LANGAN SITE OBSERVATION REPORT – Day 083

CLIENT:	Gowanus Canal LLC and GowCan Owner, LLC	**DATE:**	Friday, December 16, 2022
PROJECT No.:	170295301	**WEATHER:**	Rain, 38 to 46 °F Wind: NNE @ 13-26 mph
PROJECT:	Gowanus Canal Northside	**TIME:**	6:30 – 15:30
LOCATION:	Brooklyn, New York	**BCP SITE ID:**	C224080

EQUIPMENT:

Komatsu PC 490 Excavator
Komatsu PC 240 Excavator
Komatsu PC 78 US Excavator
APE Model 23.2 Vibratory Hammer
Komatsu Wheel Loader
Junttan PM20US Drill Rig
Geoprobe 54 DT Drill Rig
Junttan PM20/25 Drill Rig
JLG HC3 Boom Lift

PRESENT AT SITE:

Langan: Mat Frankel, Brian Kenneally (Environmental), Ashlene Bisram (Geotechnical)
Urban Atelier Group (UAG): Seth Anderson
Kingdom Associates, Inc. (Kingdom): Marcin Hulewicz, George Minchala
Lakewood Environmental Services (Lakewood Environmental): Tim Kelly

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was on-site to document implementation of the New York State Department of Environmental Conservation (NYSDEC)-approved March 24, 2022 Remedial Action Work Plan (RAWP) for Brownfield Cleanup Program (BCP) Site No. C224080. Site Map 1 presents the Society Brooklyn and Sackett Place developments, which together comprise the BCP site.

Site Activities

- Kingdom exported previously stockpiled non-hazardous drilling spoils (SB_COMP_01-03-04_0-85 and SB_COMP_02-05_0-85) and historic fill from waste characterization cells WC02 and WC03 (WC02_COMP_0-5, WC03_COMP 0-5, and WC03_COMP_5-10) using permitted tri-axle trucks for off-site disposal. See material tracking section for details.
- Kingdom exported previously stockpiled construction and demolition (C&D) debris in permitted tri-axle trucks for off-site disposal. See material tracking section for details.
- Kingdom excavated an about 26-foot-long by 5-foot-wide area from about 6 feet below grade surface (bgs) to 9 feet bgs to install timber lagging for the support of excavation (SOE) system in the northern part of Society Brooklyn. Excavated material consisted of petroleum-impacted soil.
    - Excavated soil was screened for odor, staining, and organic vapor using a photoionization detector (PID). Petroleum-like impacts including petroleum-like odor and a maximum PID reading of 6.0 parts per million (ppm) were observed.
    - The petroleum-impacted soil was temporarily backfilled into the excavation of origin pending future re-excavation and off-site disposal.
- Kingdom excavated an about 64-foot-long by 20-foot-wide area to about 3 feet bgs to install formwork for pile cap installation in the southeastern part of Society Brooklyn. Excavated material consisted of historic fill and C&D debris.
    - Excavated historic fill was screened for odor, staining, and organic vapors using a PID. Petroleum-like impacts including petroleum-like odor and a maximum PID reading of 0.6 ppm were observed.
    - The petroleum-impacted historic fill was temporarily stockpiled in the southern part of Society Brooklyn on top of and covered in polyethylene sheeting pending future off-site disposal.

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  - Excavated C&D debris was stockpiled in the central part of Society Brooklyn pending future off-site disposal.
- Kingdom installed dewatering piping for the dewatering system in the northern part of Sackett Place.
- Kingdom installed dewatering wells to a maximum depth of 20 feet bgs for the dewatering system in the northern part of Sackett Place.
- Lakewood Environmental continued implementing in-situ groundwater remediation via direct-push remedial injections in the western part of Society Brooklyn and west-adjoining Bond Street sidewalk.
  - Lakewood Environmental used a Geoprobe 54 DT drill rig to advance two low concentration remedial injection point and three high concentration remedial injection points. A 4-foot-long screen was used to evenly distribute PetroFix injectate from about 7 to 17 feet bgs at the low concentration injection point and from about 7 to 22 feet bgs at the high concentration injection points.
  - A temporary monitoring well consisting of 1-inch polyvinyl chloride (PVC) riser and a four-foot-long 0.10-inch slotted screen was used to distribute injectate from 10 to 14 feet bgs at a previously advanced low concentration remedial injection point IP23_LC. IP23_LC is anticipated to be completed Monday, 12/19/2022.
  - The injectate consisted of PetroFix (a finely ground powdered activated carbon from Regenesis), water, and an electron acceptor blend. The solution was continuously injected in 4-foot intervals into injection point IP09_HC.
    - Injections were started in injection points IP08_HC, IP12_HC, IP32_LC, and IP33_LC; however, due to daylighting of the injectate, these injection points will be completed at a future date.
- Langan gauged and collected water quality parameters from off-site monitoring well MW27. No light non-aqueous phase liquid (LNAPL) was identified.

