September 7, 2016

Mr. Christopher Bonsignore, P.E.
Principal Engineer
Environmental Compliance Section
Bureau of Engineering and Highway Operations
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention: Judith Nemecek, P.E. / Robert Reilly

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 04.27-01(15)
HazMat Inspection – Bridge No. 03637 & Control House, Stratford Avenue (RT 130) over Yellow Mill Channel, Bridgeport, CT
ConnDOT Assignment No. 514-5135
ConnDOT Project No. 15-372
TRC Project No. 222165.5135.0710

Dear Mr. Bonsignore:

TRC performed a limited survey for hazardous building materials associated with the rehabilitation of Bridge No. 03637 & Control House, Stratford Avenue (RT 130) over Yellow Mill Channel in Bridgeport, Connecticut. Results of the survey on the bridge identified no lead paint present on the bridge girders (ND<0.1%) or sidewalk paint (ND<0.1%). Results of the survey in the Control House identified detectable amounts of lead in paint on metal I-beams, metal walls, concrete ceiling, metal stair components, and metal motor components. Results obtained from TCLP waste stream sampling and analysis for leachable lead from the paint on the metal I beams (0.75 mg/L) characterized the paint waste stream as non-RCRA, non-hazardous waste, while TCLP waste stream sampling from the paint on the metal stair components (30 mg/L) characterized that paint waste stream as RCRA/CTDEEP hazardous waste. Sheetrock/joint compound, 12x12 floor tile/mastic, tan covebase/glue, black tar vapor barrier and various window/door/building/roof caulks were sampled and found to contain no asbestos. A clutch drive braking system inside the control house is presumed to have ACM friction components inside the metal housing. Bird/pigeon guano accumulations were observed on the underside accessible areas of the Bridge No. 03637. Associated laboratory data and site sketches are attached.

If you have any questions, please call TRC at (860) 298-9692.

Very Truly Yours,

**TRC**

Erik R. Plimpton, P.E., CHMM, CMC
Vice President - Program Manager

E. Burke, P.E.
Engineer in Charge

TRC

# Lead Based Paint Measurement Summary Table

| | |
|---|---|
| Device(s): | Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer |
| Site: | CTDOT - Bridge No. 03637, Bridgeport, CT |
| Project # : | 222165.5135.0710 |
| Date(s): | 10/5/2015 & 8/4/16 |
| Inspector: | Robert Belding ( CT Lead I/RA LIC. No. 002210) & Kelly Grey ( CT Lead I/RA LIC. No. 002267) |

| Number | Interior/ Exterior | Location | Bridge No. | Structure | Feature | Material | Color | Condition | Reading (mg/cm2) | Precision (mg/cm2) | Depth Index | Duration (sec) | Date/Time |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | **Self-Calibration** | | | | | | | | | 66.2 | 10/5/2015 7:20 |
| 2 | | | **0.7 calibration** | | | | | | 0.7 | 0.1 | 1.1 | 7.5 | 10/5/2015 7:21 |
| 3 | | | **1.6 calibration** | | | | | | 1.6 | 0.1 | 1.2 | 14.5 | 10/5/2015 7:22 |
| 4 | | | **0.3 calibration** | | | | | | 0.3 | 0.0 | 1.0 | 9.9 | 10/5/2015 7:22 |
| 5 | Exterior | East Control Room | Bridge No. 03637 | Window | Sash ext | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 5.0 | 10/5/2015 7:28 |
| 6 | Exterior | East Control Room | Bridge No. 03637 | Door | | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 5.0 | 10/5/2015 7:29 |
| 7 | Exterior | South Sidewalk | Bridge No. 03637 | Sidewalk | | Concrete | White | Defective | 0.0 | 0.0 | 1.0 | 7.0 | 10/5/2015 7:31 |
| 8 | | | | | VOID | | | | | | | | |
| 9 | | | | | VOID | | | | | | | | |
| 10 | Exterior | South Sidewalk | Bridge No. 03637 | Metal Decking | | Metal | Yellow | Defective | 0.0 | 0.0 | 6.1 | 23.1 | 10/5/2015 7:35 |
| 11 | Exterior | South Sidewalk | Bridge No. 03637 | Sidewalk | | Concrete | White | Defective | 0.0 | 0.5 | 10.0 | 15.3 | 10/5/2015 7:36 |
| 12 | Exterior | South Sidewalk | Bridge No. 03637 | Sidewalk | | Concrete | White | Defective | 0.0 | 0.0 | 1.8 | 6.6 | 10/5/2015 7:37 |
| 13 | Exterior | West Control Room | Bridge No. 03637 | Wall | | Block | Tan/Beige | Defective | 0.0 | 0.0 | 2.3 | 12.0 | 10/5/2015 7:38 |
| 14 | Exterior | West Control Room | Bridge No. 03637 | Window | Casing | Metal | Green | Defective | 0.0 | 0.0 | 1.0 | 5.4 | 10/5/2015 7:39 |
| 15 | Exterior | West Control Room | Bridge No. 03637 | Door | | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 4.6 | 10/5/2015 7:39 |
| 16 | Basement | East Control Room | Bridge No. 03637 | Wall | | Sheetrock | Tan/Beige | Intact | 0.0 | 0.0 | 1.0 | 5.8 | 10/5/2015 7:45 |
| 17 | Basement | East Control Room | Bridge No. 03637 | Wall | | Sheetrock | Tan/Beige | Intact | 0.0 | 0.0 | 1.0 | 2.5 | 10/5/2015 7:45 |
| 18 | Basement | East Control Room | Bridge No. 03637 | Wall | | Sheetrock | Tan/Beige | Intact | 0.0 | 0.0 | 1.5 | 9.5 | 10/5/2015 7:46 |
| 19 | Basement | East Control Room | Bridge No. 03637 | I-Beam | | Metal | White | Intact | **3.4** | **0.5** | 5.8 | 7.5 | 10/5/2015 7:47 |
| 20 | Basement | East Control Room | Bridge No. 03637 | I-Beam | | Metal | White | Intact | 0.0 | 0.1 | 1.5 | 0.4 | 10/5/2015 7:50 |
| 21 | Basement | East Control Room | Bridge No. 03637 | I-Beam | | Metal | White | Intact | **0.5** | **0.4** | 8.9 | 30.0 | 10/5/2015 7:51 |
| 22 | Basement | East Control Room | Bridge No. 03637 | I-Beam | | Metal | White | Intact | **7.2** | **0.9** | 6.5 | 13.6 | 10/5/2015 7:51 |
| 23 | Basement | East Control Room | Bridge No. 03637 | Ceiling | | Concrete | White | Intact | 0.0 | 0.0 | 1.0 | 9.5 | 10/5/2015 7:53 |
| 24 | Basement | East Control Room | Bridge No. 03637 | Door | Casing | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 8.7 | 10/5/2015 7:54 |
| 25 | Basement | East Control Room | Bridge No. 03637 | I-Beam | | Metal | White | Detective | **3.1** | **0.7** | 10.0 | 13.2 | 10/5/2015 8:06 |
| 26 | 1st floor | East Control Room | Bridge No. 03637 | Wall | | Sheetrock | Tan/Beige | Intact | 0.0 | 0.0 | 1.0 | 8.7 | 10/5/2015 8:10 |
| 27 | 1st floor | East Control Room | Bridge No. 03637 | Window | Sash int | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 9.5 | 10/5/2015 8:11 |
| 28 | 1st floor | East Control Room | Bridge No. 03637 | Railing | | Metal | Grey | Intact | 0.0 | 0.0 | 1.0 | 8.3 | 10/5/2015 8:13 |
| 29 | 1st floor | East Control Room | Bridge No. 03637 | Wall | | Metal | Grey | Intact | **1.1** | **0.1** | 1.2 | 5.4 | 10/5/2015 8:13 |
| 30 | 1st floor | East Control Room | Bridge No. 03637 | Wall | | Metal | Grey | Intact | **1.3** | **0.1** | 1.2 | 11.9 | 10/5/2015 8:13 |
| 31 | 1st floor | East Control Room | Bridge No. 03637 | Wall | | Metal | Grey | Intact | **1.6** | **0.1** | 1.4 | 12.0 | 10/5/2015 8:14 |
| 32 | 1st floor | West Control Room | Bridge No. 03637 | Wall | Lower | Metal | Grey | Intact | 0.0 | 0.0 | 1.0 | 3.3 | 10/5/2015 8:19 |
| 33 | 1st floor | West Control Room | Bridge No. 03637 | Wall | Lower | Metal | Grey | Intact | 0.0 | 0.0 | 1.0 | 2.9 | 10/5/2015 8:19 |
| 34 | Basement | West Control Room | Bridge No. 03637 | I-Beam | | Metal | White | Detective | **2.0** | **0.3** | 5.2 | 10.7 | 10/5/2015 8:24 |
| 35 | Basement | West Control Room | Bridge No. 03637 | Ceiling | | Concrete | White | Defective | **0.2** | **0.1** | 7.9 | 5.8 | 10/5/2015 8:24 |
| 36 | Basement | West Control Room | Bridge No. 03637 | Ceiling | Light Fixture | Metal | White | Detective | 0.0 | 0.0 | 1.9 | 7.4 | 10/5/2015 8:26 |
| 37 | Basement | West Control Room | Bridge No. 03637 | Wall | | Sheetrock | White | Intact | 0.0 | 0.0 | 1.0 | 6.2 | 10/5/2015 8:27 |
| 38 | Basement | West Control Room | Bridge No. 03637 | Wall | | Sheetrock | White | Intact | 0.0 | 0.0 | 1.0 | 7.5 | 10/5/2015 8:27 |
| 39 | Basement | West Control Room | Bridge No. 03637 | Stair | Riser | Metal | Green | Detective | **5.6** | **0.8** | 4.8 | 13.2 | 10/5/2015 8:28 |
| 40 | Basement | West Control Room | Bridge No. 03637 | Window | Sash int | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 7.5 | 10/5/2015 8:29 |
| 41 | 1st floor | West Control Room | Bridge No. 03637 | Wall | Upper | Sheetrock | White | Intact | 0.0 | 0.0 | 1.0 | 7.0 | 10/5/2015 8:32 |
| 42 | Exterior | West Control Room | Bridge No. 03637 | Bridge Span | | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 9.1 | 10/5/2015 9:19 |

