WEEKLY AIR MONITORING REPORT

Vo-Toys Removal Action

Site Name: Vo-Toys Site, Harrison, New Jersey
CERCLA Docket No.: 02-2019-2028
Report No.: 123
Report Date: August 18, 2023
Reporting Period: August 14 to August 18, 2023

1 Introduction

This report summarizes the Vo-Toys Removal Action (RA) air monitoring program conducted between August 14 to August 18, 2023, at the Vo-Toys site located at 400 South 5th Street, Harrison, New Jersey (the site). Air monitoring for particulates less than 10 microns in diameter (PM_{10}) and mercury vapor was conducted in accordance with the U.S. Environmental Protection Agency (USEPA)-approved Community Air Monitoring Plan (CAMP). PM_{10} and mercury vapor results were compared with action levels presented in the CAMP.

Air monitoring during the week of August 14, 2023, included the following monitoring tasks:

- Meteorological monitoring
- Work area perimeter air monitoring
- Site perimeter air monitoring

A summary of the monitoring activities that were conducted is presented in Section 3.

2 Meteorological Monitoring

Meteorological monitoring was conducted to measure wind speed, wind direction, and air temperature. Meteorological readings were recorded on a data logging device and evaluated at least three times per day to determine the upwind and downwind boundaries of the site.

Table 2-1 presents a summary of the meteorological monitoring during the week of August 14, 2023. The attached site air monitoring figures show the locations of the meteorological sensors.

Table 2-1
Meteorological Monitoring Summary

Date	Weather
August 14, 2023	Mostly cloudy, High in the upper 80s °F; Winds 5-10 mph SW (Online)
August 15, 2023	Overcast, High in the mid-80s °F; Winds 5 mph N (Online)
August 16, 2023	Cloudy, High in the low 80s °F; Winds 5 mph SE (Online)
August 17, 2023	Overcast/Raining, High in the low 80s °F; Winds 5-10 mph SE (Online)
August 18, 2023	Mostly Sunny after Rain Showers, High in the low 80s °F; Winds 5-15 mph W (Online)

3 PM_{10} and Mercury Vapor Monitoring

3.1 Work Area Perimeter Air Monitoring

Air monitoring was performed at the perimeter of the RA work areas and the RA activities were modified as necessary so that particulates and mercury vapors above action levels were not migrating to the site perimeter and off-site/community air monitoring locations. The work area perimeter monitoring locations were in or adjacent to the building footprints and were determined based on the location and extent of RA activities and the prevailing wind direction. Readings were recorded and maintained on site by the Engineer.

A summary of work area perimeter air monitoring data is presented in the table below.

Summary of Anchor QEA's Work Area Perimeter Air Monitoring for PM_{10} and Mercury Vapor

Date	PM_{10} 15-Minute Average Range (ug/m^3) *Action Level <125 ug/m^3*	Mercury Vapor 15-Minute Average Range (ug/m^3) *Action Level <10 ug/m^3*
Building A West End Removals		
August 14, 2023	3.0 – 23.0	0.0 – 0.0
August 15, 2023	8.0 – 19.0	0.0 – 0.0
August 16, 2023	2.0 – 19.0	0.0 – 0.0
August 17, 2023	11.0 – 20.0	0.0 – 0.0
August 18, 2023	8.0 – 9.0	0.0 – 0.0

Notes:
1. µg/m^3: micrograms per cubic meter.
2. PM_{10} action levels: Normal operations if 15-minute average of PM_{10} readings is <125 ug/m^3. If readings >125 ug/m^3 additional actions would be required per CAMP.
3. Mercury vapor action level: Normal operations if mercury vapor for a single reading is <10 ug/m^3.
4. See CAMP for further details on action levels.

3.2 Site Perimeter Air Monitoring Summary

Site perimeter monitoring was performed to document that particulates (PM_{10}) or mercury vapor above action levels were not migrating beyond the site boundary. Four air monitoring stations were

located outside the building footprints around the site perimeter: one upwind and three downwind. Figures SP-1 through SP-5 show the locations of the site perimeter stations each day. Readings were recorded and maintained on site by the Engineer.

All PM_{10} and mercury vapor site perimeter air monitoring data were below action levels defined in the CAMP. A summary of site perimeter air monitoring data is presented in Table 3.

