Nashville-Davidson County

Air Monitoring Network Plan 2026

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Nashville/Davidson County
Promoting and Protecting Health

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1.0 NASHVILLE-DAVIDSON AIR MONITORING NETWORK OVERVIEW

1.1 2026 NASHVILLE ANNUAL NETWORK PLAN

This document is intended to fulfill the requirements of *40 CFR Part 58.10* and provides information on the current 2026 Ambient Air Monitoring Network maintained by the Nashville-Davidson County Metro Public Health Departments Pollution Control Division's (MPHDPCD) Air Monitoring Program (AMP), referred to as "Nashville". This document will help serve to outline any and all proposed changes to Nashville's 2026 monitoring network and give an overview of the network, monitoring site descriptions, and monitoring site evaluations.

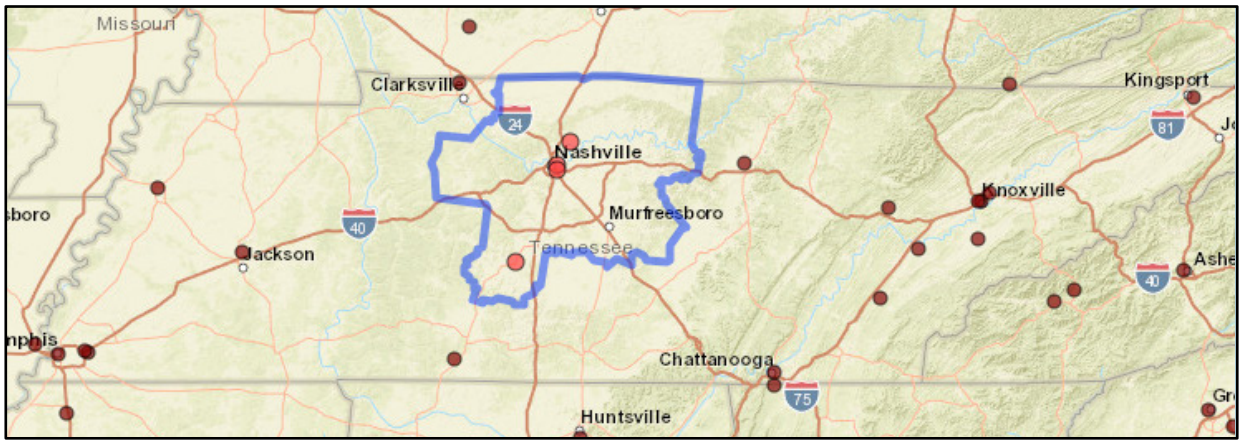
1.2 NASHVILLE AIR MONITORING PROGRAM (AMP) BACKGROUND

After the Clean Air Act (CAA) of 1970 was passed, the State of Tennessee's Department of Environment and Conservation Air Monitoring Program (referred to as "TDEC") was established in the mid-1970s. Shortly thereafter, the Nashville-Davidson County AMP was established and worked in partnership with TDEC as a single Primary Quality Assurance Organization (PQAO). Beginning January 1st, 2015, Nashville became its own PQAO, meeting full monitoring requirements independent from TDEC.

Nashville's minimum monitoring requirements are largely dependent on the statistical-based definitions provided by the Office of Management & Budget and the Census Bureau. These terms include Metropolitan Statistical Areas (MSA); Micropolitan Statistical Areas; Core-Based Statistical Areas (CBSA); and Combined Statistical Areas (CSA). CBSAs consist of the county (or counties) associated with at least one core (urban area) of at least 10,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties[1].

Nashville's Air Monitoring Network is a part of the larger Nashville-Davidson-Murfreesboro-Franklin-TN CBSA ("Nashville CBSA") {34980} air monitoring network (shown in *Figure 1-1*). Current minimum monitoring requirements for the Nashville CBSA depend upon factors such as population. According to the U.S. Census Bureau, the 2025 Population Estimates for the Nashville CBSA was 2,452,592[2].

FIGURE 1-1: NASHVILLE-DAVIDSON-MURFREESBORO-FRANKLIN-TN CBSA



[1] United States Census Bureau: "About Metropolitan and Micropolitan Statistical Areas". February 27, 2026. Accessed May 2026. https://www.census.gov/programs-surveys/metro-micro/about/glossary.html

[2] US Census Bureau. Annual Estimates of the Resident Population for Micropolitan Statistical Areas in the United States and Puerto Rico: April 1, 2020, to July 1, 2025 (CBSA-MIC-EST2025-POP). Accessed May 2026. https://www.census.gov/data/datasets/time-series/demo/popest/2020s-total-metro-and-micro-statistical-areas.html

1.3 2026 Monitoring Network Overview

The 2026 Nashville-Davidson County Ambient Air Monitoring Network has had no significant changes compared to 2025. The Nashville AMP continues to maintain its air monitoring network to meet all minimum monitoring requirements stated in *40CFR, Part 58, Appendices A,B,C,D and E* for all parameter pollutants ($PM_{2.5}$; O_3; SO_2; NO_2; CO) except PM_{10} (waiver discussed in *Section 2.6.1*), where applicable. Nashville's ambient air monitoring network is mostly made up of State and Local Air Monitoring Stations (SLAMS) monitors, which are operated to support compliance with ambient air quality standards (i.e., comparison to the NAAQS) and development of emissions strategies for the Nashville CBSA. Additionally, Nashville operates one (1) $PM_{2.5}$ Special Purpose Monitor (SPM) which is used solely for Air Quality Index (AQI) data reporting.

2.0 NASHVILLE'S CURRENT MONITORING & PROPOSED CHANGES

2.1 Nashville's Air Quality Index (AQI)

The AMP submits its AQI reporting data hourly in real-time to the EPA's AirNow system for its O_3 monitors at "EAST" {0011} and "PPD" {0026} as well as its $PM_{2.5}$ FEM (POC 4) at "LL" {0023}. The following table demonstrates how the Nashville CBSA meets minimum requirements for AQI reporting.

Table 2-1: AQI Reporting Minimum Requirements

Metropolitan Statistical Area	2020 Census	2025 Census Est.	Required to Report AQI?	Daily AQI/Air Quality Forecasts Provided?
Nashville-Davidson-Murfreesboro-Franklin, TN	2,014,420	2,452,592	Yes	Yes

2.2 Nashville's O_3 Monitoring Network

Nashville's monitoring network consists of two (2) O_3 monitors operated solely during O_3 season (March 1st – October 31st) each year at its "EAST" {0011} and "PPD" {0026} monitoring sites. A summary of Nashville's O_3 monitoring network is included in *Table 2-2* below.

Table 2-2: Nashville O_3 Monitoring Network Summary

Parameter Name {AQS ID}	O_3 **{44201}**	
County {AQS ID}	Davidson **{037}**	
Agency {AQS ID}	Metro Public Health Department **{0682}**	
Monitoring Site {AQS ID}	East Health Center **{0011}**	Percy Priest Dam **{0026}**
Address	1015 Trinity Lane	3711 Bell Road
Latitude, Longitude	36.205000, -86.744722	36.150742, -86.623301
Location Setting	Urban & City Center	Urban & City Center
Land Use Type	Residential	Agricultural
Dominant Source	Area	Area
Measurement Scale	Neighborhood Scale	Urban Scale
Sampling Start Date at Site	1/1/1972	1/1/1978
Monitor POC	1	1
Monitor Type	SLAMS	SLAMS
Monitor Objective	Population Exposure	Highest Concentration
Collection Frequency	Hourly	Hourly
FEM/FRM Monitor {AQS ID}	Thermo 49i **{047}**	Teledyne T400 **{087}**

EPA Ref. Method ID	EQOA-0880-047	EQOA-0992-087
Analysis Type	UV Photometric	UV Photometric

2.2.1 O_3 Minimum Requirements

The following table outlines the monitors that satisfy the minimum number of ozone SLAMS monitors required by *40 CFR Part 58, Appendix D, Section 4.1* in the Nashville CBSA.