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

TRC

# Lead Based Paint Measurement Summary Table

**Device(s):** Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer
**Site:** CTDOT - Bridge No. 03637, Bridgeport, CT
**Project # :** 222165.5135.0710
**Date(s):** 10/5/2015 & 8/4/16
**Inspector:** Robert Belding ( CT Lead I/RA LIC. No. 002210) & Kelly Grey ( CT Lead I/RA LIC. No. 002267)

| Number | Interior/ Exterior | Location | Bridge No. | Structure | Feature | Material | Color | Condition | Reading (mg/cm2) | Precision (mg/cm2) | Depth Index | Duration (sec) | Date/Time |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | Exterior | West Control Room | Bridge No. 03637 | Bridge Span | | Metal | Green | Detective | 0.0 | 0.0 | 1.0 | 3.3 | 10/5/2015 9:20 |
| 44 | | | **0.7 calibration** | | | | | | 0.7 | 0.1 | 1.2 | 5.8 | 10/5/2015 10:30 |
| 45 | | | **1.6 calibration** | | | | | | 1.5 | 0.1 | 1.1 | 6.6 | 10/5/2015 10:30 |
| 46 | | | **0.3 calibration** | | | | | | 0.3 | 0.0 | 1.1 | 11.6 | 10/5/2015 10:30 |
| 47 | | | **Self-Calibration** | | | | | | | | | 104.2 | 8/4/2016 9:25 |
| 48 | | | **0.0 calibration** | | | | | | 0.0 | 0.0 | 1.1 | 3.2 | 8/4/2016 9:26 |
| 49 | | | **1.6 calibration** | | | | | | 1.5 | 0.2 | 1.1 | 4.5 | 8/4/2016 9:26 |
| 50 | | | **3.5 calibration** | | | | | | 3.4 | 0.2 | 1.2 | 9.5 | 8/4/2016 9:27 |
| 51 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 5.3 | 8/4/2016 9:32 |
| 52 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 4.0 | 8/4/2016 9:32 |
| 53 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Green | Intact | 0.0 | 0.0 | 1.0 | 2.7 | 8/4/2016 9:33 |
| 54 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Green | Intact | 0.0 | 0.0 | 3.1 | 7.7 | 8/4/2016 9:34 |
| 55 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Orange | Intact | 0.0 | 0.0 | 1.0 | 4.3 | 8/4/2016 9:34 |
| 56 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Orange | Intact | 0.0 | 0.0 | 1.0 | 5.8 | 8/4/2016 9:35 |
| 57 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Orange | Intact | **1.8** | **0.6** | 3.1 | 12.2 | 8/4/2016 9:37 |
| 58 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Orange | Intact | 0.0 | 0.0 | 1.9 | 5.3 | 8/4/2016 9:38 |
| 59 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Red | Intact | 0.0 | 0.0 | 1.9 | 5.6 | 8/4/2016 9:38 |
| 60 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Red | Intact | 0.0 | 0.0 | 1.0 | 5.3 | 8/4/2016 9:39 |
| 61 | | | | | **VOID** | | | | | | | | |
| 62 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Grey | Intact | 0.0 | 0.0 | 1.0 | 5.3 | 8/4/2016 9:40 |
| 63 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Grey | Intact | 0.0 | 0.0 | 1.0 | 6.6 | 8/4/2016 9:40 |
| 64 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Grey | Intact | 0.0 | 0.0 | 1.7 | 5.0 | 8/4/2016 9:41 |
| 65 | Interior | SE Drive Room | Bridge No. 03637 | Motor Components | | Metal | Grey | Intact | 0.0 | 0.0 | 1.0 | 2.6 | 8/4/2016 9:41 |
| 66 | | | **0.0 calibration** | | | | | | 0.0 | 0.0 | 1.0 | 2.6 | 8/4/2016 11:32 |
| 67 | | | **0.7 calibration** | | | | | | 0.6 | 0.1 | 1.0 | 5.8 | 8/4/2016 11:33 |
| 68 | | | **1.6 calibration** | | | | | | 1.6 | 0.1 | 1.2 | 6.9 | 8/4/2016 11:33 |

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

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. Rob Belding
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

# Analytical Report

# CET# 5100145

Report Date:October 09, 2015
Project: CTDOT, Bridge
Project Number: Bridge 03637, Bridgeport
PO Number: 222165.5135.0710

Connecticut Laboratory Certificate: PH 0116
Massachussetts laboratory Certificate: M-CT903

New York Certification: 11982
Rhode Island Certification: 199

**SAMPLE SUMMARY**

The sample(s) were received at 18.1°C.

