21 Griffin Road North
Windsor, CT 06095

860.298.9692 PHONE
860.298.6399 FAX

www.TRCsolutions.com

August 31, 2018

Michael Brady
Close, Jensen and Miller, P.C.
Liaison Project Engineer
1137 Silas Deane Highway
Wethersfield, CT 06109

Via email: mbrady@cjmp.com

Subject: Hazardous Material Inspection Report for the Replacement of Bridge No. 04744, Town of North Stonington, Connecticut and Westerly, Rhode Island.
TRC Project Number 31004.0001.0000

Dear Michael:

Per your request, TRC performed a limited Hazardous Material Inspection on Bridge 04744, Boom Bridge Road over the Pawcatuck River located in the towns of North Stonington, Connecticut and Westerly, Rhode Island. TRC's Thomas Martin, a Connecticut and Rhode Island licensed Asbestos inspector, along with Tyler MacGillivray, performed the Hazardous Material Inspection on August 13, 2018 prior to the planned demolition/replacement of Bridge 04744.

ASBESTOS CONTAINING MATERIALS

Asbestos bulk sampling was not performed. The inspector did not observe any suspect materials in accessible area at the time of the assessment. These areas include the topside of the roadway, underneath the roadway, piers and abutments. However, there is always potential for materials to be uncovered during demolition of the structure that would need to be sampled and analyzed for asbestos content. These materials, if found, should be assumed to contain asbestos until analysis proves otherwise. See the table below for potential inaccessible, assumed materials.

Assumed Asbestos Containing Materials Table

Material	Sample Location
Waterproofing/Tar	Sub-surface-Abutments
Vapor Barrier/Tar Paper	Sub-surface-Abutments
Caulks/Expansion Joint Materials	Sub-surface-Abutments

LEAD PAINT SAMPLING

The Lead Based Paint (LBP) inspection of the bridge components was conducted by utilizing an on-site Niton X-Ray Fluorescence (XRF) spectrum analyzer. The Niton detector is a portable unit designed to make fast, accurate, non-destructive measurements of lead concentrations in dry painted surfaces with a detection limit down to 0.1 mg/cm^2. Representative measurements of the painted bridge components scheduled for impact by the rehabilitation were conducted to determine the general presence of any detectable levels of lead in paint ($\geq$0.1 mg/cm^2 via XRF).

Elevated levels (>1.0 mg/cm^2) of lead were identified in the grey/orange paint coating the metal structural components (girders, crossbeams, rocker bearings) of the bridge structure and the grey paint coating the metal railing system components (balusters, railing, support posts). The grey/orange paint on the corrugated metal decking was identified to contain low levels of lead paint (<1.0 mg/cm^2). It should be noted that all non-metallic components of the bridge were not painted. The XRF Measurement Summary Table is attached.

Paint chips were collected to represent the paint waste stream and submitted to CET Laboratories in Stratford, Connecticut for Toxicity Characteristic Leaching Procedure (TCLP) characterization testing for leachable lead to determine if the paint waste generated from the rehabilitation should be disposed of as hazardous or non-hazardous construction waste. TCLP analysis indicates that paint waste stream from the bridge is considered EPA RCRA/CTDEEP Lead hazardous waste. TCLP sample results are summarized in the table below.

Accumulations of loose paint chips from the deteriorated lead containing painted surfaces of the metal bridge components were observed on surfaces below the painted components

Summary of Paint Debris Waste Characterization

Waste Stream	Lead Leachate (mg/L)	Hazardous/Non-Hazardous
Paint on Metal Surfaces	270	**EPA RCRA/CTDEEP Hazardous Waste**

BIOLOGICAL HAZARDS, GUANO AND HAZARODOUS/REGULATED ITEMS

Accumulations of bird/pigeon guano, biological hazards and other regulated items (bulbs, ballasts, electronics, batteries etc.) were not observed during the inspection.

Enclosed please find the inspector's notes/sketches, XRF Measurement Summary Table, TCLP analytical data, chains of custody data, laboratory analytical certifications, TRC inspector certifications and a project description.

If you have any questions, please call me directly at (860) 817-2413.

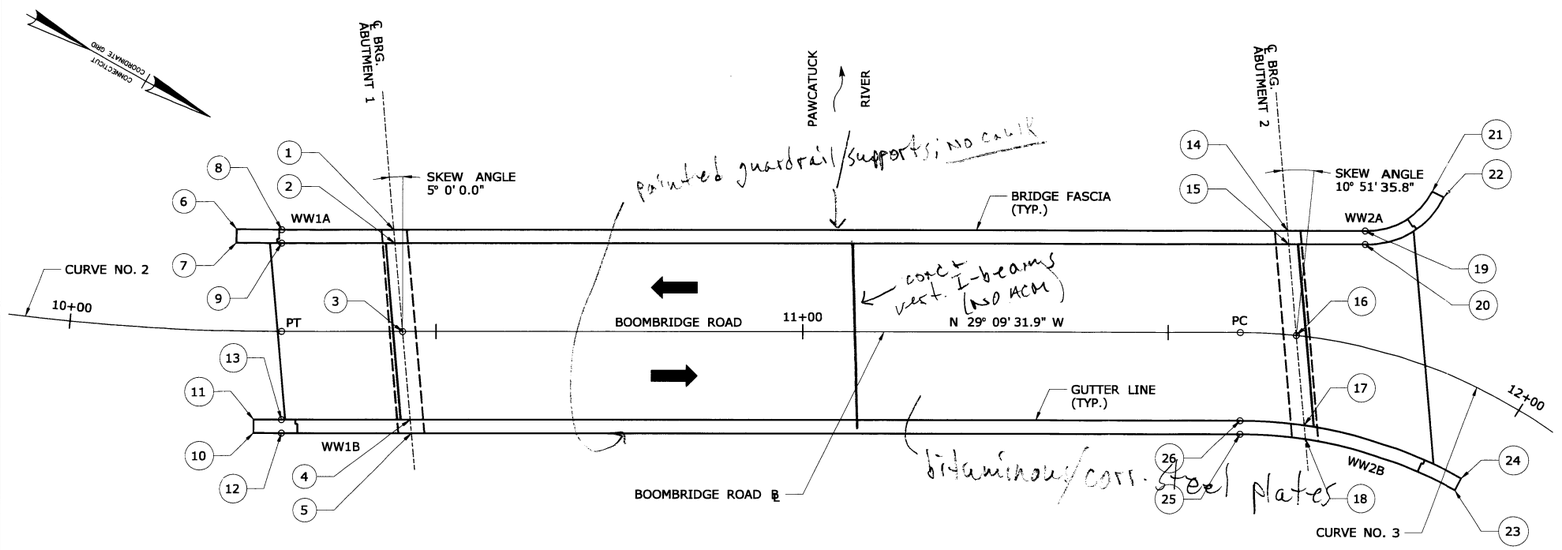
Very Truly Yours,

TRC Environmental

Michael Kostruba, CSP, CHMM
Project Manager

Steven Arienti, CHMM
Senior Project Manager

INSPECTOR NOTES/SKETCHES



NOTE:

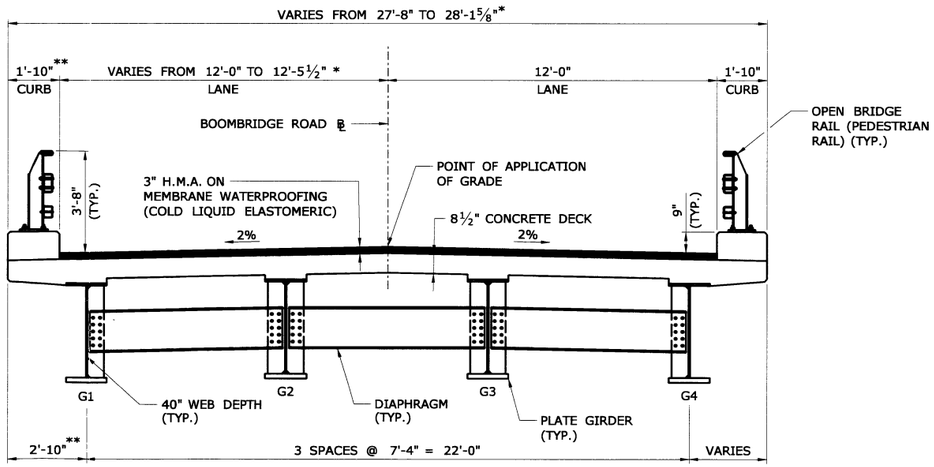
1. FOR CURVE DATA, SEE DWG. "GENERAL PLAN AND ELEVATION."

LAYOUT PLAN

SCALE: 1" = 10'

* NO susp ACM*

WORKING POINT COORDINATES			
POINT	WORKING POINT LOCATION	NORTHING	EASTING
1	℄ BEARING ABUTMENT 1 AND LEFT FASCIA	714,147.313	1,254,146.836
2	℄ BEARING ABUTMENT 1 AND LEFT GUTTER LINE	714,148.346	1,254,148.359
3	℄ BEARING ABUTMENT 1 AND BOOMBRIDGE ROAD BASELINE	714,155.110	1,254,158.327
4	℄ BEARING ABUTMENT 1 AND RIGHT GUTTER LINE	714,161.873	1,254,168.294
5	℄ BEARING ABUTMENT 1 AND RIGHT FASCIA	714,162.907	1,254,169.817
6	END OF WINGWALL 1A - OUTSIDE FACE	714,128.280	1,254,157.375
7	END OF WINGWALL 1A - GUTTER LINE	714,129.137	1,254,158.996
8	WINGWALL 1A PT - OUTSIDE FACE	714,133.833	1,254,154.357
9	WINGWALL 1A PT - GUTTER LINE	714,134.726	1,254,155.958
10	END OF WINGWALL 1B - OUTSIDE FACE	714,143.895	1,254,180.397
11	END OF WINGWALL 1B - GUTTER LINE	714,143.022	1,254,178.785
12	WINGWALL 1B PT - OUTSIDE FACE	714,147.313	1,254,178.518
13	WINGWALL 1B PT - GUTTER LINE	714,146.419	1,254,176.917
14	℄ BEARING ABUTMENT 2 AND LEFT FASCIA	714,253.852	1,254,087.394
15	℄ BEARING ABUTMENT 2 AND LEFT GUTTER LINE	714,254.885	1,254,088.917
16	℄ BEARING ABUTMENT 2 AND BOOMBRIDGE ROAD BASELINE	714,261.870	1,254,099.210
17	℄ BEARING ABUTMENT 2 AND RIGHT GUTTER LINE	714,268.755	1,254,109.356
18	℄ BEARING ABUTMENT 2 AND RIGHT FASCIA	714,269.812	1,254,110.914
19	WINGWALL 2A PC - OUTSIDE FACE	714,263.246	1,254,082.153
20	WINGWALL 2A PC - GUTTER LINE	714,264.139	1,254,083.754
21	END OF WINGWALL 2A - OUTSIDE FACE	714,268.366	1,254,073.039
22	END OF WINGWALL 2A - INSIDE FACE	714,270.198	1,254,072.969
23	END OF WINGWALL 2B - OUTSIDE FACE	714,291.133	1,254,106.928
24	END OF WINGWALL 2B - GUTTER LINE	714,291.121	1,254,105.095
25	RIGHT FASCIA PC	714,261.732	1,254,114.679
26	RIGHT GUTTER LINE PC	714,260.839	1,254,113.078



* MEASURED RADIAL TO ℄

** MEASURED PERPENDICULAR TO ℄ GIRDERS

TYPICAL BRIDGE SECTION

(FROM STA. 10+45.50 TO STA. 11+67.55)

SCALE: ⅜" = 1'-0"

FINAL DESIGN REVIEW

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: 1/25/2018

DESIGNER/DRAFTER: HB/CD

CHECKED BY: DRC

SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\Sb..msh..Br04744..101..0112..LAYOUT.dgn

SIGNATURE/ BLOCK:

TranSystems
530 PRESTON AVENUE
MERIDEN, CT 06450

PROJECT TITLE:
REPLACEMENT OF BR. NO. 04744 BOOMBRIDGE ROAD OVER PAWCATUCK RIVER

TOWN: **NORTH STONINGTON, CT WESTERLY, RI**

DRAWING TITLE: **LAYOUT PLAN**

PROJECT NO. **101-112**

DRAWING NO. **S-03**

SHEET NO.

XRF LEAD PAINT MEASUREMENTS TABLE

Lead Based Paint Measurement Summary Table

Device(s) : Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer
Client : Close, Jensen, Miller
Site : Boom Bridge Rd., Bridge 04744
Project # : 313004.0001.0000
Date(s) : 8/13/2018
Inspector : Tom Martin (CT License # 002079)

Number	Interior/ Exterior	Floor	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm^2)	Precision (mg/cm^2)	Depth Index	Duration (sec)	Date/Time
5		Shutter Calibration								2.9	0.0		108.05	8/13/2018 9:25
6		Calibration-0.0								0.0	0.0	1.0	1.91	8/13/2018 9:28
7		Calibration-1.5								1.6	0.3	1.16	3.19	8/13/2018 9:28
8		Calibration-3.5								3.5	0.3	1.26	3.83	8/13/2018 9:28
9	Exterior	NA	Under Side	North	Girder		Metal	Rust	Defective	12.7	3.9	1.95	2.35	8/13/2018 9:33
10	Exterior	NA	Under Side	North	Girder		Metal	Rust	Defective	17.7	2.3	2.11	3.83	8/13/2018 9:34
11	Exterior	NA	Under Side	North	Girder		Metal	Rust	Defective	18.2	5.7	2.02	1.7	8/13/2018 9:35
12	Exterior	NA	Under Side	North	Corrugated Panel		Metal	Rust	Defective	0.3	0.4	5.85	3.2	8/13/2018 9:38
13	Exterior	NA	Under Side	North	Corrugated Panel		Metal	Grey	Defective	0.2	0.2	3.33	3.2	8/13/2018 9:39
14	Exterior	NA	Under Side	South	Support Blocks		Metal	Grey	Defective	3.1	0.6	1.59	2.56	8/13/2018 9:41
15	Exterior	NA	Under Side	South	Guardrail Support		Metal	Grey	Defective	1.1	0.3	1.54	3.18	8/13/2018 9:43
16	Exterior	NA	Under Side	South	Guardrail Support		Metal	Grey	Defective	1.0	0.1	1.49	5.09	8/13/2018 9:43
17	Exterior	NA	Under Side	South	Guardrail Support		Metal	Grey	Defective	2.9	0.5	1.76	2.98	8/13/2018 9:43
18	Exterior	NA	Under Side	North	Guardrail Support		Metal	Grey	Defective	2.6	0.5	1.6	2.55	8/13/2018 9:45
19	Exterior	NA	Top Side	North	Guardrail		Metal	Grey	Defective	0.1	0.1	5.87	5.54	8/13/2018 9:46
20	Exterior	NA	Top Side	North	Guardrail		Metal	Grey	Defective	0.3	0.3	4.12	3.2	8/13/2018 9:47
21	Exterior	NA	Top Side	North	Guardrail		Metal	Grey	Defective	1.3	1.4	1.4	0.21	8/13/2018 9:47
22	Exterior	NA	Top Side	North	Guardrail		Metal	Grey	Defective	1.4	0.2	1.48	3.41	8/13/2018 9:47
23	Exterior	NA	Top Side	North	Guardrail		Metal	Grey	Defective	1.2	0.1	1.23	6.6	8/13/2018 9:47
24	Exterior	NA	Top Side	South	Guardrail		Metal	Grey	Defective	2.4	0.3	1.51	3.82	8/13/2018 9:48
25	Exterior	NA	Top Side	South	Guardrail		Metal	Grey	Defective	0.2	0.1	1.89	4.49	8/13/2018 9:49
26	Exterior	NA	Underside	South	Corrugated Panel		Metal	Grey	Defective	0.4	0.4	6.03	3.63	8/13/2018 9:58
27	Exterior	NA	Underside	South	Girder Connection		Metal	Grey	Defective	0.0	0.0	2.4	2.56	8/13/2018 9:59
28		Calibration-0.0								0.0	0.0	1.0	1.7	8/13/2018 10:01
29		Calibration-1.5								1.5	0.2	1.12	4.25	8/13/2018 10:01
30		Calibration-3.5								3.4	0.3	1.25	4.26	8/13/2018 10:02
31		Calibration-3.5								3.5	0.7	1.28	1.93	8/13/2018 10:02

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

LABORATORY ANALYTICAL REPORTS

80 Lupes Drive
Stratford, CT 06615

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

Client: Mr. Stephen Arienti
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report

CET# 8080377

Report Date:August 17, 2018
Project: Close, Jensen and Miller, P.C. Bridge, Stonington

Connecticut Laboratory Certificate: PH 0116
Massachusetts Laboratory Certificate: M-CT903
Rhode Island Laboratory Certificate: 199

New York NELAP Accreditation: 11982
Pennsylvania Certificate: 68-02927

CET # : 8080377

Project: Close, Jensen and Miller, P.C. Bridge, Stonington

SAMPLE SUMMARY

The sample(s) were received at 25.5°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
Bridge 04744	8080377-01	Paint Chip	8/13/2018 9:02	08/14/2018

Analyte: TCLP Lead [EPA 6020A] **Analyst: CED**

Prep: EPA 3005A-1311 **Matrix: Extract**

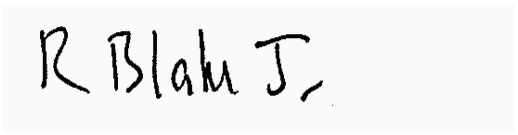
Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8080377-01	Bridge 04744	**270**	0.013	mg/L	1	B8H1722	08/17/2018	08/17/2018 14:45	

All 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

This technical report was reviewed by Robert Blake



Project Manager

Report Comments:

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 Homogeneity may be a problem.
+- The Surrogate was diluted out.
*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
I- The Analyte exceeds %RSD limits for the Initial Calibration. This is a non-directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit
RL is the Reporting Limit.
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CET # : 8080377

Project: Close, Jensen and Miller, P.C. Bridge, Stonington

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020A in Water	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018

8080377

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

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
	Close, Jensen and Miller, P.C. Bridge # 04744, Stonington, CT		24hr ( ) 48hr ( ) 3day (X) 5day ( ) 24hr ( ) 48hr ( ) 3day ( ) 5day ( )

INSPECTOR: (SIGNATURE) Tom Martin (PRINTED)

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb		MATERIAL
TCLP - 01	8/13/18	0902			Bridge #04744				X			Paint on steel bridge components

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Tom Martin	8/13/18		25.6 (N)	8/14/18	
(Printed) Tom Martin	Time: 1414	(Printed)	(Printed)	Time: 10:37	(Printed)

Results to Steve Arienti(SArienti@TRCSolutions.com)

LABORATORY CERTIFICATIONS

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM
CERTIFIED ANALYTES REPORT FOR ALL MATRICES

Complete Environmental Testing, Inc.
80 LUPES DRIVE
STRATFORD, CT 06615

CT REGISTRATION NUMBER :	PH-0116
REGISTERED OWNER / AUTHORIZED AGENT :	David Ditta
DIRECTOR :	David Ditta
CO DIRECTOR(S) :	Timothy Fusco
PHONE :	(203) 377-9984
LABORATORY REGISTRATION EFFECTIVE DATE :	10/01/2016
LABORATORY REGISTRATION EXPIRATION DATE :	09/30/2018
LABORATORY STATUS :	APPROVED

APPROVED BY

SUZANNE BLANCAFLOR, MS, MPH
CHIEF, ENVIRONMENTAL HEALTH SECTION

REVIEWED BY

DERMOT JONES

9/13/2016 11:44:26 AM

ANY QUESTIONS CONCERNING THIS DOCUMENT SHOULD BE ADDRESSED TO THE ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM AT (860) 509-7389

DRINKING WATER (SDWA)

STATUS REPORTED ON 9/13/2016

ANALYTE NAME

MICROBIOLOGY/BACTERIA

E. COLI - COLILERT (SM9223 P/A)

TOT COLIFORM - COLILERT (SM9223 P/A)

PHYSICALS

COLOR	
CONDUCTIVITY	ODOR
pH	TURBIDITY

MINERALS

ALKALINITY	
CHLORIDE	CHLORINE, FREE RESIDUAL
CHLORINE, TOTAL RESIDUAL	FLUORIDE
HARDNESS, CALCIUM	HARDNESS, TOTAL
SILICA	SULFATE

NUTRIENTS

AMMONIA	
NITRATE	NITRITE
O-PHOSPHATE	TOTAL PHOSPHOROUS

METALS

ALUMINUM	
ANTIMONY	ARSENIC
BARIUM	BERYLLIUM
BORON	CADMIUM
CALCIUM	CHROMIUM
COPPER	IRON
LEAD	MAGNESIUM
MANGANESE	MERCURY
MOLYBDENUM	NICKEL
POTASSIUM	SELENIUM
SILVER	SODIUM
THALLIUM	VANADIUM
ZINC	

RESIDUE

TOTAL DISSOLVED SOLIDS

TOTAL RESIDUE (SOLIDS)

MISCELLANEOUS	
CORROSIVITY	CYANIDE (TOTAL)
FOAMING AGENTS (MBAS)	
INORGANIC DISINFECTION BY-PRODUCTS	
BROMIDE	
ORGANIC DISINFECTION BY-PRODUCTS	
BROMOACETIC ACID	BROMOCHLOROACETIC ACID
CHLOROACETIC ACID	DIBROMOACETIC ACID
DICHLOROACETIC ACID	TRICHLOROACETIC ACID
VOLATILE ORGANICS	
1,2-DIBROMO-3-CHLOROPROPANE 504.1 (DBCP) (SOC)	1,4-DIOXANE (Mod 8260)
ETHYLENE DIBROMIDE 504.1 (EDB) (SOC)	TOTAL TRIHALOMETHANES 524.2 (SOC)
VINYL CHLORIDE - 524.2	VOLATILE ORGANICS - 524.2 (SOCs)
PESTICIDES/ PCB'S	
ALDRIN	CHLORDANE (TECHNICAL) (SOC)
DIELDRIN	ENDRIN (SOC)
HEPTACHLOR (SOC)	HEPTACHLOR EPOXIDE (SOC)
HEXACHLOROBENZENE (SOC)	HEXACHLOROCYCLOPENTADIENE (SOC)
LINDANE (BHC-GAMMA) (SOC)	METHOXYCHLOR (SOC)
TOXAPHENE (SOC)	
PAHS	
BENZO(a) PYRENE (SOC)	PAHs (ALL)
TRIAZINE PESTICIDES	
ALACHLOR (SOC)	
ATRAZINE (SOC)	SIMAZINE (SOC)
RADIOCHEMICALS	
URANIUM - EPA 200.8	

NON-POTABLE WATER/ WASTEWATER (CWA)

STATUS REPORTED ON 9/13/2016

ANALYTE NAME

PHYSICALS

COLOR	CONDUCTIVITY
pH	TURBIDITY

MINERALS

ACIDITY	
ALKALINITY	CHLORIDE
CHLORINE, TOTAL & FREE RESIDUAL	FLUORIDE
HARDNESS, CALCIUM	HARDNESS, TOTAL
SILICA	SULFATE
SULFIDE	

NUTRIENTS

AMMONIA	KJELDAHL NITROGEN
NITRATE	NITRITE
O-PHOSPHATE	TOTAL PHOSPHOROUS

METALS

ALUMINUM	ANTIMONY
ARSENIC	BARIUM
BERYLLIUM	BORON
CADMIUM	CALCIUM
CHROMIUM	CHROMIUM - Hexavalent
COBALT	COPPER
IRON	LEAD
MAGNESIUM	MANGANESE
MERCURY	MOLYBDENUM
NICKEL	POTASSIUM
SELENIUM	SILVER
SODIUM	STRONTIUM
THALLIUM	TIN
TITANIUM	VANADIUM
ZINC	

RESIDUE

TOTAL DISSOLVED SOLIDS	TOTAL RESIDUE (SOLIDS)
TOTAL SUSPENDED SOLIDS	TOTAL VOLATILE RESIDUE

DEMANDS	
BOD	COD
MISCELLANEOUS	
CYANIDE (TOTAL)	
FOAMING AGENTS (MBAS)	PHENOLICS
PESTICIDES/ PCB'S	
CHLORDANE (TECHNICAL)	
ORGANOCHLORINE PESTICIDES (Single Response)	PCB IN OIL
POLYCHLORINATED BIPHENYLS	TOXAPHENE
SOLVENTS	
CT Extractable Petroleum Hydrocarbons (ETPH)	MA Extractable Petroleum Hydrocarbons (EPH)
OIL & GREASE	
HERBICIDES	
2,4,5-T	2,4,5-TP (SILVEX)
2,4-D	2,4-DB
4-NITROPHENOL (Herbicide)	DALAPON
DICAMBA	DICHLOROPROP
DINOSEB	MCPA
MCPP	PENTACHLOROPHENOL (Herbicide)
ORGANICS	
ACID EXTRACTABLES (PHENOLS)	BENZIDINES
CHLORINATED HYDROCARBONS	HALOETHERS
NITROAROMATICS & ISOPHORONE	NITROSAMINES
PHTHALATE ESTERS	POLYNUCLEAR AROMATIC HYDROCARBONS
VOLATILE ORGANICS	
FIELD TESTING	
CHROMIUM - Hexavalent (FIELD TEST)	pH (FIELD TEST)

SOLID WASTE/SOIL (RCRA)

STATUS REPORTED ON 9/13/2016

ANALYTE NAME

PHYSICALS	
pH	
MINERALS	
SULFIDE	
NUTRIENTS	
AMMONIA	KJELDAHL NITROGEN
TOTAL PHOSPHOROUS	
METALS	
ALUMINUM	ANTIMONY
ARSENIC	BARIUM
BERYLLIUM	BORON
CADMIUM	CALCIUM
CHROMIUM	CHROMIUM - Hexavalent
COBALT	COPPER
IRON	LEAD
MAGNESIUM	MANGANESE
MERCURY	MOLYBDENUM
NICKEL	POTASSIUM
SELENIUM	SILVER
SODIUM	STRONTIUM
THALLIUM	TIN
TITANIUM	VANADIUM
ZINC	
RESIDUE	
TOTAL RESIDUE (SOLIDS)	TOTAL VOLATILE RESIDUE
MISCELLANEOUS	
CORROSIVITY	CYANIDE (TOTAL)
IGNITABILITY	REACTIVITY
SPLP LEACH (1312)	TCLP LEACH (1311)
PESTICIDES/ PCB'S	
CHLORDANE (TECHNICAL)	
ORGANOCHLORINE PESTICIDES (Single Response)	PCB IN OIL
POLYCHLORINATED BIPHENYLS	TOXAPHENE

SOLVENTS	
CT Extractable Petroleum Hydrocarbons (ETPH)	MA Extractable Petroleum Hydrocarbons (EPH)
HERBICIDES	
2,4,5-T	2,4,5-TP (SILVEX)
2,4-D	2,4-DB
4-NITROPHENOL (Herbicide)	DALAPON
DICAMBA	DICHLOROPROP
DINOSEB	PENTACHLOROPHENOL (Herbicide)
TRIAZINE PESTICIDES	
ALACHLOR	ATRAZINE
SIMAZINE	
RCRA (SW-846) ORGANICS	
ACID EXTRACTABLES (PHENOLS) (SW 8270)	
BENZIDINES (SW 8270)	CHLORINATED HYDROCARBONS (SW 8270)
HALOETHERS (SW 8270)	NITROAROMATICS & CYCLIC KETONES (SW 8270)
NITROSOAMINES (SW 8270)	PAH's (SW 8270)
PHTHALATES (SW 8270)	VOLATILE ORGANICS (SW 8260)
ENVIRONMENTAL HEALTH & HOUSING	
LEAD (PAINT) IN SOIL	
LEAD IN DUST WIPES	LEAD IN PAINT

Report Profile:	Lab Name : Complete Environmental Testing, Inc.
	Test Name : *
	Matrix Name : *
	Matrix Selection = ALL OR SOME MATRICES SELECTED
	Certifications approved or provisional on 9/13/2016

THIS IS THE LAST PAGE OF THE REPORT

TRC WORKER CERTIFICATIONS

SPECTRUM
Environmental Associates, Inc.
"Exceeding Our Clients Expectations of Excellence"

P.O. Box 1024
Schenectady, NY 12301
(518) 346-6374 (Phone)
(518) 346-4062 (Fax)
www.4spectrum.com

This is to certify that

Thomas J Martin

Social Security #: XXX-XX-3014

Has Successfully Completed The:

Asbestos Inspector Refresher Course
Also satisfies the N.Y.S.D.O.H. *Inspector Refresher* Requirements

This course is EPA and New York State Department Of Health approved pursuant to Article 30, Section 905 of the New York State Labor Law as required under Title 10, Chapter 11, Subchapter H, Part 73 NYSCRR.
The DOH 2832 certificate issued is the official record of this training course.

88	12/14/17	Donald Trischett
Exam Score	Course Date(s)	Donald Trischett, Instructor
12/14/2017		
Exam Date		
796863	12/14/2018	William Massmann
DOH 2832 Certificate Number	Expiration Date	Director of Training

Dear THOMAS J. MARTIN,

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

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

RAUL PINO, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1001859-0001866-0000001 of 0000001-C01-a1d00101-0664-01862

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
ASBESTOS CONSULTANT-INSPECTOR

THOMAS J. MARTIN

CERTIFICATE NO.
000014

CURRENT THROUGH
02/28/19

VALIDATION NO.
03-655692

SIGNATURE

COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
THOMAS J. MARTIN

VALIDATION NO.
03-655692

CERTIFICATE NO.
000014

CURRENT THROUGH
02/28/19

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE

COMMISSIONER

INSTRUCTIONS:

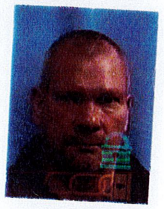
1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who 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.

Rhode Island Department of Health

Asbestos Program

Asbestos Inspector

THOMAS MARTIN



Exp. Date: 07/25/2019
License #: AAC-0870

Member of C.O.N.E.S.

CERTIFICATE OF ACHIEVEMENT

This certifies that

Tom Martin

16 Old River Road, Willington, CT 06279

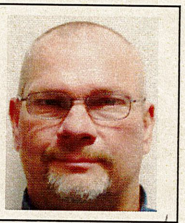
has successfully completed the

EPA Model Lead Inspector Technician Refresher Training

745.225

conducted by

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



Neal B. Freuden

Principal Instructor: Neal Freuden

January 19, 2018
Date of Course

January 19, 2018
Exam Date

Gregory Morsch

Regional Training Director: Gregory Morsch

ELIR-364
Certificate Number

Dear THOMAS J. MARTIN,

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Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

RAUL PINO, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1001858-0001865-0000001 of 0000001-C01-a1d00101-0664-01861

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
THOMAS J. MARTIN

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-655691	002079	02/28/19

PROFESSION
LEAD 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 CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR

CERTIFICATE NO.

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PROJECT DESCRIPTION

Federal Local Bridge Program
Federal-aid Project # (Design): 6101(001)
State Project # (Design and Construction): 101-112
Replacement of Bridge No. 04744
Boom Bridge Road over the Pawcatuck River
Towns of North Stonington, CT and Westerly, RI

PROJECT DESCRIPTION

Bridge No. 04744 carries Boom Bridge Road over the Pawcatuck River at the North Stonington, CT / Westerly, RI town and state line. It was built in 1968 to carry two lanes (one lane each direction) of Boom Bridge Road traffic. The bridge is situated on a horizontal tangent alignment. Immediately north of the bridge, the roadway curves sharply (90º ±) to the east, while the roadway south of the bridge is on a less severe curvilinear alignment proceeding to the west. The structure forms the summit of a crest vertical curve, which is adjoined by sag vertical curves on both the north and south roadway approaches.

The two-span bridge has a total length and width measuring 121 feet and 24 feet, respectively. Each of the two equal-length simple spans of the superstructure consists of steel rolled beams that carry bituminous concrete-filled corrugated steel decking. The bridge railing is comprised of metal beam railing mounted on steel posts attached to brackets at the fascia beams. The deck width between rail faces is 23.5 feet, and there are no sidewalks along either the bridge or the roadway approaches. The substructure consists of reinforced concrete stub abutments and a center pier. The abutments are founded on spread footings and are flanked by stone masonry U-shaped wingwalls. The pier is a bent comprised of steel piles and a reinforced concrete cap. Overhead utility wires cross the bridge above its east side. No other utilities are known to be present at the bridge crossing.

The Boom Bridge Road Bridge is structurally deficient due to its Deck Condition Rating of 4 (Poor) and its Superstructure Condition Rating of 2 (Critical). The bituminous concrete is cracked and broken up with random patches and a few potholes that have left the underlying corrugated metal decking exposed. The visible portions of the decking exhibit moderate to severe laminated rust throughout and random perforations in individual corrugations. The steel beams display extensive areas of severe rust with substantial section losses. The worst of these conditions occurs at the north abutment ends of the beams adjacent to the roadway centerline. Elongated holes in the webs of these beam ends have caused web crippling at the bearings. The rest of the beam ends contain up to 56 percent loss of web section, and the beams in critical bending regions contain bottom and top flange section losses up to 27 percent and 51 percent, respectively. While the structure once carried an estimated Average Daily Traffic volume of 450 vehicles, the severe superstructure steel deterioration has resulted in the bridge being closed since 2008. The substructure, although in overall fair condition, contains noteworthy defects consisting of isolated exposure of the abutment footings and moderate to heavy pier pile rusting with section losses.

The proposed construction involves complete replacement of the bridge with a 122-foot long single-span structure. The replacement bridge will consist of a composite cast-in-place reinforced concrete / steel plate girder superstructure on pile-supported reinforced concrete integral abutments. The new bridge will be constructed on the existing horizontal alignment, with the new abutments positioned at approximately the same locations as the existing abutments. Due to the increased superstructure depth associated with replacing the two-span existing bridge with the single-span proposed bridge of similar total length, the profile will be raised approximately 3 feet at each end of the structure. The new bridge will feature a 24-foot wide curb-to-curb roadway overlain with bituminous concrete on membrane waterproofing and open metal bridge railing along both sides. The proposed roadway profile elevation increase at the bridge necessitates roadway reconstruction to approximately 250 feet both north and south of the bridge. Proposed roadway work includes full-depth pavement reconstruction, drainage system improvements and the installation of crashworthy guide railing at the four corners of the bridge.

Boom Bridge Road will remain closed to through traffic during replacement of the bridge. Minor adjustments to the overhead utilities will be required to facilitate the proposed construction.