



CITY OF SAINT PAUL
Christopher B. Coleman, Mayor

Code Compliance Report

December 04, 2014

*** * This Report must be Posted
on the Job Site * ***

Housing & Redev Authority
25 Fourth St W #1100
St Paul MN 55102-1634

Re: 47 Douglas St
File#: 09 271450 VB2

Dear Property Owner:

The following is the Code Compliance report you requested on November 04, 2014.

Please be advised that this report is accurate and correct as of the date December 04, 2014. All deficiencies identified by the City after this date must also be corrected and all codes and ordinances must be complied with. This report is valid for 365 days from December 04, 2014. This report may be used in lieu of a Truth in Housing Report required in St Paul Legislative Code 189. This building must be properly secured and the property maintained at all times.

In order to sell or reoccupy this property the following deficiencies must be corrected:

ZONING

1. This property is in a(n) R4 zoning district.
2. This property was inspected as a Single Family Dwelling.

BUILDING Inspector: Jim Seeger

Phone: 651-266-9046

1. Insure basement cellar floor is even, is cleanable, and all holes are filled. SPLC 34.10 (1)
2. Prepare and paint interior and exterior as necessary. Observe necessary abatement procedures (EPA, MPCA and St. Paul Legislative Code, Chapter 34 for additional information) if lead base paint is present. SPLC 34.33 (1)
3. Any framing members that required repair or do not meet code (where wall and ceiling covering is removed, members that are over-spanned, over-spaced, not being carried properly, door and window openings that are not adequately

- supported, etc.) are to be reconstructed in an approved manner. SPLC 34.34 (1)
4. Air-seal and insulate attic/access door. MN Energy Code Ch 1322.1102.4
 5. Install Smoke Detectors/Carbon Monoxide Detectors per MN Conservation Code and the MN Dept. of Labor and Industry: Install per code where feasible. MNRC Ch 1309 Sect 313.2.1
 6. Provide proper drainage around house to direct water away from foundation of house. SPLC 34.08 (2)
 7. Install downspouts and a complete gutter system. SPLC 34.33 (1d)
 8. Install rain leaders to direct drainage away from foundation. SPLC 34.33 (1d)
 9. Install flashing in an approved manner at the intersection of the roof with walls, chimneys, and other conjoined surfaces. SPLC 34.09 (1)
 10. Properly support west side beam in basement ceiling where it butts to east to west beam.
 11. Clean out east side basement area and abate asbestos (provide proof of proper disposal.)
 12. Tuck Point interior/exterior of foundation as necessary. SPLC 34.09 (1)
 13. Repair roof and ceiling at west side of house in closet.
 14. Insulate floor under north side porch.
 15. Install handrail at north east corner steps.
 16. Repair or Replace any deteriorated window sash, broken glass, sash holders, re-putty, etc as necessary. SPLC 34.09 (3)
 17. Provide complete storms and screens, in good repair for all door and window openings. SPLC 34.09 (3e)
 18. Provide functional hardware at all doors and windows. SPLC 34.09 (3f)
 19. Repair or replace damaged doors and frames as necessary, including storm doors. SPLC 34.09 (3f)
 20. Weather seal exterior doors, threshold and weather-stripping. SPLC 34.09 (3f)
 21. Install floor covering in bathroom and kitchen that is impervious to water. SPLC 34.10 (4)
 22. Repair walls, ceiling and floors throughout, as necessary. SPLC 34.34 (6)
 23. A building permit is required to correct the above deficiencies. All work is to be done in a workmanship like manner. SPLC 33.03 (a)

ELECTRICAL Inspector: Joe Sobanski

Phone: 651-266-9034

1. No power at time of inspection. Test all electrical outlets and ensure all luminaires (light fixtures) are working properly when power is restored.
2. Remove and/or rewire all illegal, improper or hazardous wiring to current NEC.
3. Replace conduit/fittings due to excessive corrosion. Article 110.12 (B), NEC
4. Repair the electrical service grounding conductor to the metallic water piping system. Install a conductor sized to Table 250.66 (NEC) from the electrical service to within 5' of the entrance point of the water service, and bond around the water meter. Article 250, NEC
5. Provide a complete circuit directory at service panel indicating location and use

