Appendix B

Supplemental Pre-Design Investigation Results

2022 Conrail Right-of-Way Supplemental Pre-Design Investigation
Work Plan

AECOM
250 Apollo Drive
Chelmsford, MA 01824

978.905.2100 tel
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To	Mike Feamster, Ramboll Jocelyn Hill, Conrail Alyssa Brown, Ramboll Matt Shappert, Ramboll Joseph Caccamo, Conrail William Parry, CSX
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Subject	Conrail Right-of-Way Investigation Plan
From	Aimee Ruiter John Angelone
Date	May 12, 2022

This memorandum presents the proposed Scope of Work for investigative test pitting within the Conrail Right-of-Way (ROW) adjacent to 143 Chapel Avenue, Jersey City, Hudson County, New Jersey. AECOM is proposing investigative test pitting (i.e., pits excavated for subsurface exploration) along the Conrail ROW to delineate and/or remove chromate chemical production waste (CCPW)-related impacts. Test pits are being proposed to collect soil samples for analysis, make visual observations of the underlying soil, and evaluate whether CCPW material is present. Test pits are proposed at 10 locations along the Conrail ROW (see Figures 1 through 5). The locations are set five feet from either existing samples that showed exceedances of the New Jersey Department of Environmental Protection (NJDEP) Chromium Soil Cleanup Criteria (CrSCC) or locations where CCPW was observed during previous investigation/remediation activities. The results of this investigation will be used to determine the presence and extent of potential impacts and inform future remedial actions, if warranted.

AECOM will work under a supplement to the existing Temporary Right of Entry and/or Design permit from Conrail. AECOM field staff and subcontractors will complete the required Conrail Contractor Orientation Training and/or Conrail required safety training. AECOM and its subcontractors will coordinate access and track protection with Conrail Engineer David Reilly and will follow the direction of the Conrail representative in the field, to promote safety for participating personnel. PPG will facilitate and manage the disposal of impacted soils and investigation derived wastes (IDW), such as used personal protective equipment and water used during equipment decontamination. Waste will be temporarily staged in a roll-off within the Conrail ROW. Other materials are also proposed to be temporarily staged within the Conrail ROW (see Figure 1).

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The proposed Scope of Work is as follows:

- A professionally-licensed surveyor will mark out the proposed test pit locations.
- Railway ballast will be removed and stockpiled prior to excavating test pits.
- An environmental remediation contractor will mobilize an excavator/mini excavator, as appropriate, to excavate soil to 5 feet below ground surface (bgs) at each test pit location.
- An AECOM representative will collect soil samples for analysis from the test pits and document visual observations of the subsurface materials.
- Should CCPW be visually observed, AECOM may pursue the removal of CCPW up to the ends of the railroad ties with coordination for excavation limits and depths with Conrail's Project Engineer. Excavation will be in short segments (width and depth as agreed upon with Conrail Engineer) with backfill and compaction prior to train movement coordinated with Conrail based on the work in close proximity to the rail.
- If CCPW is observed to be continuing under the railroad tracks, the locations will be documented and potential additional actions will be reviewed. Additional test pit(s) may be excavated on the northwestern side of the railroad tracks in a later mobilization, to seek a location visibly free of CCPW.
- Soil samples will be collected from material visibly free of CCPW and analyzed for hexavalent chromium. However, if material visibly free of CCPW is not encountered in the northwestern edge of the test pit (i.e., location closest to the railroad tracks) a soil sample may still be collected and analyzed for hexavalent chromium.
- Test pit backfill materials will include excavated soils (if confirmed clean through the screening process outlined in the Excavated Material Groundwater Management Plan) and/or imported clean fill soil.
- Backfill will not be amended with FerroBlack-H.
- Test pits will be compacted with a vibratory plate or jumping jack compactor in 6-inch lifts and regraded to existing conditions with the stockpiled railway ballast. If disturbed, the existing drainage swale will be restored.
- Generated waste will be securely temporarily staged within the Conrail ROW. Waste material will be stockpiled on minimum 6 mil plastic sheeting, and covered daily and at completion of test pit work with tarp or plastic sheeting and secured to prevent storm water infiltration/run off, with berming added as needed (plastic over straw tubes, bales, etc.) to deter storm water flow to and from the pile. The piles will be encircled with a plastic construction barrier fence and will not encroach within 15 feet of the track unless approved by Conrail Engineering representative.
- Generated waste will be characterized for waste disposal and transported off-site for disposal in a timely manner.
- Following completion of the investigation and removal of the waste from the Site, all materials will be demobilized from the Site. Excess crushed stone may be used in adjacent areas along the track, but it must not produce a tripping hazard.

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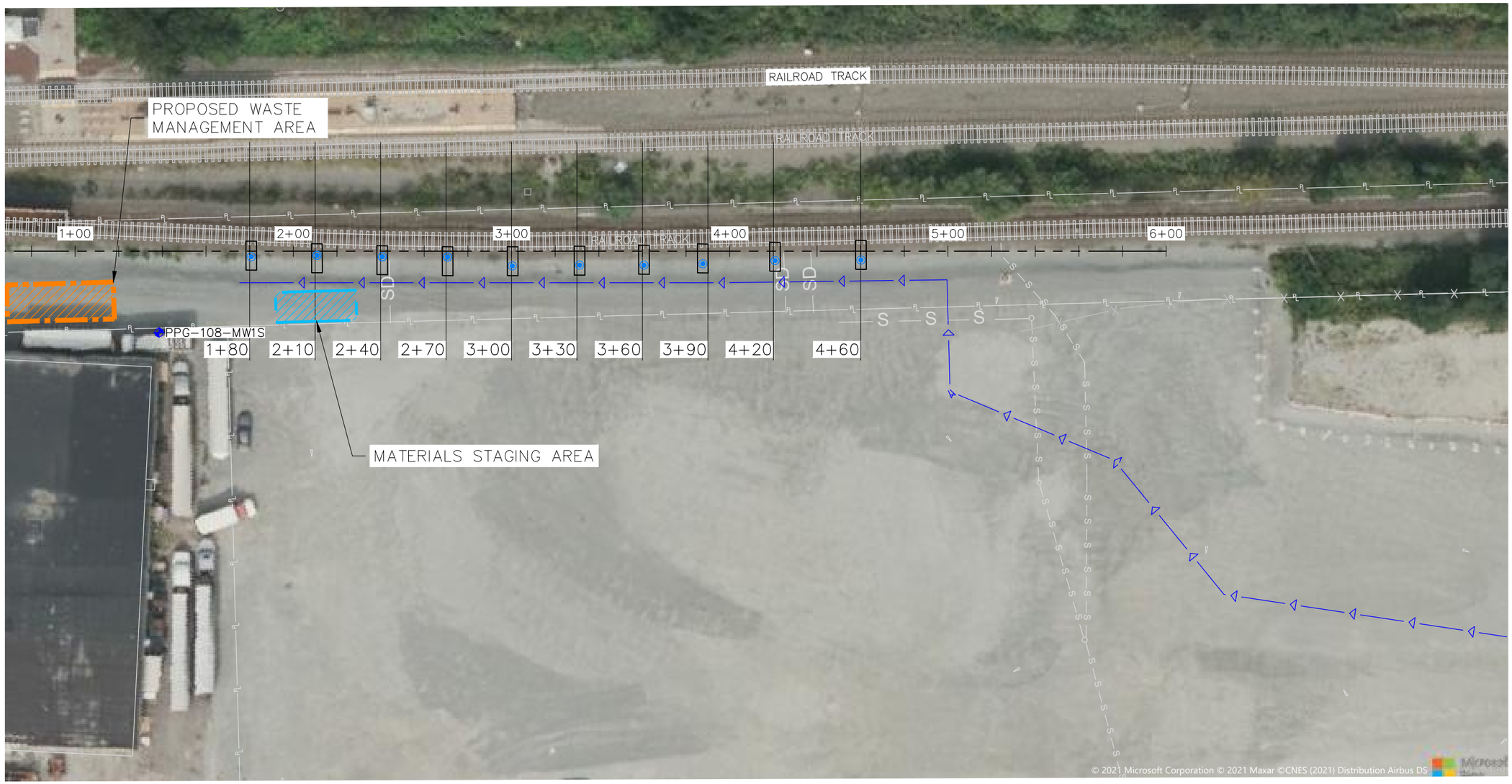
- AECOM estimates each test pit will take 4 hours to complete from removal of the first bucket to end of compaction. Assuming Conrail's schedule allows for two test pits per day, AECOM estimates the full SOW to take approximately 5 days.

Conrail will inform AECOM of any required permits or plans not addressed in this Scope of Work.



LEGEND

- BUILDING
- FENCE
- PROPERTY LINE
- SEWER UTILITY
- UTILITY POLE
- PROPOSED SAMPLE LOCATION
- STICK-UP MONITORING WELL
- PROPOSED TEST PIT (NOT TO SCALE)
- SITE ACCESS
- RAIL LINE

25 0 50

GRAPHIC SCALE IN FEET

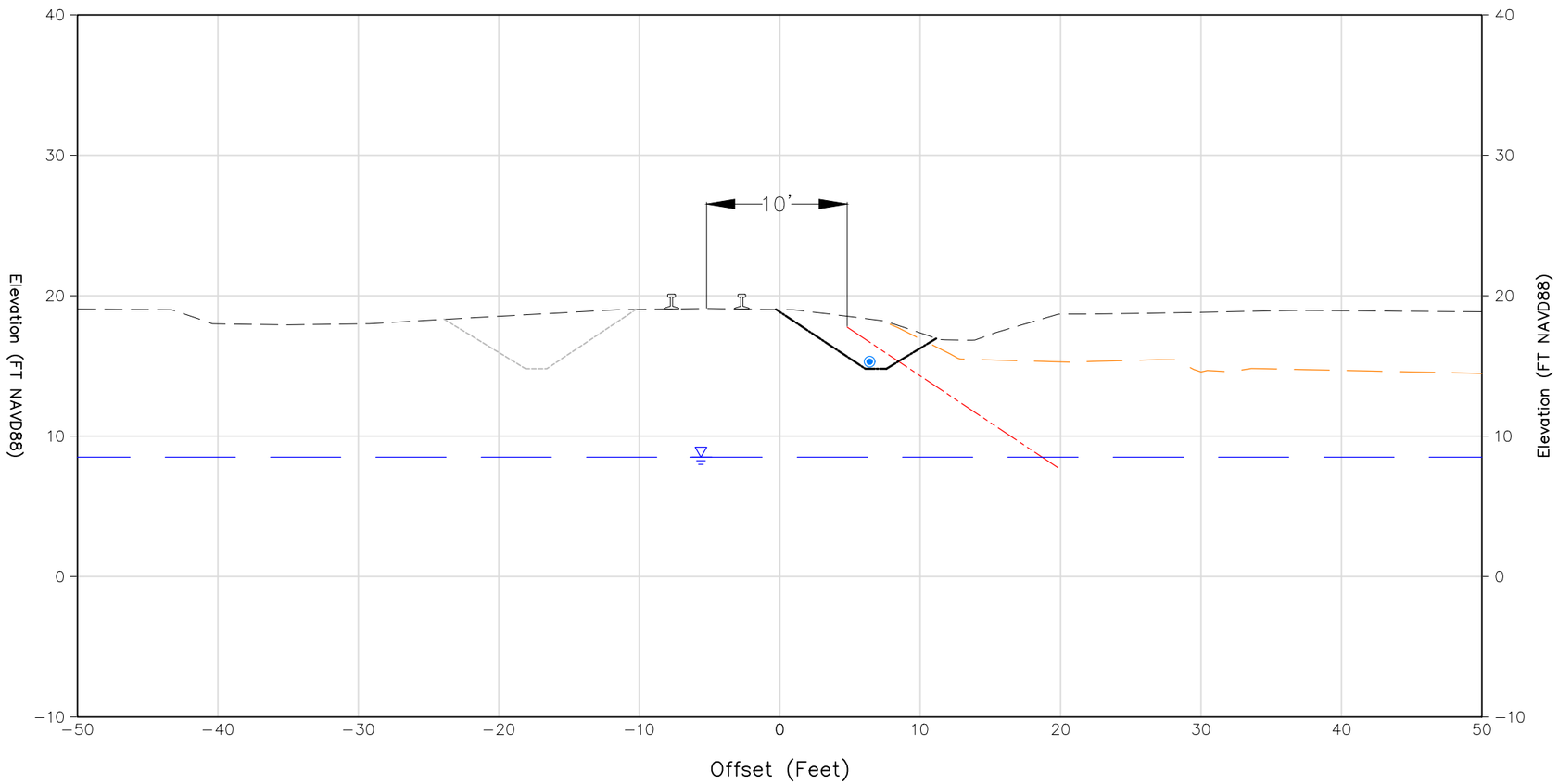
AECOM

DRAFT

PPG 143 CHAPEL AVE., 20 EAST LINDEN AVE., & CONRAIL JERSEY CITY, NEW JERSEY			**CONRAIL TESTPITTING INVESTIGATION PLAN VIEW**
DATE: 05/09/2022	DRWN: JJA		**FIGURE 1**

File: Q:\20 SHEETS\Site 108&Conrail\2022-03-18_Conrail SOW Figures.dwg Layout: Plan view User: John.Angelone Plotted: May 09, 2022 - 5:18pm Xref's:

A – A'
TYPICAL SECTION



LEGEND

RAILROAD TRACK LOCATION
PROPOSED SAMPLE LOCATION

APPROXIMATE GROUNDWATER ELEVATION
EXISTING GROUND SURFACE
COMPLETED EXCAVATION SURFACE
THEORETICAL RAILROAD EMBANKMENT LINE
PROPOSED TEST PIT
FOLLOW UP TEST PITS (AS REQUIRED)

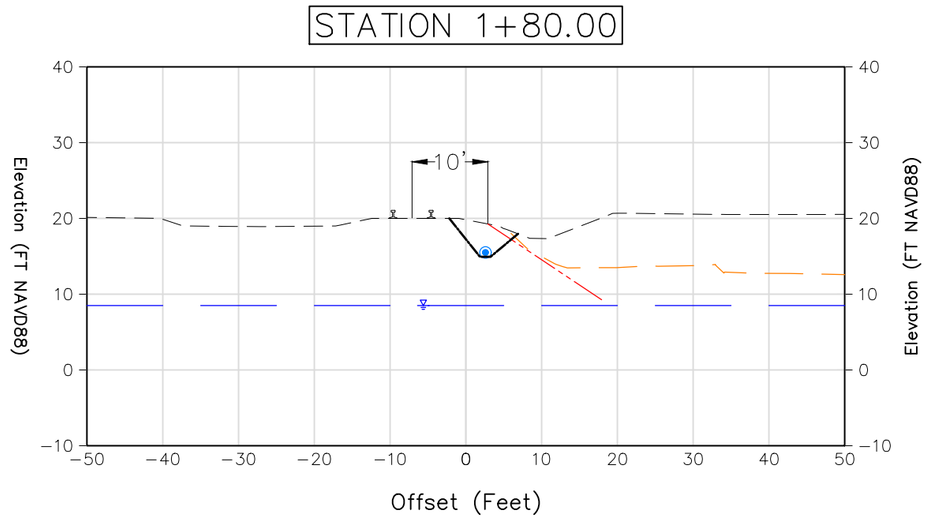
FT NAVD88 FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

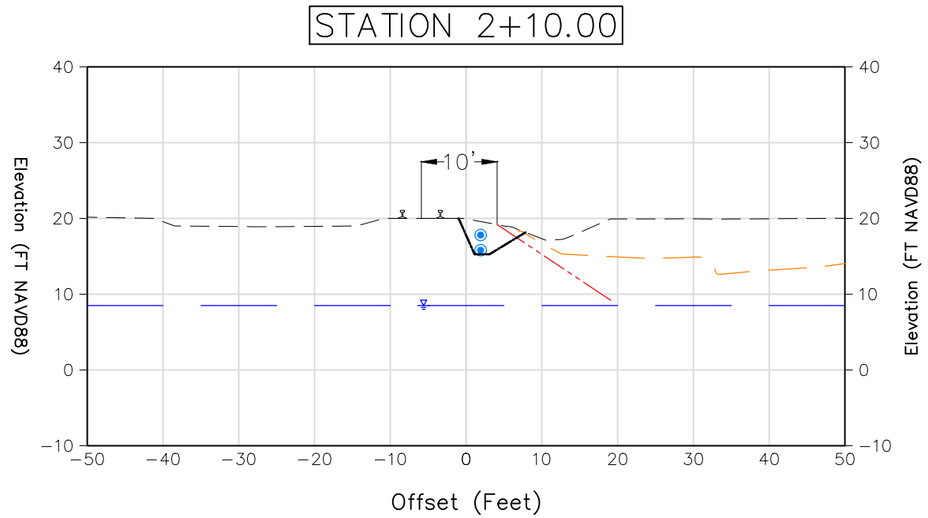
DRAFT

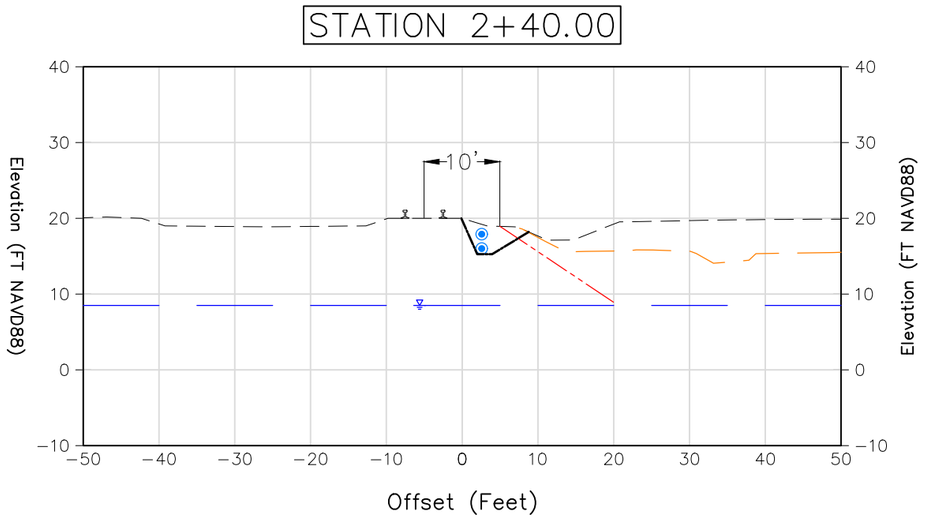
AECOM

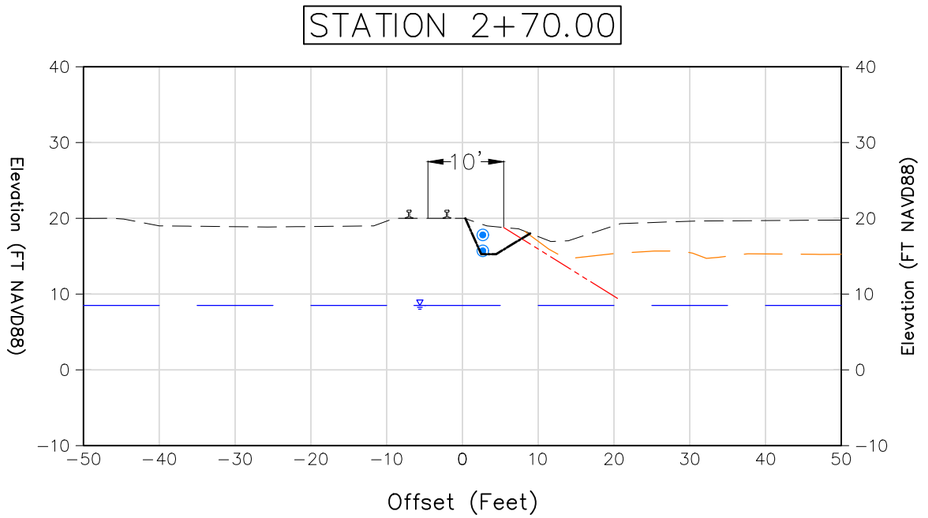
PPG 143 CHAPEL AVE., 20 EAST LINDEN AVE., & CONRAIL JERSEY CITY, NEW JERSEY			**CONRAIL TESTPITTING INVESTIGATION** **TYPICAL CROSS SECTION**
DATE: 12/06/2021	DRWN: JJA		**FIGURE 2**

File: C:\Users\john.angelone\AppData\Local\Temp\AcPublish_19704\Conrail SOW Figures.dwg Layout: Xsect 3 (2) User: John.Angelone Plotted: Jan 07, 2022 – 6:31am Xref's:









LEGEND:

- RAILROAD TRACK LOCATION
- PROPOSED SAMPLE LOCATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- COMPLETED EXCAVATION SURFACE
- THEORETICAL RAILROAD EMBANKMENT LINE
- PROPOSED TEST PIT

ABBREVIATIONS:

FT NAVD88 FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

DRAFT

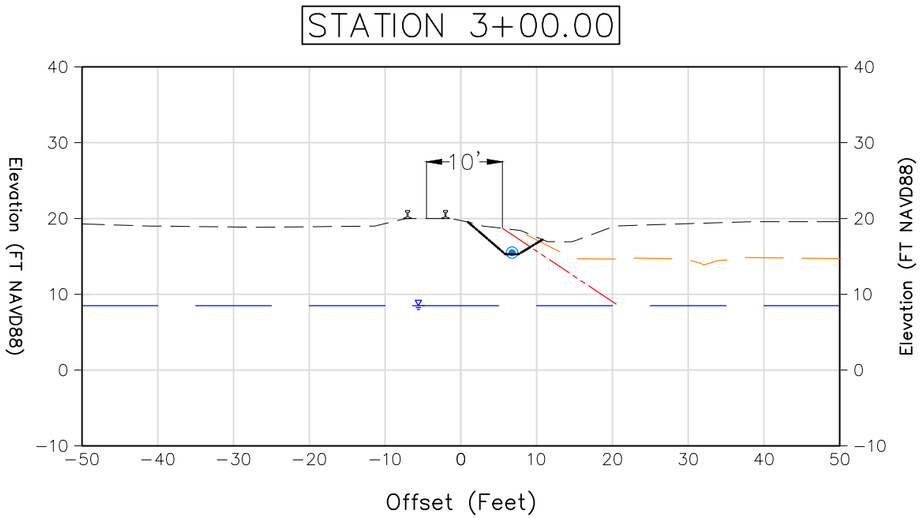
AECOM

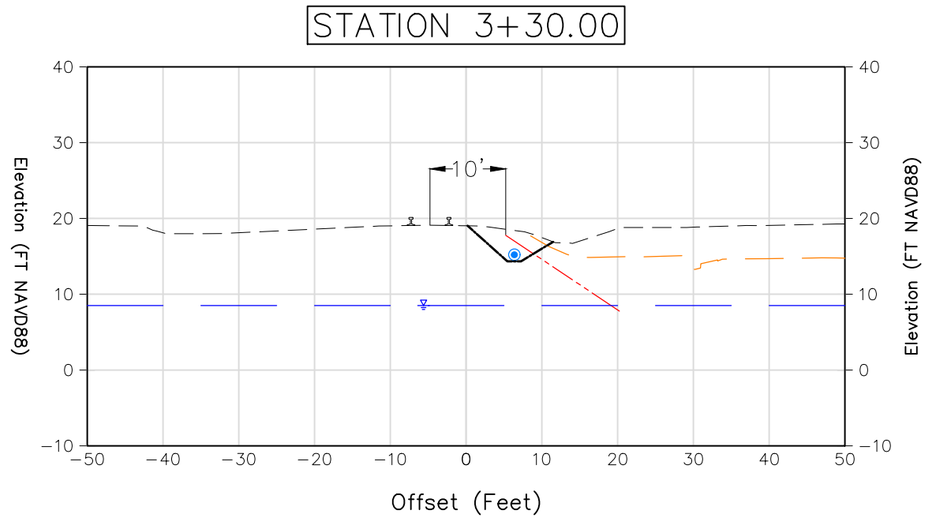
PPG
SITE 107, SITE 108, AND CONRAIL
JERSEY CITY, NEW JERSEY

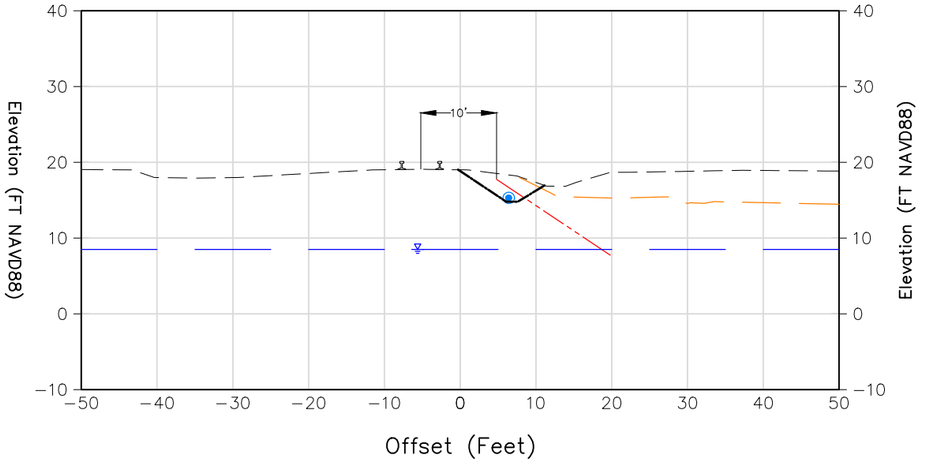
CONRAIL SECTIONS 1+80 TO 2+70

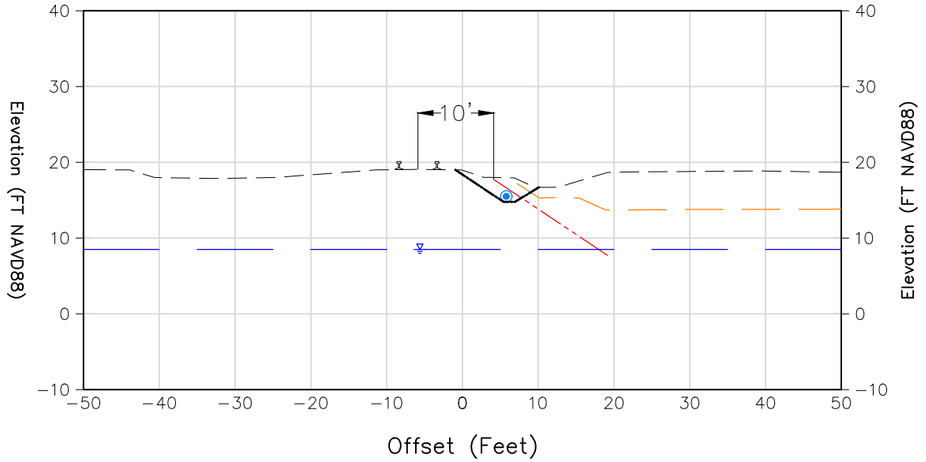
DATE: 05/09/2022 | DRWN: JJA | **FIGURE 3**