This report contains analytical data associated with following samples only.

| Sample ID | Laboratory ID | Matrix | Collection Date/Time | Receipt Date |
|---|---|---|---|---|
| 1-A | 5100145-01 | Paint Chip | 10/05/2015 10:30 | 10/07/2015 |
| 1-B | 5100145-02 | Paint Chip | 10/05/2015 10:32 | 10/07/2015 |
| 2-A | 5100145-03 | Paint Chip | 10/05/2015 10:50 | 10/07/2015 |
| 2-B | 5100145-04 | Paint Chip | 10/05/2015 10:55 | 10/07/2015 |
| 3 | 5100145-05 | Paint Chip | 10/05/2015 11:10 | 10/07/2015 |
| 4 | 5100145-06 | Paint Chip | 10/05/2015 11:30 | 10/07/2015 |

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

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

| Laboratory ID | Client Sample ID | Result | RL | Units | Dilution | Batch | Prepared | Date/Time Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 5100145-01 | 1-A | ND | 0.10 | % | 1 | B5J0802 | 10/08/2015 | 10/08/2015 14:10 | |
| 5100145-02 | 1-B | ND | 0.10 | % | 1 | B5J0802 | 10/08/2015 | 10/08/2015 14:14 | |
| 5100145-03 | 2-A | ND | 0.10 | % | 1 | B5J0802 | 10/08/2015 | 10/08/2015 14:19 | |
| 5100145-04 | 2-B | ND | 0.10 | % | 1 | B5J0802 | 10/08/2015 | 10/08/2015 14:32 | |

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

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

| Laboratory ID | Client Sample ID | Result | RL | Units | Dilution | Batch | Prepared | Date/Time Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 5100145-05 | 3 | **0.75** | 0.013 | mg/L | 1 | B5J0840 | 10/08/2015 | 10/08/2015 21:55 | |
| 5100145-06 | 4 | **30** | 0.013 | mg/L | 1 | B5J0840 | 10/08/2015 | 10/08/2015 21:59 | |

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:

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.
*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.

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 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.

CET # : 5100145
Project: CTDOT, Bridge
Project Number: Bridge 03637, Bridgeport

## CERTIFICATIONS

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***EPA 6010C in Soil*** | |
| Lead | CT,NY |
| ***EPA 6010C in Solid*** | |
| Lead | CT |

Complete Environmental Testing operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| CT | Connecticut Public Health | PH0116 | 09/30/2016 |
| NY | New York Certification (NELAC) | 11982 | 04/01/2016 |

5100145

*Edition: September 2007*
*Supersede Previous Edition*

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

# TCLP CHAIN OF CUSTODY

LAB ID #.

| TURNAROUND TIME | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TCLP | | 24hr | X | 48hr | | 3day | | 5day |
| | | 24hr | | 48hr | | 3day | | 5day |

| PROJECT NUMBER | PROJECT NAME |
|---|---|
| 222165.5135.0710 | Conn DOT – Bridge 03637, Bridgeport, CT |

| INSPECTOR: (SIGNATURE) | (PRINTED) |
|---|---|
| | Robert Belding |

| FIELD SAMPLE NUMBER | DATE | TIME | TYPE COMP | TYPE GRAB | SAMPLE LOCATION | RCRA Pb | RCRA Pb, AS, CR, CD | 8 RCRA Metals | Total Pb | TCLP Pb | MATERIAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-A | 10/5/15 | 1030 | | X | Bridge Girder | | | | X | | Paint Chip - Aqua |
| 1-B | 10/5/15 | 1032 | | X | Bridge Girder | | | | X | | Paint Chip - Aqua |
| 1-C | 10/5/15 | 1038 | | X | Bridge Girder | | | | | X | TCLP - Aqua |
| 2-A | 10/5/15 | 1050 | | X | Sidewalk | | | | X | | Paint Chip – Yellow |
| 2-B | 10/5/15 | 1055 | | X | Sidewalk | | | | X | | Paint Chip – Yellow |
| 2-C | 10/5/15 | 1045 | | X | Sidewalk | | | | | X | TCLP – Yellow |
| 3 | 10/5/15 | 1110 | | X | I-Beam - Basement | | | | | X | TCLP – White |
| 4 | 10/5/15 | 1130 | | X | Basement Stairs – West House | | | | | X | TCLP – Green |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Relinquished by: (Signature) | Date: | Received by: (Signature) | Relinquished by: (Signature) | Date: | Received by: (Signature) |
|---|---|---|---|---|---|
| | 10/6/15 | 10/7/15 1300 | | | |
| (Printed) Robert Belding | Time: 1600 | (Printed) 1810 | (Printed) | Time: | (Printed) |

Remarks: **For Each Series** – If A or B have Detectable Pb, Analyze C. If A or B have NO Pb, Don't Analyze C.

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 #. 46881

| PROJECT NUMBER | PROJECT NAME |
|---|---|
| 222165.5135.0710 | Conn DOT – Bridge 03637, Bridgeport, CT |

| SIGNATURE | INSPECTOR |
|---|---|
| | Robert Belding |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10/5/15 | 0934 | | X | East House | X | | X | | | White Sheetrock w/ White Joint Compound – SHR1 |
| 2 | 10/5/15 | 0947 | | X | West House | X | | X | | | White Sheetrock w/ White Joint Compound – SHR1 |
| 3 | 10/5/15 | 0930 | | X | East House | X | | X | | | 12x12 Gray w/ White-Dk Gray Specks Floor Tile w/ Yellow Mastic – FT1 |
| 4 | 10/5/15 | 0945 | | X | West House | | | X | | X | 12x12 Gray w/ White-Dk Gray Specks Floor Tile w/ Yellow Mastic – FT1 |
| 5 | 10/5/15 | 0940 | | X | East House | X | | X | | | Light Tan Covebase Glue – CB1 + CB |
| 6 | 10/5/15 | 0950 | | X | West House | | | X | | X | Light Tan Covebase Glue – CB1 + CB |
| 7 | 10/5/15 | 1020 | | X | Below Bridge | X | | | | | Black Tar Vapor Barrier on Bridge Concrete – VB1 |
| 8 | 10/5/15 | 1021 | | X | Below Bridge | | | | | X | Black Tar Vapor Barrier on Bridge Concrete – VB1 |
| 9 | 10/5/15 | 0820 | | X | East House | X | | | | | Gray Rubbery Window/Door Caulk – C1 |
| 10 | 10/5/15 | 0824 | | X | West House | | | | | X | Gray Rubbery Window/Door Caulk – C1 |

| Relinquished by: (Signature) | Date: | Received by: (Signature) | Relinquished by: (Signature) | Date: | Received by: (Signature) |
|---|---|---|---|---|---|
| | 10/6/15 | 10/6/15 | | | |
| (Printed) Robert Belding | Time: 1530 | (Printed) 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 #. 46881