Table 3-1
Summary of PM_{10} and Mercury Vapor Site Perimeter Air Monitoring

Date	Air Monitoring Station/Location	Upwind/ Downwind	PM_{10} 15-Minute Average Range (ug/m^3) *Action Level <100 ug/m^3*	Mercury Vapor 15-Minute Average Range (ug/m^3) *Action Level <10 ug/m^3*
8/14/2023	Station 1 – West	Downwind	7.07 – 35.1	No Measurements[4]
	Station 2 – East	Downwind	5.73 – 34.4	0.10 – 0.28
	Station 3 – Southeast	Upwind	9.8 – 31.2	0.10 – 0.15
	Station 4 – North	Downwind	12.0 – 30.9	0.10 – 0.30
8/15/2023	Station 1 – West	Downwind	4.53 – 31.3	0.10 – 1.13
	Station 2 – East	Downwind	0.0667 – 39.7	0.10 – 0.26
	Station 3 – Southeast	Downwind	6.8 – 36.8	0.10 – 0.31
	Station 4 – North	Upwind	2.0 – 43.9	0.11 – 0.29
8/16/2023	Station 1 – West	Downwind	2.27 – 17.7	0.10 – 0.88
	Station 2 – East	Downwind	0.0667 – 17.9	0.11 – 0.57
	Station 3 – Southeast	Upwind	4.53 – 20.3	0.10 – 0.23
	Station 4 – North	Downwind	3.0 – 22.9	0.12 – 0.31
8/17/2023	Station 1 – West	Downwind	7.53 – 40.3	0.10 – 0.28
	Station 2 – East	Downwind	1.87 – 54.7	0.10 – 0.49
	Station 3 – Southeast	Upwind	9.73 – 64.2	0.10 – 0.23
	Station 4 – North	Downwind	3.0 – 43.5	0.11 – 0.20
8/18/2023	Station 1 – West	Upwind	2.27 – 12.0	0.10 – 0.60
	Station 2 – East	Downwind	0.2 – 9.0	0.10 – 0.67
	Station 3 – Southeast	Downwind	2.93 – 11.4	0.10 – 0.22
	Station 4 – North	Downwind	1.0 – 17.8	0.14 – 2.50

Notes:
1. PM_{10} action level: Normal operations if PM_{10} <100 ug/m^3.
2. Mercury vapor action level: Normal operations if 15-minute average of MVA readings is <10 ug/m^3.
3. See CAMP for further details on action levels.
4. Due to rental equipment malfunction, Station 1 did not properly record mercury data on 8/14/2023. No exceedances encountered.

3.3 Off-Site/Community Air Monitoring

Off-site/community air monitoring for mercury vapors was performed during specific phases of the RA to document that mercury vapor above action levels were not migrating beyond the site boundary. In accordance with the CAMP, each day that included a qualifying mercury vapor monitoring event, four 8-hour off-site air samples were collected for mercury vapor analysis (one

upwind and three downwind). Off-site/community air monitoring for mercury vapors was not performed during the week of August 14, 2023.

4 Monitoring Equipment

Table 4-1 presents the air monitoring devices used.

