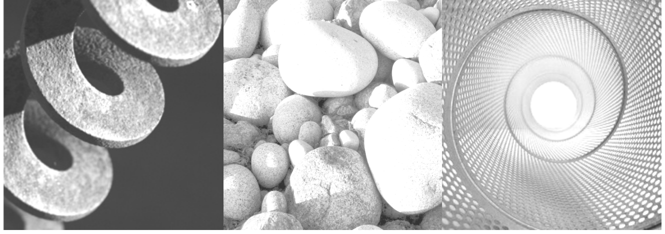

GEI Consultants

Consulting
Engineers and
Scientists

Groundwater Monitoring Report
November 2020 (Q4-2020) Annual Sampling Event

Rockaway Park Former MGP Site

Rockaway Park
Queens County, New York
Order on Consent Index No. D1-0002-98-11
Site No. 2-41-029

Submitted to:
National Grid
175 East Old Country Road
Hicksville, NY 11801

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1. Introduction and Site Background

This report presents the November 2020 groundwater monitoring results for the Rockaway Park Former Manufactured Gas Plant (MGP) site located in Rockaway Park, Queens County, New York (the Site) (Figure 1). This report has been prepared in accordance with the requirements of Section 6 of DER-10 (Division of Environmental Remediation) Technical Guidance for Site Investigation and Remediation; the Order on Consent, Index No. D1-0002-98-11 signed by National Grid Corporation (National Grid) and the New York State Department of Environmental Conservation (NYSDEC), and the Draft Site Management Plan (SMP), Rockaway Park Former Manufactured Gas Plant, Rockaway Park, New York prepared by GEI Consultants, Inc. P.C. (GEI), dated March 2017.

1.1 Site Description

The former MGP and former electric substation are identified as Block 16166 and Lot 155 and the majority of Lot 110 on the Queens Tax Map (herein referred to as the “On-Site Property”). The On-Site Property is an approximately 8.9-acre area and is bounded by Beach Channel Drive to the north, Rockaway Freeway to the south, Beach 108th Street to the east, and Rockaway Freeway to the west (Figure 2).

The bulkhead area, which was historically used for off-loading of coal for the former Gas Works, is located North of the On-Site Property. This property, located north of Beach Channel Drive between Rockaway Freeway and Beach 108th Street, is identified as Block 16166 Lot 177 on the Queens Tax Map (herein referred to as the “Off-Site Property”). The Off-Site Property is an approximately 1.0-acre area and is bounded by Jamaica Bay to the north, and Beach Channel Drive to the south (Figure 2). National Grid does not own the Off-Site Property.

1.2 Site History

The Rockaway MGP began operations in the late 1870s. The plant was operated by Rockaway Electric Light Co., Town of Hempstead Gas & Electric Company, and later the Queensboro Gas and Electric Company from the late 1870s to 1926. In 1926, Queensboro Gas and Electric Company became a subsidiary of the Long Island Lighting Company (LILCO). LILCO operated the plant from 1926 to approximately 1958, when most of the facilities were demolished. In 1998, KeySpan Corporation acquired the former MGP property through a merger of LILCO and Brooklyn Union Gas Company.

In 1894, the plant consisted of two gas holders, a generator, purifiers and scrubbers. The records indicate that the MGP operated carbureted water gas and coal carbonization processes during early gas production. After 1905, the carbureted water gas process was the only process used during gas production. In 1912, the MGP expanded to the north and east and a portion of the southern property boundary was located beneath the present Rockaway Freeway. The plant now included a half-million cubic foot gas holder, several oxide tanks, generator and boiler buildings, engine room, several oil tanks, and a condenser.

The plant expanded in the mid-1920s to a strip of land to the north of the existing plant. This land was created when Jamaica Bay was filled in during Beach Channel Drive Construction. In 1933, the plant figuration included several additional structures that could allow increased gasification, tar and oil separation and storage, and coke and gas storage. These structures included a 2-million cubic foot gas holder, drip oil tanks, skimming basin, condensers, oxide enclosure, generator ash storage bin, tar separator, tar settling and drying tanks, and tar de-emulsifier. The MGP ceased operations in 1957 and was demolished in 1958.

Five industrial supply wells were formerly located on the MGP property. A mixture of clay, liquid mud, and cement were used to abandon these wells. Three of the wells were abandoned in the 1930s and the abandonment dates of the other two wells are not known.

In October 2002, the NYSDEC approved National Grid’s request to reclassify the northwestern portion of the Rockaway Park former MGP site on the Registry of Inactive Hazardous Waste Disposal Sites. This portion of the Site is the current active substation. It was delisted based on investigation results and a risk assessment which concluded that the construction worker subsurface-soil exposure in the proposed substation area did not pose an unacceptable carcinogenic health threat or non-cancer health hazard.

1.3 Site Remedy

The NYSDEC-approved remedy for the Site involved four components. The following is a summary of the Remedial Actions performed at the Site:

- A shallow excavation was completed to the approximate depth of the water table at 8-feet below grade at the Site. Outside of the shallow excavation limits, the upper 2 feet of material was removed to accommodate the installation of the On-Site Soil Cover System. Approximately 165,292 tons of material was excavated and disposed of off-site.
- A composite dense non-aqueous phase liquid (DNAPL) migration barrier was constructed at the Site to contain impacted materials at the Site. The location of composite On-Site DNAPL migration barrier is depicted in Figure 2 and consists of the following components:

  - A 695-foot long Waterloo Barrier® sheet pile barrier was installed. The Waterloo Barrier® sheet piling was installed to depths of 50-feet on the flanks and 60 feet in the center of the wall.
  - Soil-cement jet grout columns were installed to a depth of approximately 120 feet below ground surface (ft bgs) with a continuous 5-foot wall overlap with the 250-foot long center section of the Waterloo Barrier® sheet piles.
- The Off-Site DNAPL migration barrier consists of a 137-foot long Waterloo Barrier® sheet pile barrier. The Waterloo Barrier® sheet piling was installed to depths of 60 to 70 feet bgs.
- A Cover System was installed on both the On-Site and Off-Site Properties.
  - The On-Site Soil Cover System consists of an 18-inch layer of well graded sandy soil material overlain with 6 inches of 2.5-inch crushed stone and underlain with a fabric demarcation barrier between the On-Site Soil Cover System and the subgrade materials.
  - The Off-Site Composite Cover System consists of either a 24-inch layer of clean fill meeting the Restricted Residential Use SCOs underlain with a fabric demarcation barrier between the Composite Cover System and the subgrade materials or an asphalt/concrete surface, underlain with 6-inches of clean fill and a fabric demarcation barrier.
- Forty-one passive DNAPL recovery wells were installed. One of the recovery wells was destroyed in 2015 and was not replaced with approval from the NYSDEC. The locations of the remaining 40 recovery wells are depicted in Figure 2.

In accordance with the Decision Document and the Draft SMP, National Grid began annual post-remedy monitoring of the groundwater at the Site in the Fourth Quarter of 2016 (Q4 2016). This data provides a baseline of groundwater analytical results following completion of the remedy to evaluate the overall effectiveness of the remedial action.

1.4 Geology

Three major stratigraphic units were identified during the Remedial Investigation (RI) and Final RI drilling program:

- Recent/post glacial fill
- Barrier island deposits
- Glacial outwash deposits

A general description of the three stratigraphic units is provided below.

Fill Material

Fill material is distributed throughout the site investigation areas and was placed in a series of land area expansions from approximately the 1800s to the 1930s. The Sanborn Fire Insurance maps indicate that approximately the northern two-thirds of the site investigation areas were part of Jamaica Bay in 1894. Retaining wall remnants are still present at the Site and mark former bulkheads that supported these filling activities.

Fill material observed at the site consisted primarily of sand with minor amounts of finer and coarser material. The fill material also includes variable amounts of coal, tar coke, clinkers, slag wood, concrete, brick, ash, glass, and crushed shell fragments. Fill materials were encountered to approximately 10 to 15 ft bgs in most of the site areas. Fill was observed to approximately 30 ft bgs in the bulkhead area.

Barrier Island Deposits

Underlying the fill unit throughout much of the Site are sandy, shell-bearing deposits interpreted as recent near-shore, beach, and dune deposits. These are identified as the barrier island deposits. The barrier island deposits contain minor amounts of silt and clay lenses. In addition, shell-bearing layers ranging from approximately 2 feet to 29 feet thick were observed. These layers sometimes contained coarser sand and gravels. The barrier island deposits were observed through the depths of most borings in the Site investigation areas. The deposits are approximately 55 to 70 feet thick throughout the Site.

Underlying the barrier island deposits at approximately 55 to 70 ft bgs, a distinct color change was observed from gray to brown in borings located throughout the Site. This was interpreted as a transition between the barrier island deposits and the glacial outwash deposits. The transitional zone is approximately 35 to 40 feet thick. Also, a silty sand layer was observed between 65 and 95 ft bgs in this transitional layer.

Glacial Deposits

Underneath the transitional zone, glacial deposits consisting of primarily well-sorted brown outwash sands were encountered. The glacial deposits were encountered at approximately 95 to 105 ft bgs. Some silty sand lenses were observed in the borings at approximately 100 ft bgs in some of the borings.

1.5 Hydrogeology

There is one shallow, unconfined aquifer beneath the Site. Wells were installed at consistent, yet arbitrary, depth intervals in order to evaluate different groundwater zones of the aquifer during the RI. The zones selected are identified as follows: shallow “S” (wells screened at the water table ranging from 2 to 17 feet ft bgs), intermediate “I” (wells screened from 17 to

45 ft bgs), deep "D" (wells screened from 45 to 90 ft bgs), and deep (2) "D2" (wells screened from 90 to 105 ft bgs). Groundwater depths were collected from all accessible monitoring wells at low and high tides based on the survey tidal mark and tide charts obtained from the National Oceanic and Atmospheric Administration. The water table was observed at approximately 8 ft bgs during monitoring events at the Site.

Three tidal studies have been conducted to confirm the groundwater flow at and adjacent to the Site. In general, groundwater at low tide on the eastern portion of the Site flows northeast towards Jamaica Bay, and shallow groundwater on the western portion of the Site flows northwest towards Jamaica Bay. At high tide, the shallow groundwater contour map depicts the presence of a groundwater divide (or trough) on the Site from the former location of PZ-06 on the southwest corner to the former location of MW-02 on the eastern edge of the Site. This trough is the result of high tidal levels within Jamaica Bay causing shallow groundwater to flow southerly toward the Site during high tide. However, this effect does not "over-ride" the dominant shallow discharge pattern toward Jamaica Bay across the entire Site, thus creating a localized trough. South of the trough, the shallow groundwater still flows north toward Jamaica Bay, even during high tide.

1.6 Historical Groundwater Monitoring Event Summary

Groundwater monitoring events were conducted at the Site in February 2009 and October 2014. The post-remedy baseline sampling was completed in Q4 2016 and annual sampling began in the Fourth Quarter of 2017 (Q4 2017).

2. Rockaway Park Site and Adjacent Off-Site Areas

2.1 Annual Groundwater Monitoring Event Summary

Event Dates:	November 9- 11, 2020
Site Phase:	Post Remedial Annual Groundwater Monitoring
Location:	Rockaway Park Former MGP Site

2.2 Monitoring Program

2.2.1 Number of Wells

A total of 61 monitoring wells and recovery wells are located at or adjacent to the Site. The monitoring well and recovery well locations are depicted in Figure 2. Fifty-six wells are included in the post-remedy annual gauging and sampling plan at the Site described in Section 4.3 of the SMP. Monitoring wells RPMW-02D and RPMW-02D2 were identified as destroyed during the October 2016 baseline groundwater sampling event. Monitoring wells RPMW-17S and RPMW-17I were inaccessible during the sampling event. A total of 41 monitoring wells and recovery wells were sampled during the annual groundwater sampling event. Monitoring and recovery wells included in Table 6 of the SMP were omitted from annual sampling event due to the presence of non-aqueous phase liquid (NAPL) in the wells.

2.2.2 Hydrological Data

Groundwater levels were measured at 58 monitoring wells and recovery wells on November 9 and 10, 2020 at low and high tide. Three wells, RPMW-17S, RPMW-17I and RW-02C were not accessible for the low or high tide measurements. Depth to groundwater and calculated groundwater elevations are provided in Table 1. Shallow, intermediate, deep, and deep (2) groundwater contours and elevations for the November 2020 sampling event are depicted in Figures 3 and 4. The groundwater flow direction in the shallow zone was generally to the north during low tide and northwest during high tide. The groundwater flow direction in the intermediate zone is generally to the northwest during low tide and high tide. The groundwater flow direction in the deep zone is to the northwest during low tide and during high tide. The groundwater flow direction in the deep (2) zone is generally to the north during low tide and to the south during high tide. The 2020 groundwater flow direction in the deep (2) zone depicted on the figures is based on limited number of wells compared to the historic flow direction which incorporated a larger number of wells in this zone prior to the remediation. The depth to water and water table elevation data for the shallow, intermediate, deep, and deep (2) portions of the aquifer are presented below in Tables 2a-2d.