Table 2-3: O_3 Minimum Requirements

Metropolitan Statistical Area	Required Number of Monitors	Monitors {AQS ID}
Nashville CBSA {34980}	2	47-037-0011
		47-037-0026
		47-165-0007[1]
		47-187-0106[1]
		47-189-0103[1]

[1] Site not operated by Nashville.

2.2.2 Proposed Changes to O_3 Monitoring

No changes are proposed for this portion of the Nashville Davidson County Air Monitoring Network in 2026.

As a note, discussions have taken place with the EPA in the past regarding moving the O_3 monitor, currently located at the "PPD" monitoring site {0026}, to a new location for future monitoring. This new site has not yet been confirmed but likely will be in the Southeast quadrant of Davidson County, located to ensure the capture of pollutants downwind of the secondary wind direction. Some things must be kept in mind during this location scouting such as ideally positioning the new site 5-10 miles downwind from NO_X production areas (downtown highway loop). The new location should be relevant to current population dynamics and ensure that afternoon wind directions during O_3 season are considered.

2.3 Nashville's NO_2 Monitoring Network

Nashville's monitoring network consists of two (2) NO_2 (with NO/NO_X) monitors operated year-round at its "EAST" {0011} and "NRS" {0040} monitoring sites. A summary of Nashville's NO_2 monitoring network is included in *Table 2-4* below.

Table 2-4: Nashville NO_2 Monitoring Network Summary

Parameter Name {AQS ID}	NO_2 **{42602}**	
CBSA {AQS ID}	Nashville-Davidson-Murfreesboro-Franklin, TN CBSA **{34980}**	
County {AQS ID}	Davidson **{037}**	
Agency {AQS ID}	Metro Public Health Department **{0682}**	
Monitoring Site {AQS ID}	East Health Center **{0011}**	Near Road Site **{0040}**
Address	1015 Trinity Lane	1113 Elm Hill Pike
Latitude, Longitude	36.205000, -86.744722	36.142377, -86.734142
Location Setting	Urban & City Center	Urban & City Center
Land Use Type	Residential	Industrial
Dominant Source	Area	Area
Measurement Scale	Neighborhood Scale	Microscale
Sampling Start Date at Site	1/6/1975	7/1/2014

Monitor POC	1	1
Collection Frequency	Hourly	Hourly
Monitor Type	SLAMS	SLAMS
Monitor Objective	Highest Concentration	Population Exposure
FEM/FRM Monitor {AQS ID}	Thermo 42i **{074}**	Thermo 42iQ **{074}**
EPA Ref. Method ID	RFNA-1289-074	RFNA-1289-074
Analysis Type	Chemiluminescence	Chemiluminescence

2.3.1 NO_2 Minimum Requirements

NO_2 SLAMS Requirements

NO_2 SLAMS requirements for operating near-road monitors are met for Nashville as detailed below:

Table 2-5: NO_2 SLAMS Minimum Requirements

Metropolitan Statistical Area	Required Number of Monitors	Monitors {AQS ID}
Nashville CBSA {34980}	1	47-037-0040

NO_2 Area-Wide Requirements

Area-wide NO_2 monitoring requirements are for Nashville as detailed below:

Table 2-6: NO_2 Area-Wide Minimum Requirements

Metropolitan Statistical Area	Required Number of Monitors	Monitors {AQS ID}
Nashville CBSA {34980}	1	47-037-0011

2.3.2 Proposed Changes to NO_2 Monitoring

No changes are proposed for this portion of the Nashville Davidson County Air Monitoring Network.

2.4 Nashville's SO_2 Monitoring Network

Nashville's monitoring network consists of one (1) SO_2 monitor (with SO_2MAX) operated year-round at its "NRS" {0040} site. A summary of Nashville's SO_2 monitoring network is included in *Table 2-7* below.

Table 2-7: Nashville SO_2 Monitoring Network Summary

Parameter {AQS ID}	SO_2 **(42401)**
CBSA {AQS ID}	Nashville-Davidson-Murfreesboro-Franklin, TN CBSA **{34980}**
County {AQS ID}	Davidson **{037}**
Agency {AQS ID}	Metro Public Health Department **{0682}**
Monitoring Site {AQS ID}	Near Road Site **{0040}**
Address	1113 Elm Hill Pike
Latitude, Longitude	36.142377, -86.734142
Location Setting	Urban & City Center
Land Use Type	Industrial
Dominant Source	Area
Measurement Scale	Neighborhood scale
Sampling Start Date	1/1/2020
Monitor POC	1
Monitor Type	SLAMS

Monitor Objective	Population Exposure
Collection Frequency	Hourly
FEM/FRM Monitor {AQS ID}	Thermo 43iQ **{060}**
EPA Ref. Method ID	EQSA-0486-060
Analysis Type	Pulsed Fluorescence

2.4.1 SO_2 Minimum Requirements

The minimum number of SO_2 monitors is determined by calculating the population weighted emissions index (PWEI) for each CBSA as defined in *40 CFR Part 58, Appendix D, Section 4.4* and detailed in Table 5. The following monitors satisfy the PWEI requirements the Nashville CBSA.

TABLE 2-8: SO_2 MINIMUM REQUIREMENTS

Metropolitan Statistical Area	Required Number of Monitors	Monitors {AQS ID}
Nashville CBSA {34980}	0	47-037-0040

2.4.2 Proposed Changes to SO_2 Monitoring

No changes are proposed for this portion of the Nashville Davidson County Air Monitoring Network.

2.5 Nashville's CO Monitoring Network

Nashville's monitoring network consists of one (1) CO monitor operated year-round at its "NRS" {0040} monitoring site. A summary of Nashville's CO monitoring network is included in *Table 2-9* below.

TABLE 2-9: NASHVILLE CO MONITORING NETWORK SUMMARY

Parameter {AQS ID}	CO **(42101)**
CBSA {AQS ID}	Nashville-Davidson-Murfreesboro-Franklin, TN CBSA **{34980}**
County {AQS ID}	Davidson **{037}**
Agency {AQS ID}	Metro Public Health Department **{0682}**
Monitoring Site {AQS ID}	Near Road Site **{0040}**
Address	1113 Elm Hill Pike
Latitude, Longitude	36.142377, -86.734142
Location Setting	Urban & City Center
Land Use Type	Industrial
Dominant Source	Area
Measurement Scale	Microscale
Sampling Start Date at Site	7/1/2014
Monitor POC	1
Monitor Type	SLAMS
Monitor Objective	Population Exposure
Collection Frequency	Hourly
FEM/FRM Monitor {AQS ID}	Teledyne T300 {**093}**
EPA Ref. Method ID	RFCA-1093-093
Analysis Type	Infrared

2.5.1 CO Minimum Requirements

The requirement for CO SLAMS near-road monitoring is met in the Nashville CBSA by the CO monitor operating at the near-road site as outlined below:

Table 2-10: CO Minimum Requirements

Metropolitan Statistical Area	Required Number of Monitors	Monitors {AQS ID}
Nashville CBSA {34980}	1	47-037-0040

2.5.2 Proposed Changes to CO Monitoring

No changes are proposed for this portion of the Nashville Davidson County Air Monitoring Network.

2.6 Nashville's PM_{10} Monitoring

Nashville's monitoring network consists of one (1) PM_{10} monitor that is operated year round at its "LL" site {0023}. A summary of Nashville's PM_{10} monitoring network is included in *Table 2-11* below.

