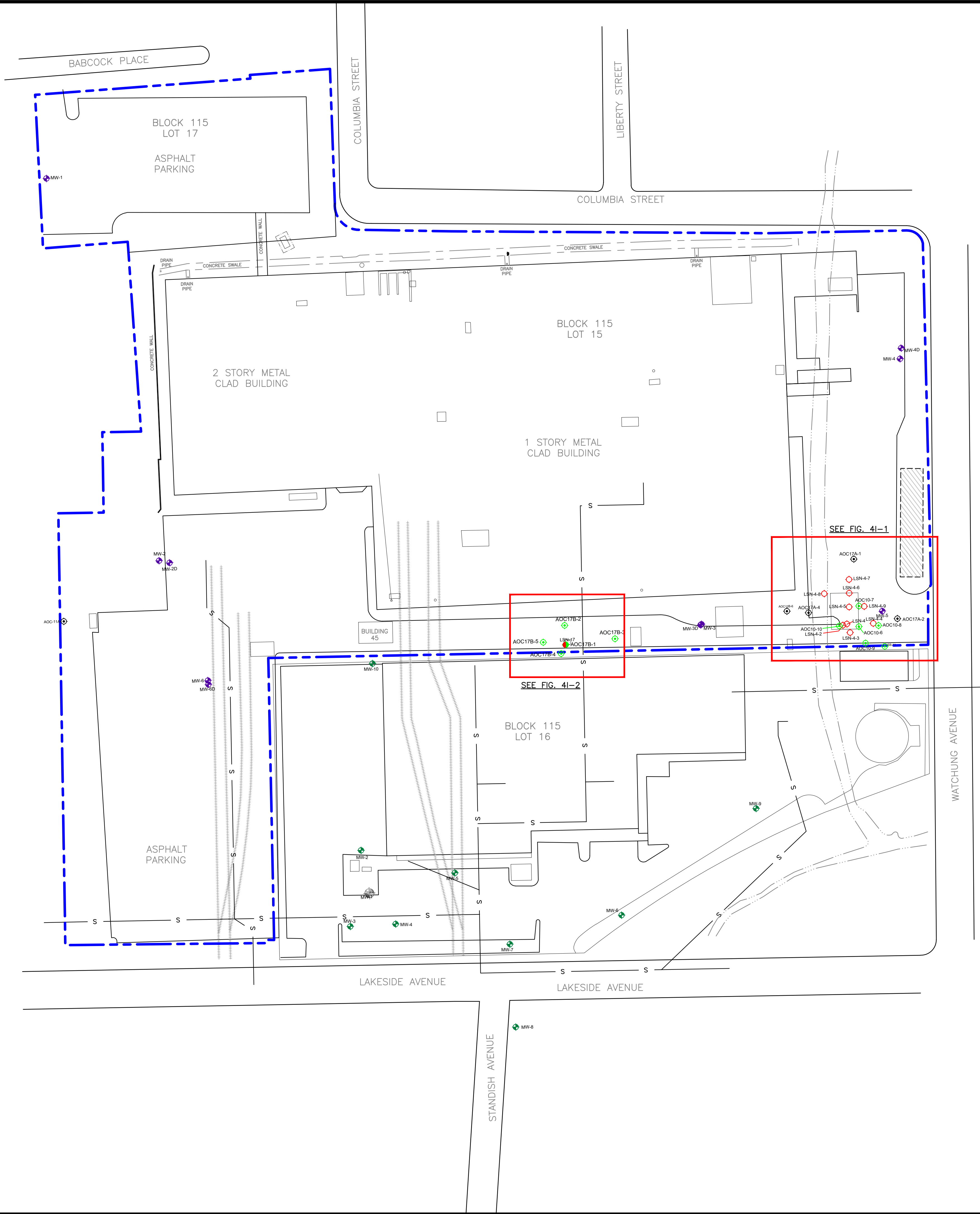
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**SOIL ANALYTICAL RESULTS**  
AOC-16

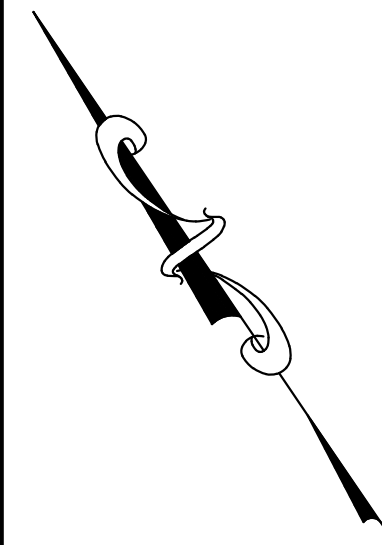
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TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041  
SCALE: AS SHOWN  
DATE: 6/15/2022

**4H**



- LEGEND**
- PROPERTY BOUNDARY
  - SITE FEATURES
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REVIEWED BY: AM  
RELEASED BY: AM