Table 2a – Shallow Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-01S	6.45	0.42	5.42	1.45
RPMW-02S	9.68	0.36	9.32	0.72
RPMW-03S	6.33	-0.11	5.43	0.79
RPMW-04S	10.44	1.04	8.99	2.49
RPMW-11S	7.67	0.51	7.23	0.95
RPMW-14S	11.35	1.02	11.04	1.33
RPMW-17S	not accessible	-	not accessible	-
RPMW-19S	9.22	-0.97	5.43	2.82
RPMW-26S	4.10	3.63	5.21	2.52
RW-05A	8.30	0.94	7.62	1.62
RW-06A	8.45	0.94	7.92	1.47
RW-13A	7.64	1.11	7.45	1.30

Table 2b – Intermediate Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-01I	6.60	0.09	4.65	2.04
RPMW-02I	9.95	0.08	8.40	1.63
RPMW-03I	6.39	0.02	3.52	2.89
RPMW-04I	10.35	0.35	8.53	2.17
RPMW-11I	8.27	-0.07	6.16	2.04
RPMW-14I	10.71	0.99	10.30	1.40
RPMW-17I	not accessible	-	not accessible	-
RW-03	10.03	0.17	8.43	1.77
RW-04A	9.83	0.15	8.11	1.87
RW-05B	8.50	0.93	7.72	1.71
RW-07A	9.01	1.04	8.73	1.32
RW-09	9.45	1.09	9.36	1.18
RW-10	9.73	1.00	9.38	1.35
RW-11	10.17	0.71	9.16	1.72
RW-12A	9.77	0.90	8.98	1.69
RW-12B	10.54	0.56	9.35	1.75
RW-14B	7.53	1.09	6.95	1.67
RW-16A	7.34	1.00	6.89	1.45
RW-17A	7.03	0.87	6.53	1.37
RW-18A	10.39	-1.88	10.37	-1.86
RW-02A	9.82	-1.17	9.03	-0.38
RW-02B	10.39	-1.43	9.98	-1.02
RW-01A	9.69	-1.14	8.79	-0.24
RW-19A	8.61	-0.12	9.21	-0.72
RW-20A	9.49	-1.10	8.91	-0.52

Table 2c – Deep Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-03D	5.83	1.29	5.01	2.11
RPMW-11D	7.98	0.14	6.32	1.8
RPMW-14D	11.84	1.18	11.4	1.62
RPMW-17D	6.01	1.56	5.51	2.06
RW-04B	9.68	0.01	8.25	1.44
RW-05C	8.97	0.68	7.94	1.71
RW-06B	8.96	0.81	8.08	1.69
RW-07B	9.78	0.54	8.65	1.67
RW-08B	8.94	0.71	8.02	1.63
RW-13B	7.91	1.13	7.58	1.46
RW-15A	7.81	1.06	7.28	1.59
RW-17B	2.77	5.99	2.78	5.98
RW-18B	9.44	-0.91	10.88	-2.35
RW-18C	10.21	-1.71	9.30	-0.80
RW-02C	not accessible	-	not accessible	-
RW-01B	9.70	-1.06	7.96	0.68
RW-01C	9.95	-1.33	7.28	1.34
RW-19B	9.98	-1.45	7.94	0.59
RW-19C	8.98	-0.45	8.17	0.36
RW-20B	9.31	-0.96	7.72	0.63
RW-20C	9.49	-1.28	7.70	0.51

Table 2d – Deep (2) Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-14D2	10.02	1.59	10.08	1.53
RW-15B	7.88	0.81	7.32	1.37
RW-16B	7.47	1.77	8.86	0.38

2.2.3 NAPL Gauging

All of the existing wells in the groundwater monitoring network are gauged for the presence of NAPL during each groundwater monitoring event. The thickness measurements recorded during the baseline sampling event are shown in Table 3.

Table 3 – DNAPL Gauging Measurements

Well ID	October 2019 DNAPL Thickness (feet)	November 2020 DNAPL Thickness (feet)	Estimated Recovery Rate (feet/day)
RW-03	0.26	0.10	0.0
RW-05B	6.41	5.00	0.0
RW-06A	6.63	4.40	0.0
RW-06B	1.38	2.70	0.0034

Well ID	October 2019 DNAPL Thickness (feet)	November 2020 DNAPL Thickness (feet)	Estimated Recovery Rate (feet/day)
RW-07A	1.08	1.26	0.0004
RW-07B	5.18	5.70	0.0013
RW-15A	0.41	0.00	0.0
RW-15B	0.00	0.00	0.0
RW-16A	0.00	Blebs	0.0
RW-16B	6.95	Stringers	0.0
RW-17A	0.60	0.70	0.0003

Historically, the recovery rates for DNAPL at recovery wells RW-06A and RW-16B and the recovery rates from former monitoring wells collected in 2003 and 2005 during previous recovery rate evaluations have been approximately 0.04 feet/day. Over the year period between October 2019 and November 2020, recovery rates ranged between 0.0 and 0.0034 feet/day.

2.2.4 Groundwater Analytical Sampling

The 2020 groundwater sampling event was performed from November 9 to 11, 2020 and included all accessible wells on the annual sampling list. If monitoring wells with measurable NAPL thicknesses were identified during the sampling event, they were not to be sampled in accordance with the provisions of the SMP. A total of 41 monitoring wells and recovery wells were sampled for the following analytes:

- Volatile organic compounds (VOCs) via Environmental Protection Agency (EPA) Method 8260
- Semi-volatile organic compounds (SVOCs) via EPA Method 8270
- Total Cyanide via EPA Method 9012B
- Free Cyanide via EPA Method 9016

2.2.5 Analytical Results

The discussion below focuses on the analytical results from the current sampling event compared to the baseline sampling event performed in October 2016. The laboratory analytical results for the November 2020 sampling event are included in Table 4.

VOCs

VOC detections above the New York State Technical and Operational Guidance Series (TOGS), 1.1.1 – Ambient Water Quality Standards and Guidance Values (AWQS) for Class GA groundwater were generally limited to benzene, toluene, ethylbenzene and xylene (BTEX). Exceptions include concentrations of isopropylbenzene in 16 samples exceeded the

AWQS, ranging from 1.6 to 26 times the AWQS value. Methyl tert-buytl ether (MTBE) was detected at a concentration above the AWQS in sample RPMW-11I at 11 micrograms per liter (µg/L). This detection was 10 percent higher than the detection of MTBE in RPMW-11I during the baseline sampling efforts. Total BTEX concentrations ranged from less than method detection limits (ND) in 13 of the 41 wells sampled, to 5,099 µg/L in RW-12A, 33% lower than the maximum concentration detected in the baseline event. Individual BTEX compound concentrations above the AWQS were identified in 25 of the 28 wells with detections. The detections in wells with exceedances of the AWQS are summarized in Table 4.

SVOCs

SVOC detections above the AWQS included both PAHs and other SVOCs. Total PAH concentrations ranged from ND in 15 of the 41 wells sampled to 4,710 µg/L in RW-12A, 38% lower than the maximum detection in the baseline sampling event. Additionally, concentrations of biphenyl (1,1-biphenyl), phenol and pentachlorophenol exceeded the AWQS in four, four, and one of the 41 wells, respectively. Maximum concentrations of biphenyl(1,1-biphenyl) and phenol were approximately 21% higher and 98% lower, respectively, then the maximum concentrations in the baseline event. Pentachlorophenol was not detected during the baseline event. The detections in wells with concentrations above the AWQS are summarized in Table 4.

Cyanides

Total and free cyanide were analyzed in each well sampled during the groundwater monitoring event. Free cyanide was detected in 7 samples, the maximum concentration detected was approximately 33% lower than the maximum concentration determined in the 2016 baseline sampling event. Total cyanide was detected in 32 of 41 wells with 9 samples exceeding the AWQS. Maximum concentrations of total cyanide were approximately 20% lower than the maximum concentrations observed during the baseline event.

2.3 Future Plans

- Continue annual post-remedy sampling in Q4 2021 as proposed in the draft SMP.
- Abandon select monitoring wells and recovery wells with NYSDEC approval.
- Submit future groundwater data in the Periodic Review Report following approval of the SMP.

Tables

Table 1 - Water Level Measurements and Calculated Groundwater Elevations
Groundwater Monitoring Report Q4-2020
Rockaway Park Former MGP Site
Rockaway Park, New York

Monitoring Well ID	Well Diameter/Type	Screened Interval (ft bgs)	Total Depth (ft bgs)	Top of Casing Elevation (feet NAVD88)	Location	Low Tide				High Tide			
						Depth To Water	Groundwater Elevation (feet NAVD88)	Time of Water Measurement	DNAPL Thickness (ft)	Depth To Water	Groundwater Elevation (feet NAVD88)	Time of Water Measurement	DNAPL Thickness (ft)
RPMW-01S	2-inch PVC	5-15	17	6.87	Beach Channel Drive	6.45	0.42	912	0	5.42	1.45	1415	0
RPMW-01I	2-inch PVC	35-45	47	6.69	Beach Channel Drive	6.6	0.09	914	0	4.65	2.04	1417	0
RPMW-02S	2-inch PVC	5-15	17	10.04	Beach Channel Drive	9.68	0.36	930	0	9.32	0.72	1441	0
RPMW-02I	2-inch PVC	35-45	47	10.03	Beach Channel Drive	9.95	0.08	932	0	8.4	1.63	1443	0
RPMW-03S	2-inch PVC	5-15	17	6.22	Beach Channel Drive	6.33	-0.11	928	0	5.43	0.79	1431	0
RPMW-03I	2-inch PVC	35-45	47	6.41	Beach Channel Drive	6.39	0.02	925	0	3.52	2.89	1432	0
RPMW-03D	2-inch PVC	65-75	77	7.12	Beach Channel Drive	5.83	1.29	926	0	5.01	2.11	1434	0
RPMW-04S	2-inch PVC	5-15	17	11.48	Substation	10.44	1.04	957	0	8.99	2.49	1517	0
RPMW-04I	2-inch PVC	35-45	47	10.7	Substation	10.35	0.35	932	0	8.53	2.17	1515	0
RPMW-11S	2-inch PVC	5-15	17	8.18	Beach Channel Drive	7.67	0.51	920	0	7.23	0.95	1418	0
RPMW-11I	2-inch PVC	35-45	47	8.2	Beach Channel Drive	8.27	-0.07	922	0	6.16	2.04	1419	0
RPMW-11D	2-inch PVC	65-75	77	8.12	Beach Channel Drive	7.98	0.14	924	0	6.32	1.8	1420	0
RPMW-14S	2-inch PVC	5-15	17	12.37	On-Site	11.35	1.02	908	0	11.04	1.33	1416	0
RPMW-14I	2-inch PVC	35-45	47	11.7	On-Site	10.71	0.99	909	0	10.3	1.4	1417	0
RPMW-14D	2-inch PVC	66-76	78	13.02	On-Site	11.84	1.18	911	0	11.4	1.62	1418	0
RPMW-14D2	2-inch PVC	95-105	107	11.61	On-Site	10.02	1.59	912	0	10.08	1.53	1420	0
RPMW-17S	2-inch PVC	5-15	17	6.03	Beach 108th Street	not accessible	-	-	0	not accessible	-	-	0
RPMW-17I	2-inch PVC	35-45	47	7.59	Beach 108th Street	not accessible	-	-	0	not accessible	-	-	0
RPMW-17D	2-inch PVC	65-75	77	7.57	Beach 108th Street	6.01	1.56	918	0	5.51	2.06	1425	0
RPMW-19S	1-inch PVC	2.3-12.3	12.3	8.25	Beach Channel Drive	9.22	-0.97	924	0	5.43	2.82	1429	0
RPMW-26S	1-inch PVC	3-13	13	7.73	Beach 108th Street	4.1	3.63	914	0	5.21	2.52	1427	0
RW-03	4-inch PVC	15-25	30	10.2	On-Site	10.03	0.17	1000	0.1	8.43	1.77	1442	0.1
RW-04A	4-inch PVC	30-40	45	9.98	On-Site	9.83	0.15	956	0	8.11	1.87	1439	0
RW-04B	4-inch PVC	40-60	65	9.69	On-Site	9.68	0.01	954	0	8.25	1.44	1440	0
RW-05A	4-inch PVC	10-20	25	9.24	On-Site	8.3	0.94	1018	0	7.62	1.62	1448	0
RW-05B	4-inch PVC	25-40	45	9.43	On-Site	8.5	0.93	1020	5	7.72	1.71	1447	5
RW-05C	4-inch PVC	40-50	55	9.65	On-Site	8.97	0.68	1025	0	7.94	1.71	1449	0
RW-06A	4-inch PVC	10-20	25	9.39	On-Site	8.45	0.94	1003	4.4	7.92	1.47	1443	4.4
RW-06B	4-inch PVC	50-60	65	9.77	On-Site	8.96	0.81	1010	2.7	8.08	1.69	1445	2.7
RW-07A	4-inch PVC	10-30	35	10.05	On-Site	9.01	1.04	948	1.26	8.73	1.32	1436	1.26
RW-07B	4-inch PVC	40-60	65	10.32	On-Site	9.78	0.54	937	5.7	8.65	1.67	1433	5.7
RW-08B	4-inch PVC	40-60	65	9.65	On-Site	8.94	0.71	946	0	8.02	1.63	1431	0
RW-09	4-inch PVC	5-30	35	10.54	On-Site	9.45	1.09	935	0	9.36	1.18	1429	0
RW-10	4-inch PVC	5-30	35	10.73	On-Site	9.73	1	932	0	9.38	1.35	1428	0
RW-11	4-inch PVC	20-40	45	10.88	On-Site	10.17	0.71	930	0	9.16	1.72	1407	0
RW-12A	4-inch PVC	20-35	40	10.67	On-Site	9.77	0.9	927	0	8.98	1.69	1429	0
RW-12B	4-inch PVC	35-50	55	11.1	On-Site	10.54	0.56	928	0	9.35	1.75	1424	0
RW-13A	4-inch PVC	5-20	25	8.75	On-Site	7.64	1.11	1020	0	7.45	1.3	1503	0
RW-13B	4-inch PVC	55-60	65	9.04	On-Site	7.91	1.13	1022	0	7.58	1.46	1505	0
RW-14B	4-inch PVC	10-30	35	8.62	On-Site	7.53	1.09	1023	0	6.95	1.67	1502	0
RW-15A	4-inch PVC	40-60	65	8.87	On-Site	7.81	1.06	1028	0	7.28	1.59	1457	0
RW-15B	4-inch PVC	80-100	105	8.69	On-Site	7.88	0.81	1029	0	7.32	1.37	1456	0
RW-16A	4-inch PVC	10-30	35	8.34	On-Site	7.34	1	1025	Blebs	6.89	1.45	1501	Blebs
RW-16B	4-inch PVC	90-110	115	9.24	On-Site	7.47	1.77	1027	Stringers	8.86	0.38	1459	Stringers
RW-17A	4-inch PVC	10-30	35	7.9	On-Site	7.03	0.87	918	0.7	6.53	1.37	1454	0.7
RW-17B	4-inch PVC	70-90	95	8.76	On-Site	2.77	5.99	917	0	2.78	5.98	1453	0
RW-18A	4-inch PVC	22-32	37	8.51	Beach Channel Drive	10.39	-1.88	934	0	10.37	-1.86	1441	0
RW-18B	4-inch PVC	42-52	57	8.53	Beach Channel Drive	9.44	-0.91	1004	0	10.88	-2.35	1449	0
RW-18C	4-inch PVC	62-72	77	8.5	Beach Channel Drive	10.21	-1.71	936	0	9.3	-0.8	1436	0
RW-02A*	4-inch PVC	15-25	30	8.65	Beach Channel Drive	9.82	-1.17	942	0	9.03	-0.38	1443	0
RW-02B*	4-inch PVC	35-45	50	8.96	Beach Channel Drive	10.39	-1.43	945	0	9.98	-1.02	1445	0
RW-02C*	4-inch PVC	60-70	75	8.79	Beach Channel Drive	not accessible	-	-	0	not accessible	-	-	0
RW-01A*	4-inch PVC	22-32	37	8.55	Beach Channel Drive	9.69	-1.14	946	0	8.79	-0.24	1437	0
RW-01B*	4-inch PVC	41-51	56	8.64	Beach Channel Drive	9.7	-1.06	948	0	7.96	0.68	1438	0
RW-01C*	4-inch PVC	61-71	76	8.62	Beach Channel Drive	9.95	-1.33	950	0	7.28	1.34	1439	0
RW-19A*	4-inch PVC	19-29	34	8.49	Beach Channel Drive	8.61	-0.12	949	0	9.21	-0.72	1431	0
RW-19B*	4-inch PVC	41-51	56	8.53	Beach Channel Drive	9.98	-1.45	952	0	7.94	0.59	1432	0
RW-19C*	4-inch PVC	61-71	76	8.53	Beach Channel Drive	8.98	-0.45	9.58	0	8.17	0.36	1433	0
RW-20A*	4-inch PVC	22-32	37	8.39	Beach Channel Drive	9.49	-1.1	959	0	8.91	-0.52	1424	0
RW-20B*	4-inch PVC	41-51	56	8.35	Beach Channel Drive	9.31	-0.96	955	0	7.72	0.63	1425	0
RW-20C*	4-inch PVC	61-71	76	8.21	Beach Channel Drive	9.49	-1.28	953	0	7.7	0.51	1426	0