File: Q:\20 SHEETS\Site 108&Conrail\2022-03-18_Conrail SOW Figures.dwg Layout: X-01 User: John.Angelone Plotted: May 09, 2022 - 5:15pm Xref's:









LEGEND:

- RAILROAD TRACK LOCATION
- PROPOSED SAMPLE LOCATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- COMPLETED EXCAVATION SURFACE
- THEORETICAL RAILROAD EMBANKMENT LINE
- PROPOSED TEST PIT

ABBREVIATIONS:

FT NAVD88 FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

DRAFT

AECOM

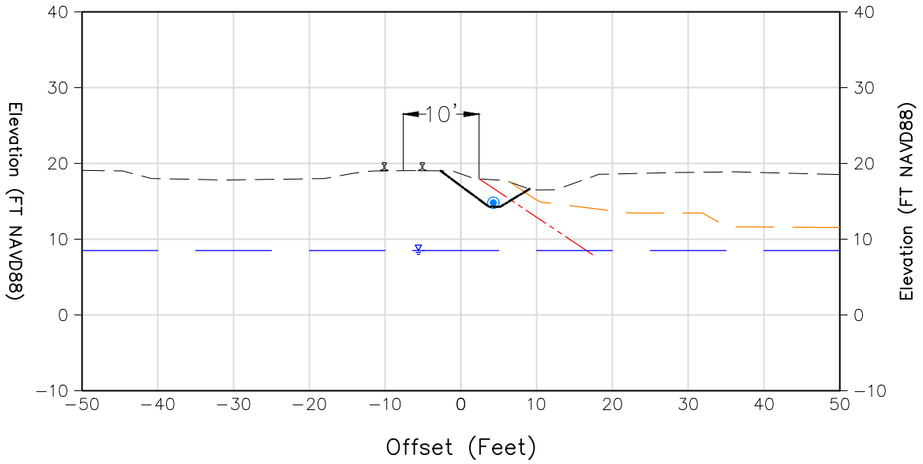
PPG
SITE 107, SITE 108, AND CONRAIL
JERSEY CITY, NEW JERSEY

CONRAIL SECTIONS 3+00 TO 3+90

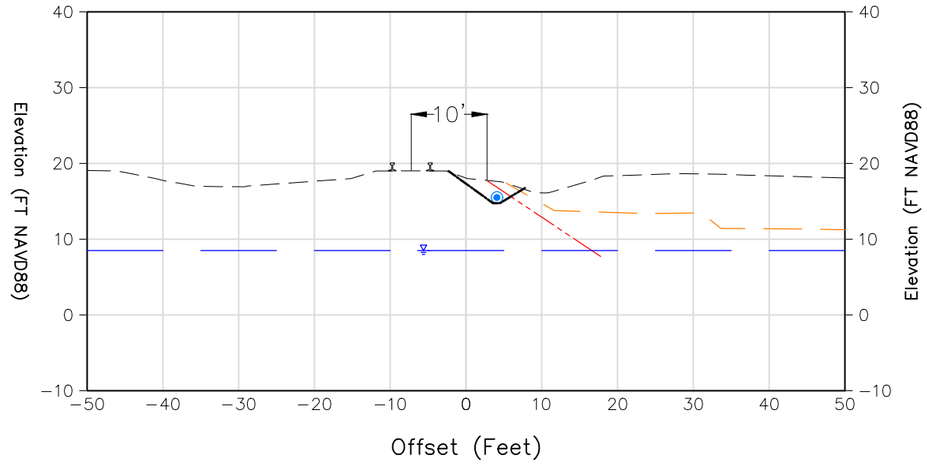
DATE: 05/09/2022 | DRWN: JJA | **FIGURE 4**

File: Q:\20 SHEETS\Site 108&Conrail\2022-03-18_Conrail SOW Figures.dwg Layout: X-02 User: John.Angelone Plotted: May 09, 2022 - 5:15pm Xref's:

STATION 4+20.00



STATION 4+60.00



LEGEND:

- RAILROAD TRACK LOCATION
- PROPOSED SAMPLE LOCATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- COMPLETED EXCAVATION SURFACE
- THEORETICAL RAILROAD EMBANKMENT LINE
- PROPOSED TEST PIT

ABBREVIATIONS:

FT NAVD88 FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

DRAFT

AECOM

PPG SITE 107, SITE 108, AND CONRAIL JERSEY CITY, NEW JERSEY			**CONRAIL SECTIONS 4+20 TO 4+60**
DATE: 05/09/2022	DRWN: JJA		**FIGURE 5**

File: Q:\20 SHEETS\Site 108&Conrail\2022-03-18_Conrail SOW Figures.dwg Layout: X-03 User: John.Angelone Plotted: May 09, 2022 - 5:15pm Xref's:

2022 Conrail Right-of-Way Supplemental Pre-Design Investigation
Sample Location Maps and Cross-Sections

CONRAIL-TP-2		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.5 - 2.0	17.8 to 17.3	5.7
3.5 - 4.0	15.8 to 15.3	2.8

CONRAIL-TP-2-N-SW-C		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.9 - 1.4	18.3 to 17.8	5.1

CONRAIL-TP-3-S-SW-C		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.8 - 1.3	18.2 to 17.7	11.7

CONRAIL-TP-3-S		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
3.0 - 3.5	16.0 to 15.5	2.1

CONRAIL-TP-3		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.1 - 1.6	17.9 to 17.4	9.4
3.0 - 3.5	16.0 to 15.5	**23.3**

CONRAIL-TP-4		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.1 - 1.6	17.7 to 17.2	3.3
3.2 - 3.7	15.6 to 15.1	9.2

CONRAIL-TP-2-S-SW-C		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.9 - 1.4	18.3 to 17.8	9.5

CONRAIL-TP-1		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
3.6 - 4.1	15.5 to 15.0	6.4

CONRAIL-TP-1-SW-N-C		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.2 - 1.7	17.9 to 17.4	12.7

CONRAIL-TP-3-N-SW-C		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.9 - 1.4	18.1 to 17.6	10.6

CONRAIL-TP-5		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.8 - 3.3	15.5 to 15.0	0.45

CONRAIL-TP-6		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
3.0 - 3.5	15.1 to 14.6	13.0

SW-A18 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.0 - 2.5 ft	16.0 to 15.5	**25.9 J**

SW-A19 (0.0-0.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.1 - 0.6 ft	18.3 to 17.8	**24.6 J**

SW-A19 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.7 - 2.2 ft	16.3 to 15.8	**102 J**

SW-A20 (0.0-0.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.0 - 0.5 ft	18.4 to 17.9	**52.3 J**

SW-A20 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.5 - 2.0 ft	16.5 to 16.0	**138 J**

SW-A21 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.8 - 2.3 ft	16.2 to 15.7	**34.0 J**

SW-A21 (0.0-0.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.0 - 0.5 ft	18.3 to 17.8	**39.1 J**

SW-A22 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.9 - 2.4 ft	16.0 to 15.5	**45.4**

SW-A23 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.2 - 2.7 ft	15.7 to 15.2	**46.1**

MATCHLINE

A–A' (1+66.0) B–B' (1+81.0) C–C' (2+11.0) D–D' (2+41.0) E–E' (2+71.0) F–F' (3+01.0) G–G' (3+31.3)

PLAN VIEW

5 0 10
GRAPHIC SCALE IN FEET

LEGEND

- BUILDING
- FENCE
- PROPERTY LINE
- SEWER UTILITY
- STICK-UP MONITORING WELL
- RAIL LINE
- EXISTING GROUND SURFACE CONTOUR (1' INTERVAL, 5' INDEX)
- AS-BUILT EXCAVATION SURFACE CONTOUR (1' INTERVAL, 5' INDEX)

NOTE:

1. EXISTING SURFACE CONTOURS ARE SOURCED FROM THE SURVEY CONDUCTED ON 10-30-2019 BY MASER CONSULTING, P.A. FOR SITE 107.

- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC - REMOVED
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC - REMAINING
- 2022 SAMPLE LOCATIONS WITH Cr^{+6} RESULTS LESS THAN THE CrSCC
- 2022 SAMPLE LOCATIONS WITH Cr^{+6} RESULTS LESS THAN THE CrSCC AND WITH VISUAL COPR NODULES - REMOVED
- 2022 SAMPLE LOCATION WITH Cr^{+6} RESULTS EXCEEDING THE CrSCC - REMOVED
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED
- HISTORICAL VISUAL COPR SEAM OBSERVATION - REMOVED

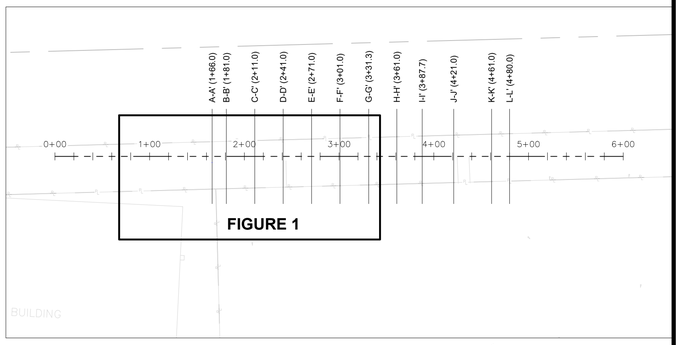
ABBREVIATIONS:

COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988
bgs	BELOW GROUND SURFACE

QUALIFIER:

J - THE RESULT WAS AN ESTIMATED VALUE; THE ASSOCIATED NUMERICAL VALUE WAS AN APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE.

SAMPLE ANALYZED AFTER CRUSHING AND HOMOGENIZATION OF COPR NODULES



KEY MAP

40 0 80
GRAPHIC SCALE IN FEET

AECOM

PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY			APPENDIX B SUPPLEMENTAL PRE-DESIGN INVESTIGATION SAMPLE RESULTS PLAN VIEW
DATE: 08/13/2024	DRWN: MDN		FIGURE 1

Last saved by: NICHOLSM1 (2024-09-05) Last Plotted: 2011-05-25
Filename: C:\USERS\NICHOLSM1\AECOM\PPG - GDSS\910 CAD\20 SHEETS\RAR\CONRAIL EXCAVATION RAR\2024-08-23_APPENDIX_B_FIGURES.DWG

CONRAIL-TP-4		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.1 - 1.6	17.7 to 17.2	3.3
3.2 - 3.7	15.6 to 15.1	9.2

CONRAIL-TP-5		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.8 - 3.3	15.5 to 15.0	0.45

CONRAIL-TP-6		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
3.0 - 3.5	15.1 to 14.6	13.0

CONRAIL-TP-7		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.8 - 3.3	15.3 to 14.8	2.3

CONRAIL-TP-8		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.3 - 2.8	15.5 to 15.0	2.4

CONRAIL-TP-9-S		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.8 - 3.3	14.7 to 14.2	1.8

CONRAIL-TP-9		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.8 - 3.3	14.7 to 14.2	**23.7**

CONRAIL-TP-10		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.9 - 2.4	15.5 to 15.0	10.6

SW-A21 (0.0-0.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
0.0 - 0.5 ft	18.3 to 17.8	**39.1 J**

SW-A22 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.9 - 2.4 ft	16.0 to 15.5	**45.4**

SW-A23 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.2 - 2.7 ft	15.7 to 15.2	**46.1**

SW-A24 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
2.1 - 2.6 ft	15.8 to 15.3	**44.5**

SW-A26 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation	Cr+6 (mg/kg)
2.6 - 3.1 ft	15.3 to 14.8	**43.4**

SW-A21 (2.0-2.5)		
Depth Interval (ft bgs)	Elevation (ft NAVD88)	Cr+6 (mg/kg)
1.8 - 2.3 ft	16.2 to 15.7	**34.0 J**

MATCHLINE

MATCHLINE

MORRIS CANAL CONSOLIDATED RAIL CORP.

MAIN/PASSAGE TRACK

E–E' (2+71.0) F–F' (3+01.0) G–G' (3+31.3) H–H' (3+61.0) I–I' (3+87.7) J–J' (4+21.0) K–K' (4+61.0) L–L' (4+80.0)

PLAN VIEW

GRAPHIC SCALE IN FEET 5 0 10

LEGEND

- BUILDING
- FENCE
- PROPERTY LINE
- SEWER UTILITY
- STICK-UP MONITORING WELL
- RAIL LINE
- EXISTING GROUND SURFACE CONTOUR (1' INTERVAL, 5' INDEX)
- AS-BUILT EXCAVATION SURFACE CONTOUR (1' INTERVAL, 5' INDEX)

NOTE:

1. EXISTING SURFACE CONTOURS ARE SOURCED FROM THE SURVEY CONDUCTED ON 10-30-2019 BY MASER CONSULTING, P.A. FOR SITE 107.

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- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC - REMAINING
- 2022 SAMPLE LOCATIONS WITH Cr^{+6} RESULTS LESS THAN THE CrSCC
- 2022 SAMPLE LOCATIONS WITH Cr^{+6} RESULTS LESS THAN THE CrSCC AND WITH VISUAL COPR NODULES - REMOVED
- 2022 SAMPLE LOCATION WITH Cr^{+6} RESULTS EXCEEDING THE CrSCC - REMOVED
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED
- HISTORICAL VISUAL COPR SEAM OBSERVATION - REMOVED

ABBREVIATIONS:

COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988
bgs	BELOW GROUND SURFACE

QUALIFIER:

J - THE RESULT WAS AN ESTIMATED VALUE; THE ASSOCIATED NUMERICAL VALUE WAS AN APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE.

