



**Allegheny County Health Department
Air Quality Program
301 39th Street, Building 7
Pittsburgh, PA 15201**

2013 Air Monitoring Network Review

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1. EPA REQUIREMENTS FOR AIR MONITORING NETWORK DESCRIPTIONS

In October 2006, the U.S. EPA issued final regulations concerning state and local agency ambient air monitoring networks. In addition, EPA Region III provided guidance in what was to be submitted with the first round of a Network Description. Region III requested information described in 40 CFR Part 58 §58.10.

The requirements of 40 CFR Part 58 §58.10 are listed as follow:

§58.10 (a) requires for each existing and proposed monitoring site:

1. A statement of purpose for each monitor.
2. Evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of 40 CFR Part 58, where applicable.
3. Proposals for any State and Local Air Monitoring station (SLAMS) network modifications.

§58.10 (b) requires:

1. The Air Quality System (AQS) site identification number.
2. The location, including street address and geographical coordinates.
3. The sampling and analysis method(s) for each measured parameter.
4. The operating schedules for each monitor.
5. Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.
6. The monitoring objective and spatial scale of representativeness for each monitor.
7. The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM_{2.5} NAAQS as described in §58.30.
8. The Metropolitan Statistical Area (MSA), Core Based Statistical Area (CBSA), Combined Statistical Area (CSA) or other area represented by the monitor.

To view EPA's final revisions to the ambient air monitoring regulations, please follow the link below (file size 708 kb).

<http://www.epa.gov/air/criteria.html>

(2) CHANGES SINCE THE LAST AIR MONITORING NETWORK REVIEW

(2.1) PM Network

(2.1.1) PM_{2.5} FRM

The PM_{2.5} FRM monitoring network is unchanged since the last network review and continues to operate within EPA parameters at all sites. The Allegheny County weighing laboratory performed adequately during 2012-2013 but there has been occasional difficulty keeping the humidity and temperature within acceptable limits, causing some data loss. Additionally, the Caliper/Zymark automated filter weighing system has experienced considerable down time and will no longer be supported by the manufacturer. The County laboratory continues to successfully weigh PM_{2.5} filters for ACHD as well as for the State of Delaware's PM_{2.5} FRM network.

(2.1.2) PM_{2.5} Continuous Monitors

Continuous PM_{2.5} monitoring remains unchanged since the last network review. Met One BAM 1020 PM_{2.5} (FEM) monitors are currently installed at the Avalon and Lawrenceville NCORE air monitoring stations. Thermo Scientific TEOM PM_{2.5} (SPM) monitors are currently installed at Liberty, Lincoln and Lawrenceville NCORE air monitoring stations.

(2.1.3) PM₁₀ Continuous Monitors

Continuous PM₁₀ monitoring remains unchanged since the last network review. Met One BAM 1020 PM₁₀ (FEM) monitors are currently installed at Lawrenceville NCORE, North Braddock and Monroeville air monitoring stations. Thermo Scientific TEOM PM₁₀ (FEM) monitors are currently installed at Liberty, Glassport, Lincoln and Flag Plaza air monitoring stations.

(2.2) Sulfur Dioxide Monitoring Network

A sulfur dioxide monitor was installed at the North Braddock air monitoring site during June 2013. This installation was initiated after considering the revised sulfur dioxide NAAQS, and concerns about meeting the new short term sulfur dioxide standard in this area.

(2.3) Data Logging Hardware and Software

During 2012, the monitoring system database was upgraded from the EDAS system to the newer Airvision operating system. The Airvision software is installed on a new server which features enhanced processing and data storage capabilities.

(2.4) Special Study Monitors

(2.4.1) Lawrenceville Metals Study

A metals study was initiated in May 2011 on the property of a local metal foundry. Analysis of filters gathered by a PM10 high volume sampler is used for this purpose. Exposed filters are analyzed for manganese, lead and total chromium. Sampling continues currently on an every three day sampling schedule. Future sampling will be based on the decision of the Air Quality Program. Ongoing data reports are posted on the Air Quality Program website at the following location;

<http://www.achd.net/air/index.html>

(2.4.2) West Allegheny

In April, 2009, a continuous hydrogen sulfide monitor was installed at the Wilson Elementary School in response to numerous odor complaints for local area residents and school staff members in regards to emission generated by the nearby residential landfill (see section 7.17 . Air Quality Program staff were able to correlate elevated hydrogen sulfide levels with odor complaint incidents with a high degree of reliability. The decision was made to keep the hydrogen sulfide monitor in place as a surveillance tool to be used by the Air Quality and the landfill operators to indicate developing odor problems. Since this monitor has been in operation and in coordination with operational improvements at the landfill, odor complaints in this area have become less numerous. Hydrogen sulfide is also measured at Avalon and Liberty air monitoring sites for similar reasons due to both of these areas being impacted by coke plant emissions and associated odors.

(2.5) 2013 Monitoring Network Review Enhancements

The 2013 monitoring network review was enhanced in a few ways to add more accurate and more detailed about the Allegheny County Air Monitoring Network as follows;

- Altitude and probe height measurements were converted from feet to meters
- Latitude and longitude for each site location was reassessed and listed in finer increments.
- Date established and probe height was added to each monitoring site description.
- An “Area Information” section was added to each monitoring site description that includes daily traffic counts and distance to nearby roads, land area descriptions and nearby obstructions to air flow.

(3) PROPOSED CHANGES TO THE AIR MONITORING NETWORK

(3.1) Near Road NO₂ Air Monitoring Site

The MSA (Metropolitan Statistical Area) that includes Allegheny County was selected by the EPA to be among first tier of areas that are required to install a near road NO₂ air monitoring site, in compliance with the recently revised NO₂ NAAQS. This site was targeted to be installed and operational by January 1, 2013. There were considerable delays in the competitive bidding and the contract award process. Unrelated construction at the site and electrical supply issues have added additional delays. Currently, construction is underway on the concrete pad base and the shelter is targeted to be installed by mid-August, 2013. Arrangements are currently underway to supply underground utilities to the monitoring site. Department funds must be approved and expended to partially fund a larger underground power supply project to the area.

EPA guidance was followed in selecting this monitoring site, which is located near the Forest Hills/Wilksburg exit of the Parkway East (Rt. 376). Parameters to be continuously measured at this site include NO₂ (nitrogen dioxide), CO (carbon monoxide), Black Carbon (aethalometer), and meteorological parameters including wind speed, wind direction, ambient temperature and relative humidity using a 10 meter on-site tower. For more information see section 8.19 (page 78).

The Primary NO₂ NAAQS final rule may be obtained at the following location;

<http://www.gpo.gov/fdsys/pkg/FR-2010-02-09/html/2010-1990.htm>

(3.2) Monitor Reductions

The Air Quality Program plans to permanently remove the following monitors from the network during 2013-2014, after the NO₂ near road air monitoring site is operational:

- Downtown Carbon Monoxide Monitor

Since carbon monoxide is the only parameter monitored at the Downtown site, this site will be discontinued upon removal of the monitor. This site does not meet EPA siting criteria and the Parkway East carbon monoxide monitor will be a better measure of maximum roadway emissions in Allegheny County.

- Lawrenceville Oxides of Nitrogen monitor (NO₂)

The Lawrenceville site features an additional oxides of nitrogen monitor, which is a trace level NO_y monitor that is part of the NCORE suite of instruments. This monitor is much more sensitive and of more current design than the standard sensitivity NO₂ monitor that is also in operation at that same site.

Additionally, the new near road NO₂ monitor will be a new trace level design and will be optimally located to capture maximum roadway emissions as an important aspect of the site location.

(3.3) PM2.5 Weighing Laboratory

The Air Quality Program has approved the purchase a new automated PM2.5 filter weighing system which is currently on order. Additionally, a self-enclosed environmentally controlled chamber is included as part of the purchase to help improve unstable humidity and temperature conditions of the current weighing room.

(3.4) Harrison Monitoring Site Relocation

The Highlands School District has notified the Air Quality Program that the building that currently houses the ozone and nitrogen dioxide monitors (see section 8.6, Harrison) has been put up for sale. Due to the condition of the building, demolition is a likely result of a change of ownership. Arrangements have been made to move the monitors to the Harrison 2 air monitoring site and this project is currently in progress. The Harrison 2 air monitoring site is currently a PM2.5 FRM monitoring site that is within 1 kilometer of the Harrison air monitoring site. The Harrison 2 site will feature a more unrestricted air flow, will better meet gaseous monitor siting criteria and represents an overall improvement to the air monitoring network design. The Air Quality Program intends to complete the current ozone season before the ozone and nitrogen dioxide monitors are moved (October 1, 2013), but the move will be performed earlier if the building is sold sooner than that date.

(4) AIR MONITORING NETWORK SUMMARY INTRODUCTION

Table 4 is provided as an overview of the air monitoring network, and is presented here to show at a glance the numbers and general types of air monitors currently maintained by the Air Quality Program. To view live and recent data for all continuous monitors listed in the table, see the Air Quality Program website;

<http://www.achd.net/air/air.html>

Figure 4 is a simple map that shows relative locations of the fixed air monitoring sites in Allegheny County. Significant air pollution sources are also included.

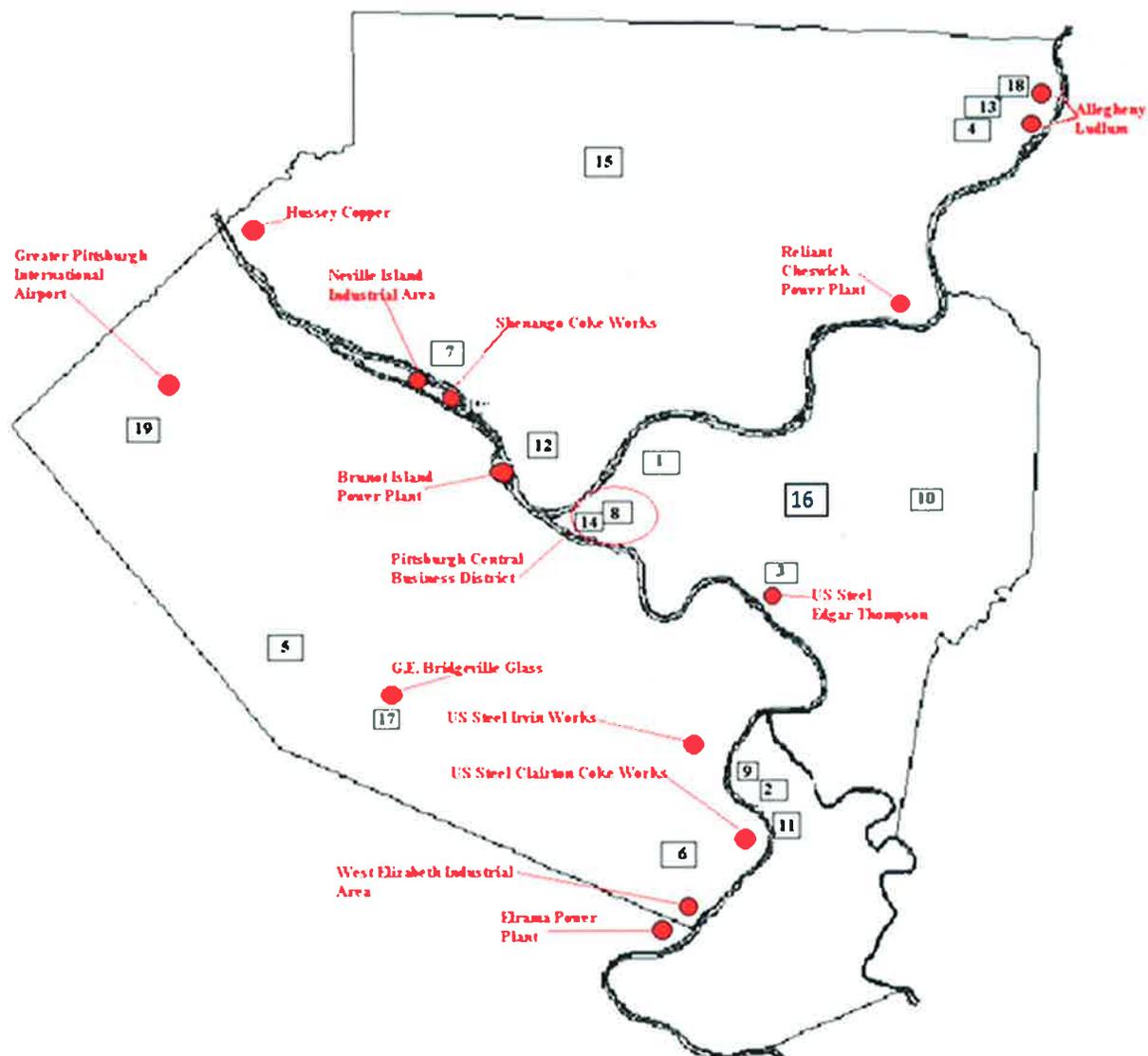
(Table 4) AIR MONITORING NETWORK SUMMARY

