ASBESTOS & LEAD PAINT SURVEY REPORT

MNR HARLEM LINE
PURDY'S STATION
PURDYS, NY 10589

PROJECT: STATION IMPROVEMENTS

PREPARED FOR:

METRO-NORTH RAILROAD
DEPARTMENT OF SAFETY & SECURITY
420 LEXINGTON AVENUE – 9TH FLOOR
NEW YORK, N.Y. 10017

CONTRACT # 100005008
MNR OSS Task # HUD-19-136-AL

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EXECUTIVE SUMMARY

As directed, on June 24th, 2019, Environmental Planning & Management (EPM) certified New York State Department of Labor (NYSDOL) Asbestos Inspectors and USEPA LEAD Inspectors Andrzej Zabrocki (certificate number 93-20787855 and LBP-I-11979-1 Exp.: 6/03/2021), and David Sundell, (03-00147 and LBP-I-153646-1 Exp.: 6/03/2021), performed an asbestos and lead containing coating survey at Metro North Railroad (MNRR) Purdy's Station, located in Purdys, New York.

The purpose of the survey was to identify the location and quantity of asbestos containing materials (ACM greater than 1% by weight) and the presence of lead paint that might be impacted by the proposed Purdy's Station stair renovation, located between Rte.116 and Parking lot as well as future MNR construction projects at the station.

The following materials tested, were determined to be non-asbestos containing:

- Black pad material at the base of stair support at the old stairwell at north side of station;
- Gray caulk at the joint of warning strip at the station platform;
- Dark gray caulk at the platform expansion joint;
- Gray caulk at the base of the exterior side of the platform waiting room wall;
- Beige caulk at the seams of overpass stairwell;
- Gray caulk at the base of the wall at the stairwell to overpass;
- Gray caulk at the base of ticket machine in the station overpass;
- White caulk at the parking sidewalk around the concessions building;
- Black joint filler at the base of the concessions building;
- Black caulk at the concessions building windows and door;
- Black joint filler at the concrete curb in the parking lot by the concessions building; and
- Asphalt material parking lot by concession building.

The following materials were presumed to be asbestos containing, but are not anticipated to be impacted by the proposed Purdy's Station stair renovation:

- Braided electric feeder cables in electric meter located south of the tracks.

The following areas were inaccessible to survey, and shall be presumed to have asbestos containing materials:

- Interior spaces (concessions building, station house etc.);
- Roofs (overpasses, stairs, platforms and buildings).

According to the Occupational Safety and Health Administration (OSHA), any detectable amount of lead in the paint sample constitutes the coating as lead containing. OSHA does not recognize the USEPA definition of lead-based paint (LBP). The following surfaces, as well as those that are homogeneous, are lead-containing:

- Maroon over green paint on steel stair stringers at the North Stairs to Street;
- Maroon over green paint on metal stair railing at the North Stairs to Street;
- Maroon over green paint on metal stair treads at the North Stairs to Street;
- Maroon over green paint on metal stair supports at the North Stairs to Street;
- Maroon paint on steel support beam at the bridge over tracks;
- Maroon paint on steel support beam at the bridge over tracks;
- Gray paint on metal electric meter box at the north end of the parking lot;
- Pale yellow paint on fiberglass warning strip at the north end of the platform;
- Green paint on metal drain pipe, at the middle section of the platform near the shelter;
- Green paint on metal drain pipe, at the middle section of the platform near the stairs;
- Bright yellow paint on plastic warning strip (newer) at the platform stairs;
- Pale yellow paint on fiberglass warning strip at the north end of the platform;
- Green paint on steel stair stringer at the platform stairs;
- White paint on metal ceiling light fixture at the parking lot stairs;
- Gray paint on metal electric box at the south end of the platform;
- Black paint on metal railing: in the parking lot near the elevator;
- Yellow over black paint on metal railing in the parking lot near the elevator;
- White paint on metal gutter of the concessions building;
- Yellow paint on concrete parking stripe in the parking lot near the concessions building; and
- Black paint on metal railing outside the concessions building.

INTRODUCTION

At the request of Metro North Railroad (MNR) Office of System Safety, EPM performed an investigation for the presence of asbestos containing materials (ACM) and limited lead containing coating inspection of the Harlem Line's Purdy's Station. The asbestos investigation was conducted in general conformance with guidelines established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos Containing Materials in Buildings, Office of Pesticides and Toxic Substances, DOC #560/5-85-024, and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA). The pre-renovation lead containing coating inspection was performed to provide the project with information necessary for the development of work practices and controls in compliance with OSHA's Lead Standard for the Construction Industry, Title 29 Code of Federal Regulations 1926.62 (29 CFR 1926.62).

The scope of work for the survey consisted of the following tasks:

1. Perform a visual inspection of station areas and components to identify the potential location of asbestos containing materials (ACMs) that might be affected by future MNR Construction Projects and to determine the delineation of homogeneous areas to be impacted.
2. Collect bulk samples of suspect ACM.
3. Submit the suspect ACM bulk samples to a certified laboratory for Polarized Light Microscopy (PLM) and/or Transmission Electron Microscopy (TEM), where applicable, analysis.
4. Investigate painted surfaces utilizing The Niton XLp 300A analyzer.
5. Prepare a report summarizing data collection techniques, analysis procedures, and location of asbestos containing materials (greater than 1% as determined by PLM or TEM) and lead containing coatings.

2.0 ASBESTOS SURVEY

The field inspection was conducted on June 24th, 2019, Environmental Planning & Management (EPM) certified New York State Department of Labor (NYSDOL) Asbestos Inspectors Andrzej Zabrocki (certificate number 93-20787855), and David Sundell, (certificate number 03-00147).

Field information was organized as per the AHERA concept of homogenous area (HA). The delineation of homogeneous areas at the site was based on criteria including material type and location. Materials suspected of containing asbestos were identified for the area inspected. When suspect ACM's were found, representative bulk samples from the homogeneous material group (material which is uniform by color, texture, construction application date, and general appearance) were collected. Three bulk samples were collected per homogeneous material group from miscellaneous materials.

Thirty-six (36) bulk samples were collected from twelve (12) homogeneous areas from the following suspect materials:

- Black pad material at the base of stair support at the old stairwell at north side of station;
- Gray caulk at the joint of warning strip at the station platform;
- Dark gray caulk at the platform expansion joint;
- Gray caulk at the base of the exterior side of the platform waiting room wall;
- Beige caulk at the seams of overpass stairwell;
- Gray caulk at the base of the wall at the stairwell to overpass;
- Gray caulk at the base of ticket machine in the station overpass;
- White caulk at the parking sidewalk around the concessions building;
- Black joint filler at the base of the concessions building;
- Black caulk at the concessions building windows and door;
- Black joint filler at the concrete curb in the parking lot by the concessions building; and
- Asphalt material parking lot by concession building.

The following materials were presumed to be asbestos containing, but are not anticipated to be impacted by the proposed Purdy's Station stair renovation:

- Braided electric feeder cables in electric meter located south of the tracks.

The following areas were inaccessible to survey and are also presumed to have asbestos containing materials:

- Interior spaces (concessions building, station house etc.);
- Roofs (overpasses, stairs, platforms and buildings).

Non-suspect materials observed at the site include:

- Concrete platform and steps;
- Glass and metal platform waiting room/shelter with rubber gaskets and windows and frames and doors;
- Metal drain pipes;
- Concrete floor in waiting room;
- Metal benches, trash cans and signs on platform;
- Rubber gasket at the overpass windows; and
- Concrete stairs and ceiling in stairwells to overpass.

Table I contains a listing of the presumed asbestos containing material identified. Table II contains a detailed summary of the inspection results. Laboratory analytical data is included as Appendix F.

2.1 Analytical Procedures

Bulk samples of suspect asbestos containing materials (ACM) were analyzed using Polarized Light Microscopy (PLM) with dispersion staining, as described in 40 CFR Part 763 and National Emissions Standards for Hazardous Air Pollutants (NESHAPS) regulations. Non-friable organically bound (NOB) materials were analyzed as per Environmental Laboratories Accreditation Program (ELAP) item 198.1, "Polarized Light Microscopy Method for Identifying and Quantifying Asbestos in Bulk Samples". NOB materials which tested negative by PLM were analyzed using Transmission Electron Microscopy (TEM) method. TEM analysis is the only method that can be used to determine if non-friable organically bound materials (NOBs) can be considered non-asbestos containing.

The bulk samples were analyzed by Alpha Labs LLC, 14-26 28th Avenue, LIC, NY. Alpha Labs LLC is accredited by the New York State Environmental Laboratory Accreditation Program (ELAP # 11833) and the National Voluntary Laboratory Accreditation Program (NVLAP # 200691-0) of the National Institute of Standards and Technology (NIST). Laboratory accreditation documentation is included as Appendix D.

2.2 Asbestos Survey Findings

Based on laboratory analysis conducted by layers, it was determined that the following materials are not asbestos containing:

- Black pad material at the base of stair support at the old stairwell at north side of station;
- Gray caulk at the joint of warning strip at the station platform;
- Dark gray caulk at the platform expansion joint;
- Gray caulk at the base of the exterior side of the platform waiting room wall;
- Beige caulk at the seams of overpass stairwell;
- Gray caulk at the base of the wall at the stairwell to overpass;
- Gray caulk at the base of ticket machine in the station overpass;

- White caulk at the parking sidewalk around the concessions building;
- Black joint filler at the base of the concessions building;
- Black caulk at the concessions building windows and door;
- Black joint filler at the concrete curb in the parking lot by the concessions building; and
- Asphalt material parking lot by concession building.

The following materials were presumed to be asbestos containing, but are not anticipated to be impacted by the proposed Purdy's Station stair renovation:

- Braided electric feeder cables in electric meter located south of the tracks; and
- All roofs and suspect asbestos materials within interior spaces.

3.0 LEAD PAINT SURVEY

The lead survey field inspection was conducted on June 24th, 2019, by Environmental Planning & Management (EPM) certified , Environmental Planning & Management (EPM) certified USEPA LEAD Inspectors Andrzej Zabrocki (certificate number LBP-I-11979-1 Exp.: 6/03/2021), and David Sundell, (LBP-I-153646-1 Exp.: 6/03/2021) at Metro North Railroad (MNRR) Purdys Station, located in Purdys, New York.

3.1 Testing Procedures using the Niton XLp 300A XRF Analyzer:

In lieu of an applicable lead sampling protocols for a non-residential property the limited lead containing coating (LCC) inspection was conducted in general conformance with the United States Environmental Protection Agency (US EPA) 40 CFR Part 745 "Lead; Identification of Dangerous Levels of Lead; Final Rule", dated January 5, 2001, and the US Department of Housing and Urban Development's (HUD) "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" (HUD Guidelines), dated June 1995, revised 2012. HUD has established a threshold of 0.5% by weight and/or 1.0 mg/cm^2 at and above which a paint is considered to be lead-based.

The Niton XLp 300A Series Lead-Based Paint Analyzer is a complete lead-based paint (LBP) analysis system, which quickly, accurately, and non-destructively measures the concentration of LBP on tested surfaces. The XLp 300A relies on the measurement of the K-shell and L-shell X-rays to determine the amount of lead present in a painted surface. The measurement of both K-shell and L-shell X-rays allows for the penetration of many layers of paint thereby providing an increased level of accuracy for the measurement of lead without being significantly affected by the thickness or number of layers of paint on the surface of the sample.

The Niton XLp 300A simultaneously detects K-shell and L-shell X-rays, analyzes them with an automatic positive/ negative decision, and correction for substrate bias, and age of source. All negative readings in all paint test modes are verified by negative K-Shell X-ray readings. Patent-pending TrueDepth™ Technology identifies and locates deeply buried lead and provides exact depth of leaded paint in inches.

The Niton XLp 300A analyzer has two modes of operation, the "Standard Mode" and the "K & L Mode". In the "Standard Mode", the instrument will measure only until a 95% confidence reading of "Positive" or "Negative" has been attained. Measurement time can vary on this mode. In the "K & L Mode" the analyzer displays the complete test information continuously, from the beginning of each reading, including the K-Shell reading with two-sigma confidence intervals, the L-shell reading with two-sigma confidence intervals and the combined reading with two-sigma confidence intervals. The depth index value, which correlates directly with the depth of measurement in inches, is available with both modes of operation. There are no inconclusive ranges or results measured with the XLp 300A. EPM utilized the Niton XLp 300A, serial number 7797, in the "K and L" mode for the testing performed.

Verification of proper XRF reading capabilities is performed before and after each inspection. A calibration check consists of three consecutive readings of a NIST 1.04 mg/cm2 Paint Film

Standard (SRM No. 2573) as required by the instrument's Performance Characteristic Sheet (PCS). The individual readings, and an average of three readings, were recorded and compared to the standards. In all cases the instrument was functioning within the standard deviation as defined by the manufacturer and the PCS. All validation readings were recorded on the field inspection logs. If for any reason the XRF does not pass the quality control procedures, it is EPM's policy to replace that instrument with an XRF that passes the above criteria for calibration. The Results of Calibration Verification is included in Table III.