Import and Export Tracking

- Kingdom exported 13 truckloads of non-hazardous drilling spoils (SB_COMP_01-03-04_0-85 and SB_COMP_02-05_0-85) and historic fill from waste characterization cells WC02 and WC03 (WC02_COMP_0-5, WC03_COMP 0-5, and WC03_COMP_5-10) to Bayshore Soil Management (BSM) in Keasbey, NJ.
- Kingdom exported 5 truckloads of C&D to Faztec Industries in Staten Island, NY.
- No material was imported to the site.

Soil/Fill Export Summary			
Facility	**Exported**	**Today**	**Total**
Bayshore Soil Management Keasbey, NJ Non-Hazardous Soil/Fill	**No. Loads**	13	**402**
	Quantity (CY)	260	**8,040**
Bayshore Soil Management Keasbey, NJ Non-Hazardous MGP-Impacted Soil/Fill	**No. Loads**	0	**79**
	Quantity (CY)	0	**1,580**

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Material Import Summary				
Facility	**NYSDEC Approved Quantity (CY)**	**Imported**	**Today**	**Total**
Stavola Construction Materials, Inc Bridgewater, NJ 2.5-inch Stone	1,000	**No. Loads**	0	**6**
		Quantity (CY)	0	**120**
87 19th Avenue Astoria, NY 2.5-inch Stone	2,000	**No. Loads**	0	**13**
		Quantity (CY)	0	**290**
Impact Environmental Jersey City, NJ 0.5-inch Crushed Stone	2,000	**No. Loads**	0	**2**
		Quantity (CY)	0	**40**

Sampling

- No samples were collected.

Community Air Monitoring

- Due to persistent rain, community air monitoring was not implemented. No dust or odor were apparent on-site.

Anticipated Activities

- Kingdom will continue to install SOE at Society Brooklyn and Sackett Place.
- Kingdom will continue dewatering system installation in the northern part of Sackett Place.
- Lakewood Environmental will continue remedial injections of PetroFix in the western part of Society Brooklyn and the west-adjoining Bond Street sidewalk.

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Site Photographs:

Photo 1: Kingdom loading a permitted tri-axle truck with non-hazardous drilling spoils and historic fill for off-site disposal from Society Brooklyn (facing northeast)

Photo 2: Kingdom excavating to install formwork for pile caps in the eastern part of Society Brooklyn (facing northeast)