	SO ₂	CO	NO ₂	NO _y	O ₃	PM ₁₀	PM _{2.5}	PM coarse	Pb	H ₂ S	Air Toxic	Met
Lawrenceville	CT	CT	C	CT	C		C I(1), IQA(6) SPC(3)	C	I(6), IQA(6)		M	Sonic RH, AT
Liberty	C					C I(3), IQA(6)	C I(1), IQA(6) SPC(6)			C	B	Sonic, AT
North Braddock	C					C I(6), IQA(6)	I(3)					
South Fayette	C				CS	I(6)	I(3)					Sonic, AT
Clairton						I(6)	I(6)					
Avalon	C					I(6)	I(3), C			C		Sonic, AT
Flag Plaza		C				C					T15(6) T11(6)	
Glassport High Street						C						
Lincoln						C	C					
Pittsburgh 8 (Manchester)						I(6)						
Harrison			C		C							
Harrison 2							I(3)					
Downtown		C										
North Park							I(6)					
Bridgeville									I(6)			
Natrona									I(6)			
West Allegheny										C		
Monroeville						C						
Parkway East (planned)		CT	CT								BC	Sonic RH, AT
	SO ₂	CO	NO ₂	NO _y	O ₃	PM ₁₀	PM _{2.5}	PM coarse	Pb	H ₂ S	Air Toxic	Met
Total	C = 4 CT = 1	C = 2 CT = 1	C = 2	CT = 1	C = 2 CS = 1	C = 6 I = 6 IQA = 2	C = 5 I = 8 IQA = 2 SPC = 2	C = 1	I = 3 IQA = 1	C = 3	C = 1 I = 3	C = 4

CHART KEY

C = Continuous	I = Intermittent or Filter-Based	SPC = PM _{2.5} Speciation	S = Seasonal Monitor
T = Trace Level Monitor	(1), (3), or (6) = Sampling Frequency [for example, (3) means every third day]		
B = Benzene Monitor	T15 = SUMMA TO15	T11 = Carbonyl TO11	BC = Black Carbon (Aethalometer)
M = HAP Metals by TSP / Analyzed by WV DEP	RH = Relative Humidity	AT = Ambient Temperature	
Green Shading = Planned Monitors, Not Yet Operational	IQA = Intermittent Collocated QA monitor		
Red Shading = Candidate for Discontinuation			

(Figure 4) Allegheny County / Air Pollution Sources and Air Monitoring Sites



Site Number	Monitoring Site Name	Site Number	Monitoring Site Name
1	Lawrenceville	11	Lincoln
2	Liberty Boro	12	Pittsburgh 8
3	North Braddock	13	Harrison
4	Harrison 2	14	Downtown
5	South Fayette	15	North Park
6	Clairton	16	Parkway East (Planned)
7	Avalon	17	Bridgeville Lead Monitor
8	Flag Plaza	18	Natrona Lead Monitor
9	Glassport High Street	19	West Allegheny (Wilson Elementary)
10	Monroeville		

(5) GLOSSARY OF TERMS AND ABBREVIATIONS

NAAQS	National Ambient Air Quality Standards. These standards apply only to the six criteria pollutants
Criteria Pollutants	Air pollutants considered harmful to public health and the environment (carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, lead, particulate matter PM ₁₀ , PM _{2.5})
FRM	Federal Reference Method. Primary measurement methods designated by the USEPA for measurement of criteria pollutants and determination of compliance with NAAQS.
FEM	Federal Equivalent Method. Secondary methods approved by the USEPA for measurement of criteria pollutants and determination of compliance with NAAQS.
Hourly	Refers to continuous operating monitors which produce hourly averaged telemetered data.
TSP	Total suspended particulates. This pollutant is measured using the high volume sampler operated without a size selective inlet.
PM₁₀	All suspended particles equal to or smaller than 10 microns.
PM_{2.5}	All suspended particles equal to or smaller than 2.5 microns. Also frequently referred to as fine particulates.
PM_(coarse)	All suspended particulates smaller than 10 microns but larger than 2.5 microns, also often referred to as PM _{10-2.5} . EPA has not assigned a NAAQS to this parameter as of the date of this document.
Lead (Pb)	Lead Monitor. Data is obtained by County laboratory analysis of TSP filters. This analysis measures lead that is trapped in suspended particles and is performed according to the federal reference method for lead monitoring.
Speciation	PM _{2.5} speciation monitor. Multiple filter based samples which yield a breakdown of PM _{2.5} composition. Analytes include heavy metals, sulfates, nitrates and various species of carbon. Analysis is conducted by the US EPA national contract lab, known as Research Triangle Institute, which is located in North Carolina.
IMPROVE	Interagency Monitoring of Protected Visual Environments. Analysis of these samples is conducted by University of California at Davis. This is an alternate method of PM _{2.5} speciation.
HAP Metals (TSP)	Analysis of special quartz TSP filter samples for metals considered hazardous air pollutants as specified by the EPA implemented toxic metals study. Samples are collected every six days and are analyzed by the Guthrie Laboratory, operated by the West Virginia Department of Environmental Protection.
B(a)P	Benzoalphapyrene. Data is obtained by Allegheny County laboratory analysis of high volume PM ₁₀ quartz filters. A highly carcinogenic airborne pollutant known to be a byproduct of Coke production.
Aethalometer	A continuous monitor designed to measure diesel mobile emissions by quantifying black carbon particles. This is a research instrument and does not measure EPA criteria pollutants.

GLOSSARY OF TERMS AND ABBREVIATIONS (continued)

Benzene	C_6H_6 . A six carbon aromatic ring known to be a potent carcinogen. Emitted by mobile and industrial sources in Allegheny County.
SUMMA Canister	Samples collected for 24 hours every six days using an evacuated stainless steel canister. Analysis for multiple volatile organic compounds is performed by Maryland Department of Environmental Protection.
Carbonyl	Samples collected for 24 hours every six days. Sample media is a DNPH cartridge. Analysis by method TO-11a is performed by the Philadelphia Health Department for formaldehyde and other related carbonyl compounds.
WINS	WINS Impactor. Used by the PM _{2.5} reference method sampler to accomplish the final size cut to PM _{2.5} and below. This device is placed in the sample stream and requires the use of a special designated, low volatility, silicon based oil in the impactor well.
VSCC	Very Sharp Cut Cyclone. An alternate particulate sizing device approved by the EPA for use with PM _{2.5} FRM and FEM monitors. The VSCC is commonly used to accomplish the final PM _{2.5} size cut in continuous particulate monitors. The VSCC features longer service intervals and does not require the use of oil.
CO	Carbon Monoxide. Measured using a continuous automated analyzer.
SO₂	Sulfur Dioxide. Measured using a continuous automated analyzer.
NO_x	Oxides of nitrogen, including nitric oxide and nitrogen dioxide. Measured using a continuous automated analyzer.
NO_y	Total reactive nitrogen. A collective name for oxidized forms of nitrogen in the atmosphere such as nitric oxide (NO), nitrogen dioxide (NO ₂), nitric acid (HNO ₃), and numerous short lived and reactive organic nitrates, but not NH ₃ . These compounds play important roles in atmospheric ozone and ultra-fine particle formation.
O₃	Ozone. Measured using a continuous automated analyzer.
H₂S	Hydrogen Sulfide. Measured using a continuous automated analyzer.
NCORE	National Core Monitoring Network, consisting of multi-pollutant ambient air monitoring sites, and specializing in PM _{2.5} and associated precursor gases.
SPM	Special Purpose Monitor. Monitor not used for comparison against NAAQS. SPM's may be employed for short term studies. Monitors not approved as EPA reference or equivalent methods must be operated as SPM monitors.
TEOM	(Tapered Element Oscillating Microbalance) this technology is used by the Thermo Scientific model 1400ab continuous particulate monitor, which has FEM designation for PM ₁₀ measurement. This monitor is also used as a PM _{2.5} SPM by adding a VSCC.
BAM	(Beta Attenuation Monitor) this technology is used by the Met One BAM1020 continuous particulate monitor, which has FEM designation for PM ₁₀ measurement, and for PM _{2.5} with the addition of a VSCC.

(6) AIR MONITORING NETWORK DESCRIPTION INTRODUCTION

The following air monitoring network description discusses each monitoring site in detail. The first information block is labeled with the site name. Inside of the block is listed site specific information as follows:

- **Street Address**
- **AIRS #** - unique 9 digit number used to identify the site in the national data base.
- **Municipality** where site is located.
- **MSA**- Metropolitan Statistical Area.
- **Elevation**- Feet above mean sea level.
- **Latitude (N), Longitude (W)** – Site coordinates, given in WGS84 datum coordinates as taken from Google Earth.
- **Comments**- Specific site information of importance.

The next blocks are designed to list details of each monitor at the site. Each monitor present at the time of the review is assigned its own block. The following information is listed:

Sensor Type – The name of the pollutant measured by the sampler.

Sensor Network Designation – The name of the designated network:

- SLAMS - State or Local Ambient Monitoring Station
- STN – PM_{2.5} Speciation Trends Network
- SPM – Special Purpose Monitor
- NATTS- National Air Toxics Trends Site
- NCORE – National Core Multi-pollutant Monitoring
- QA CO-LOCATED – Quality Assurance Duplicate Monitoring

Sensor Purpose Description– The purpose of the sensor:

- Population Exposure, such as the Air Quality Index
- Regulatory Compliance with Federal or State regulation
- Research/Scientific Monitoring
- Specific Location Characterization
- Quality Assurance (Collocated)

Sample Frequency – Specifies how often a sample is taken.

- Continuous - operates 24/7; applies predominately to gaseous analyzers, although some particulate samplers (TEOM, BAM) operate continuously.
- Daily – a discrete sample is taken every day; applies to manual method particulate samplers.
- Every Third Day - Manual method particulate samplers that run every third day.
- Every Sixth Day – Manual method particulate samplers that run every sixth day.