Table 4. Rockaway Park Former MGP Site
Detected Groundwater Analysis Results
National Grid
Rockaway Park, NY

			Well Identification	RPMW-02I	RPMW-04S	RPMW-04I	RPMW-14D2	RPMW-01I	RPMW-02S	RPMW-03S	RPMW-03I	DUP-02	RPMW-03D	RPMW-11S	RPMW-11I	RPMW-11D	RPMW-14S	RPMW-14I	RPMW-14D
			Sample Name	MW-02I	MW-04S	MW-04I	MW-14D2	RPMW-01I	RPMW-02S	RPMW-03S	RPMW-03I	DUP-02	RPMW-03D	RPMW-11S	RPMW-11I	RPMW-11D	RPMW-14S	RPMW-14I	RPMW-14D
			Sample Date	11/9/2020	11/10/2020	11/10/2020	11/10/2020	11/9/2020	11/10/2020	11/11/2020	11/11/2020	11/11/2020	11/11/2020	11/9/2020	11/9/2020	11/9/2020	11/9/2020	11/9/2020	11/11/2020
			Parent Sample									RPMW-03I							
Analyte	Units	CAS No.	NYS AWQS																
BTEX	ug/L																		
Benzene		71-43-2	1	**1.4**	1 U	1 U	1 U	1 U	1 U	**450**	**410 J**	**400**	1 UJ	**0.91 J**	**610**	1 U	**280**	**5.3**	1 U
Toluene		108-88-3	5	1 U	1 U	1 U	1 U	1 U	1 U	**1**	1 UJ	1 U	1 UJ	1 U	**14**	1 U	**3.7**	1 U	1 U
Ethylbenzene		100-41-4	5	**6.7**	1 U	**15**	1 U	**10**	1 U	**4.9**	**0.7 J**	**0.57 J**	1 UJ	1 U	**1200**	1 U	**300**	**250**	1 U
o-Xylene		95-47-6	5	1 U	1 U	1 U	1 U	**1**	1 U	**10**	1 UJ	1 U	1 UJ	1 U	**230**	1 U	**170**	**0.57 J**	1 U
m/p-Xylene		179601-23-1	5	**1**	1 U	**0.49 J**	1 U	1 U	1 U	**7**	**0.77 J**	**0.79 J**	1 UJ	1 U	**99**	1 U	**11**	1 U	1 U
Total BTEX (ND=0)		TBTEX_ND0	NE	**9.1**	ND	**15.49**	ND	**11**	ND	**472.9**	**411.47**	**401.36**	ND	**0.91**	**2153**	ND	**764.7**	**255.87**	ND
Other VOCs	ug/L																		
Carbon disulfide		75-15-0	60*	**1**	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	5 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	5 U	1 U	1 U	1 U	1 U
Chloromethane		74-87-3	5	1 U	1 U	**1.5**	**0.99 J**	1 UJ	1 U	1 U	1 UJ	1 U	1 UJ	1 U	5 U	1 U	1 U	**1.8 J**	1 U
Cyclohexane		110-82-7	NE	**0.48 J**	1 U	1 U	1 U	1 U	1 U	1 U	**0.66 J**	**0.64 J**	1 UJ	1 U	5 U	1 U	**2.6**	1 U	1 U
Isopropylbenzene		98-82-8	5	**3.4**	1 U	**21**	1 U	**0.57 J**	1 U	**53**	**45 J**	**41**	1 UJ	**0.51 J**	**41**	1 U	**130**	**0.37 J**	1 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 U	1 U	**0.91 J**	1 U	**0.5 J**	**0.91 J**	**0.81 J**	1 UJ	1 U	**11**	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	25 U	5 U	5 U	5 U	5 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	5 U	1 U	**4.1**	1 U	1 U
Styrene		100-42-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	5 U	1 U	1 U	1 U	1 U
Total VOCs (ND=0)		TVOC_ND0	NE	**13.98**	ND	**37.99**	**0.99**	**12.48**	ND	**526.4**	**458.04**	**443.81**	ND	**1.42**	**2205**	ND	**901.4**	**258.04**	ND
PAH17	ug/L																		
Acenaphthene		83-32-9	20*	**2.8 J**	10 U	**29**	10 U	**6.2 J**	**9.2 J**	**47**	**88**	**83**	10 U	10 U	**70 J**	10 U	**11**	10 U	10 U
Acenaphthylene		208-96-8	NE	**2.1 J**	10 U	**76**	10 U	**0.86 J**	10 U	10 U	**1.3 J**	**1.5 J**	10 U	10 U	100 U	10 U	10 U	10 U	10 U
Anthracene		120-12-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**1.4 J**	**1.6 J**	10 U	10 U	100 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U
Fluoranthene		206-44-0	50*	10 U	10 U	10 U	10 U	10 U	**2 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
Fluorene		86-73-7	50*	10 U	10 U	**1.9 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**10 J**	10 U	**4.1 J**	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	**99 J**	10 U	10 U	10 U	10 UJ
Naphthalene		91-20-3	10*	**25**	2 U	**4.8**	2 U	2 U	2 U	**110**	**1 J**	**1.1 J**	2 U	2 U	**1500**	2 U	**59**	2 U	2 U
Phenanthrene		85-01-8	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**2.6 J**	**3.1 J**	10 U	10 U	**23 J**	10 U	**2.8 J**	10 U	10 U
Pyrene		129-00-0	50*	**4 J**	10 U	10 U	10 U	10 U	**3.4 J**	10 U	10 U	**1.7 J**	10 U	10 U	100 U	10 U	10 U	10 U	10 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	**33.9**	ND	**111.7**	ND	**7.06**	**14.6**	**157**	**94.3**	**92**	ND	ND	**1702**	ND	**76.9**	ND	ND
PAH17 Other SVOCs	ug/L																		
Acetophenone		98-86-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**2.7 J**	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**16 J**	10 U	**2.9 J**	10 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**1.7 J**	10 U	10 U	100 U	**1.7 J**	10 U	10 U	10 U
Carbazole		86-74-8	NE	10 U	10 U	**0.87 J**	10 U	10 U	10 U	**3.1 J**	10 U	10 U	10 U	10 U	100 U	10 U	**0.86 J**	10 U	10 U
Dibenzofuran		132-64-9	NE	10 U	10 U	**2.8 J**	10 U	10 U	10 U	10 U	**1.7 J**	**1.9 J**	10 U	10 U	100 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	**0.87 J**	2 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	**99 J**	10 U	10 U	10 U	10 UJ
Pentachlorophenol		87-86-5	1	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 UJ	30 U	30 UJ	300 UJ	30 UJ	30 U	30 U	30 U
Phenol		108-95-2	1	10 U	10 U	10 U	10 U	10 U	10 U	**1.6 J**	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
Total SVOCs (ND=0)		TSVOC_ND0	NE	**33.9**	ND	**115.37**	ND	**7.06**	**14.6**	**162.57**	**98.7**	**95.6**	ND	ND	**1718**	**1.7**	**80.66**	ND	ND
Cyanides	ug/L																		
Free Cyanide		FREECN	NE	**11.7**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**3.7 J**	**9.2**	5 U	5 U	5 U	5 U
Total Cyanide		57-12-5	200	10 UJ	**237 J**	**30.5 J**	**13.5 J**	**17.9 J**	**198 J**	**105 J**	**88.8 J**	**78.2 J**	10 U	**172 J**	**9.4 J**	10 UJ	**36.1 J**	**4.9 J**	10 U

Table 4. Rockaway Park Former MGP Site
Detected Groundwater Analysis Results
National Grid
Rockaway Park, NY