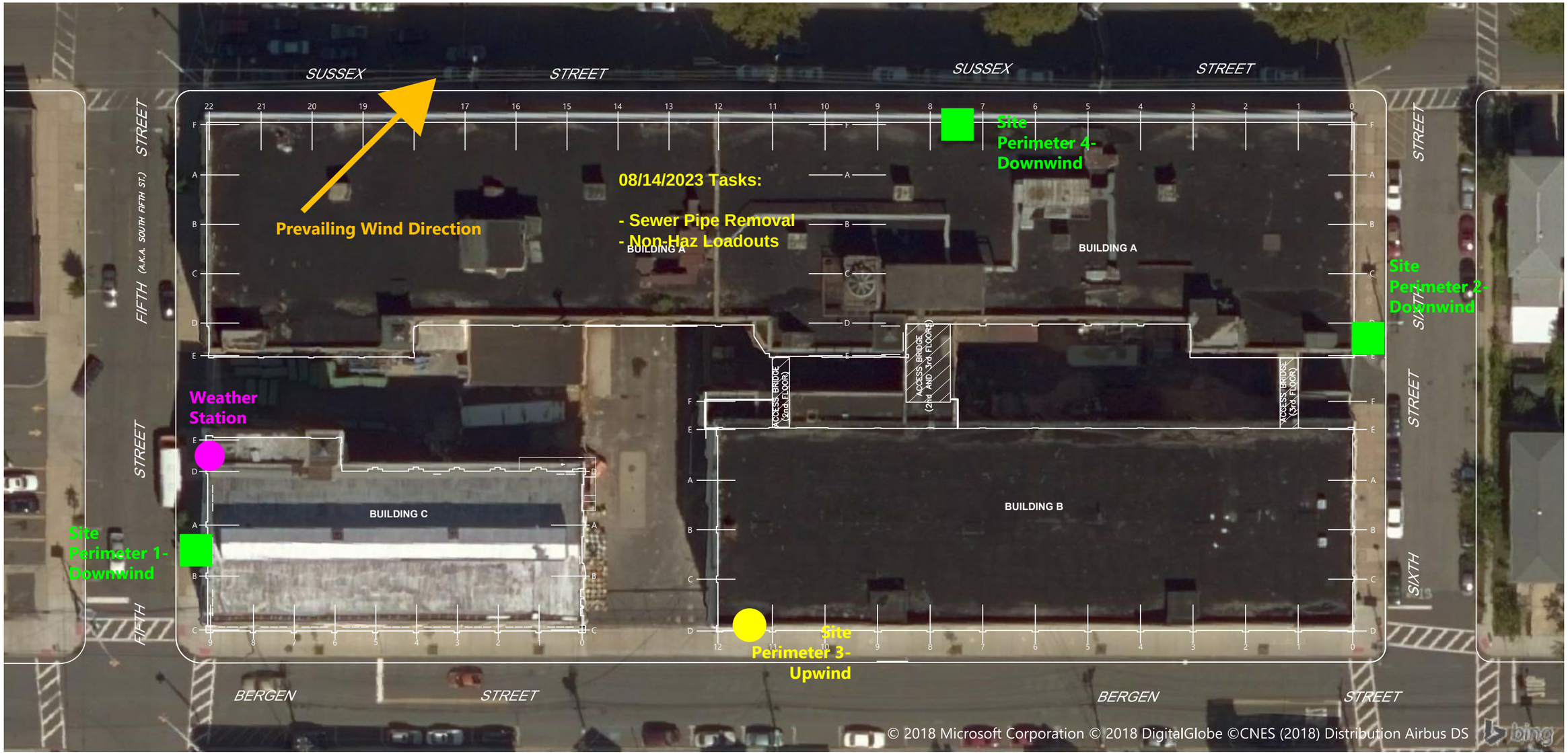
Table 4-1
Monitoring Equipment and Calibration

Parameter	Monitoring Equipment
Mercury Vapors – Real Time and Average Concentrations	• Jerome Mercury Vapor Analyzer J405 – Arizona Instruments, LLC (work area monitoring, regenerated prior to daily use) • VM 3000 – Mercury Instruments (site perimeter stations, auto zeroed prior to daily use)
Airborne Particulates	• TSI Dusttrak Particulate Monitor (site perimeter stations, zeroed prior to daily use)
Meteorological Monitoring	• Vantage Pro 2 weather station

5 Issues or Potential Modifications to the CAMP

None

Figures



SOURCE: Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED_SITEMAP_20101" provided by General Electric Company on March 3, 2016.
HORIZONTAL DATUM: New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).
VERTICAL DATUM: (None).