The parameters used to interpret XRF results are outlined in the HUD Guidelines and the PCS in Appendix G. According to the PCS, each XRF result is classified as positive or negative as follows:

Positive: A positive classification indicates that lead is present on the testing combination at or above the HUD/EPA standard of 1.0 mg/cm^2.

Negative: A negative classification indicates that lead is not present on the testing combination at or above the HUD/EPA standard.

The sampling method for this job consisted of a modified HUD inspection. XRF testing was conducted on all accessible materials, with the potential to be impacted by the proposed scope of work at the site.

Table III lists all tested components and their respective locations, substrates, color and XRF result.

Components that were identified as containing lead in concentrations at or above the HUD/EPA threshold limit of 1.0 mg/cm^2 are considered lead-based and are highlighted in yellow. Components that were identified as containing lead in concentrations below the HUD/EPA threshold limit of 1.0 mg/cm^2, but still contain a detectable level are considered lead containing and are listed in blue. Those components that were identified as containing no detectable lead level are listed in black.

XRF readings listed as "Calibration" are a result of pre and post inspection testing shots of a known NIST standard.

XRF readings listed as "Shutter Calibration" are a result of the XRF device performing an internal calibration check.

3.2 Lead Paint Survey Findings

The results of this inspection indicate that 22.7% of the painted materials tested contain paint with a detectable level of lead. Of the eighty-eight (88) readings, twenty (20) had detectable levels of lead. According to the Occupational Safety and Health Administration (OSHA), any detectable amount of lead in the paint sample constitutes the coating as lead containing. OSHA does not recognize the USEPA definition of lead-based paint (LBP). The lead paint survey at Purdy's Station, determined that the following paints contain detectable levels of lead:

- Maroon over green paint on steel stair stringers at the North Stairs to Street;

- Maroon over green paint on metal stair railing at the North Stairs to Street;
- Maroon over green paint on metal stair treads at the North Stairs to Street;
- Maroon over green paint on metal stair supports at the North Stairs to Street;
- Maroon paint on steel support beam at the bridge over tracks;
- Maroon paint on steel support beam at the bridge over tracks;
- Gray paint on metal electric meter box at the north end of the parking lot;
- Pale yellow paint on fiberglass warning strip at the north end of the platform;
- Green paint on metal drain pipe, at the middle section of the platform near the shelter;
- Green paint on metal drain pipe, at the middle section of the platform near the stairs;
- Bright yellow paint on plastic warning strip (newer) at the platform stairs;
- Pale yellow paint on fiberglass warning strip at the north end of the platform;
- Green paint on steel stair stringer at the platform stairs;
- White paint on metal ceiling light fixture at the parking lot stairs;
- Gray paint on metal electric box at the south end of the platform;
- Black paint on metal railing: in the parking lot near the elevator;
- Yellow over black paint on metal railing in the parking lot near the elevator;
- White paint on metal gutter of the concessions building;
- Yellow paint on concrete parking stripe in parking lot near the concessions building; and
- Black paint on metal railing outside the concessions building.

4.0 EXCLUSIONS AND INACCESSIBLE AREAS

EPM inspected and sampled materials which were observable and accessible to the survey team. It is possible that additional suspect ACM or lead paints may be present within other concealed spaces which were not accessible without the use of destructive means.

EPM did not have access to the following areas:

- Interior spaces (concessions building, station house etc.);
- Roofs (overpasses, stairs, platforms and buildings).
- Unknown buried utilities beneath the station platforms and throughout the station limits.

All asbestos containing materials and lead-painted surfaces with the potential to be impacted by the scope of work should be abated in accordance with all applicable federal, state and local regulations, including Metro-North Railroad Specifications for The Treatment of Lead-Based Painted Surfaces, 29 CFR 1926.62 Occupational Safety and Health Administration Lead in Construction, USEPA regulations, OSHA regulations, and NIOSH recommendations.

TABLE I - SUMMARY OF PRESUMED ASBESTOS CONTAINING MATERIALS

Table I
Summary of Presumed Asbestos Containing Materials
Metro-North MNR Harlem Line -Purdy's Station, Purdys NY 10589

Material Description	Material Locations	Asbestos Quantity to be Impacted	Friability	Condition	Photo Number
Purdy's Station - No Anticipated Impact to ACM & PACM by proposed scope of work					
Presumed Asbestos braided feeder cables (3 cables, 1/2" OD - approx. 15 LF)	Electric Meter, south of tracks, by iron fence *(No Impact Anticipated)*	0	Friable	Good	A1, A2
Presumed Asbestos Roofing Materials	Roofs (overpasses, stairs, platforms and buildings) *(No Impact Anticipated)*	0	Non-Friable	Unknown	A3
Presumed Asbestos Containing Interior Space Materials	Interior Spaces *(No Impact Anticipated)*	0	Friable & Non-Friable	Unknown	A4

TABLE II - ASBESTOS SAMPLE LABORATORY ANALYTICAL RESULTS

Table II - Asbestos Sample Laboratory Analysis Results
MNR Harlem Line - Purdy's Station, Purdys NY 10589

Sample #	Sample Location	Sample Description	Asbestos Content	
			PLM	TEM
PS-01A	Old stairwell at north side of station	Black pad material at the base of stair support	NAD Inconclusive	NAD
PS-01B	Old stairwell at north side of station	Black pad material at the base of stair support	NAD Inconclusive	NAD
PS-01C	Old stairwell at north side of station	Black pad material at the base of stair support	NAD Inconclusive	Analysis not requested by client
PS-02A	Station platform - north side	Gray caulk at the joint of warning strip	NAD Inconclusive	NAD
PS-02B	Station platform - center	Gray caulk at the joint of warning strip	NAD Inconclusive	NAD
PS-02C	Station platform - south side	Gray caulk at the joint of warning strip	NAD Inconclusive	Analysis not requested by client
PS-03A	Station platform - north side	Dark gray caulk at the platform expansion joint	NAD Inconclusive	NAD
PS-03B	Station platform - center	Dark gray caulk at the platform expansion joint	NAD Inconclusive	NAD
PS-03C	Station platform - south side	Dark gray caulk at the platform expansion joint	NAD Inconclusive	Analysis not requested by client
PS-04A	Platform waiting room - exterior side	Gray caulk at the base of the wall	NAD Inconclusive	NAD
PS-04B	Platform waiting room - exterior side	Gray caulk at the base of the wall	NAD Inconclusive	NAD
PS-04C	Platform waiting room - interior side	Gray caulk at the base of the wall	NAD Inconclusive	Analysis not requested by client
PS-05A	Stairwell to overpass platform side	Beige caulk at the seams of overpass stairwell	NAD Inconclusive	NAD
PS-05B	Stairwell to overpass platform side	Beige caulk at the seams of overpass stairwell	NAD Inconclusive	NAD
PS-05C	Stairwell to overpass platform side	Beige caulk at the seams of overpass stairwell	NAD Inconclusive	Analysis not requested by client
PS-06A	Stairwell to overpass platform side	Gray caulk at the base of the wall	NAD Inconclusive	NAD
PS-06B	Stairwell to overpass platform side	Gray caulk at the base of the wall	NAD Inconclusive	NAD
PS-06C	Stairwell to overpass platform side	Gray caulk at the base of the wall	NAD Inconclusive	Analysis not requested by client

Table II - Asbestos Sample Laboratory Analysis Results
MNR Harlem Line - Purdy's Station, Purdys NY 10589

Sample #	Sample Location	Sample Description	Asbestos Content	
			PLM	TEM
PS-07A	Station overpass	Gray caulk at the base of tickets machine	NAD Inconclusive	NAD
PS-07B	Station overpass	Gray caulk at the base of tickets machine	NAD Inconclusive	NAD
PS-07C	Station overpass	Gray caulk at the base of tickets machine	NAD Inconclusive	Analysis not requested by client
PS-08A	Sidewalk around concession building	White caulk at the parking sidewalk	NAD Inconclusive	NAD
PS-08B	Sidewalk around concession building	White caulk at the parking sidewalk	NAD Inconclusive	NAD
PS-08C	Sidewalk around concession building	White caulk at the parking sidewalk	NAD Inconclusive	Analysis not requested by client
PS-09A	Concession building - north side	Black joint filler at the base of the building	NAD Inconclusive	NAD
PS-09B	Concession building - west side	Black joint filler at the base of the building	NAD Inconclusive	NAD
PS-09C	Concession building - south side	Black joint filler at the base of the building	NAD Inconclusive	Analysis not requested by client
PS-10A	Concession building - west side	Black caulk at the windows	NAD Inconclusive	NAD
PS-10B	Concession building - west side	Black caulk at the windows	NAD Inconclusive	NAD
PS-10C	Concession building - west side	Black caulk at the door	NAD Inconclusive	Analysis not requested by client
PS-11A	Parking lot by concession building	Black joint filler at the concrete curb	NAD Inconclusive	NAD
PS-11B	Parking lot north of concession building	Black joint filler at the concrete curb	NAD Inconclusive	NAD
PS-11C	Parking lot by the old stairwell	Black joint filler at the concrete curb	NAD Inconclusive	Analysis not requested by client
PS-12A	Parking lot by concession building	Asphalt material	NAD Inconclusive	NAD
PS-12B	Parking lot north of concession building	Asphalt material	NAD Inconclusive	NAD
PS-12C	Parking lot by the old stairwell	Asphalt material	NAD Inconclusive	Analysis not requested by client

NAD -No Asbestos Detected
NA/PS - Not Analyzed/Positive Stop
CH - Chrysotile
ANTH - Anthophylite

TABLE III – XRF INSPECTION RESULTS

Table III - XRF Lead Results
MNR Harlem Line - Purdy's Station

Reading No	Location	Structure / Component	Substrate	Color	PbC mg/cm^2
23	SHUTTER CALIBRATION				
24	CALIBRATION - NIST Swatch				1
25	CALIBRATION - NIST Swatch				1
26	CALIBRATION - NIST Swatch				1
27	North Stairs to Street	Stair Stringer	Steel	Maroon over Green	5.2
28	North Stairs to Street	Stair Railing	Metal	Maroon over Green	7.9
29	North Stairs to Street	Stair Tread	Metal	Maroon over Green	2.8
30	North Stairs to Street	Support for Stairs	Metal	Maroon	8.2
31	Parking Lot - north end	Fence Post	Metal	Black	0
32	North Stairs to Street	Light Post	Metal	Green	0
33	Bridge over Tracks	Support Beam	Steel	Maroon	3.3
34	Bridge over Tracks	Support Beam	Steel	Maroon	3.9
35	Parking Lot - north end	Electric Meter Box	Metal	Gray	0.18
36	Platform - north end	Signal Box	Metal	Black	0
37	Platform - north end	Warning Strip	Fiberglass	Pale Yellow	0.11
38	Platform - north end	Station Sign	Plastic	Blue	0
39	Platform - north end	Station Sign	Plastic	Black	0
40	Platform - north end	Station Sign	Plastic	White	0
41	Platform - north end	Light Post	Metal	Green	0
42	Platform - north end	Watch The Gap Strip	Concrete	Yellow	0
43	Platform - north end	Watch The Gap Strip	Concrete	Black	0
44	Platform - north end	Bench	Metal	Black	0
45	Platform - north end	Warning Strip (older)	Concrete	Yellow	0
46	Platform - north end	Warning Strip (newer)	Plastic	Bright Yellow	0
47	Platform - middle section	Trach Recepticle	Metal	Green	0
48	Platform - middle section	Trach Recepticle	Metal	White	0
49	Platform - middle section (near shelter)	Drain Pipe	Metal	Green	0.05
50	Platform - middle section (near shelter)	Column	Steel	Green	0
51	Platform - shelter	Shelter Frame	Metal	Green	0
52	Platform - shelter	Wall Base	Concrete	Gray	0
53	Platform - middle section (near stairs)	Drain Pipe	Metal	Green	0.02
54	Platform - middle section (near stairs)	Column	Steel	Green	0
55	Platform - south end	Signal Box	Metal	Black	0
56	Platform - south end	Light Post	Metal	Green	0
57	Platform - south end	Warning Strip (newer)	Plastic	Bright Yellow	0.6
58	Platform - south end	Warning Strip	Fiberglass	Pale Yellow	0.08
59	Platform - south end	Watch The Gap Strip	Concrete	Yellow	0
60	Platform - south end	Watch The Gap Strip	Concrete	Black	0
61	Platform - south end	Station Sign	Plastic	Blue	0
62	Platform - south end	Station Sign	Plastic	White	0
63	Platform - south end	Station Sign	Plastic	Black	0
64	Platform - south end	Bench	Metal	Black	0
65	Platform - middle section	Trach Recepticle	Metal	Green	0