- of all circuits. Article 408.4, NEC
6. Close openings in service panel/junction boxes with knockout seals, breaker blanks, proper cable clamps, and/or junction box covers. Article 110.12 (A), NEC
 7. Properly strap and support cables and/or conduits. Chapter 3, NEC
 8. Install hard-wired, battery backup, Carbon Monoxide smoke detector as specified in Chapter 58 of the Saint Paul Legislative Code, and other smoke detectors and carbon monoxide detectors as required by the Minnesota State Building Code. SPLC 58, IRC
 9. Properly support/wire exterior luminaire (light fixture) at entry door. Articles 110.3 (B), 314.20, NEC
 10. Throughout -Repair or replace all broken, painted over, corroded, missing or loose receptacles, luminaires (light fixtures), switches, covers and plates to current code. Article 406.4(D) & Article 410, NEC
 11. Throughout -Check all receptacles for proper polarity (including 2-prong) and verify ground on 3-prong receptacles. Ensure all GFCI receptacles are functioning properly. Rewire and/or replace receptacles that are improperly wired or not functioning properly. Article 406.4(D), NEC
 12. All added receptacles must be grounded, tamper-resistant and be on an Arc-Fault Circuit Interrupter-protected circuit.
 13. Any open walls or walls that are opened as part of this project must be wired to the standards of the current NEC.
 14. All electrical work must be done by a Minnesota-licensed electrical contractor under an electrical permit.

PLUMBING Inspector: Troy McManus

Phone: 651-266-9053

1. Basement -Soil and Waste Piping -(MPC 1430 Subp. 4) Install proper pipe supports.
2. Basement -Soil and Waste Piping -(MPC 2420) Replace all improper connections, transitions, fittings or pipe usage.
3. Basement -Soil and Waste Piping -(MPC 1000) Install a clean out at the base of all stacks.
4. Basement -Water Heater -(MPC 2210 Subp.3) A pressure and temperature relief valve is required.
5. Basement -Water Heater -(MPC 2210 Subp.4) Correct the pressure and temperature relief valve discharge.
6. Basement -Water Heater -(MFGC 402.1) Install the gas shut off and the gas piping to code.
7. Basement -Water Heater -(MFGC 503) Install the water heater gas venting to code.
8. Basement -Water Heater -(MPC 1730 Subp.1) Install the water piping for the water heater to code.
9. Basement -Water Heater -(MPC 2180) The water heater must be fired and in service.
10. Basement -Water Meter -(MPC 2280) Raise the water meter to a minimum of 12 inches above the floor.

11. Basement -Water Meter -(MPC MPC1700-SPRWS, Sec.88.10) The water meter must be installed and in service.
12. Basement -Water Meter -(MPC 1800, Subp.3, 4) The service valves must be functional and installed to code.
13. Basement -Water Piping -(MPC 1720) Repair or replace all the corroded, broken, or leaking water piping.
14. Basement -Water Piping -(MPC 0420) Replace all the improper fittings and fittings that have improper usage.
15. Basement -Water Piping -(MPC 2100) Install a proper backflow assembly or device for the boiler fill water line.
16. Basement -Water Piping -(SPRWS Water Code) Provide a one (1) inch water line to the first major take off.
17. Exterior -Lawn Hydrants -(MPC 2000) The lawn hydrant(s) require a backflow assembly or device.
18. First Floor -Laundry Tub -(MPC 0200 E & MPC 2500) Install a proper fixture vent to code.
19. First Floor -Laundry Tub -(MPC 2300) Install the waste piping to code.
20. First Floor -Lavatory -(MPC 0200 E & MPC 2500) Install a proper fixture vent to code.
21. First Floor -Lavatory -(MPC 2300) Install the waste piping to code.
22. First Floor -Sink -(MPC 2300) Install the waste piping to code.
23. First Floor -Toilet Facilities -(MPC 0200 E & MPC 2500) Install a proper fixture vent to code.
24. First Floor -Toilet Facilities -(MPC 2300) Install the waste piping to code.
25. First Floor -Toilet Facilities -(MPC 0200 O) Repair/replace the fixture that is missing, broken or has parts missing.
26. First Floor -Toilet Facilities -(MPC 0870) Reset the toilet on a firm base.
27. First Floor -Tub and Shower -(MPC 0200 E & MPC 2500) Install a proper fixture vent to code.
28. First Floor -Tub and Shower -(MPC 2300) Install the waste piping to code.
29. First Floor -Tub and Shower -(MPC 1380 Subp.5) Install an anti-scald control device, ASSE Standard 1016.
30. First Floor -Tub and Shower -(MPC 1240 Subp.4) Install a temperature limiting device, ASSE Standard 1070.
31. All the above corrections to waste, vent, water, and gas piping shall be per the Minnesota Plumbing Code Chapter 4715 & Chapter 326, the Minnesota Mechanical Code, the Minnesota Fuel Gas Code, and the Saint Paul Regional Water Code. All plumbing must be done by a plumbing contractor licensed in the State of Minnesota and the City of St. Paul under an approved permit.