LEGEND

A,1 —— – —— BUILDING COLUMN LINE

Site Perimeter Air Monitoring Location

Upwind Site Perimeter Monitoring Location

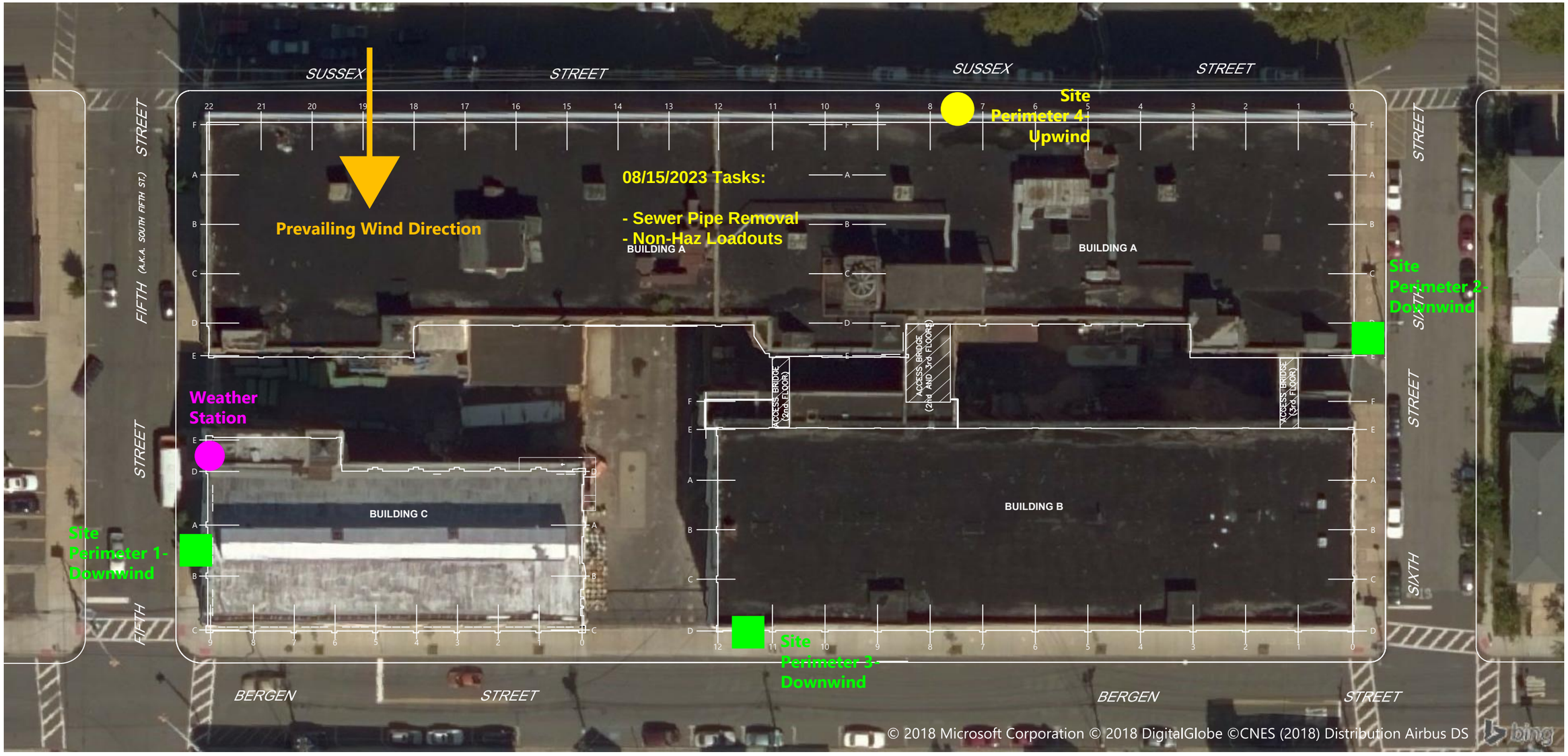
0 20 40
SCALE IN FEET

Publish Date: 2019/01/03 4:00 PM | User: rpetrie
Filepath: K:\Projects\0469-General Electric\VO-Toys\FIGURES - NJ83F\0469-RP-000 (NJ83F-Aerial).dwg Site Layout

ANCHOR QEA

Figure SP-1
08/14/2023
Air Monitoring Station Locations

Vo Toys Removal Action
General Electric Company



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HORIZONTAL DATUM: New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).
VERTICAL DATUM: (None).