Table III - XRF Lead Results
MNR Harlem Line - Purdy's Station

Reading No	Location	Structure / Component	Substrate	Color	PbC mg/cm^2
66	Platform - middle section	Trach Recepticle	Metal	White	0
67	Platform - elevator machine room	Door	Metal	Green	0
68	Platform - elevator machine room	Door Frame	Metal	Green	0
69	Platform - under stairs	Door	Metal	Green	0
70	Platform - under stairs	Door Frame	Metal	Green	0
71	Platform - under stairs	Partion Wall Frame	Metal	Green	0
72	Platform Stairs	Stair Stringer	Steel	Green	0.01
73	Platform Stairs	Wall Base	Concrete	Gray	0
74	Platform Stairs	Partion Wall Frame	Metal	Green	0
75	Platform Stairs	Ceiling Light Fixture	Metal	White	0
76	Overpass	Partion Wall Frame	Metal	Green	0
77	Overpass	Ticket Machine	Metal	Red	0
78	Overpass	Digital Advertising Console	Metal	Black	0
79	Parking Lot Stairs	Ceiling Light Fixture	Metal	White	0.01
80	Parking Lot Stairs	Partion Wall Frame	Metal	Green	0
81	Parking Lot Stairs	Ceiling Light Fixture	Metal	White	0
82	Parking Lot Stairs	Ceiling Light Fixture	Metal	White	0
83	Parking Lot Stairs	Stair Stringer	Steel	Green	0
84	Parking Lot - south end	Fence Post	Metal	Black	0
85	Parking Lot - south end	Electric Cabinet	Metal	Off-white	0
86	Parking Lot - south end	Electric Cabinet (GE Comm)	Metal	Gray	0
87	Parking Lot - south end	Electric Box	Metal	Gray	0.05
88	Parking Lot - elevator machine room	Door	Metal	Green	0
89	Parking Lot - elevator machine room	Door Frame	Metal	Green	0
90	Parking Lot - near elevator	Railing	Metal	Black	0.12
91	Parking Lot - near elevator	Railing	Metal	Yellow over Black	0.09
92	Parking Lot - near elevator	Column	Steel	Green	0
93	Parking Lot - near elevator	Partion Wall Frame	Metal	Green	0
94	Elevator - parking lot side	Ceiling	Metal	White	0
95	Elevator - parking lot side	Ceiling Light Fixture	Metal	White	0
96	Elevator - parking lot side	Ceiling Light Fixture	Metal	White	0
97	Parking Lot - middle section	Parking Lot Pay Station (base)	Metal	Black	0
98	Parking Lot - under stairs	Door	Metal	Green	0
99	Parking Lot - under stairs	Door Frame	Metal	Green	0
100	Concession Building, exterior	Exterior Molding	Wood	White	0
101	Concession Building, exterior	Exterior Molding	Wood	White	0
102	SHUTTER CALIBRATION				
103	Concession Building, exterior	Exterior Molding	Wood	White	0
104	Concession Building, exterior	Window Frame	Metal	Dark Brown	0
105	Concession Building, exterior	Gutter	Metal	White	0.01
106	Concession Building, exterior	Door, front	Metal	Dark Brown	0
107	Concession Building, exterior	Door Frame, front	Metal	Dark Brown	0
108	Concession Building, exterior	Trim at Masonry Openings	Wood	Dark Brown	0
109	Concession Building, exterior	Door, back	Metal	Black	0
110	Concession Building, exterior	Door Frame, back	Metal	Black	0

Table III - XRF Lead Results
MNR Harlem Line - Purdy's Station

Reading No	Location	Structure / Component	Substrate	Color	PbC mg/cm^2
111	Parking Lot - middle section (near Concession Building)	Parking Stripe	Concrete	Yellow	2.3
112	Concession Building, exterior	Bike Rack	Metal	Light Gray	0
113	Concession Building, exterior	Railing	Metal	Black	0.13
114	Parking Lot - middle section (near stairs)	Parking Stripe	Concrete	Blue	0
115	CALIBRATION - NIST Swatch				1.1
116	CALIBRATION - NIST Swatch				1.1
117	CALIBRATION - NIST Swatch				1

Blue - detectable levels of lead

APPENDIX A
Representative Survey Photographs of Presumed Asbestos Materials and Lead-Containing Paint

Environmental Planning & Management, Inc.
www.epmco.com

Asbestos Survey Report - Photos

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No. A1

Location: South of the Tracks
Sample #: N/A
Description: Presumed asbestos containing electric feeder cables in electric meter.

Photo No. A2

Location: South of the Tracks
Sample #: N/A
Description: Presumed asbestos containing electric feeder cables (3 feeder cables - ½" O.D.) in electric meter (close-up).

Environmental Planning & Management, Inc.
www.epmco.com

Asbestos Survey Report - Photos

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

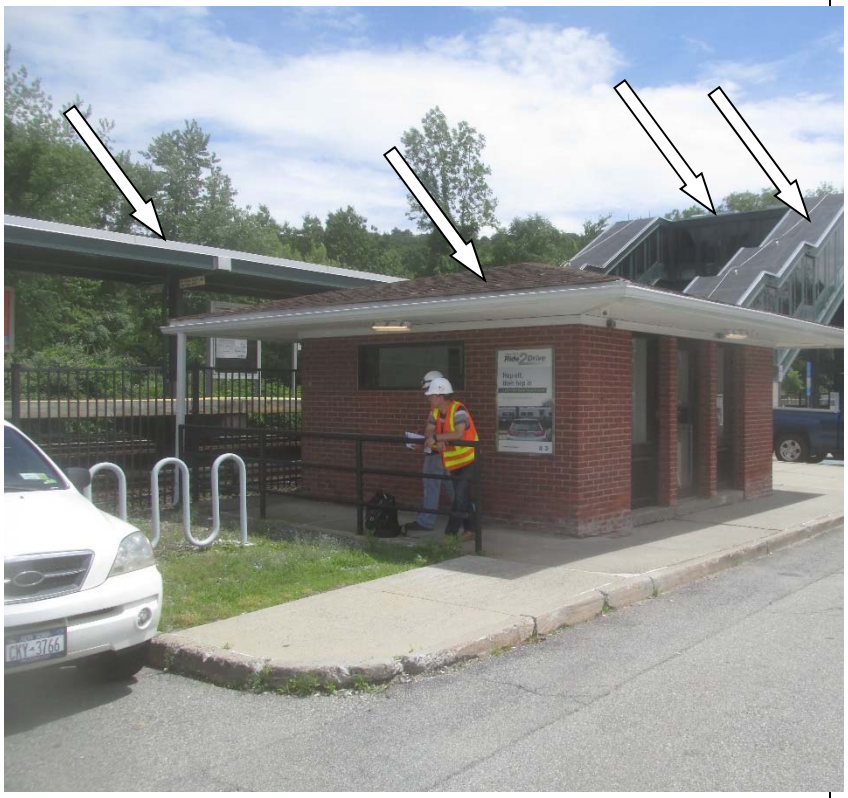


Photo No. A3

Location: Concessions Building, stairs, overpass & platform canopy
Sample #: N/A
Description: Presumed asbestos containing roofing materials.

Photo No. A4

Location: Interior Spaces
Sample #: N/A
Description: Presumed asbestos containing materials.

Environmental Planning & Management, Inc.
www.epmco.com

Lead Paint Survey Photographs

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No. 1

Location: North Stairs to Street
Description: Lead containing maroon over green paint on steel stair stringer. (Reading No. 27).
Lead containing maroon over green paint on metal stair railing. (Reading No. 28).
Lead containing maroon over green paint on metal stair treads. (Reading No. 29).
Lead containing maroon over green paint on metal stair supports. (Reading No. 30).

Photo No. 2

Location: Bridge over Tracks
Description: Lead containing maroon paint on steel support beam. (Reading No. 33)
Lead containing maroon paint on steel support beam. (Reading No. 34)

Environmental Planning & Management, Inc.
www.epmco.com

Lead Paint Survey Photographs

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No.3

Location: Parking Lot - north end
Description: Lead containing gray paint on metal electric meter box. (Reading No. 35)

Photo No. 4

Location: Platform - north end
Description: Lead containing pale yellow paint on fiberglass warning strip. (Reading No. 37)

Environmental Planning & Management, Inc.
www.epmco.com

Lead Paint Survey Photographs

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No. 5

Location: Platform - middle section (near shelter)
Description: Lead containing green paint on metal drain pipe. (Reading No. 49).

Photo No. 6

Location: Platform - middle section (near stairs)
Description: Lead containing green paint on metal drain pipe. (Reading No. 53).

Environmental Planning & Management, Inc.
www.epmco.com

Lead Paint Survey Photographs

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No. 7

Location: Platform Stairs
Description: Lead containing bright yellow paint on plastic warning strip (newer). (Reading No. 57)

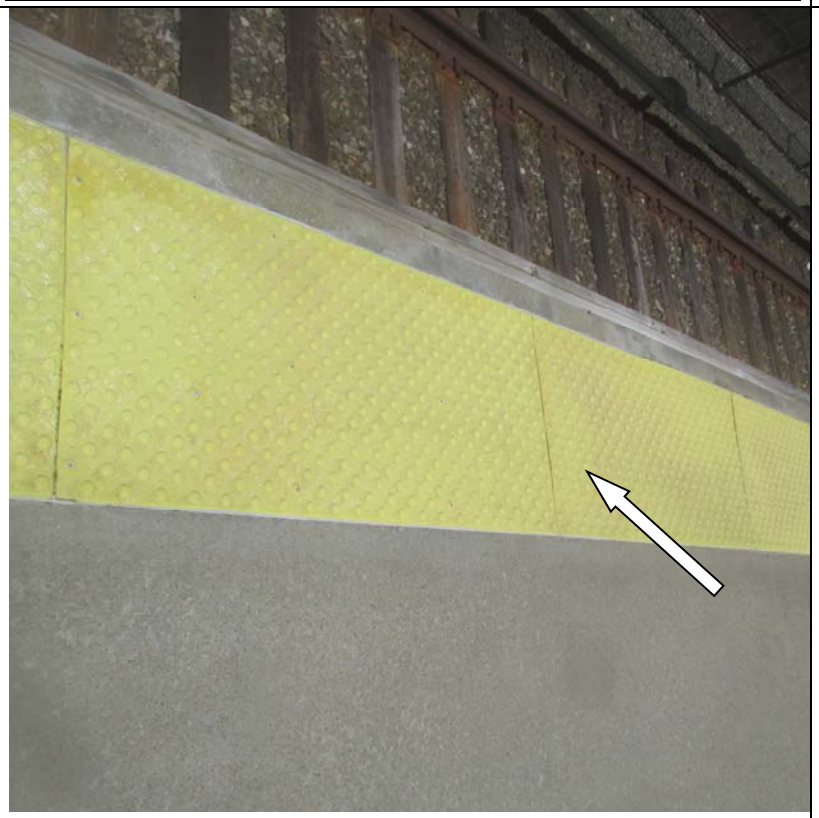


Photo No. 8

Location: Platform - north end
Description: Lead containing pale yellow paint on fiberglass warning strip. (Reading No. 58)

Environmental Planning & Management, Inc.
www.epmco.com

Lead Paint Survey Photographs

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No. 9

Location: Platform Stairs
Description: Lead containing green paint on steel stair stringer. (Reading No. 72).

Photo No. 10

Location: Parking Lot Stairs
Description: Lead containing white paint on metal ceiling light fixture. (Reading No. 79).

