QuES&T

Quality Environmental Solutions & Technologies, Inc.

Indoor Environmental Quality Investigation – Particular Matter

Project Report

Prepared for

Union Free School District of Tarrytowns

At

W. L. Morse Elementary School
30 Pocantico Street,
Sleepy Hollow, NY 10591

Conducted by

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QuES&T Project # 257551

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 W. L. Morse Elementary School, located at 30 Pocantico Street, Sleepy Hollow, NY 10591, on behalf of the Union Free School District of Tarrytown. 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 one (1)-hour monitoring period. The average particulate matter concentration measured during the monitoring period was 0.037 mg/m³ = 37 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 0.032 mg/m³ = 32 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. There was one (1) sample that was slightly elevated at 0.204 mg/m^3 however the levels quickly returned to normal one (1) minute later, this level was achieved while moving the monitor.

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 W. L. Morse Elementary School, located at 30 Pocantico Street, Sleepy Hollow, NY 10591.

The monitoring was conducted on August 28, 2026, over an approximately one (1)-hour 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 with on-going 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.

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 August 28, 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**
W. L. Morse ES 30 Pocantico Street, Sleepy Hollow, NY 10591	08/28/2026	**mg/m^3**
	Minimum 08/28/26	0.025
	Maximum 08/28/26	0.116
	Average 08/28/26	0.037

Particulate Matter Summary Chart

Location		**Aerosol**
W. L. Morse ES 30 Pocantico Street, Sleepy Hollow, NY 10591	09/29/2026	**mg/m^3**
	Minimum 09/29/26	0.005
	Maximum 09/29/26	0.204
	Average 09/29/26	0.032

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).

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 August 28, 2026. The maximum concentration of particulates recorded was 0.116 mg/m^3.

- Additionally, the average levels of Particulate Matter recorded throughout the facility during regular use and occupancy 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 0.204 mg/m^3.

    - Note: the maximum concentration recorded of 0.204 mg/m^3 was achieved while moving the monitor from location to location. The concentration dropped back down below 0.100 mg/m^3 one minute later.

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 2 Report

Name: Test 2

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	11:22 AM
End Date	9/29/2026
End Time	11:37 AM
Test Length	00:00:15:00
Logging Interval	60 second(s)
Number of Data Points	15

Additional Information

There is no metadata related to this test

Test Statistics

Channel	Average	Minimum	Maximum	Cal Factor	TWA
MC (mg/m³)	0.032	0.005 09/29/2026 11:33:54	0.204 09/29/2026 11:29:54	1 Factory 09/25/2026	0.001

Date	Time	MC (mg/m³)	Alarms
9/29/2026	11:23:54 AM	0.014	None
9/29/2026	11:24:54 AM	0.010	None
9/29/2026	11:25:54 AM	0.011	None
9/29/2026	11:26:54 AM	0.009	None
9/29/2026	11:27:54 AM	0.012	None
9/29/2026	11:28:54 AM	0.070	None
9/29/2026	11:29:54 AM	0.204	None
9/29/2026	11:30:54 AM	0.096	None
9/29/2026	11:31:54 AM	0.009	None
9/29/2026	11:32:54 AM	0.009	None
9/29/2026	11:33:54 AM	0.005	None
9/29/2026	11:34:54 AM	0.008	None
9/29/2026	11:35:54 AM	0.007	None
9/29/2026	11:36:54 AM	0.007	None
9/29/2026	11:37:54 AM	0.010	None

Appendix B
Previous 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: 5202328002

Firmware Version: B.01

Last Factory Calibration: 5/8/2026

Data Properties	
Start Date	8/28/2026
Start Time	1:53 PM
End Date	8/28/2026
End Time	3:06 PM
Test Length	00:01:13:00
Logging Interval	60 second(s)
Number of Data Points	73