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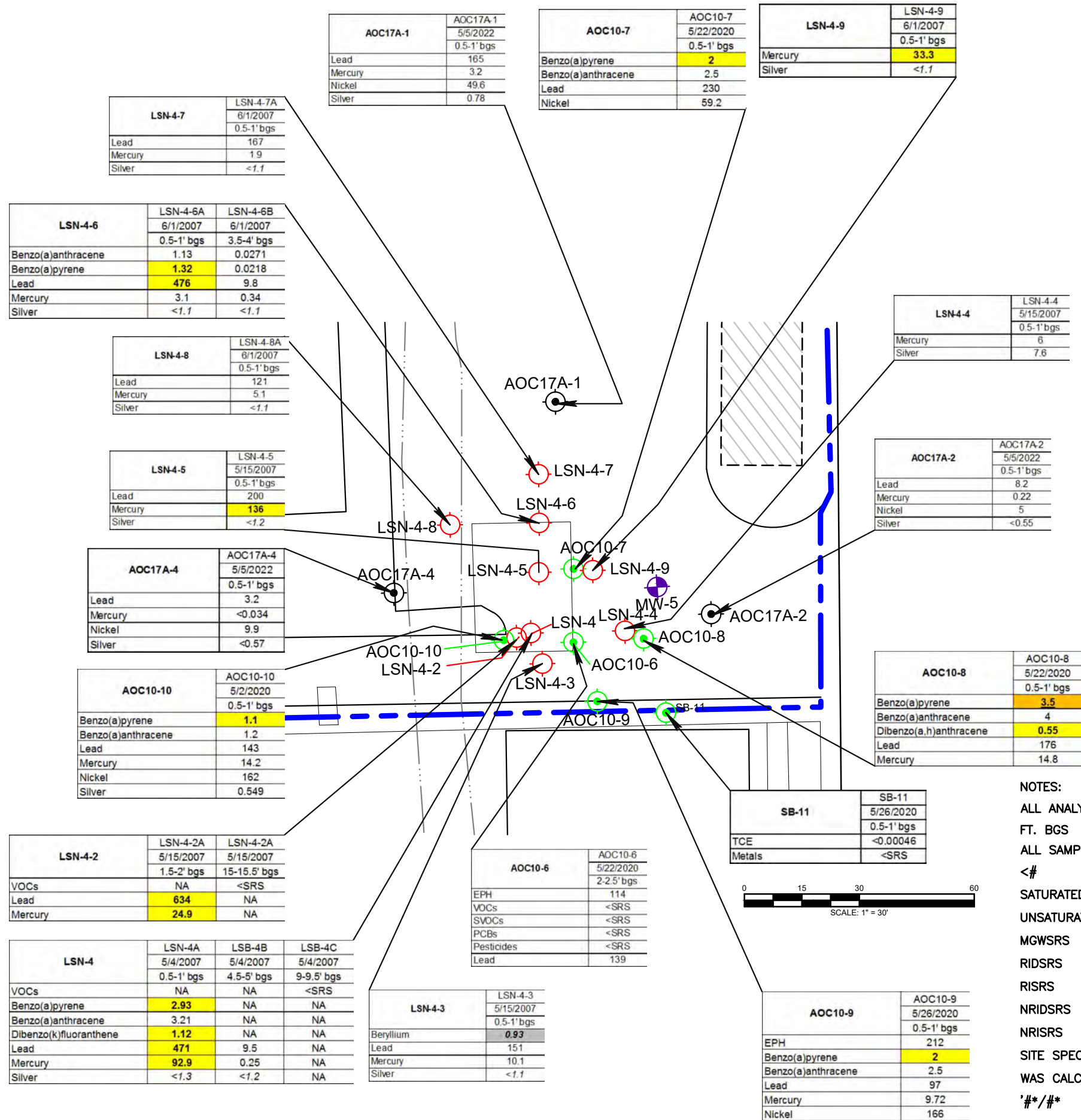
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**SOIL BORING LOCATIONS**  
**AOC-17**  
**FORMER BARTON PRESS NJDEP PI No. 027166**  
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**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041

DATE: 6/15/2022

SCALE: AS SHOWN



NOTES:

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WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET  
'#\*/#\* SS-MGWSRS FOR HISTORIC FILL MATERIAL/ SS-MGWSRS FOP NATIVE MATERIAL

\*SEE FIGURE 41 FOR AOC LOCATION

LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- WIGWAM CREEK BOUNDARY
- 55 LAKESIDE AVENUE MONITORING WELL LOCATION
- 2007 ECI - SOIL BORING LOCATION
- 2020 WOODARD & CURRAN - SOIL BORING LOCATION
- 2022 MATRIX - SOIL BORING LOCATION