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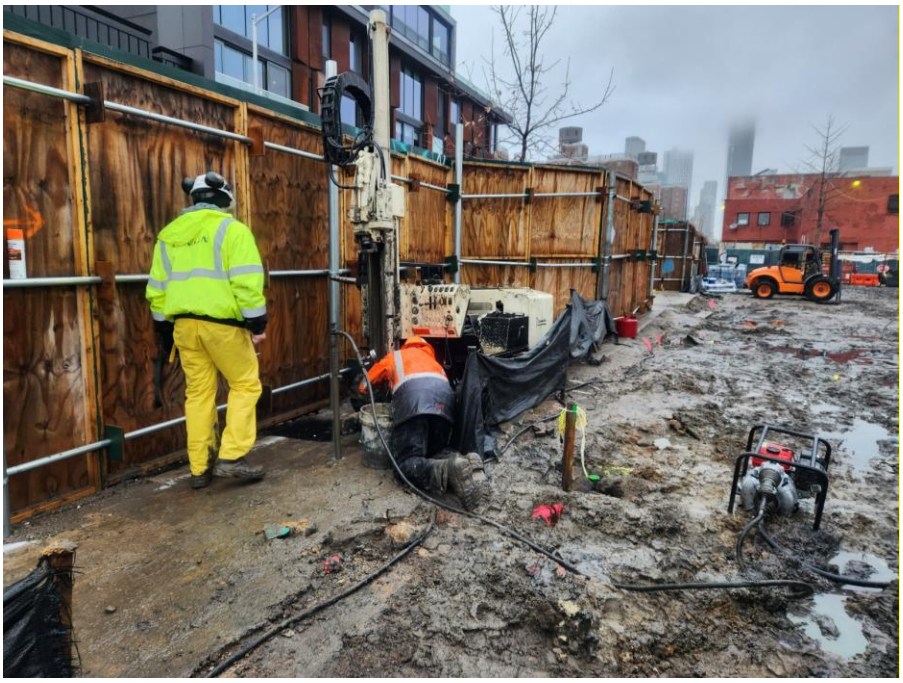

Photo 3: Lakewood Environmental implementing in-situ groundwater remediation via direct-push remedial injections in the west-adjoining Bond Street sidewalk (facing northwest)

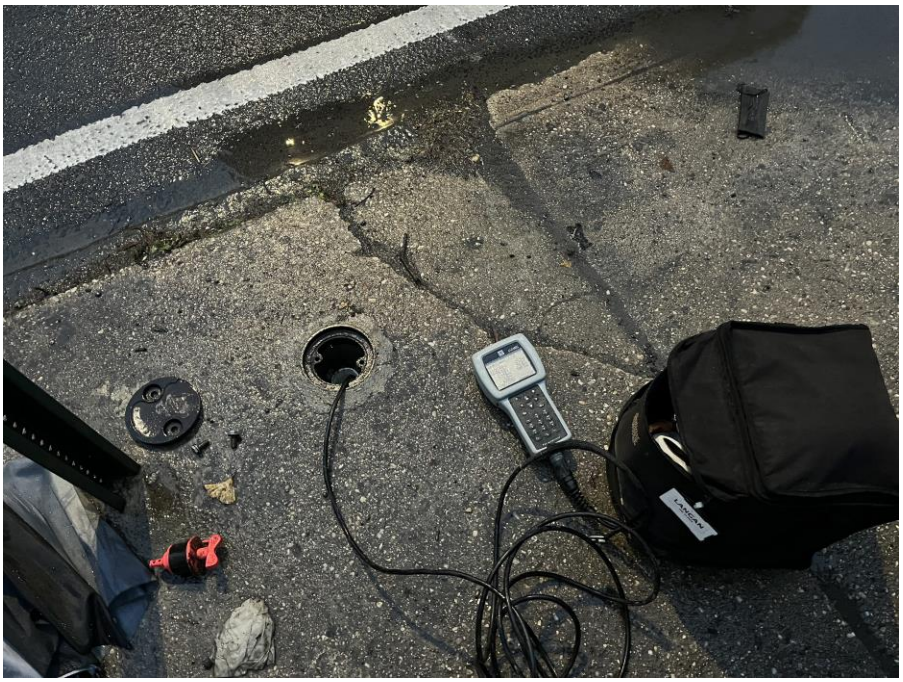

Photo 4: Langan collecting groundwater parameters from off-site monitoring well MW27