SAMPLE ANALYZED AFTER CRUSHING AND HOMOGENIZATION OF COPR NODULES

A–A' (1+66.0) B–B' (1+81.0) C–C' (2+11.0) D–D' (2+41.0) E–E' (2+71.0) F–F' (3+01.0) G–G' (3+31.3) H–H' (3+61.0) I–I' (3+87.7) J–J' (4+21.0) K–K' (4+61.0) L–L' (4+80.0)

0+00 1+00 2+00 3+00 4+00 5+00 6+00

FIGURE 2

KEY MAP

GRAPHIC SCALE IN FEET 40 0 80

AECOM

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

DATE: 08/13/2024 DRWN: MDN

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
PLAN VIEW

FIGURE 2

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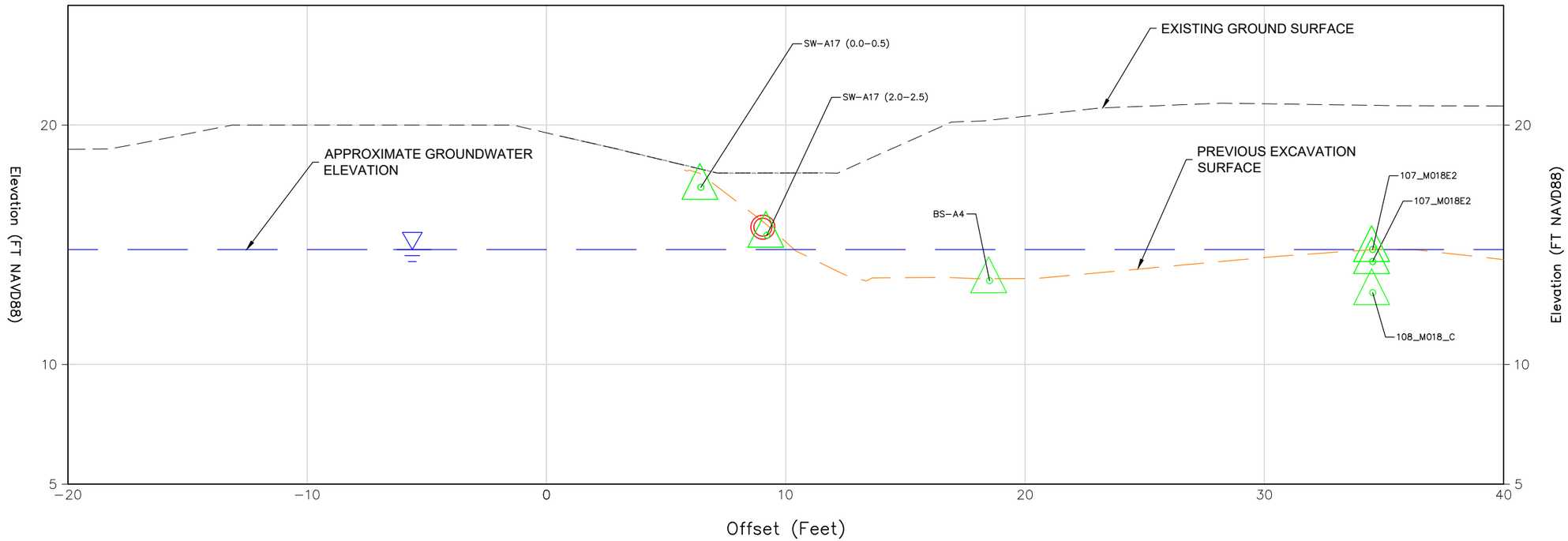
CROSS-SECTION A-A'
(1+66.0)



LEGEND:

- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE

NOTE:

1. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BENEATH THE BOTTOM TEST PIT SURFACE ELEVATION.

ABBREVIATIONS:

COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

DATE: 08/13/2024 | DRWN: MDN | **FIGURE 3**

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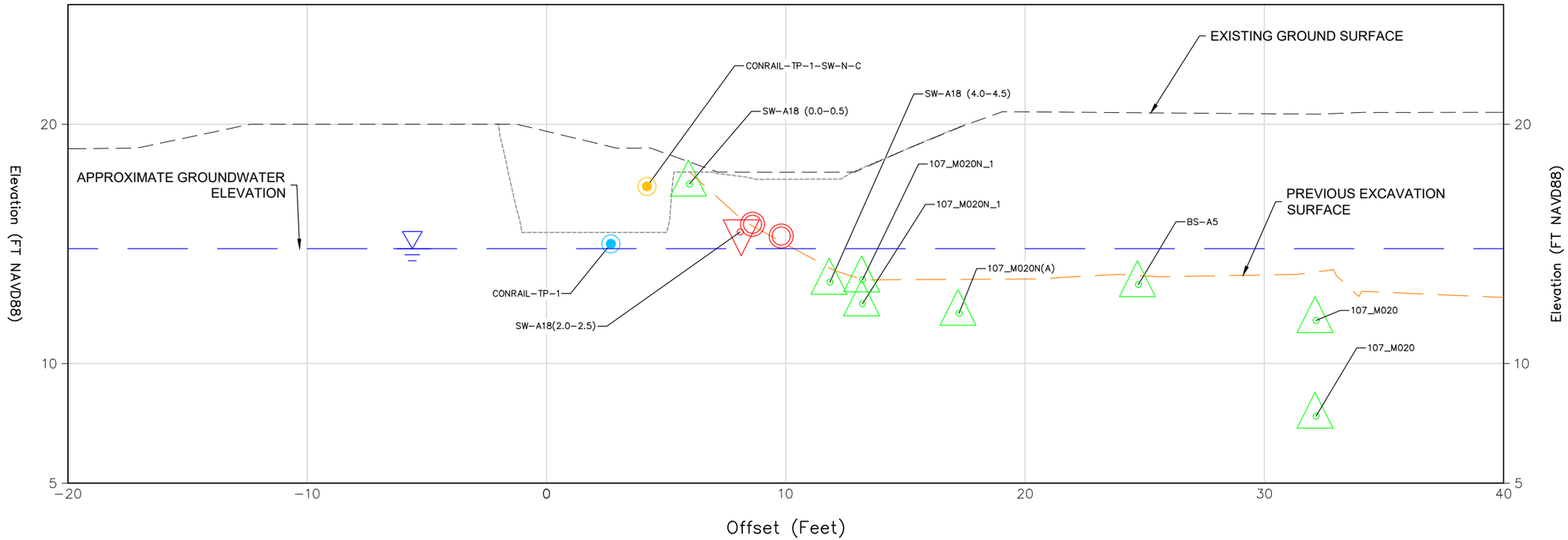
CROSS-SECTION B-B'
(1+81.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- 2022 SAMPLE LOCATION WITH VISUAL COPR NODULES - REMOVED
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

1. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BENEATH THE BOTTOM TEST PIT SURFACE ELEVATION.

ABBREVIATIONS:

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CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

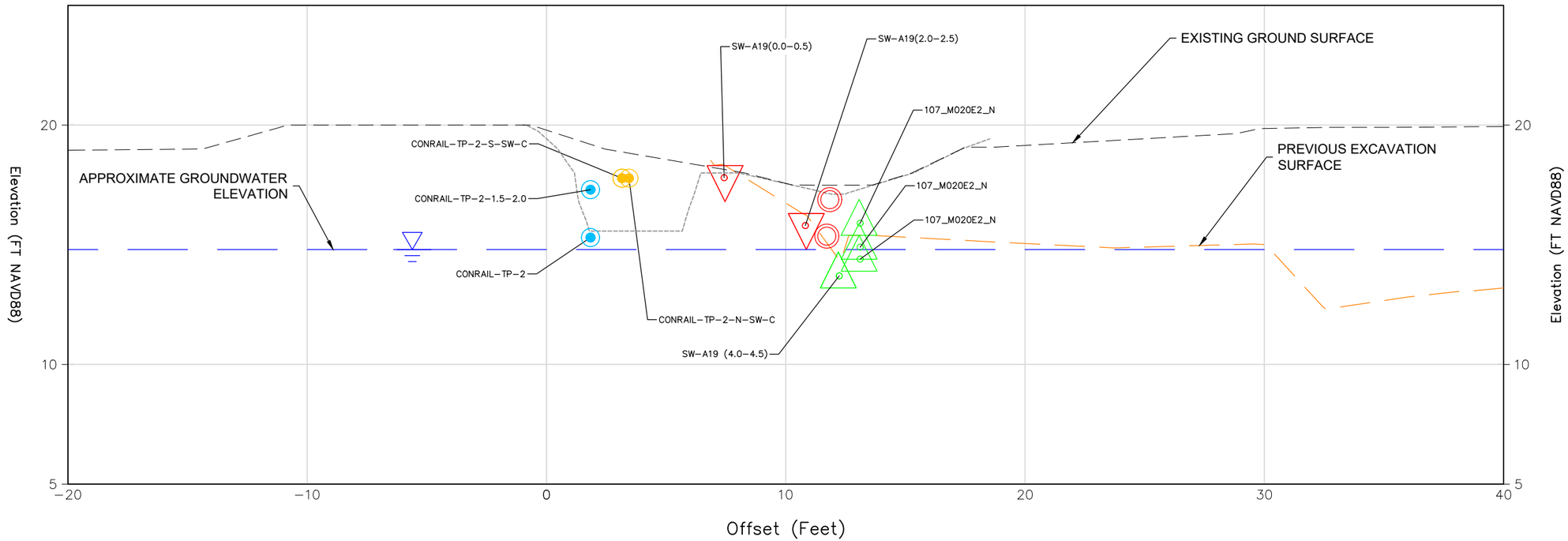
2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

DATE: 08/13/2024 | DRWN: MDN | **FIGURE 4**

CROSS-SECTION C-C'
(2+11.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- 2022 SAMPLE LOCATION WITH VISUAL COPR NODULES - REMOVED
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

1. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BENEATH THE BOTTOM TEST PIT SURFACE ELEVATION.

ABBREVIATIONS:

COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

DATE: 08/13/2024 | DRWN: MDN

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

FIGURE 5

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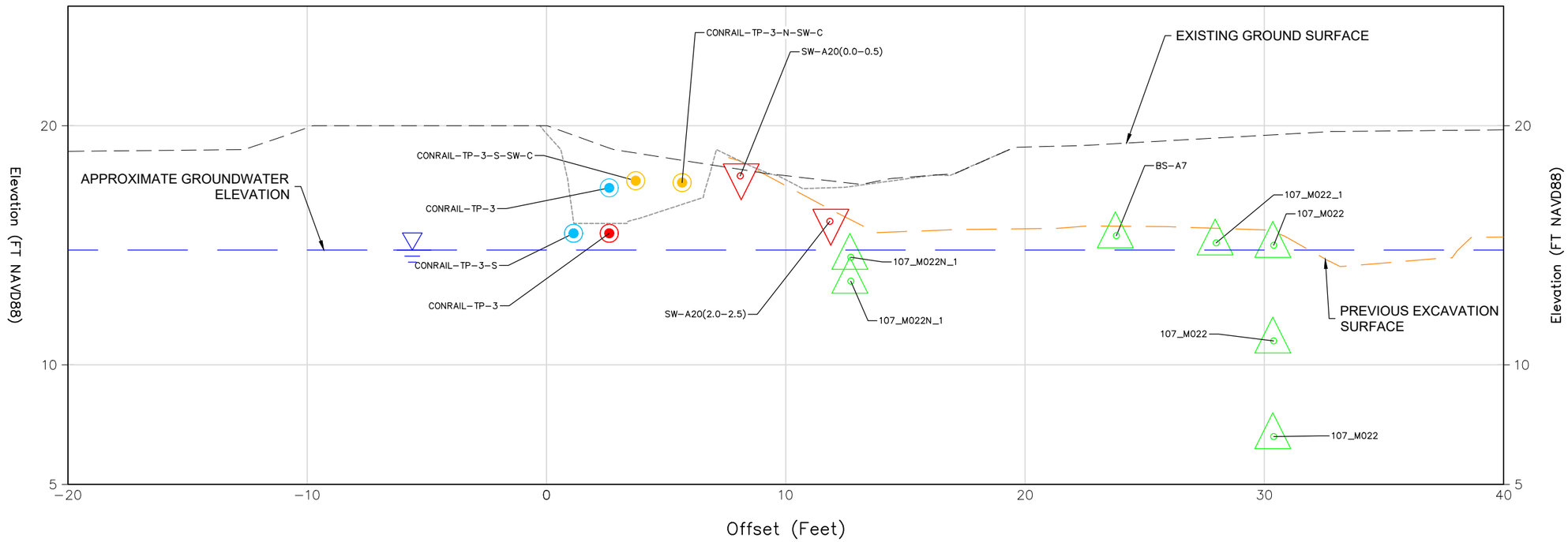
CROSS-SECTION D-D'
(2+41.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- 2022 SAMPLE LOCATION WITH VISUAL COPR NODULES - REMOVED
- 2022 SAMPLE LOCATION WITH EXCEEDANCE OF THE CrSCC
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

1. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BENEATH THE BOTTOM TEST PIT SURFACE ELEVATION.