**Exceeds NJDEP's RIDRS or RISRS**  
**Exceeds NJDEP's NRIDSRS or NRISRS**

| PARAMETER              | NJDEP MGWSRS (mg/kg) | NJDEP RIDRS (mg/kg) | NJDEP NRIDSRS (mg/kg) | NJDEP RISRS (mg/kg) | NJDEP NRISRS (mg/kg) |
|------------------------|----------------------|---------------------|-----------------------|---------------------|----------------------|
| Trichloroethene        | 0.0065               | 15                  | 79                    | 3                   | 14                   |
| Benzo(a)pyrene         | NA                   | 0.51                | 2.3                   | 3500                | 16000                |
| Benzo(a)anthracene     | 20.9/5*              | 5.1                 | 23                    | 78000               | 370000               |
| Dibenzo(a,h)anthracene | NA                   | 0.51                | 2.3                   | 7800                | 37000                |
| Beryllium              | 0.7                  | 160                 | 2600                  | 2000                | 9300                 |
| Lead                   | 2840/1200*           | 400                 | 800                   | NA                  | NA                   |
| Mercury                | 90/20.8*             | 23                  | 390                   | 520000              | NA                   |
| Nickel                 | 4930/544*            | 1600                | 26000                 | 20000               | 93000                |
| Silver                 | 34.4/234*            | 390                 | 6500                  | NA                  | NA                   |

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REVIEWED BY: AM  
RELEASED BY: AM

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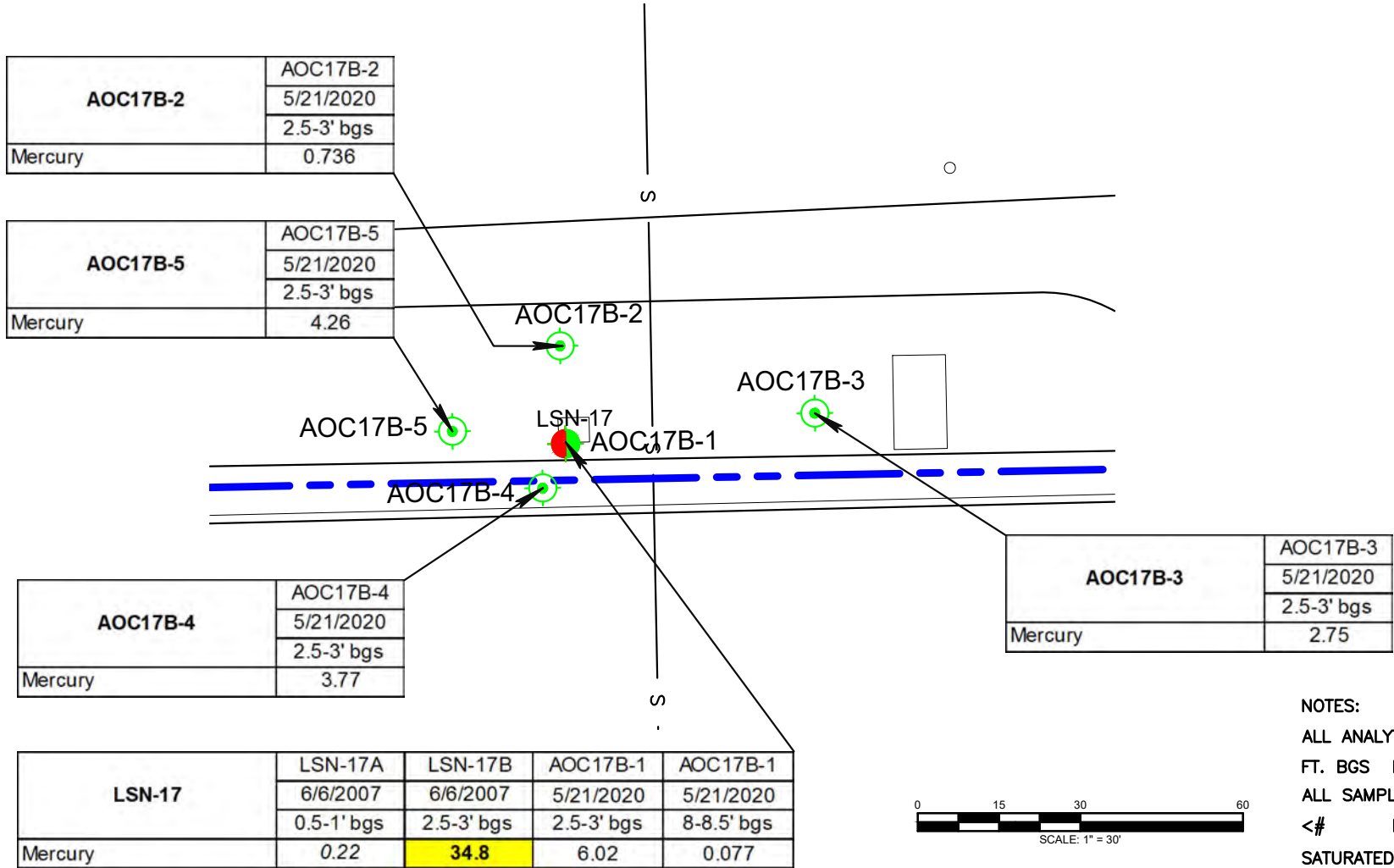
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SOIL ANALYTICAL RESULTS  
AOC-17A  
FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041  
SCALE: AS SHOWN  
DATE: 6/15/2022