Table 2-11: Nashville PM_{10} Monitoring Network Summary

Parameter {AQS ID}	PM_{10} **{81102}**
CBSA {AQS ID}	Nashville-Davidson-Murfreesboro-Franklin, TN CBSA **{34980}**
County {AQS ID}	Davidson **{037}**
Agency {AQS ID}	Metro Public Health Department **{0682}**
Site {AQS ID}	Lockeland Elementary **{0023}**
Address	105 South 17th Street
Latitude, Longitude	36.176326, -86.738902
Location Setting	Urban & City Center
Land Use Type	Residential
Dominant Source	Area
Measurement Scale	Neighborhood Scale
Sampling Start Date	1/1/2017
Monitor POC	2
Monitor Type	SLAMS
Monitor Objective	Population Exposure
Collection Frequency	Hourly
FEM/FRM Monitor {AQS ID}	Teledyne T640x **{639}**
EPA Ref. Method ID	EQPM-0516-239
Analysis Type	Light Scattering

2.6.1 PM_{10} Minimum Requirements

The minimum requirements for PM_{10} monitoring are met by a combination of EPA waivers and by the following SLAMS sites:

Table 2-12: PM_{10} Minimum Requirements

Metropolitan Statistical Area	Required Number of Monitors	Monitors {AQS ID}
Nashville CBSA {34980}	2	47-037-0023
		Waived

2.6.2 PM_{10} Waiver

Nashville has received EPA approval for a waiver of the *40CFR, Part 58, App. D, §4.6* requirement for two (2) PM_{10} monitors to be operated within the Nashville-Davidson-Murfreesboro-Franklin CBSA. This waiver allows Nashville to operate only one (1) PM_{10} monitor within its monitoring network and was approved as a result of the 2016, 2020, and 2025 Nashville Annual Network plans, which have demonstrated the continuance of the historically low PM_{10} concentrations recorded in the Nashville CBSA.

2.6.3 Proposed Changes to PM_{10} Monitoring

No changes are proposed for this portion of the Nashville Davidson County Air Monitoring Network.

2.7 Nashville's $PM_{2.5}$ Monitoring

Nashville's $PM_{2.5}$ monitoring network consists of four (4) $PM_{2.5}$ monitors that are operated year round, with one (1) of these monitors located at its "NRS" site {0040}, and the other three (3) at its "LL" {0023} site. The Primary continuous FEM $PM_{2.5}$ monitor (POC 3) at "LL" {0023} is collocated with Nashville's intermittent filter-based FRM $PM_{2.5}$ monitor that is maintained to collect 24-hour sample runs according to the EPA's six (6)-day sampling schedule. All $PM_{2.5}$ data collected by Nashville's monitoring network count towards meeting minimum monitoring requirements laid out in *40 CFR Part 58,* except what is collected by the T640x $PM_{2.5}$ monitor (POC 4) at "LL" {0023}, a Special Purpose monitor (SPM) used solely for AQI reporting. A summary of Nashville's $PM_{2.5}$ monitoring network is included in *Table 2-13* below.

Table 2-13: Nashville $PM_{2.5}$ Monitoring Network Summary

Parameter {AQS ID}	$PM_{2.5}$ LC {**88101}**			
CBSA {AQS ID}	Nashville-Davidson-Murfreesboro-Franklin, TN CBSA **{34980}**			
County {AQS ID}	Davidson **{037}**			
Agency {AQS ID}	Metro Public Health Department **{0682}**			
Monitoring Site {AQS ID}	Near Road Site **{0040}**	Lockeland Elementary **{0023}**		
Address	1113 Elm Hill Pike	105 South 17th Street		
Latitude, Longitude	36.142377, -86.734142	36.176326, -86.738902		
Location Setting	Urban & City Center	Urban & City Center		
Land Use Type	Industrial	Residential		
Dominant Source	Area	Area		
Measurement Scale	Microscale	Neighborhood Scale		
Sampling Start Date at Site	7/1/2019	1/1/1999	7/1/2019	9/12/2020
Monitor POC	3	2	3	4
Monitor Type	SLAMS	SLAMS	SLAMS	SPM (AQI reporting)
Monitor Objective	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Collection Frequency	Hourly	1:6	Hourly	Hourly
Monitoring Method {AQS ID}	MetOne BAM1022 **(209)**	Thermo 2025i **(145)**	MetOne BAM1022 **(209)**	Teledyne T640x **(638)**

EPA Ref. Method ID	EQPM-1013-209	EQPM-0202-145	EQPM-1013-209	EQPM-0516-238
Analysis Type	Beta Attenuation	Gravimetric	Beta Attenuation	Light Scattering

2.7.1 $PM_{2.5}$ Minimum Requirements

$PM_{2.5}$ SLAMS Requirements

The following table lists the currently active $PM_{2.5}$ SLAMS monitoring sites that fulfill the minimum $PM_{2.5}$ requirements found in *40 CFR Part 58, Appendix D* for the Nashville CBSA.

Table 2-14: $PM_{2.5}$ Minimum Requirement

Metropolitan Statistical Area	Required Number of Monitors	Monitors (AQSID)
Nashville CBSA {34980}	3	47-037-0023[1]
		47-037-0040
		47-165-0007[1,2]

[1] Site operates a collocated FEM/FRM monitor.
[2] Site not operated by the Nashville.

Continuous $PM_{2.5}$ Requirements

The following table lists the currently active $PM_{2.5}$ monitoring sites that fulfill the minimum continuous $PM_{2.5}$ requirements found in *40 CFR Part 58, Appendix D* for the Nashville CBSA.

Table 2-15: Continuous $PM_{2.5}$ Minimum Requirements

Core Based Statistical Area	Required Number of Monitors	Monitors (AQSID)
Nashville CBSA {34980}	2	47-037-0023[1]
		47-037-0040
		47-165-0007[1,2]

[1] Site operates a collocated FEM/FRM monitor.
[2] Site not operated by the Nashville.

Collocated $PM_{2.5}$ Requirements

The following table lists the currently active $PM_{2.5}$ monitoring sites that fulfill the minimum required collocated $PM_{2.5}$ monitors (*40 CFR Part 58 Appendix A, Section 3.2.3.1*):

PQAO	Required Number of Monitors	Monitors (AQSID)
Nashville-Davidson County	1	47-037-0023

2.7.2 $PM_{2.5}$ Waiver (T640x $PM_{2.5}$ SPM)

Nashville's T640x $PM_{2.5}$ monitor (POC 4) at "LL" {0023} began operation September 12, 2020, and was operated under a two-year NAAQS exclusion (2020-2022) to allow for evaluation of the data. When this period ended, the data was analyzed and determined to have poor comparability to the collocated FRM $PM_{2.5}$ monitor (POC 2) (demonstrated in Nashville's 2023 Annual Network Plan). EPA approved another two (2) year evaluation period (2023-2025) which came to an end on September 11th, 2025; the data from this period was analyzed and determined to be statistically acceptable as compared to the collocated FRM. This can be seen in the $PM_{2.5}$ Continuous Monitor Comparability Assessment results included in *Appendix B* and summarized in *Table 2-16* below. Nashville attributes this improvement to the Teledyne T640x "Data Alignment" software update (released in 2023), which was applied to all T640x $PM_{2.5}$ monitor data in AQS (from the start of operation continuing on).

During this time, Nashville has continued to operate its collocated $PM_{2.5}$ FRM (POC 2) and $PM_{2.5}$ continuous FEM monitor (POC 3) at the ”LL” {0023} site to support the monitoring objective of comparison to the NAAQS; and although comparability has improved, after discussion with the Region 4 EPA contact, Nashville requests that the T640x $PM_{2.5}$ monitor (POC 4) at this “LL” {0023} site remain designated as an SPM for AQI reporting. The $PM_{2.5}$ data generated from the T640x will still be reported with the (88101) AQS pollutant code but won’t be used in the combined site regulatory data set unless there is no data from the primary monitor at that site on a given day.