ABBREVIATIONS:

COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

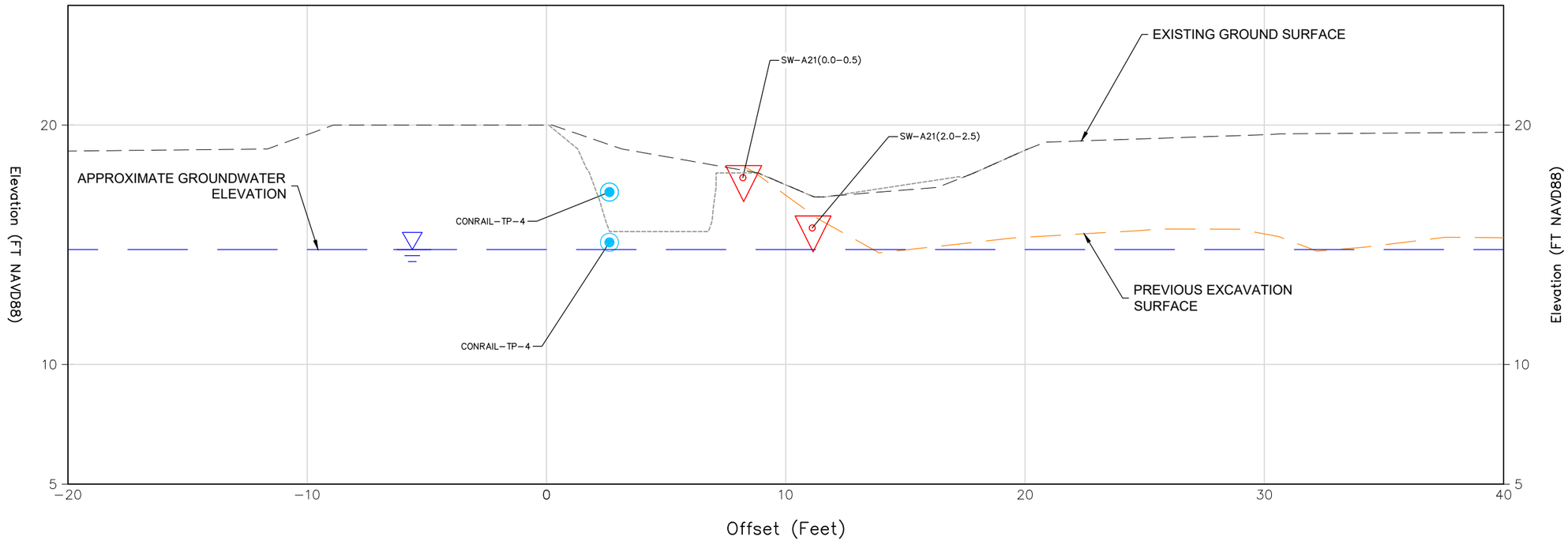
2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

DATE: 08/13/2024 | DRWN: MDN | **FIGURE 6**

CROSS-SECTION E-E'
(2+71.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

1. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BENEATH THE BOTTOM TEST PIT SURFACE ELEVATION.

ABBREVIATIONS:

CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

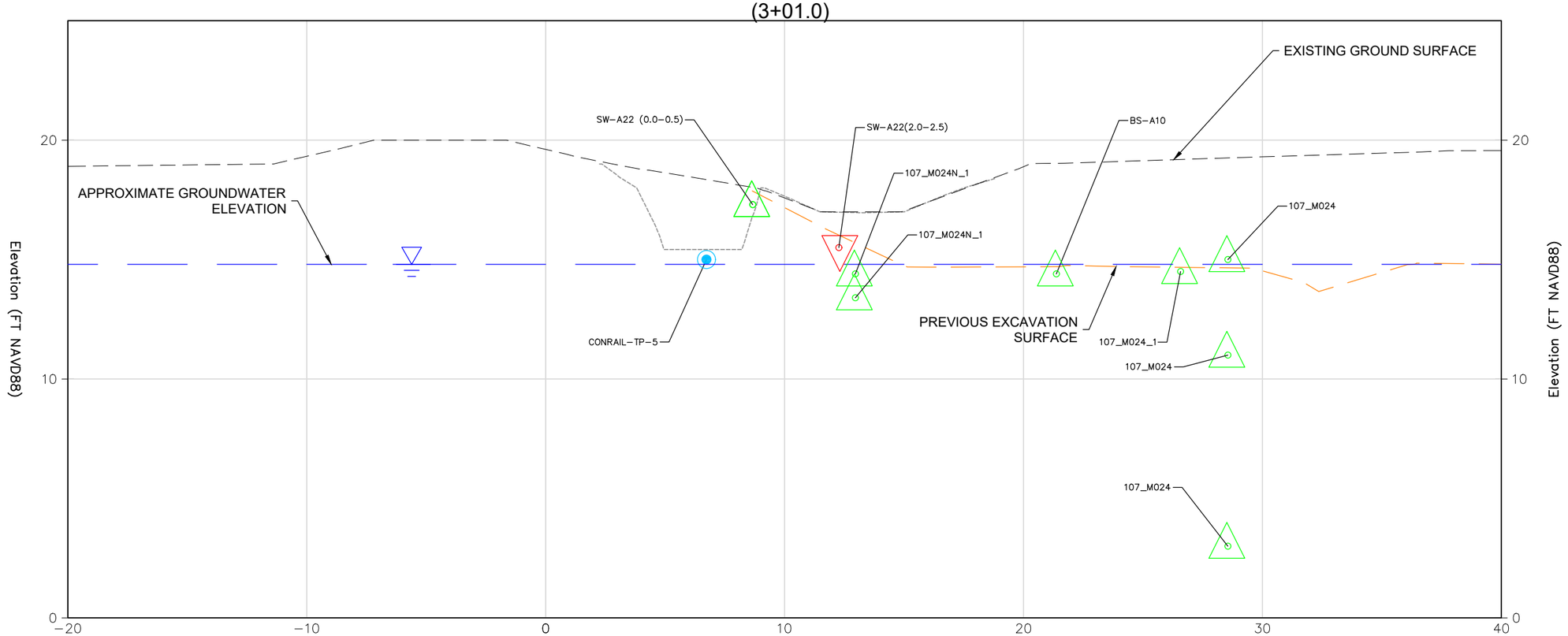
2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

DATE: 08/13/2024 | DRWN: MDN | **FIGURE 7**

CROSS-SECTION F-F'
(3+01.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

1. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BENEATH THE BOTTOM TEST PIT SURFACE ELEVATION.

ABBREVIATIONS:

CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

2.5 0 5
GRAPHIC SCALE IN FEET

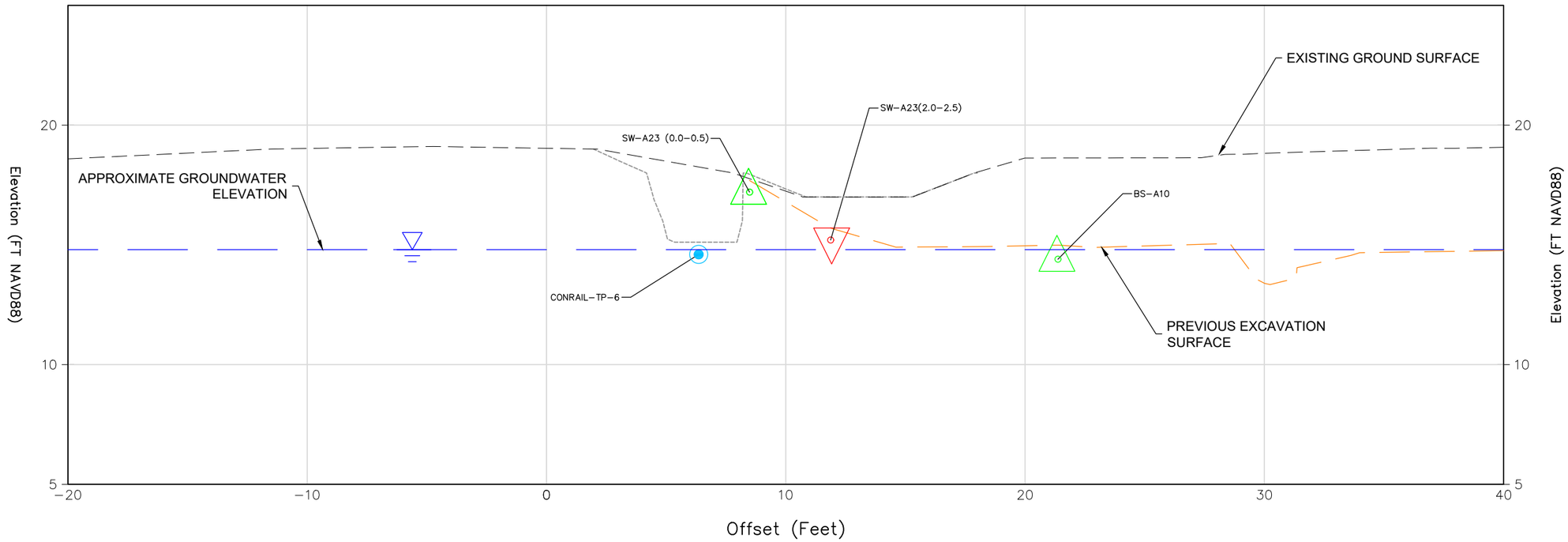
PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

DATE: 08/13/2024 | DRWN: MDN

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION SAMPLE RESULTS SECTION VIEW

FIGURE 8

CROSS-SECTION G-G'
(3+31.3)



LEGEND:

- 2022 SAMPLE LOCATIONS
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

1. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BENEATH THE BOTTOM TEST PIT SURFACE ELEVATION.

ABBREVIATIONS:

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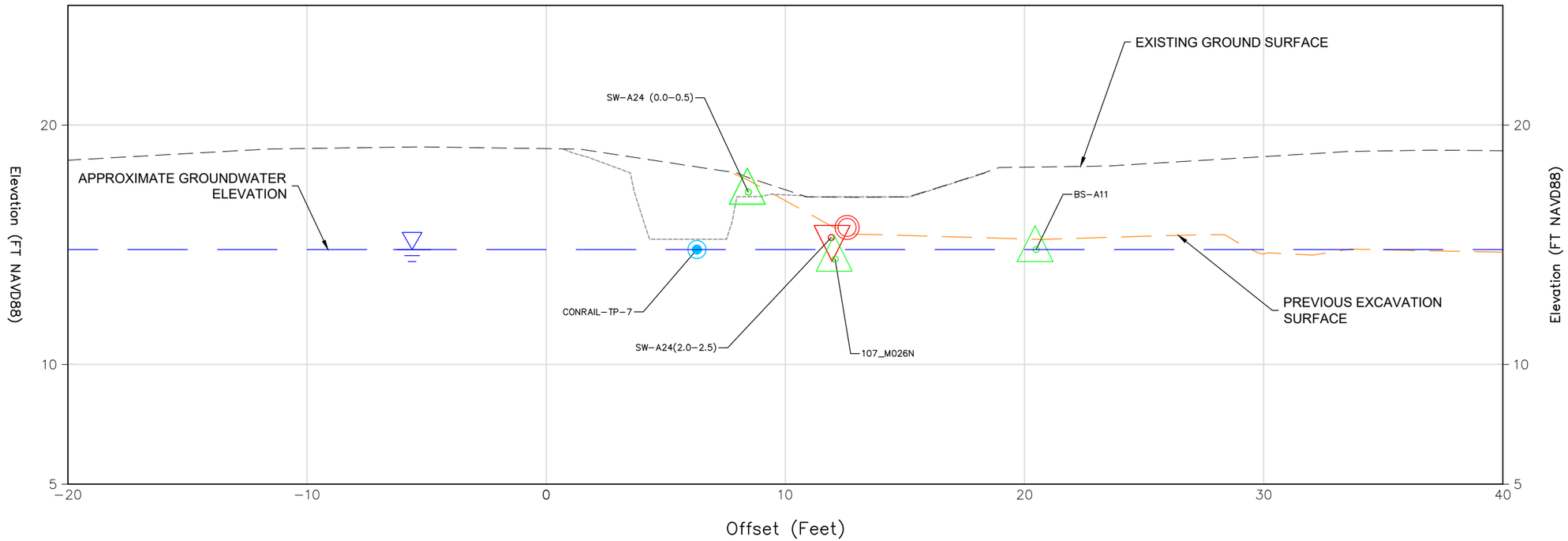
Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

2.5 0 5
GRAPHIC SCALE IN FEET

PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY	**APPENDIX B** **SUPPLEMENTAL PRE-DESIGN INVESTIGATION SAMPLE RESULTS** **SECTION VIEW**
DATE: 08/13/2024 DRWN: MDN	**FIGURE 9**

CROSS-SECTION H-H'
(3+61.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

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Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