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| PARAMETER | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Mercury   | 90/20.8*                   | 23                         | 390                         | 520000                    | NA                         |



NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRs AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS

MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RIDSRS RESIDENTIAL INGESTION-DETMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON-RESIDENTIAL INGESTION-DETMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS-MGWSRS)

WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET

'#\*/\*#\* SS-MGWSRS FOR HISTORIC FILL MATERIAL/ SS-MGWSRS FOP NATIVE MATERIAL

\* SEE FIGURE 4I FOR AOC LOCATION

LEGEND

|  |                                                         |
|--|---------------------------------------------------------|
|  | PROPERTY BOUNDARY                                       |
|  | SITE FEATURES                                           |
|  | HISTORIC SEWER UTILITY LINE                             |
|  | 2007 ECI / 2020 WOODARD & CURRAN - SOIL BORING LOCATION |
|  | 2020 WOODARD & CURRAN - SOIL BORING LOCATION            |
|  | EXCEEDS NJDEP'S RIDSRs OR RISRS                         |

|              |     |
|--------------|-----|
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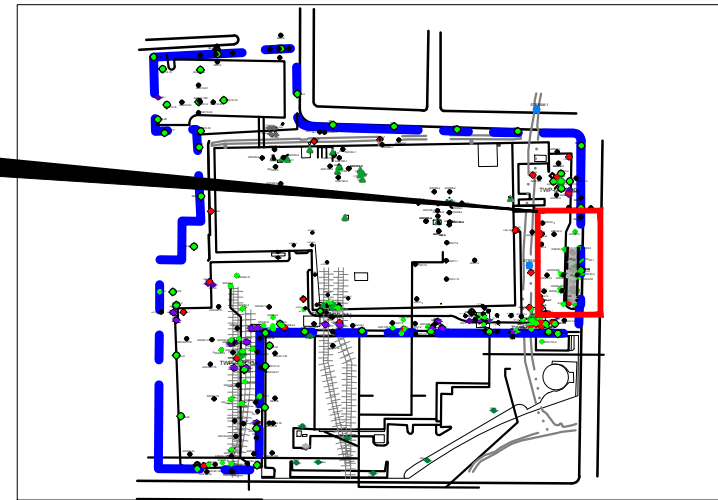
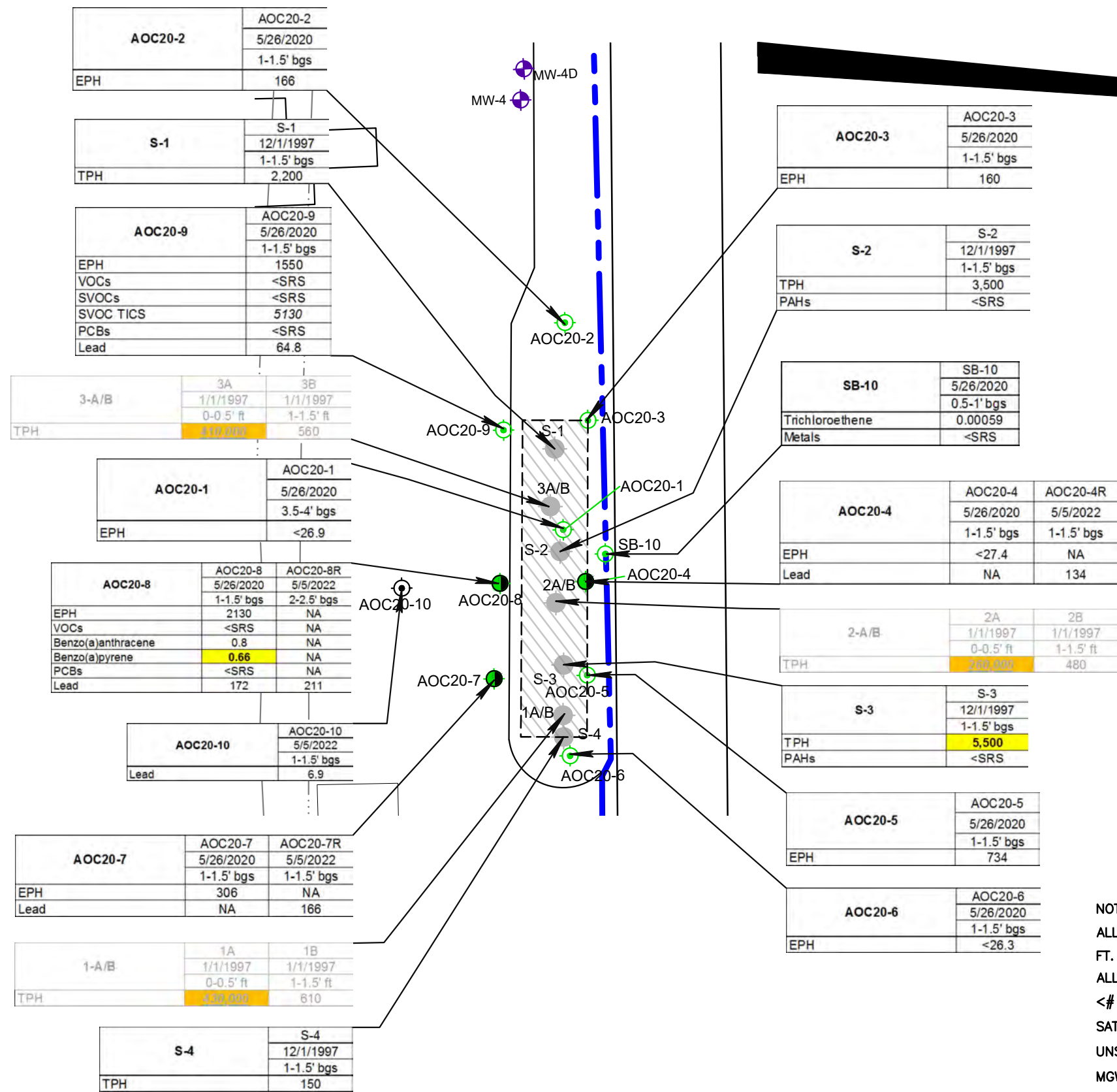
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SOIL ANALYTICAL RESULTS  
AOC-17B

FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

|                         |
|-------------------------|
| PROJECT NUMBER: 21-1041 |
| SCALE: AS SHOWN         |
| DATE: 6/15/2022         |



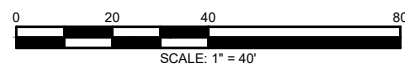
#### LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- 55 LAKESIDE AVENUE MONITORING WELL LOCATION
- HISTORIC SOIL BORING LOCATION
- 2020 WOODARD & CURRAN - SOIL BORING LOCATION
- 2020 WOODARD & CURRAN/2022 MATRIX - SOIL BORING LOCATION
- 2022 MATRIX - SOIL BORING LOCATION
- 1997 EXCAVATION AREA (CASE NO. 97-06-11-0128-18)
- Bold** EXCEEDS NJDEP'S RIDSRs OR RISRS
- Bold and underline** EXCEEDS NJDEP'S NRIDSRs OR NRISRS

#### NOTES:

- ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)
- FT. BGS FEET BELOW GROUND SURFACE
- ALL SAMPLE DEPTHS PRESENTED IN FT. BGS
- <# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)
- SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRs AND RISRS
- UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS
- MGWSRS MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RIDSRs RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRIDSRs NON-RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)
- SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS-MGWSRS) WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET
- '#\*/#\* SS-MGWSRS FOR HISTORIC FILL MATERIAL/ SS-MGWSRS FOR NATIVE MATERIAL

| PARAMETER          | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRs<br>(mg/kg) | NJDEP<br>NRIDSRs<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|--------------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| EPH                | NA                         | 5300                       | 75000                       | NA                        | NA                         |
| Benzo(a)anthracene | 20.9/5*                    | 5.1                        | 23                          | 78000                     | 370000                     |
| Benzo(a)pyrene     | NA                         | 0.51                       | 2.3                         | 7800                      | 16000                      |
| PCBs               | 1.6                        | 0.25                       | 1.1                         | NA                        | NA                         |
| Lead               | 2840/1200*                 | 400                        | 800                         | NA                        | NA                         |
| Mercury            | 90/20.8*                   | 23                         | 390                         | 520000                    | NA                         |



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**SOIL ANALYTICAL RESULTS**  
**AOC-20**  
**FORMER BARTON PRESS NJDEP PI No. 027166**  
**55 LAKESIDE AVENUE**  
**BLOCK 115, LOTS 15 & 17**  
**TOWNSHIP OF WEST ORANGE**  
**ESSEX COUNTY, NEW JERSEY**