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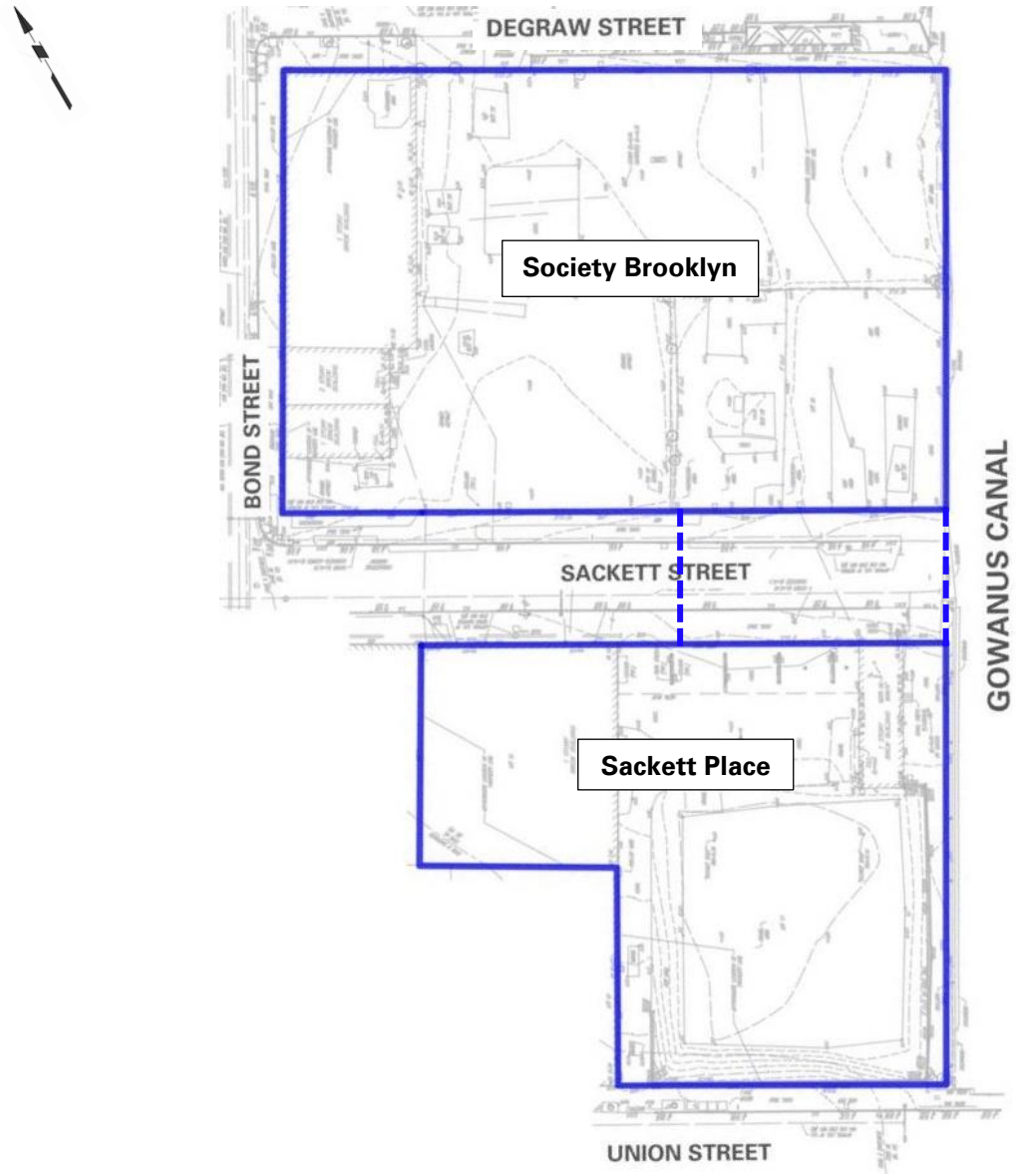
Site Map 1:



Legend

Approximate BCP site boundary

Approximate construction fence boundary

Notes

1. Base map adapted from 24 March 2022 RAWP, Figure 2 – Site Plan.
2. This Site Map is provided for context only; refer to the Northern (Society Brooklyn) and Southern (Sackett Place) Work Area Maps on the following pages for work and air monitoring location(s).

