

WEEKLY AIR MONITORING REPORT

Building C Removal Action

Site Name: Vo-Toys Site, Harrison, New Jersey

CERCLA Docket No.: 02-2019-2028

Report No.: 2

Report Date: September 25, 2020

Reporting Period: September 21 to September 24, 2020

1 Introduction

This report summarizes the Building C Removal Action (RA) air monitoring program conducted between September 21 and September 24, 2020, 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 (PM₁₀) and mercury vapor was conducted in accordance with the U.S. Environmental Protection Agency (USEPA)-approved Community Air Monitoring Plan (CAMP). PM₁₀ and mercury vapor results were compared with action levels presented in the CAMP.

Air monitoring during the week of September 21, 2020 included the following monitoring tasks:

- Meteorological monitoring
- Work area perimeter air monitoring
- Site perimeter air monitoring
- Off-site/Community 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 September 21, 2020. The attached site air monitoring figures show the locations of the meteorological sensors.

Table 2-1
Meteorological Monitoring Summary

Date	Weather
September 21, 2020	Mostly sunny, high in the mid-60s F, Winds: 0-10 mph NW (0-10 mph NNE local online). No precipitation.

September 22, 2020	Mostly Sunny, high in the low 70s°F; Winds: 5-15 mph NW (5-15 mph NW online). No precipitation.
September 23, 2020	Mostly Sunny, high in the low 80s°F; Winds: 5-15 mph N in early AM and NW rest of day (5-15 mph NW online). No precipitation.
September 24, 2020	Mostly Cloudy, high upper 70s°F; Winds: 5-15 mph NW (5-15 mph NW online). No precipitation.

3 PM₁₀ 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 Building C and were determined based on the location and extent of RA activities and, for exterior RA activities, the prevailing wind direction. Readings were recorded and maintained on site by the Engineer.

3.2 Site Perimeter Air Monitoring Summary

Site perimeter monitoring was performed to document that particulates (PM₁₀) or mercury vapor above action levels were not migrating beyond the site boundary. Four air monitoring stations were located outside the building around the site perimeter: one upwind and up to 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 PM₁₀ 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 3-1.

**Table 3-1
Summary of PM₁₀ 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
9/21/2020	Station 1 - West	Upwind	14.3 - 25.5	0.10 - 0.13
	Station 2 - North	Downwind	6.9 - 34.4	0.50 - 0.92
	Station 3 - Southeast	Downwind	0.1 - 20.2	0.12 - 0.31
	Station 4 - Northeast	Downwind	0.1 - 16.5	0.12 - 0.36
9/22/2020	Station 1 - West	Upwind	16.5 - 78.3	0.10 - 0.18
	Station 2 - North	Downwind	8.2 - 27.1	0.58 - 0.88
	Station 3 - Southeast	Downwind	0.1 - 42	0.15 - 0.35

	Station 4 - Northeast	Downwind	1.5 - 22.5	0.13 - 0.50
9/23/2020	Station 1 - West	Upwind	14.3 - 37.1	0.10 - 0.19
	Station 2 - North	Downwind	12.2 - 30.5	0.62 - 0.91
	Station 3 - Southeast	Downwind	10.7 - 33.7	0.14 - 0.39
	Station 4 - Northeast	Downwind	11.2 - 43.5	0.13 - 0.50
9/24/2020	Station 1 - West	Upwind	30.9 - 79	0.10 - 1.57
	Station 2 - North	Downwind	26.7 - 55.9	0.55 - 1.10
	Station 3 - Southeast	Downwind	28.1 - 80.5	0.11 - 0.42
	Station 4 - Northeast	Downwind	26 - 67.2	0.11 - 0.44

Notes:

1. PM₁₀ action level: Normal operations if PM₁₀ <100 ug/m³
2. Mercury vapor action level: Normal operations if 15-minute average of MVA readings is <10 ug/m³
3. See CAMP for further details on action levels

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 three 8-hour off-site air samples were collected for mercury vapor analysis (one upwind and two downwind). Figures SP-3 through SP-5 show the locations of the Off-site/community air sample locations for the days when sampling was performed.