| PROJECT NUMBER | PROJECT NAME | PARAMETERS | TURNAROUND TIME |
|---|---|---|---|
| 222165.5135.0710 | Conn DOT – Bridge 03637, Bridgeport, CT | | PLM: 8hr ~~X~~ 24hr 48hr ✓ 3day<br>TEM: ~~X~~ 24hr 48hr ✓ 3day 5day |
| SIGNATURE | INSPECTOR | | |
| | Robert Belding | | |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 10/5/15 | 0936 | | X | East House | X | | | | | Gray Pliable Building Caulk – C2 |
| 12 | 10/5/15 | 0948 | | X | West House | | | | | X | Gray Pliable Building Caulk – C2 |
| 13 | 10/5/15 | 0937 | | X | East House | X | | | | | Dk. Gray Rubbery Expansion Joint Caulk – C3 |
| 14 | 10/5/15 | 0949 | | X | West House | | | | | X | Dk. Gray Rubbery Expansion Joint Caulk – C3 |
| 15 | 10/5/15 | 1023 | | X | Below Bridge – Stone Foundation | X | | | | | Tan Hard Caulk – C4 |
| 16 | 10/5/15 | 1023 | | X | Below Bridge – Stone Foundation | | | | | X | Tan Hard Caulk – C4 |
| 17 | 10/5/15 | 1125 | | X | East House - Roof | X | | | | | Black Rubbery Roof Caulk – C5 |
| 18 | 10/5/15 | 1126 | | X | East House - Roof | | | | | X | Black Rubbery Roof Caulk – C5 |
| 19 | 10/5/15 | 1110 | | X | Under Asphalt Road Deck | X | | | | | Gray Rubbery Seam Caulk – C6 |
| 20 | 10/5/15 | 1110 | | X | Under Asphalt Road Deck | | | | | X | Gray Rubbery Seam Caulk – C6 |

| Relinquished by: (Signature) | Date: | Received by: (Signature) | Relinquished by: (Signature) | Date: | Received by: (Signature) |
|---|---|---|---|---|---|
| | 10/6/15 | 10/6/15 | | | |
| (Printed) Robert Belding | Time: 1530 | (Printed) 1600 Williamson | (Printed) | Time: | (Printed) |

Remarks:

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

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 #: 0046881
Project #: 222165.5135.0710
Date Received: 10/06/2015
Date Analyzed: 10/07/2015

Site: Bridge 03637, Bridgeport, CT

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

| Sample No. | Color | Homogenous | Multi-Layered | Layer No. | Other Matrix Materials | Asbestos % | Asbestos Type |
|---|---|---|---|---|---|---|---|
| 1 | White (joint compound) | No | Yes | 1 | --- | ND | None |
| 1 | White (sheetrock) | No | Yes | 2 | 2% cellulose | ND | None |
| 2 | White (joint compound) | No | Yes | 1 | --- | ND | None |
| 2 | White (sheetrock) | No | Yes | 2 | 2% cellulose | ND | None |
| 3 | Yellow (mastic) | No | Yes | 1 | --- | ND | None |
| 3 | Grey/White/Dark Grey (tile) | No | Yes | 2 | --- | ND | None |
| 4 | Yellow (mastic) | No | Yes | 1 | --- | ND | None |
| 4 | Grey/White/Dark Grey (tile) | No | Yes | 2 | --- | ND | None |
| 5 | Light Tan (glue) | No | Yes | 1 | --- | ND | None |
| 5 | Grey (cove base) | No | Yes | 2 | --- | ND | None |
| 6 | Light Tan (glue) | No | Yes | 1 | --- | ND | None |
| 6 | Grey (cove base) | No | Yes | 2 | --- | ND | None |
| 7 | Black | Yes | No | -- | --- | ND | None |
| 8 | Black | Yes | No | -- | --- | ND | None |
| 9 | Grey | Yes | No | -- | --- | ND | None |
| 10 | Grey | Yes | No | -- | --- | ND | None |
| 11 | Grey | Yes | No | -- | --- | ND | None |
| 12 | Grey | Yes | No | -- | --- | ND | 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 |
|---|---|---|---|---|---|---|---|
| 13 | Dark Grey | Yes | No | - - | - - - | ND | None |
| 14 | Dark Grey | Yes | No | - - | - - - | ND | None |
| 15 | Tan | Yes | No | - - | - - - | ND | None |
| 16 | Tan | Yes | No | - - | - - - | ND | None |
| 17 | Black | Yes | No | - - | - - - | ND | None |
| 18 | Black | Yes | No | - - | - - - | ND | None |
| 19 | Grey | Yes | No | - - | - - - | ND | None |
| 20 | Grey | Yes | No | - - | - - - | ND | None |

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. 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** 10/07/2015

NT15471

# Proscience Analytical Services, Inc.

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

TEM Bulk Chain of Custody Record

Date: 10/07/15

**PO#:** **C222165**

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

Client: TRC

Client Job#: 222165.5135.0710

Client Job Ref./Loc.: CT DOT- Bridge 03637

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

Received by: Doreen Townsend 10-8-15 @ 10:00 am

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

Samplers Name: R. Belding

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** |
| 4 | 46881 | Tile & Mastic | See COC | | |
| 6 | 46881 | CB & Glue | | | |
| 8 | 46881 | Vapor Barrier | | | |
| 10 | 46881 | Caulk | | | |
| 12 | 46881 | Caulk | | | |
| 14 | 46881 | Caulk | | | |
| 16 | 46881 | Caulk | | | |
| 18 | 46881 | Caulk | | | |
| 20 | 46881 | Caulk | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

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

# 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 #: 222165.5135.0710
Client Reference: CT DOT - Bridge 03637
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

**Batch:** **NT 15471**
Method: NOB
Date Received: 10/8/2015
Date Analyzed: 10/13/2015
Date of Report: 10/13/2015

| 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 | | | | | | |
| NT118125 | 4M | Yellow mastic | | .0525 | .00 | .00 | .00 | .00 | .00 | .00 | 36.38 | 53.52 | 10.10 | ND | Yes | No |
| NT118126 | 4 | 12X12 Gray w/white dark gray specks floor tile | | .5121 | .00 | .00 | .00 | .00 | .00 | .00 | 2.63 | 4.24 | 93.13 | ND | Yes | No |
| NT118127 | 6M | Light tan covebase glue | | .4646 | .00 | .00 | .00 | .00 | .00 | .00 | 27.83 | 57.62 | 14.55 | ND | Yes | No |
| NT118128 | 6 | Covebase | | .4638 | .00 | .00 | .00 | .00 | .00 | .00 | 1.44 | 30.66 | 67.90 | ND | Yes | No |
| NT118129 | 8 | Black tar vapor barrier | | .8185 | .00 | .00 | .00 | .00 | .34 | .00 | 6.87 | 90.85 | 2.28 | TR | Yes | No |
| NT118130 | 10 | Gray rubbery window/door caulk | | .7469 | .00 | .00 | .00 | .00 | .00 | .00 | 1.68 | 56.41 | 41.91 | ND | Yes | No |
| NT118131 | 12 | Gray pliable building caulk | | .4603 | .20 | .00 | .00 | .00 | .00 | .00 | 9.87 | 84.18 | 5.95 | TR | Yes | No |
| NT118132 | 14 | Dark gray rubbery expansion joint caulk | | .6481 | .00 | .00 | .00 | .00 | .00 | .00 | 6.44 | 70.34 | 23.22 | ND | Yes | No |
| NT118133 | 16 | Tan hard caulk | | 1.0148 | .00 | .00 | .00 | .00 | .00 | .00 | 54.18 | 40.37 | 5.45 | ND | Yes | No |
| NT118134 | 18 | Black rubbery roof caulk | | .1053 | .00 | .00 | .00 | .00 | .00 | .00 | 9.78 | 38.08 | 52.14 | ND | Yes | No |
| NT118135 | 20 | Gray rubbery seam caulk | | .8691 | .00 | .00 | .00 | .00 | .00 | .00 | 7.21 | 56.14 | 36.65 | ND | Yes | No |