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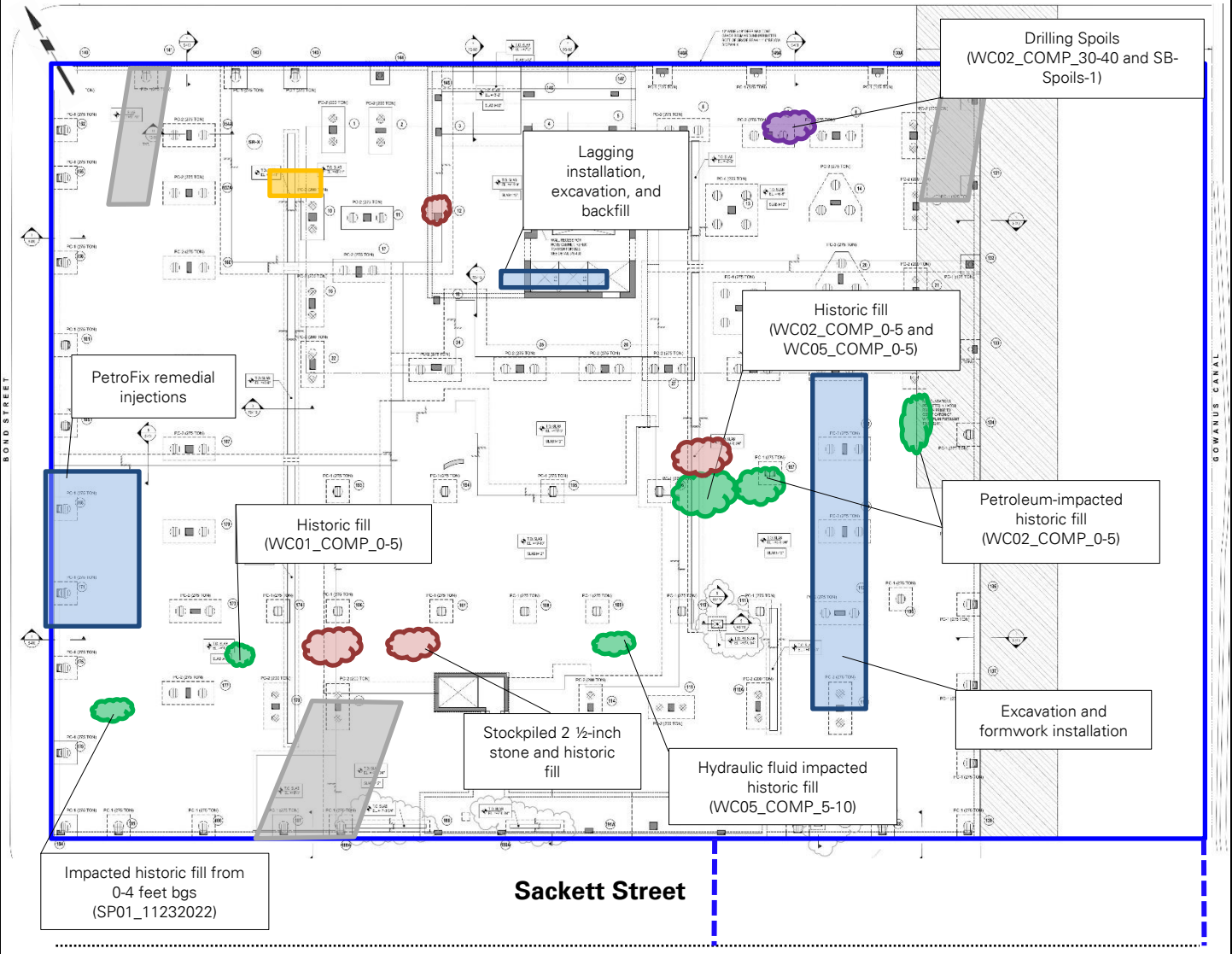
Site Map 2: Northern Work Area Map (Society Brooklyn)

Base map adapted from 1 April 2022 drawing FO-201.00, "Ground Floor Framing Plan" for Society Brooklyn, prepared by DeSimone Consulting Engineers.



Legend:

- Approximate site boundary
- Approximate construction fence boundary
- Upwind air monitoring station
- Downwind air monitoring station
- Approximate work area
- Approximate stabilized construction entrance
- Approximate soil/fill stockpile location
- Approximate MGP-impacted stockpile location
- Approximate C&D debris stockpile location
- Approximate location of 20 cubic yard scrap metal container