			Well Identification	RPMW-01S	RPMW-17D	RPMW-19S	RPMW-26S	RW-01A	RW-01B	RW-01C	Dup-01	RW-02A	RW-02B	RW-04A	RW-04B	RW-05A	RW-05C	DUP-03	RW-12A	RW-12B
			Sample Name	RPMW-01S	RPMW-17D	RPMW-19S	RPMW-26S	RW-01A	RW-01B	RW-01C	Dup-01	RW-02A	RW-02B	RW-04A	RW-04B	RW-05A	RW-05C	DUP-03	RW-12A	RW-12B
			Sample Date	11/9/2020	11/11/2020	11/11/2020	11/10/2020	11/9/2020	11/9/2020	11/9/2020	11/9/2020	11/10/2020	11/10/2020	11/11/2020	11/11/2020	11/11/2020	11/11/2020	11/11/2020	11/11/2020	11/11/2020
			Parent Sample								RW-01C							RW-05C		
Analyte	**Units**	**CAS No.**	**NYS AWQS**																	
BTEX	ug/L																			
Benzene		71-43-2	1	1 U	**0.26 J**	**250**	1 U	**2.2**	1 U	**6**	**5.9**	**2.3**	1 U	**1800**	**130**	**5.2**	**2100**	**2000**	**200**	**67**
Toluene		108-88-3	5	1 U	1 U	**0.79 J**	1 U	1 U	1 U	**1.4**	**1.3**	1 U	1 U	**16**	**6**	1 U	**9.8**	**9.3**	**9.3 J**	**8.2 J**
Ethylbenzene		100-41-4	5	1 U	**1**	**1.4**	1 U	**1.7**	1 U	**94**	**93**	1 U	1 U	**1100**	**440**	**0.49 J**	**1600**	**1400**	**3000**	**2400**
o-Xylene		95-47-6	5	1 U	1 U	**3**	1 U	1 U	1 U	**9.2**	**9.5**	1 U	1 U	**280**	**140**	1 U	**150**	**130**	**1100**	**680**
m/p-Xylene		179601-23-1	5	1 U	1 U	**2.4**	1 U	**0.38 J**	1 U	**1.7**	**1.6**	1 U	1 U	**68**	**22**	1 U	**32**	**28**	**790 J**	**480**
Total BTEX (ND=0)		TBTEX_ND0	NE	ND	**1.26**	**257.59**	ND	**4.28**	ND	**112.3**	**111.3**	**2.3**	ND	**3264**	**738**	**5.69**	**3891.8**	**3567.3**	**5099.3**	**3635.2**
Other VOCs	ug/L																			
Carbon disulfide		75-15-0	60*	1 U	1 U	1 U	1 U	**0.92 J**	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	5 U	5 U	10 U	10 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**1.1**	5 U	2 U	1 U	5 U	5 U	10 U	10 U
Chloromethane		74-87-3	5	1 U	**0.74 J**	1 U	1 U	1 U	1 U	1 U	1 U	**1.2**	1 U	5 U	2 U	1 U	5 U	5 U	10 U	10 U
Cyclohexane		110-82-7	NE	1 U	1 U	**1**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	5 U	5 U	10 U	10 U
Isopropylbenzene		98-82-8	5	1 U	1 U	**94**	1 U	1 U	1 U	**8**	**8**	**0.76 J**	1 U	**21**	**10**	**3.1**	**31**	**28**	**48**	**44**
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	**1.6**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	5 U	5 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	10 U	5 U	25 U	25 U	50 U	50 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	**1.1**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	5 U	5 U	10 U	10 U
Styrene		100-42-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	5 U	5 U	10 U	10 U
Total VOCs (ND=0)		TVOC_ND0	NE	ND	**2**	**355.29**	ND	**5.2**	ND	**120.3**	**119.3**	**4.26**	**1.1**	**3285**	**748**	**8.79**	**3922.8**	**3595.3**	**5147.3**	**3679.2**
PAH17	ug/L																			
Acenaphthene		83-32-9	20*	10 U	10 U	**75**	10 U	**1.7 J**	10 U	10 U	10 U	**11**	10 U	**44 J**	**24**	**57**	**17 J**	**18 J**	**180 J**	**98 J**
Acenaphthylene		208-96-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	**1.2 J**	**1.2 J**	10 U	10 U	200 U	**36**	**1 J**	100 U	100 U	200 U	500 U
Anthracene		120-12-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U	10 U	100 U	100 U	200 U	500 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	10 U	10 U	20 U	50 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	10 U	10 U	20 U	50 U
Fluoranthene		206-44-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U	**3.7 J**	100 U	100 U	200 U	500 U
Fluorene		86-73-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	**4 J**	10 U	100 U	100 U	**40 J**	500 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**88 J**	10 UJ	10 U	**32 J**	**33 J**	**690**	**180 J**
Naphthalene		91-20-3	10*	2 U	2 U	**3.5**	2 U	**2.2**	2 U	**140**	**180**	2 U	2 U	**2300**	**97**	2 U	**1100**	**1100**	**3800**	**4200**
Phenanthrene		85-01-8	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	**6.5 J**	**32**	100 U	100 U	200 U	500 U
Pyrene		129-00-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U	**5 J**	100 U	100 U	200 U	500 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	ND	ND	**78.5**	ND	**3.9**	ND	**141.2**	**181.2**	**11**	ND	**2432**	**167.5**	**98.7**	**1149**	**1151**	**4710**	**4478**
PAH17 Other SVOCs	ug/L																			
Acetophenone		98-86-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U	10 U	100 U	100 U	200 U	500 U
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	**3.2 J**	**5.2 J**	100 U	100 U	**46 J**	500 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U	10 U	100 U	100 U	200 U	500 U
Carbazole		86-74-8	NE	10 U	10 U	**1.4 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	**35**	**1.6 J**	**17 J**	**19 J**	**32 J**	500 U
Dibenzofuran		132-64-9	NE	10 U	10 U	**1.7 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	**1.6 J**	**3.1 J**	100 U	100 U	200 U	500 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U	20 U	20 U	40 U	100 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**88 J**	10 UJ	10 U	**32 J**	**33 J**	**690**	**180 J**
Pentachlorophenol		87-86-5	1	30 U	30 UJ	30 UJ	30 U	30 UJ	30 UJ	30 UJ	30 U	30 U	30 U	600 U	30 UJ	30 UJ	300 U	300 U	600 U	1500 UJ
Phenol		108-95-2	1	10 U	10 U	**0.79 J**	10 U	**4 J**	10 U	10 U	10 U	10 U	10 U	200 U	10 U	10 U	100 U	100 U	200 U	500 U
Total SVOCs (ND=0)		TSVOC_ND0	NE	ND	ND	**82.39**	ND	**7.9**	ND	**141.2**	**181.2**	**11**	ND	**2432**	**207.3**	**108.6**	**1166**	**1170**	**4788**	**4478**
Cyanides	ug/L																			
Free Cyanide		FREECN	NE	**12.1**	5 U	5 U	5 U	**10.9**	5 U	25 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total Cyanide		57-12-5	200	**328 J**	10 U	**116 J**	**8.1 J**	**505 J**	10 UJ	**26.3 J**	**19.3 J**	**206 J**	**4.9 J**	**188 J**	**105 J**	**176 J**	**171 J**	**204 J**	**78.8 J**	**49.8 J**

Table 4. Rockaway Park Former MGP Site
Detected Groundwater Analysis Results
National Grid
Rockaway Park, NY

			Well Identification	RW-13A	RW-13B	RW-18A	RW-18B	RW-18C	RW-19A	RW-19B	RW-19C	RW-20A	RW-20B	RW-20C
			Sample Name	RW-13A	RW-13B	RW-18A	RW-18B	RW-18C	RW-19A	RW-19B	RW-19C	RW-20A	RW-20B	RW-20C
			Sample Date	11/11/2020	11/11/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020
			Parent Sample											
Analyte	Units	CAS No.	NYS AWQS											
BTEX	ug/L													
Benzene		71-43-2	1	**440**	**0.57 J**	**41 J**	**14**	1 U	**5**	**310**	1 U	1 U	**220**	**13**
Toluene		108-88-3	5	**3.3**	1 U	**17 J**	1 U	1 U	**0.81 J**	**2.8**	1 U	1 U	**2.8**	**1.9**
Ethylbenzene		100-41-4	5	**200**	**2**	**6.3 J**	**5.7**	1 U	**0.59 J**	**210**	1 U	1 U	**160**	**75**
o-Xylene		95-47-6	5	**33**	1 U	**13 J**	1 U	1 U	**0.38 J**	**15**	1 U	1 U	**18**	**26**
m/p-Xylene		179601-23-1	5	**10**	1 U	**18 J**	**0.43 J**	1 U	**0.48 J**	**4.4**	1 U	1 U	**11**	**3.4**
Total BTEX (ND=0)		TBTEX_ND0	NE	**686.3**	**2.57**	**95.3**	**20.13**	ND	**7.26**	**542.2**	ND	ND	**411.8**	**119.3**
Other VOCs	ug/L													
Carbon disulfide		75-15-0	60*	1 U	1 U	1 UJ	1 U	1 U	**1.2**	2 U	1 U	1 U	2 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 UJ	1 U	1 U	1 U	2 U	1 U	1 U	2 U	1 U
Chloromethane		74-87-3	5	**0.53 J**	**0.71 J**	1 UJ	1 U	1 U	**2.2**	2 U	1 U	1 U	2 U	1 U
Cyclohexane		110-82-7	NE	**0.73 J**	1 U	1 UJ	1 U	1 U	1 U	2 U	1 U	1 U	2 U	**0.73 J**
Isopropylbenzene		98-82-8	5	**19**	1 U	**0.49 J**	**2.8**	1 U	1 U	**25**	1 U	1 U	**24**	**47**
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 UJ	1 U	1 U	1 U	2 U	1 U	1 U	2 U	1 U
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	**10 J**	5 U	5 U	5 U	10 U	5 U	5 U	10 U	5 U
Methylcyclohexane		108-87-2	NE	**0.72 J**	1 U	1 UJ	1 U	1 U	1 U	2 U	1 U	1 U	2 U	1 U
Styrene		100-42-5	5	1 U	1 U	**2.4 J**	1 U	1 U	**0.47 J**	2 U	1 U	1 U	2 U	1 U
Total VOCs (ND=0)		TVOC_ND0	NE	**707.28**	**3.28**	**108.19**	**22.93**	ND	**11.13**	**567.2**	ND	ND	**435.8**	**167.03**
PAH17	ug/L													
Acenaphthene		83-32-9	20*	**33**	10 U	**1.9 J**	**17**	10 U	10 U	**50 J**	10 U	10 U	**60 J**	**82**
Acenaphthylene		208-96-8	NE	**1.1 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	**28**
Anthracene		120-12-7	50*	**3.5 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U
Benzo(a)anthracene		56-55-3	0.002*	**0.61 J**	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	10 U	1 U
Benzo(a)pyrene		50-32-8	ND	**0.44 J**	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	10 U	1 U
Fluoranthene		206-44-0	50*	**2.2 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U
Fluorene		86-73-7	50*	**17**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	**16 J**	**6.4 J**
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	**13 J**	10 U	10 U	**11 J**	**1 J**
Naphthalene		91-20-3	10*	2 U	**3**	**10**	**13**	2 U	**1 J**	**1000**	2 U	2 U	**1000**	**150**
Phenanthrene		85-01-8	50*	**19**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	**16 J**	10 U
Pyrene		129-00-0	50*	**2.9 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	**3.1 J**
Total PAH (17) (ND=0)		TPAH17_ND0	NE	**79.75**	**3**	**11.9**	**30**	ND	**1**	**1063**	ND	ND	**1103**	**270.5**
PAH17 Other SVOCs	ug/L													
Acetophenone		98-86-2	NE	**2.5 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U
Biphenyl (1,1-Biphenyl)		92-52-4	5	**1.6 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	**17**
Bis(2-ethylhexyl)phthalate		117-81-7	5	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U
Carbazole		86-74-8	NE	**3.6 J**	10 U	10 U	10 U	10 U	10 U	**9.1 J**	10 U	10 U	100 U	**10**
Dibenzofuran		132-64-9	NE	**2 J**	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	**2.6 J**
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U	2 U	20 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	**13 J**	10 U	10 U	**11 J**	**1 J**
Pentachlorophenol		87-86-5	1	30 UJ	30 UJ	30 U	30 U	30 U	**2.8 J**	300 U	30 U	30 U	300 U	30 U
Phenol		108-95-2	1	**1.3 J**	10 U	**1.8 J**	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U
Total SVOCs (ND=0)		TSVOC_ND0	NE	**90.75**	**3**	**13.7**	**30**	ND	**3.8**	**1072.1**	ND	ND	**1103**	**300.1**
Cyanides	ug/L													
Free Cyanide		FREECN	NE	5 U	5 U	5 U	5 U	5 U	**2.2 J**	**4.6 J**	5 U	5 U	5 U	5 U
Total Cyanide		57-12-5	200	**59 J**	10 U	**41 J**	**218 J**	10 UJ	**759 J**	**382 J**	10 UJ	**172 J**	**441 J**	**10.2 J**

Table 4. Rockaway Park Former MGP Site
Detected Groundwater Analysis Results
National Grid
Rockaway Park, NY

Notes:

ug/L = micrograms per liter or parts per billion (ppb)

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes
PAH = Polycyclic Aromatic Hydrocarbon
SVOC = Semi-Volatile Organic Compound
VOC = Volatile Organic Compound

Total BTEX, Total VOCs, Total PAHs, and Total SVOCs are calculated using detects only.
Total PAH17 is calculated using the list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3-cd]pyrene, Naphthalene, 2-Methylnaphthalene, Phenanthrene, and Pyrene

NYS AWQS = New York State Ambient Water Quality Standards and Guidance Values for GA groundwater
* indicates the value is a guidance value and not a standard