Environmental Planning & Management, Inc.
www.epmco.com

Lead Paint Survey Photographs

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No. 11

Location: Platform - south end
Description: Lead containing gray paint on metal electric box. (Reading No. 87)

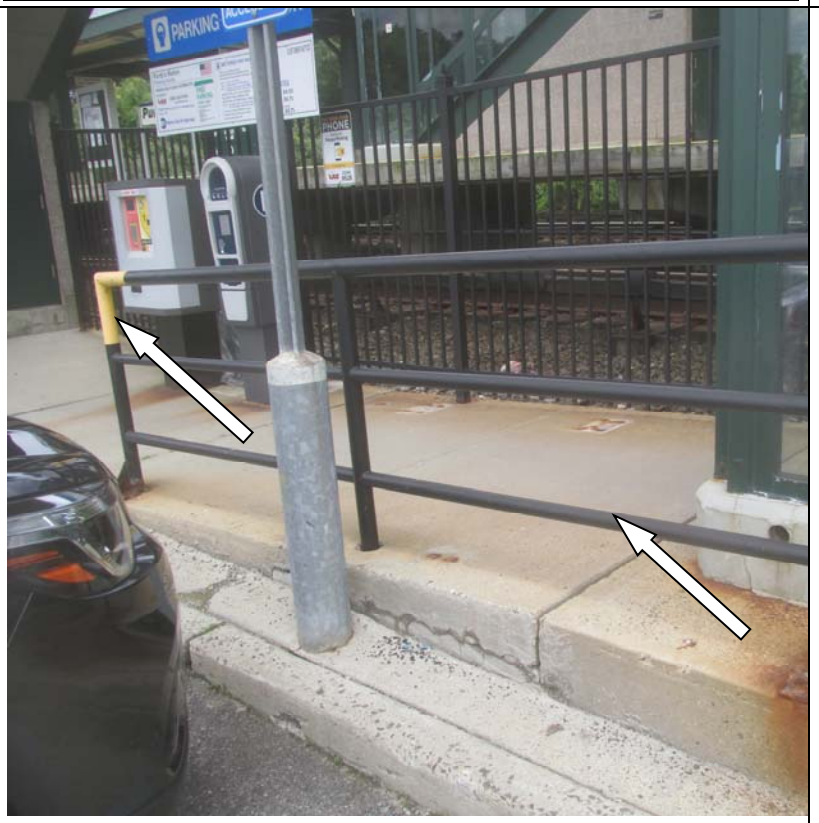


Photo No. 12

Location: Parking Lot - near elevator
Description: Lead containing black paint on metal railing. (Reading No. 90)
Lead containing yellow over black paint on metal railing. (Reading No. 91)

Environmental Planning & Management, Inc.
www.epmco.com

Lead Paint Survey Photographs

LOCATION: Metro-North Railroad Harlem Line

Purdy's Station, Purdys, NY 10589

DATE: June 24, 2019

Photo No. 13

Location: Concession Building, exterior
Description: Lead containing white paint on metal gutter. (Reading No. 105).

Photo No. 14

Location: Parking Lot - middle section (near Concession Building)
Description: Lead containing yellow paint on concrete parking stripe. (Reading No. 111).

Environmental Planning & Management, Inc. www.epmco.com **Lead Paint Survey Photographs**		**LOCATION:** Metro-North Railroad Harlem Line Purdy's Station, Purdys, NY 10589 **DATE:** June 24, 2019	
			
	Photo No. 15		
Location: Concession Building, exterior **Description:** Lead containing black paint on metal railing. (Reading No. 113)			

APPENDIX B
Company and Personnel Licenses

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Environmental Planning & Management, Inc.
Suite 109
1983 Marcus Avenue

Lake Success, NY 11042

FILE NUMBER: 99-1017
LICENSE NUMBER: 28623
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 10/25/2018
EXPIRATION DATE: 11/30/2019

Duly Authorized Representative – Aphrodite Socrates:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

United States Environmental Protection Agency

This is to certify that

Environmental Planning & Management, Inc.

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires May 14, 2021

LBP-2003-1

Certification #

October 25, 2017

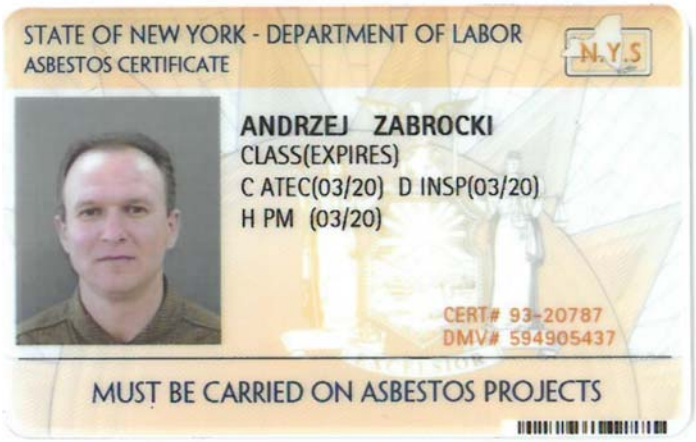
Issued On

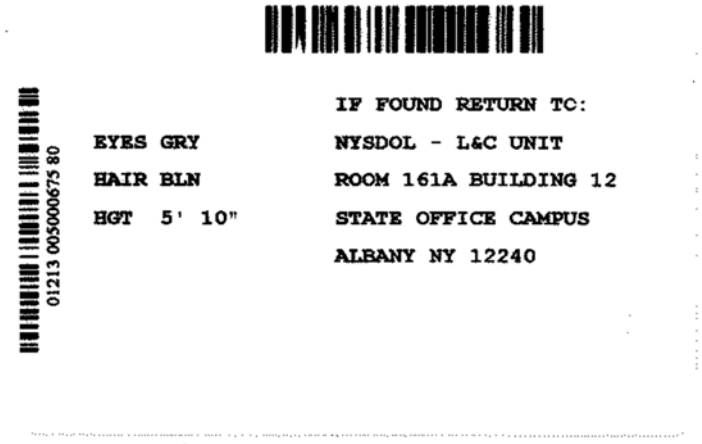
Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