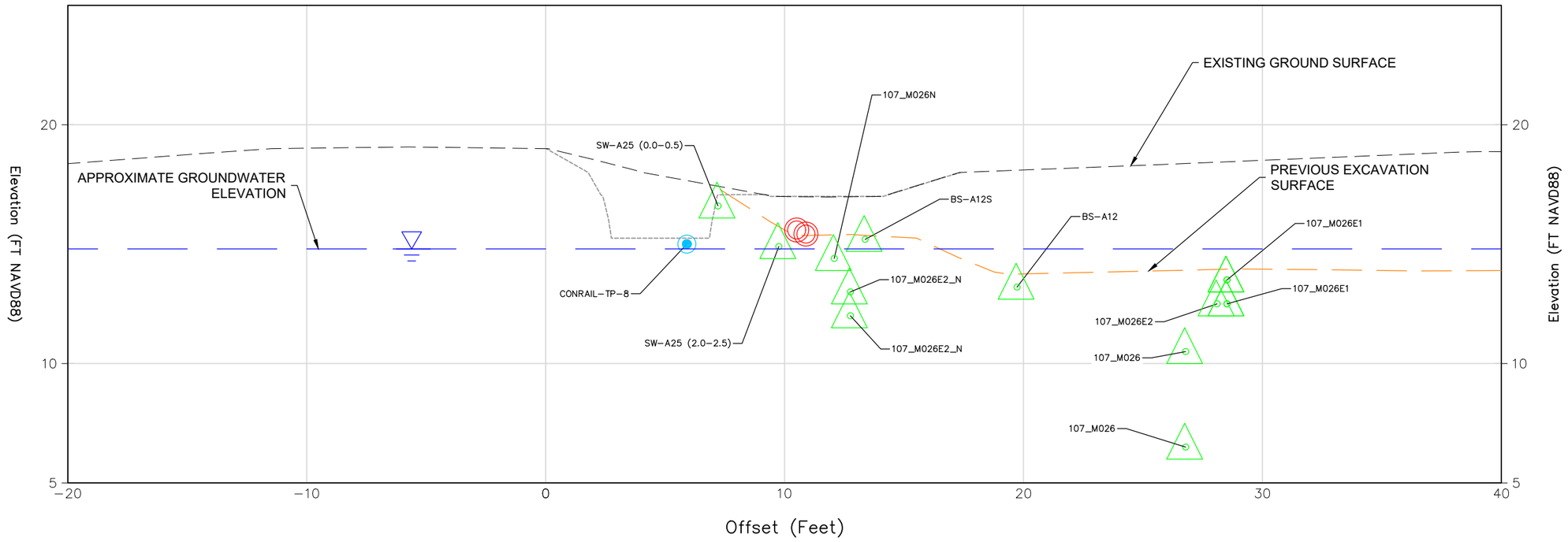
2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

DATE: 08/13/2024 | DRWN: MDN | **FIGURE 10**

CROSS-SECTION I-I'
(3+87.7)



LEGEND:

- 2022 SAMPLE LOCATIONS
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
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- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

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Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

DATE: 08/13/2024 | DRWN: MDN

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

FIGURE 11

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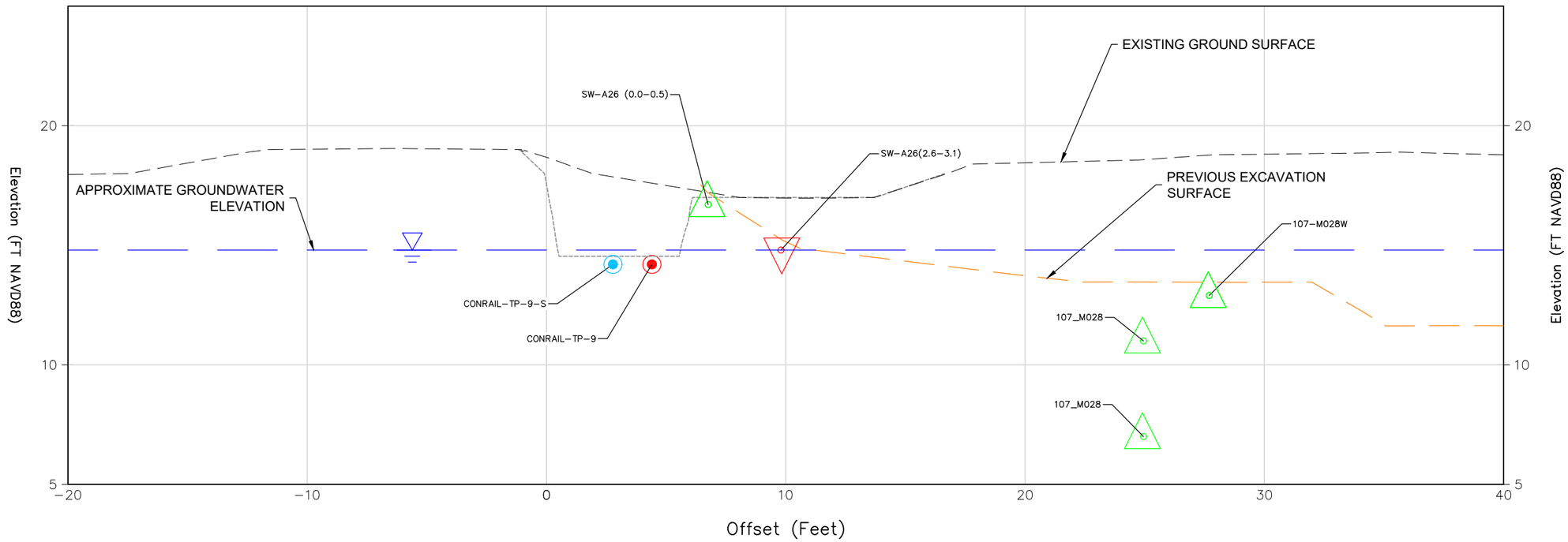
CROSS-SECTION J-J'
(4+21.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- 2022 SAMPLE LOCATION WITH EXCEEDANCE OF THE CrSCC
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

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FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

AECOM

2.5 0 5
GRAPHIC SCALE IN FEET

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

DATE: 08/13/2024 | DRWN: MDN | **FIGURE 12**

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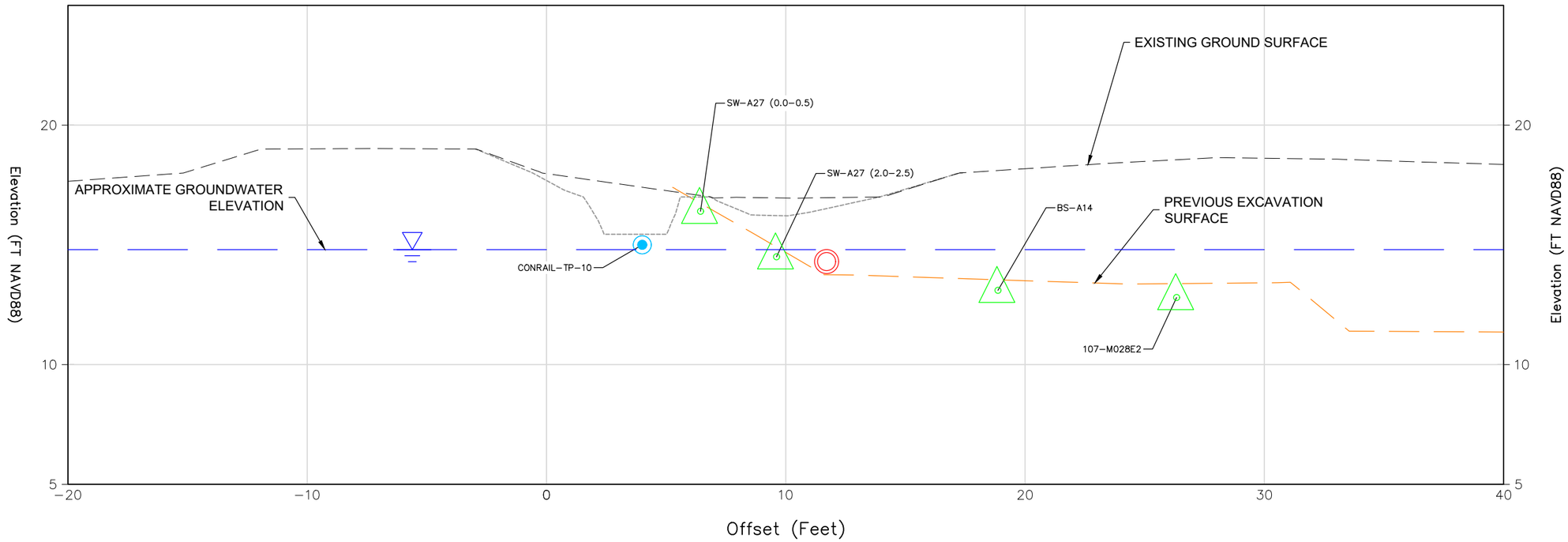
CROSS-SECTION K-K'
(4+61.0)



LEGEND:

- 2022 SAMPLE LOCATIONS
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL > CrSCC, Cr^{+6} CONC.
- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE
- SUPPLEMENTAL PDI TEST PIT SURFACE

NOTE:

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Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

2.5 0 5
GRAPHIC SCALE IN FEET

AECOM

PPG
CONRAIL RIGHT-OF-WAY (AOC 1)
JERSEY CITY, NEW JERSEY

APPENDIX B
SUPPLEMENTAL PRE-DESIGN INVESTIGATION
SAMPLE RESULTS
SECTION VIEW

DATE: 08/13/2024 | DRWN: MDN | **FIGURE 13**

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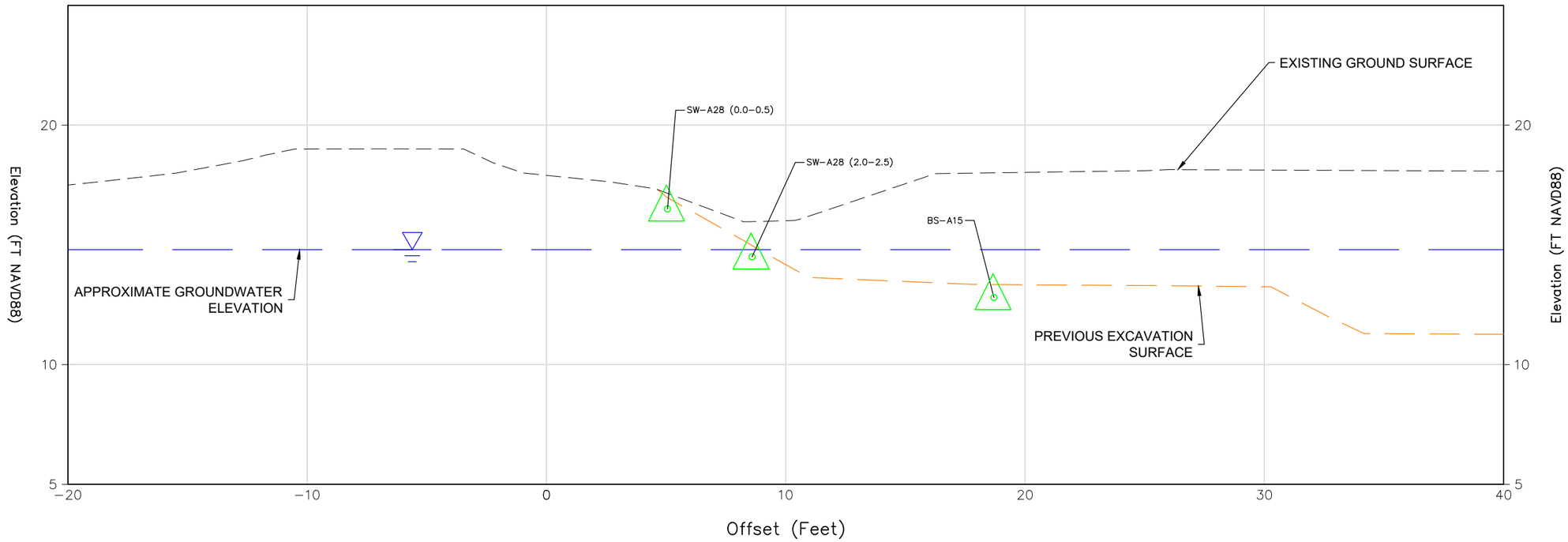
CROSS-SECTION L-L'
(4+80.0)



LEGEND:

- HISTORICAL Cr^{+6} ANALYTICAL RESULTS-SOIL < CrSCC
- APPROXIMATE GROUNDWATER ELEVATION
- EXISTING GROUND SURFACE
- 2018 MOBILIZATION EXCAVATION SURFACE

NOTE:

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Cr^{+6}	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988

2.5 0 5
GRAPHIC SCALE IN FEET

AECOM

PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY			**APPENDIX B** **SUPPLEMENTAL PRE-DESIGN INVESTIGATION** **SAMPLE RESULTS** **SECTION VIEW**
DATE: 08/13/2024	DRWN: MDN		**FIGURE 14**

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2022 Conrail Right-of-Way Supplemental Pre-Design Investigation
Analytical Results from Soil Samples Compared to the CrSCC

Appendix B
Analytical Results from Soil Samples Compared to the CrSCC
Supplemental Pre-Design Investigation (PDI)
Conrail Right-of-Way (AOC 1)
PPG, Jersey City, New Jersey