Appendix A QA Assessment – A “YES” indicates the sensor is maintained in accordance with the Quality Assurance (QA) requirements specified in 40 CFR Part 58 Appendix A.

Appendix C Monitoring Classification – Each ambient air monitor is classified using the EPA “List of Designated Reference and Equivalent Methods”

- Reference Method – a method of sampling that is specified in 40 CFR Part 50.
- Equivalent Method – a method that is designated as equivalent to the reference method, in accordance with 40 CFR Part 53.
- Automated – after sampling, the analysis results are available immediately.
- Manual - after sampling, a separate analysis at a laboratory is necessary.
- N/A – appears where there is no reference or equivalent method.

Appendix C Monitoring Method – Each ambient air monitor is classified by a specific “method number.” These numbers can be found in the EPA “List of Designated Reference and Equivalent Methods”

For detailed descriptions of each method number listed in this review, please follow the link below to access the EPA’s Technology Transfer Network (file size 492 kb).

<http://www.epa.gov/ttn/amtic/files/ambient/criteria/reference-equivalent-methods-list.pdf>

Monitoring Method Description – Each individual ambient air monitor type has a specific method of pollutant detection. Common examples are:

- Ozone monitors – Ultraviolet (UV) Absorption
- SO₂- UV Fluorescence
- CO - Non-dispersive Infrared (IR)
- NO₂, NO_x and NO_y - Chemiluminescence
- PM_{2.5}, PM₁₀ - Gravimetric (gravimetric by TEOM tapered element microbalance, beta particle attenuation by BAM)
- Gas Chromatograph- Portable instrument that uses gas separation technology and a carrier gas of high purity nitrogen. The photo ionization detector is capable of low ppb levels of detection. Used by the Air Quality Program to continuously monitor for benzene at the Liberty site.
- Aethalometer – Continuous monitor that uses light attenuation and a specific wavelength (880 nm) to quantify diesel mobile emissions as black carbon particles and at an additional wavelength (370 nm) to differentiate and subtract positive signals from aromatic organic compounds such as those found in biomass burning, cooking and tobacco smoke.

Appendix D Design Criteria – Appendix D requires a certain number of samplers per geographic area. A “YES” indicates that the number of monitors in that particular area meets or exceeds the requirement of 40 CFR Part 58 Appendix D.

Appendix D Scale – The specific “spatial scales of representation” describes the physical dimensions of the air parcel around the monitoring station throughout which actual pollutant concentrations are reasonably similar.

- Microscale - Areas ranging from several meters to about 100 meters
- Middle scale - Areas ranging from 100 meters to 0.5 kilometers
- Neighborhood - 0.5 to 4.0 kilometers, and uniform land use
- Urban scale - 4 to 50 kilometers, and
- Regional - ten to hundreds of kilometers

Appendix D Objective – Describes the purpose/objective for monitoring at a site.

- Extreme Downwind
- General/Background Concentration
- Highest Concentration
- Maximum Ozone Concentration
- Maximum Precursor Emissions
- Population Exposure
- Regional Transport
- Source Oriented
- Quality Assurance
- Welfare Related

Appendix E Siting Criteria – Describes certain criteria applicable to ambient air quality sampling probes and monitoring paths, such as distances from trees, obstructions, traffic lanes, etc. A “YES” indicates that the sensor at the given site meets or exceeds the requirements of 40 CFR Part 58 Appendix E.

(7) Detailed Air Monitoring Site Tables**(7.1) Lawrenceville**

Address	Allegheny County Health Department 301 39 th Street Pittsburgh, PA		
AIRS#	42-003-0008	MSA	Pittsburgh
Municipality	Pittsburgh	Elevation	280 m
Latitude (N)	40°27'55.56	Longitude (W)	79°57'38.67
Established	03/01/1966	Probe Height	7 m
Comments	This is a population-based, community oriented monitoring site that is located in an urban area, downwind of Central Business District. The Lawrenceville monitoring site was selected as a PM _{2.5} National Trends Site, and later as an NCORE site. The most significant local pollution is generated from mobile sources, but light industry scattered throughout the area is also a contributing factor. Lawrenceville is a core PM _{2.5} site that is used to determine compliance with national standards.		

Sensor Type	Ozone	Appendix C Method Code	EQOA-0880-047
Network Designation	SLAMS	Method Description	UV Absorption
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	Oxides of Nitrogen	Appendix C Method Code	RFNA-0691-082
Network Designation	SLAMS	Method Description	Chemiluminescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Reference Method	Appendix E Siting Criteria	Yes

Lawrenceville, Continued

Sensor Type	PM_{2.5}	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	TEOM (non-equivalent)
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

Sensor Type	PM_{10-2.5} (coarse)	Appendix C Method Code	EQPM-0709-185
Network Designation	NCORE / SPM	Method Description	Beta Attenuation Monitors
Purpose	Research/Scientific Monitoring	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method for PM coarse monitoring	Appendix E Siting Criteria	Yes

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Daily	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	QA/Co-located Monitor	Appendix D Design Criteria	Yes
Sample Frequency	Every six days	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure / Quality Assurance
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Lawrenceville, Continued

Sensor Type	PM_{2.5} Speciation	Appendix C Method Code	N/A (Met One SASS +URG3000n)
Network Designation	STN	Method Description	Gravimetric
Purpose	Research/Scientific Monitoring	Appendix D Design Criteria	Yes
Sample Frequency	Every Three Days	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Appendix C Classification	N/A	Appendix E Siting Criteria	Yes

Sensor Type	Carbon Monoxide Trace Level	Appendix C Method Code	RFCA-1093-093
Network Designation	NCORE	Method Description	Non-dispersive Infrared
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Appendix C Classification	Automated Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	Sulfur Dioxide Trace Level	Appendix C Method Code	EQSA-0495-100
Network Designation	NCORE	Method Description	UV-Fluorescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Appendix C Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Lawrenceville, Continued

Sensor Type	Oxides of Nitrogen (NOy) Trace Level	Appendix C Method Code	N/A T-API 200EU/501NOy
Network Designation	NCORE / SPM	Method Description	Chemiluminescence
Purpose	Research/Scientific Monitoring	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Appendix C Classification	N/A	Appendix E Siting Criteria	Yes

Sensor Type	Lead (Pb)	Appendix C Method Code	FRL-1087-001
Network Designation	SLAMS	Method Description	Gravimetric and Lead analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method 40 CFR Part 50, Appendix G	Appendix E Siting Criteria	Yes

Sensor Type	Lead (Pb)	Appendix C Method Code	FRL-1087-001
Network Designation	SLAMS	Method Description	Gravimetric and Lead analysis
Purpose	QA/Co-located Monitor	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure / Quality Assurance
Monitor Classification	Manual Reference Method 40 CFR Part 50, Appendix G	Appendix E Siting Criteria	Yes

Sensor Type	TSP / HAP Metals	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	Gravimetric and Metals Analysis By W Va. DEP's Laboratory
Purpose	Research/Scientific Monitoring	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

(7.1.1) Lawrenceville Area Information

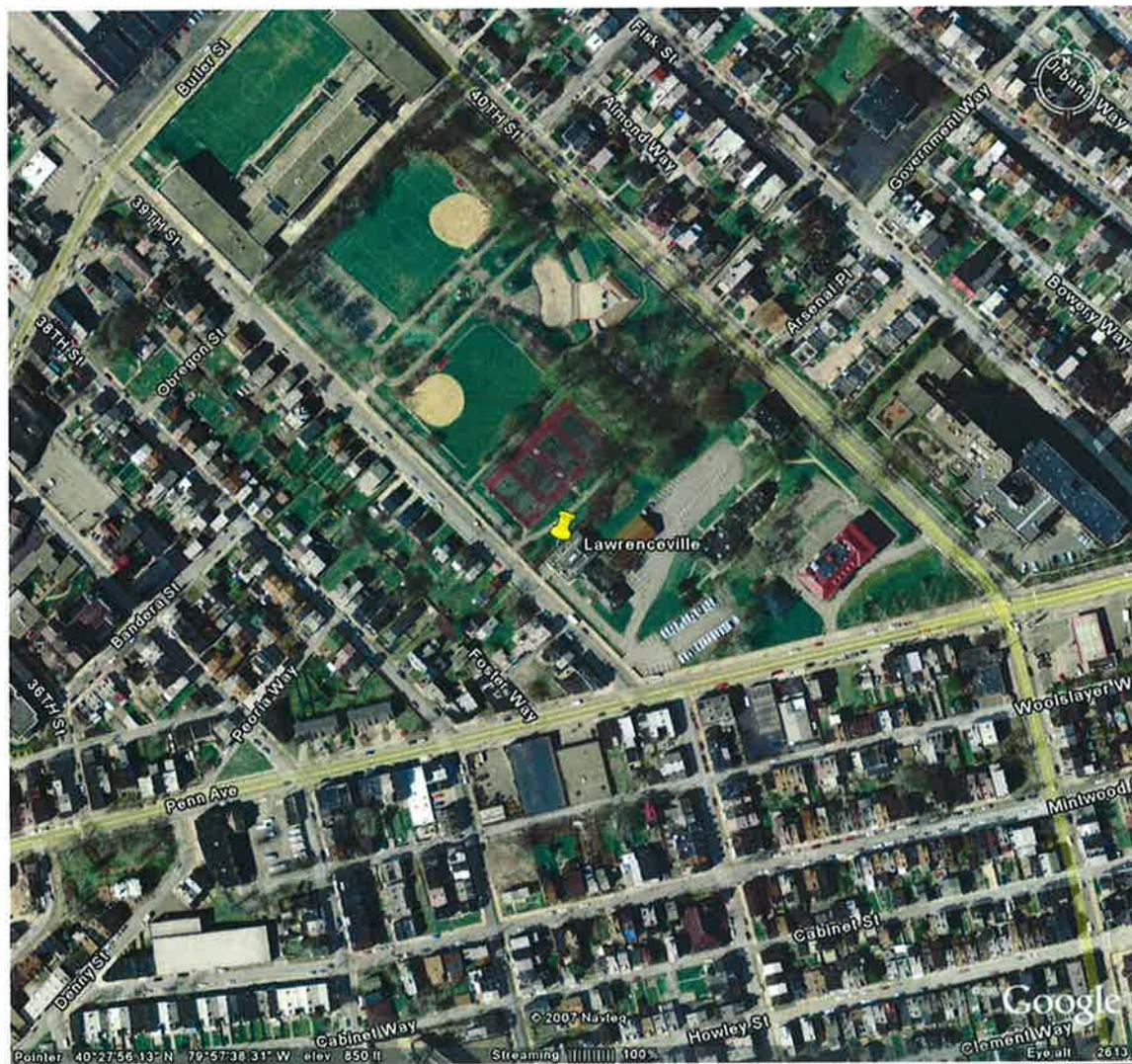
Street Name	Traffic Count (Vehicles/day)
39th Street (20 m)	Unavailable
Penn Avenue (86 m)	13,000
Butler Street (343 m)	14,799

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South	Wall	1	2 to 3 m
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Flat
East		Flat
South		Flat
West		Flat