TABLE 2-16: $PM_{2.5}$ CONTINUOUS MONITOR COMPARABILITY SUMMARY

Sites with $PM_{2.5}$ continuous FEMs that are collocated with FRMs:											
Site Name	**City**	**Site ID**	**Cont. POC**	**Method Description**	**$PM_{2.5}$ Cont. Begin Date**	**$PM_{2.5}$ Cont. End Date**	**Continuous/ FRM Sampler pairs per season**	**Slope (m)**	**Intercept (y)**	**Meets bias requirement**	**Correlation (r)**
Lockeland	Nashville	47-037-0023	4	Teledyne T640X at 16.67 LPM (Broadband Spectroscopy)	Sept 1 2023	Aug 31 2025	Winter = 27 Spring = 26 Summer = 29 Fall = 28 Total = 110	0.96	+ 0.36	yes	0.94

2.7.3 PROPOSED CHANGES TO $PM_{2.5}$ MONITORING

No changes are proposed for this portion of the Nashville Davidson County Air Monitoring Network.

3.0 NASHVILLE AIR MONITORING SITE DESCRIPTIONS

The emphasis of the Nashville's Air Quality Monitoring Network is the areas in the Nashville CBSA where elevated pollutant concentrations are known or suspected to occur. The AMP currently operates four (4) ambient air monitoring stations in the Nashville-Davidson County area. Below is a list of each of Nashville's sites and the pollutants monitored at the site. *Figure 1-2* depicts the location of each of these sites within the Nashville CBSA. Additionally, the following subsections include a brief description of each of site.

1) East Health Center ("EAST"/"East Health") {47-037-0011}:
- Ozone (O_3) monitored during specified O_3 season (March 1st – October 31st).
- Nitrogen Dioxide (NO_2) along with co-pollutants Nitric oxide (NO) and Nitrogen oxides (NO_X) monitored year round.

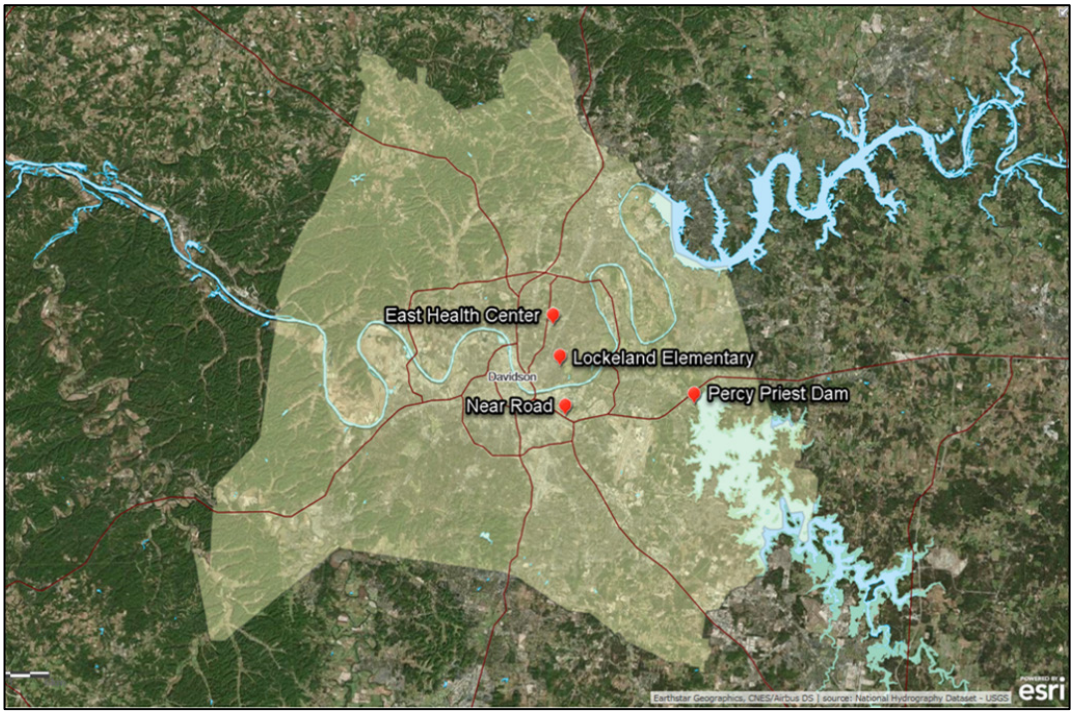
2) Lockeland Elementary School ("LL"/ "Lockeland") {47-037-0023} :
- $PM_{2.5}$ LC (regulatory and AQI-specific) monitored year round.
- PM_{10} (at STP) monitored year round.

3) Near Road Site ("NRS"/"Near Road") {47-037-0040} :
- Carbon monoxide (CO) monitored year round.
- Sulphur dioxide (SO_2) with SO_{2MAX} monitored year round.
- NO_2 (with NO/NO_X) monitored year round.

4) Percy Priest Dam ("PPD"/"Percy Priest") {47-037-0026} : Ozone (O^3) monitored during O_3 season (March 1st – October 31st).

See *Section 4.0* for Nashville's site assessment summaries and the completed 2026 Annual Site Evaluation forms [PCD-AM-020].

FIGURE 1-1: NASHVILLE AIR MONITORING NETWORK SITES WITHIN CBSA



3.1 EAST HEALTH CENTER {47-037-0011}

Nashville's "EAST" site is located at 1015 E Trinity Lane, Nashville, TN 37216 (at Metro's East Public Health Center) and started monitoring operations January 1, 1972. This site currently serves to capture area-wide NO_2 (with NO/NO_X) and (O_3) data. The NO_2 monitor at this location is sited to capture data representing the highest concentrations expected to occur in the Nashville CBSA. Additionally, Nashville's O_3 monitor at this site is located to capture typical concentrations of O_3 in areas of high population density.

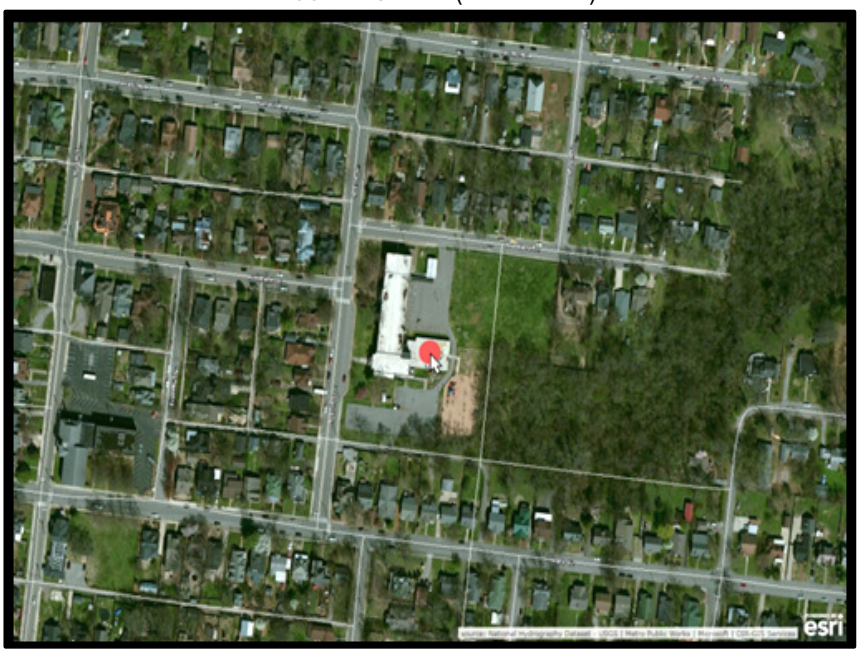
FIGURE 2-2: "EAST" MONITORING SITE

FIGURE 2-3: "EAST" (AERIAL VIEW)

