LANGAN SITE OBSERVATION REPORT – Pile Installation Oversight – Day 21

PROJECT No.:	170390001	**CLIENT:**		**DATE:**	Friday, 13 October 2023
PROJECT:	141 3rd Street		Third Street Owner LLC and 155 Third St., LLC	**WEATHER:**	Sunny, 51-65 ^{0}F Wind: WNW @ 0.6–4.2 mph
LOCATION:	Brooklyn, New York			**TIME:**	7:00 a.m. – 5:00 p.m.
BCP SITE ID:	C224336				

EQUIPMENT:
Soilmec SR-75 ADV Hydraulic Rotary Rig
Liebherr LB36 410 Rotary Drilling Rig
Junttan PM 25H Pile Driving Rig
FES FR180X-IV Rotary Drill Rig
Specto Technology Aeroqual Air Monitoring Stations (2)
Hyundai HX520L Excavator
Kotmasu PC400 Excavator
CAT 966G Excavator
Sonic Drill Rig

PRESENT AT SITE:
Langan: Andrew Ashley
Monadnock Construction, Inc. (Construction Management):
Jim Spence – Superintendent
New Leaf Development (Pile Installation Contractor):
Jose Gomez – Foreman
WSP (NYSDEC Consultant): Christopher Disclafani
Eastern Environmental Solutions, Inc (Eastern): Nick Turroj and Ernesto Santiago

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) was present to oversee implementation of soil handling procedures and document installation of foundation displacement piles in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Excavation Work Plan, dated 17 February 2022, the associated Change of Use Notification, dated 09 August 2023, and the draft Treatability Study Work Plan for In-Situ Geochemical Stabilization (ISGS) and In-Situ Stabilization/Solidification (ISS), dated 28 September 2023.

Site Activities

- New Leaf backfilled previously excavated and stockpiled fill from the south-central part of site to its original location within an about 30-foot-long by 20-foot-wide area to create a level working surface around pile cap 93.
- Eastern used a sonic drill rig to advance six soil borings (SB31, SB32, SB33, SB34, SB35 and SB36) to about 35 to 40 feet below grade surface (bgs) for the ISS treatability study in the east-central part of the site. Langan documented the work and screened the recovered soil continuously for evidence of environmental impacts (e.g., saturated and grossly contaminated material [GCM]) using visual and olfactory methods and with a calibrated photoionization detector (PID).
    - **SB31** was advanced to a depth of about 35 feet bgs. Coal tar impacts (saturated material, and moderate naphthalene-like odor) were identified between 30.5 and 31.5 feet bgs. A faint naphthalene-like odor and sheen was observed between about 31.5 and 33 feet bgs. A maximum PID reading of 107.8 parts per million (ppm) was recorded at about 30.5 feet bgs.
    - **SB32** was advanced to a depth of about 35 feet bgs. Coal tar impacts (sheen, saturated material and moderate naphthalene-like odors) were identified between about 31.5 and 33 feet bgs. A maximum PID reading of 138.1 ppm was recorded at about 32 feet bgs.
    - **SB33** was advanced to a depth of about 40 feet bgs. No evidence of impacts was observed.
    - **SB34** was advanced to a depth of about 35 feet bgs. Coal tar impacts (sheen and moderate naphthalene-like odor) were identified between about 30 and 31.5 feet bgs. A maximum PID reading of 23.5 parts per million (ppm) was recorded at about 31 feet bgs.
    - **SB35** was advanced to a depth of about 35 feet bgs. Coal tar impacts (sheen, saturated and coated material, and moderate naphthalene-like odors) were identified between about 30 and 34 feet bgs. A maximum PID reading of 134.4 ppm was recorded at about 33.5 feet bgs.

- **SB36** was advanced to a depth of about 35 feet bgs. Coal tar impacts (sheen, saturated soil and moderate naphthalene-like odors) were identified between about 31 and 32.5 feet bgs. A maximum PID reading of 61.5 ppm was recorded at about 32 feet bgs.

Non-disposable, down-hole drilling equipment and sampling apparatus was decontaminated between locations with Alconox and water. Decontamination fluids were captured and containerized into a labeled 55-gallon drum staged on-site, pending disposal at an off-site facility.