LEGEND

A,1 —— – —— BUILDING COLUMN LINE

Site Perimeter Air Monitoring Location

Upwind Site Perimeter Monitoring Location

0 20 40
SCALE IN FEET

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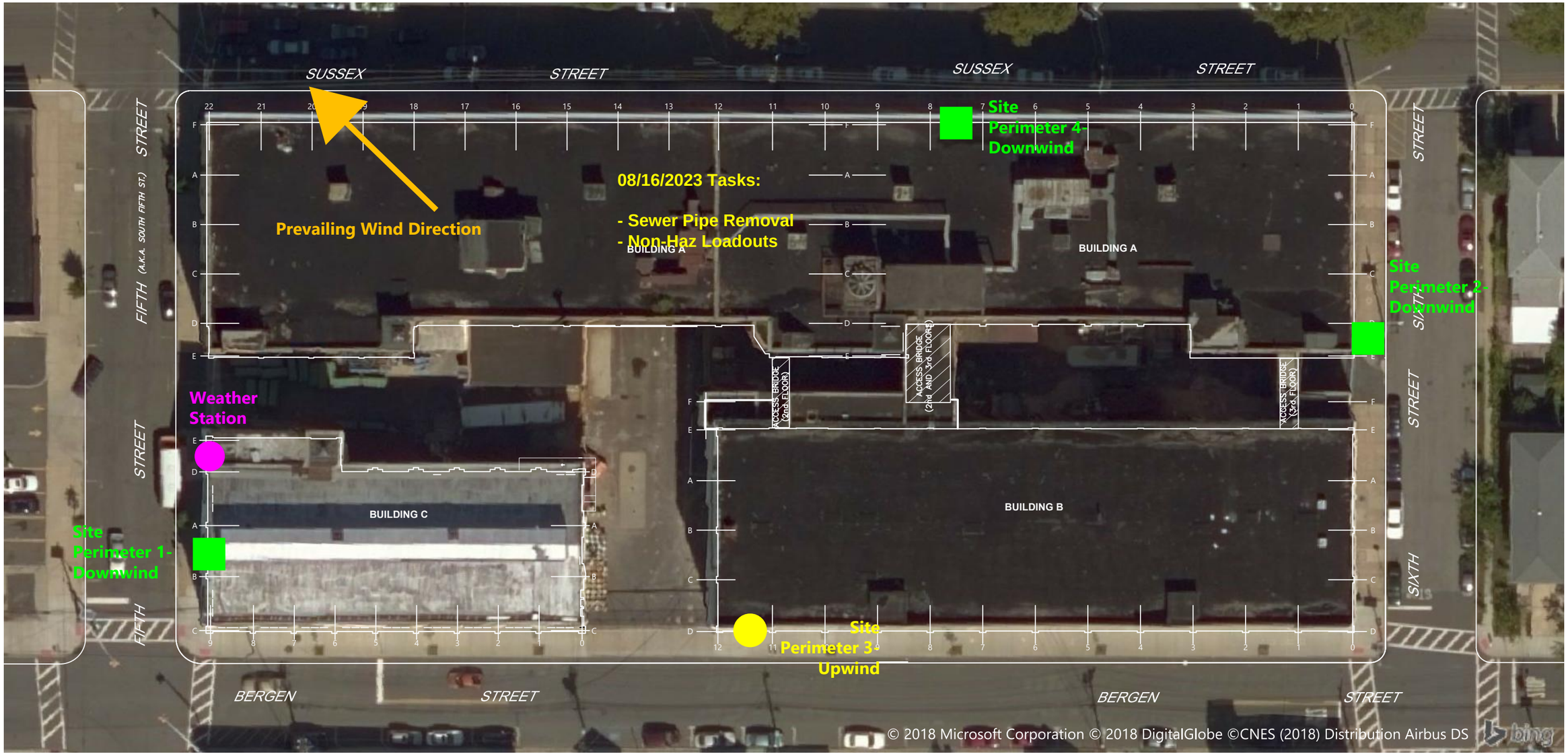
ANCHOR QEA

Figure SP-2
08/15/2023
Air Monitoring Station Locations

Vo Toys Removal Action
General Electric Company



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VERTICAL DATUM: (None).