Environmental Planning & Management, Inc.
www.epmco.com

ANDRZEJ ZABROCKI





A – Asbestos Handling

B – Restricted Handler – Allied Trades

C – Air Sampling Technician

D – Inspector

E- Management Planner

F – Operations and Maintenance

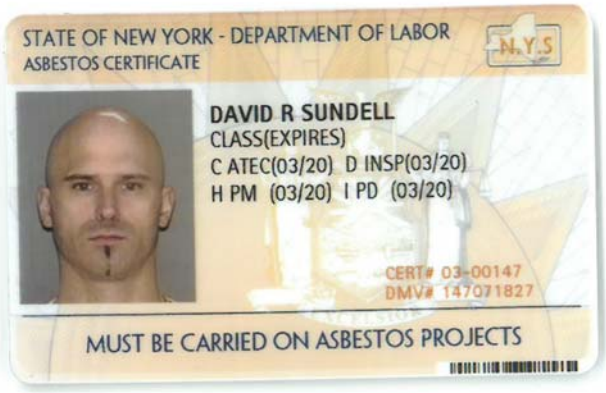
G – Supervisor

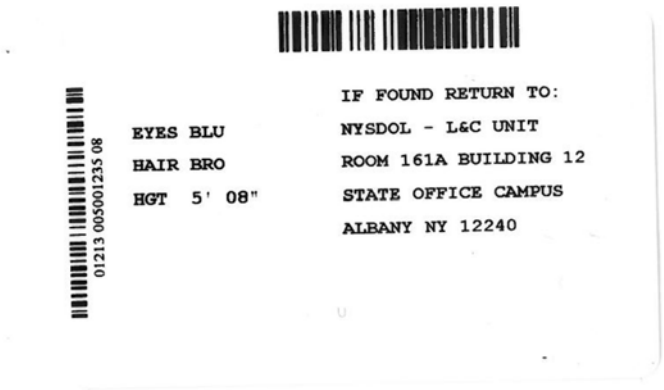
H – Project Monitor

I – Project Designer

Environmental Planning & Management, Inc.
www.epmco.com

DAVID R SUNDELL





A – Asbestos Handling

B – Restricted Handler – Allied Trades

C – Air Sampling Technician

D – Inspector

E- Management Planner

F – Operations and Maintenance

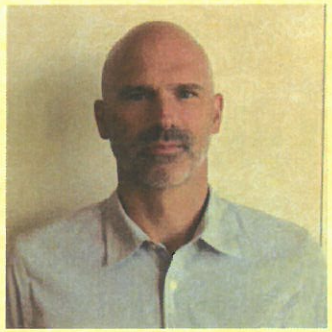
G – Supervisor

H – Project Monitor

I – Project Designer

United States Environmental Protection Agency

This is to certify that



David R Sundell

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Inspector

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires June 03, 2021

LBP-I-I153646-1

Certification #

May 03, 2018

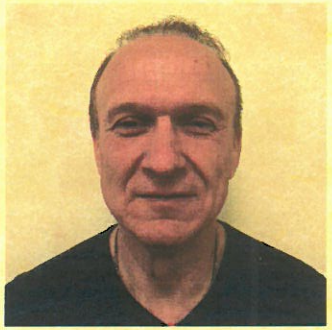
Issued On

John Gorman, Chief

Pesticides & Toxic Substances Branch

United States Environmental Protection Agency

This is to certify that



Andrzej Zabrocki

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Inspector

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires June 03, 2021

LBP-I-11979-1

Certification #

May 03, 2018

Issued On

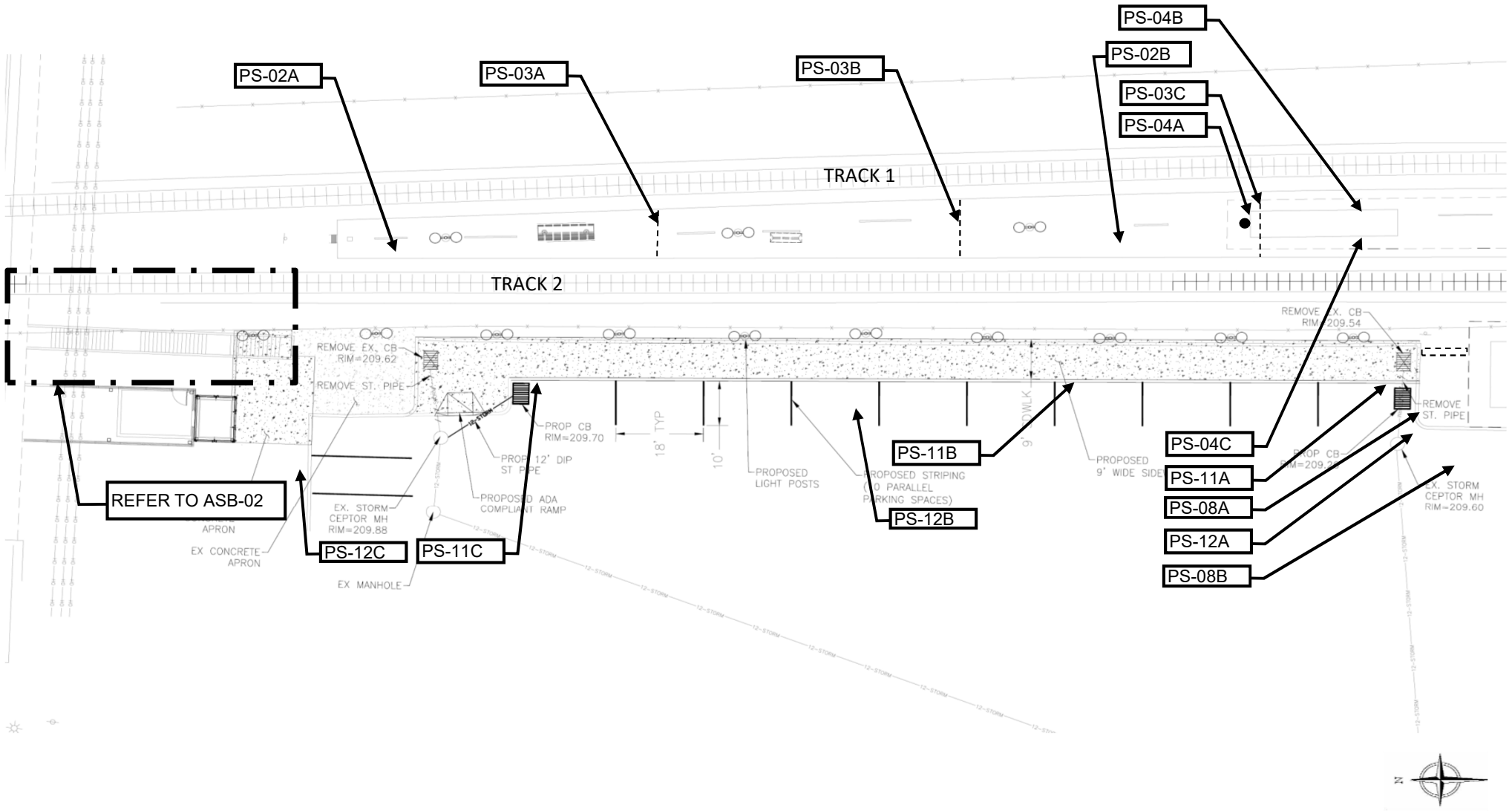
John Gorman, Chief

Pesticides & Toxic Substances Branch

APPENDIX C
Asbestos Bulk Sample and Lead-Paint Shot Location Schematic

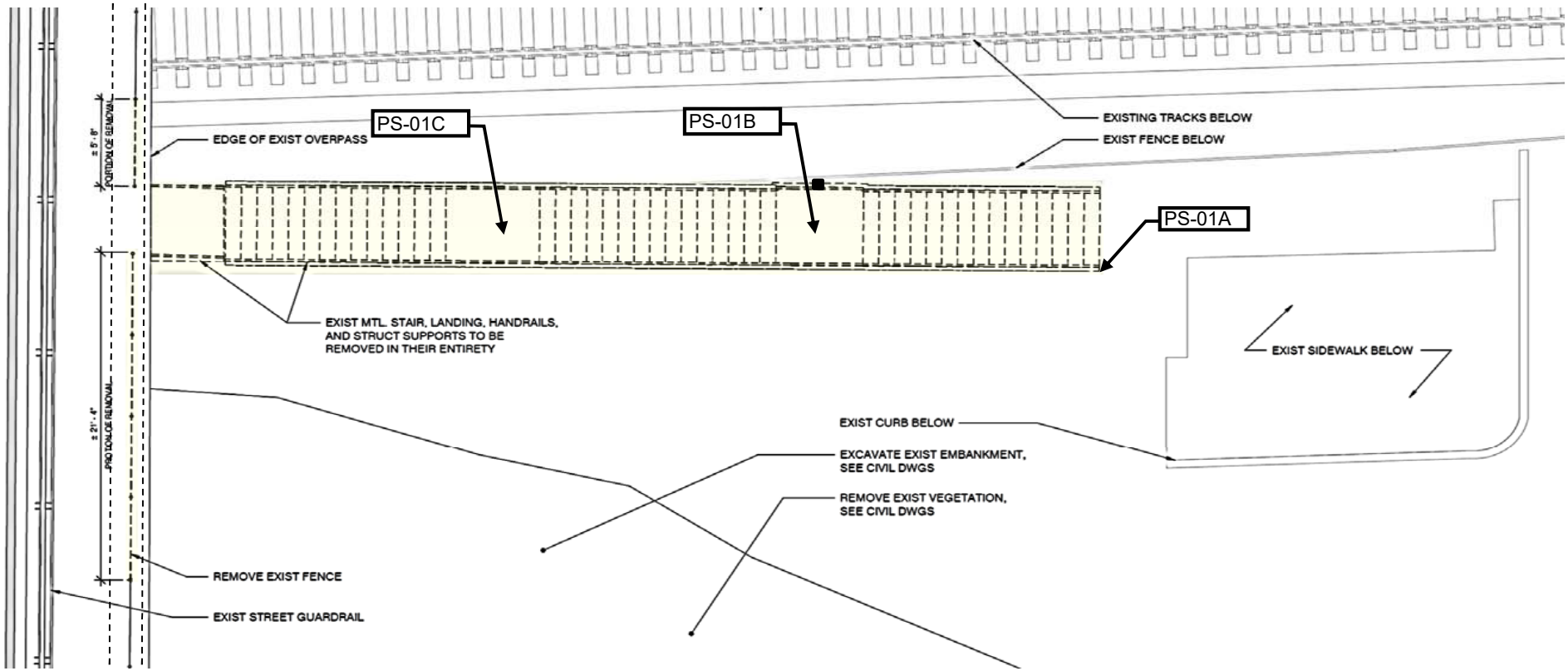
Asbestos Bulk Sample Location Schematic

KEYPLAN



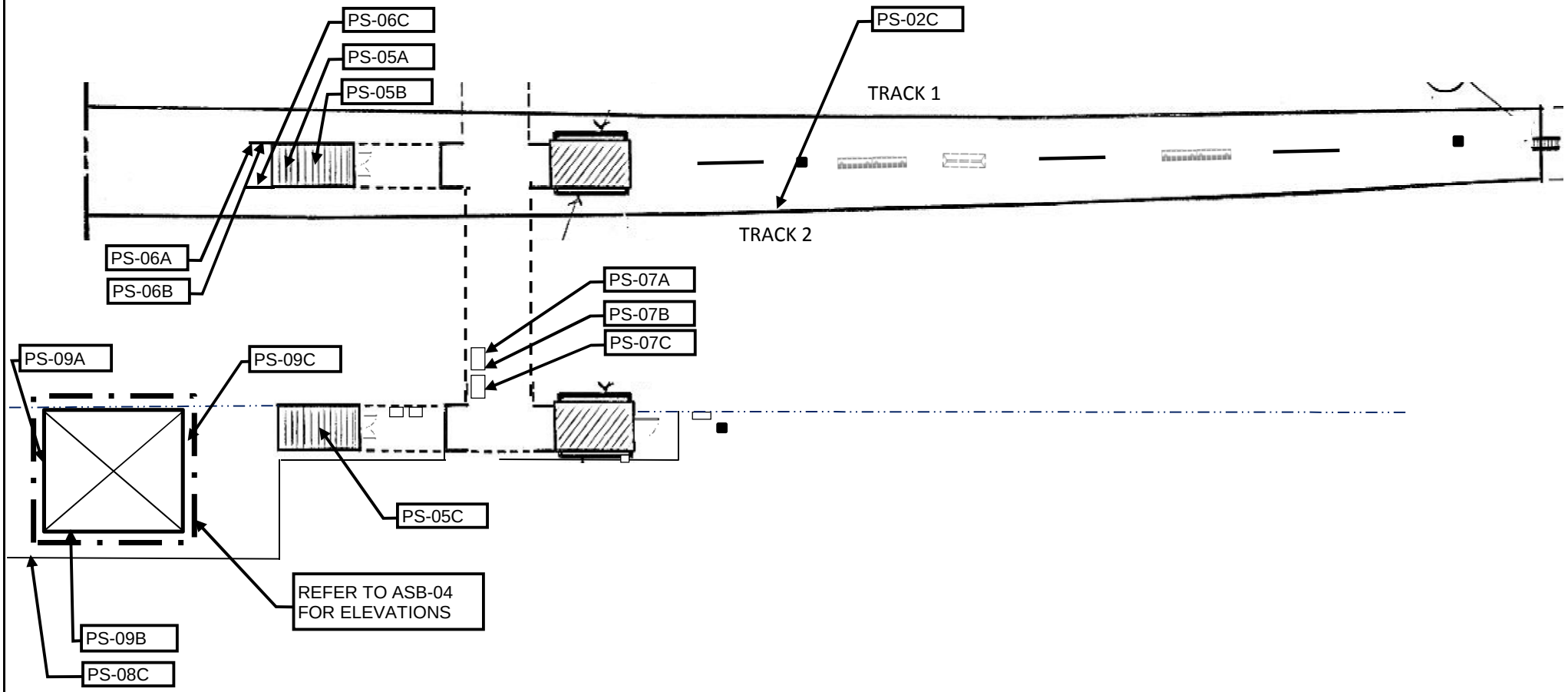
EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	**METRO NORTH RAILROAD**		
	HARLEM LINE ASBESTOS SURVEY PURDY STATION, PURDY, NY	Date:	7/3/2019	**STATION PLATFORM (NORTH)**
		EPM #:	18041-81	
		Figure	**ASB-01**	**ASBESTOS BULK SAMPLE LOCATION SCHEMATIC**

KEYPLAN



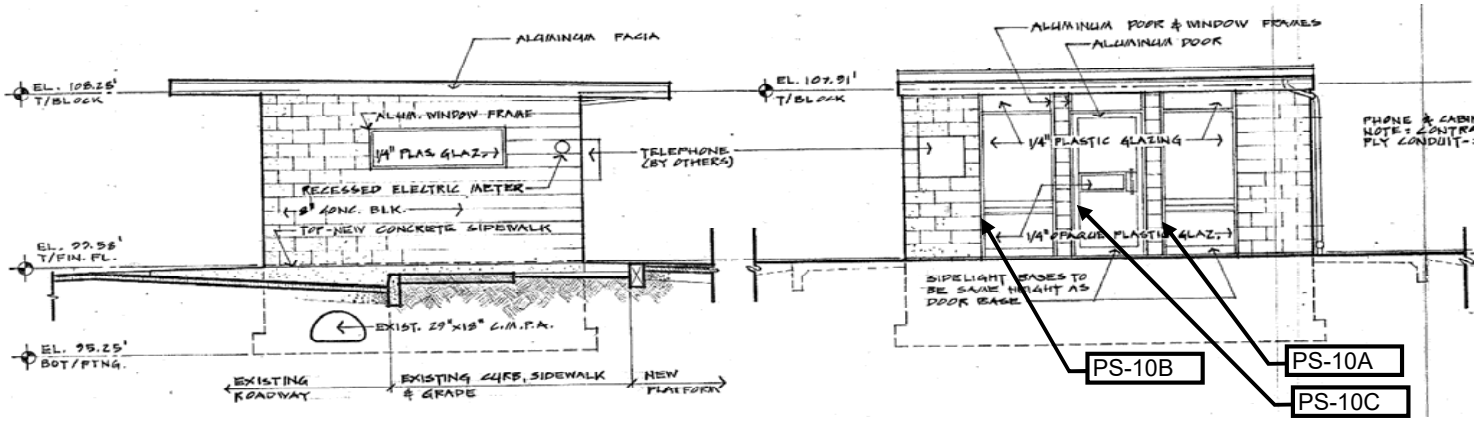
EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	**METRO NORTH RAILROAD**		
	HARLEM LINE ASBESTOS SURVEY PURDY STATION, PURDY, NY	Date:	7/3/2019	**STAIR FROM BRIDGE (NORTH)**
		EPM #:	18041-81	
		Figure	**ASB-02**	**ASBESTOS BULK SAMPLE LOCATION SCHEMATIC**

KEYPLAN



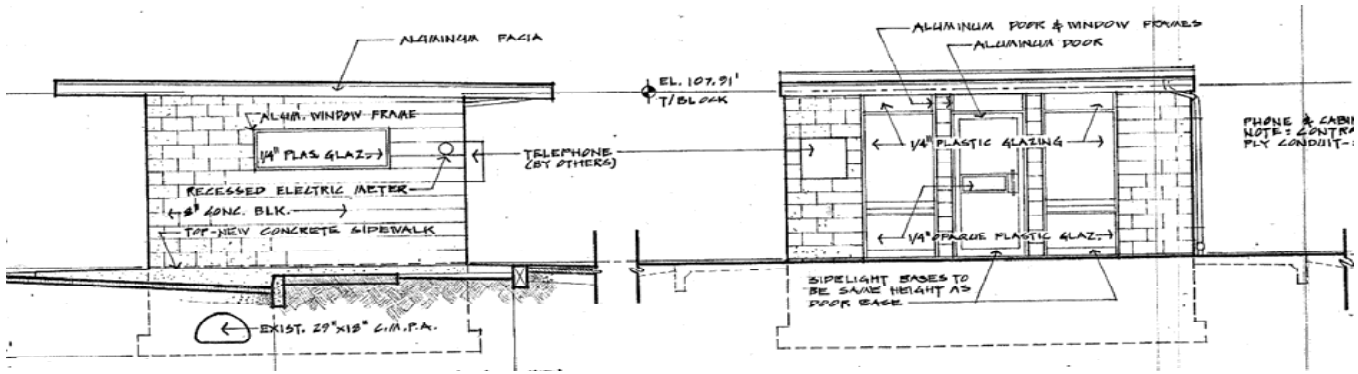
EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	METRO NORTH RAILROAD		
	HARLEM LINE ASBESTOS SURVEY PURDY STATION, PURDY, NY	Date:	7/3/2019	STATION PLATFORM (SOUTH) AND OVERPASS (CENTER)
		EPM #:	18041-81	
		Figure	ASB-03	ASBESTOS BULK SAMPLE LOCATION SCHEMATIC

KEYPLAN



SOUTH ELEVATION

WEST ELEVATION (FRONT)