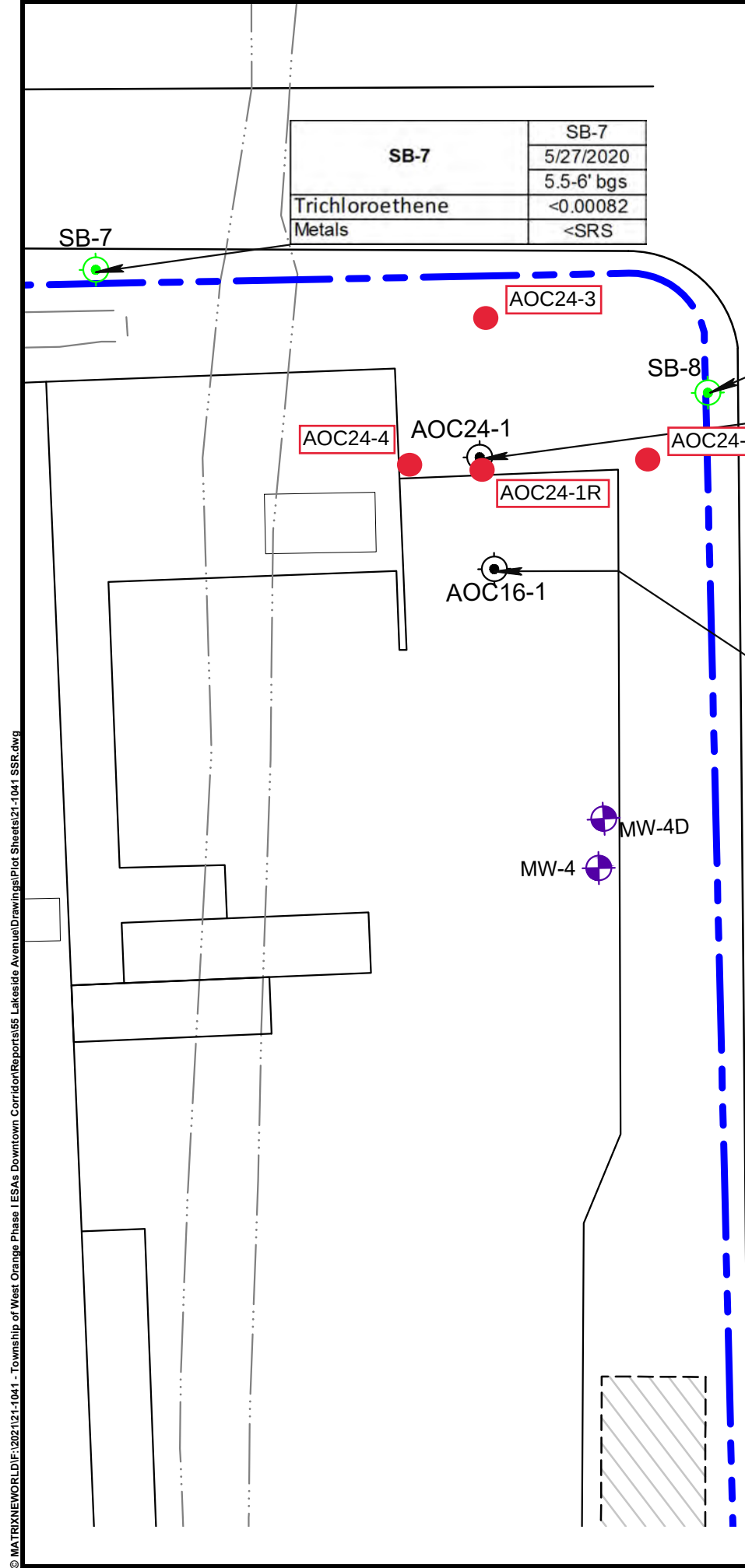
PROJECT NUMBER: 21-1041

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DATE: 6/7/2022

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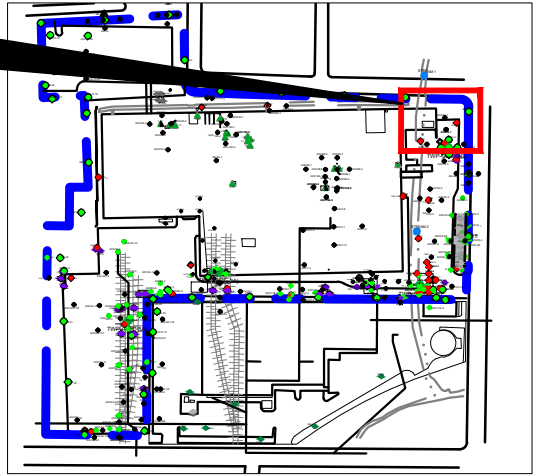


|        |                 |
|--------|-----------------|
| SB-7   | SB-7            |
|        | 5/27/2020       |
|        | 5.5-6' bgs      |
|        | Trichloroethene |
| Metals | <0.00082        |
|        | <SRS            |

|        |                 |
|--------|-----------------|
| SB-8   | SB-8            |
|        | 5/27/2020       |
|        | 5.5-6' bgs      |
|        | Trichloroethene |
| Metals | 0.0012          |
|        | <SRS            |