(Figure 7.1) Lawrenceville Location Map



(7.2) Liberty

Address	South Allegheny High School 2743 Washington Blvd McKeesport, PA		
AIRS#	42-003-0064	MSA	Pittsburgh
Municipality	Liberty	Elevation	335 m
Latitude (N)	40°19'25.88	Longitude (W)	79°52'5.03
Established	10/01/1969	Probe Height	4 m
Comments	<p>This site is population oriented but is also about 3 km downwind of the US Steel Clairton Coke Works, which is a major source of particulates and precursor gases as well as sulfur dioxide and air toxics. The area around this monitoring site has a long history of high levels of PM_{2.5}, PM₁₀ and sulfur dioxide. Significant ambient levels of benzene have also been measured and documented at this site. Liberty is a core PM_{2.5} site that is used to determine compliance with national standards.</p> <p>At the request of US Steel, telemetry devices have been installed on the PM₁₀, PM_{2.5}, SO₂, H₂S and benzene monitors that transmit continuous readings via radio signals to a location within the US Steel facility. Other transmitters are also in use at Lincoln PM₁₀ and PM_{2.5} monitors (site # 8.3) and at the Glassport High Street PM₁₀ monitor (site # 8.4). This real-time data allows US Steel to minimize fugitive emissions and to adjust production levels to keep particulate levels and gaseous emissions within allowable ambient levels in downwind communities.</p>		

Sensor Type	PM_{2.5}	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	TEOM (non-equivalent)
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Daily	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Liberty, Continued

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	QA/Co-located Monitor	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Quality Assurance
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM₁₀	Appendix C Method Code	EQPM-1090-079
Network Designation	SLAMS	Method Description	TEOM
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1087-062
Network Designation	SLAMS	Method Description	Gravimetric and B(a)P analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Three Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1087-062
Network Designation	SLAMS	Method Description	Gravimetric and B(a)P analysis
Purpose	QA/Co-located Monitor	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure / Quality Assurance
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Liberty, Continued

Sensor Type	Sulfur Dioxide	Appendix C Method Code	EQAS-0193-092
Network Designation	SLAMS	Method Description	UV-Fluorescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	PM_{2.5} Speciation	Appendix C Method Code	N/A (Met One SASS +URG3000n)
Network Designation	STN	Method Description	Gravimetric
Purpose	Research/Scientific Monitoring	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Appendix C Classification	N/A	Appendix E Siting Criteria	Yes

Sensor Type	Hydrogen Sulfide	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	ML8850 with converter
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

Sensor Type	Benzene	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	Gas Chromatograph
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

(7.2.1) Liberty Area Information

Street Name	Traffic Count (Vehicles/day)
Washington Blvd. (283 m)	2800

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	valley	Rolling
East		Rolling
South	valley	Rolling
West		Rolling

(Figure 7.2) Liberty Location Map



(7.3) Lincoln

Address	Bellbridge Road Lincoln, PA		
AIRS#	42-003-7004	MSA	Pittsburgh
Municipality	Lincoln	Elevation	346 m
Latitude (N)	40°18'29.80	Longitude (W)	79°52'8.77
Established	09/15/1992	Probe Height	3 m
Comments	Located at an elevated location, directly across the Monongahela River and downwind from the US Steel Clairton Coke Works. Although this area is not populated, it is upwind of populated areas and it is known to be the maximum impact area of air emissions from the plant.		

Sensor Type	PM₁₀	Appendix C Method Code	EQPM-1090-079
Network Designation	SLAMS	Method Description	TEOM
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Middle
Appendix A QA Assessment	Yes	Appendix D Objectives	Highest Concentration
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	PM_{2.5}	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	TEOM (non-equivalent)
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

(7.3.1) Lincoln Area Information

Street Name	Traffic Count (Vehicles/day)
Lincoln Blvd. (238 m)	6900
Bellbridge Rd. (428 m)	2754

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Industrial
West	Industrial

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	Valley	Rolling
East	Valley	Rolling
South	Hills	Rough
West	River	Rough

(Figure 7.3) Lincoln Location Map



(7.4) Glassport High Street

Address	Water Tower on High Street Glassport, PA		
AIRS#	42-003-3006	MSA	Pittsburgh
Municipality	Glassport	Elevation	366 m
Latitude (N)	40°19'33.67	Longitude (W)	79°52'54.29
Established	04/30/1991	Probe Height	1.5 m
Comments	Located in a residential area, this site is population oriented, and is impacted by the US Steel Clairton Coke Works, the Irvin Works and other sources in the Monongahela river valley. Glassport High Street is the site of the County's last documented exceedance of the federal 24-hour PM ₁₀ standard of 150 ug/m ³ (October of 1997).		

Sensor Type	PM₁₀	Appendix C Method Code	EQPM-1090-079
Network Designation	SLAMS	Method Description	TEOM
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

(7.4.1) Glassport High Street Area Information

Street Name	Traffic Count (Vehicles/day)
High Street (8m)	Unavailable
Scenic Street (53m)	Unavailable
Washington Blvd (140m)	2800
Naoami Ave. (202m)	4458

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Residential

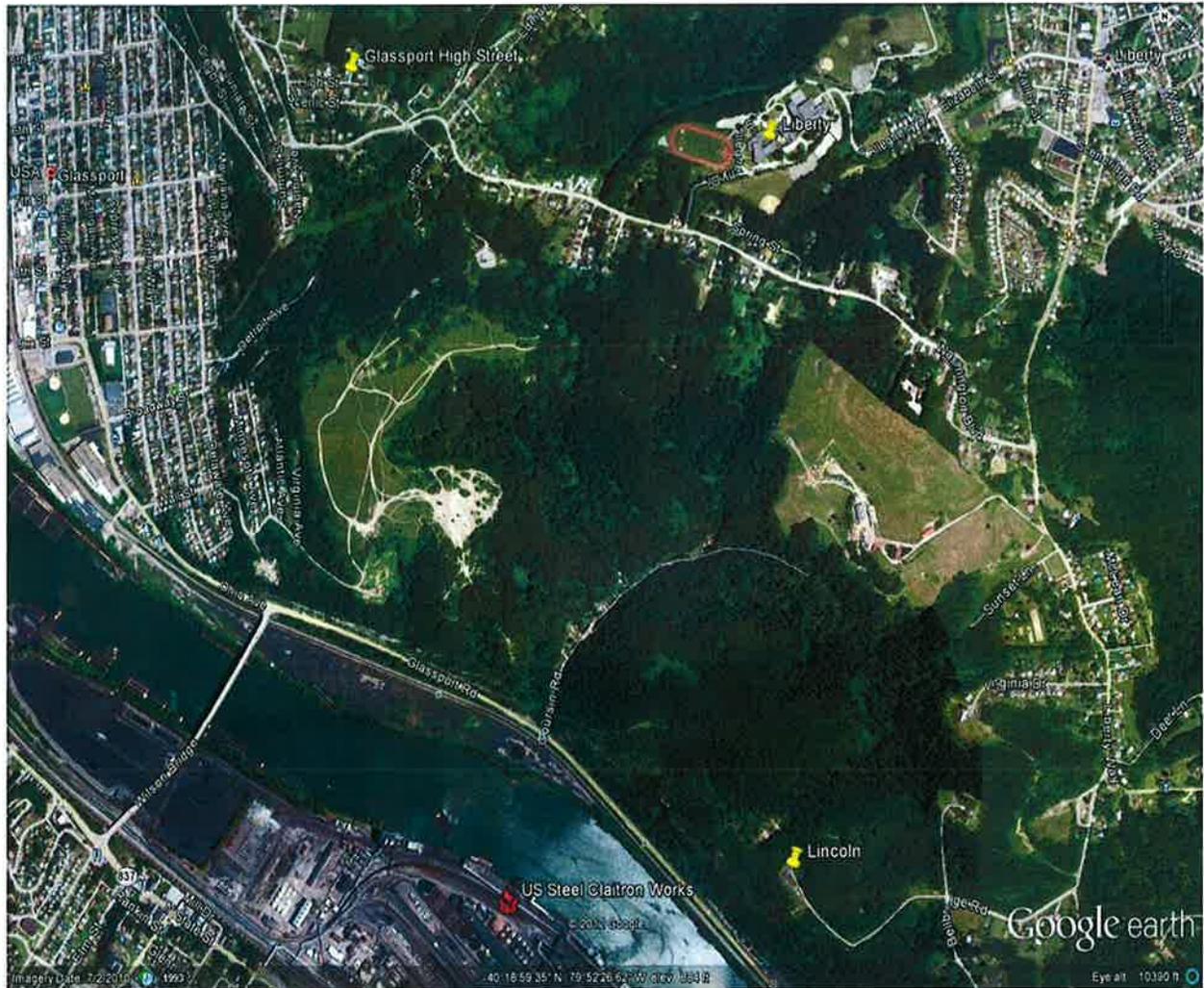
Direction	Obstructions	Height (m)	Distance (m)
North	Water Tower	25	9
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Flat
East		Flat
South		Flat
West		Flat

(Figure 7.4) Glassport High Street Location Map



(Figure 7.4.1) Liberty, Lincoln and Glassport High Street Location Map



(7.5) North Braddock

Address	North Braddock Borough Building 600 Anderson Street Braddock, PA		
AIRS#	42-003-1301	MSA	Pittsburgh
Municipality	North Braddock	Elevation	270 m
Latitude (N)	40°24'8.16	Longitude (W)	79°51'39.39
Established	01/01/1973	Probe Height	5 m
Comments	This site is population oriented and it is located within an urban environmental justice area. The population around this site is impacted by the US Steel Edgar Thomson Works, which is a large steel production facility, and is located about 1.5 km away from the monitoring site. North Braddock is a core PM _{2.5} site that is used to determine compliance with national standards.		

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Three Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1087-062
Network Designation	SLAMS	Method Description	Gravimetric and B(a)P analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

North Braddock, Continued

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1087-062
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	QA/Co-located Monitor	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure / Quality Assurance
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM₁₀	Appendix C Method Code	EQPM-0798-122
Network Designation	SLAMS	Method Description	Beta Attenuation Monitor
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	Sulfur Dioxide	Appendix C Method Code	EQAS-0193-092
Network Designation	SLAMS	Method Description	UV-Fluorescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

(7.5.1) North Braddock Area Information

Street Name	Traffic Count (Vehicles/day)
Bell Avenue (13 m)	3242
Anderson St. (40 m)	4455
Braddock Ave. (370 m)	11,436

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential, Industry
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	Hills	Rolling
East	Hills	Rolling
South	River	Rolling
West		Rolling

(Figure 7.5) North Braddock Location Map



(7.6) Harrison

Address	Highlands School Administration Building California Ave. & 11 th Street Natrona, PA		
AIRS#	42-003-1005	MSA	Pittsburgh
Municipality	Harrison	Elevation	306 m
Latitude (N)	40°36'49.76	Longitude (W)	79°43'46.35
Established	06/19/1990	Probe Height	3.5 m
Comments	Located in the northeast portion of Allegheny County, Harrison is downwind of Central Business District for prevailing winds. This location has consistently produced the highest average ozone concentrations of the monitoring network. It is a population-based, community oriented monitoring site.		