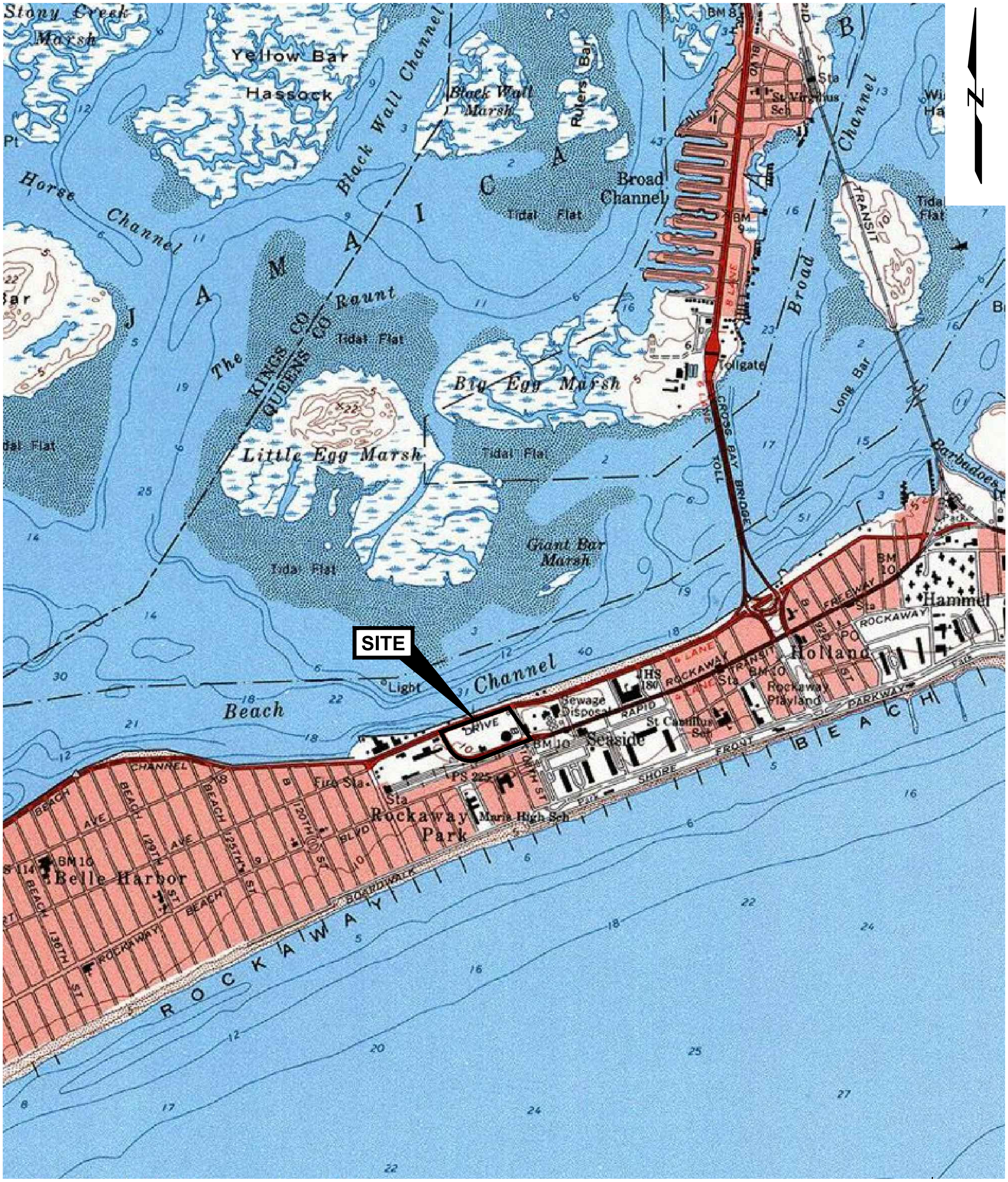
CAS No. = Chemical Abstracts Service Number
MGP = Manufactured Gas Plant
ND = Not Detected
NE = Not Established

Bolding indicates a detected result concentration
Gray shading and bolding indicates that the detected result value exceeds the NYS AWQS

Data Qualifiers:

J = The result is an estimated value.
U = The result was not detected above the reporting limit.
UJ = The results was not detected at or above the reporting limit shown and the reporting limit is estimated.

Figures



SOURCE: Map created with TOPO! ® © 2001 National Geographic (www.nationalgeographic.com/topo)

Groundwater Monitoring Report
Rockaway Park Former MGP Site
Rockaway Park, New York

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Project 093150

SITE LOCATION MAP

March 2021

Fig. 1

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NOTE:

1. MONITOR WELL LOCATION AND ELEVATION TAKEN AT NORTH EDGE OF PVC PIPE. ELEVATION DATUM FOR ALL MONITOR WELLS IS BOROUGH OF QUEENS DATUM.

SOURCE:

1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

0 40 80
SCALE: 1" = 40'

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Rockaway Park Former MGP Site
Rockaway Park, New York

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MONITORING WELL
LOCATION MAP

Project 093150 | March 2021 | Fig. 2

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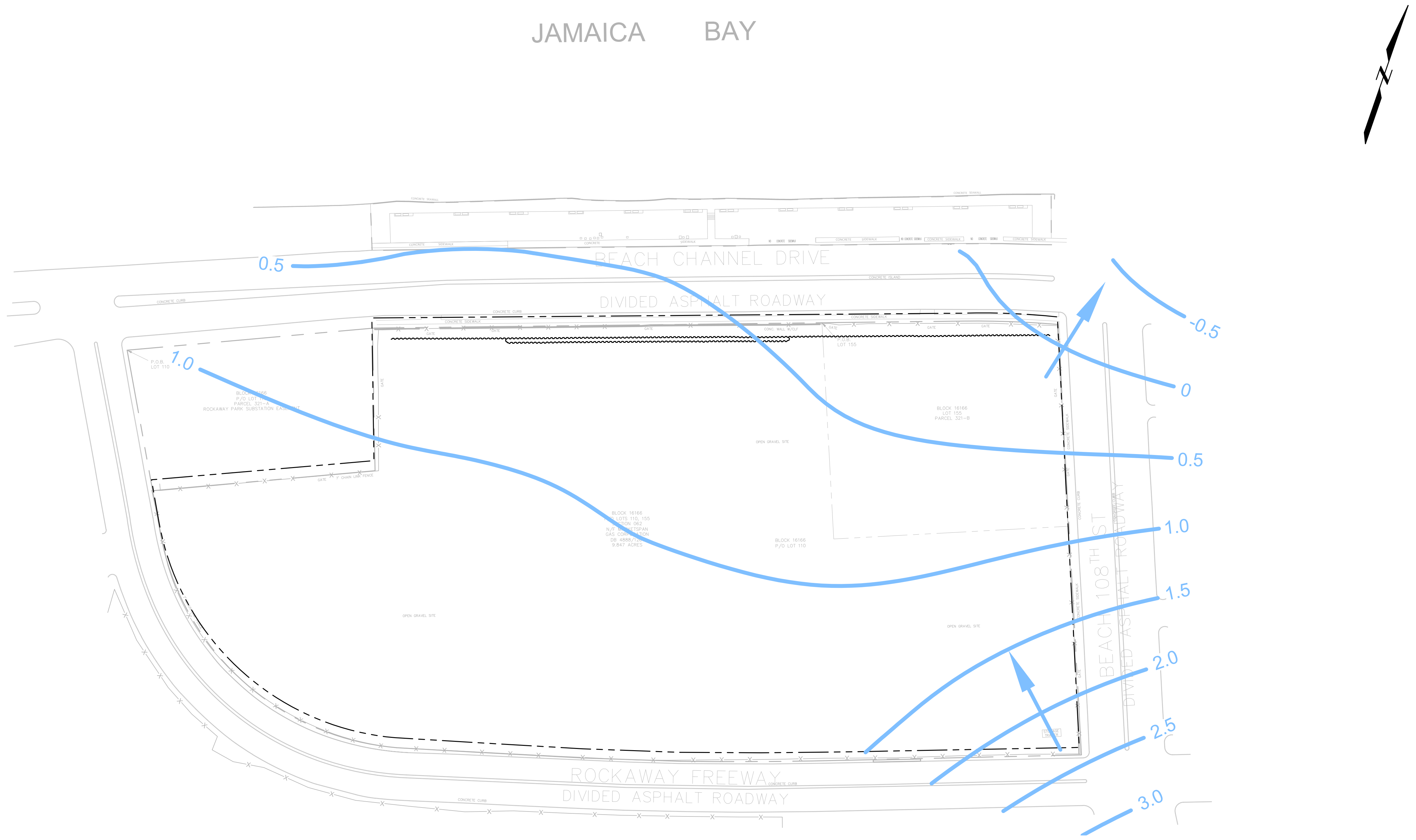
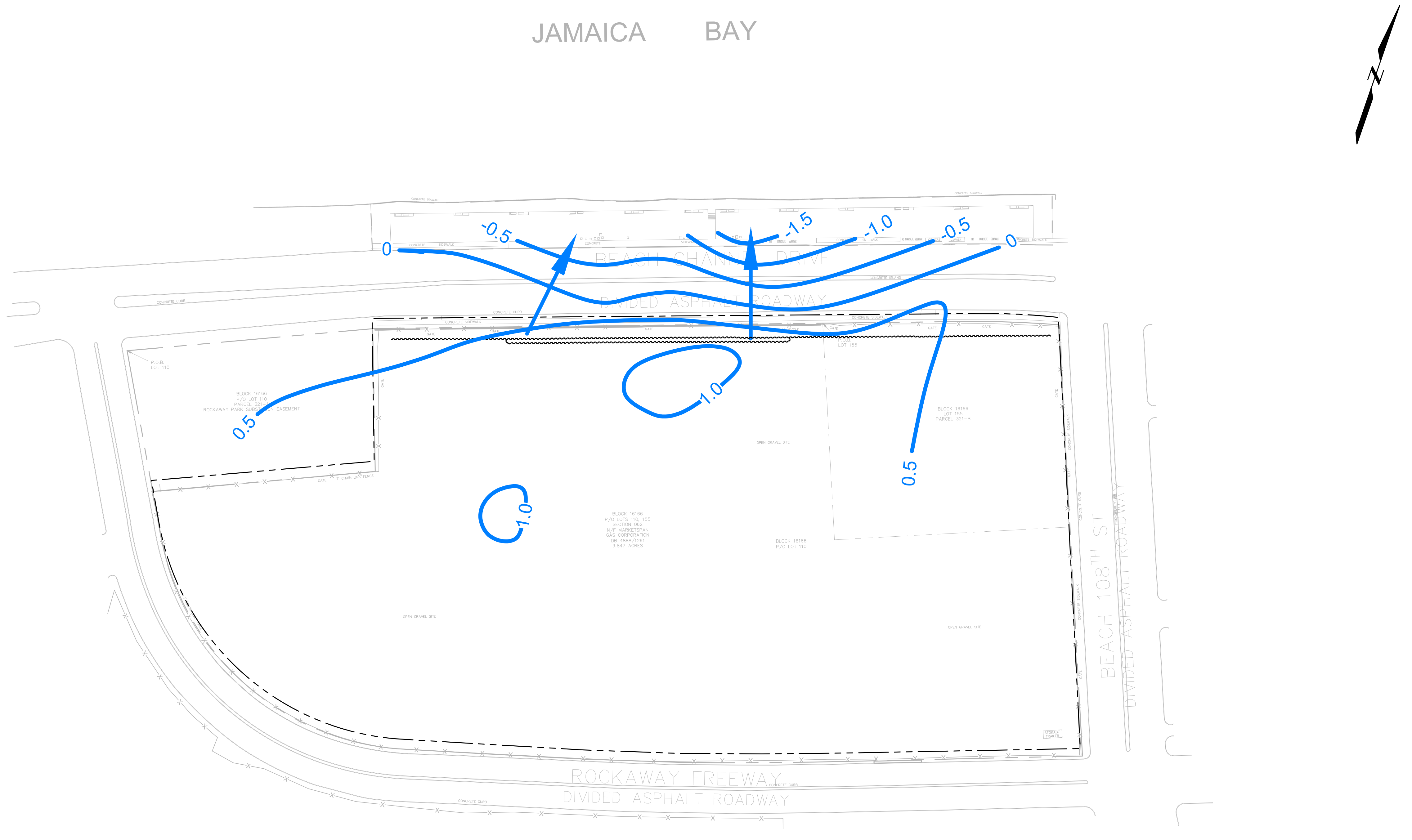
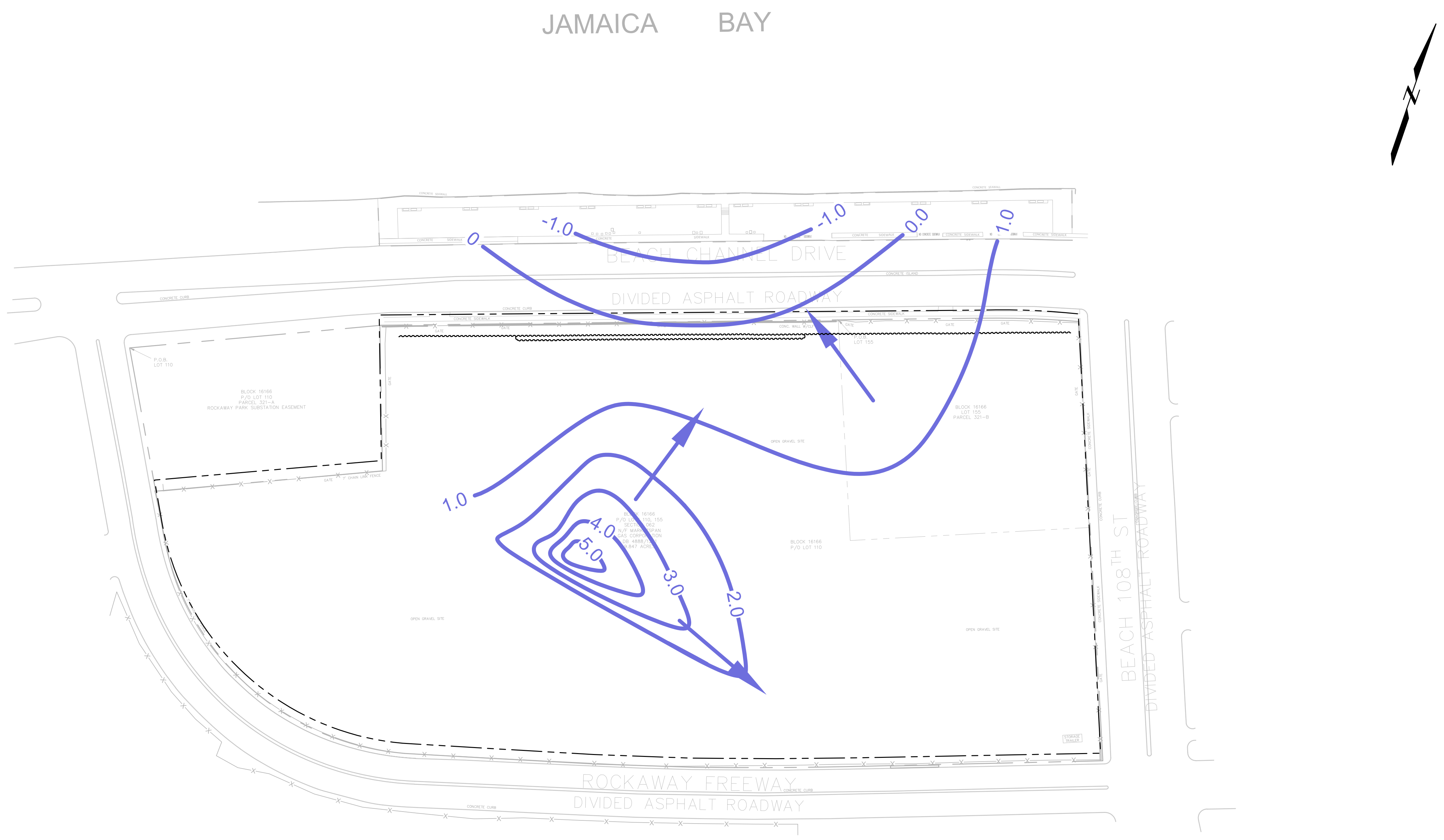