All mercury vapor off-site/community air monitoring data were below action levels defined in the CAMP.

A summary of off-site/community air monitoring data is presented in Table 3-2

**Table 3-2
Summary of Mercury Vapor Off-Site/Community Air Monitoring**

Date	Mercury Vapor Monitoring Event	Air Monitoring Station/Location	Upwind/Downwind	Mercury Vapor 8-Hour Sample (ug/m ³) Action Level <4 ug/m ³
9/22/2020	Asbestos Abatement	Station 1 - West	Upwind	ND
		Station 2 - South	Downwind	ND
		Station 3 - Southeast	Downwind	ND
9/23/2020	Handling Non-Hazardous High Mercury Waste	Station 1 - West	Upwind	ND
		Station 2 - South	Downwind	ND
		Station 3 - Southeast	Downwind	0.025 J
9/24/2020	Handling Non-Hazardous High Mercury Waste	Station 1 - West	Upwind	0.034 J
		Station 2 - South	Downwind	0.038 J
		Station 3 - Southeast	Downwind	0.018 J

Notes:

1. J = Estimated value. The concentration is below the reporting/quantitation limit, but above the method detection limit.
2. ND = Not detected at a concentration above the laboratory detection limit
2. Mercury vapor action level: Normal operations if 8-hour mercury sample is <4 ug/m³
3. See CAMP for further details on action levels

4 Monitoring Equipment

Table 4-1 presents the air monitoring devices used.

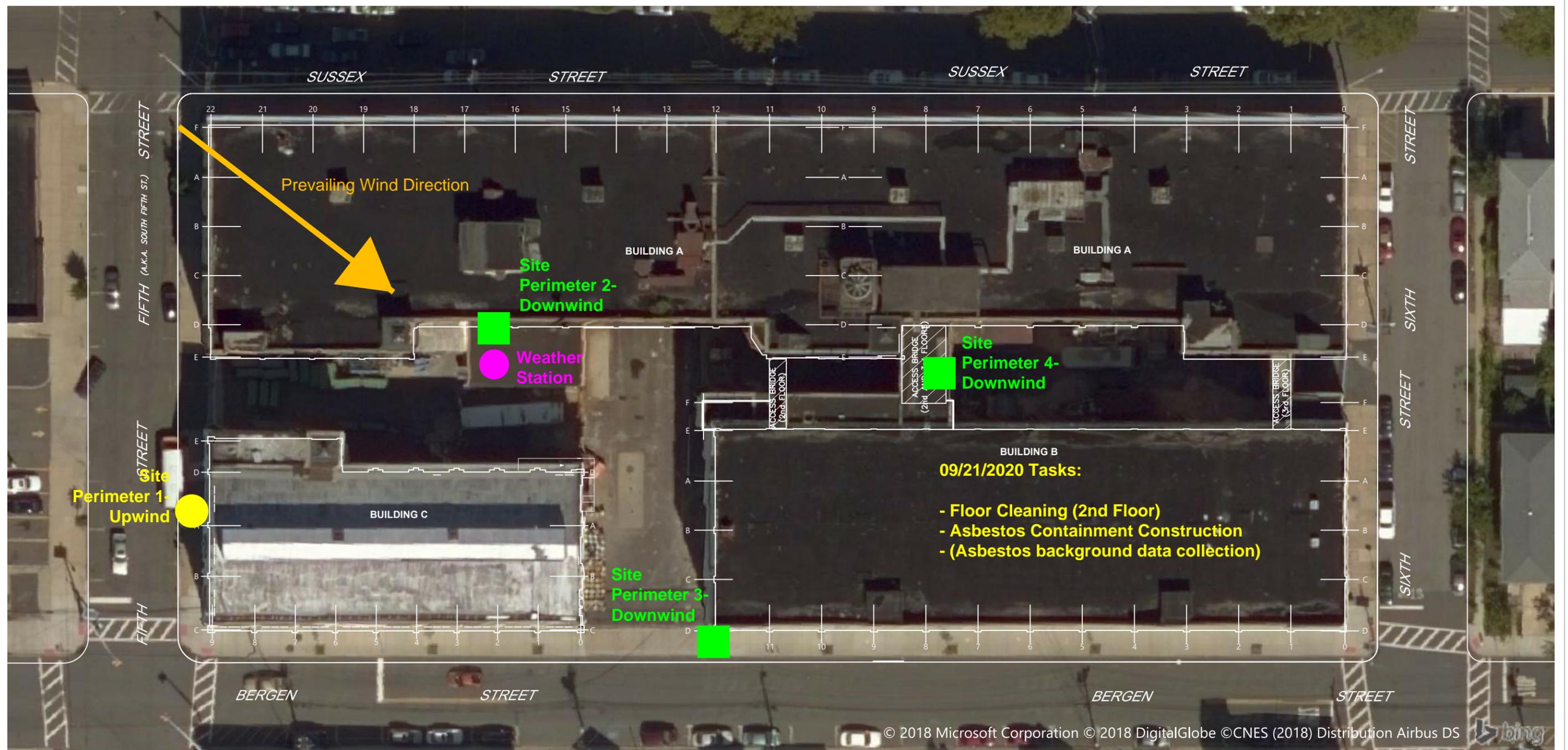
**Table 4-1
Monitoring Equipment and Calibration**