Sensor Type	Ozone	Appendix C Method Code	EQOA-0992-087
Network Designation	SLAMS	Method Description	UV Absorption
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	No

Sensor Type	Oxides of Nitrogen	Appendix C Method Code	RFNA-0691-082
Network Designation	SLAMS	Method Description	Chemiluminescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Reference Method	Appendix E Siting Criteria	No

(7.6.1) Harrison Area Information

Street Name / Distance	Traffic Count (Vehicles/day)
11th Ave (45m)	Unavailable
10th Ave (47m)	Unavailable
Delaware Ave (56m)	Unavailable
California Ave (72m)	4827

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East	Wall	2	1
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Flat
East		Flat
South	Valley	Rolling
West		Flat

(7.7) Harrison 2

Address	Highlands Senior High School Pacific & Idaho Streets Natrona, PA		
AIRS#	42-003-1008	MSA	Pittsburgh
Municipality	Harrison Township	Elevation	1020 feet above MSL
Latitude (N)	40°36'49.91	Longitude (W)	79°43'46.45
Established	01/01/1999	Probe Height	5.5 m
Comments	This site is located within 1 km of the Harrison ozone monitoring station, and it is population-based and community oriented. Harrison 2 is a core PM _{2.5} site that is used to determine compliance with national standards.		

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Three Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

(7.7.1) Harrison 2 Area Information

Street Name / Distance	Traffic Count (Vehicles/day)
Idaho Ave (31m)	Unavailable
Pacific Ave (103m)	4458

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Industrial

Direction	Obstructions	Height (m)	Distance (m)
North	Wall	3	20
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Flat
East		Flat
South	Valley	Rolling
West	Valley	Rolling

(7.8) Natrona Lead

Address	79 North Canal Street Natrona, PA		
AIRS#	42 003 1009	MSA	Pittsburgh
Municipality	Natrona	Elevation	775 feet above MSL
Latitude (N)	40°37'8.10	Longitude (W)	79°43'9.83
Established	01/01/2010	Probe Height	1.5 m
Comments	A newer site established as a requirement of updated national lead standards. Air Quality Program modeling showed this location to be close to the modeled lead hot spot due to impact by Allegheny Ludlum Corp.		

Sensor Type	Lead (Pb)	Appendix C Method Code	FRL-1087-001
Network Designation	SLAMS	Method Description	Gravimetric and Lead analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Microscale
Appendix A QA Assessment	Yes	Appendix D Objectives	Highest Concentration
Monitor Classification	Manual Reference Method 40 CFR Part 50, Appendix G	Appendix E Siting Criteria	Yes

(7.8.1) Natrona Area Information

Street Name / Distance	Traffic Count (Vehicles/day)
North Canal Street (19m)	5504

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Industrial
South	Industrial
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North	House	4	10
East			
South			
West	Garage	2	5

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	Hill	Rolling
East		Flat
South		Flat
West		Flat

(Figure 7.8) Harrison, Harrison 2 and Natrona Lead Locations Map



(7.9) South Fayette

Address	South Fayette Elementary School 2254 Old Oakdale Road McDonald, PA		
AIRS#	42-003-0067	MSA	Pittsburgh
Municipality	McDonald	Elevation	390 m
Latitude (N)	40°22'32.33	Longitude (W)	80°10'11.75
Established	01/01/1973	Probe Height	5.5 m
Comments	This is a population-based, community oriented site that is the regional transport site for ozone and PM _{2.5} . Location in the western portion of the county makes this an excellent site to access pollution levels entering the County on prevailing winds. South Fayette is a core PM _{2.5} site that is used to determine compliance with national standards.		

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Three Days	Appendix D Scale	Regional
Appendix A QA Assessment	Yes	Appendix D Objectives	General/Background, Regional Transport
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1287-063
Network Designation	SLAMS	Method Description	Gravimetric and B(a)P analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Regional
Appendix A QA Assessment	Yes	Appendix D Objectives	General/Background
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

South Fayette, Continued

Sensor Type	Sulfur Dioxide	Appendix C Method Code	EQAS-0193-092
Network Designation	SLAMS	Method Description	UV-Fluorescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Regional
Appendix A QA Assessment	Yes	Appendix D Objectives	General/Background
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	Ozone	Appendix C Method Code	EQOA-0880-047
Network Designation	SLAMS	Method Description	UV Absorption
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Regional
Appendix A QA Assessment	Yes	Appendix D Objectives	General/Background, Regional Transport
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

(7.9.1) South Fayette Area Information

Street Name / Distance	Traffic Count (Vehicles/day)
Old Oakdale Rd. (142m)	Unavailable
Cannongate Dr. (377m)	Unavailable
Battle Ridge Rd. (554m)	2779

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Agriculture
West	Agriculture

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Rolling
East		Rolling
South		Rolling
West		Rolling

(Figure 7.9) South Fayette Location Map



(7.10) Clairton

Address	Clairton Education Center 501 Waddel St, Clairton, PA		
AIRS#	42-003-3007	MSA	Pittsburgh
Municipality	Clairton	Elevation	297 m
Latitude (N)	40°17'39.77	Longitude (W)	79°53'7.09
Established	04/08/1992	Probe Height	4.5 m
Comments	This is a population-oriented site that is located within an environmental justice area. Site selection was based on this location being on the edge of the Monongahela Valley, generally upwind of the Clairton Coke Works. During times of temperature inversions and anomalous wind direction, the Coke Works and other sources in the Monongahela River valley impact this site.		

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SPM	Method Description	Gravimetric
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure, Welfare Concerns
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1087-062
Network Designation	SLAMS	Method Description	Gravimetric and B(a)P analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure, Welfare Concerns
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

(7.10.1) Clairton Area Information

Street Name / Distance	Traffic Count (Vehicles/day)
Large Ave (29m)	Unavailable
Waddell Ave. (64m)	Unavailable
6th St. (144m)	Unavailable
Mullberry Alley (158m)	Unavailable

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Commercial
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	valley	rolling
East	valley	rolling
South		flat
West	valley	rolling

(Figure 7.10) Clairton Location Map



(7.11) Avalon

Address	520 Orchard St Pittsburgh, PA		
AIRS#	42-003-0002	MSA	Pittsburgh
Municipality	Avalon	Elevation	845 feet above MSL
Latitude (N)	40°29'59.24	Longitude (W)	80° 4'16.85
Established	02/01/1980	Probe Height	2.5 m
Comments	This site is population oriented and is impacted by sources on Neville Island, including Shenango Coke Works and Neville Chemical. Many air pollution and odor complaints received by the Department originate from the communities near this monitoring site. Avalon is a core PM _{2.5} site that is used to determine compliance with national standards.		

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SLAMS	Method Description	Gravimetric
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Three Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	PM_{2.5}	Appendix C Method Code	EQPM-0308-170
Network Designation	SPM	Method Description	Beta Attenuation Monitor
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Avalon, Continued

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1287-063
Network Designation	SLAMS	Method Description	Gravimetric and B(a)P analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

Sensor Type	Sulfur Dioxide	Appendix C Method Code	EQSA-0495-100
Network Designation	SLAMS	Method Description	UV-Fluorescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	Hydrogen Sulfide	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	EQSA-0495-100 with converter
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Hydrogen Sulfide	Appendix E Siting Criteria	Yes

(7.11.1) Avalon Area Information

Street Name / Distance	Traffic Count (Vehicles/day)
Spruce St. (7m)	Unavailable
Orchard Ave. (33m)	Unavailable
South Birmingham Ave. (50m)	Unavailable
Ohio River Blvd. (59m)	10,360

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Commercial
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North	Building	2	30
East	Building	4	20
South	Building	3	43
West	Building	4	15

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	Hill	Rolling
East		Flat
South	River	Flat
West		Flat

(Figure 7.11) Avalon Location Map



(7.12) Flag Plaza

Address	Boy Scouts of America Building 1275 Bedford Avenue Pittsburgh, PA		
AIRS#	42-003-0031	MSA	Pittsburgh
Municipality	Pittsburgh	Elevation	277 m
Latitude (N)	40°26'36.30	Longitude (W)	79°59'25.27
Established	01/01/1980	Probe Height	4 m
Comments	This is an urban-based monitoring site that is located on the edge of Central Business District. In respect to prevailing winds, it is positioned downwind of Central Business District and upwind of a densely populated environmental justice area.		

Sensor Type	PM₁₀	Appendix C Method Code	EQPM-1090-079
Network Designation	SLAMS	Method Description	TEOM
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	Carbon Monoxide	Appendix C Method Code	RFCA-1093-093
Network Designation	SLAMS	Method Description	Non-dispersive Infrared
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Reference Method	Appendix E Siting Criteria	Yes

Flag Plaza, Continued

Sensor Type	Air Toxics	Appendix C Method Code	N/A
Network Designation	NATTS	Method Description	SUMMA canister, TO-15 analysis
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual SUMMA Canister Sampler	Appendix E Siting Criteria	Yes

Sensor Type	Air Toxics	Appendix C Method Code	N/A
Network Designation	NATTS	Method Description	Carbonyl Cartridge, TO-11 analysis
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Carbonyl Cartridge Sampler	Appendix E Siting Criteria	Yes

(7.12.1) Flag Plaza Area Information

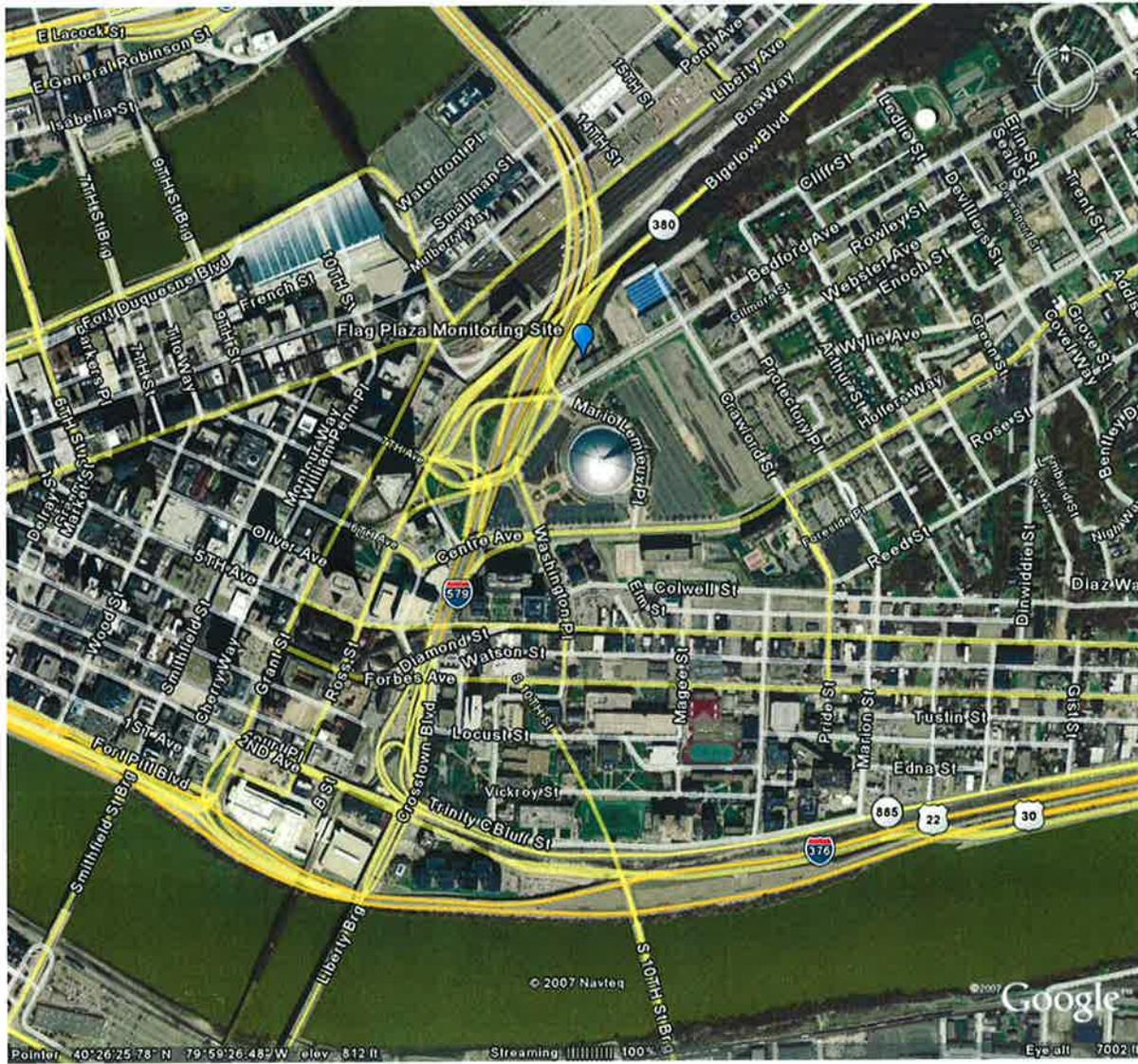
Street Name / Distance	Traffic Count (Vehicles/day)
Bedford Ave (17m)	9414
Rt. 579 (65m)	54,000
Rt. 380 (105m)	11,000