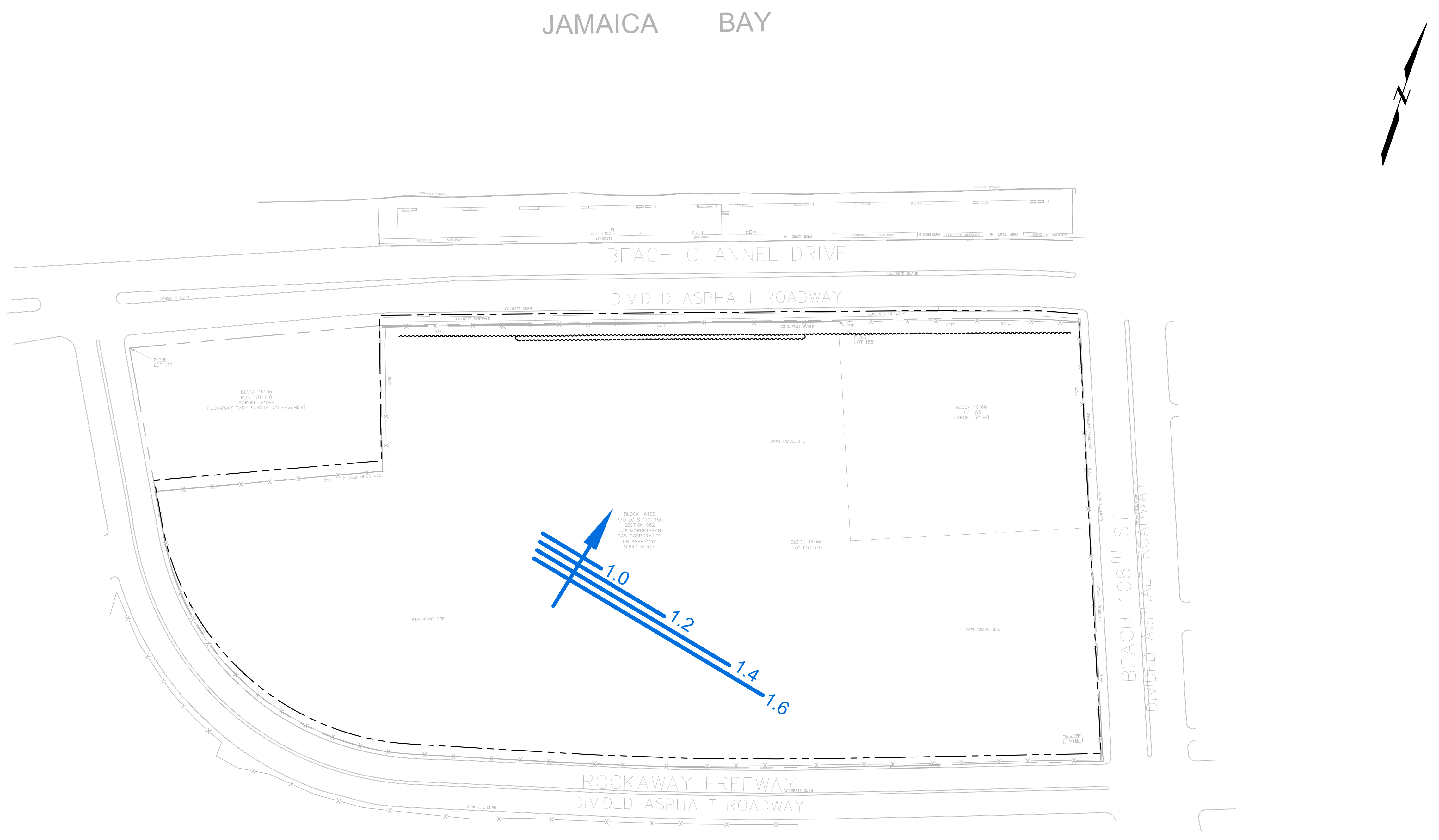
SHALLOW LOW TIDE
(SCREENED INTERVAL: 2 - 17 ft bgs)



INTERMEDIATE LOW TIDE
(SCREENED INTERVAL: 17 - 45 ft bgs)



DEEP LOW TIDE
(SCREENED INTERVAL: 45 - 90 ft bgs)



DEEP 2 LOW TIDE
(SCREENED INTERVAL: 90 - 105 ft bgs)

LEGEND:

—1.5—	GROUNDWATER CONTOUR
⟶	GROUNDWATER FLOW DIRECTION
— - —	PROPERTY BOUNDARY
—x—	FENCE
〰〰	SHEET PILE BARRIER WALL
ft bgs	FEET BELOW GROUND SURFACE

NOTE:
1. CONTOURS ARE BASED ON THE DECEMBER 2018 SAMPLING EVENT.

SOURCE:
1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

0 100 200
SCALE: 1" = 100'

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Rockaway Park Former MGP Site
Rockaway Park, New York

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GROUNDWATER CONTOURS
(LOW TIDE)