3.2 LOCKELAND ELEMENTARY {47-037-0023}

FIGURE 2-4: "LL" MONITORING SITE

FIGURE 2-5: "LL" (AERIAL VIEW)

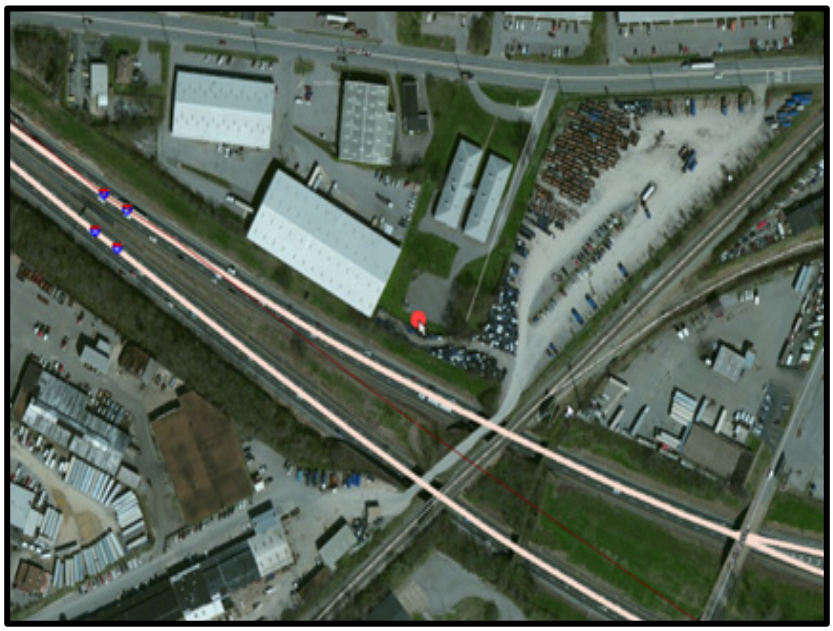


Nashville's "LL" site has been used for Nashville's $PM_{2.5}$ and PM_{10} monitoring since January 1, 1999. This site was defunded as a CSN site at the end of 2014 and the SASS and URG monitors were shut down. A PM_{10} TEOM monitor began operation at this site January 1, 2017, and starting July 1, 2019, an FEM $PM_{2.5}$ monitor (POC 3) was added to the "LL" site to replace one of the $PM_{2.5}$ FRM monitors (POC 1) that had previously been operating there. In the beginning on 2020, a Tornado caused damage to the "LL" site and the equipment stationed there, resulting in the site being shut down for repair and all equipment at the site having to be replaced. Monitoring began again in August/September 2020. As a result of this incident, one (1) $PM_{2.5}$ TEOM 1405 monitor (collected AQI data) and one (1) PM_{10} TEOM 1405 monitor were replaced with a single piece of equipment, the Teledyne T640x which measures both criteria pollutants ($PM_{2.5}$ & PM_{10}). As discussed previously, the T640x $PM_{2.5}$ monitor at "LL" is used solely for AQI reporting. This is a neighborhood scale site, with Nashville's PM monitors sited to represent typical concentrations in areas of high population density.

3.3 NEAR ROAD SITE {47-037-0040}

FIGURE 2-6: "NRS" MONITORING SITE

FIGURE 2-7: "NRS" (AERIAL VIEW)



Nashville's near-road site ("NRS") was established following the EPA's 2010 NAAQS amendment requiring establishment of near-road nitrogen dioxide (NO_2) monitors to capture short-term NO_2 concentrations near heavily trafficked roads. The Near Road site ("NRS") is located along the I-24/I-40 split in downtown Nashville (behind the Metro Nashville Archives Building at 1113 Elm Hill Pike, Nashville). CO and NO_2 (with NO/NO_X) monitoring at this site were established July 1, 2014. A few years later on January 1, 2017, near-road $PM_{2.5}$ monitoring began; initially carried out with a $PM_{2.5}$ FRM monitor (POC 1), but replaced July 1, 2019, by a continuous FEM $PM_{2.5}$ monitor (POC 3). As of January 1, 2020, this site is also used for SO_2 (with SO_{2MAX}) monitoring, after Nashville's SO_2 monitoring operations had to be moved from Nashville's "EAST" {0011} site due to issues with sample line lengths and residence time.

As a note, the monitor probe inlets at the near-road site are located approximately 28.9 meters from the nearest edge of travel lanes of the I-24/I-40 corridor, as documented in the 2026 site assessment (see *Table 4-1*). While this distance exceeds the 2 to 15 meter probe-to-road placement specified in *40 CFR Part 58, App. E,§ 6.4*, probe placement closer to the travel lanes is not feasible due to Tennessee Department of Transportation (TDOT) right-of-way restrictions and safety concerns associated with technician access for routine maintenance, calibration, and audit activities given the traffic volumes and speeds on this road segment. The probe inlet height of 4.5 meters is within the *Appendix E* requirement of 2 to 7 meters above ground level. The site remains within the microscale spatial representation for near-road specific monitoring and continues to capture the near-road concentration gradient for the I-24/I-40 corridor, which is among the highest AADT road segments in the Nashville-Davidson-Murfreesboro-Franklin CBSA. In 2025, this section of I-40 had an Annual Average Daily Traffic (AADT) count of 145,048[3].

[3] TDEC. Annual Average Daily Traffic Maps. Accessed May 2026. https://www.tn.gov/tdot/driver-how-do-i/look-at-or-order-state-maps/maps/annual-average-daily-traffic-maps.html

3.3.1 "NRS" Site Scale AQS Correction

The spatial scale designations for the Near Road monitoring site (NRS), located at 1113 Elm Hill Pike, have been corrected in AQS. The CO, NO_2, and $PM_{2.5}$ monitors at this site have been corrected from urban scale to microscale. The previous urban scale designation was a data entry error inconsistent with the site's near-road monitoring objective and physical siting characteristics. Microscale is the appropriate classification for near-road monitors per *40 CFR Part 58, Appendix D*.

Additionally, the SO_2 monitor has been corrected from urban scale to neighborhood scale. Nashville's SO_2 monitor is not part of the near-road monitoring requirement but was relocated to this site from Nashville's "EAST" site in January 2020 due to residence time issues it was experiencing at "EAST". Prior to the relocation, the SO_2 monitor was classified as neighborhood scale with a population exposure monitoring objective. The neighborhood scale designation has been restored in AQS to maintain consistency with the monitor's original and appropriate classification. Neighborhood scale is consistent with the SO_2 monitor's population exposure objective per *40 CFR Part 58, Appendix D*.

3.4 Percy Priest Dam {47-037-0026}

Figure 2-8: "PPD" Monitoring Site

Figure 2-9: "PPD" (Aerial View)

The Percy Priest Dam (PPD) site was established January 1st, 1978, and is located at US Army Corp of Engineers (3711 Bell Road, Nashville, TN, 37214). This site is used solely for O3 monitoring and is appropriately sited to capture O_3 data representing the highest concentrations expected to occur in the Nashville CBSA. This site is only operational during the ozone monitoring season from March 1st to October 31st.

4.0 2026 NASHVILLE SITE ASSESSMENTS

Each year, site evaluations are performed to assess the impact of obstructions, such as trees and buildings, on the sampling inlets at Nashville's monitoring sites. These assessments should be measured while the leaf canopy is full to assess the potential issues fully.