- Langan performed soil sampling for the ISS treatability study. See sampling section for details. Following sampling, each soil boring was backfilled using bentonite to grade surface. Grossly-contaminated soil cuttings were targeted for sample collection, and remaining non-impacted soil cuttings were placed into a labeled 55-gallon drum staged on-site, pending disposal at an off-site facility.
- A representative from WSP conducted a site visit on behalf of the NYSDEC. No adverse conditions were noted as a result of the site visit and no further action was required.

Material Tracking

- One 55-gallon drum containing decontamination fluid and purged groundwater is staged in the east-central part of the site.
- Two 55-gallon drums containing decontamination fluid are staged in the east-central part of the site.
- Four 55-gallon drums containing soil cuttings are staged in the eastern part of the site.
- No material was imported or exported.

Material Import Summary				
Facility	**NYSDEC Approved Quantity**	**Imported**	**Today**	**Total**
Tilcon - Haverstraw Haverstraw, NY ASTM #3 Virgin Stone (1.5-Inch)	200 CY (280 tons)	**No. Loads**	0	**3**
		Quantity (tons)	0	**70**

Sampling

- Langan collected the following soil samples for shipment to the New Jersey Institute of Technology (NJIT) Center for Natural Resources for use in the ISS treatability study.
  - SB31_30-31
  - SB31_31.5-32.5
  - SB32_32-33
  - SB34_30-31
  - SB35_32-33
  - SB35_33-34
  - SB36_31-32
  - SB36_32-33

Community Air Monitoring Plan (CAMP) Activities

- Langan implemented the CAMP at upwind and downwind locations to monitor volatile organic compounds (VOC) and particulate matter (PM10). 15-minute-average concentrations of VOCs and PM10 were not recorded above the action levels. No fugitive dust and odors associated with intrusive activities were observed migrating off site.

Particulate Monitoring ($\mu g/m^3$)		Organic Vapor Monitoring (ppm)	
Daily Background	2.9	Daily Background	0.00
Minimum 15-min Average	0.0	Minimum 15-min Average	0.00
Maximum 15-min Average	6.1	Maximum 15-min Average	0.01

$\mu g/m^3$= micrograms per cubic meter ppm= parts per million

Anticipated Activities

- The field portions of the ISS and ISGS treatability studies are complete. New Leaf will continue to backfill around pile caps for assistance with load testing.

SITE PHOTOGRAPHS:

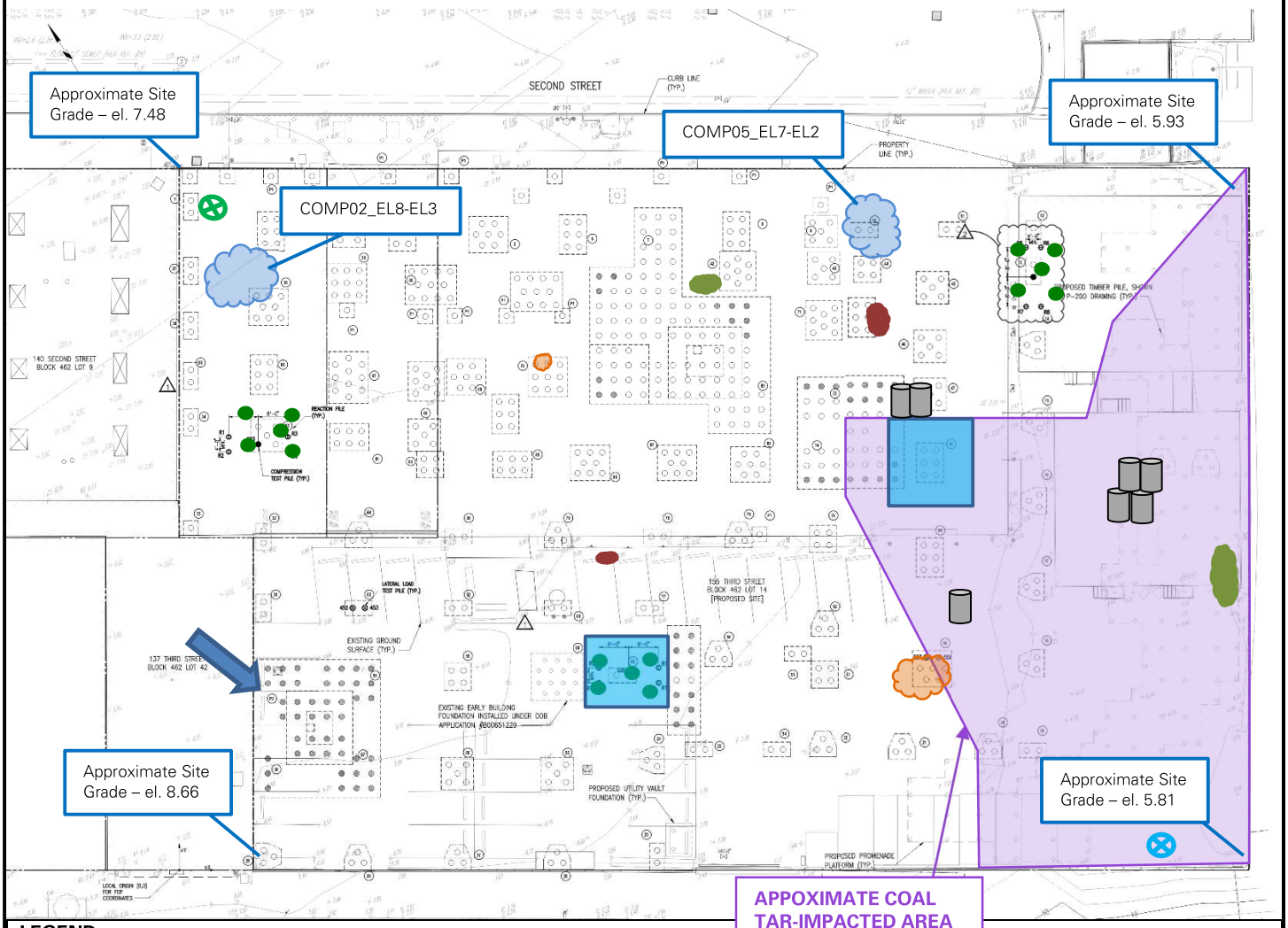


Photo 1: View of backfilled area around pile cap 93 (facing north).



Photo 2: Eastern advancing soil boring SB33 in the east-central part of the site (facing northeast).

Site Map:



LEGEND

- Approximate Location of Displacement Pile Advanced Today
- Approximate Location of Displacement Pile Advanced Previously
- Approximate Location of Displacement Pile Load Testing
- Approximate Work Area
- Approximate location of upwind CAMP Station
- Approximate location of downwind CAMP Station
- Approximate location of Soil Stockpile
- Approximate location of C&D Debris Stockpile
- Approximate location of Timber Stockpile
- Approximate location of ASTM #3 Virgin Stone (1.5-Inch) Stockpile
- Prevailing Wind Direction
- Drum Location

Basemap is referenced from Drawing FO-099.01, titled "Deep Foundations Plans and Details" prepared by Dattner Architects D.P.C, dated 12/27/2022.

Elevations (el.) are in feet and referenced to the North American Vertical Datum of 1988 (NAVD88).

Drawing Shown Not to Scale

LANGAN	Air Monitoring Report	170390002 - 141 3rd Street	
		Report Period	
		From:	10/13/2023 06:00
		To:	10/13/2023 18:00
		PM10 Action Level:	150.0 µg/m³
		VOC Action Level:	5.00 ppm

Daily Environmental Summary	Windspeed (mph)	Prevailing wind direction
10/13/2023	0.6-4.2	WNW

Daily Monitoring Summary	PM10 (µg/m³)	Time	VOC (ppm)	Time
Min Contribution (15 min avg.) - 10/13/2023	0.0	07:20	0.00	08:41
Max Contribution (15 min avg.) - 10/13/2023	6.1	15:17	0.01	07:20

