

WEEKLY AIR MONITORING REPORT

Vo-Toys Removal Action

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

CERCLA Docket No.: 02-2019-2028

Report No.: 51

Report Date: September 10, 2021

Reporting Period: September 7 to September 9, 2021

1 Introduction

This report summarizes the Vo-Toys Removal Action (RA) air monitoring program conducted between September 7 to September 9, 2021, 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 7, 2021 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 7, 2021. The attached site air monitoring figures show the locations of the meteorological sensors.

**Table 2-1
Meteorological Monitoring Summary**

Date	Weather
September 7, 2021	Sunny, high in the low 80s°F; Winds: 0-5 mph W (online), 0-5 mph NW (site)
September 8, 2021	Mostly Sunny, high in the mid-80s°F; Winds: 0-5 mph NW (online), 5-10 mph NW (site)
September 9, 2021	Rain, High in the mid-70s°F; Winds: 5-10 mph W (online), 0-5 mph W (site)

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 the buildings 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. Five air monitoring stations were located outside the buildings around the site perimeter: one upwind and four downwind. Figures SP-1 through SP-3 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-

**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
09/07/2021	Station 1 – West	Upwind	10.2 – 19.2	0.10 - 0.25
	Station 2 – East	Downwind	9.3 – 13.4	0.10 - 0.31
	Station 3 – Southeast	Downwind	8.8 – 20.2	0.10 - 0.15
	Station 4 – North	Downwind	0.1 – 9.4	0.12 - 0.24
	Station 5 – South	Downwind	1.3 – 13.6	-
09/08/2021	Station 1 – West	Upwind	23.1 – 45.5	0.10 - 0.24
	Station 2 – East	Downwind	21.1 – 48.2	0.12 - 0.22

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
	Station 3 – Southeast	Downwind	29.7 – 40.9	0.10 - 0.15
	Station 4 – North	Downwind	9.3 – 28.7	0.13 – 0.32
	Station 5 – South	Downwind	17.8 – 39.8	-
09/09/2021 ⁴	Station 1 – West	Upwind	–	-
	Station 2 – East	Downwind	–	-
	Station 3 – Southeast	Downwind	–	-
	Station 4 – North	Downwind	–	–
	Station 5 – South	Downwind	–	-

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.
4. No Site Perimeter air monitoring due to all day rain.

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, one mercury vapor monitoring event per building would be performed during ACM removal. Off-site/community air monitoring for mercury vapors was performed on September 7, 2021 during removal of ACM from the Building B roof. Four 8-hour off-site air samples were collected for mercury vapor analysis (one upwind and three downwind). Figure SP-1 shows the locations of the off-site/community air sample locations for the day when sampling was performed.

A summary of off-site/community air monitoring 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
09/07/2021	Building B ACM Removal	Station 1 - West	Upwind	Results Pending (to be reported next week)
		Station 2 – Southeast	Downwind	Results Pending (to be reported next week)
		Station 3 – East	Downwind	Results Pending (to be reported next week)
		Station 4 - North	Downwind	Results Pending (to be reported next week)

4 Monitoring Equipment

Table 4-1 presents the air monitoring devices used.