**Comments:**

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

Mark Derosier, Analyst

SHEET NO. _____ OF _____

PROJECT NO. 222165.5135.0710

DATE 10/5/15

BY JG/EB/RB

CHK'D _____

TRC Results you can rely on

SUBJECT Bridge 3637 Bridgeport

ACM

(✓✓) $C_1$ = Grey Rubbery Window/Door Caulk

(✓✓) $C_2$ = Grey Pliable Bldg Caulk

(✓✓) $C_3$ = Dk Grey Rubbery Expansion Jt Caulk

(✓✓) $FT_1$ = 12" Grey w/ White + Dk Grey Specks FT + Yellow Mastic

(✓✓) $CB_1$ = Lt. Tan Covebase Glue

(✓✓) $SHR_1$ = White Sheetrock / White JC

(✓✓) $C_4$ = Tan Hard Caulk (~50 LF) on stone foundations below houses

(✓✓) $VB_1$ = Tar Vapor Barrier on Bridge Concrete (~1000 SF in Pits ~500 SF/Pit)

(✓✓) $C_5$ = Black Rubbery Roof Caulk

(✓✓) $C_6$ = Grey Rubbery Seam Caulk (on Roadway center line below top deck) ~ 320 LF

* Metal Roofs over plywood unable to verify any VB below Metal

– GUANO PRESENT –

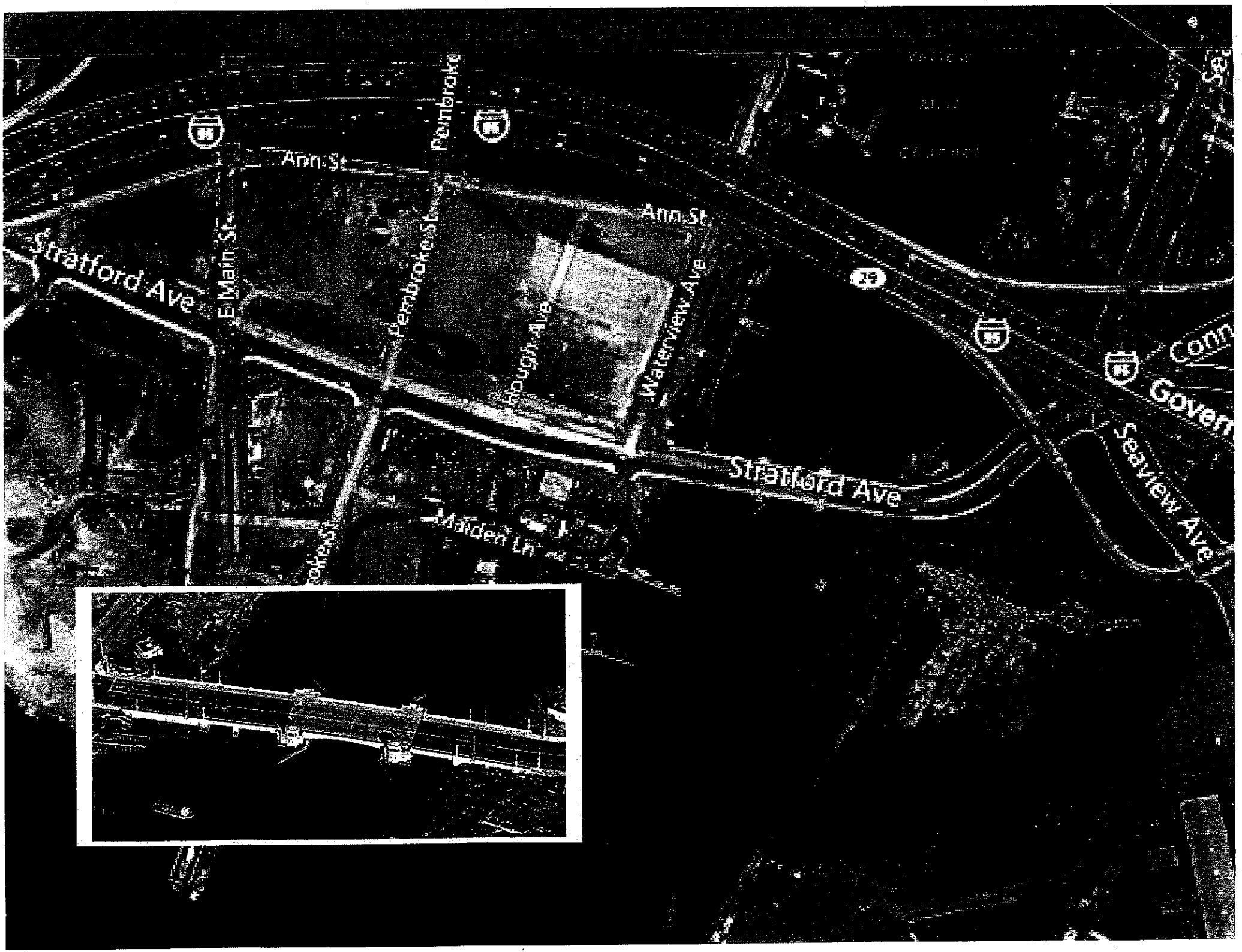
bridge ~ 160' × 50'

8/4/16

- Clutch Drive + Braking System may contain acm wear parts, but not able to sample, Don't usually sample dust
- PVC leader pipe has no SACM assoc. except previously sampled non-acm $C_5$