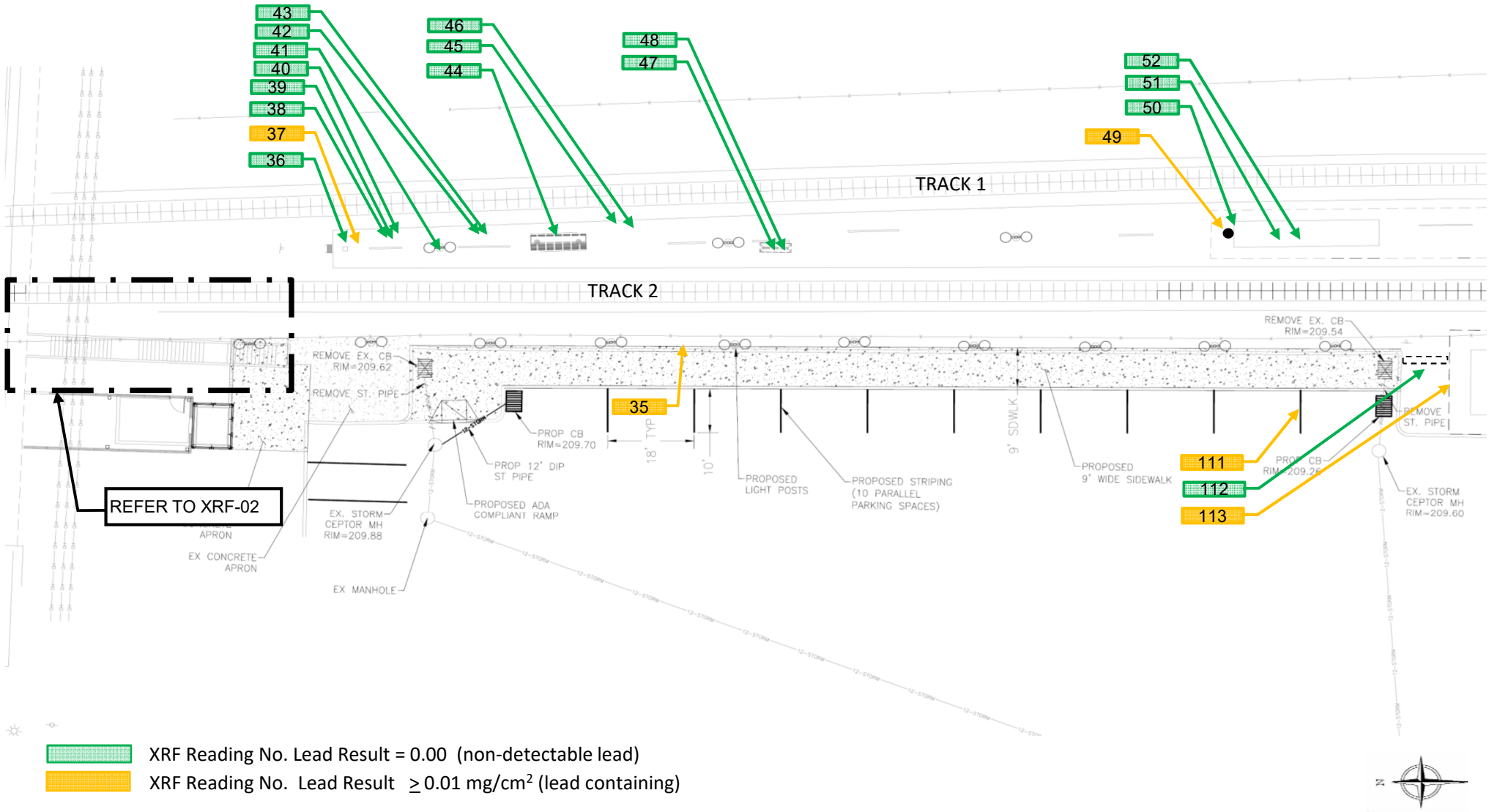
NORTH ELEVATION

EAST ELEVATION (BACK)

EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	**METRO NORTH RAILROAD**		
	HARLEM LINE ASBESTOS SURVEY PURDY STATION, PURDY, NY	Date:	7/3/2019	**CONCESSION STAND BUILDING ELEVATIONS (CENTER)**
		EPM #:	18041-81	
		Figure	**ASB-04**	**ASBESTOS BULK SAMPLE LOCATION SCHEMATIC**

Lead-Paint Shot Location Schematic

KEYPLAN

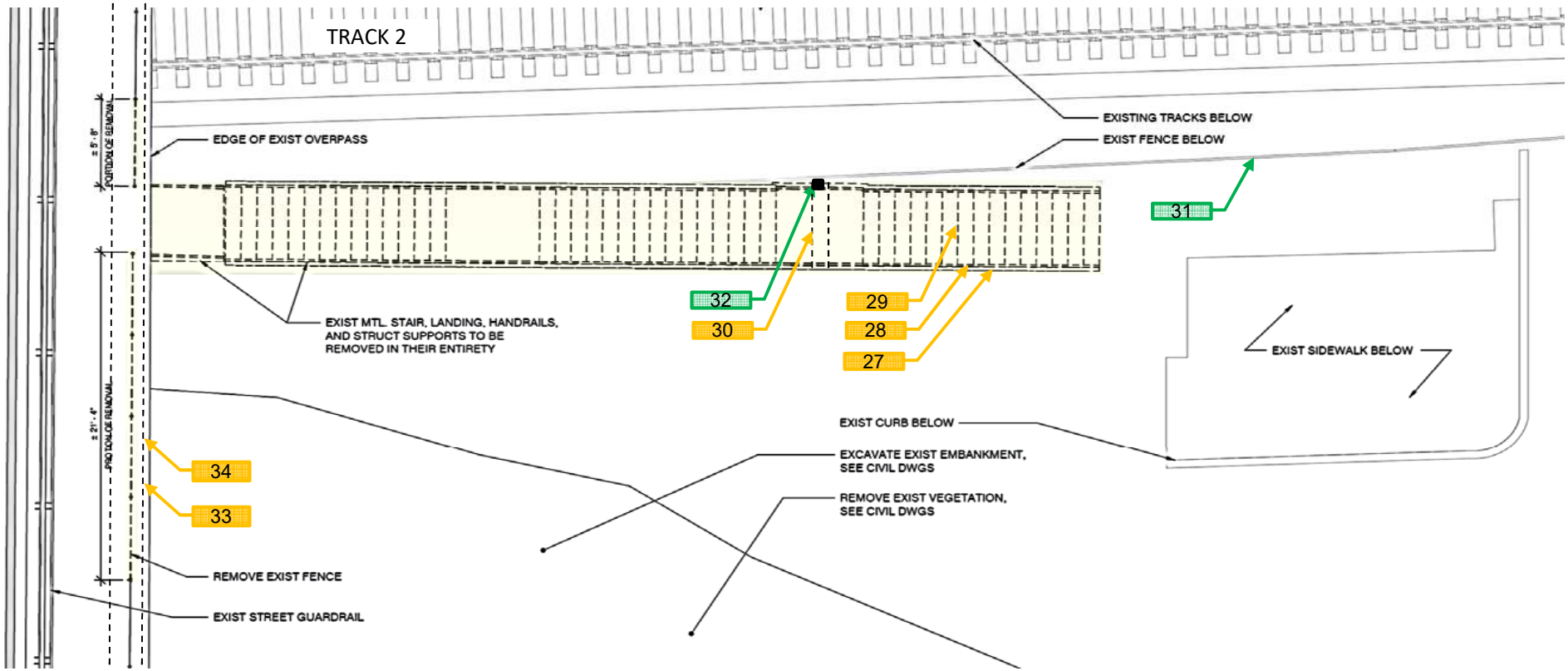


XRF Reading No. Lead Result = 0.00 (non-detectable lead)

XRF Reading No. Lead Result $\geq$ 0.01 mg/cm^2 (lead containing)

EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	METRO NORTH RAILROAD		
		HARLEM LINE LEAD SURVEY PURDY STATION, PURDY, NY	Date:	7/1/2019
			EPM #:	18041-81
			Figure	XRF-01
			STATION PLATFORM (NORTH)	
			XRF SHOT SAMPLE LOCATION SCHEMATIC	

KEYPLAN

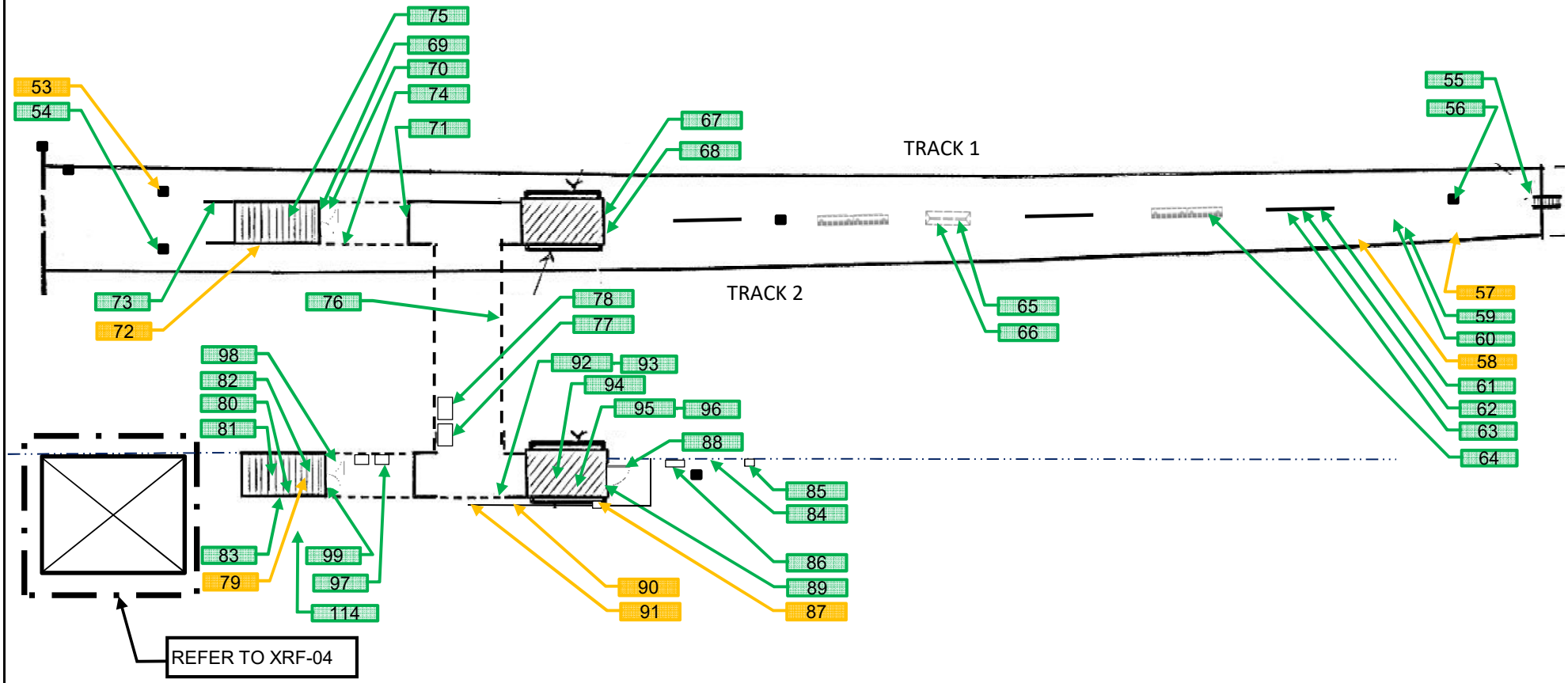


XRF Reading No. Lead Result = 0.00 (non-detectable lead)

XRF Reading No. Lead Result $\geq$ 0.01 mg/cm^2 (lead containing)

EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	METRO NORTH RAILROAD		
	HARLEM LINE LEAD SURVEY PURDY STATION, PURDY, NY	Date:	7/1/2019	STAIR FROM BRIDGE (NORTH)
		EPM #:	18041-81	
		Figure	XRF-02	XRF SHOT SAMPLE LOCATION SCHEMATIC

KEYPLAN

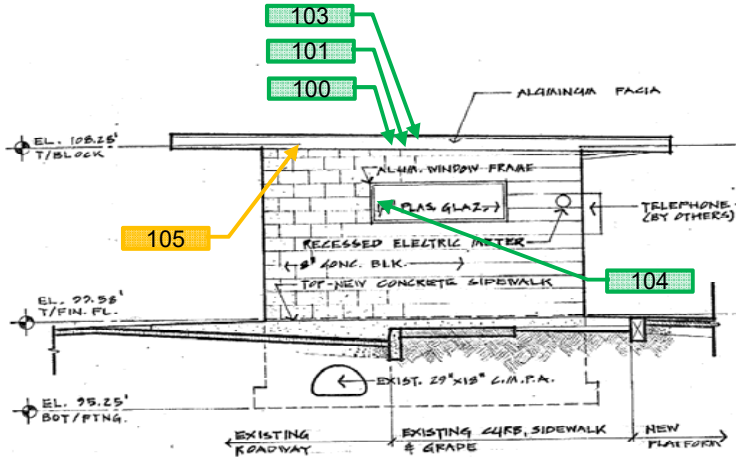


XRF Reading No. Lead Result = 0.00 (non-detectable lead)

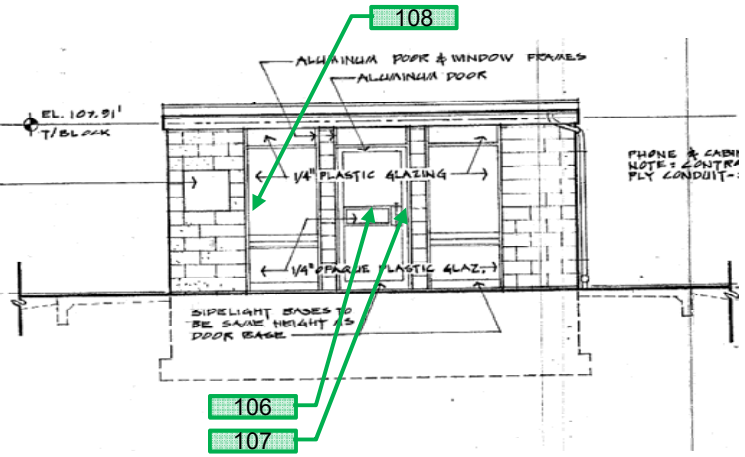
XRF Reading No. Lead Result $\geq$ 0.01 mg/cm^2 (lead containing)

EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	METRO NORTH RAILROAD	
	HARLEM LINE LEAD SURVEY PURDY STATION, PURDY, NY	Date: 7/1/2019	STATION PLATFORM (SOUTH) AND OVERPASS (CENTER)
		EPM #: 18041-81	
		Figure XRF-03	XRF SHOT SAMPLE LOCATION SCHEMATIC

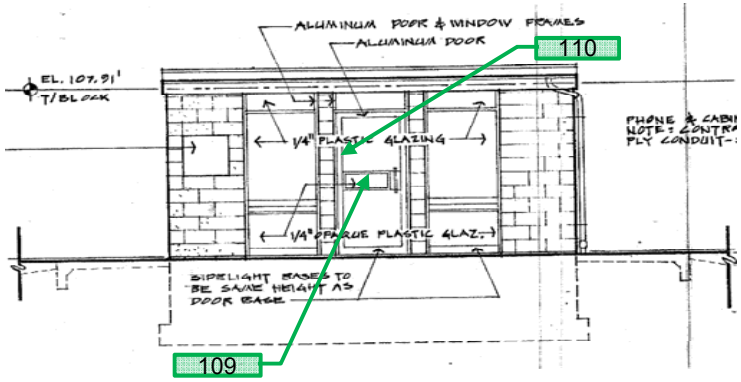
KEYPLAN



SOUTH ELEVATION



WEST ELEVATION (FRONT)



EAST ELEVATION (BACK)

XRF Reading No. Lead Result = 0.00 (non-detectable lead)

XRF Reading No. Lead Result ≥ 0.01 mg/cm² (lead containing)

EPM Environmental Planning & Management, Inc. www.epmco.com	MTA Metro-North Railroad	METRO NORTH RAILROAD		
	HARLEM LINE LEAD SURVEY PURDY STATION, PURDY, NY	Date:	7/1/2019	CONCESSION STAND
		EPM #:	18041-81	BUILDING ELEVATIONS (CENTER)
		Figure	XRF-04	XRF SHOT SAMPLE LOCATION SCHEMATIC

APPENDIX D
Laboratory Accreditation

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2020
Issued April 01, 2019

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. DIMITRIOS MOLOHIDES
ALPHA LABS LLC
14-26 28TH AVENUE
LONG ISLAND CITY, NY 11102

NY Lab Id No: 11833

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual
Asbestos-Vermiculite-Containing Material	Item 198.8 of Manual
Lead in Dust Wipes	EPA 7000B
Lead in Paint	ASTM D3335-85A

Sample Preparation Methods

	ASTM D3335-85A
	ASTM E-1644-17

Serial No.: 59860

APPENDIX E
Asbestos Bulk Sample Laboratory Analytical Data

alphalabs
L a b s

14-26 28th Avenue Long Island City, NY 11102
Tel.: (718) 482-7525 Fax. (718) 482-7524 www.alphalabsllc.com

BULK SAMPLE ANALYSIS REPORT

CLIENT: Environmental Planning & Management Inc., 1983 Marcus Avenue, Suite 109, Lake Success NY 13542
BUILDING ADDRESS: Metro North RR – Harlem Line – Purty's Station, Purty's NY 10589 (MNR OSS Task# HUD-19-136-AL)
PROJECT: 18041-81

Client Sample ID# Lab Sample ID#	Sample Description	Sample Location	Appearance	GRAVIMETRIC PREPARATION			PLM			TEM
				% Ashed Organic Component	% Acid Soluble Inorganic Component	% Acid Insoluble Inorganic Component	% Estimated Non-Asbestos Fibrous Material	% Non-Fibrous Matrix Material	ASBESTOS % & Type	ASBESTOS % & Type
PS-01A 19-06-220-01	Black pad material at the base of stair support	Old stairwell at north side of station	Black Homogeneous NOB	84.2	10.6	5.2	0%	100%	NAD Inconclusive	NAD
PS-01B 19-06-220-02		Old stairwell at north side of station	Black Homogeneous NOB	85.3	5.1	9.6	0%	100%	NAD Inconclusive	NAD
PS-01C 19-06-220-03		Old stairwell at north side of station	Black Homogeneous NOB	89.5	7.0	3.4	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-02A 19-06-220-04	Gray caulk at the joint of warning strip	Station platform – North side	Grey Homogeneous NOB	63.3	31.8	4.9	0%	100%	NAD Inconclusive	NAD
PS-02B 19-06-220-05		Station platform – Center	Grey Homogeneous NOB	63.3	33.6	3.1	0%	100%	NAD Inconclusive	NAD
PS-02C 19-06-220-06		Station platform – South side	Grey Homogeneous NOB	68.8	24.9	6.3	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-03A 19-06-220-07	Dark gray caulk at the platform expansion joint	Station platform – North side	Dk. Grey Homogeneous NOB	52.1	41.3	6.6	0%	100%	NAD Inconclusive	NAD
PS-03B 19-06-220-08		Station platform – Center	Dk. Grey Homogeneous NOB	50.8	42.4	6.8	0%	100%	NAD Inconclusive	NAD
PS-03C 19-06-220-09		Station platform – South side	Dk. Grey Homogeneous NOB	54.9	39.7	5.4	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-04A 19-06-220-10	Gray caulk at the base of the wall	Platform waiting room – exterior side	Grey Homogeneous NOB	62.6	34.0	3.4	0%	100%	NAD Inconclusive	NAD
PS-04B 19-06-220-11		Platform waiting room – exterior side	Grey Homogeneous NOB	63.4	34.5	2.1	0%	100%	NAD Inconclusive	NAD
PS-04C 19-06-220-12		Platform waiting room – interior side	Grey Homogeneous NOB	46.3	35.1	18.6	0%	100%	NAD Inconclusive	Analysis not requested by the client

14-26 28th Avenue Long Island City, NY 11102
Tel.: (718) 482-7525 Fax: (718) 482-7524 www.alphalabsllc.com

BULK SAMPLE ANALYSIS REPORT

CLIENT: Environmental Planning & Management Inc., 1983 Marcus Avenue, Suite 109, Lake Success NY 13542
BUILDING ADDRESS: Metro North RR – Harlem Line – Purty's Station, Purty's NY 10589 (MNR OSS Task# HUD-19-136-AL)
PROJECT: 18041-81

Client Sample ID# Lab Sample ID#	Sample Description	Sample Location	Appearance	GRAVIMETRIC PREPARATION			PLM			TEM
				% Ashed Organic Component	% Acid Soluble Inorganic Component	% Acid Insoluble Inorganic Component	% Estimated Non-Asbestos Fibrous Material	% Non-Fibrous Matrix Material	ASBESTOS % & Type	ASBESTOS % & Type
PS-05A 19-06-220-13	Beige caulk at the seams of overpass stairwell	Stairwell to overpass platform side	Orange Homogeneous NOB	41.5	55.5	3.0	0%	100%	NAD Inconclusive	NAD
PS-05B 19-06-220-14		Stairwell to overpass platform side	Orange Homogeneous NOB	41.5	56.0	2.5	0%	100%	NAD Inconclusive	NAD
PS-06C 19-06-220-15		Stairwell to overpass platform side	Orange Homogeneous NOB	37.9	58.8	3.4	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-06A 19-06-220-16	Gray caulk at the base of the wall	Stairwell to overpass platform side	Grey Homogeneous NOB	53.5	41.2	5.3	0%	100%	NAD Inconclusive	NAD
PS-06B 19-06-220-17		Stairwell to overpass platform side	Grey Homogeneous NOB	50.2	37.4	12.3	0%	100%	NAD Inconclusive	NAD
PS-06C 19-06-220-18		Stairwell to overpass platform side	Grey Homogeneous NOB	50.5	37.5	12.0	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-07A 19-06-220-19	Gray caulk at the base of tickets machine	Station overpass	Grey Homogeneous NOB	69.1	19.9	11.0	0%	100%	NAD Inconclusive	NAD
PS-07B 19-06-220-20		Station overpass	Grey Homogeneous NOB	70.2	25.3	4.5	0%	100%	NAD Inconclusive	NAD
PS-07C 19-06-220-21		Station overpass	Grey Homogeneous NOB	71.3	22.8	5.8	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-08A 19-06-220-22	White caulk at the parking sidewalk	Sidewalk around concession building	Black Homogeneous NOB	30.3	67.7	2.1	0%	100%	NAD Inconclusive	NAD
PS-08B 19-06-220-23		Sidewalk around concession building	Black Homogeneous NOB	30.3	67.9	1.8	0%	100%	NAD Inconclusive	NAD
PS-08C 19-06-220-24		Sidewalk around concession building	Black Homogeneous NOB	30.2	65.7	4.0	0%	100%	NAD Inconclusive	Analysis not requested by the client

14-26 28th Avenue Long Island City, NY 11102
Tel.: (718) 482-7525 Fax: (718) 482-7524 www.alphalabsllc.com

BULK SAMPLE ANALYSIS REPORT

CLIENT: Environmental Planning & Management Inc., 1983 Marcus Avenue, Suite 109, Lake Success NY 13542
BUILDING ADDRESS: Metro North RR – Harlem Line – Purty's Station, Purty's NY 10589 (MNR OSS Task# HUD-19-136-AL)
PROJECT: 18041-81

Client Sample ID# Lab Sample ID#	Sample Description	Sample Location	Appearance	GRAVIMETRIC PREPARATION			PLM			TEM
				% Ashed Organic Component	% Acid Soluble Inorganic Component	% Acid Insoluble Inorganic Component	% Estimated Non-Asbestos Fibrous Material	% Non-Fibrous Matrix Material	ASBESTOS % & Type	ASBESTOS % & Type
PS-09A 19-06-220-25	Black joint filler at the base of the building	Concession Building North side	Black Homogeneous NOB	68.4	15.4	16.3	0%	100%	NAD Inconclusive	NAD
PS-09B 19-06-220-26		Concession Building West side	Black Homogeneous NOB	76.1	7.7	16.2	0%	100%	NAD Inconclusive	NAD
PS-09C 19-06-220-27		Concession Building South side	Black Homogeneous NOB	81.0	8.7	10.2	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-10A 19-06-220-28	Black caulk at the window	Concession Building West side	Black Homogeneous NOB	60.0	2.6	37.5	0%	100%	NAD Inconclusive	NAD
PS-10B 19-06-220-29	Black caulk at the window	Concession Building West side	Black Homogeneous NOB	59.6	2.4	38.1	0%	100%	NAD Inconclusive	NAD
PS-10C 19-06-220-30	Black caulk at the door	Concession Building West side	Black Homogeneous NOB	57.4	1.9	40.7	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-11A 19-06-220-31	Black joint filler at the concrete curb	Parking lot by concession building	Black Homogeneous NOB	89.7	8.0	2.3	0%	100%	NAD Inconclusive	NAD
PS-11B 19-06-220-32		Parking lot north of concession building	Black Homogeneous NOB	71.4	12.2	16.3	0%	100%	NAD Inconclusive	NAD
PS-11C 19-06-220-33		Parking lot by the old stairwell	Black Homogeneous NOB	89.1	7.1	3.8	0%	100%	NAD Inconclusive	Analysis not requested by the client
PS-12A 19-06-220-34	Asphalt material	Parking lot by concession building	Black Homogeneous NOB	5.4	4.3	90.3	0%	100%	NAD Inconclusive	NAD
PS-12B 19-06-220-35		Parking lot north of concession building	Black Homogeneous NOB	6.0	13.8	80.3	0%	100%	NAD Inconclusive	NAD
PS-12C 19-06-220-36		Parking lot by the old stairwell	Black Homogeneous NOB	5.2	2.9	92.0	0%	100%	NAD Inconclusive	Analysis not requested by the client

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BULK SAMPLE ANALYSIS REPORT

CLIENT: Environmental Planning & Management Inc., 1983 Marcus Avenue, Suite 109, Lake Success NY 13542
BUILDING ADDRESS: Metro North RR – Harlem Line – Purty's Station, Purty's NY 10589 (MNR OSS Task# HUD-19-136-AL)
PROJECT: 18041-81

Date Received: 6/26/19
Date of PLM Analysis: 6/28/19
Date of TEM Analysis: 6/28/19
Date of Report: 6/28/19

PLM Analyst: M. Ramirez
TEM Analyst: A. Ansari

Analyst: _____
M. Ramirez

QC Review / Date: _____
D. Molohides, Lab Director

NAD= No Asbestos Detected; NA/PS = Not Analyzed / Positive Stop; Trace = < 0.25%, CH = Chrysotile, AMO = Amosite, CRO = Crocidolite, ANTH = Anthophyllite, TRE = Tremolite, ACT = Actinolite, FBGL = Fiberglass, CELL = Cellulose, SYNTH = Synthetic fibers, VERM = Vermiculite, WOLL = Wollastonite. Polarized Light Microscopy (PLM) analysis of samples is performed by Method EPA 600/M4-82-020 and ELAP PLM Analysis Protocol 198.1 (friable samples) and protocol 198.6 (NOB samples). Transmission Electron Microscopy (TEM) analysis of samples is performed by Method ELAP TEM Analysis Protocol 198.4. This report includes the identification and quantitation of vermiculite as required by current NYS-DOH ELAP protocols & interim guidance letters. Analytical equipment: Stereobinocular microscopes: Professional Bin (PM #1), Accuscope (Ser#:120405), Carlsan (Ser#: 011418), Olympus VMZ (Ser#: 983350); Polarized Light Microscopes: Olympus BH-2 (Ser #: 214335), Olympus BH-2 (Ser #: 236532), Olympus BH-2 (Ser#: 227128), Meiji ML 9000 (Ser#: 902028). PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing. Samples will be stored for sixty (60) days and then returned to the client upon request. The results relate only to the items calibrated or tested. This report may not be reproduced, except in full, without the written approval of Alpha Labs LLC. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the US Government. This report contains data (bulk asbestos TEM results) that are not covered by the NVLAP accreditation. The liability of Alpha Labs LLC with respect to the services charged shall in no event exceed the amount of the invoice. **(May 1, 2019)**

NYS-DOH ELAP # 11833 **NVLAP Lab Code: 200691-0**

Bulk Sample Form

19-06-220

EPM
Environmental Planning & Management, Inc.
www.epmco.com

1983 Marcus Avenue, Suite 109 | Lake Success | New York 11040
P. 516.328.1194 | F. 516.328.1381

2125 Center Avenue, Suite 404 | Fort Lee | New Jersey 07024
P. 201.363.1983 | F. 201.363.0800

RESULTS NEEDED: 48 Hour TAT

SEND ALL RESULTS BY EMAIL TO : Andy Zabrocki azabrocki@epmco.com

FOLLOW-UP ALL FAXES WITH HARDCOPY BY MAIL TO EPM

SHIPPED BY: Fed-Ex overnight

PROJECT INFORMATION			
CLIENT :	Metro North RR		
EPM # :	18041-81	DATE :	6/25/2019
Project:	Station Improvements - (MNR OSS Task # HUD-19-136-AL)		
Project Location:	MNR Harlem Line -Purty's Station, Purty's NY 10589		

LABORATORY NOTE : Analyze by layer via PLM with positive stop.
If negative by PLM and NOB, analyze by TEM only first two (2) samples.

SAMPLE NUMBER	DATE SAMPLED	SAMPLE LOCATION	MATERIAL DESCRIPTION
PS-01A		Old stairwell at north side of station	Black pad material at the base of stair support
PS-01B		Old stairwell at north side of station	Black pad material at the base of stair support
PS-01C		Old stairwell at north side of station	Black pad material at the base of stair support
PS-02A		Station platform - north side	Gray caulk at the joint of warning strip
PS-02B		Station platform - center	Gray caulk at the joint of warning strip
PS-02C		Station platform - south side	Gray caulk at the joint of warning strip
PS-03A		Station platform - north side	Dark gray caulk at the platform expansion joint
PS-03B		Station platform - center	Dark gray caulk at the platform expansion joint
PS-03C		Station platform - south side	Dark gray caulk at the platform expansion joint
PS-04A		Platform waiting room - exterior side	Gray caulk at the base of the wall
PS-04B	6/24/2019	Platform waiting room - exterior side	Gray caulk at the base of the wall
PS-04C		Platform waiting room - interior side	Gray caulk at the base of the wall
PS-05A		Stairwell to overpass platform side	Beige caulk at the seams of overpass stairwell
PS-05B		Stairwell to overpass platform side	Beige caulk at the seams of overpass stairwell
PS-05C		Stairwell to overpass platform side	Beige caulk at the seams of overpass stairwell
PS-06A		Stairwell to overpass platform side	Gray caulk at the base of the wall
PS-06B		Stairwell to overpass platform side	Gray caulk at the base of the wall
PS-06C		Stairwell to overpass platform side	Gray caulk at the base of the wall
PS-07A		Station overpass	Gray caulk at the base of tickets machine
PS-07B		Station overpass	Gray caulk at the base of tickets machine
PS-07C		Station overpass	Gray caulk at the base of tickets machine

Sampler's Relinquishment Signature / Date / Time:

A. Zabrocki 6/25/19 7:40 PM

Lab Receipt Signature / Date / Time:

C. Rebadi 6/26/19

BULK SAMPLE FORM

19-06-220

EPM
Environmental Planning & Management, Inc.
www.epmco.com

1983 Marcus Avenue, Suite 109 I Lake Success I New York 11040
P. 516.328.1194 I F. 516.328.1381

2125 Center Avenue, Suite 404 I Fort Lee I New Jersey 07024
P. 201.363.1983 I F. 201.363.0800

RESULTS NEEDED: 48 Hour TAT

SEND ALL RESULTS BY EMAIL TO : Andy Zabrocki azabrocki@epmco.com

FOLLOW-UP ALL FAXES WITH HARDCOPY BY MAIL TO EPM

SHIPPED BY: Fed-Ex overnight

PROJECT INFORMATION			
CLIENT :	Metro North RR		
EPM # :	18041-81	DATE :	6/25/2019
Project:	Station Improvements - (MNR OSS Task # HUD-19-136-AL)		
Project Location:	MNR Harlem Line -Purty's Station, Purty's NY 10589		

LABORATORY NOTE : Analyze by layer via PLM with positive stop.

If negative by PLM and NOB, analyze by TEM only first two (2) samples.

SAMPLE NUMBER	DATE SAMPLED	SAMPLE LOCATION	MATERIAL DESCRIPTION
PS-08A	6/24/2019	Sidewalk around concession building	White caulk at the parking sidewalk
PS-08B		Sidewalk around concession building	White caulk at the parking sidewalk
PS-08C		Sidewalk around concession building	White caulk at the parking sidewalk
PS-09A		Concesdsion building - north side	Black joint filler at the base of the building
PS-09B		Concesdsion building - west side	Black joint filler at the base of the building
PS-09C		Concesdsion building - south side	Black joint filler at the base of the building
PS-10A		Concesdsion building - west side	Black caulk at the windows
PS-10B		Concesdsion building - west side	Black caulk at the windows
PS-10C		Concesdsion building - west side	Black caulk at the door
PS-11A		Parking lot by concession building	Black joint filler at the concrete curb
PS-11B		Parking lot north of concession building	Black joint filler at the concrete curb
PS-11C		Parking lot by the old stairwell	Black joint filler at the concrete curb
PS-12A		Parking lot by concession building	Asphalt material
PS-12B		Parking lot north of concession building	Asphalt material
PS-12C		Parking lot by the old stairwell	Asphalt material

Sampler's Relinquishment Signature / Date / Time:

A. Zabrocki 6/25/19 7:40 PM

Lab Receipt Signature / Date / Time:

6/26/19

APPENDIX F
XRF Performance Characteristic Sheet

Performance Characteristic Sheet

EFFECTIVE DATE: **September 24, 2004** **EDITION NO.: 1**

MANUFACTURER AND MODEL:

Make: *Niton LLC*

Tested Model: *XLp 300*

Source: ^{109}Cd

Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.

XLp 300A, XLp 301A, XLp 302A and XLp 303A.

XLi 700A, XLi 701A, XLi 702A and XLi 703A.

XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is <u>not</u> needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use the K+L variable time mode readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family housing a result is defined as the average of three readings. In multifamily housing, a result is a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)

	All Data			Median for laboratory-measured lead levels (mg/cm^2)		
Substrate	25^{th} Percentile	Median	75^{th} Percentile	Pb < 0.25	0.25 ≤ Pb<1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

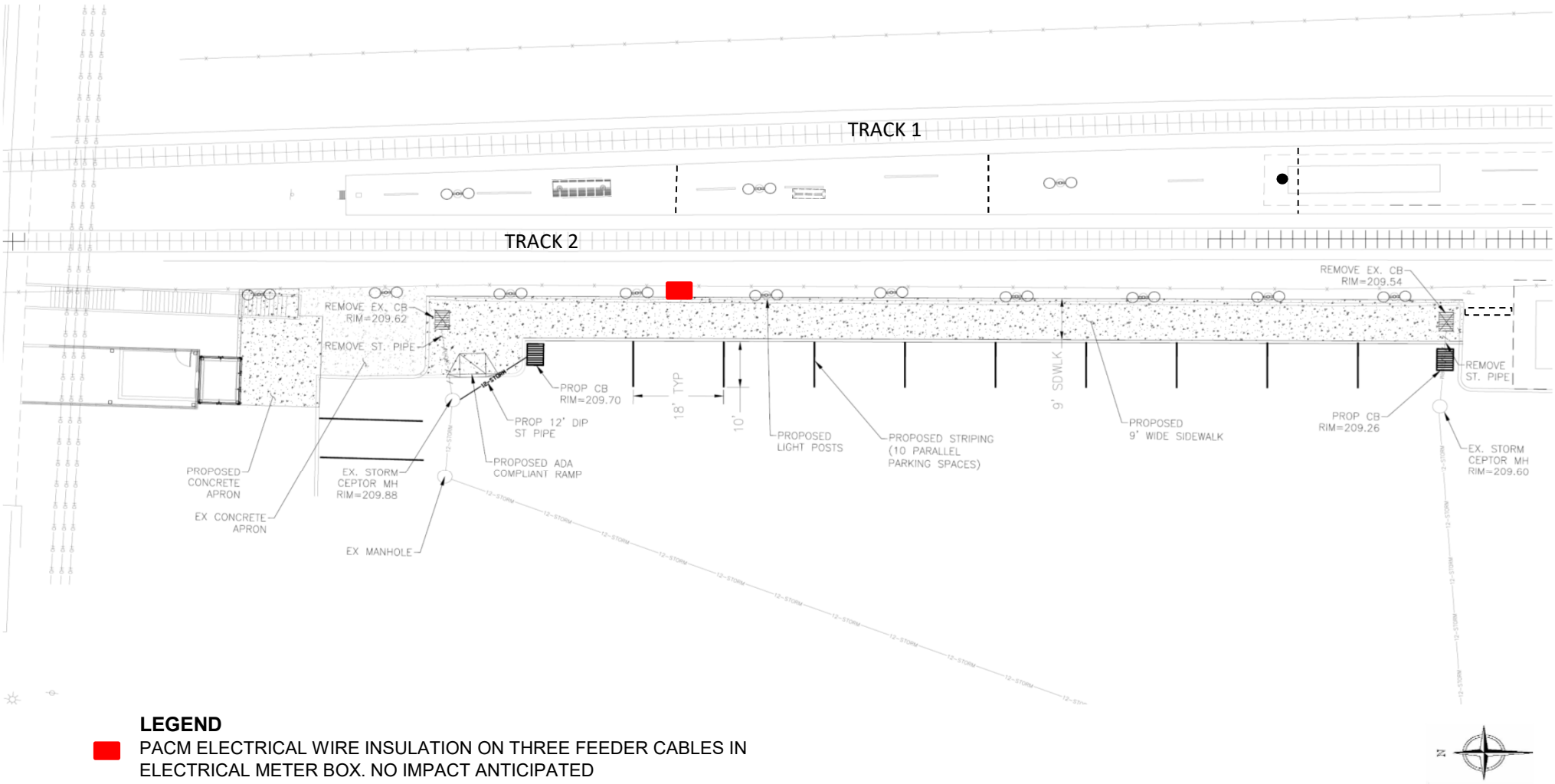
DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

APPENDIX G
Presumed Asbestos Material Location Schematic

KEYPLAN



LEGEND

PACM ELECTRICAL WIRE INSULATION ON THREE FEEDER CABLES IN ELECTRICAL METER BOX. NO IMPACT ANTICIPATED

EPM Environmental Planning & Management, Inc. www.epmco.com

MTA Metro-North Railroad

METRO NORTH RAILROAD

HARLEM LINE ASBESTOS SURVEY PURDY STATION, PURDY, NY	Date:	7/3/2019	**STATION PLATFORM (NORTH)**
	EPM #:	18041-81	
	Figure	**ACM-01**	**ASBESTOS MATERIALS LOCATION SCHEMATIC**