QuES&T

Quality Environmental Solutions & Technologies, Inc.

Indoor Environmental Quality Investigation – Particular Matter

Project Report

Prepared for

Union Free School District of Tarrytowns

At

Washington Irving Intermediate School
103 S Broadway,
Tarrytown, NY 10591

Conducted by

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QuES&T Project # 257550

Report Date: October 8, 2026

Project Personnel:
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Executive Summary

Quality Environmental Solutions & Technologies, Inc. (QuES&T) performed particulate matter monitoring as part of the ongoing construction project at Washington Irving Intermediate School, located at 103 S Broadway, Tarrytown, NY 10591, on behalf of the Union Free School District of the Tarrytowns. The purpose of the monitoring was to evaluate particulate matter concentrations within areas affected by construction activities and to assess whether construction-related activities had resulted in elevated particulate matter levels within the facility.

In-situ monitoring for Particulate Matter (PM) was conducted throughout the designated areas of the facility. A TSI SidePak Aerosol Monitor was utilized to measure and record particulate matter concentrations at one (1)-minute intervals over an approximately thirty (30) minute monitoring period. The average particulate matter concentration measured during the monitoring period was 0.048 mg/m³ = 48 µg/m³. This concentration was below the OSHA permissible exposure limits of 15 mg/m³ for total particulate matter and 5 mg/m³ for the respirable fraction. Based on the particulate matter measurements obtained during the assessment, no elevated particulate matter concentrations were identified at the time of monitoring.

QuES&T then returned to the school on September 29, 2026, during school hours to set a background for particulate levels during typical building usage and occupancy. A TSI SidePak Aerosol Monitor was utilized to measure and record particulate matter concentrations at one (1)-minute intervals over an approximately twenty(20)-minute monitoring period. The average particulate matter concentration measured during the monitoring period was 0.012 mg/m³ = 12 µg/m³. This concentration was below the OSHA permissible exposure limits of 15 mg/m³ for total particulate matter and 5 mg/m³ for the respirable fraction.

1.0 Introduction

Quality Environmental Solutions & Technologies, Inc. (QuES&T) was retained by the Union Free School District of Tarrytowns to perform post-construction particulate matter monitoring at Washington Irving Intermediate School, located at 103 S Broadway, Tarrytown, NY 10591.

The monitoring was conducted on September 14, 2026, over an approximately thirty (30) minute period. The purpose of the monitoring was to evaluate particulate matter concentrations within areas affected by construction activities and to determine whether elevated particulate matter levels were present within the facility as a result of the ongoing construction work.

Particulate matter concentrations were monitored using a TSI SidePak Aerosol Monitor, which recorded measurements at one (1)-minute intervals throughout the monitoring period. The data collected represents the particulate matter conditions present within the monitored areas at the time of the assessment. This report presents the results of the post-construction particulate matter monitoring conducted on September 14, 2026.

The monitoring was then repeated, on September 29, 2026, over an approximately twenty (20) minute period during school hours to set a background for the building during typical use and occupancy. Monitoring was conducted using a TSI SidePak Aerosol Monitor, which recorded measurements at one (1)-minute intervals throughout the monitoring period. This report presents the results of the on-going construction particulate matter monitoring conducted on September 14, 2026, and September 29, 2026.

2.0 Investigation Scope

2.1 Particulate Matter

Particulate Matter levels were monitored utilizing a TSI SidePak Aerosol Monitor. The SidePak is a laser photometer which uses light scattering technology to determine particle mass concentration in real-time. One (1) monitor was utilized to record the average concentrations at one (1) minute intervals over the course of approximately one (1) hour. The results of all sampling conducted are included within Appendix A of this report.

3.0 Data Analysis

3.1 Particulate Matter

Particulate Matter is defined by the Occupational Safety and Health Administration (OSHA) as a suspension of fine solid or liquid particles in air, such as dust, fog, fume, mist, smoke or sprays. Particulate matter suspended in air is commonly known as an “aerosol”.

Particulate Matter Summary Chart

Location		**Aerosol**
Washington Irving Intermediate School 103 S Broadway, Tarrytown, NY 10591	09/14/2026	**mg/m^3**
	Minimum 09/14/26	0.029
	Maximum 09/14/26	0.072
	Average 09/14/26	0.048

Particulate Matter Summary Chart

Location		**Aerosol**
Washington Irving Intermediate School 103 S Broadway, Tarrytown, NY 10591	09/29/2026	**mg/m^3**
	Minimum 09/29/26	0.005
	Maximum 09/29/26	0.019
	Average 09/29/26	0.012

The minimum, maximum, and average levels of Particulate Matter did not exceed the maximum acceptable threshold of 15 mg/m^3 (measured as total particulate) and 5 mg/m^3 (measured as the respirable fraction) as set by the Occupational Safety and Health Administration (OSHA) on either of the monitoring events.

4.0 Conclusions

Based on the results of the visual inspection, information provided by the client, and the data collected, the following conclusions can be made by QuES&T:

- The average levels of Particulate Matter recorded throughout the facility did not exceed the maximum acceptable threshold of 15 mg/m^3 (measured as total particulate) and 5 mg/m^3 (measured as the respirable fraction) as set by the Occupational Safety and Health Administration (OSHA) on September 14, 2026. The maximum concentration of particulates recorded was 0.072 mg/m^3.