Parameter	Monitoring Equipment
Mercury Vapors – Real Time and Average Concentrations	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• MIE DataRAM™ Portable Particulate Monitor (work area perimeter, zeroed prior to daily use)• TSI Dusttrak Particulate Monitor (site perimeter stations, zeroed prior to daily use)
Meteorological Monitoring	<ul style="list-style-type: none">• Vantage Pro 2 weather station
Mercury Vapors – 8-hour Average Concentrations via NIOSH 6009	<ul style="list-style-type: none">• Sensidyne Gilian GilAir 3 air sampling pump (low flow module)• Mesa Labs Defender 500 series air sampling pump flow calibrator• Solid sorbent glass tubes containing Hopcalite

5 Issues or Potential Modifications to the CAMP

None

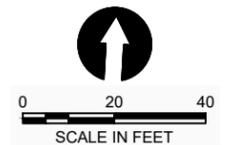
Figures



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).

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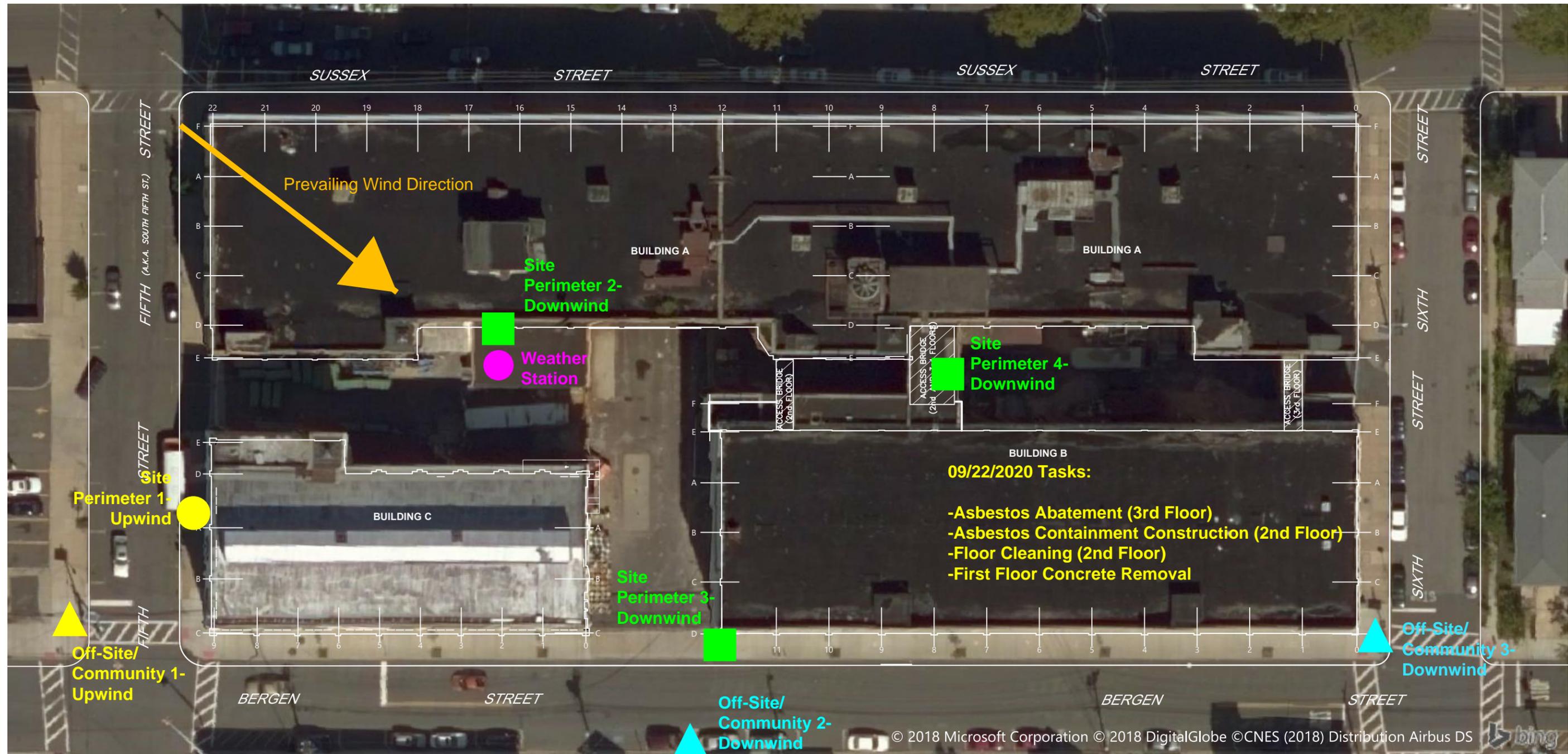
- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location
- ▲ Off-site/Community Air Monitoring Location (Yellow is upwind off-site location)



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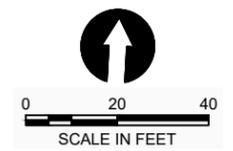
Figure SP-1
09/21/2020
Air Monitoring Station Locations
 Vo-Toys Site Building C Removal Action
 General Electric Company



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.
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VERTICAL DATUM: (None).