Project 093150 | March 2021 | Fig. 3

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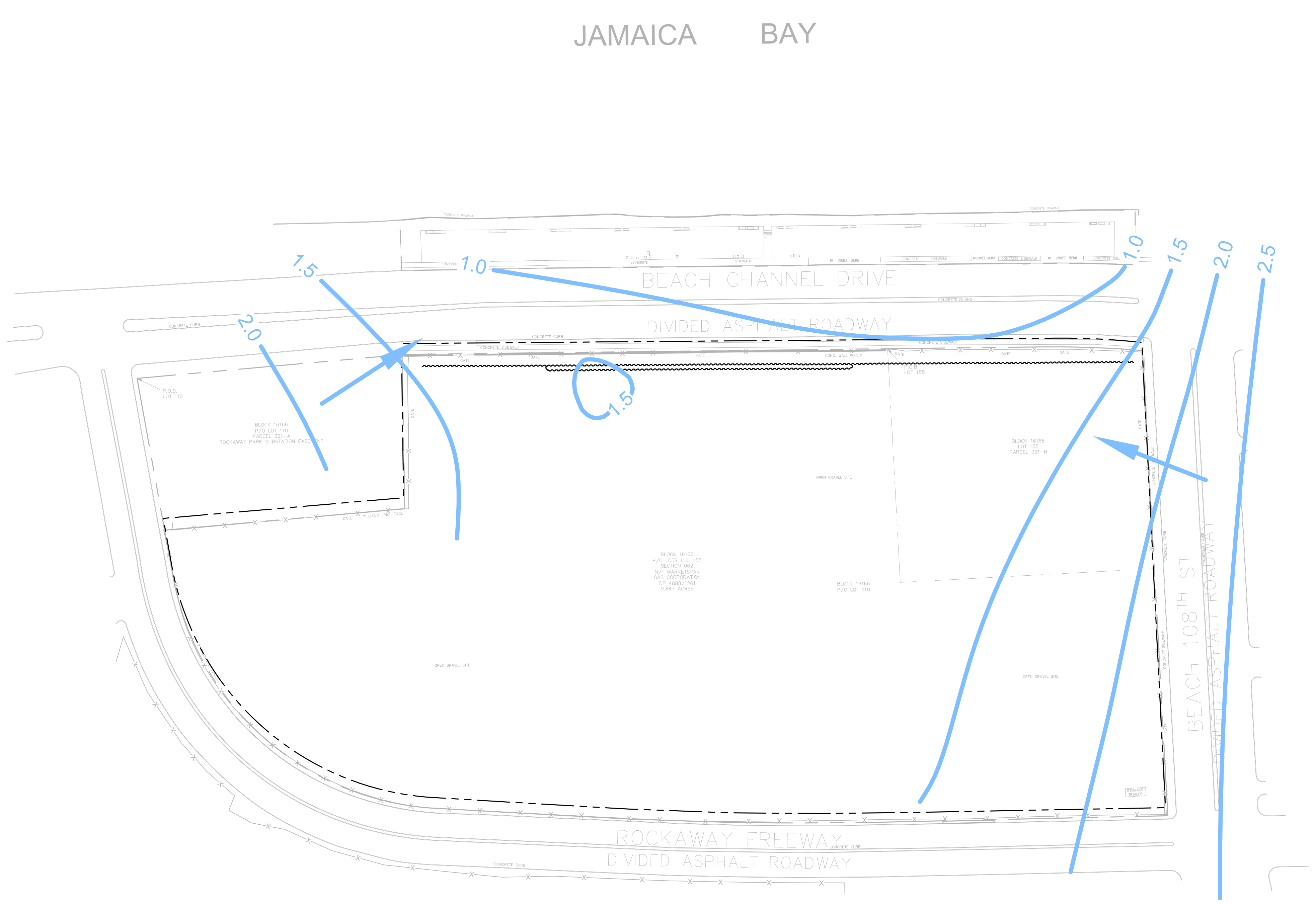
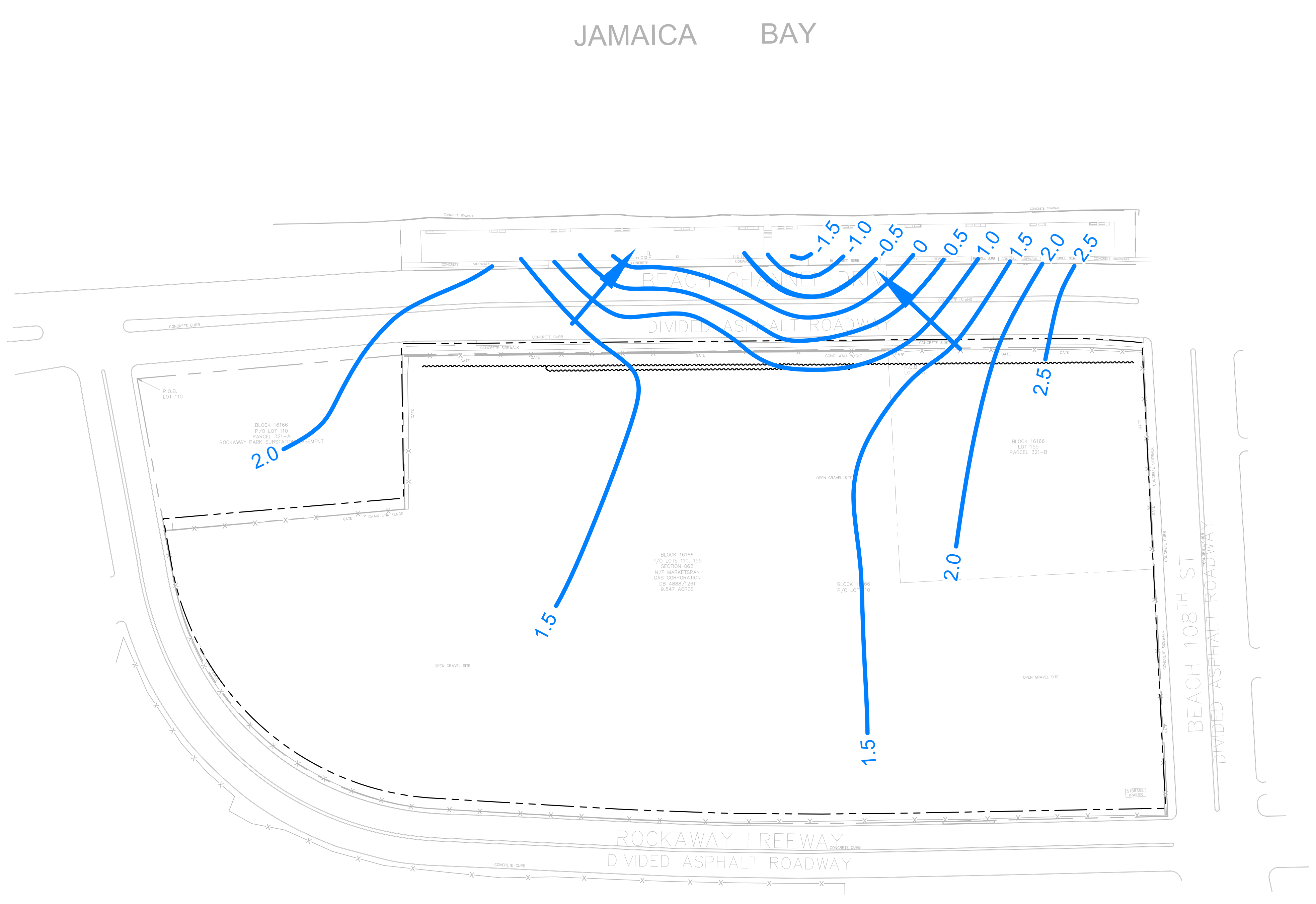
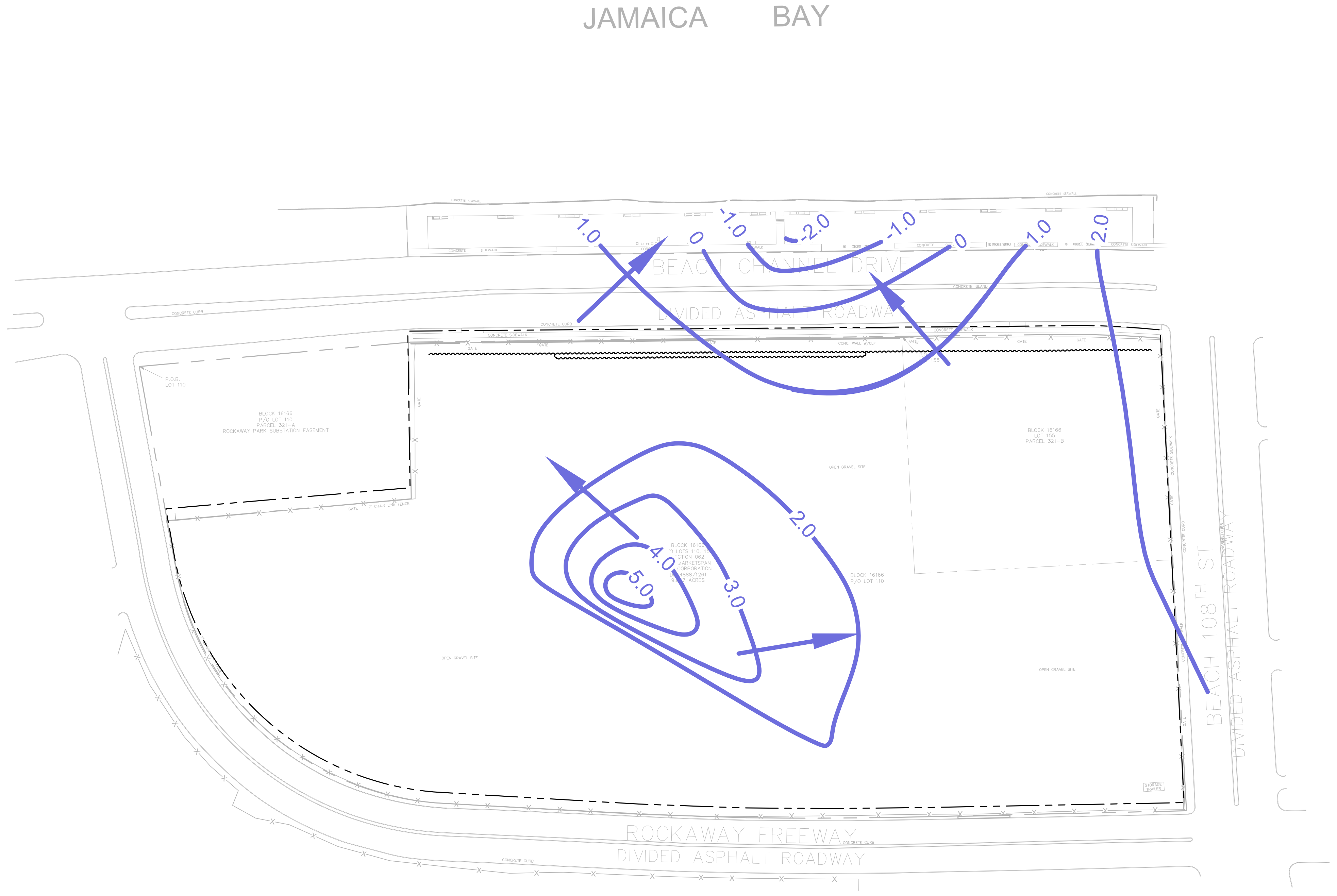


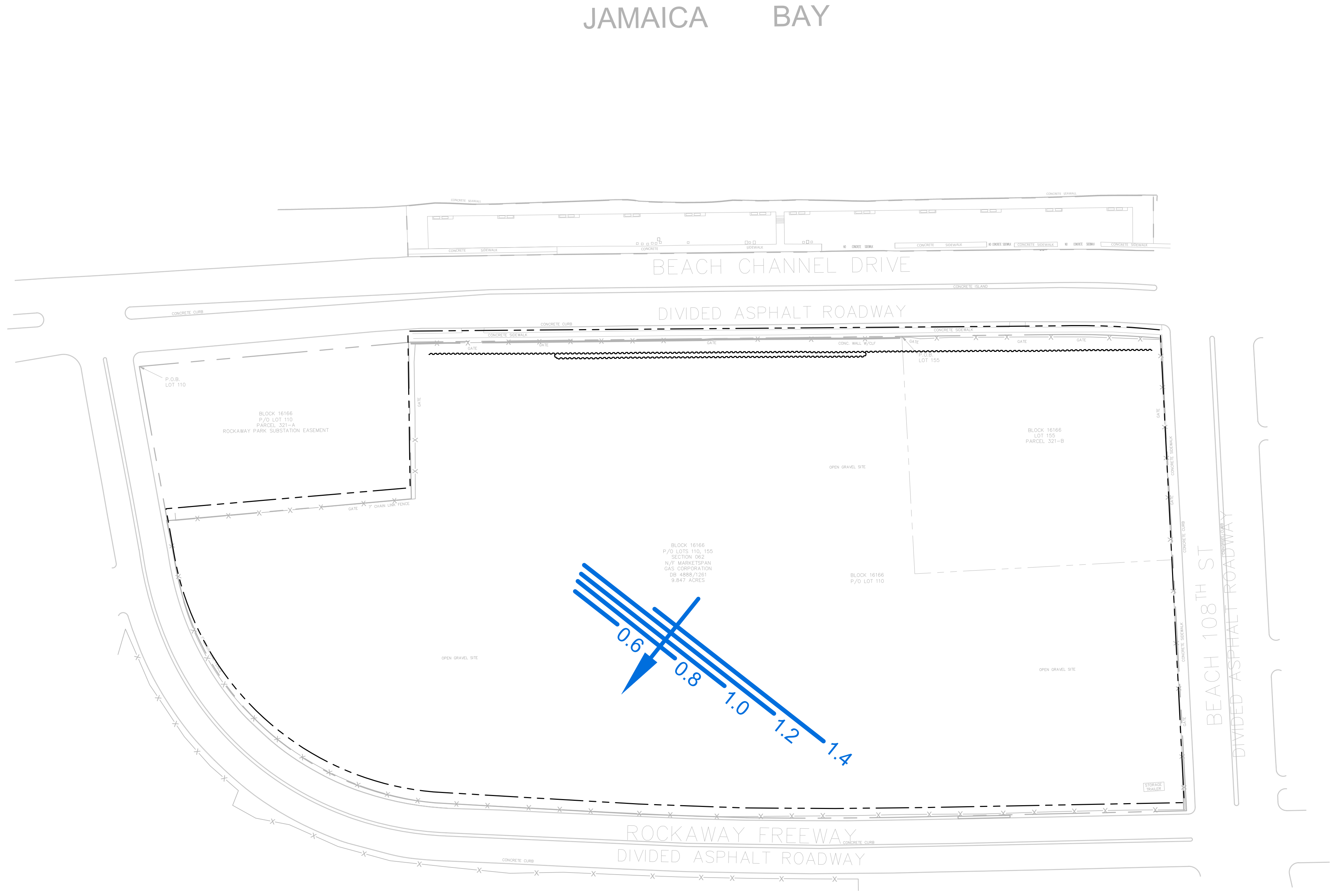
SHALLOW HIGH TIDE
(SCREENED INTERVAL: 2 - 17 ft bgs)



INTERMEDIATE HIGH TIDE
(SCREENED INTERVAL: 17 - 45 ft bgs)



DEEP HIGH TIDE
(SCREENED INTERVAL: 45 - 90 ft bgs)



DEEP 2 HIGH TIDE
(SCREENED INTERVAL: 90 - 105 ft bgs)

LEGEND:

—1.5—	GROUNDWATER CONTOUR
⟶	GROUNDWATER FLOW DIRECTION
— - - —	PROPERTY BOUNDARY
—+—	FENCE
〰〰	SHEET PILE BARRIER WALL
ft bgs	FEET BELOW GROUND SURFACE

NOTE:
1. CONTOURS ARE BASED ON THE DECEMBER 2018 SAMPLING EVENT.

SOURCE:
1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

0 75' 150' 300'
SCALE: 1" = 150'

Groundwater Monitoring Report
Rockaway Park Former MGP Site
Rockaway Park, New York

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GROUNDWATER CONTOURS
(HIGH TIDE)

Project 093150
March 2021
Fig. 4

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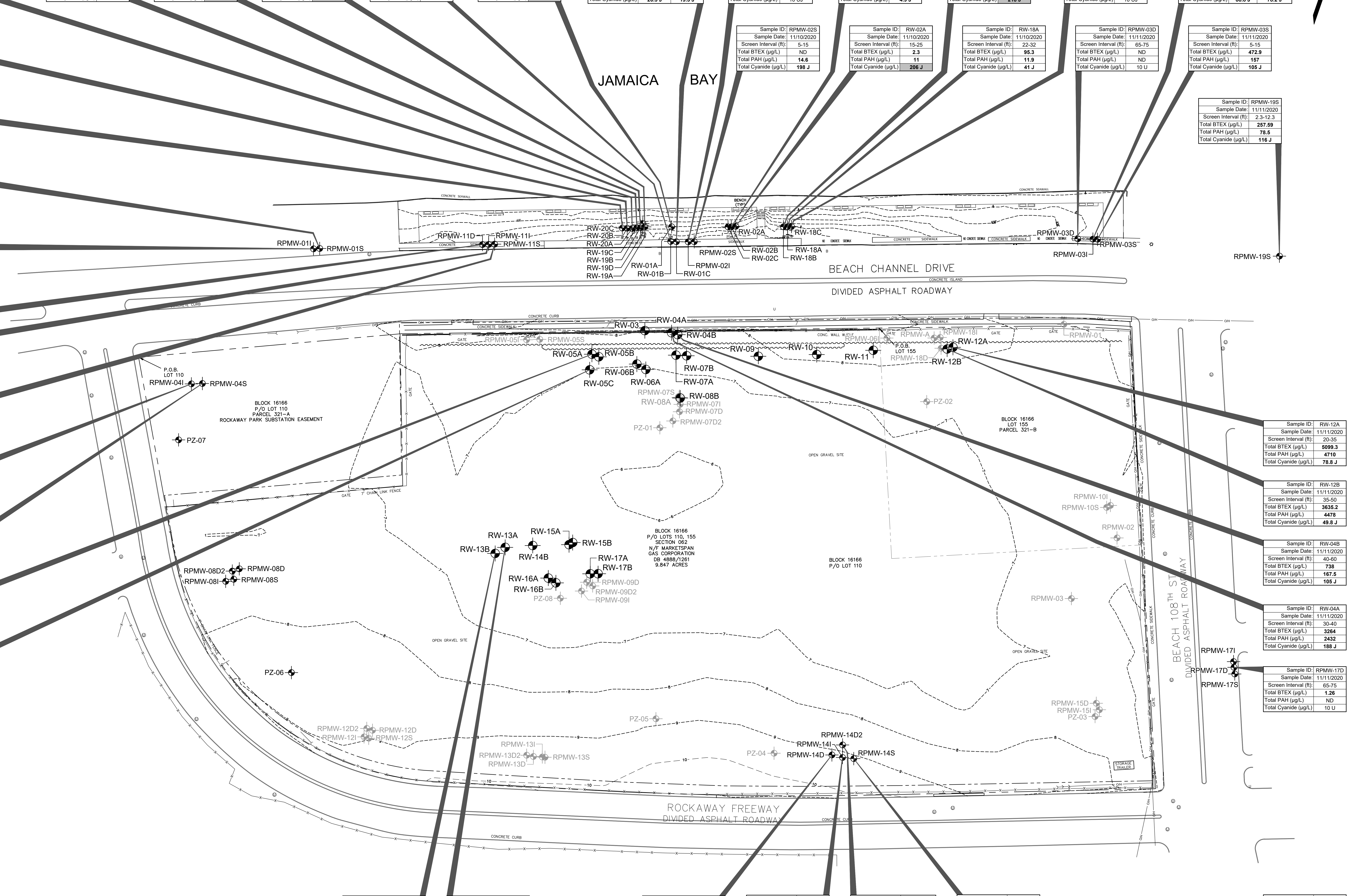