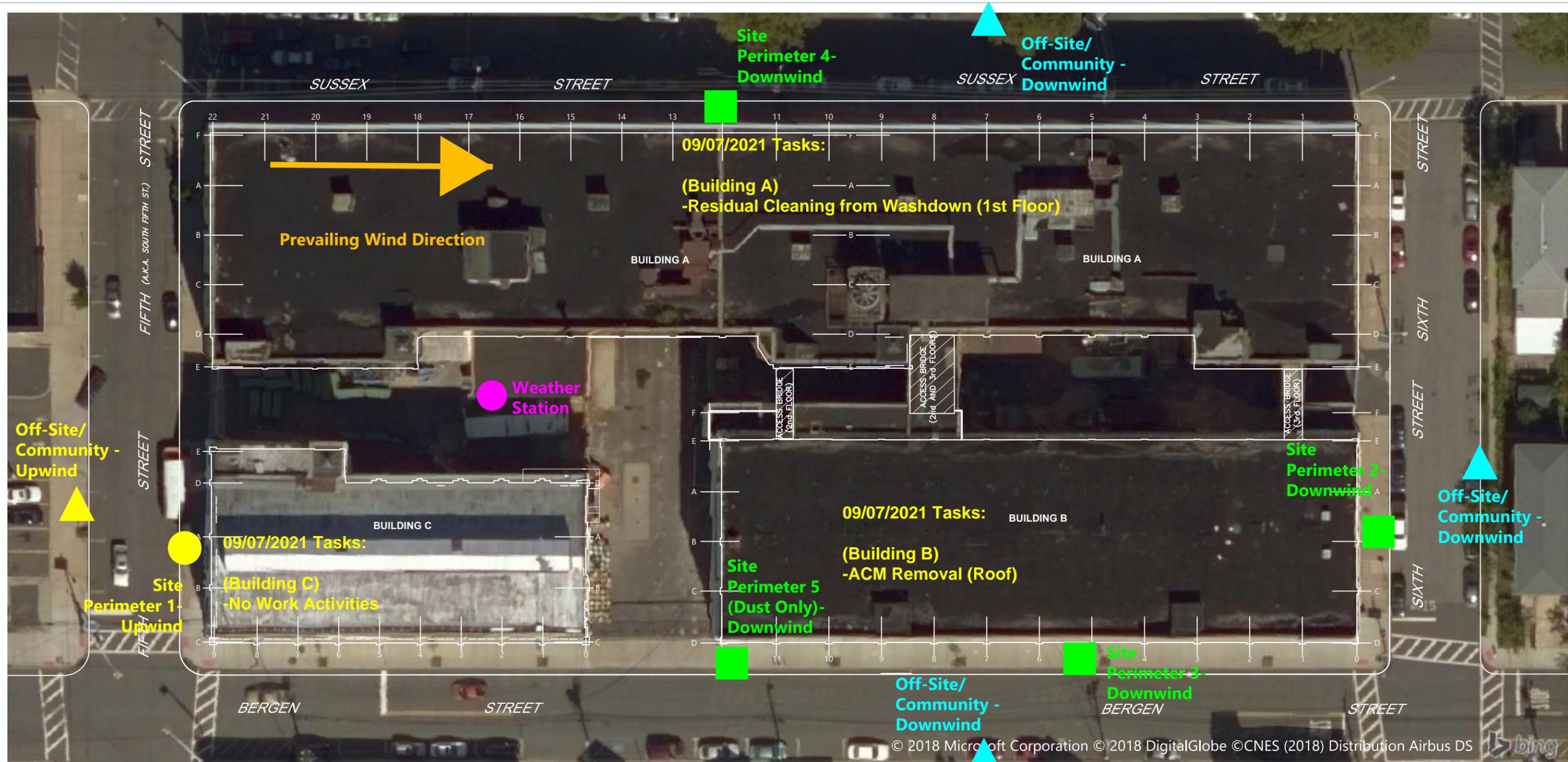
Table 4-1
Monitoring Equipment and Calibration

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 calibratorSolid sorbent glass tubes containing Hopcalite

5 Issues or Potential Modifications to the CAMP

None

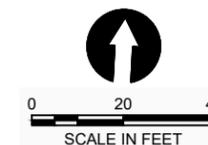
Figures



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).