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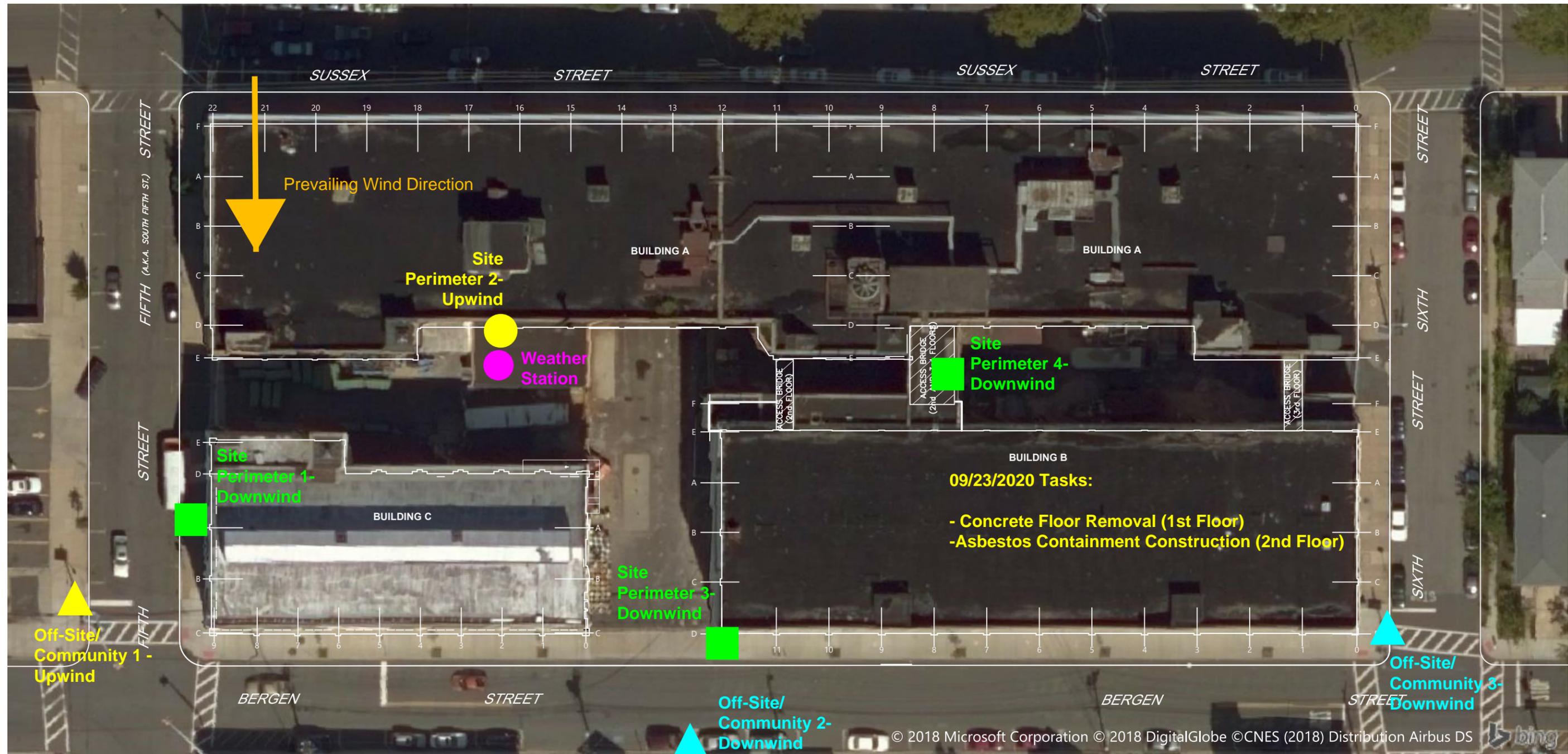
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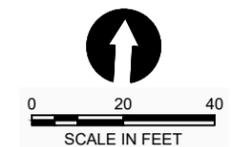
Figure SP-2
09/22/2020
Air Monitoring Station Locations
 Vo-Toys Site Building C Removal Action
 General Electric Company



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.
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VERTICAL DATUM: (None).