Sample ID:	RW-20A
Sample Date:	11/10/2020
Screen Interval (ft):	22-32
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**172 J**

Sample ID:	RW-19C
Sample Date:	11/10/2020
Screen Interval (ft):	61-71
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	10 UJ

Sample ID:	RW-19B
Sample Date:	11/10/2020
Screen Interval (ft):	41-51
Total BTEX (µg/L)	**542.2**
Total PAH (µg/L)	**1063**
Total Cyanide (µg/L)	**382 J**

Sample ID:	RW-19A
Sample Date:	11/10/2020
Screen Interval (ft):	19-29
Total BTEX (µg/L)	**7.26**
Total PAH (µg/L)	**1**
Total Cyanide (µg/L)	**759 J**

Sample ID:	RW-01B
Sample Date:	11/9/2020
Screen Interval (ft):	41-51
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	10 UJ

Sample ID:	RW-01A
Sample Date:	11/9/2020
Screen Interval (ft):	22-32
Total BTEX (µg/L)	**4.28**
Total PAH (µg/L)	**3.9**
Total Cyanide (µg/L)	**505 J**

Sample ID:	RW-01C	Duplicate of RW-01C
Sample Date:	11/9/2020	11/9/2020
Screen Interval (ft):	61-71	61-71
Total BTEX (µg/L)	**112.3**	**111.3**
Total PAH (µg/L)	**141.2**	**181.2**
Total Cyanide (µg/L)	**26.3 J**	**19.3 J**

Sample ID:	RPMW-02I
Sample Date:	11/9/2020
Screen Interval (ft):	35-45
Total BTEX (µg/L)	**9.1**
Total PAH (µg/L)	**33.9**
Total Cyanide (µg/L)	10 UJ

Sample ID:	RW-02B
Sample Date:	11/10/2020
Screen Interval (ft):	35-45
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**4.9 J**

Sample ID:	RW-18B
Sample Date:	11/10/2020
Screen Interval (ft):	42-52
Total BTEX (µg/L)	**20.13**
Total PAH (µg/L)	**30**
Total Cyanide (µg/L)	**218 J**

Sample ID:	RW-18C
Sample Date:	11/10/2020
Screen Interval (ft):	62-72
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	10 UJ

Sample ID:	RPMW-03I	Duplicate of RPMW-03I
Sample Date:	11/11/2020	11/11/2020
Screen Interval (ft):	35-45	35-45
Total BTEX (µg/L)	**411.47**	**401.36**
Total PAH (µg/L)	**94.3**	**92**
Total Cyanide (µg/L)	**88.8 J**	**78.2 J**

Sample ID:	RPMW-02S
Sample Date:	11/10/2020
Screen Interval (ft):	5-15
Total BTEX (µg/L)	ND
Total PAH (µg/L)	**14.6**
Total Cyanide (µg/L)	**198 J**

Sample ID:	RW-02A
Sample Date:	11/10/2020
Screen Interval (ft):	15-25
Total BTEX (µg/L)	**2.3**
Total PAH (µg/L)	**11**
Total Cyanide (µg/L)	**206 J**

Sample ID:	RW-18A
Sample Date:	11/10/2020
Screen Interval (ft):	22-32
Total BTEX (µg/L)	**95.3**
Total PAH (µg/L)	**11.9**
Total Cyanide (µg/L)	**41 J**

Sample ID:	RPMW-03D
Sample Date:	11/11/2020
Screen Interval (ft):	65-75
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	10 U

Sample ID:	RPMW-03S
Sample Date:	11/11/2020
Screen Interval (ft):	5-15
Total BTEX (µg/L)	**472.9**
Total PAH (µg/L)	**157**
Total Cyanide (µg/L)	**105 J**

Sample ID:	RPMW-19S
Sample Date:	11/11/2020
Screen Interval (ft):	2.3-12.3
Total BTEX (µg/L)	**257.59**
Total PAH (µg/L)	**78.5**
Total Cyanide (µg/L)	**116 J**

Sample ID:	RW-20B
Sample Date:	11/10/2020
Screen Interval (ft):	41-51
Total BTEX (µg/L)	**411.8**
Total PAH (µg/L)	**1103**
Total Cyanide (µg/L)	**441 J**

Sample ID:	RW-20C
Sample Date:	11/10/2020
Screen Interval (ft):	61-71
Total BTEX (µg/L)	**119.3**
Total PAH (µg/L)	**270.5**
Total Cyanide (µg/L)	**10.2 J**

Sample ID:	RPMW-01S
Sample Date:	11/9/2020
Screen Interval (ft):	5-15
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**328 J**

Sample ID:	RPMW-01I
Sample Date:	11/9/2020
Screen Interval (ft):	35-45
Total BTEX (µg/L)	**11**
Total PAH (µg/L)	**7.06**
Total Cyanide (µg/L)	**17.9 J**

Sample ID:	RPMW-11D
Sample Date:	11/9/2020
Screen Interval (ft):	65-75
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	10 UJ

Sample ID:	RPMW-11I
Sample Date:	11/9/2020
Screen Interval (ft):	35-45
Total BTEX (µg/L)	**2153**
Total PAH (µg/L)	**1702**
Total Cyanide (µg/L)	**9.4 J**

Sample ID:	RPMW-11S
Sample Date:	11/9/2020
Screen Interval (ft):	5-15
Total BTEX (µg/L)	**0.91**
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**172 J**

Sample ID:	RPMW-04I
Sample Date:	11/10/2020
Screen Interval (ft):	35-45
Total BTEX (µg/L)	**15.49**
Total PAH (µg/L)	**111.7**
Total Cyanide (µg/L)	**30.5 J**

Sample ID:	RPMW-04S
Sample Date:	11/10/2020
Screen Interval (ft):	5-15
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**237 J**

Sample ID:	RW-05A
Sample Date:	11/11/2020
Screen Interval (ft):	10-20
Total BTEX (µg/L)	**5.69**
Total PAH (µg/L)	**98.7**
Total Cyanide (µg/L)	**176 J**

Sample ID:	RW-05C	Duplicate of RW-05C
Sample Date:	11/11/2020	11/11/2020
Screen Interval (ft):	40-50	40-50
Total BTEX (µg/L)	**3891.8**	**3567.3**
Total PAH (µg/L)	**1149**	**1151**
Total Cyanide (µg/L)	**171 J**	**204 J**

Sample ID:	RW-12A
Sample Date:	11/11/2020
Screen Interval (ft):	20-35
Total BTEX (µg/L)	**5099.3**
Total PAH (µg/L)	**4710**
Total Cyanide (µg/L)	**78.8 J**

Sample ID:	RW-12B
Sample Date:	11/11/2020
Screen Interval (ft):	35-50
Total BTEX (µg/L)	**3635.2**
Total PAH (µg/L)	**4478**
Total Cyanide (µg/L)	**49.8 J**

Sample ID:	RW-04B
Sample Date:	11/11/2020
Screen Interval (ft):	40-60
Total BTEX (µg/L)	**738**
Total PAH (µg/L)	**167.5**
Total Cyanide (µg/L)	**105 J**

Sample ID:	RW-04A
Sample Date:	11/11/2020
Screen Interval (ft):	30-40
Total BTEX (µg/L)	**3264**
Total PAH (µg/L)	**2432**
Total Cyanide (µg/L)	**188 J**

Sample ID:	RPMW-17D
Sample Date:	11/11/2020
Screen Interval (ft):	65-75
Total BTEX (µg/L)	**1.26**
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	10 U

Sample ID:	RW-13B
Sample Date:	11/11/2020
Screen Interval (ft):	55-60
Total BTEX (µg/L)	**2.57**
Total PAH (µg/L)	**3**
Total Cyanide (µg/L)	10 U

Sample ID:	RW-13A
Sample Date:	11/11/2020
Screen Interval (ft):	5-20
Total BTEX (µg/L)	**686.3**
Total PAH (µg/L)	**79.75**
Total Cyanide (µg/L)	**59 J**

Sample ID:	RPMW-14D
Sample Date:	11/11/2020
Screen Interval (ft):	66-76
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	10 U

Sample ID:	RPMW-14I
Sample Date:	11/9/2020
Screen Interval (ft):	35-45
Total BTEX (µg/L)	**255.87**
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**4.9 J**

Sample ID:	RPMW-14D2
Sample Date:	11/10/2020
Screen Interval (ft):	95-105
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**13.5 J**

Sample ID:	RPMW-14S
Sample Date:	11/9/2020
Screen Interval (ft):	5-15
Total BTEX (µg/L)	**764.7**
Total PAH (µg/L)	**76.9**
Total Cyanide (µg/L)	**36.1 J**

Sample ID:	RPMW-26S
Sample Date:	11/10/2020
Screen Interval (ft):	3-13
Total BTEX (µg/L)	ND
Total PAH (µg/L)	ND
Total Cyanide (µg/L)	**8.1 J**

LEGEND:

RW-15B	DNAPL MONITORING WELL
MW-08D	EXISTING GROUNDWATER MONITORING WELL
RW-08A	ABANDONED DESTROYED WELLS
—— – – ——	PROPERTY BOUNDARY
– – – – 6 – – – –	GROUND SURFACE MINOR CONTOUR
— — 10 — —	GROUND SURFACE MAJOR CONTOUR
——x——	FENCE
~~	SHEET PILE BARRIER WALL

NOTES:

µg/L = MICROGRAMS PER LITER OR PARTS PER BILLION (ppb)

BTEX = BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES

PAH = POLYCYCLIC AROMATIC HYDROCARBON

SVOC = SEMI-VOLATILE ORGANIC COMPOUND

VOC = VOLATILE ORGANIC COMPOUND

TOTAL BTEX, TOTAL VOCS, TOTAL PAHS, AND TOTAL SVOCS ARE CALCULATED USING DETECTS ONLY.

TOTAL PAH17 IS CALCULATED USING THE LIST OF ANALYTES: ACENAPHTHENE, ACENAPHTHYLENE, ANTHRACENE, BENZ[A]ANTHRACENE, BENZO[A]PYRENE, BENZO[B]FLUORANTHENE, BENZO[G,H,I]PERYLENE, BENZO[K]FLUORANTHENE, CHRYSENE, DIBENZ[A,H]ANTHRACENE, FLUORANTHENE, FLUORENE, INDENO[1,2,3-CD]PYRENE, NAPHTHALENE, 2-METHYLNAPHTHALENE, PHENANTHRENE, AND PYRENE

NYS AWQS = NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES FOR GA GROUNDWATER

* INDICATES THE VALUE IS A GUIDANCE VALUE AND NOT A STANDARD

CAS No. = CHEMICAL ABSTRACTS SERVICE NUMBER

MGP = MANUFACTURED GAS PLANT

ND = NOT DETECTED

NE = NOT ESTABLISHED

1063	INDICATES A DETECTED RESULT CONCENTRATION
382 J	INDICATES THAT THE DETECTED RESULT VALUE EXCEEDS THE NYS AWQS

DATA QUALIFIERS:

J = THE RESULT IS AN ESTIMATED VALUE.

U = THE RESULT WAS NOT DETECTED ABOVE THE REPORTING LIMIT.

UJ = THE RESULTS WAS NOT DETECTED AT OR ABOVE THE REPORTING LIMIT SHOWN AND THE REPORTING LIMIT IS ESTIMATED.

NOTE:

MONITOR WELL LOCATION AND ELEVATION TAKEN AT NORTH EDGE OF PVC PIPE. ELEVATION DATUM FOR ALL MONITOR WELLS IS BOROUGH OF QUEENS DATUM.

SOURCE:

BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

0 50 100
SCALE: 1" = 50'

Groundwater Monitoring Report
Rockaway Park Former MGP Site
Rockaway Park, New York

nationalgrid

GEI Consultants

GROUNDWATER ANALYTICAL RESULTS

Project 093150 | March 2021 | Fig. 5