- Additionally, the average levels of Particulate Matter recorded throughout the facility did not exceed the maximum acceptable threshold of 15 mg/m^3 (measured as total particulate) and 5 mg/m^3 (measured as the respirable fraction) as set by the Occupational Safety and Health Administration (OSHA) on September 29, 2026. The maximum concentration of particulates recorded was 0.019 mg/m^3.

5.0 Recommendations

The following recommendations are presented to Union Free School District of Tarrytowns for consideration and review:

- General cleaning practices should continue as normal, dust should be kept to a minimum on all horizontal surfaces to the extent practicable.

- No further recommendations are provided currently, additional monitoring will be conducted monthly moving forward.

Appendix A
Particulate Matter Data

UNDERSTANDING, ACCELERATED

Test 1 Report

Name: Test 1

Description: None

Location: Unknown

Instrument Name: SidePak Aerosol Monitor

Device Model Number: AM520

Device Serial Number: 5201629002

Firmware Version: B.01

Last Factory Calibration: 5/29/2026

Data Properties	
Start Date	9/29/2026
Start Time	10:45 AM
End Date	9/29/2026
End Time	11:08 AM
Test Length	00:00:23:00
Logging Interval	60 second(s)
Number of Data Points	23

Additional Information

There is no metadata related to this test

Test Statistics

Channel	Average	Minimum	Maximum	Cal Factor	TWA
MC (mg/m³)	0.012	0.005 09/29/2026 11:00:40	0.019 09/29/2026 10:46:40	1 Factory 09/25/2026	0.001

Date	Time	MC (mg/m³)	Alarms
9/29/2026	10:46:40 AM	0.019	None
9/29/2026	10:47:40 AM	0.017	None
9/29/2026	10:48:40 AM	0.015	None
9/29/2026	10:49:40 AM	0.016	None
9/29/2026	10:50:40 AM	0.017	None
9/29/2026	10:51:40 AM	0.015	None
9/29/2026	10:52:40 AM	0.013	None
9/29/2026	10:53:40 AM	0.012	None
9/29/2026	10:54:40 AM	0.014	None
9/29/2026	10:55:40 AM	0.009	None
9/29/2026	10:56:40 AM	0.012	None
9/29/2026	10:57:40 AM	0.011	None
9/29/2026	10:58:40 AM	0.009	None
9/29/2026	10:59:40 AM	0.007	None
9/29/2026	11:00:40 AM	0.005	None
9/29/2026	11:01:40 AM	0.007	None
9/29/2026	11:02:40 AM	0.011	None
9/29/2026	11:03:40 AM	0.014	None
9/29/2026	11:04:40 AM	0.015	None
9/29/2026	11:05:40 AM	0.010	None
9/29/2026	11:06:40 AM	0.011	None
9/29/2026	11:07:40 AM	0.009	None
9/29/2026	11:08:40 AM	0.010	None

Appendix B
Previous Particulate Matter Data

UNDERSTANDING, ACCELERATED

Test 2 Report

Name: Test 2

Description: None

Location: Unknown

Instrument Name: SidePak Aerosol Monitor

Device Model Number: AM520

Device Serial Number: 5202328002

Firmware Version: B.01

Last Factory Calibration: 5/8/2026

Data Properties	
Start Date	9/14/2026
Start Time	3:56 PM
End Date	9/14/2026
End Time	4:23 PM
Test Length	00:00:27:00
Logging Interval	60 second(s)
Number of Data Points	27

Additional Information

There is no metadata related to this test

Test Statistics

Channel	Average	Minimum	Maximum	Cal Factor	TWA
MC (µg/m³)	48	29 09/14/2026 03:59:41	72 09/14/2026 04:15:41	1 Factory 05/22/2026	5

Date	Time	MC (µg/m³)	Alarms
9/14/2026	3:56:41 PM	36	None
9/14/2026	3:57:41 PM	48	None
9/14/2026	3:58:41 PM	45	None
9/14/2026	3:59:41 PM	29	None
9/14/2026	4:00:41 PM	32	None
9/14/2026	4:01:41 PM	34	None
9/14/2026	4:02:41 PM	37	None
9/14/2026	4:03:41 PM	42	None
9/14/2026	4:04:41 PM	42	None
9/14/2026	4:05:41 PM	45	None
9/14/2026	4:06:41 PM	52	None
9/14/2026	4:07:41 PM	63	None
9/14/2026	4:08:41 PM	69	None
9/14/2026	4:09:41 PM	61	None
9/14/2026	4:10:41 PM	55	None
9/14/2026	4:11:41 PM	48	None
9/14/2026	4:12:41 PM	30	None
9/14/2026	4:13:41 PM	39	None
9/14/2026	4:14:41 PM	42	None
9/14/2026	4:15:41 PM	72	None
9/14/2026	4:16:41 PM	53	None
9/14/2026	4:17:41 PM	62	None
9/14/2026	4:18:41 PM	56	None
9/14/2026	4:19:41 PM	60	None
9/14/2026	4:20:41 PM	57	None
9/14/2026	4:21:41 PM	49	None
9/14/2026	4:22:41 PM	46	None