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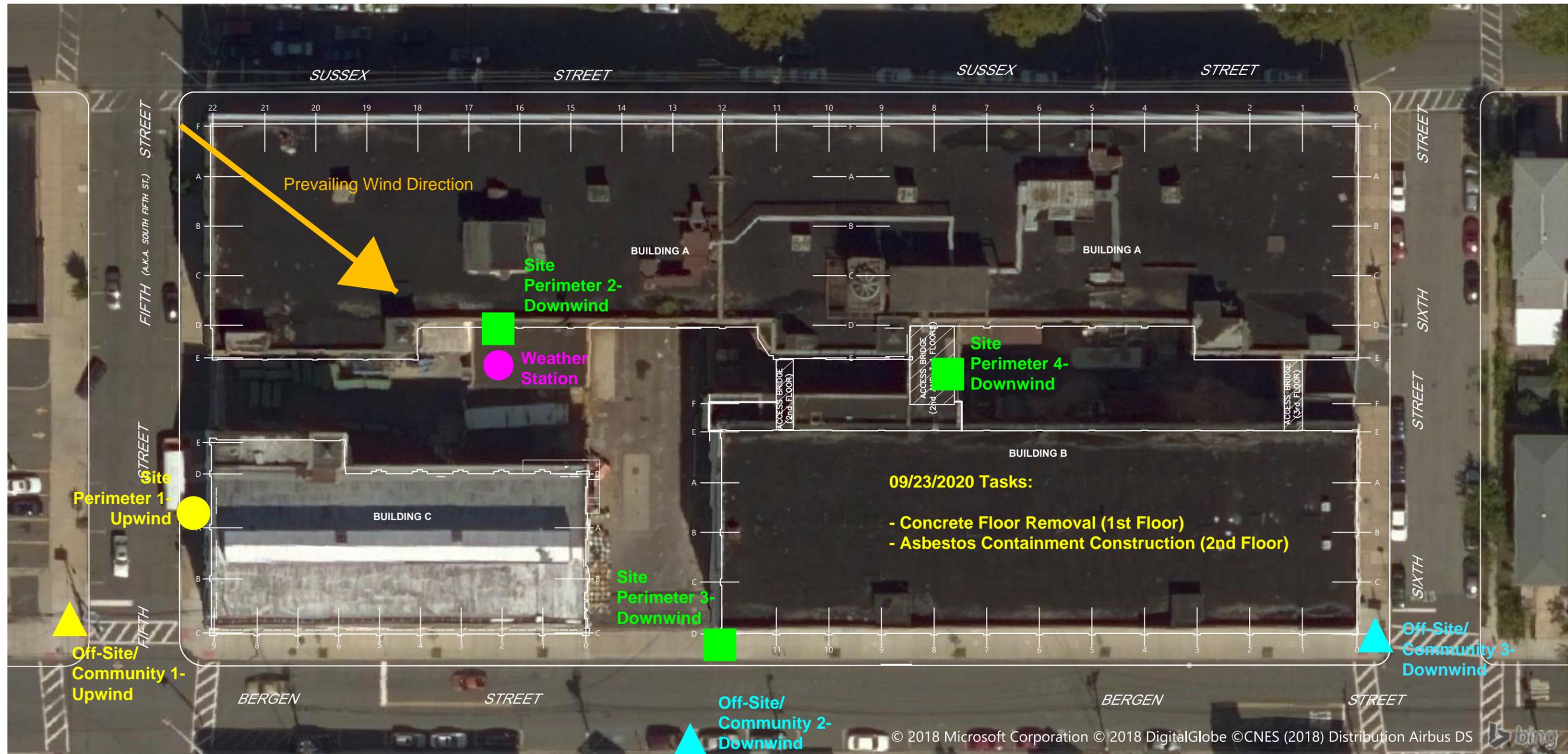
- Site Perimeter Air Monitoring Location
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Figure SP-3
09/23/2020 AM
Air Monitoring Station Locations
 Vo-Toys Site Building C Removal Action
 General Electric Company

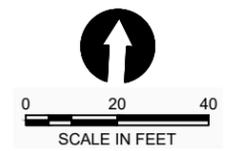


09/23/2020 Tasks:
 - Concrete Floor Removal (1st Floor)
 - Asbestos Containment Construction (2nd Floor)

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VERTICAL DATUM: (None).