|                 |               |
|-----------------|---------------|
| AOC24-1         | AOC24-1       |
|                 | 8/16/2022     |
|                 | 0.5-1' bgs    |
|                 | EPH           |
| Trichloroethene | <b>0.0136</b> |
|                 | <SRS          |
| SVOCs           | <SRS          |
|                 | Cadmium       |
| Lead            | <b>11.1</b>   |
|                 | 171           |
| Mercury         | 10            |
|                 | Nickel        |
| Silver          | 253           |
|                 | 1.1           |

|         |            |
|---------|------------|
| AOC16-1 | AOC16-1    |
|         | 5/5/2022   |
|         | 0.5-1' bgs |
|         | VOCs       |
| Cadmium | NA         |
|         | <1.1       |
| Lead    | 186        |
|         | Mercury    |
| Nickel  | 12.9       |
|         | 259        |
| Silver  | 1.2        |



KEY MAP  
NOT TO SCALE

| LEGEND                 |                                              |
|------------------------|----------------------------------------------|
|                        | PROPERTY BOUNDARY                            |
|                        | SITE FEATURES                                |
|                        | WIGWAM CREEK BOUNDARY                        |
|                        | 55 LAKESIDE AVENUE MONITORING WELL LOCATION  |
|                        | 2020 WOODARD & CURRAN - SOIL BORING LOCATION |
|                        | 2022 MATRIX - SOIL BORING LOCATION           |
| <b>Bold and italic</b> | EXCEEDS THE NJDEP'S MGWSRS OR SS-MGWSRS      |

| PARAMETER       | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Trichloroethene | 0.0065                     | 15                         | 79                          | 3                         | 14                         |
| Cadmium         | 5.6*/1.9                   | 71                         | 1100                        | 2600                      | 12000                      |
| Lead            | 2840/1200*                 | 400                        | 800                         | NA                        | NA                         |
| Mercury         | 90/20.8*                   | 23                         | 390                         | 520000                    | NA                         |
| Nickel          | 4930/544*                  | 1600                       | 26000                       | 20000                     | 93000                      |
| Silver          | 34.4/234*                  | 390                        | 6500                        | NA                        | NA                         |

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S RIDSRS AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP'S MGWSRS

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RIDSRS RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON-RESIDENTIAL INGESTION-DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON-RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

SITE SPECIFIC MIGRATION TO GROUNDWATER EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (SS-MGWSRS)

WAS CALCULATED FOR EACH USING NJDEP'S SPLP SPREADSHEET

'#\*/#\* SS-MGWSRS FOR HISTORIC FILL MATERIAL/ SS-MGWSRS FOP NATIVE MATERIAL

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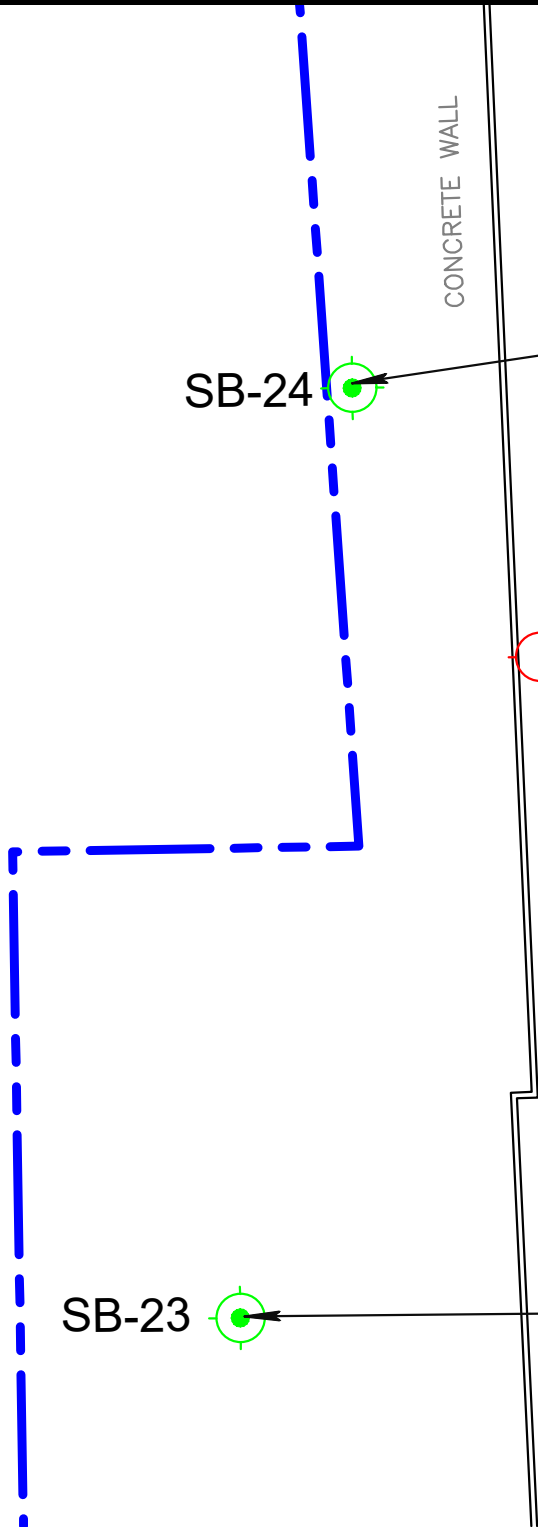
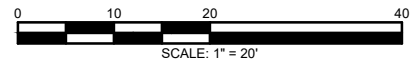
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**SOIL ANALYTICAL RESULTS**  
AOC-24  
FORMER BARTON PRESS NJDEP PI No. 027166  
55 LAKESIDE AVENUE  
BLOCK 115, LOTS 15 & 17  
TOWNSHIP OF WEST ORANGE  
ESSEX COUNTY, NEW JERSEY