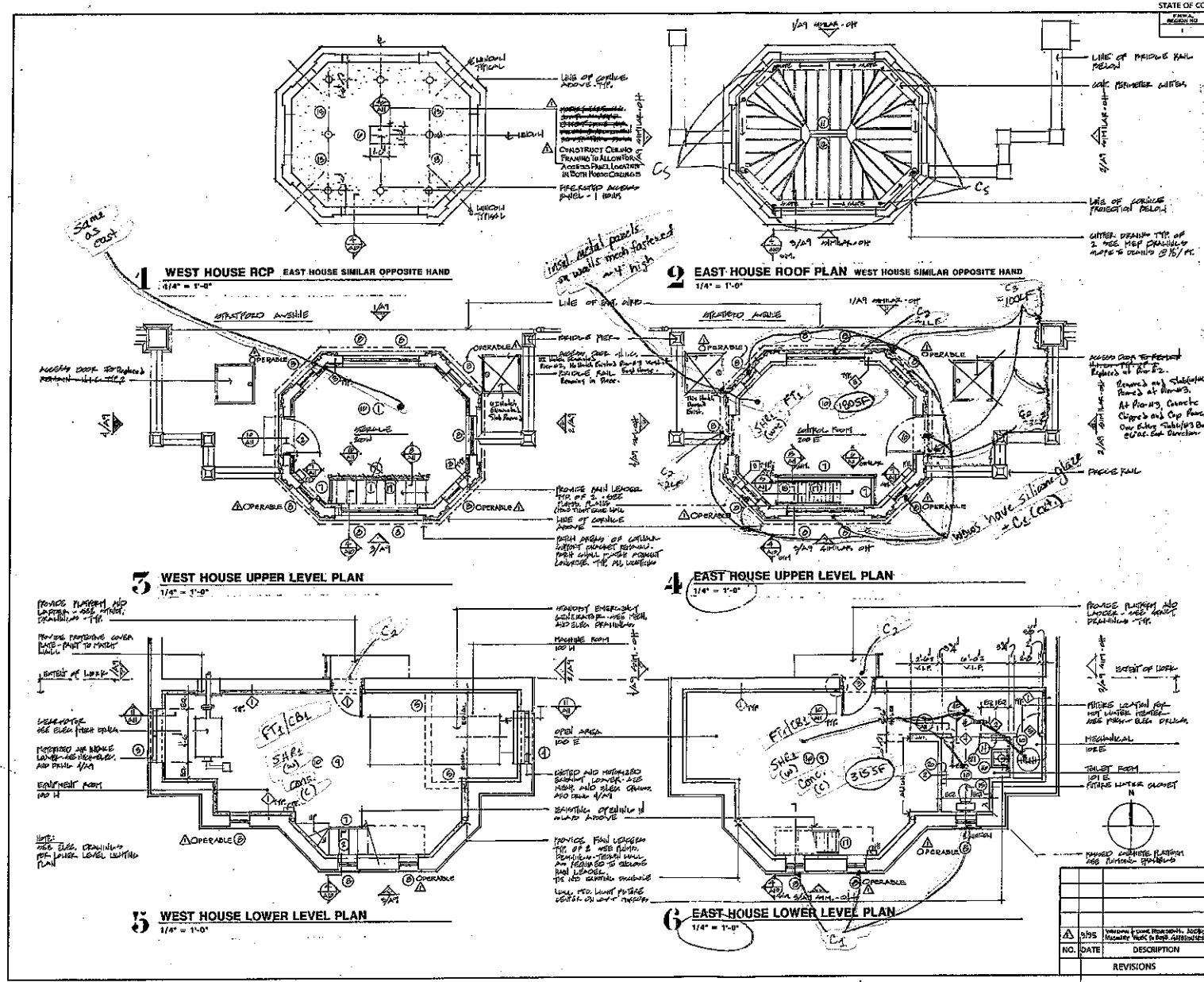
*Note*
Oils/lubricants for clutch/brake as haz items

A


Ann St
Ann St
Pembroke
Pembroke St
E Main St
Stratford Ave
Hough Ave
Waterview Ave
Stratford Ave
Maiden Ln
Seaview Ave
Govern
Conn
29
95

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION

| FEDERAL AID PROJ. NO. | STATE | TOWN | FED. AID PROJ. NO. | PROJ. NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|
| 1 | CONN. | BRIDGEPORT | BRM-OPP-0188(2) | 15-204 | 1994 | 139 | 143 | 189




**GENERAL PLAN NOTES:**

1. Do not scale these drawings.
2. The contractor shall verify all existing conditions and dimensions in the field and report any discrepancies to the architect immediately.
3. Mechanical, electrical and structural information indicated on the architectural drawings is for reference purpose only. Unless otherwise indicated, refer to Mechanical, electrical, structural drawings and specifications for specific information pertaining to those trades.
4. Maintain a clear circulation path around the limits of construction at all times.
5. Where existing construction is disturbed, and where existing and new construction meet, these areas shall be cut, patched and filled as required to maintain a smooth and even transition between materials.
6. Partitions: Provide all blocking, grounds and other required subsurface attachments for equipment, accessories, trim fixtures, and manufactured items.
7. Seal between masonry and metal, metal and metal and as noted on the drawings.
8. Dimensions shown in nominal sizes are for the purpose of describing the construction and are not to be taken as the actual size of the component.
9. Verify openings for pipes and such with mechanical and electrical drawings and provide as required.
10. These notes apply equally to the full set of contract documents.
11. Spalled concrete (unsecure) shall be cleaned including reinforcement and patched with epoxy portland cement to match adjacent surfaces. Inspect reinforcement repair reinforcement as indicated by structural drawings.
12. Flash patch existing concrete floors as required.
13. See Electrical Drawings for Lighting Plans & Wall Receptacles.

**PLAN KEY NOTES:**

1. Provide milling at existing stair.
2. Repair scrape, sand, prime, and paint existing stair.
3. 4'-6" x 4'-6" louver vent - (see mechanical drawings).
4. 4'-6" x 6'-0" louver vent - (see mechanical drawings).
5. Flash patch concrete floor slab at removed wall locations and as required elsewhere.
6. Provide 5/8" Type "X" Fireresistant Gypsum board ceiling - painted.
7. Provide steel rail.
8. Provide vinyl clad window.
9. Paint underside of concrete slab (at ceiling).
10. Provide resilient flooring. 12"x12" Vinyl Tiles.
11. Provide standing seam metal roof.
12. Provide roof ridge vent.
13. Provide ceiling mounted light fixture.
14. Provide trash receptacle - MH = 2'-6" A.F.F.
15. Toilet paper dispenser - recessed. MH = 1'-4" C.L. A.F.F.
16. Wall mounted mirror center on wall and lavatory. MH LAV 2'-10" A.F.F. MH MIRROR 6'-0" C.L. A.F.F.
17. Provide prefabricated aluminum ship ladder.
18. Provide prefabricated aluminum platform.
19. Repair as required existing stair - scrape, sand, prime and paint.
20. Wall mounted hand dryer. MH = 3'-5".
21. Wall mounted soap dispenser - center on mirror and lavatory. MH 4'-0" C.L. A.F.F.

THIS SHEET CORRECTED

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 8/95 | Various Cosmetic Modifications, Add Stay Masonry Work to Bldg. Additions |

REVISIONS

**CONNECTICUT**
DEPARTMENT OF TRANSPORTATION

REHABILITATION OF

STRATFORD AVENUE BRIDGE
OVER YELLOW MILL CHANNEL

FLOOR PLANS

| | | | |
|---|---|---|---|
| ENGINEER HNTB | | | |
| DESIGNER S.D.J. | DRAFTER S.D.J. | CHECKER T.K.S. | |
| APPROVED | | DATE 8/16/94 | |
| STRUCTURE NO. | | SHEET NO. 03937 | STRUCTURAL SHEET NO. A8 of A13 |