Additional Information

There is no metadata related to this test

Test Statistics

Channel	Average	Minimum	Maximum	Cal Factor	TWA
MC (µg/m³)	37	25 08/28/2026 02:12:35	116 08/28/2026 02:33:35	1 Factory 05/22/2026	6

Date	Time	MC (µg/m³)	Alarms
8/28/2026	1:54:35 PM	27	None
8/28/2026	1:55:35 PM	27	None
8/28/2026	1:56:35 PM	31	None
8/28/2026	1:57:35 PM	33	None
8/28/2026	1:58:35 PM	26	None
8/28/2026	1:59:35 PM	29	None
8/28/2026	2:00:35 PM	33	None
8/28/2026	2:01:35 PM	25	None
8/28/2026	2:02:35 PM	27	None
8/28/2026	2:03:35 PM	26	None
8/28/2026	2:04:35 PM	27	None
8/28/2026	2:05:35 PM	26	None
8/28/2026	2:06:35 PM	26	None
8/28/2026	2:07:35 PM	31	None
8/28/2026	2:08:35 PM	30	None
8/28/2026	2:09:35 PM	25	None
8/28/2026	2:10:35 PM	26	None
8/28/2026	2:11:35 PM	29	None
8/28/2026	2:12:35 PM	25	None
8/28/2026	2:13:35 PM	28	None
8/28/2026	2:14:35 PM	30	None
8/28/2026	2:15:35 PM	27	None
8/28/2026	2:16:35 PM	32	None
8/28/2026	2:17:35 PM	27	None
8/28/2026	2:18:35 PM	48	None
8/28/2026	2:19:35 PM	63	None
8/28/2026	2:20:35 PM	45	None
8/28/2026	2:21:35 PM	65	None
8/28/2026	2:22:35 PM	55	None
8/28/2026	2:23:35 PM	34	None
8/28/2026	2:24:35 PM	94	None

8/28/2026	2:25:35 PM	69	None
8/28/2026	2:26:35 PM	41	None
8/28/2026	2:27:35 PM	87	None
8/28/2026	2:28:35 PM	44	None
8/28/2026	2:29:35 PM	47	None
8/28/2026	2:30:35 PM	46	None
8/28/2026	2:31:35 PM	74	None
8/28/2026	2:32:35 PM	86	None
8/28/2026	2:33:35 PM	116	None
8/28/2026	2:34:35 PM	45	None
8/28/2026	2:35:35 PM	27	None
8/28/2026	2:36:35 PM	31	None
8/28/2026	2:37:35 PM	32	None
8/28/2026	2:38:35 PM	31	None
8/28/2026	2:39:35 PM	29	None
8/28/2026	2:40:35 PM	27	None
8/28/2026	2:41:35 PM	28	None
8/28/2026	2:42:35 PM	27	None
8/28/2026	2:43:35 PM	27	None
8/28/2026	2:44:35 PM	28	None
8/28/2026	2:45:35 PM	30	None
8/28/2026	2:46:35 PM	27	None
8/28/2026	2:47:35 PM	29	None
8/28/2026	2:48:35 PM	28	None
8/28/2026	2:49:35 PM	29	None
8/28/2026	2:50:35 PM	28	None
8/28/2026	2:51:35 PM	29	None
8/28/2026	2:52:35 PM	28	None
8/28/2026	2:53:35 PM	53	None
8/28/2026	2:54:35 PM	28	None
8/28/2026	2:55:35 PM	31	None
8/28/2026	2:56:35 PM	31	None
8/28/2026	2:57:35 PM	31	None
8/28/2026	2:58:35 PM	29	None
8/28/2026	2:59:35 PM	30	None
8/28/2026	3:00:35 PM	28	None
8/28/2026	3:01:35 PM	30	None
8/28/2026	3:02:35 PM	29	None
8/28/2026	3:03:35 PM	31	None
8/28/2026	3:04:35 PM	32	None
8/28/2026	3:05:35 PM	29	None
8/28/2026	3:06:35 PM	28	None