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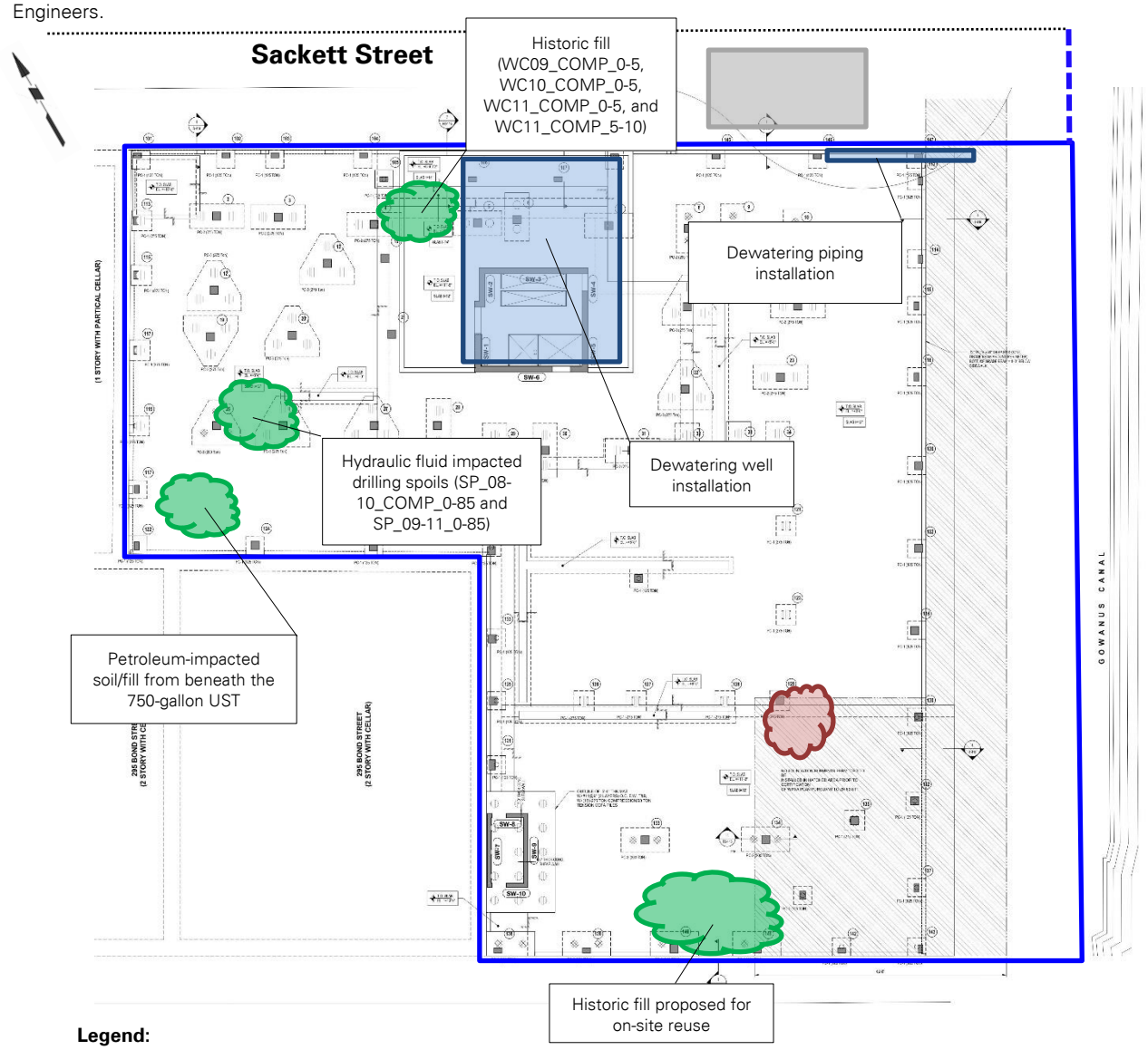
Site Map 3: Southern Work Area Map (Sackett Place)

Base map adapted from 1 April 2022 drawing FO-201.00, "Ground Floor Framing Plan" for Sackett Place, prepared by DeSimone Consulting Engineers.



Legend:

- Approximate site boundary
- Approximate construction fence boundary
- Upwind air monitoring station
- Downwind air monitoring station
- Approximate work area
- Approximate stabilized construction entrance
- Approximate soil/fill stockpile location
- Approximate MGP-impacted stockpile location
- Approximate C&D debris stockpile location

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