PROJECT NUMBER: 21-1041  
SCALE: AS SHOWN  
DATE: 6/15/2022  
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SB-24

CONCRETE WALL

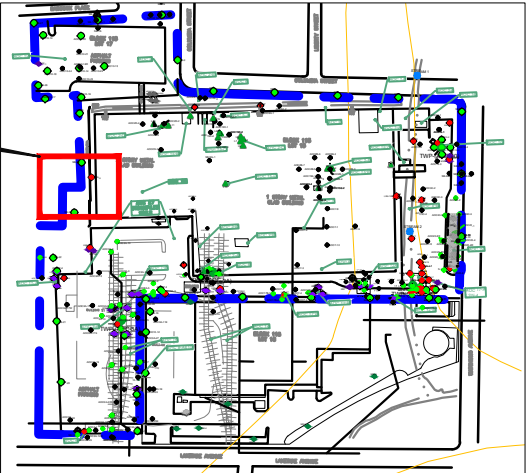
LSN-9

SB-23

|          |                 |
|----------|-----------------|
| SB-24    | SB-24           |
|          | 5/28/2020       |
|          | 0.5-1'bgs       |
|          | Trichloroethene |
| <0.00074 |                 |
| Metals   |                 |
| <SRS     |                 |

|        |                 |              |
|--------|-----------------|--------------|
| LSN-9  | LSN-9A          | LSN-9B       |
|        | 5/10/2007       | 5/10/2007    |
|        | 11-12' bgs      | 17.5-18' bgs |
|        | Trichloroethene | ND           |
| Metals |                 | NA           |
| NA     |                 | NA           |

|        |                 |
|--------|-----------------|
| SB-23  | SB-23           |
|        | 5/26/2020       |
|        | 1.5-2'bgs       |
|        | Trichloroethene |
| 0.002  |                 |
| Metals |                 |
| <SRS   |                 |



KEY MAP  
NOT TO SCALE

| PARAMETER       | NJDEP<br>MGWSRS<br>(mg/kg) | NJDEP<br>RIDSRS<br>(mg/kg) | NJDEP<br>NRIDSRS<br>(mg/kg) | NJDEP<br>RISRS<br>(mg/kg) | NJDEP<br>NRISRS<br>(mg/kg) |
|-----------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|
| Trichloroethene | 0.0065                     | 15                         | 79                          | 3                         | 14                         |

LEGEND

- PROPERTY BOUNDARY
- SITE FEATURES
- FORMER SITE FEATURES
- 2007 ECI – SOIL BORING LOCATION
- 2020 WOODARD & CURRAN SOIL BORING LOCATION

NOTES:

ALL ANALYTICAL RESULTS FOR SOIL IN MILLIGRAMS PER KILOGRAMS (mg/kg)

FT. BGS FEET BELOW GROUND SURFACE

ALL SAMPLE DEPTHS PRESENTED IN FT. BGS

<# DENOTES PARAMETER ANALYZED NOT DETECTED AND BELOW THE LABORATORY REPORTING LIMIT (RL)

SATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S RIDSRS AND RISRS

UNSATURATED SOIL BORINGS WERE COMPARED TO NJDEP’S MGWSRS

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RIDSRS RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

RISRS RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRIDSRS NON–RESIDENTIAL INGESTION–DERMAL EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

NRISRS NON–RESIDENTIAL INHALATION EXPOSURE PATHWAY SOIL REMEDIATION STANDARDS (MAY 2021)

|              |     |
|--------------|-----|
| DESIGNED BY: | MED |
| REVIEWED BY: | AM  |
| RELEASED BY: | AM  |

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SOIL ANALYTICAL RESULTS  
LSN-9

FORMER BARTON PRESS NJDEP PI No. 027166  
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ESSEX COUNTY, NEW JERSEY

|                         |
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