LEGEND

A,1 —— – —— BUILDING COLUMN LINE

Site Perimeter Air Monitoring Location

Upwind Site Perimeter Monitoring Location

0 20 40
SCALE IN FEET

Publish Date: 2019/01/03 4:00 PM | User: rpetrie
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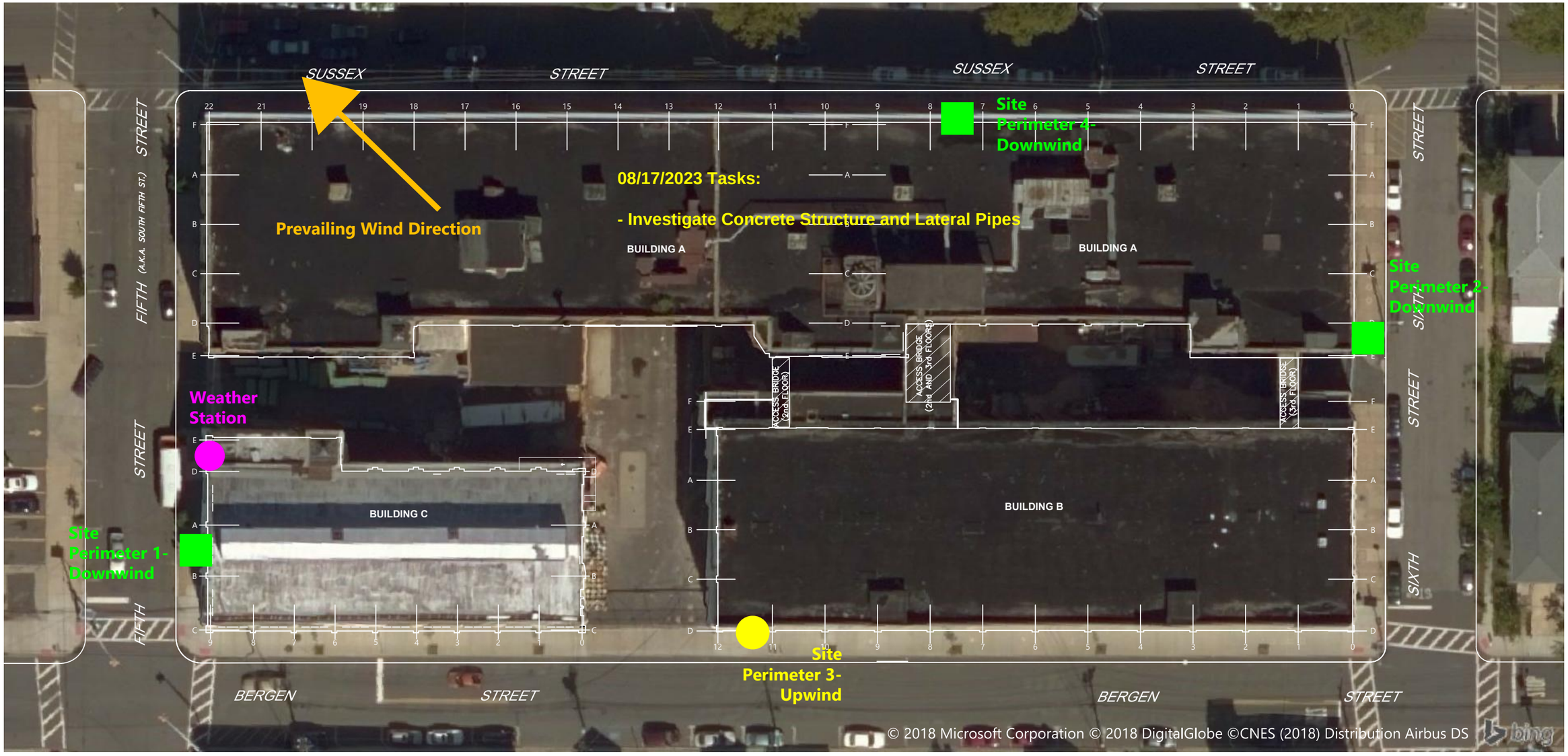
ANCHOR QEA

Figure SP-3
08/16/2023
Air Monitoring Station Locations

Vo Toys Removal Action
General Electric Company



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HORIZONTAL DATUM: New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).
VERTICAL DATUM: (None).