LEGEND
 A,1 - - - - BUILDING COLUMN LINE

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

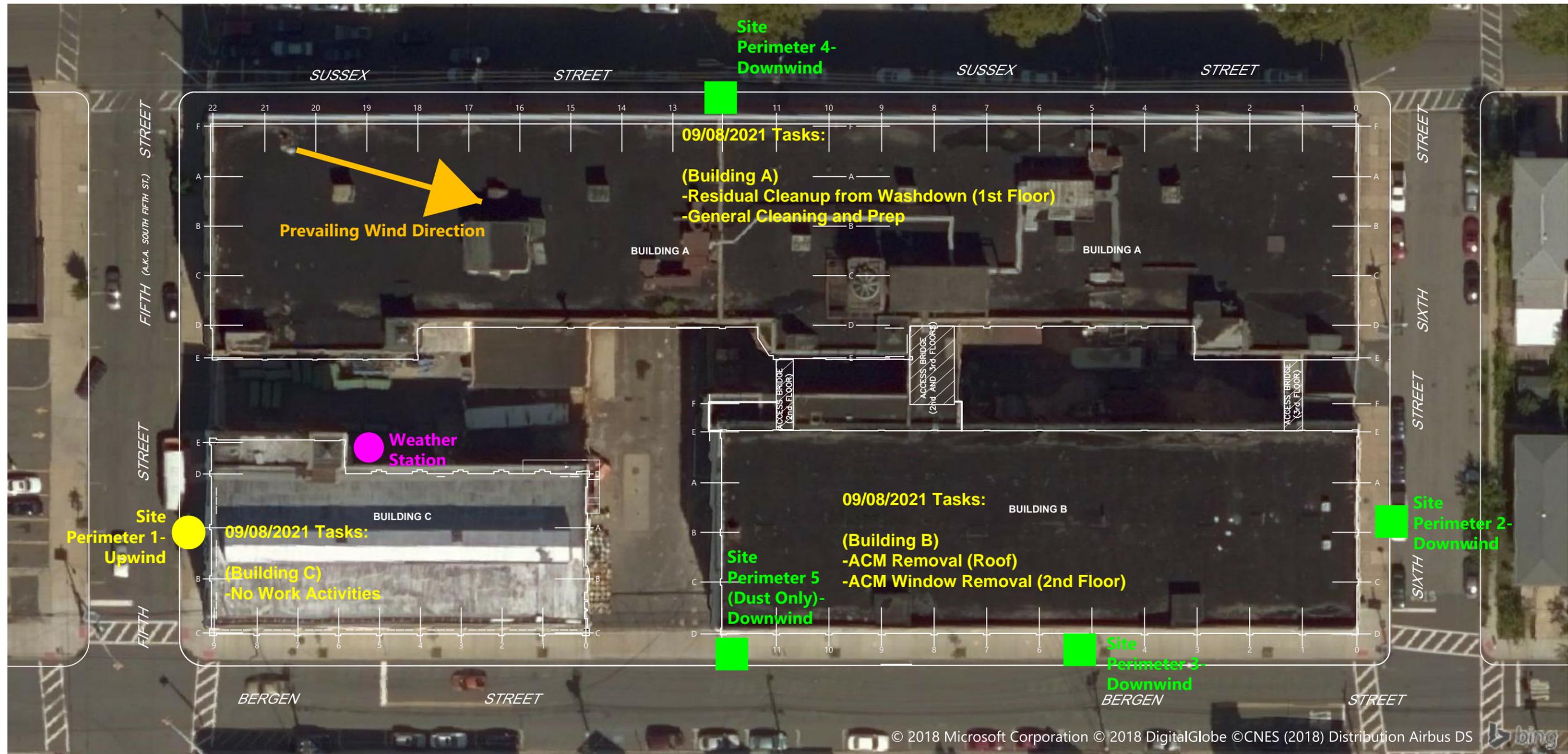


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Figure SP-1
09/07/2021
Air Monitoring Station Locations