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Commercial
East	Residential
South	Commercial
West	Commercial

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West	Building	5	130

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	River	Flat
East	City	Flat
South	City	Flat
West	City	Flat

(Figure 7.12) Flag Plaza Location Map



(7.13) Pittsburgh 8 (Manchester School)

Address	Manchester Elementary School 1000 Fulton Street Pittsburgh, PA		
AIRS#	42-003-0092	MSA	Pittsburgh
Municipality	Pittsburgh	Elevation	245 m
Latitude (N)	40°27'22.98	Longitude (W)	80° 1'35.10
Established	01/01/1981	Probe Height	4 m
Comments	Located to the northwest of downtown Pittsburgh, this site is population-based and community oriented. This is also an environmental justice area. Sources of influences are numerous, as this community is located near various warehouse/light-industrial facilities along Ohio River valley. There is also a significant contribution by mobile sources.		

Sensor Type	PM₁₀	Appendix C Method Code	RFPS-1287-062
Network Designation	SLAMS	Method Description	Gravimetric and B(a)P analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure, Welfare Concerns
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

(7.13.1) Pittsburgh 8 Area Information

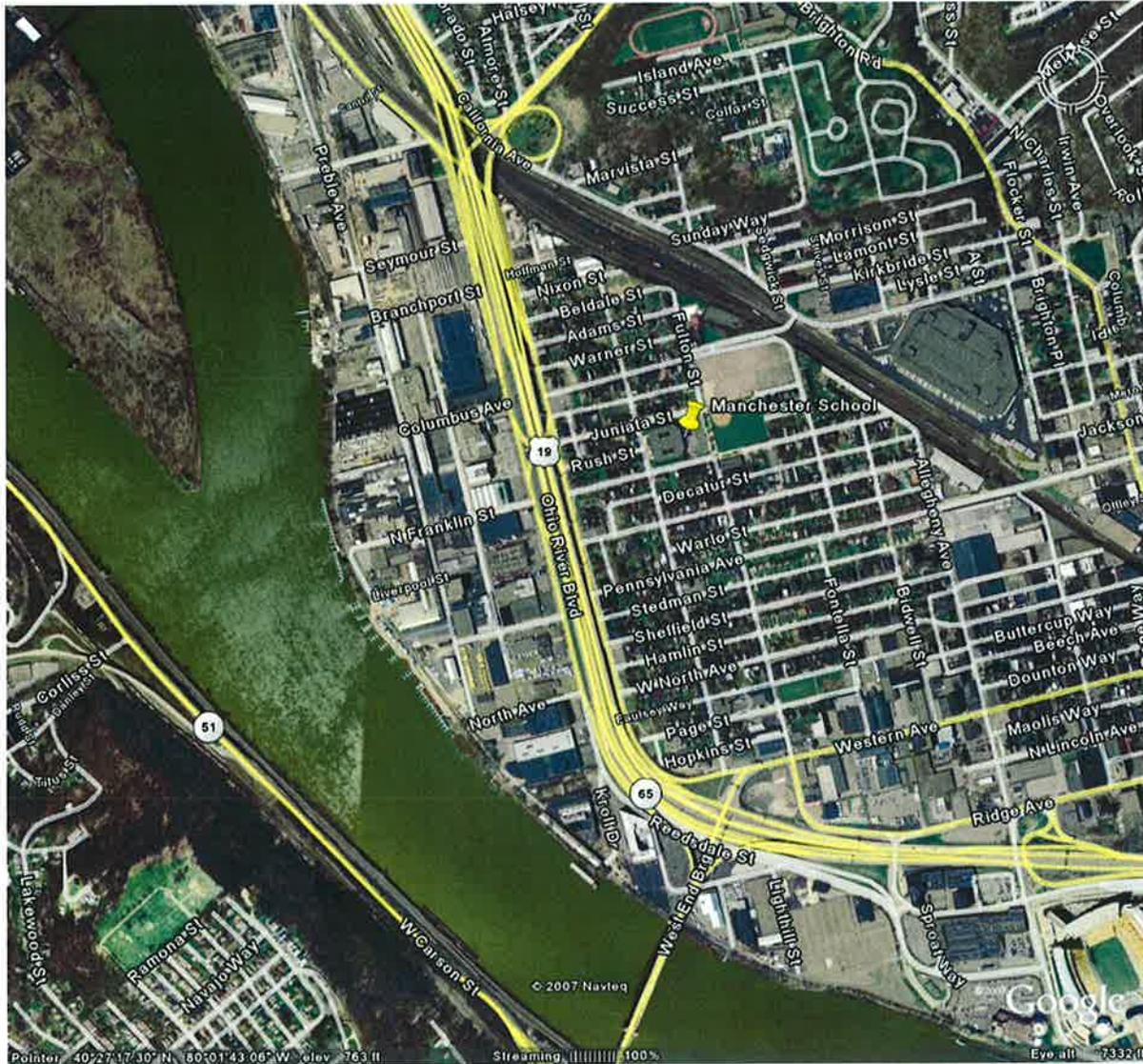
Street Name / Distance	Traffic Count (Vehicles/day)
Manhattan St (50m)	Unavailable
Chateau St (220m)	9000
Rt. 19 (253)	33,000

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Flat
East	Hills	Rolling
South		Flat
West	River	Flat

(Figure 7.13) Pittsburgh 8 (Manchester School) Location Map



(7.14) Downtown

Address	City County Building Grant Street Pittsburgh, PA		
AIRS#	42-003-0038	MSA	Pittsburgh
Municipality	Pittsburgh	Elevation	236 m
Latitude (N)	40°26'18.13	Longitude (W)	79°59'48.48
Established	01/01/1973	Probe Height	2 m
Comments	This monitoring site is located in Central Business District and is impacted predominantly by mobile sources. The probe inlet is mounted in a street canyon, which has the potential to concentrate mobile emissions.		

Sensor Type	Carbon Monoxide	Appendix C Method Code	RFCA-0981-054
Network Designation	SLAMS	Method Description	Non-dispersive Infrared
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Middle
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Reference Method	Appendix E Siting Criteria	No

(7.14.1) Downtown Area Information

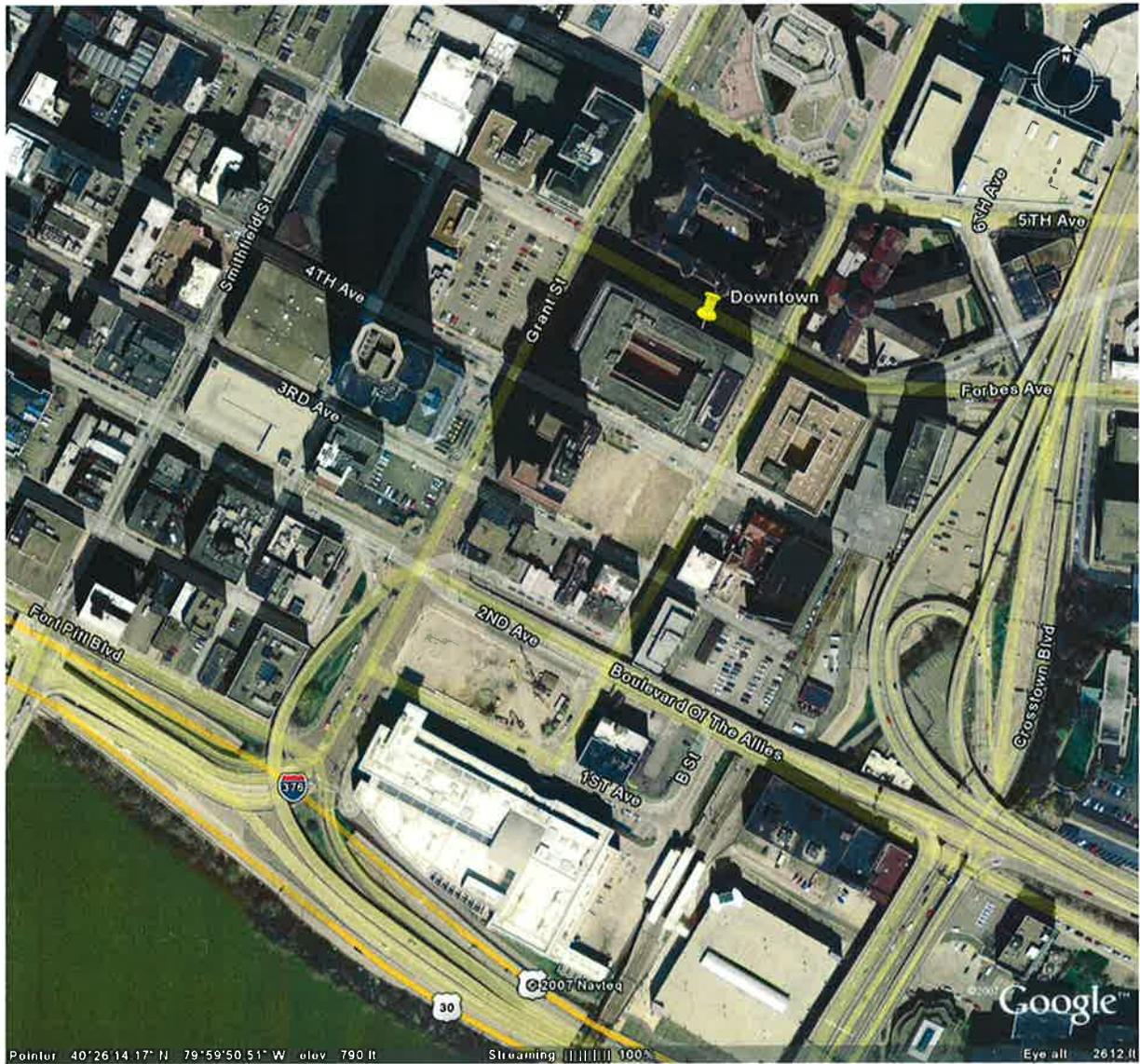
Street Name / Distance	Traffic Count (Vehicles/day)
Forbes Ave (4m)	14,000
Ross St. (40m)	12,391
Grant St (55m)	17,043

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Commercial
East	Commercial
South	Commercial
West	Commercial

Direction	Obstructions	Height (m)	Distance (m)
North	Building	15	27
East			
South	Building	25	2
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	Street Canyon	Flat
East	City	Flat
South	Building	Flat
West	City	Flat

(Figure 7.14) Downtown Location Map



(7.15) North Park

Address	Golf course clubhouse roof Kummer Road North Park, PA		
AIRS#	42-003-0093	MSA	Pittsburgh
Municipality	North Park	Elevation	373 m
Latitude (N)	40°36'23.68	Longitude (W)	80° 1'16.47
Established	01/01/1983	Probe Height	3.5 m
Comments	Located in the less populated northern portion of the County, this site was created as a PM2.5 background site and also to provide for even geographical distribution of the PM2.5 monitoring network.		

