SURVEY REPORT

PRE-RENOVATION INVESTIGATIVE SURVEY FOR HAZARDOUS BUILDING MATERIALS

AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT

Project No. 170-3155

Prepared for

State of Connecticut
Department of Transportation
Newington, Connecticut

Prepared by

TRC
Windsor, Connecticut

Issued
July 2014

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Erik R. Plimpton, P.E., CHMM, CMC
Program Manager

Edmund J. Burke, P.E.
Engineer in Charge

TRC Project No. 183572.4946.0710
Issued-July 2014

TRC
21 Griffin Road North
Windsor, Connecticut 06095
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PROJECT OUTLINE

DOT Project No.:	170-3155
Assignment No.:	504-4946
DOT Project Manager:	Denise Young
Site Address:	Amtrak – Union Station Platform, Hartford, CT
TRC Project No.:	183572.4946.0710
Asbestos Inspector:	Gregory Kaczynski (LIC #000550)
Lead Inspector:	Gregory Kaczynski (LIC #002158)
	Christopher Gaines (LIC #002219)
Date(s) of Inspection:	6/4/14-6/5/14
Asbestos Identified:	Yes
Lead Paint Identified:	Yes
Gen. Bldg. Mat. Haz Waste:	Yes (paint on structural steel)
Add'l Haz./Reg. Mat./Waste/Items:	Yes (See Table 6)

Additional Notes:

The property consists of a Railroad Station in the City of Hartford. A limited inspection of the North and South Platforms (including metal structural support underneath), the C-S Room, Elevator Storage and Elevator Car was performed for this renovation. The C-S Room had severe water damage on the C-wall and visible mold growth on all walls. The structural steel and associated metal components under a large section of the North Platform have had the original lead paint abated previously, although remnants do remain in certain spots.

*Assumes all ACM & hazmat items required to be removed for renovation

TABLES

TABLE 1 BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT			
Sample No.	**Sample Location**	**Type of Homogeneous Material**	**% and Type Asbestos**
01	North Platform	FAS1-thick asphalt flooring tile	9.89% chrysotile[1]
02	South Platform	FAS1-thick asphalt flooring tile	Trace chrysotile[+]
03	Elevator storage	PL1-hard grey plaster basecoat	ND<1%
		White skimcoat	ND<1%
04	Elevator storage	PL1-hard grey plaster basecoat	ND<1%
		White skimcoat	ND<1%
05	Elevator storage	PL1-hard grey plaster basecoat	ND<1%
		White skimcoat	ND<1%
06	Elevator storage	SHR1-light grey sheetrock	ND<1%
		White joint compound	Trace chrysotile*
07	Elevator storage	SHR1-light grey sheetrock	ND<1%
		White joint compound	Trace chrysotile*
08	Elevator shaft	GM1-gypsum w/ wood chips material	ND<1%
09	Elevator shaft	GM1-gypsum w/ wood chips material	ND<1%
10	Elevator car	G1-thin tan glue behind wall/ceiling panel	ND<1%[1]
11	Elevator car	G1-thin tan glue behind wall/ceiling panel	ND<1%
12	Elevator storage	SP1-tan spray-on fireproofing insulation	ND<1%
13	Elevator storage	SP1-tan spray-on fireproofing insulation	ND<1%
14	C-S Room	SP1-tan spray-on fireproofing insulation	ND<1%
15	C-S Room	SHR2-light grey sheetrock	ND<1%
		White joint compound	ND<1%
16	C-S Room	SHR2-light grey sheetrock	ND<1%
		White joint compound	ND<1%
17	C-S Room	FT1-12x12 grey floor tile	ND<1%[1]
		Black mastic associated with FT1	ND<1%[1]
18	C-S Room	FT1-12x12 grey floor tile	ND<1%
		Black mastic associated with FT1	ND<1%
19	C-S Room	CB1-4" black covebase	ND<1%[1]
		Beige glue associated with CB1	ND<1%[1]

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM
NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos
ND<1% Non-detected, less than 1%
NAD No asbestos detected
+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive
1 Result confirmed by TEM analyses
* Analyzed by EPA 400 Point Count Method

TABLE 1 (...continued) BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT			
Sample No.	**Sample Location**	**Type of Homogeneous Material**	**% and Type Asbestos**
20	C-S Room	CB1-4" black covebase	ND<1%
		Beige glue associated with CB1	ND<1%
21	C-S Room	DWG1-black putty door window glaze	5% chrysotile
22	C-S Room	DWG1-black putty door window glaze	NA/PS
23	Exterior of C-S Room	WP1-hard blue wall panel mateiral	ND<1%
24	Exterior of C-S Room	WP1-hard blue wall panel mateiral	ND<1%
25	Exterior of C-S Room	C1-dark grey tacky caulk	ND<1%[1]
26	Exterior of C-S Room	C1-dark grey tacky caulk	ND<1%

NA/PVA	Not analyzed/positive via inseparable association with a confirmed positive ACM
NA/PS	Not analyzed/positive stop, homogeneous to sample proven to contain asbestos
ND<1%	Non-detected, less than 1%
NAD	No asbestos detected
+	Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive
1	Result confirmed by TEM analyses
*	Analyzed by EPA 400 Point Count Method

TABLE 2 IDENTIFIED ASBESTOS CONTAINING MATERIALS (>1%) AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT					
Material	**Sampled/ Assumed (mo/yr)**	**General Location**	**NESHAP Category**	**AHERA Category**	**Estimated Quantity**
FAS1-thick asphalt flooring tile	Sampled 6/14	Exterior North & South Platforms	Category I Non-friable	Miscellaneous	3,000 SF
DWG1-black putty door window glaze	Sampled 6/14	C-S Room (accessed from North Garage)	Category II Non-friable	Miscellaneous	1 EA

AHERA Categories = thermal system insulation (TSI), surfacing material or miscellaneous
NESHAP Categories = friable, category I non-friable or category II non-friable
Friable = crumbled, pulverized or reduced to powder by hand pressure when dry
Category I Non-friable = packings, gaskets, resilient floor covering and asphalt roofing
Category II Non-friable = all non-friable that is not Category I

TABLE 3 CONFIRMED NON-ASBESTOS CONTAINING MATERIALS (<1%) AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT	
Material	**General Location**
PL1-hard grey plaster basecoat/white skimcoat	Elevator storage
SHR1-light grey sheetrock/white joint compound	Elevator storage
GM1-gypsum w/ wood chips material	Elevator shaft
G1-thin tan glue behind wall/ceiling panel	Elevator car
SP1-tan spray-on fireproofing insulation	Elevator storage, C-S Room
SHR2-light grey sheetrock/white joint compound	C-S Room
FT1-12x12 grey floor tile/black mastic	C-S Room
CB1-4" black covebase/beige glue	C-S Room
WP1-hard blue wall panel material	Exterior of C-S Room
C1-dark grey tacky caulk	Exterior of C-S Room
Fiberglass/PVC pipe insulation (non-suspect)	C-S Room

**** However, associated layers are positive.***

TABLE 4 SUMMARY OF LEAD PAINT XRF MEASUREMENTS AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT					
Structure	**No. of Measurements**	**Calibrations**	**Void**	**Lead Detected**	**No Lead Detected**
Union Station	76	18	1	24	33
Sample No.	**Paint Chip Sample**		**% Total Lead**		
1	Black/grey paint on metal column – North Garage (abated areas)		ND<0.1		
2	Grey paint on metal I-beam – North Garage (abated areas)		ND<0.1		

See Lead Paint XRF Measurement Table and AAS Paint Chip Laboratory Sample Data in Appendix H.

TABLE 5 SUMMARY OF COMPOSITE BUILDING MATERIAL WASTE CHARACTERIZATION AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT			
Waste Stream	**Metal**	**mg/L Leachate**	**Hazardous/Non-Hazardous**
Sample #4 Grey/black paint on structural steel (where original paint was not abated)	Arsenic	---	Analyte not tested
	Barium	---	Analyte not tested
	Cadmium	---	Analyte not tested
	Chromium	---	Analyte not tested
	Lead	***75***	***Hazardous***
	Mercury	---	Analyte not tested
	Selenium	---	Analyte not tested
	Silver	---	Analyte not tested

Sample #4 was analyzed following the Toxicity Characteristic Leaching Procedure (TCLP) for the Resource Conservation Recovery Act (RCRA) Metals Lead. The sample was paint only and not overall projected renovation debris.

See Appendix I for results.

BDL - Below Detection Limit
ND - Not Detected

TABLE 6 INVENTORY OF ADDITIONAL HAZARDOUS/REGULATED MATERIALS, WASTES AND ITEMS IDENTIFIED AMTRAK – UNION STATION PLATFORM HARTFORD, CONNECTICUT				
Quantity	**Size**	**Material/Item**	**General Location**	**Potential Hazard**
Eight (8)		Light fixtures with 2 bulbs/1 ballast	South platform	UW – Hg lamp CRW – PCB ballasts
Two (2)		Call boxes	South platform	UW – used electronics (printed circuit boards)
Twelve (12)		Light fixtures with 2 bulbs/1 ballast	North garage	UW – Hg lamp CRW – PCB ballast
One (1)		Sanyo DC inverter	North garage	UW – used electronics (printed circuit boards)
Two (2)		Call boxes	North platform	UW – used electronics (printed circuit boards)
Twelve (12)		Light fixtures with 2 bulbs/1 ballast	North platform	UW – Hg lamp CRW – PCB ballast
One (1)		Light fixtures with 2 bulbs/1 ballast	Elevator storage	UW – Hg lamp CRW – PCB ballast
One (1)		A/C unit	Elevator storage	CFCs/Freon
One (1)		Fire alarm pull box	Elevator storage	UW – used electronics (printed circuit boards) UW – Hg switch
One (1)		A/C unit	C-S Room	CFCs/Freon
Four (4)		Light fixtures with 2 bulbs/1 ballast	C-S Room	UW – Hg lamp CRW – PCB ballast
One (1)		Fire alarm pull box	C-S Room	UW – used electronics (printed circuit boards) UW – Hg switch
Two (2)		Loose fluorescent bulbs	C-S Room	UW – Hg lamp
		Mold/moisture damaged sheetrock walls	C-S Room	IH – microbial growth

*Inventory limited to potential renovation impact areas.

CRW- Connecticut Regulated Waste – PCBs (CR01), Oils (CR02/CR03), waste chemical liquids - antifreeze, latex & solvent paints, sludges, etc. (CR04), waste chemical solids (CR05)
UW- Universal Waste (batteries, thermostat ampoules, fluorescent lamps, used electronics)
IH- Inhalation hazard (silicas, etc.)
I- Ignitable - may contain ingredients which are ignitable (materials which have a flashpoint <140°F) (D001)
C- Corrosive - may contain ingredients which are alkaline or acidic (materials with a PH<2 or >12.5) (D002)
T- Toxic - may contain ingredients which are harmful if swallowed or which release vapors that can cause irritation
R- Reactive – may contain ingredients which are unstable, react violently with water or are explosive (D003)

APPENDIX A

SITE PHOTOS WITH DOT ASSIGNMENT AND MAP

PHOTO 1. Structural Steel on under side of South Platform.

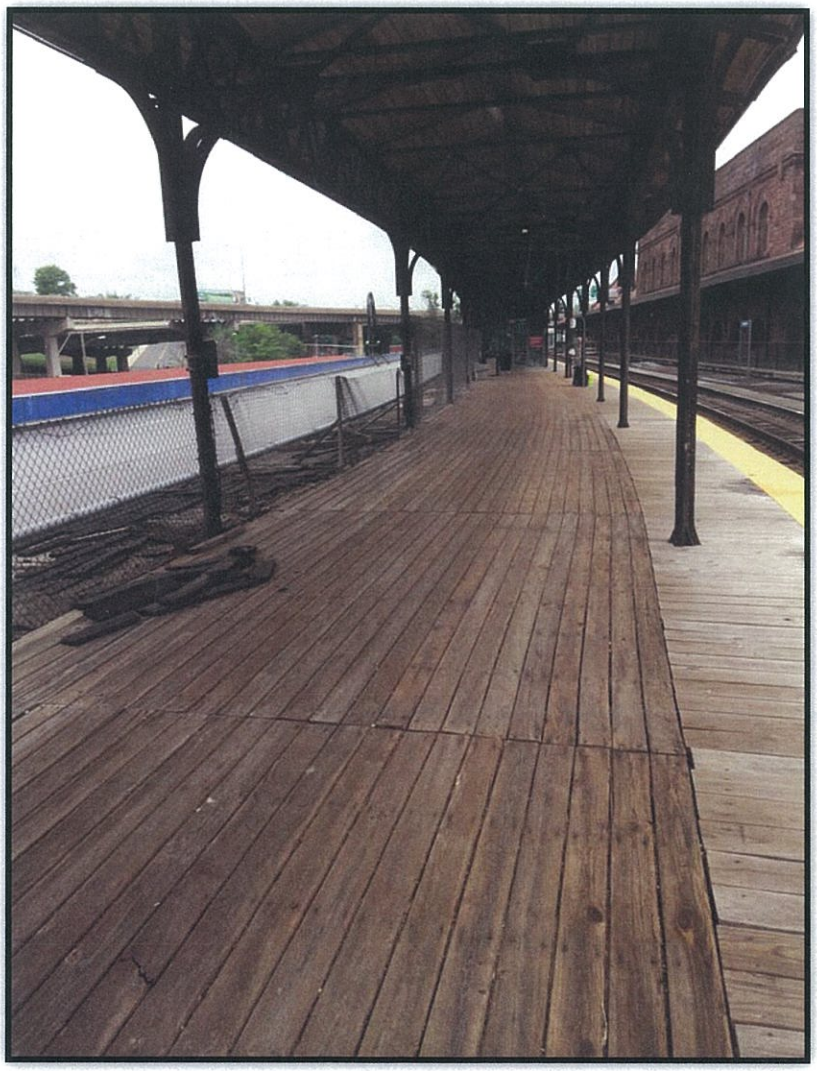


PHOTO 2.
South Platform -
Facing North

AMTRAK – UNION STATION, HARTFORD, CONNECTICUT

TRC
Results you can rely on

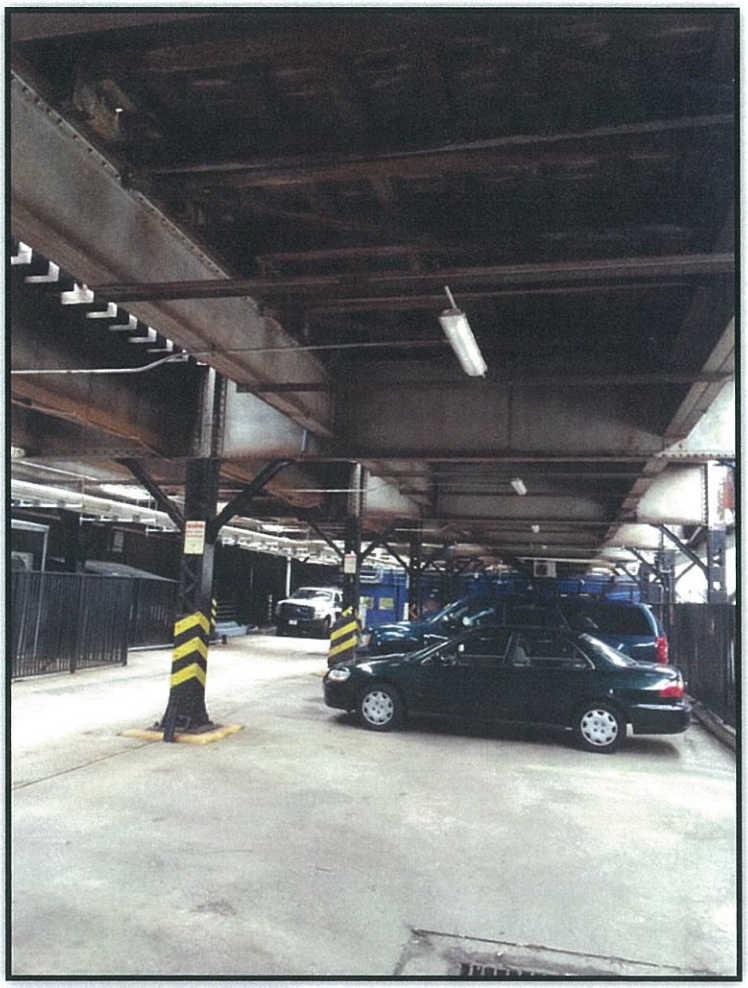


PHOTO 3.
Structural Steel under North Platform

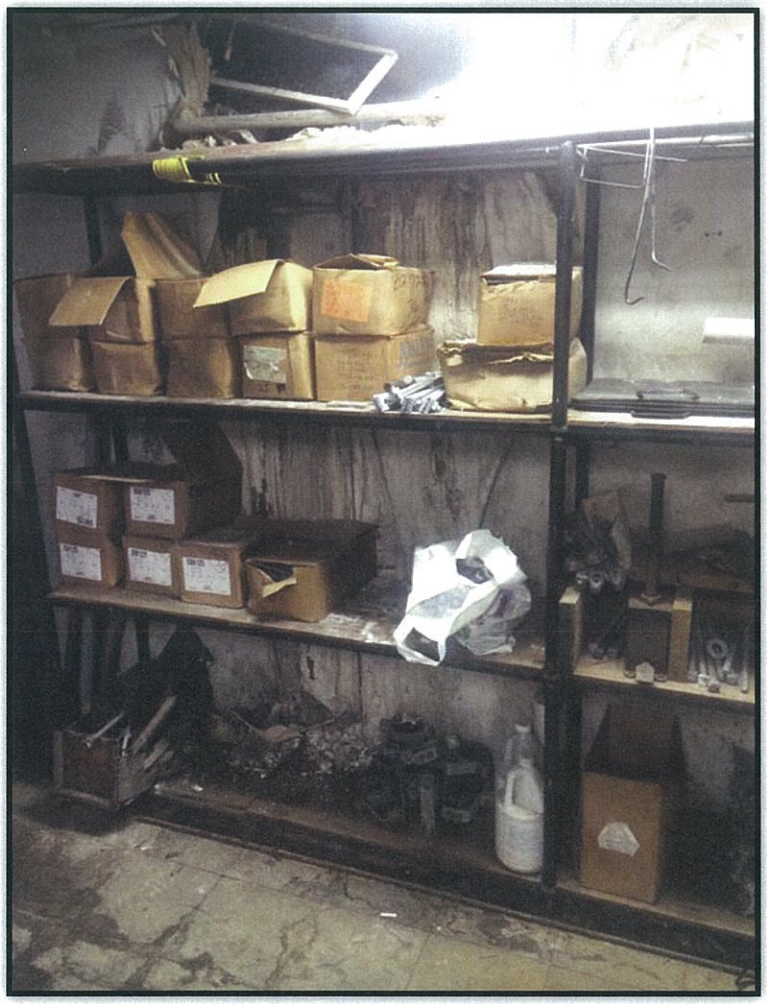


PHOTO 4.
Water Damage to C-S room

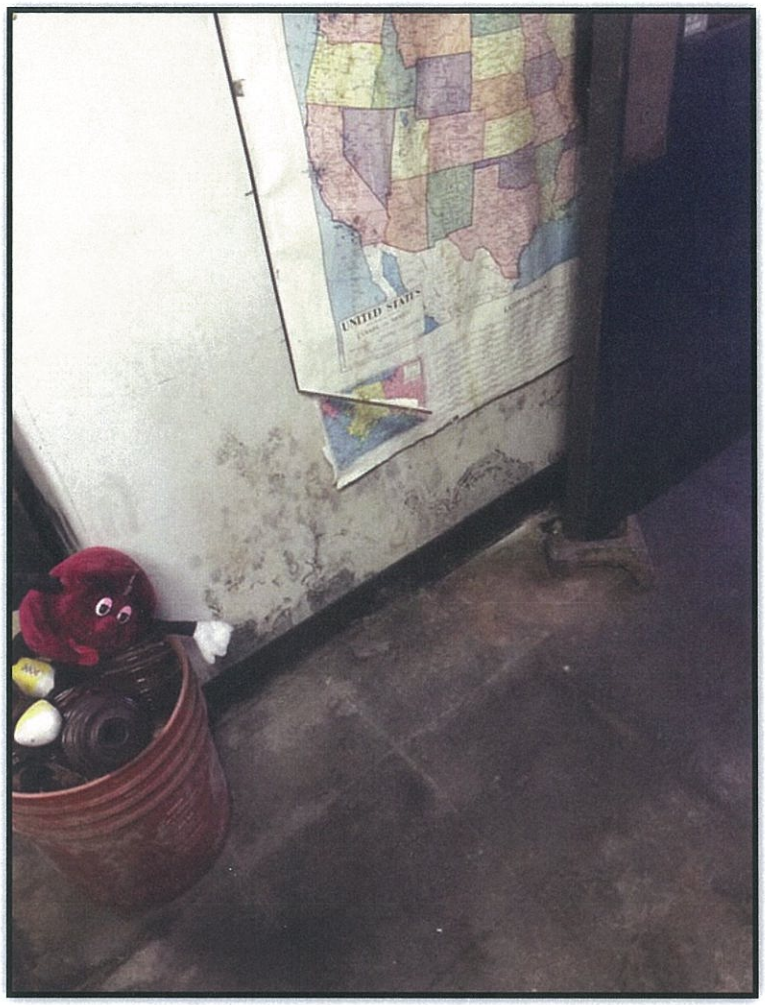
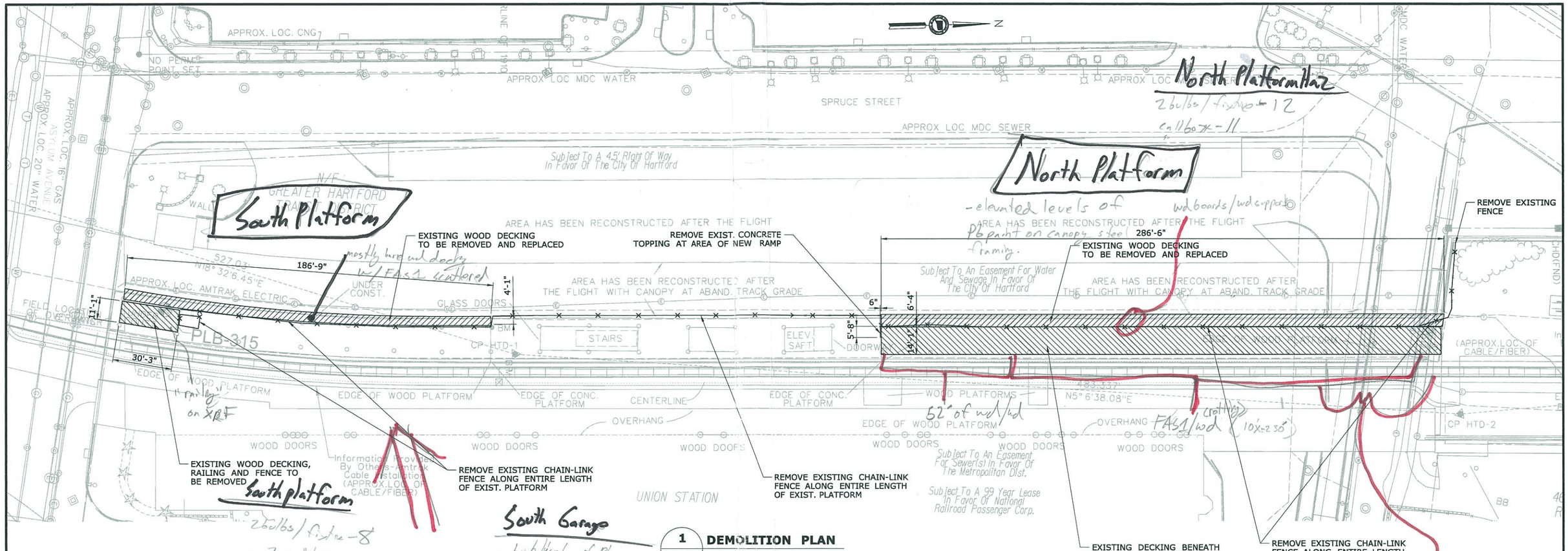


PHOTO 5.
Mold Growth
in C-S room

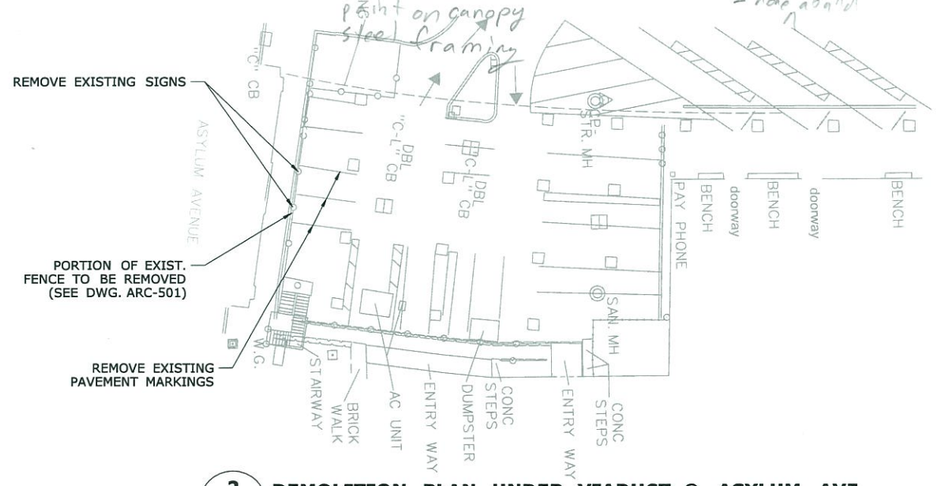
APPENDIX B

SITE SKETCHES



1 DMO-001 **DEMOLITION PLAN**
SCALE: 1"=25'-0"

South Garage
- high levels of Pb on all structural
- none abated



2 DMO-001 **DEMOLITION PLAN UNDER VIADUCT @ ASYLUM AVE**
SCALE: 1"=25'-0"

North Garage (below platform)
- black metal structural columns
- grey metal I-beams + cross braces

NOTES:
1. ALL DIMENSIONS ARE APPROXIMATE.

North Garage Haz
2 bulb/ballast - 12
Sanyo OC inverter

- Far north end over bus entrance & Road has Pb on upper structure -
- west (long way) I-beam just outside garage area
- structural above building is not original (lead) paint

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 5/16/2014

DESIGNER/DRAFTER: R BRAREN
CHECKED BY: A SARDILLI
SCALE IN FEET 0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_CGR_CPS_0170-2296_063_ _05_CSP_ _DEMO_001.dgn

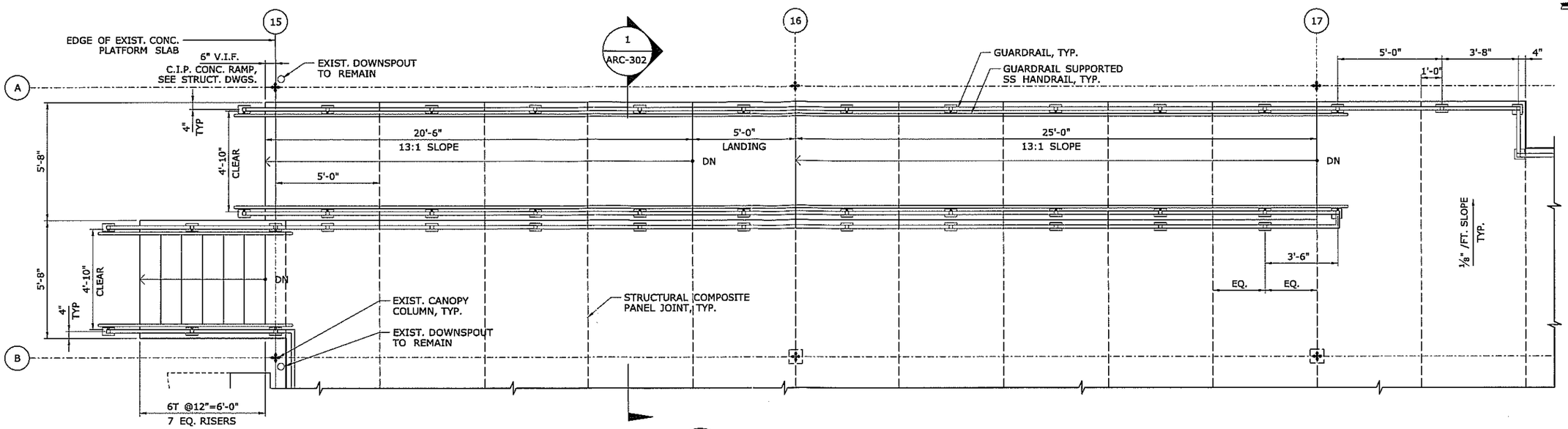
SIGNATURE/BLOCK: Baker — Michael Baker Jr., Inc. 500 Enterprise Drive, Suite 2B Rocky Hill, CT 06067
APPROVED BY:

PROJECT TITLE: NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR

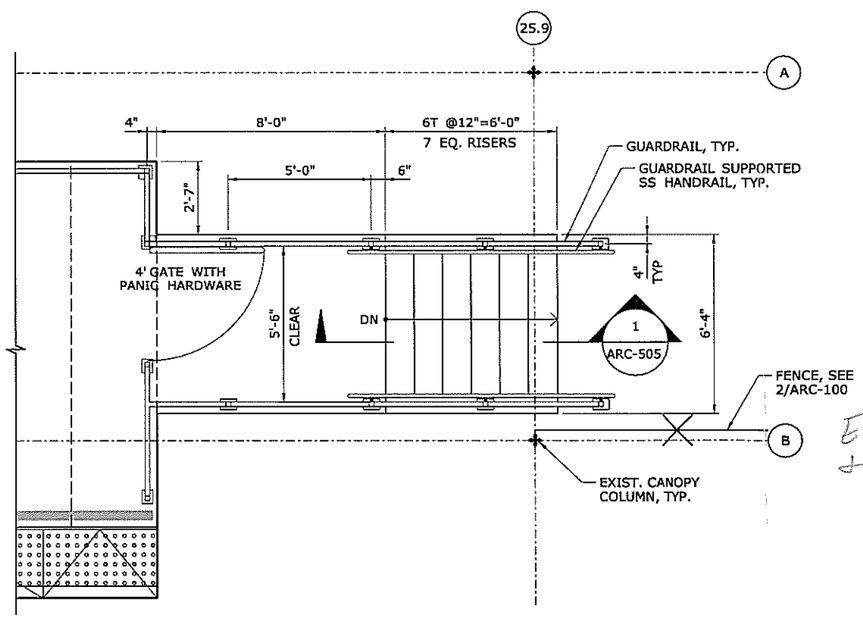
TOWN: HARTFORD

DRAWING TITLE: DEMOLITION PLAN

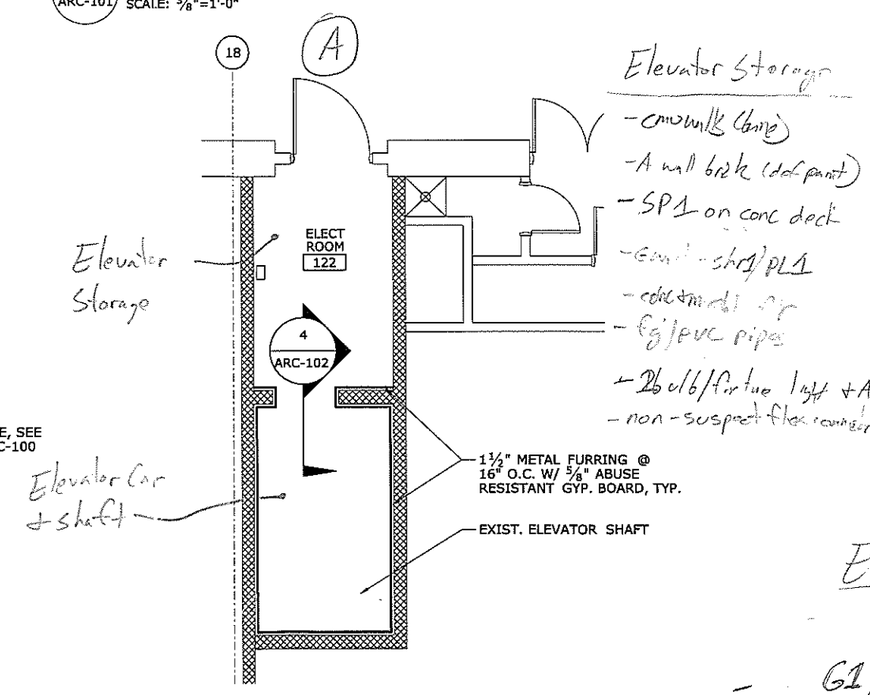
PROJECT NO. 170-3155
DRAWING NO. DMO-001
SHEET NO. 03.04



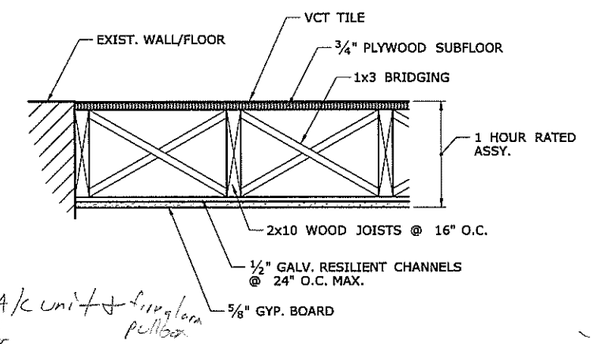
1 ARC-101 ENLARGED PLAN - STAIR 1 & RAMP 1
SCALE: 3/8"=1'-0"



2 ARC-101 ENLARGED PLAN - STAIR 2
SCALE: 3/8"=1'-0"



3 ARC-100 ENLARGED PLAN - ELECT. ROOM
SCALE: 1/4'=1'-0"



4 ARC-102 TYP. SECTION AT FLOOR & CEILING
SCALE: 1/4'=1'-0"

Elevator Car
- particleboard wd flr
- G1/particleboard walls & ceilings
- elevator shaft - some plaster + GM1 in shaft

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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Plotted Date: 5/15/2014

DESIGNER/DRAFTER: R WRIGHT
CHECKED BY: R BRAREN
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_CGR_CPS_0170-2296_063_..OS_ARC_..102.dgn

SIGNATURE/BLOCK: Baker — Michael Baker Jr., Inc, 500 Enterprise Drive, Suite 2B, Rocky Hill, CT 06067
APPROVED BY:

PROJECT TITLE: NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR

TOWN: HARTFORD

DRAWING TITLE: ENLARGED PLANS

PROJECT NO. 170-3155
DRAWING NO. ARC-102
SHEET NO. 11.06

Union Station

TRC Results you can rely on

SHEET NO. _____ OF _____

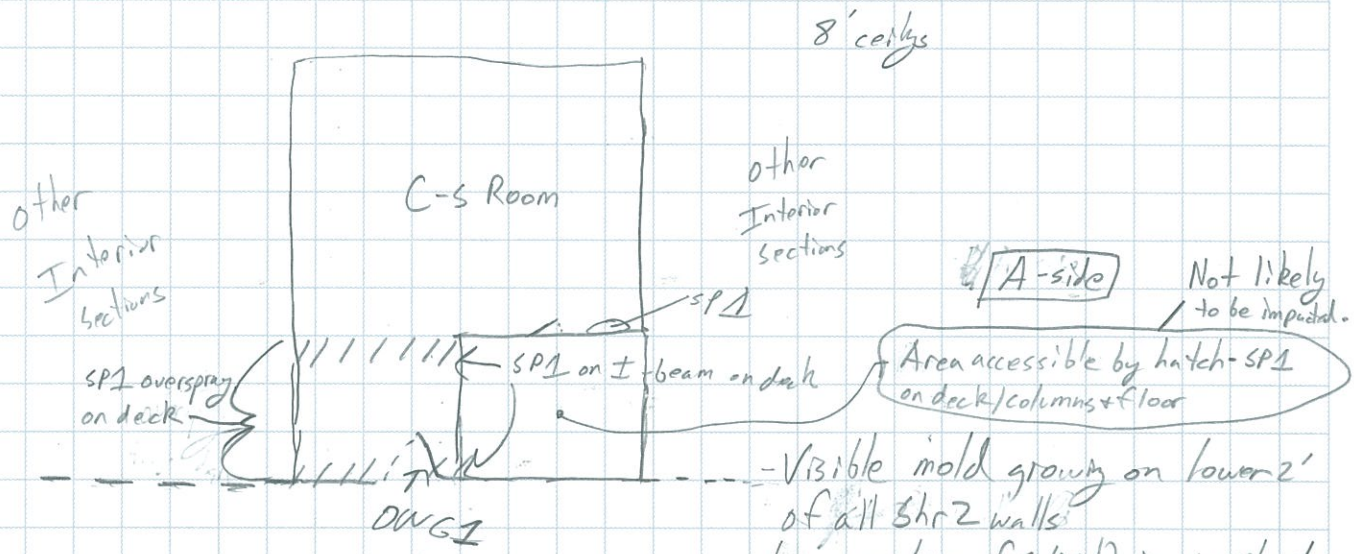
PROJECT NO. _____

DATE 6/5/14

BY GK

CHK'D _____

SUBJECT C-S Room



- Visible mold growing on lower 2' of all shr2 walls
- large section of C wall is severely damaged by water/mold

North Garage (exterior)

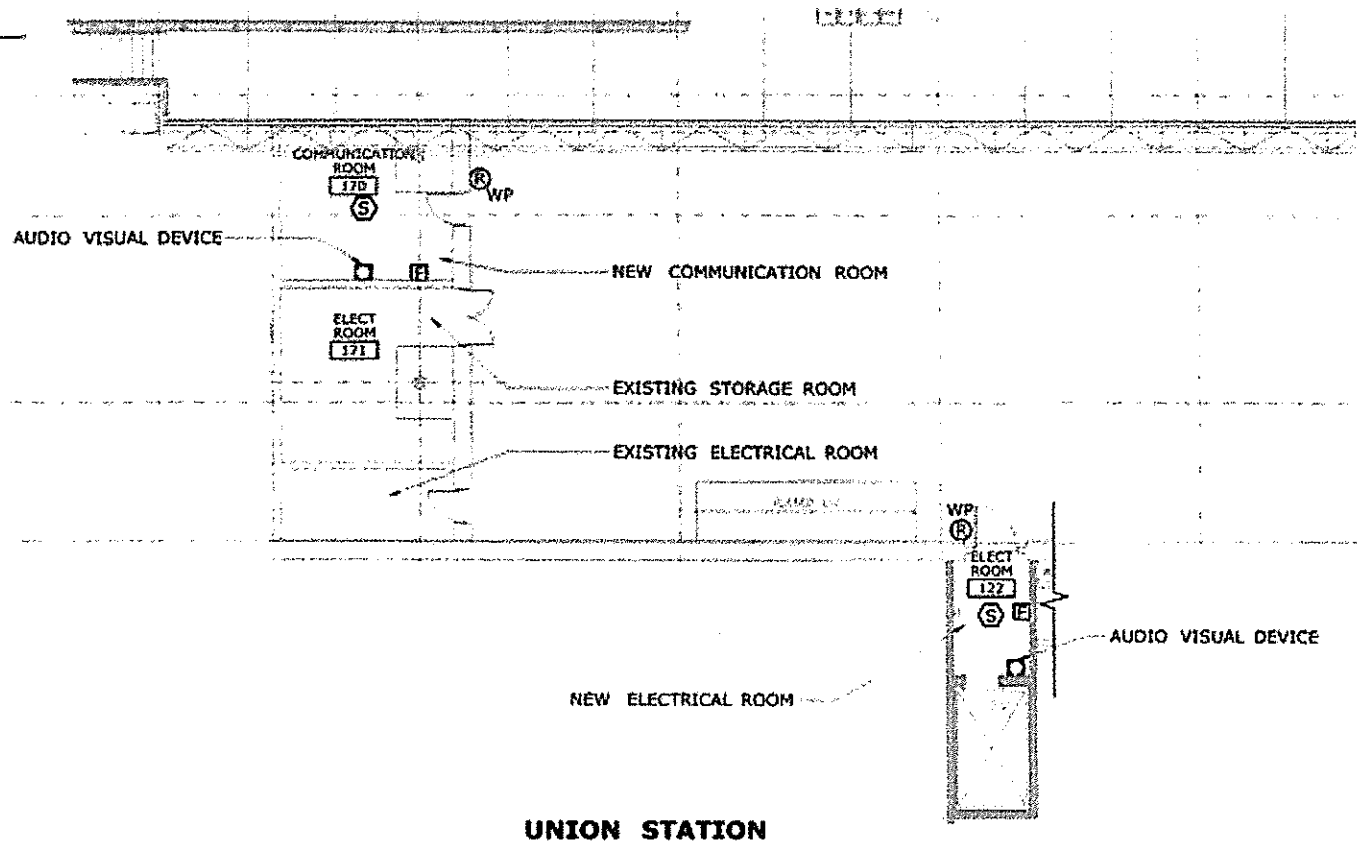
- Ext B-side has WP1 walls w/C1 along base (6" high in seam)
- non-suspect black silicone in ext. metal framing joints on WP1 wall
- bare concrete panel ceiling
- shr2 walls
- FT1 / conc flr
- CB1 lwr walls
- fg / PVC pipes

shr2
FT1
CB1
DWG
C1
WP1

Haz waste (only stuff on walls)

- hardy/A/c unit
- 2 bulbs/fixture - ////
- fire alarm pull box
- 2 loose fluorescent bulbs

A



UNION STATION
(GRADE LEVEL)

Eric S. Bergeron
Project Engineer
Facilities Design
Connecticut Department of Transportation
Business Phone: (860)594-3152
mailto:Eric.Bergeron@CT.gov

From: Young, Denise A
Sent: Thursday, June 19, 2014 1:51 PM
To: Bergeron, Eric S
Subject: FW: 170-3155 - Hartford Station 100 Percent Design Review Request

Please see below.

Denise

Denise Young
Department of Transportation
Environmental Compliance

APPENDIX C

TRC INSPECTORS LICENSES/CERTIFICATIONS

0002296 FP **PRSRT T8 0 1164 06095
GREGORY A. KACZYNSKI
TRC ENVIRONMENTAL CORP.
21 GRIFFIN ROAD NORTH
WINDSOR CT 06095

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health **(860) 509-7603**
P.O. Box 340308
M.S.#12MQA **http://www.dph.state.ct.us**
Hartford, CT 06134-0308

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
GREGORY A. KACZYNSKI

VALIDATION NO. 03-625345
LICENSE NO. 000550
CURRENT THROUGH 07/31/14

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE
COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT-INSPECTOR

GREGORY A. KACZYNSKI

LICENSE NO.
000550
CURRENT THROUGH
07/31/14
VALIDATION NO.
03-625345

SIGNATURE
COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Greg Kaczynski

has successfully completed the

Asbestos Site Inspector Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

conducted by

Cardno ATC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Marc Santos

Principal Instructor

July 18, 2013

Date of Course

July 18, 2014

Expiration Date

Gregory J. Morsch

Regional Manager

SIAR-4621

Certificate Number

July 18, 2013

Examination Date

0002294 FP **PRSRT T8 0 1164 06095
GREGORY A. KACZYNSKI
TRC ENVIRONMENTAL CORP.
21 GRIFFIN ROAD NORTH
WINDSOR CT 06095

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health **(860) 509-7603**
P.O. Box 340308
M.S.#12MQA **http://www.dph.state.ct.us**
Hartford, CT 06134-0308

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

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4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
GREGORY A. KACZYNSKI

VALIDATION NO.	CERTIFICATION NO.	CURRENT THROUGH
03-625344	002158	07/31/14

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A

LEAD INSPECTOR RISK ASSESSOR

GREGORY A. KACZYNSKI

CERTIFICATION NO.
002158
CURRENT THROUGH
07/31/14
VALIDATION NO.
03-625344

SIGNATURE COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Gregory Kaczynski
21 Lake Drive, Harwinton, CT 06791
000-00-9922

has successfully completed the

INSPECTOR RISK ASSESSOR REFRESHER

Training Course
conducted by
Cardno ATC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Principal Instructor

December 6, 2013
Date of Course

December 6, 2013
Exam Date

CTLIRAR-363
Certificate Number

December 6, 2014
Expiration Date

Training Manager

Training received complies with the requirements of the Connecticut Department of Public Health pursuant to Section 2 477 of the Connecticut General Statutes.

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A

LEAD INSPECTOR RISK ASSESSOR

CHRISTOPHER A. GAINES

CERTIFICATION NO.
002219
CURRENT THROUGH
06/30/14
VALIDATION NO.
03-682752

SIGNATURE

COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Chris Gaines
38 Remington Road, Windsor, CT 06095
000-00-9150

has successfully completed the

INSPECTOR RISK ASSESSOR REFRESHER

Training Course
conducted by
Cardno ATC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Principal Instructor

October 2, 2013
Date of Course

October 2, 2013
Exam Date

CTLIRAR-356
Certificate Number

October 2, 2014
Expiration Date

Gregory J. Morsch
Training Manager

Training received complies with the requirements of the Connecticut Department of Public Health pursuant to Section 20-477 of the Connecticut General Statutes.

APPENDIX D

LABORATORY ACCREDITATIONS

State of Connecticut, Department of Public Health

Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

TRC ENVIRONMENTAL CORPORATION

LOCATED AT 21 Griffin Road North IN Windsor, CT 06095

AND REGISTERED IN THE NAME OF Erik Plimpton

THIS CERTIFICATE IS ISSUED IN THE NAME OF Kathleen Williamson WHO HAS BEEN DESIGNATED BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

ASBESTOS
AIR-FIBER COUNTING - PCM
BULK IDENTIFICATION - PLM

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES December 31, 2015 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH

DATED AT HARTFORD, CONNECTICUT THIS 19th DAY OF December, 2013

Registration No.

PH- 0426

SUZANNE BLANCAFLOR, MS
CHIEF, ENVIRONMENTAL HEALTH SECTION

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101424-0

TRC Environmental Corporation

Windsor, CT

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2013-07-01 through 2014-06-30

Effective dates

DEPARTMENT OF COMMERCE ★ UNITED STATES OF AMERICA ★

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)

National Voluntary
Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

TRC Environmental Corporation
21 Griffin Road North
Windsor, CT 06095
Ms. Kathleen Williamson
Phone: 860-298-6392 Fax: 860-298-6214
E-Mail: kwilliamson@trcsolutions.com
URL: http://www.trcsolutions.com

BULK ASBESTOS FIBER ANALYSIS (PLM) **NVLAP LAB CODE 101424-0**

NVLAP Code	*Designation / Description*
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

2013-07-01 through 2014-06-30

Effective dates

For the National Institute of Standards and Technology

NVLAP-01S (REV. 2005-05-19)

State of Connecticut, Department of Public Health

Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

PROSCIENCE ANALYTICAL SERVICES, INC.

LOCATED AT 22 Cummings Park IN Woburn, MA 01801

AND REGISTERED IN THE NAME OF Harvey Yee

THIS CERTIFICATE IS ISSUED IN THE NAME OF Aimee Cormier WHO HAS BEEN DESIGNATED BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

SOLID WASTE/SOIL
Examination for:
Trace Metals

ASBESTOS
Bulk Identification (PLM)
Air–Fiber Counting (PCM + TEM)

ENVIRONMENTAL HEALTH & HOUSING
Lead In Paint
Lead (Paint) in Soil
Lead in Dust Wipes

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES December 31, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH

DATED AT HARTFORD, CONNECTICUT, THIS 4th DAY OF December 2012

Registration #
PH-0209

SUZANNE BLANCAFLOR, MS
CHIEF, ENVIRONMENTAL HEALTH SECTION

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200090-0

ProScience Analytical Services, Inc.

Woburn, MA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2014-01-01 through 2014-12-31

Effective dates

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)

National Voluntary
Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ProScience Analytical Services, Inc.
22 Cummings Park
Woburn, MA 01801-2122
Ms. Aimee Cormier
Phone: 781-935-3212 Fax: 781-932-4857
E-Mail: aimee.cormier@proscience.net
URL: http://www.proscience.net

BULK ASBESTOS FIBER ANALYSIS (PLM) **NVLAP LAB CODE 200090-0**

NVLAP Code	*Designation / Description*
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

2014-01-01 through 2014-12-31
Effective dates

For the National Institute of Standards and Technology

NVLAP-01S (REV. 2005-05-19)

State of Connecticut, Department of Public Health

Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

COMPLETE ENVIRONMENTAL TESTING

LOCATED AT 80 LUPES DRIVE IN STRATFORD, CT 06615

AND REGISTERED IN THE NAME OF DAVID DITTA

THIS CERTIFICATE IS ISSUED IN THE NAME OF DAVID DITTA - DIRECTOR
TIMOTHY FUSCO – CO-DIRECTOR WHO HAS BEEN DESIGNATED

BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

DRINKING WATER, NON-POTABLE WATER/WASTEWATER
SOIL/ SOLID WASTE
BACTERIA
INORGANIC CHEMICALS
ORGANIC CHEMICALS
RADIOCHEMICALS

ENVIRONMENTAL HEALTH & HOUSING
LEAD IN PAINT
LEAD IN SOIL
LEAD IN DUST WIPES

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES September 30, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH

DATED AT HARTFORD, CONNECTICUT, THIS 2nd DAY OF October, 2012

QUI TRANSTULIT SUSTINET

Registration No.

PH-0116

SUZANNE BLANCAFLOR, MS
CHIEF, ENVIRONMENTAL HEALTH SECTION

APPENDIX E

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORMS

TRC

Edition: October 2009
Supersede Previous Edition

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 44066

PROJECT NUMBER	PROJECT NAME
183572.4946.0710	ConnDOT-Union Station Hartford, CT
SIGNATURE	INSPECTOR: Gregory Kaczynski

TURNAROUND TIME

PLM:		8hr		24hr	X	48hr	X	3day
TEM:		24hr	X	48hr		3day		5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE: COMP	TYPE: GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	6/4/14	1010		X	North Platform	X				X	FAS1-thick asphalt flooring tile
02	6/4/14	1030		X	South Platform	X					FAS1-thick asphalt flooring tile
03	6/4/14	0921		X	Elevator storage	X		X	X		PL1-plaster-white skimcoat/hard grey basecoat
04	6/4/14	0920		X	Elevator storage	X		X	X		PL1-plaster-white skimcoat/hard grey basecoat
05	6/4/14	0921		X	Elevator storage	X		X	X		PL1-plaster-white skimcoat/hard grey basecoat
06	6/4/14	0917		X	Elevator storage	X		X	X		SHR1-white joint compound/light grey sheetrock
07	6/4/14	0918		X	Elevator storage	X		X	X		SHR1-white joint compound/light grey sheetrock
08	6/4/14	0944		X	Elevator shaft	X			X		GM1-gypsum w/ wood chips material
09	6/4/14	0943		X	Elevator shaft	X			X		GM1-gypsum w/ wood chips material
10	6/4/14	0958		X	Elevator car	X				X	G1-thin tan glue behind wall/ceiling panel
11	6/4/14	0959		X	Elevator car	X					G1-thin tan glue behind wall/ceiling panel

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	6/5/14	6/5/14			
(Printed) Gregory Kaczynski	Time: 1343	(Printed) Kathleen Williamson 1600	(Printed)	Time:	(Printed)

Remarks:

Condition of Samples: _____
Acceptable: Yes ✓ No _____
Comments:

TRC

Edition: October 2009
Supersede Previous Edition

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 44060

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME							
183572.4946.0710	ConnDOT-Union Station Hartford, CT		PLM:		8hr		24hr		48hr		3day
			TEM:		24hr		48hr		3day		5day
SIGNATURE	INSPECTOR Gregory Kaczynski									

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
12	6/4/14	0914		X	Elevator storage	X			X		SP1-tan spray-on fireproofing insulation
13	6/4/14	0915		X	Elevator storage	X			X		SP1-tan spray-on fireproofing insulation
14	6/5/14	0934		X	C-S Room	X			X		SP1-tan spray-on fireproofing insulation
15	6/5/14	0933		X	C-S Room	X		X	X		SHR2-light grey sheetrock/white JC
16	6/5/14	0933		X	C-S Room	X		X	X		SHR2-light grey sheetrock/white JC
17	6/5/14	0925		X	C-S Room	X		X		X	FT1-12x12 grey floor tile/black mastic
18	6/5/14	0924		X	C-S Room	X		X			FT1-12x12 grey floor tile/black mastic
19	6/5/14	0930		X	C-S Room	X		X		X	CB1-4" black covebase/beige glue
20	6/5/14	0931		X	C-S Room	X		X			CB1-4" black covebase/beige glue
21	6/5/14	0920		X	C-S Room	X				X	DWG1-black putty door window glaze
22	6/5/14	0921		X	C-S Room	X					DWG1-black putty door window glaze

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	6/5/14	6/5/14			
(Printed) Gregory Kaczynski	Time: 1343	(Printed) Kathleen Williamson 1600	(Printed)	Time:	(Printed)

Remarks:

Condition of Samples: ✓
Acceptable: Yes ✓ No ____
Comments:

TRC

Edition: October 2009
Supersede Previous Edition

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 440060

PROJECT NUMBER	PROJECT NAME
183572.4946.0710	ConnDOT-Union Station Hartford, CT
SIGNATURE	INSPECTOR: Gregory Kaczynski

TURNAROUND TIME								
PLM:		8hr		24hr		48hr		3day
TEM:		24hr		48hr		3day		5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE: COMP	TYPE: GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
23	6/5/14	0855		X	Exterior of C-S Room	X			X		WP1-hard blue wall panel mateiral
24	6/5/14	0956		X	Exterior of C-S Room	X			X		WP1-hard blue wall panel mateiral
25	6/5/14	0841		X	Exterior of C-S Room	X				X	C1-dark grey tacky caulk
26	6/5/14	0840		X	Exterior of C-S Room	X					C1-dark grey tacky caulk

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	6/5/14	6/5/14			
(Printed) Gregory Kaczynski	Time: 1343	(Printed) Kathleen Williamson 1600	(Printed)	Time:	(Printed)

Remarks:

Condition of Samples:
Acceptable: Yes ✓ No ____
Comments:

Proscience Analytical Services, Inc.

22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857

TEM Bulk Chain of Custody Record

NT 14528

Date: 06/06/14

PO#: **C183572**

Client: TRC

Client Job#: 183572.4946.0710

Client Job Ref./Loc.: CT DOT – Union Station, Hartford, CT

Relinquished by: K. Williamson– KWilliamson@trcsolutions.com

Received by: Doreen Tounsend 6/9/14 @ 9:00

Report to: E. Plimpton- EPlimpton@trcsolutions.com & EBouley@trcsolutions.com

Samplers Name: G. Kaczynski

Analysis Type: Chatfield **EPA N.O.B** Qualitative

Turn Around Time: <12 Hour <24 Hour **<48 Hour** <3 Day 5 Day Other:

				For Lab Use Only	
Client ID #	**Lab ID#**	**Description**	**Location**	**Acceptable on Receipt**	**Comments**
01	44066	Asphalt Flooring	See COC		
10	44066	Glue			
17	44066	Tile & Mastic			
19	44066	Cove Base & Glue			
25	44066	Caulk			

For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments

APPENDIX F

PLM LABORATORY ANALYSIS DATA

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0044066
Project #: 183572.4946.0710
Date Received: 06/05/2014
Date Analyzed: 06/06/2014

Site: Union Station, Hartford, CT

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
01	Black	Yes	No	- -	60%	cellulose	Trace	Chrysotile
02	Black	Yes	No	- -	60%	cellulose	Trace	Chrysotile
03	White (skim coat)	No	Yes	1		- - -	ND<1%	None
03	Grey (basecoat)	No	Yes	2		- - -	ND<1%	None
04	White (skim coat)	No	Yes	1		- - -	ND<1%	None
04	Grey (basecoat)	No	Yes	2		- - -	ND<1%	None
05	White (skim coat)	No	Yes	1		- - -	ND<1%	None
05	Grey (basecoat)	No	Yes	2		- - -	ND<1%	None
06	■ White (joint compound)	No	Yes	1		- - -	Trace	Chrysotile
06	Light Grey (sheetrock)	No	Yes	2		- - -	ND<1%	None
07	■ White (joint compound)	No	Yes	1		- - -	Trace	Chrysotile
07	Light Grey (sheetrock)	No	Yes	2		- - -	ND<1%	None
08	Grey/Brown	Yes	No	- -	40%	cellulose	ND<1%	None
09	Grey/Brown	Yes	No	- -	40%	cellulose	ND<1%	None
10	Tan	Yes	No	- -	20%	cellulose	ND<1%	None
11	Tan	Yes	No	- -	20%	cellulose	ND<1%	None
12	Tan	Yes	No	- -	20%	cellulose	ND<1%	None
13	Tan	Yes	No	- -	20%	cellulose	ND<1%	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
14	Tan	Yes	No	- -	20%	cellulose	ND<1%	None
15	White (joint compound)	No	Yes	1		- - -	ND<1%	None
15	Light Grey (sheetrock)	No	Yes	2		- - -	ND<1%	None
16	White (joint compound)	No	Yes	1		- - -	ND<1%	None
16	Light Grey (sheetrock)	No	Yes	2		- - -	ND<1%	None
17	Black (mastic)	No	Yes	1	10%	cellulose	ND<1%	None
17	Grey (tile)	No	Yes	2	5%	cellulose	ND<1%	None
18	Black (mastic)	No	Yes	1	10%	cellulose	ND<1%	None
18	Grey (tile)	No	Yes	2	5%	cellulose	ND<1%	None
19	Beige (glue)	No	Yes	1		- - -	ND<1%	None
19	Black (cove base)	No	Yes	2		- - -	ND<1%	None
20	Beige (glue)	No	Yes	1		- - -	ND<1%	None
20	Black (cove base)	No	Yes	2		- - -	ND<1%	None
21	Black	Yes	No	- -		- - -	5%	Chrysotile
22	- -	- -	- -	- -		- -	NA/PS	- -
23	Blue	Yes	No	- -	10%	cellulose	ND<1%	None
24	Blue	Yes	No	- -	10%	cellulose	ND<1%	None
25	Dark Grey	Yes	No	- -		- - -	ND<1%	None
26	Dark Grey	Yes	No	- -		- - -	ND<1%	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type

■ Analyzed by 400 Point Count Method
Reporting limit- asbestos present at 0.25% for 400 Point Count Method
ND- No asbestos was detected by 400 Point Count Method
Trace concentrations of asbestos are concentrations that are less than or equal 1% including samples that contain zero asbestos points out of 400 nonempty points, but did contain asbestos positively identified by PLM.

Reporting limit- asbestos present at 1%
ND<1% - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2014. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2014. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins — Amanda Parkins, Approved Signatory

Date Issued 06/06/2014

APPENDIX G

TEM LABORATORY ANALYSIS DATA

ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801
781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail general@proscience.net

Laboratory Report

Client Project #: 183572.4946.0710
Client Reference: CT DOT - Union Station, Hartford, CT
PO #: C183572
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: **NT 14528**
Method: NOB
Date Received: 6/9/2014
Date Analyzed: 6/10/2014
Date of Report: 6/10/2014

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE						
NT110093	01	Asphalt Flooring		.6436	9.89	.00	.00	.00	.00	.00	18.36	54.69	17.06	9.89	Yes	No
NT110094	10	Glue		.0685	.00	.00	.00	.00	.00	.00	.88	94.16	4.96	ND	Yes	No
NT110095	17M	Mastic		.1219	.00	.00	.00	.00	.00	.00	5.41	76.54	18.05	ND	Yes	No
NT110096	17	Tile		.5474	.00	.00	.00	.00	.00	.00	1.82	16.19	81.99	ND	Yes	No
NT110097	19G	Glue		.2330	.00	.00	.00	.00	.00	.00	18.50	43.95	37.55	ND	Yes	No
NT110098	19	Cove Base		.5612	.00	.00	.00	.00	.00	.00	37.97	29.88	32.15	ND	Yes	No
NT110099	25	Caulk		.5042	.00	.00	.00	.00	.00	.00	9.28	53.71	37.01	ND	Yes	No

Comments:

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

Aimee Cormier, Analyst

APPENDIX H

LEAD PAINT XRF MEASUREMENT TABLE AND AAS PAINT CHP LABORATORY ANALYSIS DATA

Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555 X Ray Fluorescence (XRF) Spectrum Analyzer
Site:	Amtrak - Union Station, Hartford, Connecticut
Project # :	183572-4946-0710
Date(s):	6/4/2014 & 6/5/14
Inspector:	Gregory Kaczynski (Lead Inspector #002158), Christopher Gaines (Lead Inspector #002219)

Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
1	**Shutter calibration**							0.8	0.0		393.51	6/4/2014 6:13
2	**0.3 calibration**							0.3	0.1	1	2.46	6/4/2014 6:21
3	**0.7 calibration**							0.7	0.2	1.03	2.15	6/4/2014 6:21
4	**1.6 calibration**							1.4	0.2	1.09	3.41	6/4/2014 6:21
5	North garage		Column		Metal	Black		0.0	0.0	1	1.98	6/4/2014 6:26
6	North garage		Column		Metal	Black		0.0	0.0	1	4.14	6/4/2014 6:26
7	North garage		Column		Metal	Black		0.0	0.0	1	1.19	6/4/2014 6:27
8	North garage		Column		Metal	Black		0.0	0.1	1	0.4	6/4/2014 6:28
9	North garage		Column		Metal	Black		**0.1**	0.0	1.06	5.01	6/4/2014 6:28
10	North garage		Column		Metal	Black		0.0	0.0	1	1.35	6/4/2014 6:29
11	North garage		Column		Metal	Black		0.0	0.0	1	1.19	6/4/2014 6:30
12	North garage		beam		Metal	Grey		0.0	0.0	1	2.54	6/4/2014 6:34
13	North garage		beam		Metal	Grey		0.0	0.1	1	0.71	6/4/2014 6:34
14	North garage		beam		Metal	Grey		0.0	0.0	1	1.74	6/4/2014 6:35
15	North garage		beam		Metal	Grey		0.0	0.0	1	2.15	6/4/2014 6:36
16	North garage		beam cross		Metal	Grey		0.0	0.1	1	0.4	6/4/2014 6:39
17	North garage		beam cross		Metal	Grey		0.0	0.1	1.73	0.48	6/4/2014 6:39
18	North garage		beam cross		Metal	Grey		0.0	0.0	1	1.27	6/4/2014 6:39
19	North garage - north end		beam cross		Metal	Grey		0.0	0.0	1	1.19	6/4/2014 6:57
20	North garage - north end		beam		Metal	Grey		0.0	0.0	1	2.23	6/4/2014 6:58
21	North garage - north end		beam		Metal	Grey		0.0	0.0	1	2.13	6/4/2014 6:58
22	North garage - north end		beam		Metal	Grey		0.0	0.1	1	1.19	6/4/2014 6:59
23	North garage - north end		beam		Metal	Grey		0.0	0.1	1	0.87	6/4/2014 6:59
24	North garage - north end		beam		Metal	Grey		**0.1**	0.1	1.12	2.79	6/4/2014 6:59
25	North garage - north end		beam triangle		Metal	Grey		**1.1**	0.3	1.59	2.94	6/4/2014 7:06
26	North garage - north end		beam triangle		Metal	Grey		**1.5**	0.4	1.75	2.54	6/4/2014 7:07
27	North garage - north end		column over roadway		Metal	Black		**0.3**	0.2	1.87	1.67	6/4/2014 7:13
28	North garage - north end		column over roadway		Metal	Grey		0.0	0.0	1	1.27	6/4/2014 7:13
29	North garage - north end		column over roadway		Metal	Grey		0.0	0.0	1	1.35	6/4/2014 7:13
30	North garage - north end		column over roadway		Metal	Grey		**1.0**	0.1	1.23	6.45	6/4/2014 7:14

Lead paint includes paint found to contain **any detectable** amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

Side A = Street side; Sides B,C,D follow clockwise

Lead Based Paint Measurement Summary Table

Device(s):	**Niton XLP301-A (Serial #25555 X Ray Fluorescence (XRF) Spectrum Analyzer**
Site:	**Amtrak - Union Station, Hartford, Connecticut**
Project # :	**183572-4946-0710**
Date(s):	**6/4/2014 & 6/5/14**
Inspector:	**Gregory Kaczynski (Lead Inspector #002158), Christopher Gaines (Lead Inspector #002219)**

Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
31	North garage - north end		column over roadway		Metal	Grey		0.0	0.0	1	1.03	6/4/2014 7:15
32	North garage - north end		beam		Metal	old gray paint		**16.6**	6.1	2.16	1.19	6/4/2014 7:19
33	North garage - north end		concrete base to column		Concrete	Yellow		0.0	0.0	1.52	5.01	6/4/2014 7:22
34	North garage - north end		concrete base to column		Concrete	Yellow		**0.1**	0.0	1.49	3.89	6/4/2014 7:22
35	South garage		i-beam		Metal	Grey		**29.1**	14.4	2.15	0.8	6/4/2014 7:39
36	South garage		i-beam		Metal	Grey		**29.3**	14.7	2.1	0.8	6/4/2014 7:40
37	South garage		Column		Metal	Black		**28.1**	7.1	2.75	1.43	6/4/2014 7:43
38	South garage		Column		Metal	Black		**3.8**	1.6	1.86	1.03	6/4/2014 7:43
39	South garage		Column support		Concrete	Yellow		**0.7**	0.4	1.76	1.04	6/4/2014 7:49
40	South garage		Column support		Concrete	Yellow		**0.6**	0.1	1.47	6.73	6/4/2014 7:50
41	South garage		Column support		Concrete	Yellow		**1.5**	0.4	1.61	2.39	6/4/2014 7:51
42	North garage - elevator storage	A	Door		Metal	Grey		0.0	0.2	6.45	1.11	6/4/2014 8:18
43	North garage - elevator storage	A	Door		Metal	Grey		0.0	0.0	1	1.75	6/4/2014 8:18
44	North garage - elevator storage	A	Door	Casing	Metal	Grey		0.0	0.0	1	1.27	6/4/2014 8:19
45	North garage - elevator storage	A	Floor	--	Metal	Grey		**0.1**	0.1	1.68	2.22	6/4/2014 8:20
46	North garage - elevator storage	A	Wall	--	Brick	White	Defective	**0.2**	0.1	1.66	4.28	6/4/2014 8:22
47	North garage - elevator storage	A	Wall	--	Brick	White	Defective	**8.3**	3.6	3.25	1.51	6/4/2014 8:24
48	North garage - elevator storage	C	Wall	--	Sheetrock	Tan/Beige	Defective	0.0	0.0	1.17	1.66	6/4/2014 8:34
49	North garage - elevator storage	C	Wall	--	Sheetrock	Tan/Beige	Defective	0.0	0.0	2.07	1.75	6/4/2014 8:34
50	North garage - elevator storage	C	Wall	--	Plaster	Green	Defective	**0.1**	0.0	1.52	7.46	6/4/2014 8:36
51	South garage	C	Wall	--	Plaster	Green	Defective	**0.6**	0.4	1.1	11.26	6/4/2014 8:38
52	**Shutter calibration**							0.8	0.0		391.55	6/4/2014 9:28
53	**0.0 calibration**							0.1	0.1	2.85	2.14	6/4/2014 9:31
54	***VOID***											
55	**1.6 calibration**							1.4	0.1	1.09	4.28	6/4/2014 9:32
56	**0.7 calibration**							0.7	0.1	1.05	3.26	6/4/2014 9:33
57	Platform		Column		Metal	Black	Defective	**10.3**	3.4	2.53	1.98	6/4/2014 9:34
58	Platform		Column		Metal	Black	Defective	**3.0**	0.9	2.32	1.75	6/4/2014 9:35
59	Platform		Column		Metal	Black	Defective	**11.8**	3.8	2.29	2.06	6/4/2014 9:36
60	Platform		Column		Metal	Black	Defective	**10.5**	4.8	2.3	1.19	6/4/2014 9:38

Lead paint includes paint found to contain **any detectable** amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

Side A = Street side; Sides B,C,D follow clockwise

Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555 X Ray Fluorescence (XRF) Spectrum Analyzer
Site:	Amtrak - Union Station, Hartford, Connecticut
Project # :	183572-4946-0710
Date(s):	6/4/2014 & 6/5/14
Inspector:	Gregory Kaczynski (Lead Inspector #002158), Christopher Gaines (Lead Inspector #002219)

Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
61	South platform		railing		Metal	Black	Defective	0.0	0.0	1	2.22	6/4/2014 9:41
62	**0.0 calibration**							0.0	0.0	1	1.03	6/4/2014 9:50
63	**1.6 calibration**							1.4	0.1	1.11	4.67	6/4/2014 9:51
64	**0.7 calibration**							0.7	0.1	1.12	3.17	6/4/2014 9:52
65	**Shutter calibration**							0.9	0.0		389.65	6/5/2014 7:48
66	**0.3 calibration**							0.3	0.1	1	2.29	6/5/2014 8:05
67	**1.6 calibration**							1.4	0.1	1.08	4.35	6/5/2014 8:06
68	**0.7 calibration**							0.6	0.1	1.01	3.57	6/5/2014 8:06
69	C-S Room	A	Wall		Sheetrock	White	Defective	0.0	0.0	1	1.9	6/5/2014 8:29
70	C-S Room	B	Wall		Sheetrock	White	Defective	0.0	0.0	1	1.66	6/5/2014 8:29
71	C-S Room	B	Door	Casing	Metal	Grey	Intact	0.0	0.1	2.6	2.29	6/5/2014 8:31
72	C-S Room	B	Door	--	Metal	Blue	Intact	0.0	0.0	1	1.58	6/5/2014 8:31
73	C-S Room	--	Ceiling	--	Concrete	White	Intact	0.0	0.0	1	2.14	6/5/2014 8:33
74	**0.7 calibration**	--	--	--	--			0.7	0.2	1.03	2.22	6/5/2014 9:09
75	**0.3 calibration**	--	--	--	--			0.3	0.1	1.09	3	6/5/2014 9:10
76	**1.6 calibration**	--	--	--	--			1.5	0.3	1.13	2.45	6/5/2014 9:10

Lead paint includes paint found to contain **any detectable** amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

Side A = Street side; Sides B,C,D follow clockwise

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Mr. Greg Kaczynski
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report
CET# 4060178

Report Date: June 10, 2014
Project: CTDOT, Amtrack, Union Station, Hartford
Project Number: 183572.4972.0710

Connecticut Laboratory Certificate: PH 0116
Massachussetts laboratory Certificate.: M-CT903
Rhode Island Certification: 199

New York Certification: 11982
Florida Laboratory Certification: E871064

CET #:4060178
Project: CTDOT, Amtrack, Union Station, Hartford
Project Number: 183572.4972.0710

SAMPLE SUMMARY

The sample(s) were received at 26.2°C.
This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01	4060178-01	Paint Chip	6/04/2014 10:55	06/06/2014
02	4060178-02	Paint Chip	6/04/2014 11:00	06/06/2014

Analyte: Total Lead [EPA 6010C] **Analyst: SS**

Prep Method: EPA 3050B **Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4060178-01	01	ND	0.10	%	1	B4F1009	06/10/2014	06/10/2014 15:27	
4060178-02	02	ND	0.10	%	1	B4F1009	06/10/2014	06/10/2014 15:41	

Questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

David Ditta
Laboratory Director

Report Comments:

ND is None Detected at the specified detection limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.
Sample Result Flags:
E- The result is estimated, above the calibration range.
H- The surrogate recovery is above the control limits.
L- The surrogate recovery is below the control limits.
B- The compound was detected in the laboratory blank.
P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
D- The RPD between the sample and the sample duplicate is high. Sample Homogenity may be a problem.
+- The Surrogate was diluted out.
All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.
Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

4060178

Edition: September 2007
Supersede Previous Edition

TRC
21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
183572.4946.0710	ConnDOT-Amtrak-Union Station Hartford, CT		AAS: 24hr [ ] 48hr [X] 3day [ ] 5day TCLP: 24hr [ ] 48hr [X] 3day [ ] 5day

INSPECTOR: (SIGNATURE) (PRINTED) Gregory Kaczynski

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	Total Pb AAS	TCLP for Pb				NOTES
01	6/4/14	1055		X	North Garage	X					Black/Gray paint on metal column
02	↓	1100		X	↓ ↓	X					Gray paint on metal I-beam
03	6/5/14	1045		X	↓ ↓		X				Gray/black paint on structural steel (lower levels)
04	↓	1050		X	↓ ↓ + North Platform		X				" " " " " " (elevated levels)

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	6/6/14			6/6/14	R Black Jr
(Printed) Gregory Kaczynski	Time: 1250	(Printed) Robert Pergamon	(Printed) Robert Pergamon	Time:	(Printed) R. Black Jr

Remarks: Do not analyze sample #03 unless sample #01 or 02 are positive for lead

TCLP N 26.20

Page 1 of 1

APPENDIX I

COMPOSITE BUILDING MATERIAL WASTE CHARACTERIZATION DATA

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Mr. Greg Kaczynski
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report
CET# 4060179

Report Date: June 10, 2014
Project: CTDOT, Amtrack, Union Station, Hartford
Project Number: 183572.4972.0710

Connecticut Laboratory Certificate: PH 0116
Massachussetts laboratory Certificate.: M-CT903
Rhode Island Certification: 199

New York Certification: 11982
Florida Laboratory Certification: E871064

SAMPLE SUMMARY

The sample(s) were received at 26.2°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
04	4060179-01	Paint Chip	6/05/2014 10:50	06/06/2014

Analyte: TCLP Lead [EPA 6020A]

Analyst: SS

Matrix: Extract

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4060179-01	04	75	0.013	mg/L	1	B4F0706	06/07/2014	06/09/2014 20:01	

CET #:4060179
Project: CTDOT, Amtrack, Union Station, Hartford
Project Number: 183572.4972.0710

Questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

David Ditta
Laboratory Director

Report Comments:

ND is None Detected at the specified detection limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.
Sample Result Flags:
E- The result is estimated, above the calibration range.
H- The surrogate recovery is above the control limits.
L- The surrogate recovery is below the control limits.
B- The compound was detected in the laboratory blank.
P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
D- The RPD between the sample and the sample duplicate is high. Sample Homogenity may be a problem.
+- The Surrogate was diluted out.
All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.
Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

4060179

Edition: September 2007
Supersede Previous Edition

TRC
21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

CHAIN OF CUSTODY

LAB ID #.

TURNAROUND TIME								
AAS		24hr	X	48hr		3day		5day
TCLP		24hr		48hr	X	3day		5day

PROJECT NUMBER: 183572.4946.0710

PROJECT NAME: ConnDOT - Amtrak - Union Station Hartford, CT

INSPECTOR: (SIGNATURE)

(PRINTED): Gregory Kaczynski

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	Total Pb AAS	TCLP for Pb				NOTES
01	6/4/14	1055		X	North Garage	X					Black/Gray paint on metal column
02	↓	1100		X	↓ ↓	X					Gray paint on metal I-beam
03	6/5/14	1045		X	↓ ↓		X				Gray/black paint on structural steel (lower levels)
04	↓	1050		X	↓ ↓ + North Platform		X				" " " " " " (elevated levels)

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	6/6/14			6/6/14	
(Printed) Gregory Kaczynski	Time: 1250	(Printed) Robert Pergamon	(Printed) Robert Pergamon	Time:	(Printed)

Remarks: Do not analyze sample #03 unless sample #01 or 02 are positive for lead.

TKMP N 26.20

Page 1 of 1

APPENDIX J

ITEMIZED COST ESTIMATE FOR ASBESTOS ABATEMENT

TRC
Asbestos Abatement Cost Estimate
CTDAS Contract # 10PSX0238
(Effective: February 1, 2011 – January 31, 2016)

Site: Amtrak - Union Station Platform, Hartford, Connecticut
TRC Project #: 183572.4946.0710 **DOT Project #: 170-3161**

ITEM DESCRIPTION	QTY	UNIT	COST	MULT	TOTAL
ASBESTOS REMOVAL					
HEPA VACUUMING		SF	$ 0.24	1	$ -
PIPING REMOVAL <6" INCL FITTINGS		LF	$ 1.45	1	$ -
PIPING REMOVAL 6"-12" INCL FITTINGS		LF	$ 2.17	1	$ -
PIPING REMOVAL >12" INCL FITTINGS		LF	$ 2.89	1	$ -
GLOVE BAG FIRST 25		EA	$ 20.23	1	$ -
GLOVEBAG 25-50		EA	$ 17.34	1	$ -
GLOVEBAG OVER 50		EA	$ 14.45	1	$ -
REMOVE EQUIPMENT INSULATION		SF	$ 2.89	1	$ -
REMOVE HVAC DUCT INSULATION		SF	$ 2.89	1	$ -
REMOVE HVAC DUCT FLEX CONN		SF	$ 2.17	1	$ -
FLOOR TILE AND MASTIC		SF	$ 0.87	1	$ -
FLOOR TILE (NO MASTIC)		SF	$ 0.43	1	$ -
SPRAY ON FIREPROOFING		SF	$ 1.73	1	$ -
PLASTER LATHE AND BLACK IRON		SF	$ 2.17	1	$ -
ACCOUSTIC OR METAL PAN CEILING INCL GRID		SF	$ 1.45	1	$ -
ACCOUSTIC PANELS CLEAN GRID FOR REUSE		SF	$ 1.16	1	$ -
ACCOUSTIC PLASTER FINISH MTL (SCRAPE)		SF	$ 1.88	1	$ -
PATCH/SEAL DAMAGED INSULATION		SF	$ 0.87	1	$ -
CONTAMINATED SOIL (2" DEPTH)		SF	$ 1.16	1	$ -
TRANSITE MATERIAL		SF	$ 0.72	1	$ -
ROOFING OR FLASHING (EXT ASPHALT TILES)	3000	SF	$ 1.01	1	$ 3,030.00
UNDERGROUND PIPE OR INSULATION (HAND EXCAVATION)		LF	$ 8.67	1	$ -
CARPET OVER TILE		SF	$ 0.72	1	$ -
WALL BASE AND MASTIC		LF	$ 0.72	1	$ -
REMOVAL OF DRYWALL PARTITIONS INCL FRAMING		SF	$ 0.58	1	$ -
REMOVAL OF CMU WALL		SF	$ 1.45	1	$ -
PREP WORK AREA	3000	SF	$ 0.97	1	$ 2,910.00
SOLID BARRIER OR ACCESS TUNNELS 2X4 AND PLYWOOD		SF/SA	$ 0.72	1	$ -
STANDBY ABATEMENT PERSONNEL	8	HR	$ 26.00	1	$ 208.00
SELECTIVE DEMOLITION TO ACCESS ACM		SF	$ 0.87	1	$ -
REMOVAL OF FLOOR LEVELING MATERIAL		SF	$ 0.58	1	$ -
MISCELLANEOUS ITEMS					
MOBILIZATION (1 PER WORK AREA)	1	EA	$ 250.00	1	$ 250.00
WORKER DECON (1 PER WORK AREA)	1	EA	$ 250.00	1	$ 250.00
TEMP ELECTRICAL CONNECTION (LICENSED ELECTRICIAN)		EA	$ 250.00	1.1	$ -
TEMP GENERATOR		DY	$ 20.00	1.1	$ -
ACM DISPOSAL (INCLUDES TRANSPORTATION)	10	CY	$ 55.00	1.1	$ 605.00
HAZARDOUS WASTE DISPOSAL (INCLUDES TRANS)		CY	$ 250.00	1.1	$ -
CONSTRUCTION DEBRIS DISPOSAL (INCLUDES TRANS)		CY	$ 25.00	1.1	$ -
FIXED SCAFFOLDING		SF	$ 10.00	1.1	$ -
EXCAVATION TO EXPOSE UNDERGROUND PIPE		CY	$ 15.00	1.1	$ -
PROJECT NOTIFICATION (1% OF ABATEMENT COST)	0	EA	$ 132.92	1.1	$ -
PROJECT BOND (3% OF TOTAL CONTRACT)		EA		1.1	$ -
ESCALATION FACTORS					
WORK SURFACES 10-20 FEET HIGH				15%	$ -
WORK SURFACES OVER 20 FEET HIGH				30%	$ -
NON REGULAR WORK HOURS 6:00PM-6:00AM AND WEEKEND				30%	$ -
EMERGENCY RESPONSE (<24 hr)				30%	$ -
CONFINED SPACE WORK				15%	$ -
REMOVAL OF MULTIPLE LAYERS OF TILE (EACH ADDIT LAYER)				50%	$ -
REMOVE ON LIVE STEAM EQUIPMENT				25%	$ -
EXTERIOR WORK			$ 3,130.00	30%	$ 939.00
NEGOTIATED ITEMS					
Door window glaze	1	EA	$ 100.00	1	$ 100.00
		SF		1	$ -
				1	$ -
				1	$ -
				1	$ -
CONTINGENCY (10%)				10%	**$ 829.20**
TOTAL					**$ 9,121.20**

APPENDIX K

HAZARDOUS/REGULATED MATERIALS, WASTES AND ITEMS REMOVAL COST ESTIMATE

TRC
Hazardous/Regulated Materials, Wastes & Items Removal Cost Estimate
(excluding asbestos abatement)
CTDAS Contract # 10PSX0308
(Effective: March 1, 2011 – February 28, 2015)

Site: Amtrak - Union Station Platform, Hartford, Connecticut **DOT Project #: 170-3161**
TRC Project #: 183572.4946.0710

Item	Item #	Quantity	Units	Rate	Total
Operations Supervisor	1	4	hrs	$60.00	$240.00
Equipment Operator	4	0	hrs	$62.00	$0.00
Equipment Operator OT	4	0	hrs	$93.00	$0.00
Laborer	9	16	hrs	$49.00	$784.00
Laborer OT	9	0	hrs	$73.50	$0.00
Driver (Mobilization/Disposal/Vac)	5	8	hrs	$57.50	$460.00
Driver (Mobilization/Disposal/Vac) OT	5	0	hrs	$86.25	$0.00
Vacuum Truck (oil)	12	0	hrs	$65.00	$0.00
Box truck	18	16	hrs	$35.00	$560.00
Utility Trucks (< 18000 GVW)	17	0	hrs	$18.00	$0.00
Loader/Backhoe (12' dig depth)	33	0	hrs	$40.00	$0.00
Loader/Backhoe (15' dig depth)	34	0	hrs	$45.00	$0.00
Lowbed Trailer/Tractor	27	0	hrs	$75.00	$0.00
Triaxle Dump Truck	23	0	hrs	$55.00	$0.00
Roll-off Truck	30	0	hrs	$58.00	$0.00
Roll-off Container (30 CY)	31	0	hrs	$4.50	$0.00
Roll-off Liners (haz waste/CRW soil)	130	0	ea	$80.00	$0.00
* Highlift		0	hrs	$35.00	$0.00
Water Wagon	29	0	hrs	$40.00	$0.00
*Hoses (dust suppression)		0	hrs	$15.00	$0.00
Frac Tank (20,000 gal)	89	0	hrs	$7.50	$0.00
5,000 psi Hi-Pressure Cleaner	82	0	hrs	$60.00	$0.00
Silt Fence	131	0	LF	$1.50	$0.00
Level C PPE (Pb)	90	0	person-hrs	$23.00	$0.00
Poly (10-mil sheeting 28'x100')	124	0	ea	$110.00	$0.00
Speedi-Dry (50 lb bag)	132	0	bag	$13.50	$0.00
17C DOT 55 gal Drums (haz items)	119	2	ea	$50.00	$100.00
Generator (5 kw)	80	0	hrs	$22.50	$0.00
* Dispose of haz-waste/regulated items		5	ea	$100.00	$500.00
* Dispose of AST/UST/sump contents (oil)		0	gal	$1.00	$0.00
* Dispose of trench/drain sludge (CRW)		0	CY	$50.00	$0.00
* Dispose of sediment/concrete (CRW)		0	CY	$50.00	$0.00
* Dispose of contaminated soil (CRW)		0	CY	$50.00	$0.00
* Dispose of Pb-painted components (haz)		0	CY	$125.00	$0.00
* Dispose of contaminated wood (haz)		0	CY	$125.00	$0.00
* Dispose of boiler/fly ash (haz)		0	CY	$125.00	$0.00
* CFC Reclaim (subcontractor)		1	day	$1,000.00	$1,000.00
Contingency (10%)					$364.40
				TOTAL ESTIMATE	**$4,008.40**

* Line items not included in Contract 10PSX0308, rate estimated by TRC
Cost estimate based on assumption of 1 day for hazardous/regulated item removal. No AST removal; no Pb component removal. Assumes all hazmat items required to be removed.

APPENDIX L

RELATED CORRESPONDENCE

Plimpton, Erik

From: Young, Denise A <Denise.Young@ct.gov>
Sent: Monday, June 30, 2014 2:20 PM
To: Plimpton, Erik
Cc: Burke, Ed; Kaczynski, Gregory
Subject: RE: 170-3155 - Hartford Station 100 Percent Design Review Request

Since setting up a meeting for this project ends up with 15 people in the room (if Baker goes, so does PB), if you can verify via a phone call, that would be simplest. If you need me to set up a meeting, I can, but I'd rather have you guys talk directly instead.

Robert C. Braren, AIA LEED AP | Architect | Michael Baker International
500 Enterprise Drive, Suite 2B | Rocky Hill, CT 06067 | [O] 860-257-2430
robert.braren@mbakerintl.com | www.mbakerintl.com

ERP/BB phone call 7/14 @ 1115
- ACM window glue stays
- ACM PLANC out
- LBP impact
- ACM Hazmat out (checking Elev storage + C/S Room)
- C/S Room Guano out.

7/16 FDP

Denise

Denise Young
Department of Transportation
Environmental Compliance
2800 Berlin Tpke.
Newington, CT 06111
(860)594-2686 fax (860)594-3372

From: Plimpton, Erik [mailto:EPlimpton@trcsolutions.com]
Sent: Thursday, June 26, 2014 4:06 PM
To: Young, Denise A
Cc: Burke, Ed; Kaczynski, Gregory
Subject: Fwd: 170-3155 - Hartford Station 100 Percent Design Review Request

Doesn't look like the ACM or haz in those rooms will be impacted

Call would prob do it , but we can certainly meet as well to be sure

Erik R. Plimpton, PE, CHMM, CMC
TRC
860-798-4699
eplimpton@trcsolutions.com

Sent from my iPhone

Begin forwarded message:

> **From:** "Young, Denise A" <Denise.Young@ct.gov>
> **Date:** June 26, 2014, 3:29:12 PM EDT
> **To:** "'Erik Plimpton (eplimpton@trcsolutions.com)'" <eplimpton@trcsolutions.com>

Cc: "'Ed Burke (eburke@trcsolutions.com)'" <eburke@trcsolutions.com>
Subject: FW: 170-3155 - Hartford Station 100 Percent Design Review Request

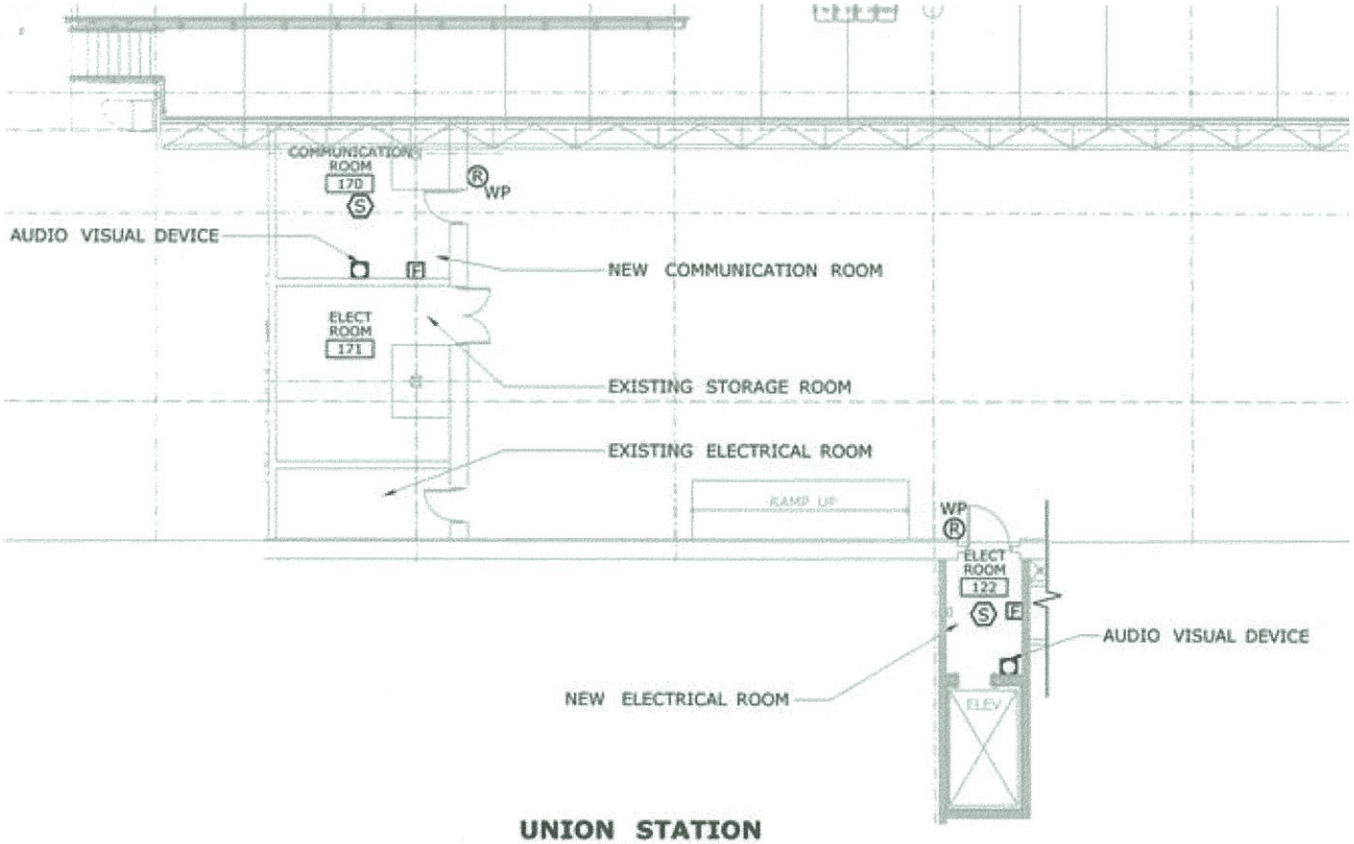
Denise

Denise Young
Department of Transportation
Environmental Compliance
2800 Berlin Tpke.
Newington, CT 06111
(860)594-2686 fax (860)594-3372

From: Bergeron, Eric S [mailto:Eric.Bergeron@ct.gov]
Sent: Thursday, June 26, 2014 11:35 AM
To: Young, Denise A
Cc: Robert C Braren; Anthony (Tony) J Sardilli; David Tudryn
Subject: RE: 170-3155 - Hartford Station 100 Percent Design Review Request

Denise,

Should we need to meet on this or can this be handled via a call to Bob Braren to clarify where work is occurring?



UNION STATION
(GRADE LEVEL)

Eric S. Bergeron
Project Engineer
Facilities Design
Connecticut Department of Transportation
Business Phone: (860)594-3152
mailto:Eric.Bergeron@CT.gov

From: Young, Denise A
Sent: Thursday, June 19, 2014 1:51 PM
To: Bergeron, Eric S
Subject: FW: 170-3155 - Hartford Station 100 Percent Design Review Request

Please see below.

Denise

Denise Young
Department of Transportation
Environmental Compliance

2800 Berlin Tpke.
Newington, CT 06111
(860)594-2686 fax (860)594-3372

From: Plimpton, Erik [mailto:EPlimpton@trcsolutions.com]
Sent: Thursday, June 19, 2014 12:16 PM
To: Young, Denise A
Subject: RE: 170-3155 - Hartford Station 100 Percent Design Review Request

Very quickly what I have so far

Asbestos:

- Thick asphalt flooring tiles, north and south platform
- Window glazing on the door that enters the C-S room

Lead:

- LBP on canopy steel
- LBP on steel below platforms

Misc Items:

- Mold/moisture impact to sheetrock in C-S room
- Misc bulbs/ballasts in most places
- A/C unit in C-S room & elevator storage room area

Erik R. Plimpton, PE, CHMM, CMC
East Region Practice Leader
Building Sciences & Industrial Hygiene

21 Griffin Road North, Windsor, CT 06095
T: 860.298.6280 | F: 860.298.6380 | C: 860.798.4699

LinkedIn | Twitter | Blog | Flickr | www.trcsolutions.com

From: Plimpton, Erik

Sent: Thursday, June 19, 2014 12:00 PM
To: 'Young, Denise A'
Subject: RE: 170-3155 - Hartford Station 100 Percent Design Review Request

The file is with my report writer so I don't know off the top of my head

Will get back to you

Erik R. Plimpton, PE, CHMM, CMC
East Region Practice Leader
Building Sciences & Industrial Hygiene

21 Griffin Road North, Windsor, CT 06095
T: 860.298.6280 | F: 860.298.6380 | C: 860.798.4699

LinkedIn | Twitter | Blog | Flickr | www.trcsolutions.com

From: Young, Denise A [mailto:Denise.Young@ct.gov]
Sent: Thursday, June 19, 2014 11:50 AM
To: Plimpton, Erik
Subject: FW: 170-3155 - Hartford Station 100 Percent Design Review Request

I talked to him about the asphalt-type pavers, but can you send a rough sketch showing where you found the other ACM?

Denise

Denise Young
Department of Transportation
Environmental Compliance
2800 Berlin Tpke.
Newington, CT 06111
(860)594-2686 fax (860)594-3372

From: Bergeron, Eric S
Sent: Thursday, June 19, 2014 11:47 AM
To: Young, Denise A
Subject: RE: 170-3155 - Hartford Station 100 Percent Design Review Request

Can you let us know the location you found it in reference to the plans? FDP is 7-16

Eric S. Bergeron
Project Engineer
Facilities Design
Connecticut Department of Transportation
Business Phone: (860)594-3152
mailto:Eric.Bergeron@CT.gov

From: Young, Denise A
Sent: Thursday, June 19, 2014 9:59 AM
To: Bergeron, Eric S
Subject: RE: 170-3155 - Hartford Station 100 Percent Design Review Request

Eric – TRC finished their investigation & would like to sit down with you and/or Baker. We found some asbestos inside the building and need to be clear whether or not it will be impacted by the project.

Also, what's your FDP?

Denise

Denise Young
Department of Transportation
Environmental Compliance
2800 Berlin Tpke.
Newington, CT 06111
(860)594-2686 fax (860)594-3372

From: Bergeron, Eric S
Sent: Wednesday, May 28, 2014 3:10 PM
To: Jankovich, Richard T; Foster, Jon M; Howland, Scott E; Dorosh, Gregory M; Bonsignore, Christopher J; Young, Denise A; Chandran, Ravi V; St Germain, Mark; Flaminio, Robert F; Smachetti, Daniel J; LeBlanc, Michael M.; Andrews, Jon H.; Waleszczyk, John W; Barakat, Rabih M; Reed, Bryan H; Libatique, Ranolfo P
Cc: Bernick, John E; Mather, Jayantha; Kuljis, Yure E
Subject: 170-3155 - Hartford Station 100 Percent Design Review Request

Please see attached design review request for Hartford Station. Please have any comments submitted by June 13, 2014. Draft Responses to the 90 percent design are included in the request.

Feel free to call with any questions.

Thank You,

Eric S. Bergeron
Project Engineer
Facilities Design

Connecticut Department of Transportation
Business Phone: (860)594-3152
mailto:Eric.Bergeron@CT.gov