										Analyte CAS RN Units CrSCC	CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20
Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G6)	Sample End Elevation (ft NAVD88) (G7)	Lab Sample ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Type (G10)	Validated (Y/N) (G11)	Result (G14, G15, G16)
CONRAIL-TP-1	19.1	CONRAIL-TP-1-3.6-4.1	3.6 - 4.1 ft	15.5	15.0	JD52479-1	JD52479	09/24/2022	N	Y	6.4 J
CONRAIL-TP-1-SW-N-C*	19.1	CONRAIL-TP-1-SW-N-C	1.2 - 1.7 ft	17.9	17.4	JD52479-3	JD52479	09/24/2022	N	Y	12.7 J
CONRAIL-TP-2	19.3	CONRAIL-TP-2-1.5-2.0	1.5 - 2.0 ft	17.8	17.3	JD51581-1	JD51581	09/11/2022	N	Y	5.7 J
CONRAIL-TP-2	19.3	CONRAIL-TP-2-1.5-2.0X	1.5 - 2.0 ft	17.8	17.3	JD51581-2	JD51581	09/11/2022	FD	Y	4.7 J
CONRAIL-TP-2	19.3	CONRAIL-TP-2-3.5-4.0	3.5 - 4.0 ft	15.8	15.3	JD51581-3	JD51581	09/11/2022	N	Y	2.8 J
CONRAIL-TP-2-N-SW-C	19.2	CONRAIL-TP-2-N-SW-C	0.9 - 1.4 ft	18.3	17.8	JD51581-5	JD51581	09/11/2022	N	Y	5.1 J
CONRAIL-TP-2-S-SW-C	19.2	CONRAIL-TP-2-S-SW-C	0.9 - 1.4 ft	18.3	17.8	JD51581-4	JD51581	09/11/2022	N	Y	9.5 J
CONRAIL-TP-3	19.0	CONRAIL-TP-3-1.1-1.5	1.1 - 1.6 ft	17.9	17.4	JD51581-10	JD51581	09/11/2022	N	Y	9.4 J
CONRAIL-TP-3	19.0	CONRAIL-TP-3-3.0-3.5	3.0 - 3.5 ft	16.0	15.5	JD51581-11	JD51581	09/11/2022	N	Y	**23.3 J**
CONRAIL-TP-3-N-SW-C	19.0	CONRAIL-TP-3-N-SW-C	0.9 - 1.4 ft	18.1	17.6	JD51581-13	JD51581	09/11/2022	N	Y	10.6 J
CONRAIL-TP-3-S	19.0	CONRAIL-TP-3-3.0-3.5-S	3.0 - 3.5 ft	16.0	15.5	JD52486-1	JD52486	09/25/2022	N	Y	2.1 J
CONRAIL-TP-3-S-SW-C	19.0	CONRAIL-TP-3-S-SW-C	0.8 - 1.3 ft	18.2	17.7	JD51581-12	JD51581	09/11/2022	N	Y	11.7 J
CONRAIL-TP-4	18.8	CONRAIL-TP-4-1.1-1.6	1.1 - 1.6 ft	17.7	17.2	JD51581-8	JD51581	09/11/2022	N	Y	3.3 J
CONRAIL-TP-4	18.8	CONRAIL-TP-4-3.2 - 3.7	3.2 - 3.7 ft	15.6	15.1	JD51581-9	JD51581	09/11/2022	N	Y	9.2 J
CONRAIL-TP-5	18.3	CONRAIL-TP-5-2.8-3.3	2.8 - 3.3 ft	15.5	15.0	JD52479-5	JD52479	09/24/2022	N	Y	0.45 J
CONRAIL-TP-6	18.1	CONRAIL-TP-6-3.0-3.5	3.0 - 3.5 ft	15.1	14.6	JD51581-7	JD51581	09/11/2022	N	Y	13.0 J
CONRAIL-TP-7	18.1	CONRAIL-TP-7-2.8-3.3	2.8 - 3.3 ft	15.3	14.8	JD52479-7	JD52479	09/24/2022	N	Y	2.3 J
CONRAIL-TP-8	17.8	CONRAIL-TP-8-2.3-2.8	2.3 - 2.8 ft	15.5	15.0	JD52479-9	JD52479	09/24/2022	N	Y	2.4 J
CONRAIL-TP-9	17.5	CONRAIL-TP-9-2.8-3.3	2.8 - 3.3 ft	14.7	14.2	JD51581-6	JD51581	09/11/2022	N	Y	**23.7 J**
CONRAIL-TP-9-S	17.5	CONRAIL-TP-9-2.8-3.3-S	2.8 - 3.3 ft	14.7	14.2	JD52486-2	JD52486	09/25/2022	N	Y	0.88 J
CONRAIL-TP-9-S	17.5	CONRAIL-TP-9-2.8-3.3-S-X	2.8 - 3.3 ft	14.7	14.2	JD52486-3	JD52486	09/25/2022	FD	Y	1.8 J
CONRAIL-TP-10	17.4	CONRAIL-TP-10-1.9-2.4	1.9 - 2.4 ft	15.5	15.0	JD52479-11	JD52479	09/24/2022	N	Y	9.7 J
CONRAIL-TP-10	17.4	CONRAIL-TP-10-1.9-2.4-X	1.9 - 2.4 ft	15.5	15.0	JD52479-12	JD52479	09/24/2022	FD	Y	10.6 J

ABBREVIATIONS:
bgs - below ground surface
CAS RN - Chemical Abstracts Service Registry Number
COPR - Chromite Ore Processing Residue
CrSCC - Chromium Soil Cleanup Criteria
FD - field duplicate sample type
ft - feet
mg/kg - milligrams per kilogram
N - normal sample type
NAVD88 - North American Vertical Datum of 1988
SDG - sample delivery group

QUALIFIERS:
J - The result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample.

GENERAL NOTES:
* Sample analyzed after crushing and homogenization of Chromite Ore Processing Residue (COPR) nodules.
G1. “Location ID” refers to the location name where samples were collected.
G2. “Location Elevation” refers to the pre-remediation surface elevation.
G3. Elevation vertical datum is NAVD88, in U.S. survey ft.
G4. “Sample ID” refers to the name of a sample collected at a given location and is unique to the depth of the sample collected. In some cases, the “Sample ID” in the table is a variant of the sample ID in the laboratory report and/or data validation report. In these cases, the “Lab ID” associates the sample results to the laboratory report and/or data validation report.
G5. “Depth Interval” is based on the “Location Elevation.”
G6. “Sample Start Elevation” refers to the start of the sample interval. There may be up to 0.1 ft variation between the listed Sample Start Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.
G7. “Sample End Elevation” refers to the end of the sample interval. There may be up to 0.1 ft variation between the listed Sample End Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.
G8. “Lab ID” refers to the identification number assigned to the sample by the analytical laboratory performing the sample analysis. “Lab SDG” refers to the delivery group number assigned to the sample by the analytical laboratory.
G9. “Date Collected” refers to the date the soil sample was collected.
G10. “Sample Type” indicates whether the sample type is normal (N) or a field duplicate (FD).
G11. “Y” indicates that a sample underwent data validation and “N” indicates that data validation was not conducted.
G14. “Result” refers to the analytical result, which is reported in mg/kg.
G15. Bold text indicates that the result exceeds the CrSCC. Non-bold text indicates that the result does not exceed the CrSCC.
G16. Non-detect results are shown on this table using the method detection limit or the reporting limit.

2022 Conrail Right-of-Way Supplemental Pre-Design Investigation
Test Pit Logs

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP1 WestSidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/24/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/24/2022	**Core Size:** Test Pit	**Boring Total Depth:** 4.1 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		DGA	
					FILL		6 in layer of fine brown to black medium sand, moist, 5% slag, some ash, coal fragments, wood fragments	
1					FILL		15 inch layer of 50% slag, some coal, ash/cinders, angular gravel, brown fine to medium sand	CONRAIL-TP-1-SW-N-C
2							*Note that trace COPR (3 nodules) was observed within this fill layer along the western sidewall and was removed prior to backfill.	
					ML		15 inch layer of mottled UND varying in color, dark brown to orange to light tan, 6-8 inch round cobbles	
3								
					ML		6 inch layer of mottled UND varying in color, dark brown to orange to light tan, 6-8 inch round cobbles	CONRAIL-TP-1-3.6-4.1
4								

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP2 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/11/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/11/2022	**Core Size:** Test Pit	**Boring Total Depth:** 4 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		DGA	
1							*Note that trace COPR (2 nodules) was observed in the northern test pit sidewall within the top 4-inch layer. An additional COPR nodule was observed in sloughed side-wall material from an unknown depth. The observed COPR nodules were removed prior to backfill.	CONRAIL-TP-2-N-SW-C CONRAIL-TP-2-S-SW-C
		0.0			FILL		Brownish black fine to medium sand, 5% slag, small angular gravel and some ash and coal	CONRAIL-TP-2-1.5-2.0
2					FILL		17 inch layer of ash/cinders, 50% slag, some coal, angular gravel, brown fine to medium sand	
3					ML		7 inch layer of mottled UND varying in color, dark brown to orange to light tan, 6-8 inch round cobbles	CONRAIL-TP-2-3.5-4.0
4								

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP3 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/11/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/11/2022	**Core Size:** Test Pit	**Boring Total Depth:** 3.5 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		DGA	
							*Note that trace COPR (5 nodules) was observed in the southern test pit sidewall within the top 6-inch fill layer. The observed COPR nodules were removed prior to backfill.	CONRAIL-TP-3-S-SW-C CONRAIL-TP-3-N-SW-C
1					FILL		6 inch layer of reworked UND	CONRAIL-TP-3-1.1-1.6
					FILL		10 inch layer of black sand, slag, coal, etc	
2					FILL		7 inch layer of historic fill, ash	
					ML		UND	CONRAIL-TP-3-3.0-3.5 CONRAIL-TP-3-S
3								

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP4 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/11/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/11/2022	**Core Size:** Test Pit	**Boring Total Depth:** 3.7 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		DGA	
1								CONRAIL-TP-4-1.1-1.6
					FILL		9.5 inch layer of ash/cinders, 50% slag, some coal, angular gravel, brown fine to medium sand	
2					FILL		5 inch layer of black fine to medium sand with medium angular gravel	
					FILL		9 inch layer historic fill, ash layer, 80% slag, fine to medium dark brown sand, some cinders and coal, large 6-8 inch slag, blue coloration.	
3					ML		6 inch layer UND	CONRAIL-TP-4-3.2-3.7

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP5 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/24/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/24/2022	**Core Size:** Test Pit	**Boring Total Depth:** 3.3 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
			Moist		FILL		4 inch layer of DGA	
			Moist		FILL		7 inch layer of light brown to tan fine to medium sand, small brick fragments, small angular gravel	
1			Moist		FILL		8 inch layer of brown to black fine to medium sand, small angular gravel	
			Moist		FILL		10 inch layer of 50% slag, some coal, ash/cinders, angular gravel, brown fine to medium sand	
2			Moist		ML		7 inch layer of mottled UND varying in color, dark brown to orange to light tan	CONRAIL-TP-5-2.8-3.3
3								

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP6 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/11/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/11/2022	**Core Size:** Test Pit	**Boring Total Depth:** 3.5 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		DGA	
					FILL		3.5 inch layer of light brown fine to medium sand, trance coal, 5-10% slag, ash, some brick pieces, small angular gravel	
1					FILL		3 inch layer of black fine to medium sand, some large angular gravel, some silt, little coal	
					FILL		9 inch layer of ash, 5-10% slag, fine to medium dark brown sand with ash, coal	
2					FILL		19 inch layer of UND interbedded with 5-10% slag, ash, coal fragments, small angular gravel	
3								CONRAIL-TP-6-3.0-3.5

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP7 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/24/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/24/2022	**Core Size:** Test Pit	**Boring Total Depth:** 3.3 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		8 inch layer of DGA	
					FILL		6 inch layer of brownish black fine to medium sand, 5% slag	
1					FILL		11 inch layer of ash/cinders	
					ML		10 layer of mottled UND	
2								
								CONRAIL-TP-7-2.8-3.3
3								

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP8 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/24/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/24/2022	**Core Size:** Test Pit	**Boring Total Depth:** 3.33 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		8 inch layer of DGA	
1					FILL		10 inch layer of black to brown fine to medium sand with gravel	
2					FILL		17 inch layer of ash	CONRAIL-TP-8-2.3-2.8
3					ML		5 inch layer of mottled UND	

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP9 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/11/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/11/2022	**Core Size:** Test Pit	**Boring Total Depth:** 3.3 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		DGA	
1					FILL		Light brown fine to medium sand, little angular gravel, trace brick fragments	
					FILL		Historic fill, ash, 10% slag, cinders, 10% coal, 3 inches below fine to medium sand, angular rock	
2					FILL		Fine to medium sand, angular rock	
					ML		9 inche layer of mottled UND varying in color, dark brown to orange to light tan, 6-8 inch round cobbles. Timber fragments and water observed at base of test pit	CONRAIL-TP-9-2.8-3.3 CONRAIL-TP-9-S
3								

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

AECOM
30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: TP10 West Sidewall

Project Name: Site 108 Conrail	**Drilling Company:** AWT	**Top of PVC Elevation:** ft NAVD88
Project Number: 60709343	**Drilling Method:** Excavator	**Coordinates (NJSPNAD83) x:**
Date Started Drilling: 9/24/2022	**Rig Type:**	**Coordinates (NJSPNAD83) y:**
Date Finished Drilling: 9/24/2022	**Core Size:** Test Pit	**Boring Total Depth:** 2.4 ft
Logged By: Laura Kinsey	**Project Manager:** Aimee Ruiter	**Well Diameter (inches):**
Physical Location:		**Surface Elevation:** ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					FILL		6 inch layer of DGA	
					FILL		6 inch layer of fine to medium black sand, 5% slag, angular rock	
1					FILL		9 inch section in Southern and Northern parts of West Sidewall: gray to blue historic fill, ash, slag (50%) 17 inch layer (11 inch wide in between gray to blue historic fill) black fine to medium sand, extending to bottom of test pit	
2								CONRAIL-TP-10-1.9-2.4