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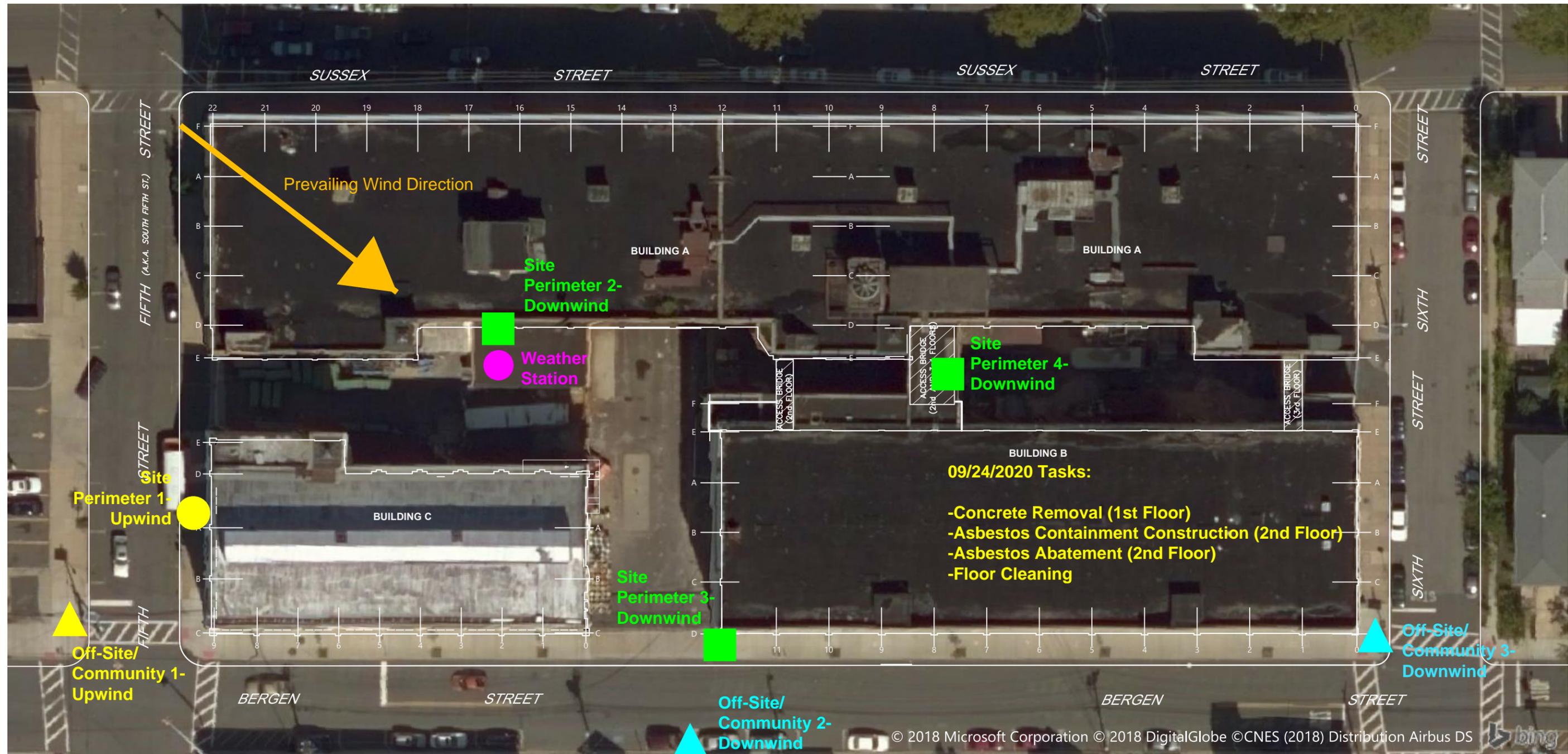
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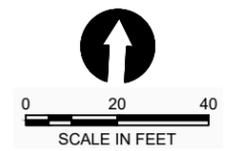
Figure SP-4
09/23/2020 PM
Air Monitoring Station Locations
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Figure SP-5
09/24/2020
Air Monitoring Station Locations
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