Sensor Type	PM_{2.5}	Appendix C Method Code	RFPS-0498-188
Network Designation	SPM	Method Description	Gravimetric
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Urban
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Manual Reference Method	Appendix E Siting Criteria	Yes

(7.15.1) North Park Area Information

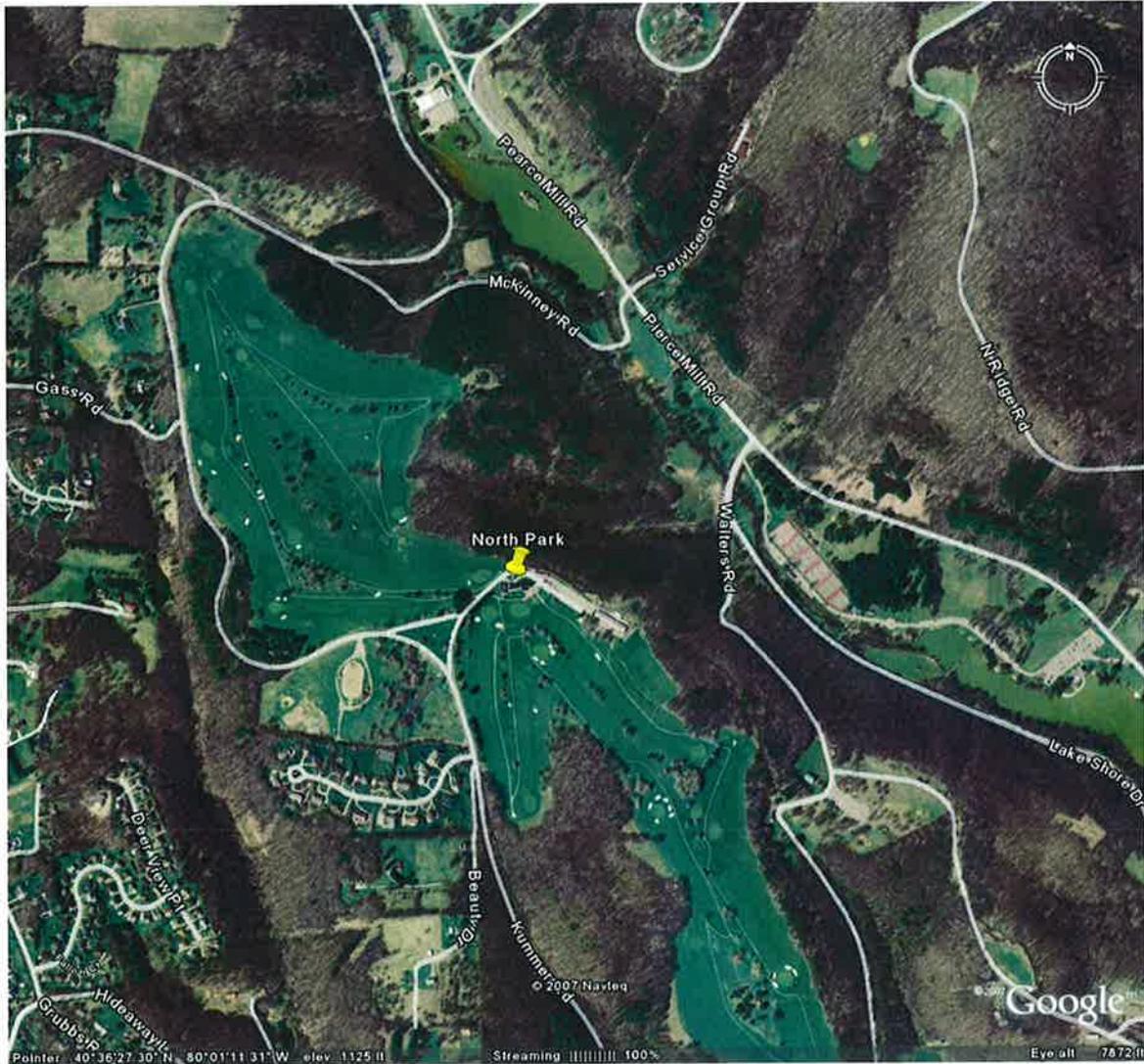
Street Name / Distance	Traffic Count (Vehicles/day)
Kummer Rd. (229m)	2850
Pearce Mill Rd. (580m)	2740

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Agriculture
East	Agriculture
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Rolling
East		Rolling
South		Rolling
West		Rolling

(Figure 7.15) North Park Location Map



(7.16) Bridgeville

Address	1311 Union Street Bridgeville PA		
AIRS#	42 003 0070	MSA	Pittsburgh
Municipality	Bridgeville	Elevation	251 m
Latitude (N)	40°21'46.77	Longitude (W)	80° 6'7.67
Established	01/01/2010	Probe Height	1.5 m
Comments	Established as a requirement of updated lead standards. Air Quality Program modeling showed this location to be close to the modeled lead hot spot due to impact by G.E. Bridgeville Glass Corp.		

Sensor Type	Lead (Pb)	Appendix C Method Code	FRL-1087-001
Network Designation	SLAMS	Method Description	Gravimetric and Lead Analysis
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Every Six Days	Appendix D Scale	Microscale
Appendix A QA Assessment	Yes	Appendix D Objectives	Highest Concentration
Monitor Classification	Manual Reference Method 40 CFR Part 50, Appendix G	Appendix E Siting Criteria	Yes

(7.16.1) Bridgeville Area Information

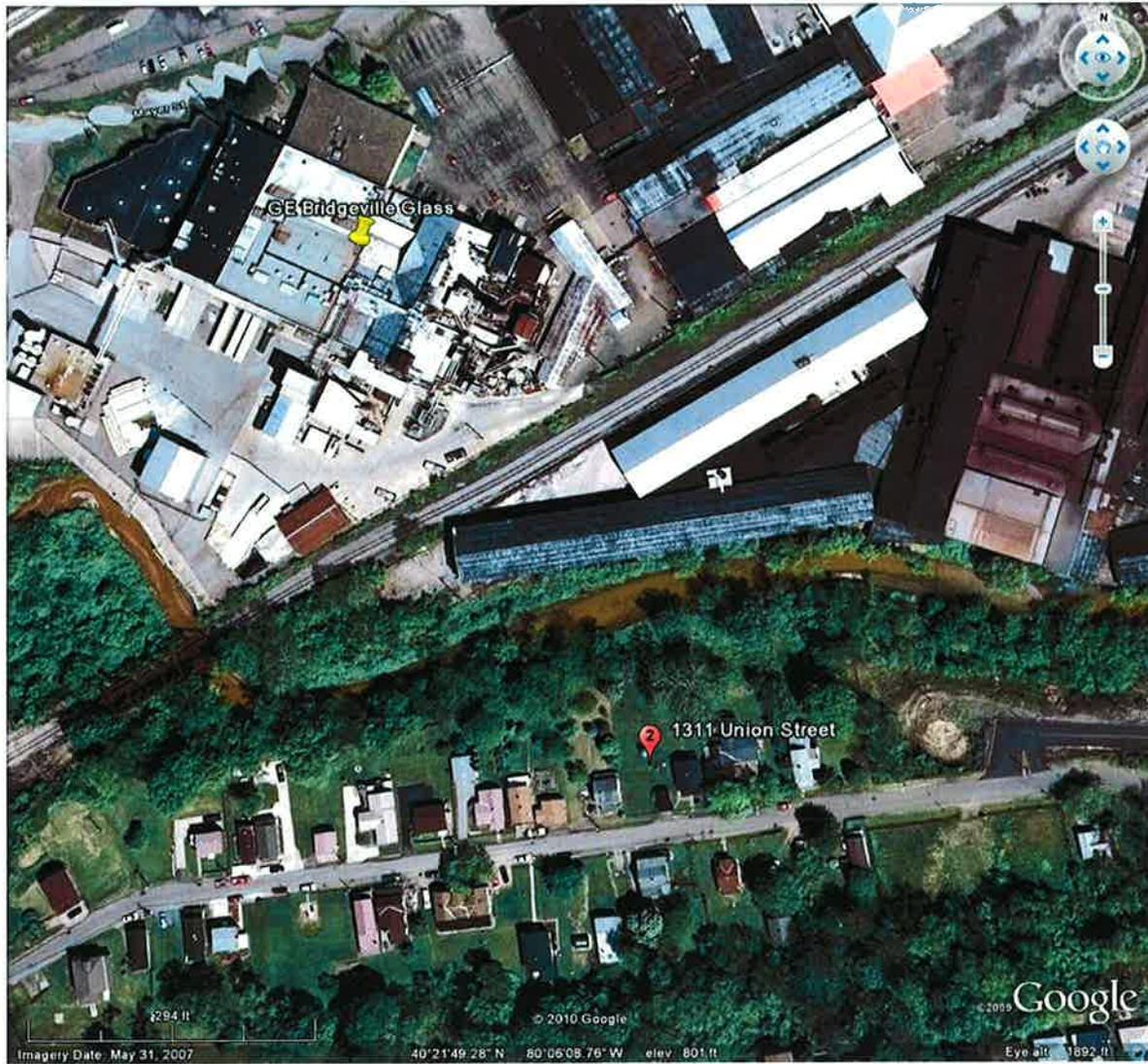
Street Name / Distance	Traffic Count (Vehicles/day)
Union St. (15m)	Unavailable
Terrace St. (100m)	Unavailable
Mayer St. (245m)	Unavailable
Washington Pike (520m)	18,000

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Industry
East	Residential
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South	Garage	2	5
West	House	4	10

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North	Valley	Rolling
East		Flat
South	Hill	Rolling
West		Flat

(Figure 7.16) Bridgeville Location Map



(7.17) West Allegheny

Address	Wilson Elementary School 100 Bruno Lane Imperial, PA		
AIRS#	N/A	MSA	Pittsburgh
Municipality	Imperial	Elevation	341 m
Latitude (N)	40°26'41.09	Longitude (W)	80°16'2.29
Established	April, 2009	Probe Height	2 m
Comments	Special study monitoring location to determine the community impact of a nearby residential waste landfill. Numerous odor complaints have been received from this vicinity.		

Sensor Type	Hydrogen Sulfide	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	Teledyne API 100 EU with H2S converter
Purpose	Population Exposure	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

(7.17.1) West Allegheny Area Information

Street Name / Distance	Traffic Count (Vehicles/day)
Boggs Rd. (268m)	412

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Agricultural
East	Residential
South	Agricultural
West	Commercial

Direction	Obstructions	Height (m)	Distance (m)
North			
East			
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		rolling
East		rolling
South		rolling
West	valley	rolling

(Figure 7.17) West Allegheny Location Map



(7.18) Monroeville

Address	Evergreen Park Harper Drive Monroeville PA 15146		
AIRS#	42 003 0003	MSA	Pittsburgh
Municipality	Monroeville	Elevation	350 m
Latitude (N)	40°27'0.42	Longitude (W)	79°46'15.46
Established	2010	Probe Height	3 m
Comments	Situated in a residential neighborhood. This location is impacted mainly by mobile sources.		