LEGEND

A,1 —— – —— BUILDING COLUMN LINE

Site Perimeter Air Monitoring Location

Upwind Site Perimeter Monitoring Location

0 20 40
SCALE IN FEET

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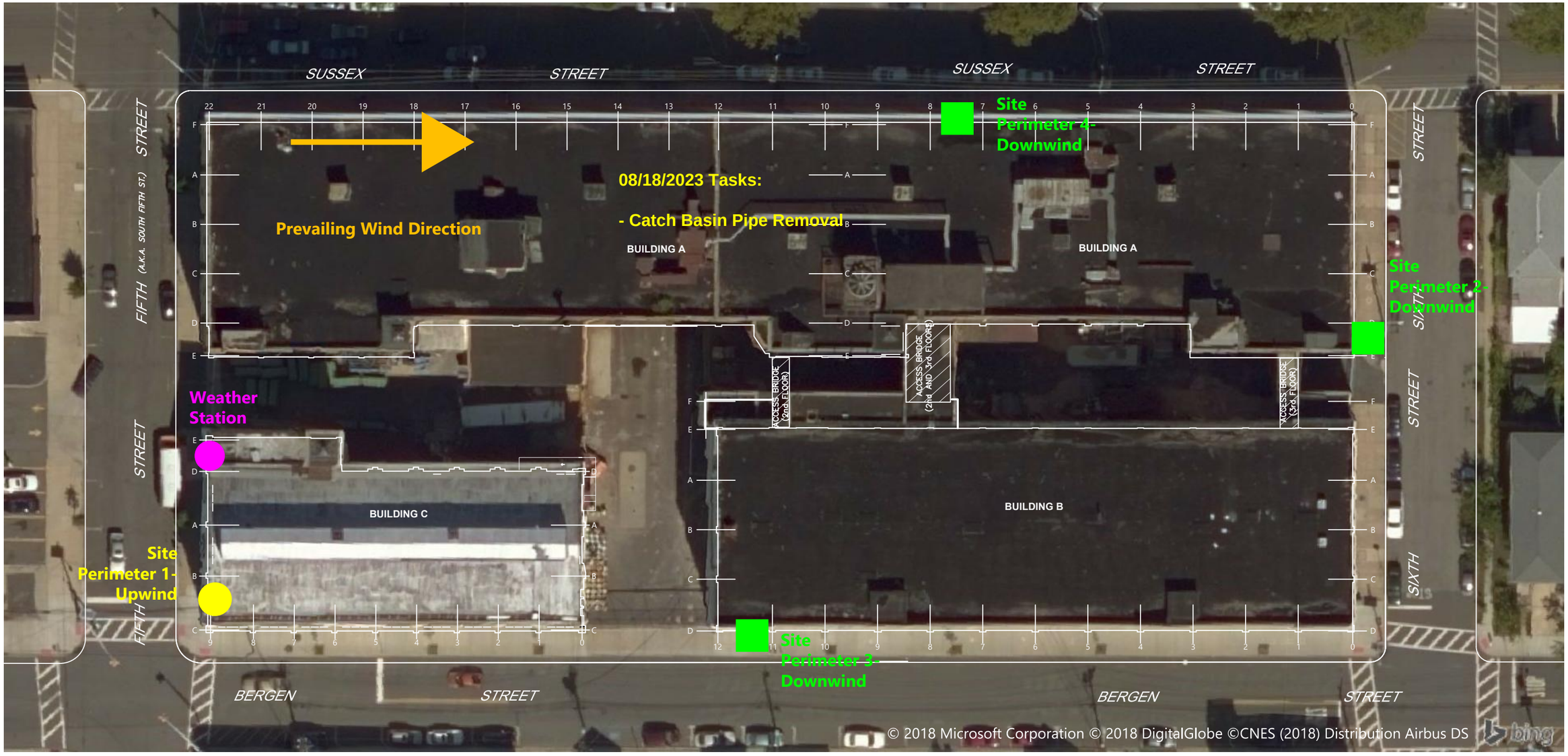
ANCHOR QEA

Figure SP-4
08/17/2023
Air Monitoring Station Locations

Vo Toys Removal Action
General Electric Company



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VERTICAL DATUM: (None).

LEGEND

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Site Perimeter Air Monitoring Location

Upwind Site Perimeter Monitoring Location

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Figure SP-5
08/18/2023
Air Monitoring Station Locations

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