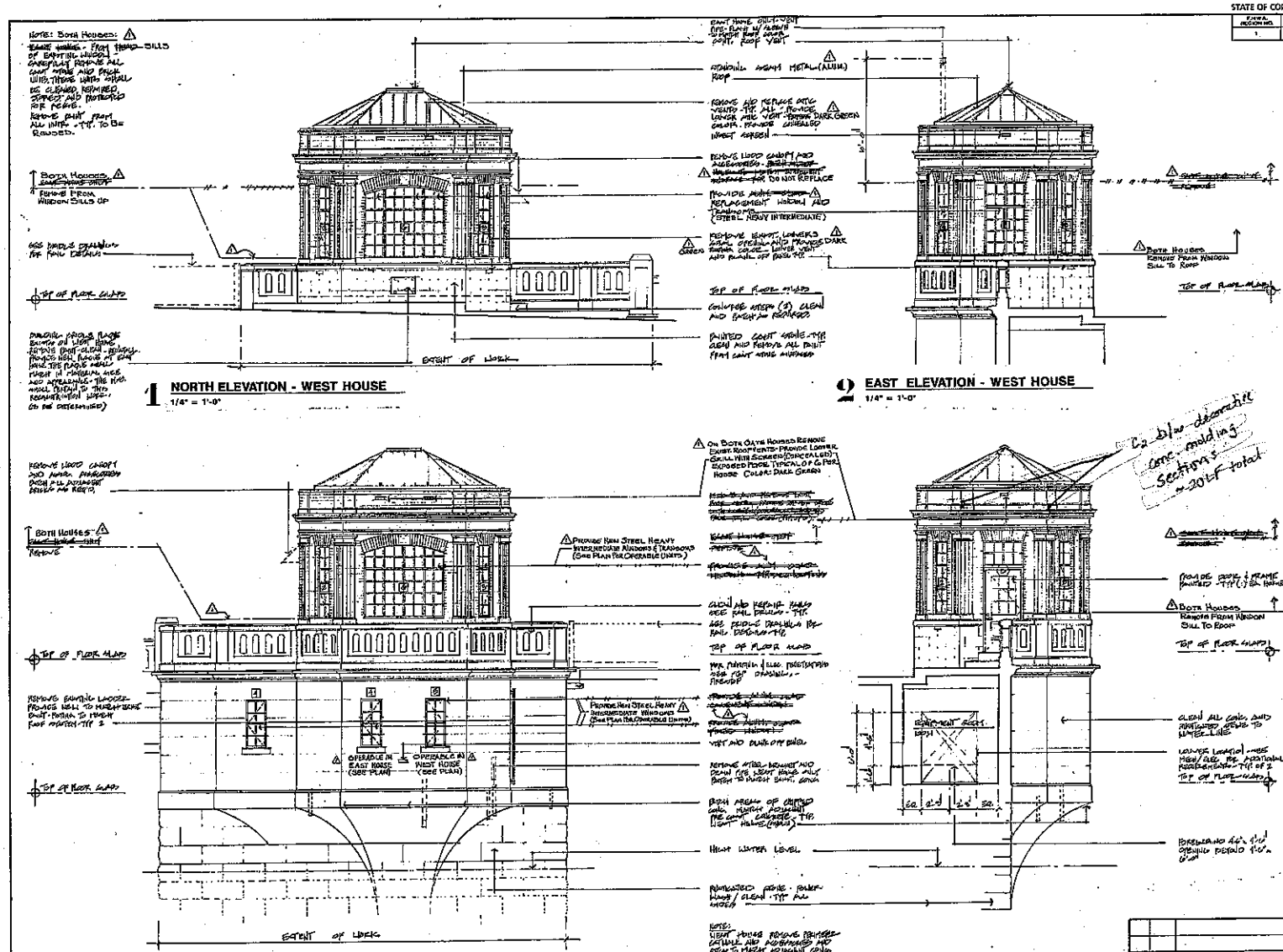
15-204/222

645-01

143

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION

| FORM A RECORD NO. | STATE | TOWN | FED AID PROJ. NO. | PROJ. NO. | YEAR | SHEET NO | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|
| 1 | CONN | BRIDGEPORT | BRM-0091-013(8) | 15-204 | 1994 | 130 | 144 / 159 |




## ELEVATION NOTES:

1. Notes apply to both the west house and the east house unless noted otherwise.
2. West house is drawn - East house is symmetrical opposite hand.
3. All painted surfaces to remain shall be chemically power washed.
4. Power wash/clean all exterior surfaces - Typical to remove paint, rust, stains, and soiled surfaces.
5. Repoint all masonry and cast stone mortar joints - Typical.
6. Repair/patch chipped, cracked, or broken precast concrete. Replace concrete to match adjacent surfaces.
7. Contractor shall key all components removed and to be reused ad as to assure return of component to its original location - Typical.
8. Remove all signage form both structures, except building plaque.
9. The exterior concrete walls shall be cleaned and patched to match existing finish in: color and texture. (epoxy portland cement).
10. All masonry and concrete shall be sealed with graffiti coating sealant.

11. East house and West Gatehouses: ⚠

A. Remove roof and roof structure.
B. Carefully remove and salvage for reuse cast stone parapet cap.
C. Carefully remove and salvage for reuse painted masonry.
D. Carefully remove and salvage for reuse cast stone cornice.
E. Carefully remove and salvage for reuse cast stone pilaster caps.
F. Carefully remove and salvage for reuse brick to underside of cornice to top of window head.
G. Carefully remove steel lintels
H. Clean and repair all cast stone and masonry to be reused. Remove all paint, stains etc. Protect and store for reuse.
I. Provide and install lintels at window head locations. (see structural for sizes).
J. Install salvaged brick in fashion of detailing as existing condition to match all heights and profiles as original structure. Use painted brick, cleaned and from above cornice to make up for damaged brick below cornice.
K. Install pilaster cast stone cap and cast stone cornice at same locations as originally located.
L. Above cornice provide samples for architects review and approval.
M. Reinstall cast stone cap at same location removed.
N. Provide new roof structure and standing seam metal roof system, gutters, drains etc.

⚠ ~~O. Clean and repair all cast stone and masonry - Typical all locations.~~
~~P. Provide new 1/2" fireresistant roof sheathing.~~
~~Q. Repoint all masonry and cast stone - Typical all locations.~~
~~R. Clean and repair all cast stone and masonry - Typical all locations.~~

~~West house only:~~
~~A. Building/bridge plaque - Clean and tighten anchoring. Remove all paint.~~
~~B. Patch all holes/chips from balcony removal to match adjacent surface - Typical all locations.~~

⚠ O. Provide 1/2" fireresistant roof sheathing.
P. Provide standing seam metal roof (Batten system), with felt paper.
Q. Repoint all masonry and cast stone - Typical all locations.
R. Clean and repair all cast stone and masonry - Typical all locations.

West house only:
A. Building/bridge plaque - Clean and tighten anchoring. Remove all paint.
B. Patch all holes/chips from balcony removal to match adjacent surface - Typical all locations.

CONNECTICUT
DEPARTMENT OF TRANSPORTATION

BRIDGEPORT

REHABILITATION OF
STRATFORD AVENUE BRIDGE
OVER YELLOW MILL CHANNEL

GATE HOUSE ELEVATIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 9/98 | Windows, Trim, Elevations, Lower Masonry Work in Both Gatehouses |

REVISIONS

ENGINEER HNTB
DESIGNER S.D.J. DRAFTER S.D.J. CHECKER T.K.S.
APPROVED DATE 8/1/00
STRUCTURE NO. BRIDGE LOG NO. 03697 STRUCTURE SHEET NO. A9 of A11

15-204/222 645-01 144

BRIDGEPORT

NO LOTO NEEDED

## Introduction

Bridge No. 03637, a double leaf rolling bascule structure, has sustained damage and been inoperable for extended periods during recent storms due to excessive storm tidal surges. In response the Connecticut Department of Transportation (CTDOT) proposes to armor and retrofit the bridge to alleviate future storm tidal surge damage. CTDOT has received funds from the Department of Housing and Urban Development (HUD) to aid in financing the design and implementation of corrective measures.

CTDOT has retained Close, Jensen & Miller (CJM) to aid in planning and perform liaison activities and Hardesty & Hanover (H&H) to perform design. The scope of work to be performed utilizing HUD funds will be limited to the proposed activities described in the Grant Application (See Appendix). Based upon this criterion additional rehabilitation and maintenance repairs will not be included in this project.