Sensor Type	PM₁₀	Appendix C Method Code	EQPM-0798-122
Network Designation	SLAMS	Method Description	Beta Attenuation Monitor
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Neighborhood
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

(7.18.1) Monroeville Area Information

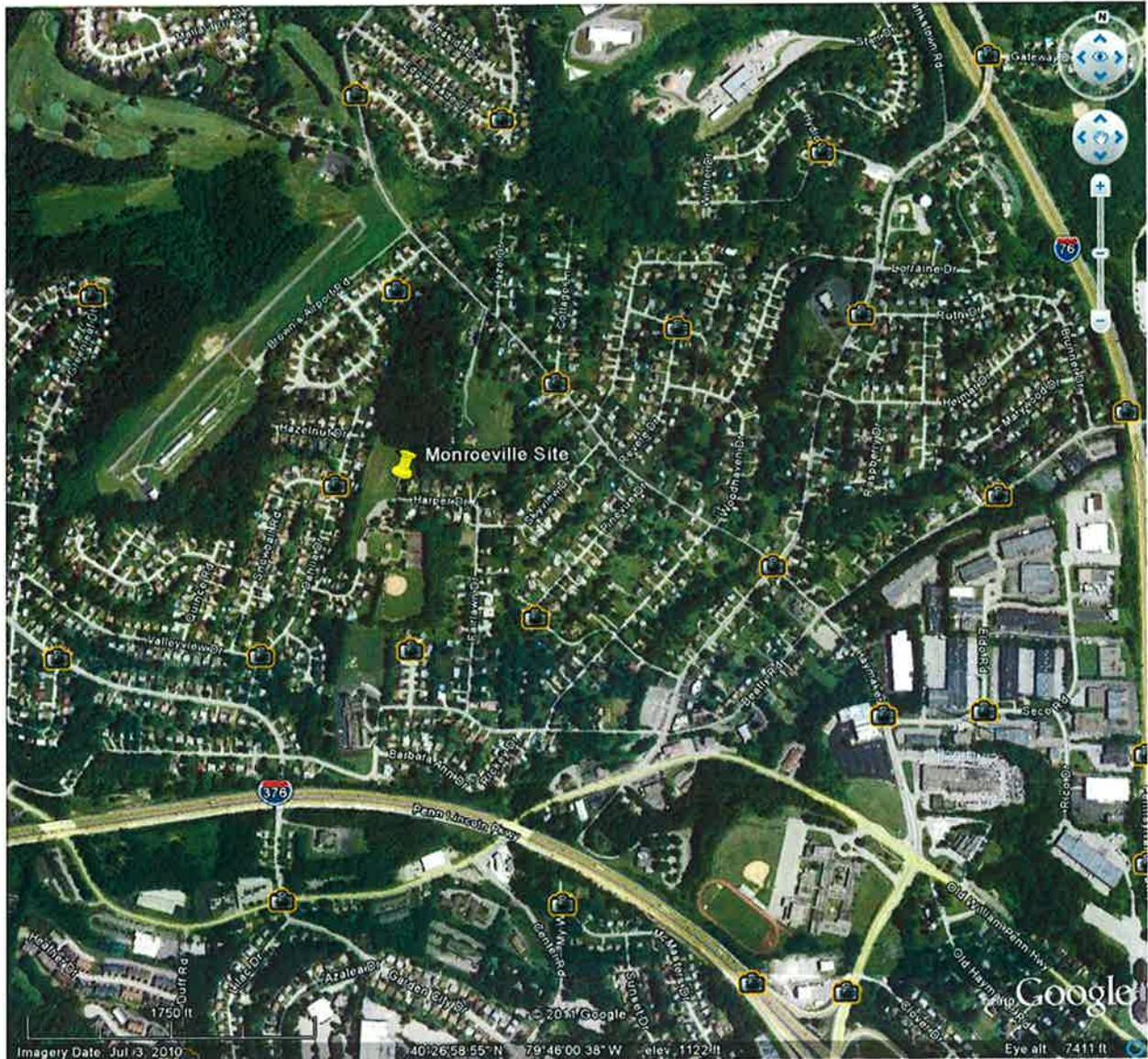
Street Name / Distance	Traffic Count (Vehicles/day)
Harper Drive (10 m)	Unavailable
Rt. 376 (590 m)	53,000
Logan's Ferry (362 m)	14,000

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East	Trees	7	13
South	Trees	8	20
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Flat
East		Flat
South		Flat
West		Flat

(Figure 7.18) Monroeville Location



(7.19) Parkway East (Planned)

Address	400 Sherwood Road Wilkinsburg, PA		
AIRS#	42 003 1376	MSA	Pittsburgh
Municipality	Wilkinsburg	Elevation (m)	361
Latitude (N)	40°26'14.75"	Longitude (W)	79°51'48.86"
Established	N/A	Probe Height	3 m
Comments	This site is being installed to comply with updated NO ₂ NAAQS. Monitor inlets will be placed to sample air at less than 20 meters from the nearest traffic lane of Route 376 (Parkway East). This location was approved by EPA Region III to qualify as a near road monitoring site and will measure population exposure to roadway emissions.		

Sensor Type	Oxides of Nitrogen (NO₂) Trace Level	Appendix C Method Code	RFNA-0691-082
Network Designation	SLAMS	Method Description	Chemiluminescence
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Micro-Scale
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Sensor Type	Carbon Monoxide (CO) Trace Level	Appendix C Method Code	RFCA-1093-093
Network Designation	SLAMS	Method Description	Non-dispersive Infrared
Purpose	Regulatory Compliance	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Micro-Scale
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	Automated Equivalent Method	Appendix E Siting Criteria	Yes

Parkway East, Cont.

Sensor Type	Black Carbon Monitor	Appendix C Method Code	N/A
Network Designation	SPM	Method Description	Aethalometer
Purpose	Research/Scientific Monitoring	Appendix D Design Criteria	Yes
Sample Frequency	Continuous	Appendix D Scale	Micro-Scale
Appendix A QA Assessment	Yes	Appendix D Objectives	Population Exposure
Monitor Classification	N/A	Appendix E Siting Criteria	Yes

(7.19.1) Parkway East Area Information

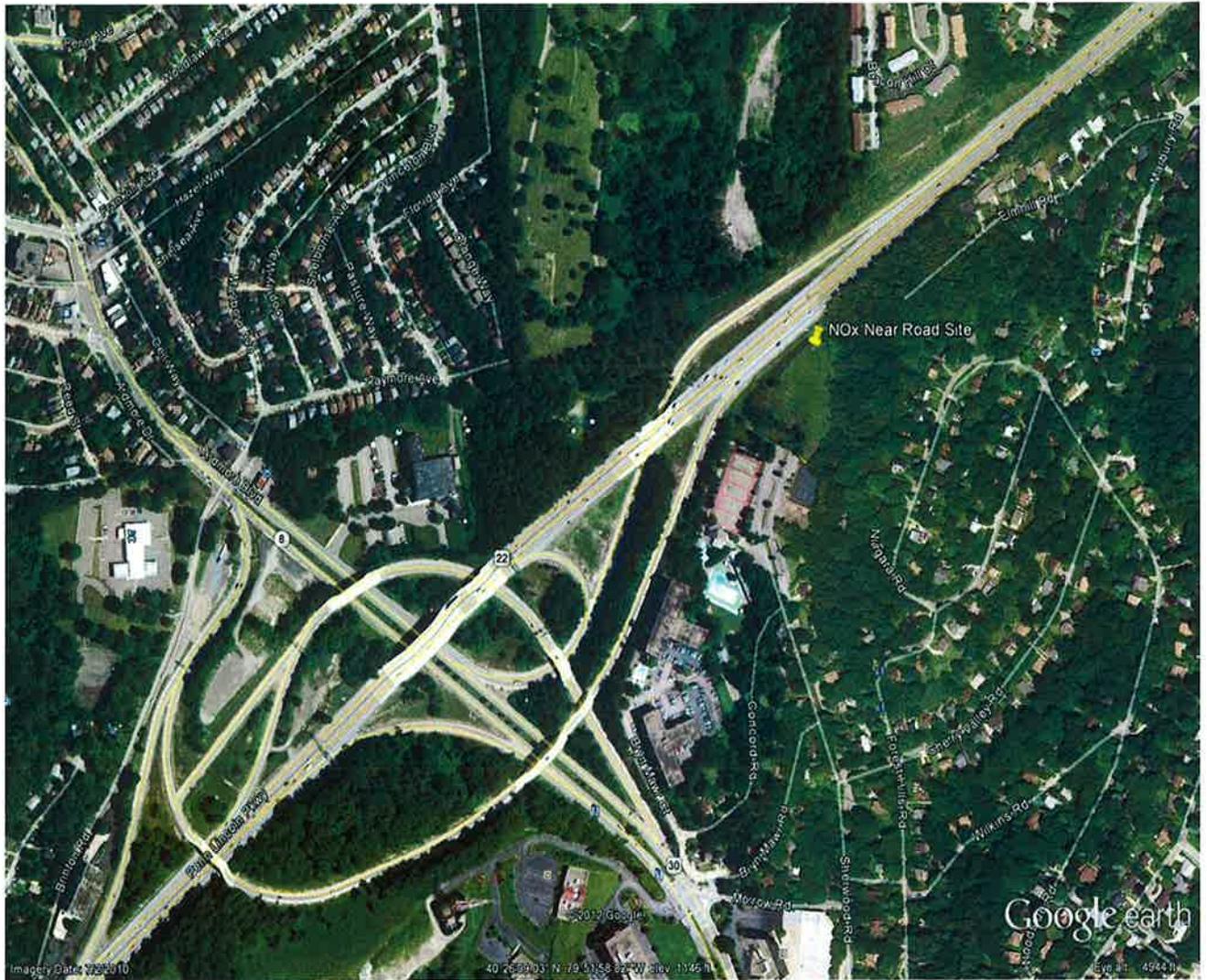
Street Name / Distance	Traffic Count (Vehicles/day)
Penn Lincoln Parkway Rt. 376 (15m)	84,000

Direction	Predominant Land Use (Industry, Residential, Commercial or Agriculture)
North	Residential
East	Residential
South	Residential
West	Residential

Direction	Obstructions	Height (m)	Distance (m)
North			
East	Trees, Hill	15	33
South			
West			

Direction	Topographic Features (hills, valleys, rivers, etc.)	General Terrain (flat, rolling, rough)
North		Rolling
East	Hill	Rough
South		Rolling
West		Rolling

(Figure 7.19) Planned NO₂ Near Road Site Location Map



(8) Public Comment Period

8.1 Website Posting

This review was made available for public review during the month of June 2013 on the Air Quality Program Website.

<http://www.achd.net/air/index.php>

8.2 Allegheny County Press Release

A press release was conducted on June 13, 2013 to notify the public of the posting of this document and to solicit comments.

8.3 Public Comments

This section details all public comments received by June 28, 2013, 1:00pm. No public comments were received during the comment period.