Each of Nashville's monitoring sites have been assessed in the last calendar year, and meet requirements laid out in *40 CFR Part 58, Appendix E*. The results of these site assessments can be found below in: *Table 4-1 "2026 Site Assessment Results Summary"* , the filled-out *Site Evaluation Forms* [PCD-AM-020] and site directional pictures for each site are included in the following subsections.

Additionally, included in *Appendix A* of this document, is the blank Annual Site Evaluation Form [PCD-AM-020] that Nashville's Field Technicians use to conduct these site evaluations.

TABLE 4-1: 2026 SITE ASSESSMENT RESULTS SUMMARY

East Health Center {0011}							**Assessment Date:** 4/24/26
Pollutant	**Probe Inlet Height (IH)**	**Obstruct. Height (OH)**	**Dripline**	**Obstruct. Distance (OD)**	**Obstruct. Type**	**Unrestricted Airflow**	**Findings**
O_3	10.0 m	16.5 m	16.6 m	19.3 m	Trees	295°	Site OK; trees to the north and east will be monitored.
NO_2	10.0 m	16.5 m	16.6 m	19.3 m	Trees	295°	
Lockeland Elementary {0023}							**Assessment Date:** 4/27/26
Pollutant	**IH**	**OH**	**Dripline**	**OD**	**Obstruct.**	**Airflow**	**Findings**
$PM_{2.5}$ (POC 3)	5.8 m	6.1 m	28.7 m	19.0 m	Building	280°	Site OK; Trees to the north and east will be monitored. **Collocated Distance:** 3.0 m
$PM_{2.5}$ (POC 2)	5.8 m	6.1 m	28.7 m	19.0 m	Building	280°	
$PM_{2.5}$ (POC 4)	5.8 m	6.1 m	28.7 m	19.0 m	Building	280°	
PM_{10}							
Near Road Site {0040}							**Assessment Date:** 4/24/26
Pollutant	**IH**	**OH**	**Dripline**	**OD**	**Obstruct.**	**Airflow**	**Findings**
SO_2	4.5 m	14.2 m	19.5 m	23.0 m	Trees	290°	Site OK; vegetation on fence line and trees to the east will be monitored. **Distance to Nearest Road:** 28.9 m
CO	4.5 m	14.2 m	19.5 m	23.0 m	Trees	290°	
NO_2	4.5 m	14.2 m	19.5 m	23.0 m	Trees	290°	
$PM_{2.5}$	4.5 m	14.7 m	19.5 m	23.0 m	Trees	290°	
Percy Priest Dam {0026}							**Assessment Date:** 4/29/26
Pollutant	**IH**	**OH**	**Dripline**	**OD**	**Obstruct.**	**Airflow**	**Findings**
O_3	5.3 m	18.2 m	39.0 m	45.8 m	Trees	310°	Site OK; trees to the north will be monitored.

4.1 "EAST" 2026 SITE EVALUATION FORM

Revision 1

SITING EVALUATION FIELD FORM

Metro Public Health Department
Air Pollution Lab
PCD-AM-020, Rev. 1

Rev. 5/2023

Site Name:	East Health Clinic	Date:	4/24/2026
AQS I.D:	47-037-0011	Time:	11:45 am
Coordinates:	36.204 , -83.744	Inspected by:	HM
Scale:	Neighborhood	Signature:	

EQUIPMENT USED DURRING EVALUATION *(List Below)*

range finder, compass, tape measure

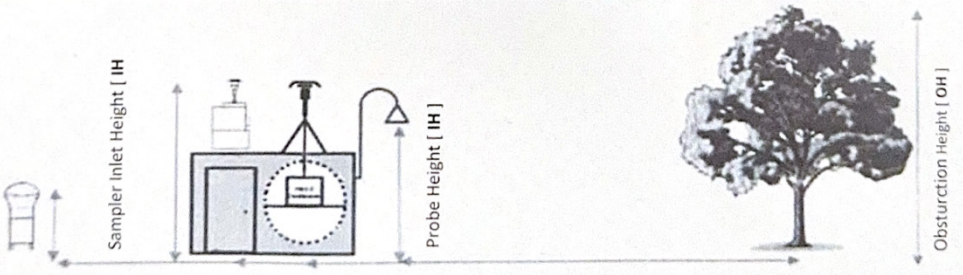
PARTICULATE MONITORS

	Units	$PM_{2.5}$	$PM_{2.5}$ *(FRM)*	PM_{10} / $PM_{2.5}$ *(AQI)*
Probe Inlet Height [**IH**]	m			
Distance to nearest road	m			
Obstruction Type	/			
Obstruction Height [**OH**]	m			
Obstruction Distance [**OD**]	m			
Collocated Distance	m			
Unrestricted Airflow	degrees			
Dripline	m			

GASEOUS MONITORS

	Units	CO	OZONE	NO_x	SO_2
Probe Inlet Height [**IH**]	m		10m	10m	
Distance to nearest road	m		31m	31m	
Obstruction Type	/		Tree	Tree	
Obstruction Height [**OH**]	m		16.5m	16.5m	
Obstruction Distance [**OD**]	m		19.3m	19.3m	
Collocated Distance	m				
Unrestricted Airflow	degrees		295°	295°	
Dripline	m		16.6m	16.6m	

	YES/NO	PASS/FAIL
Are all probes at least 1 meter apart?	Yes	
Are all probes located in an area that is paved or has vegetative ground cover?	Yes	
Are all rooftop samplers located at least 2 meters away from any structures?	Yes	
There MUST be 270 degrees of unrestricted airflow around the probe or sampler.	2(16.5 - 10) = 13	Pass
Obstruction Distance MUST be ≥ 2*(OH - IH).	19.3 > 13	Pass
Dripline must be at least 10m away when tree is an obstruction.		Pass



4.1.1 "EAST" 2026 Directional Site Pictures

Figure 3-1: "EAST" –North View

Figure 3-2: "EAST" – West View

Figure 3-3: "EAST" – East View

Figure 3-4: " EAST" – South View

4.2 "NRS" 2026 Site Evaluation Form

Revision 1

SITING EVALUATION FIELD FORM

Metro Public Health Department
Air Pollution Lab
PCD-AM-020, Rev. 1

Rev. 5/2023

Site Name: Near Road Site
AQS I.D: 47-037-0040
Coordinates: 36.142, -86.734
Scale: ~~Urban~~ NO2/CO/PM2.5 - Microscale
SO2 - Neighborhood Scale - NR 5.11.26

Date: 4/24/2026
Time: 9:45am
Inspected by: HM
Signature: Hah MSD

EQUIPMENT USED DURRING EVALUATION *(List Below)*

rangefinder, compass, tape measure

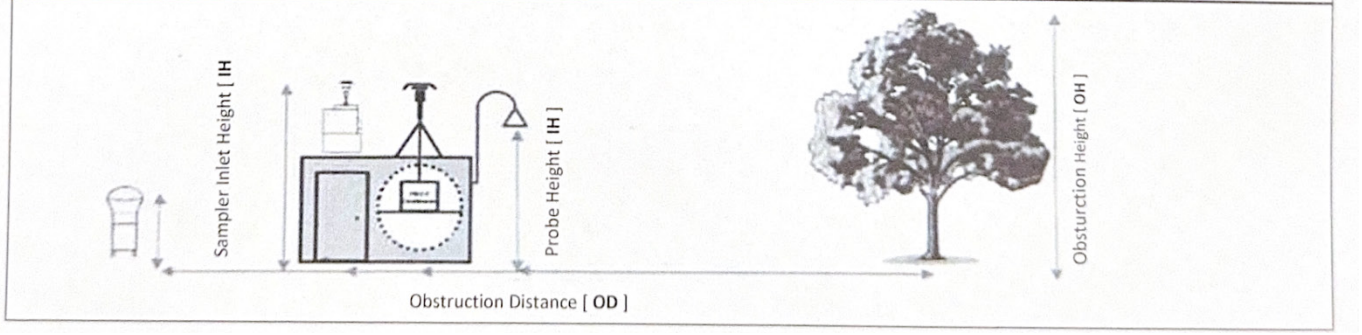
PARTICULATE MONITORS

	Units	$PM_{2.5}$	$PM_{2.5}$ (FRM)	PM_{10} / $PM_{2.5}$ (AQI)
Probe Inlet Height [**IH**]	m	4.5m		
Distance to nearest road	m	28.9m		
Obstruction Type	/	Tree		
Obstruction Height [**OH**]	m	14.7m		
Obstruction Distance [**OD**]	m	23 m		
Collocated Distance	m			
Unrestricted Airflow	degrees	290°		
Dripline	m	19.5m		