Vo Toys Removal Action
 General Electric Company



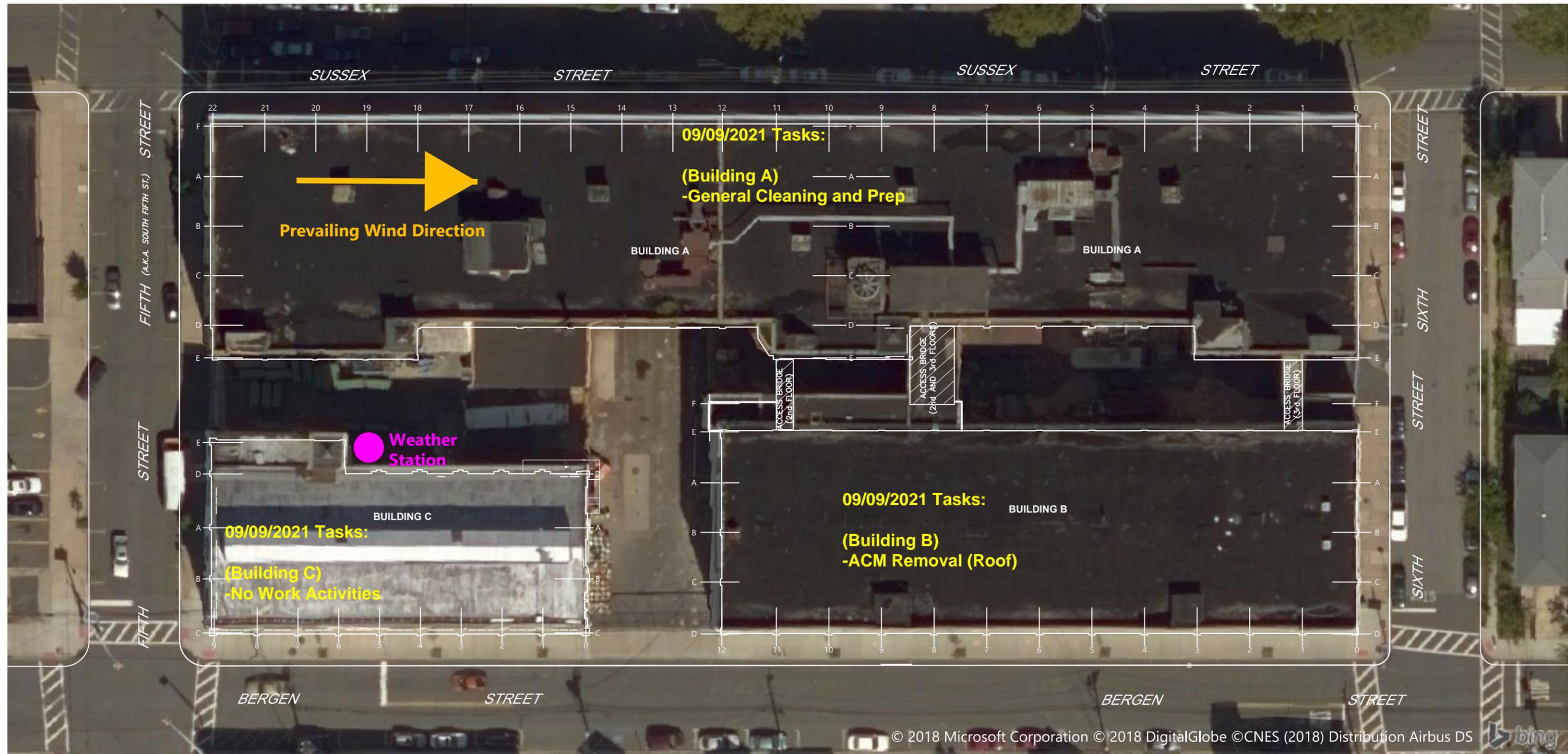
SOURCE: Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED_SITEMAP_20101" provided by General Electric Company on March 3, 2016.
HORIZONTAL DATUM: New Jersey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

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Figure SP-2
09/08/2021
Air Monitoring Station Locations

Vo Toys Removal Action
 General Electric Company



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Figure SP-3
09/09/2021
Air Monitoring Station Locations

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