Notes: bgs = below surface grade; DGA = dense graded aggregate; NAD83 = North American Horizontal Datum of 1983; NAVD88 = North American Vertical Datum of 1988; NJSP = New Jersey State Plane; PID = photoionization detector; ppm = parts per million; USCS = Unified Soil Classification System; ft = feet; in = inches

Comments:

2022 Conrail Right-of-Way Supplemental Pre-Design Investigation
Waste Disposal Documentation

REPUBLIC SERVICES

Ticket/Manifest

Date Range: 1/1/2023 to 1/31/2023
333355 to 333355
Facility : All Facility's
Both Inbound and Outbound
Both 3rd Party and Intercompany
Detail

Ticket Date In	Ticket #	Vehicle ID	Weight In	Weight Out	Material	Tons	Tracking Qty	UOM	Contract		Reference	Bol	Time In	Time Out
Customer **333,355**	US Ecology													
Facility : CL														
01/05/2023	1444546	SPEC	51,300	32,300	SW-CONT SOIL	9.50	0.00	YD	50812217088	Hudson County Chrome Site 107 Conrail Non	984	1501817	9:47 am	11:11 am
01/05/2023	1444547	SPEC	70,660	35,080	SW-CONT SOIL	17.79	0.00	YD	50812216681	Hudson County Chrome Site 114 Non Reg Soil	985	1501816	9:48 am	11:13 am
01/06/2023	1444721	SPEC	46,200	35,120	SW-CONT SOIL	5.54	0.00	YD	50812217088	Hudson County Chrome Site 107 Conrail Non	985	1501818	7:24 am	9:11 am
01/06/2023	1444740	SPEC	80,560	34,940	SW-CONT SOIL	22.81	0.00	YD	50812216681	Hudson County Chrome Site 114 Non Reg Soil	3014	1501820	8:30 am	9:51 am

Total = 15.04 Tons

Facility **4** **Tons :** **55.64** **Tracking** **0.00**

Grand Totals **4** **Tons :** **55.64** **Tracking** **0.00**

REPUBLIC SERVICES

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

1501817

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is **NOT** asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of
~~NJD986609311~~ NJRCC0076158		

d. Generator's Name and Location:	e. Generator's Mailing Address:
ppg - Hudson County Chrome Site ~~114~~ 107 Conrail/ ~~900 Garfield Ave~~, Jersey City NJ 07035 f. Phone: 724-325-5070 18 Chapel Ave & 20 Linden Ave	400 College Park Dr Monroeville PA 15146 g. Phone: 724-325-5070
If owner of the generating facility differs from the generator, provide: h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
~~508122162681~~ 508122/7058	~~12/12/23~~ 12/6/23	non regulated soil	001	CM	EST. 20	~~Tons~~ CY

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
Brandan Murphy on behalf of PPG		11/5/2023

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address:
Freehold Cartage Inc.
825 HWY 33 East, Freehold NJ 07728
b. Phone: 732-462-1001

c. Driver Name (Print)	d. Signature	e. Date
Rob Noble		11-5-23

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address:	c. US EPA Number	d. Discrepancy Indication Space:
Conestoga Landfill 420 Quarry Rd, Morgan~~XXXXX~~ town PA 19543 b. 610-286-6844 ~~XXX~~	PAD0000015867	9.50

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date
		11/5/23

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

REPUBLIC SERVICES

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

1501818

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is **NOT** asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of
NJR000076158		1

d. Generator's Name and Location:	e. Generator's Mailing Address:
PPG- Hudson County Chrome Site 107 (Conrail) 18 Chapel Ave. & 20 Linden Ave E f. Phone: (724) 325-5979 Jersey City NJ 07305	440 College Park Drive Monroeville PA, 15146 g. Phone: (724) 325-5070
If owner of the generating facility differs from the generator, provide: h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
50812217088	12/6/23	Non Regulated Soil	001	CM	est 5	Tons

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
Brendan Murphy on behalf of PPG		1/5/2023

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address:
Freehold Cartage Inc.
825 Hwy 33 East, Freehold NJ 07728
b. Phone: (732) 462-1001

c. Driver Name (Print)	d. Signature	e. Date
		1/5/23

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address:	c. US EPA Number	d. Discrepancy Indication Space:
X Conestoga Landfill 420 Quarry Rd., Morgantown PA 19543 b. (610) 286- 8644	PAD000015867	5.54

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date
		1/6/23

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

2022 Conrail Right-of-Way Supplemental Pre-Design Investigation
Clean Fill Documentation

Philip D. Murphy
Governor

Sheila Y. Oliver
Lieutenant Governor

State of New Jersey
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
LABOR STANDARDS AND SAFETY ENFORCEMENT
DIVISION OF PUBLIC SAFETY & OCCUPATIONAL SAFETY & HEALTH
Office of Safety Compliance
P.O. Box 386
Trenton, NJ 08625-0386
(609) 292-2096 • Fax: (609) 777-4589

Robert Asaro-Angelo
Commissioner

Certificate No: 004916

Expiration Date: 03/31/2023

MINE REGISTRATION CERTIFICATE

ISSUED TO: Stavola Construction Materials Inc

LOCATION: Stavola Construction Materials Inc
Chimney Rock Rd
Bridgewater, NJ

BLK NO(S): SEE BELOW

LOT NO(S): SEE BELOW

COUNTY: Somerset

FEE: $3,000.00

Issued pursuant to the provisions of N.J.S.A 34:6-98.1 et. seq. Failure to comply with the provisions of the Act, and the Rules promulgated thereunder, shall be good cause for the revocation of this Certificate.

R A Angelo
Commissioner

THIS CERTIFICATE MUST BE POSTED AT ALL TIMES

BLOCK NO(S)	LOT NO(S)
Chimney Rock Rd	
711	6.01

STAVOLA CONSTRUCTION MATERIALS, INC.

P.O. Box 482
Red Bank, NJ 07701
732-542-2328 x 323
732-389-0074 F

rvannote@stavola.com

9/06/2022

To Whom it may concern,
We are currently crushing rock down to the following size products:

Screenings (#10)	3/8" Clean (#8)	3"- 5" Riprap
Common Fill	5/8" Clean (#67)	6"- 12" Core Stone
Finishing Stone	3/4" Clean (#57)	12"- 24" Army Core Stone
Washed Sand	1" Clean (#5)	I-5 Soil Aggregate
1/4" (#9)	1 1/2" Clean	D.G.A. (Dense Graded Aggregate)
I-9 Soil Aggregate	2 1/2" Clean	QP (Quarry Process)
I-14 Soil Aggregate	3" minus shale (redrock)	Ballast

Stavola Construction Materials, Inc. (S.C.M.I.) certifies all aggregate products are quarried and processed at our Bound Brook Quarry are from a virgin natural source of volcanic extrusive igneous basalt (also known as Traprock), natural to the region as well as a Red Shale product also natural to this region. The traprock and shale are not comingled together or with any other material, nor is it affected by conditions or processes that would result in the introduction of contaminants. There are no discharges of hazardous materials or chemical applications that would adversely affect the materials, it is quarried and stockpiled at our licensed Bound Brook quarry in Bridgewater, NJ.
The pockets of Shale (Red Rock Bound) found in the Brook Quarry, are also a virgin source, natural to the region, and free from contaminants.
The quarry is located in the First Watchung Mountain Range, 409 Chimney Rock Rd, Bridgewater Township, Block 711, Lot 6. The address is 409 Chimney Rock Rd, Bridgewater, NJ 08807. Mine Certificate: 004916
Bound Brook Quarry has operated as a rock quarry since 1944, with no contaminated sites/AOC on neighboring properties or within the quarry itself. The Bound Brook Quarry follows all NJDEP and USDEP protocols to address any minor discharges.

If you have any questions or require further information, please don't hesitate to contact me at 732-542-2328 x329 or rvannote@stavola.com

Sincerely,

Robert S VanNote
Stavola Construction Materials Incorporated

Gradation Test Report

Plant 02-Bound Brook Aggregate
Product 0020-DGA
Specification DGA

28423422

Sample Information

Sample No 28423422
Date Sampled 08/22/2022 12:43
Sampled By Peyton Young
Type Day Production
Method Load-Out Face

Split Sample ☐
Resample ☐

Gradation Results

Date Completed 08/22/2022 12:43
Tested By Peyton Young

Unit	Moist Mass	Dry Mass	Wash Mass	Moisture %	Wash Loss %	Procedure
lb		31.30	29.78		4.9	

Sieve	Mass Retained	Cum Mass Retained	Ind % Retained	% Retained	% Passing	Target	Specification	Comment
2" (50mm)	0.00	0.00	0.0	0.0	100.0			
1 1/2" (37.5mm)	0.00	0.00	0.0	0.0	100.0		≥100	
1" (25mm)	1.50	1.50	4.8	4.8	95.2			
3/4" (19mm)	3.00	4.50	9.6	14.4	85.6		55-90	
1/2" (12.5mm)	4.30	8.80	13.7	28.1	71.9			
3/8" (9.5mm)	3.60	12.40	11.5	39.6	60.4			
#4 (4.75mm)	5.80	18.20	18.5	58.1	41.9		25-50	
#8 (2.36mm)	4.40	22.60	14.1	72.2	27.8			
#16 (1.18mm)	3.08	25.68	9.8	82.1	17.9			
#30 (.6mm)	1.78	27.46	5.7	87.7	12.3			
#50 (.3mm)	0.97	28.43	3.1	90.8	9.2		5-20	
#100 (.15mm)	0.61	29.04	2.0	92.8	7.2			
#200 (75µm)	0.69	29.73	2.2	95.0	5.0		3-10	
Pan	0.05	29.78	5.0	100.0	0.0			

Gradation Test Report

Plant 02-Bound Brook Aggregate
Product 0010-2 " ASTM #3 Clean Stone
Specification 2 " Clean ASTM#3

76116607

Sample Information

Sample No 76116607
Date Sampled 07/25/2022 09:39
Sampled By Leonard Bozza
Type Shipping
Method Stockpile

Split Sample ☐
Resample ☐

Gradation Results

Date Completed 07/25/2022 09:39
Tested By Leonard Bozza

Unit	Moist Mass	Dry Mass	Wash Mass	Moisture %	Wash Loss %	Procedure
g		50.00				

Sieve	Mass Retained	Cum Mass Retained	Ind % Retained	% Retained	% Passing	Target	Specification	Comment
2 1/2" (63mm)	0.00	0.00	0	0	100		100-100	
2" (50mm)	2.50	2.50	5	5	95		90-100	
1 1/2" (37.5mm)	27.60	30.10	55	60	40		35-70	
1" (25mm)	19.40	49.50	39	99	1		0-15	
3/4" (19mm)								
1/2" (12.5mm)	0.50	50.00	1	100	0		0-5	
Pan	0.10	50.10	0.0	100.0	0.0			

BBQ

732-542-2328 STAVOLA TINTON FALLS, N.J.

Stavola Construction Materials
Bound Brook Quarry
(732) 542-2328

SHIPPING TICKET

DATE...: 09/09/22 TICKET..: 1071856
CLERK..: rfliegel IN 06:12 OUT 06:40

PROJECT : TASK #:

CUSTOMER.: 37334
MADDOX MATERIALS, LLC
P.O. NO..:
PRODUCT..: 0020
DENSE GRADED AGGREGATE
UNITS....: 26.70 TON
HAULER...: P/D: P
Miscellaneous Trucker
CARD NO..: 033908
TRUCK....: AX652W
M C S EXPRESS CORP
SHIP TO..:
Jersey City
VARIOUS ROADS

10718560020

GROSS WEIGHT:	79500
STORED TARE:	26100
NET WEIGHT:	53400
NET TONS:	26.70
MEGAGRAMS:	24.2218

TODAY'S LOADS: 1
TODAY'S QTY: 26.70

DRIVER.....:
CUSTOMER:
WAIT TIME.: AUTH SIG:

38587

CLERK....: Pete LICENSE#.: 20672
TICKET#.: 1071856 REF TKT#:

Pete Wilson

BBQ

132-542-2328 STAVOLA TINTON FALLS, N.J.

Stavola Construction Materials
Bound Brook Quarry
(732) 542-2328

SHIPPING TICKET

DATE...: 09/09/22 TICKET..: 1071959
CLERK..: rfliegel IN 07:38 OUT 07:58

PROJECT : TASK #:

CUSTOMER.: 37334
MADDOX MATERIALS, LLC
P.O. NO..:
PRODUCT..: 0054
2IN BALLAST
UNITS....: 25.16 TON
HAULER...: P/D: P
Miscellaneous Trucker
CARD NO..: 034506
TRUCK....: AU130X
M C S EXPRESS CORP
SHIP TO..:
Jersey City
VARIOUS ROADS

10719590054

GROSS WEIGHT: 77980
STORED TARE: 27660
NET WEIGHT: 50320

NET TONS: 25.16
MEGAGRAMS: 22.8248

TODAY'S LOADS: 1
TODAY'S QTY: 25.16

DRIVER......:

CUSTOMER:

WAIT TIME.: AUTH SIG:

CLERK....: Pete LICENSE#.: 20672
TICKET#.: 1071959 REF TKT#: