SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Monday, August 1, 2022
PROJECT: 250 Water Street		**WEATHER:**	Overcast/Rain, 69.0 – 74.0 ˚F Wind: NE @ 0.0 – 8.1 mph
LOCATION: New York, NY		**TIME:**	6:00 AM – 5:30 PM
BCP SITE ID: C231127		**MONITOR:**	Brian Kenneally, Tom Herold, Eddie Cai

EQUIPMENT:
MiniRAE 3000 PID
DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
Komatsu 969
Komatsu 228
Takeuchi TB290

PRESENT AT SITE: **Day 55**
Langan (Environmental/Geotechnical) – Brian Kenneally, Tom Herold, Eddie Cai
LendLease (Construction Manager) – Marty Cohen
Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Mark Dulberg
New York State Department of Environmental Conservation (NYSDEC) – Aaron Fisher
AKRF Inc. (AKRF) (Archaeologist) – Elizabeth Meade
UBS (Fence Contractor)

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

Site Activities

- CCJV excavated an about 80-foot-long by 45-foot-wide area to a maximum depth of about 12 feet below grade surface (bgs) for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cells WC04 and WC05). Excavated soil/fill was live-loaded into tri-axle dump trucks for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.
    - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome® J505) of contamination was recorded.
    - Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- CCJV excavated an about 40-foot-long by 20-foot-wide area to a maximum depth of about 10 feet bgs for removal and off-site disposal of non-hazardous soil/fill in the northeastern part of site (waste characterization cells WC07 and WC08). Excavated soil/fill was live-loaded into tri-axle dump trucks for off-site disposal at the Middlesex County Landfill in East Brunswick, NJ.
    - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome® J505) of contamination was recorded.
- CCJV welded T-brackets along the edges of previously installed support-of-excavation (SOE) soldier piles in preparation for timber lagging installation along the eastern site boundary.

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- CCJV welded brackets along the edges of previously installed SOE soldier piles in preparation for steel waler installation along the northern site boundary.
- CCJV installed timber lagging between SOE soldier piles SP42 through SP45 to a depth of about 5 feet bgs for SOE system installation along the eastern site boundary.
- CCJV installed timber lagging between SOE soldier piles SP34 through SP41 to a depth of about 10 feet bgs for SOE system installation along the eastern site boundary.
- CCJV placed and graded imported 1.5-inch clean bluestone in the northwestern part of the site for trucking pad maintenance.
- UBS continued installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the eastern sidewalk of Beekman Street.
- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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Material Tracking

- CCJV exported two truckloads (about 40 cubic yards [CY]) of C&D, consisting of demolished concrete, for off-site disposal at the Impact Reuse and Recovery Center (IRRC) facility, located in Lyndhurst, NJ.
- CCJV exported 20 truckloads (about 400 CY) of non-hazardous, mercury-impacted soil/fill from waste characterization cells WC04 and WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- CCJV exported 30 truckloads (about 600 CY) of non-hazardous soil/fill from waste characterization cells WC07 and WC08 for off-site disposal at the Middlesex County Landfill located in East Brunswick, NJ.
- CCJV imported 2 truckloads (about 48.79 tons) of 1.5-inch clean bluestone from the IRRC facility, located in Lyndhurst, NJ.

Material Import Summary

Facility Name Location Type of Material	Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone		Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		Impact Reuse & Recovery Center or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone		Impact Reuse & Recovery Center, Lyndhurst, NJ General Fill	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)
Today	0	0	0	0	2	48.79	0	0
Total	7	161.51	0	0	2	90.02	6	150.01
NYSDEC Approved:	1,800 tons*				720 tons*		7,500 tons*	

*0.75-inch, 1.5-inch, and 2.5-inch virgin stone from the Stone Industries, Inc. facility and 1.5-inch clean bluestone from the Impact Reuse & Recovery Center (IRRC) facility were approved for import of 1,000 cubic yards (CY) and 400 CY, respectively. Assuming a conversion factor of 1.8, each quantity was converted to tons in order to accurately compare with import weight tickets. General fill from the IRRC facility was approved for import of 5,000 CY and a conversion factor of 1.5 is applied.

Material Export Summary

Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill		Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No, of Loads	Approx. Volume (CY)
Today	0	0	2	40	0	0	20	400	30	600
Total	5	85	16	360	14	280	117	2,340	93	1,860

Sampling Activities

- No samples were collected from the site.

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CAMP Activities

Langan performed air monitoring at the perimeter of the site and at work zones at nine total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.00 µg/m^3 and 5.0 ppm, respectively).

Background Concentrations

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.02 µg/m^3.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Perimeter and Work Zone Concentrations

Daily Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.037	1.0	0.02
PM-2	0.044	0.0	0.01
PM-3	0.039	0.0	0.00
PM-4	0.064	0.3	0.02
PM-5	0.020	0.1	0.01
PM-6	0.025	0.2	0.01
WZ-1	0.044	0.0	0.01
WZ-2	0.031	0.1	0.02
WZ-3	0.032	0.2	0.00

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
Action Level	**0.100 mg/m^3**	**5.0 ppm**	**1.00 µg/m^3**
PM-1	* 0.194 @ 10:33am	1.8	0.19
PM-2	0.095	0.0	0.02
PM-3	0.074	0.4	0.01
PM-4	** 0.324 @ 11:05am	0.7	0.04
PM-5	0.038	0.5	0.04
PM-6	*** 0.116 @ 4:30pm	0.5	0.03
WZ-1	0.084	0.0	0.03
WZ-2	0.060	0.2	0.04
WZ-3	0.066	0.4	0.01

●mg/m^3 = milligrams per cubic meter ●ppm = parts per million ●µg/m^3 = micrograms per cubic meter

- * PM10 concentrations at perimeter CAMP station PM-1 exceeded the action level established in the CAMP (0.100 mg/m^3) from 10:20am to 10:34am (15 minutes). The exceedance was caused by exhaust from a truck

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exiting the site following delivery of timber planks for the SOE system. Fugitive dust was not observed migrating from the site during this time.

- ** PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP from 10:39am to 11:44am (66 minutes), 12:48pm to 1:08pm (21 minutes), and 3:44pm to 3:54pm (11 minutes). The exceedances were caused by welding activities adjacent to perimeter CAMP station PM-4 along the eastern boundary of the site and were not the result of ground-intrusive activities at the site. The CAMP station was not able to be moved due to limited space along the eastern site boundary. Fugitive dust was not observed migrating from the site during each of these times.
- *** PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP from 4:20pm to 4:33pm (14 minutes). The exceedance was caused by welding activities adjacent to perimeter CAMP station PM-6 and was not the result of ground-intrusive activities at the site. Fugitive dust was not observed migrating from the site during this time.

Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m^3 to 0.09 µg/m^3.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:38am to 5:25pm during excavation activities in the north-central and northeastern parts of the site.
- CAMP station WZ-2 was relocated to the southern sidewalk of Water Street from 7:15am to 5:28pm due to exposed soil/fill within 20 feet of the southern fence line.
- CAMP station WZ-3 was relocated to the eastern sidewalk of Peck Slip from 7:15am to 5:28pm during excavation activities in the northeastern part of the site.

Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 4:51pm and 5:28pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 µg/m^3 to 0.02 µg/m^3.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue excavation of test pits along the southern boundary of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.

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- CCJV will continue excavation and off-site disposal of soil/fill in the central and eastern parts of the site.

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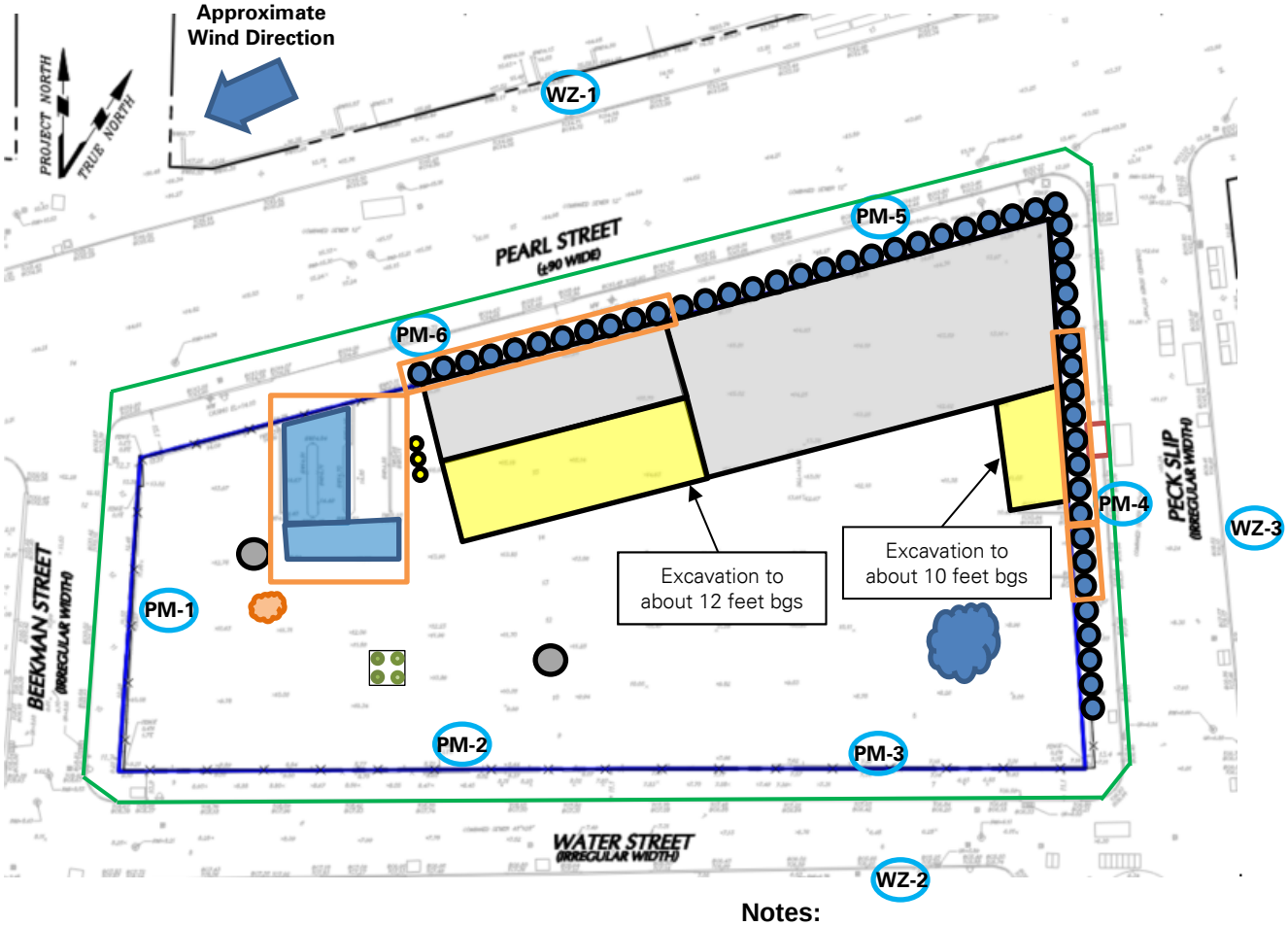
Site Map



Notes:
1) Locations of air monitoring stations are approximate.

Legend:

- PM-1 — Approximate Location of Air Monitoring Station
- Approximate Work Area
- Approximate Location of Installed Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Truck Tracking Pad
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Container
- Approximate Location of Soil/Fill Stockpile
- Approximate location of USTs
- Approximate Location of Stockpiled Virgin Stone
- Approximate Location of 55-gallon drum
- Approximate Location of Test Pile
- Approximate Location of Soldier Pile
- Approximate Perimeter Construction Fence Location
- Approximate Fence Relocation Area
- Previous Excavation Area
- Approximate Excavation Area

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Select Site Photographs:

Photo 1: CCJV welding brackets to previously installed SOE soldier piles along the northern site boundary (facing northeast)

Photo 2: CCJV covering exposed soil/fill with Atmos® AC-645 dust/vapor suppressing foam (facing north)

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