GASEOUS MONITORS

	Units	CO	OZONE	NO_x	SO_2
Probe Inlet Height [**IH**]	m	4.5m		4.5 m	4.5 m
Distance to nearest road	m	28.9m		28.9 m	28.9 m
Obstruction Type	/	Tree		Tree	Tree
Obstruction Height [**OH**]	m	14.7m		14.7 m	14.7m
Obstruction Distance [**OD**]	m	23 m		23 m	23m
Collocated Distance	m				
Unrestricted Airflow	degrees	290°		290°	290°
Dripline	m	19.5m		19.5m	19.5m

	YES/NO	PASS/FAIL
Are all probes at least 1 meter apart?	Yes	
Are all probes located in an area that is paved or has vegetative ground cover?	Yes	
Are all rooftop samplers located at least 2 meters away from any structures?	yes	
There MUST be 270 degrees of unrestricted airflow around the probe or sampler.	2(14.7-4.5)=20.4	pass
Obstruction Distance MUST be ≥ 2*(OH - IH).	23 > 20.4	Pass
Dripline must be at least 10m away when tree is an obstruction.		Pass



4.2.1 "NRS" Directional Site Pictures

FIGURE 3-5: "NRS" – NORTH VIEW

FIGURE 3-6: "NRS" – WEST VIEW

FIGURE 3-7: "NRS" – EAST VIEW

FIGURE 3-8: "NRS" – SOUTH VIEW

4.3 "LOCKELAND" 2026 SITE EVALUATION FORM

Revision 1

SITING EVALUATION FIELD FORM

Metro Public Health Department
Air Pollution Lab
PCD-AM-020, Rev. 1

Rev. 5/2023

Site Name:	Lockeland	Date:	4/27/2026
AQS I.D:	47-0037-0023	Time:	10:00am
Coordinates:	36.176, -86.738	Inspected by:	HM
Scale:	Neighborhood	Signature:	

EQUIPMENT USED DURRING EVALUATION *(List Below)*

Range Finder; Compass; Tape Measure from Air Lab - (NR 4/28/26)

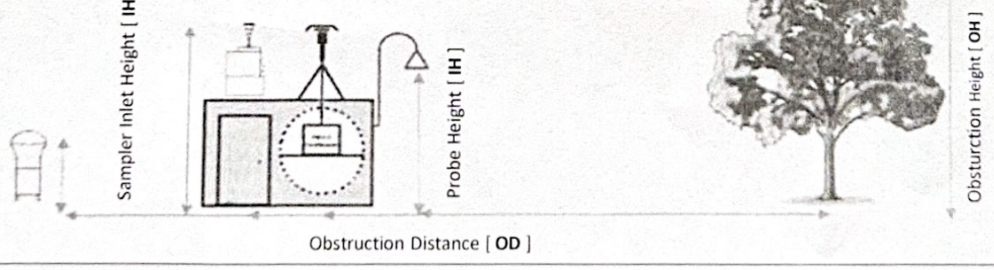
PARTICULATE MONITORS

	Units	$PM_{2.5}$	$PM_{2.5}$ *(FRM)*	PM_{10} / $PM_{2.5}$ *(AQI)*
Probe Inlet Height [**IH**]	m	5.8	5.8	5.8
Distance to nearest road	m	6.6	6.6	6.6
Obstruction Type	/	building	building	building
Obstruction Height [**OH**]	m	6.1	6.1	6.1
Obstruction Distance [**OD**]	m	19.0	19.0	19.0
Collocated Distance	m	3	3	
Unrestricted Airflow	degrees	280	280	280
Dripline	m	28.7	28.7	28.7

GASEOUS MONITORS

	Units	CO	OZONE	NO_x	SO_2
Probe Inlet Height [**IH**]	m				
Distance to nearest road	m				
Obstruction Type	/				
Obstruction Height [**OH**]	m				
Obstruction Distance [**OD**]	m				
Collocated Distance	m				
Unrestricted Airflow	degrees				
Dripline	m				

	YES/NO	PASS/FAIL
Are all probes at least 1 meter apart?	Yes	
Are all probes located in an area that is paved or has vegetative ground cover?	Yes	
Are all rooftop samplers located at least 2 meters away from any structures?	Yes	
There MUST be 270 degrees of unrestricted airflow around the probe or sampler.	2(6.1-5.8)= 0.6	pass
Obstruction Distance MUST be ≥ 2*(OH - IH).	19 > 0.6	pass
Dripline must be at least 10m away when tree is an obstruction.		pass



4.3.1 "LL" Directional Site Pictures

Figure 3-9: "LL" – North View

Figure 3-10: "LL" – East View

Figure 3-11: "LL" – West View

Figure 3-12: "LL" – South View

4.4 "PPD" 2026 Site Evaluation Form

Revision 1

SITING EVALUATION FIELD FORM

Metro Public Health Department
Air Pollution Lab
PCD-AM-020, Rev. 1

Rev. 5/2023

Site Name:	Percy Priest Dam	Date:	4-29-26
AQS I.D:	47-037-0076	Time:	8:32
Coordinates:	36.150, -86.623	Inspected by:	GL
Scale:	Urban	Signature:	

EQUIPMENT USED DURRING EVALUATION *(List Below)*

Range finder, compass, and measuring tape from Air Lab - NR 4/29/2026

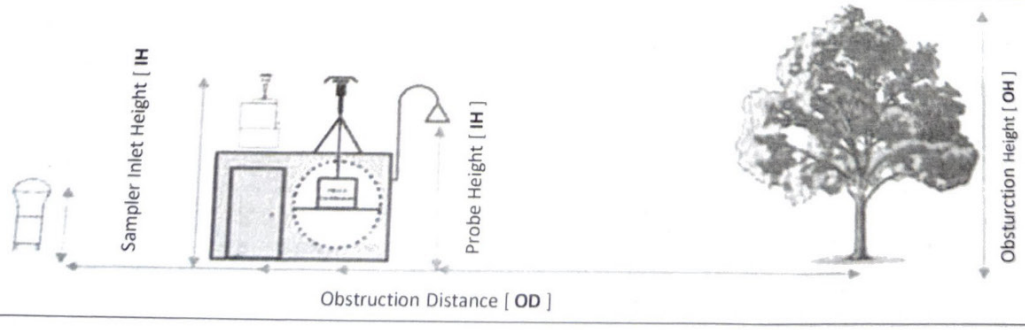
PARTICULATE MONITORS

	Units	$PM_{2.5}$	$PM_{2.5}$ *(FRM)*	PM_{10} / $PM_{2.5}$ *(AQI)*
Probe Inlet Height [**IH**]	m			
Distance to nearest road	m			
Obstruction Type	/			
Obstruction Height [**OH**]	m			
Obstruction Distance [**OD**]	m			
Collocated Distance	m			
Unrestricted Airflow	degrees			
Dripline	m			