A site inspection and project review meeting was conducted March 20, 2015, attended by CTDOT, CJM and H&H representatives. At the meeting CTDOT Bridge Maintenance personnel described the damage that was incurred and the failure aspects of the bridge. Potential retrofit measures were discussed.

## Proposed Scope of Retrofit

Based upon review and inspection it appears that the major deficiency of the bridge is its susceptibility to water intrusion above an elevation of 11.0 (NAVD 88) and the inability of the bascule pit pumps to remove the water. The primary area of water intrusion is the front wall of the bascule pit which is below the storm tide elevation. Additionally, it was reported that the control house and generator house bottom level floors exhibited substantial water leakage during storms. Water intrusion from the sidewalks above the electrical drive control panel and generator control panel were also noted. The storm elevations to be designed to were provided by a preliminary Asset Report titled "YELLOW MILL DRAWBRIDGE, (CT 130 OVER YELLOW MILL CHANNEL), BRIDGEPORT, CT (CTDOT)" (see Appendix). Initial review of the facility and discussion of potentially feasible remediation yielded the following proposed measures:

- Raise the front wall of each bascule pit with reinforced concrete and provide a compressible seal between the new wall top and the bottom flange of the superstructure flooorbeam which is directly above the front wall. Provide removable system which will seal the bascule leaf girders.
- Seal the control house and generator house bottom level floors.
- Provide a water tight door between the bascule pits and control room and generator room.
- Replace the sidewalk above the electrical drive control panel and generator control panel with a watertight system.
- Provide a stand pipe and portable pump system capable of dewatering the bascule pits during extreme events. The pumps should be sized to handle expected leakage and are proposed to be trailer mounted diesel centrifugal pumps.
- Remove the sewage storage tank in the bascule pit and replace with toilet and sink mounted tanks in the lower level of the control room.

- Provide waterproof/submersible conduit and junction boxes for the bascule pit pumps and lighting and the center span navigation lights; the fender end navigation lights may be raised above storm surge level.
- Provide submersible span limit switches.
- Repair the damaged leaking roof sections.

## Project Costs

Preliminary Cost Estimates are based upon the project application data as follows:

| | |
|---|---|
| • Engineering | $375,000 |
| • Construction | $2,250,000 |

## Proposed Engineering Scope

The design of the proposed retrofit features, to be provided by H&H, will progress in two phases; a Preliminary Design Phase and a Final Design Phase. The Preliminary Design Phase will evaluate means and methods of providing the above listed retrofit measures and will develop plans to a preliminary level (+/- 30%). A preliminary cost estimate will also be developed. The plan and estimate submission will be reviewed prior to commencing final design. A Scope of Engineering Services is to be submitted by H&H for review.

The development of environmental permits, coast guard permit, hazardous and contaminated materials mitigation, NEPA documentation, public involvement and coordination with HUD will be conducted by CTDOT assisted by CJM.

## Plimpton, Erik

**From:** Reilly, Robert A. <Robert.Reilly@ct.gov>
**Sent:** Monday, November 2, 2015 4:31 PM
**To:** Plimpton, Erik
**Cc:** Nemecek, Judith A; Brown, Robert P
**Subject:** FW: FW: 2015_10_27_15-372_102-357_Draft-ROM_ResolutionMeeting

Hi Erik,

Below is a summary list of what we will need you and your team do further inspection on.

Judy is aware that your team will have to go out again.

We can talk tomorrow.

Thanks,

Bob

5134

**From:** Brown, Robert P
**Sent:** Monday, November 02, 2015 4:17 PM
**To:** Reilly, Robert A.; Nemecek, Judith A
**Cc:** Tom Ryan (tryan@cjmpc.com); 'scugno@cjmpc.com'; 'mlevesque@cjmpc.com'; 'sharlacker@hardesty-hanover.com' (sharlacker@hardesty-hanover.com)
**Subject:** FW: FW: 2015_10_27_15-372_102-357_Draft-ROM_ResolutionMeeting

Bob & Judy, please read the following from Hardesty concerning our moveable bridges. Can you discuss and have these items investigate d should you determine they should be? Thanks, Bob brown

**From:** sharlacker@hardesty-hanover.com [mailto:sharlacker@hardesty-hanover.com]
**Sent:** Monday, November 02, 2015 4:13 PM
**To:** Brown, Robert P
**Cc:** Reilly, Robert A.; 'scugno@cjmpc.com'; Tom Ryan (tryan@cjmpc.com); mhawkins@hardesty-hanover.com; bkinsley@hardesty-hanover.com
**Subject:** Re: FW: 2015_10_27_15-372_102-357_Draft-ROM_ResolutionMeeting

Bob,

At your request, the following list identifies the additional areas where TRC may be required to screen for Hazardous Materials.

**Bridge #03637, Route 130 over Yellow Mill Channel, Bridgeport CT**

1. Control House Renovations will need to include repair of water damaged gypsum wall board and insulation. Existing wallboard will need to be removed and replaced. Sections of wall board may need to be removed to allow access to internal drainage leaders for the roof drains above.

2. Moldy wall insulation will need to be removed and replaced. Insulation is identified as 2.5" mineral fiber insulation with 6 mil polyethylene vapor barrier.

3. Moldy ceiling insulation will need to be replaced. Insulation is identified as R-38 Fiberglas Insulation with foil vapor barrier.

4. Some interior paneling in the Control and Electrical Rooms is identified as aluminum faced hardboard panel. These panels may need to be removed, salvaged, and reinstalled.

5. Existing copper leader pipe with pvc insert may need to be removed and replaced. This copper pipe is assumed to be from original construction and may have some of the original sealant in place at interfaces with existing concrete. Existing details are unknown at this time.

6. Mechanical Rehabilitation will includes realignment of the auxiliary drive clutches. These clutches are within a housing and there is dust inside. These areas are to be tested.

**Bridge #02295, Route 136 over Norwalk River, Norwalk CT**

1. Submarine Cable Terminals are now included in the scope of the rehabilitation. These electrical components may be covered in sampling done to date. No SACM rubberized wiring insul. no trans etc.

2. Existing corroded battery backup and interfacing electrical components are to be removed and properly disposed of. 2 Pb acid batteries (NEW) 1 pressurized eye wash tank 1 Kohler battery charger (circuit boards)
↳ appears to be new batteries w/ no corrosion on any parts ↳ gas?

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From: "Brown, Robert P" <Robert.Brown@ct.gov>
To: "'sharlacker@hardesty-hanover.com' (sharlacker@hardesty-hanover.com)" <sharlacker@hardesty-hanover.com>,
Cc: "'scugno@cjmpc.com'" <scugno@cjmpc.com>, "Tom Ryan (tryan@cjmpc.com)" <tryan@cjmpc.com>, "Reilly, Robert A." <Robert.Reilly@ct.gov>
Date: 10/30/2015 11:26 AM
Subject: FW: 2015_10_27_15-372_102-357_Draft-ROM_ResolutionMeeting

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Environmental Compliance comments on ROM for Movables.

**From:** Reilly, Robert A.
**Sent:** Friday, October 30, 2015 10:59 AM
**To:** Brown, Robert P
**Subject:** 2015_10_27_15-372_102-357_Draft-ROM_ResolutionMeeting

Hi Bob,

My comments are attached.

Thanks,

Bob[attachment "2015_10_27_15-372_102-357_Draft-ROM_ResolutionMeeting.doc" deleted by Steven Harlacker/Hardesty_Hanover]