GASEOUS MONITORS

	Units	CO	OZONE	NO_x	SO_2
Probe Inlet Height [**IH**]	m		5.3		
Distance to nearest road	m		164		
Obstruction Type	/		Tree		
Obstruction Height [**OH**]	m		18.2		
Obstruction Distance [**OD**]	m		45.8		
Collocated Distance	m				
Unrestricted Airflow	degrees		310		
Dripline	m		39		

	YES/NO	PASS/FAIL
Are all probes at least 1 meter apart?	Yes	
Are all probes located in an area that is paved or has vegetative ground cover?	Yes	
Are all rooftop samplers located at least 2 meters away from any structures?	Yes	
There MUST be 270 degrees of unrestricted airflow around the probe or sampler.		Pass
Obstruction Distance MUST be ≥ 2*(OH - IH).		Pass
Dripline must be at least 10m away when tree is an obstruction.		Pass



4.4.1 "PPD" Directional Site Pictures

Figure 3-13: "PPD" – NORTH VIEW

Figure 3-14: "PPD" – West View

Figure 3-15: "PPD" – East View

Figure 3-16: "PPD" – South View

APPENDIX A: ANNUAL SITE EVALUATION FORM [PCD-AM-020]

Revision 1

SITING EVALUATION FIELD FORM

Metro Public Health Department
Air Pollution Lab
PCD-AM-020, Rev. 1 *Rev. 5/2023*

Site Name: _____ **Date:** _____
AQS I.D: _____ **Time:** _____
Coordinates: _____ **Inspected by:** _____
Scale: _____ **Signature:** _____

EQUIPMENT USED DURRING EVALUATION *(List Below)*

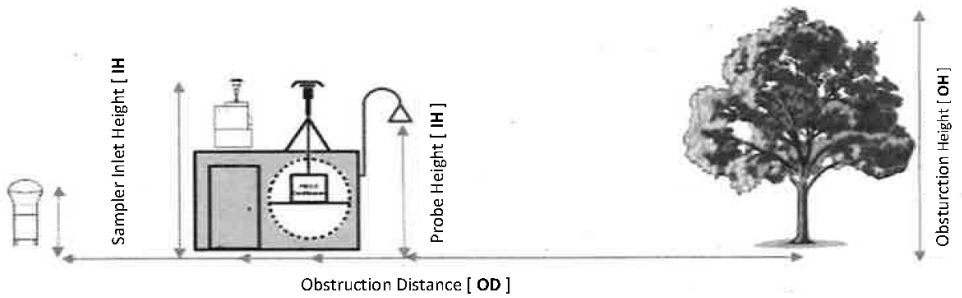
PARTICULATE MONITORS

	Units	$PM_{2.5}$	$PM_{2.5}$ *(FRM)*	PM_{10} / $PM_{2.5}$ *(AQI)*
Probe Inlet Height [**IH**]	m			
Distance to nearest road	m			
Obstruction Type	/			
Obstruction Height [**OH**]	m			
Obstruction Distance [**OD**]	m			
Collocated Distance	m			
Unrestricted Airflow	degrees			
Dripline	m			

GASEOUS MONITORS

	Units	CO	OZONE	NO_x	SO_2
Probe Inlet Height [**IH**]	m				
Distance to nearest road	m				
Obstruction Type	/				
Obstruction Height [**OH**]	m				
Obstruction Distance [**OD**]	m				
Collocated Distance	m				
Unrestricted Airflow	degrees				
Dripline	m				

	YES/NO	PASS/FAIL
Are all probes at least 1 meter apart?		
Are all probes located in an area that is paved or has vegetative ground cover?		
Are all rooftop samplers located at least 2 meters away from any structures?		
There MUST be 270 degrees of unrestricted airflow around the probe or sampler.		
Obstruction Distance MUST be ≥ 2*(OH - IH).		
Dripline must be at least 10m away when tree is an obstruction.		



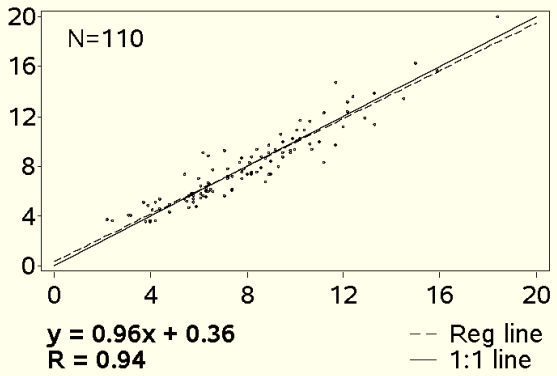
APPENDIX B: T640X $PM_{2.5}$ FEM VS FRM COMPARABILITY ASSESSMENT

$PM_{2.5}$ Continuous Monitor Comparability Assessment

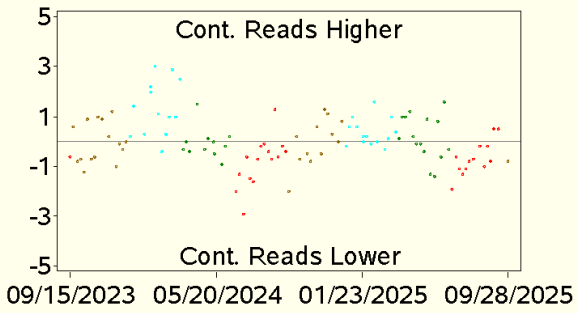
Site 47-037-0023: Nashville, TN

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (118,145), PM2.5 - Local Conditions (88101), POC=1,2
Cont: Teledyne T640X at 16.67 LPM w/Network Data Alignment enabled - Broadband spectroscopy (638), PM2.5 - Local Conditions (88101), POC

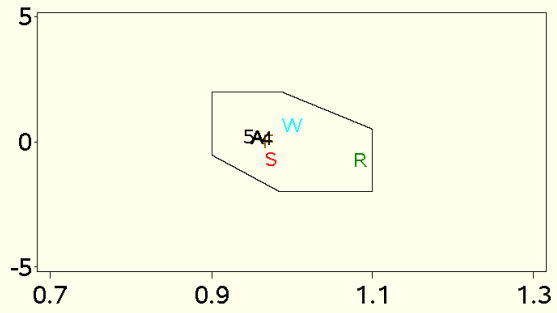
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

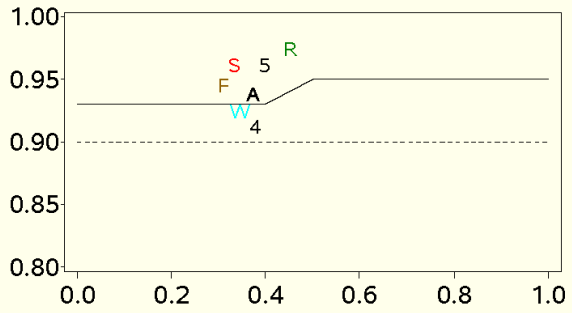


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**110**	**7.9**	**8.0**	**1.00**
Winter	27	7.0	7.9	1.12
Spring	26	7.0	7.1	1.01
Summer	29	9.3	8.5	0.92
Fall	28	8.3	8.3	0.99
2023	17	8.8	8.7	0.99
2024	51	7.5	7.6	1.01
2025	42	8.1	8.0	1.00

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**110**	**0.8**	**110**	**0.8**
Winter	27	11.3	27	11.3
Spring	26	0.7	26	0.7
Summer	29	-8.1	29	-8.1
Fall	28	-0.2	28	-0.2
2023	17	-0.3	17	-0.3
2024	51	1.4	51	1.4
2025	42	0.4	42	0.4

Includes all data
Data Source: EPA AQS Data Mart

Based on 2024 Appendix A revision
Generated: December 2, 2025