Heating Inspector: Pat McCullough

Phone: 651-266-9015

1. Install approved level handle manual gas shutoff valve on furnace/boiler and remove unapproved valve
2. Install approved automatic gas valve for boiler

3. Install approved lever handle manual building shutoff gas valve in an accessible location ahead of the first branch tee
4. Clean and Orsat test boiler burner. Check all controls for proper operation. Check boiler heat exchanger for leak; provide documentation from a licensed contractor that the heating unit is safe
5. Install approved metal chimney liner
6. Replace boiler flue venting to code
7. Connect boiler and water heater venting into chimney liner
8. Vent clothes dryer to code
9. Provide adequate combustion air and support duct to code
10. Plug, cap and/or remove all disconnected gas lines
11. The bathroom requires a means to ventilate the space. Provide a window with an aggregate glazing area of not less than 3 square feet, one half of which must be operable. Alternative is a bath fan properly vented to the outside. A mechanical ventilation permit will be required for the bath fan.
12. Attach metal tag to expansion tank valve stating that this valve must be open at all times except when draining the expansion tank
13. Conduct witnessed pressure test on hot water heating system and check for leaks
14. Install boiler pressure relief valve and pipe discharge to within 18 inches of the floor
15. Install back flow preventer on city water fill line to hot water heating system and pipe vent as required.
16. Repair or replace radiator valves as needed
17. Mechanical Stm/HW & mech Gas permits are required for the above work.
18. Install isolation valves on boiler supply and return.

Notes:

1. See attachment for permit requirements and appeals procedure.
2. Roof, sidewalks, etc. snow covered and could not be inspected. All must meet appropriate codes when completed.

This is a registered vacant building. In order to sell or reoccupy this building, all deficiencies listed on this code compliance report must be corrected in accordance with the Minimum Housing Standards of the St. Paul Legislative Code (Chapter 34) and all required permits must receive final approval within six (6) months of the date of this report. One (1) six-month time extension may be requested by the owner and will be considered if it can be shown that the code compliance work is proceeding and is more than fifty (50) percent complete in accordance with Legislative Code Section 33.03(f).

Re: 47 Douglas St
December 04, 2014
Page 6

You may file an appeal to this notice by contacting the City Clerk's Office at 651-266-8688. Any appeal must be made in writing within 10 days of this notice. (You must submit a copy of this notice when you appeal, and pay a filing fee.)

If you have any questions regarding this inspection report, please contact Jim Seeger between 7:30 - 9:00 AM at 651-266-9046 or leave a voice mail message.

Sincerely,

James L. Seeger
Code Compliance Officer
Department of Safety and Inspections
City of Saint Paul
375 Jackson Street, Suite 220
Saint Paul MN 55101
Phone: 651-266-9046
Email: jim.seeger@ci.stpaul.mn.us

Attachments

AllPhase Companies, Incorporated

404-A St. Croix Trail North, Lakeland, MN 55043
Phone: 651-436-2930 Fax: 651-436-3918

September 19, 2014

Cynthia Carlson Heins
Real Estate Manager
Planning and Economic Development
Suite 1100, 25 West 4th Street
Saint Paul, MN 55102

RE: Asbestos Survey
47 Douglas Avenue, St. Paul, Minnesota
1596-14S-3

Dear Ms. Cynthia Carlson Heins:

AllPhase Companies, Incorporated, (AllPhase) performed an asbestos survey at the above referenced site in connection with a renovation in order to identify Asbestos-Containing Material (ACM), which is a building material that has greater than 1% asbestos. The following report contains the results of the survey performed at the above referenced site.

In summary, 24 samples of building materials were collected and analyzed for asbestos type and amount. Asbestos was detected above 1 percent in **7 of the 24 samples**. These samples only represent building materials that were collected from the referenced building structure.

Refer to the asbestos Laboratory Report and chain of custody for other building materials tested and their locations.

Friable - Pipe lagging, elbows, and floor debris in bsmt- 80 lf plus asbestos debris on ground -(not quantified)
Category I - Bath Room Flooring ` 100sf
Category II - Hardboard Exterior siding on the house - ~1500 sf
Category II - Steel Sink in kitchen ~4 square feet

Friable ACM, is defined by the Asbestos NESHAP, as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. (Sec. 61.141)

Nonfriable ACM is any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. EPA also defines two categories of nonfriable ACM, Category I and Category II nonfriable ACM, which are described later in this guidance.

"Regulated Asbestos-Containing Material" (RACM) is (a) friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

This survey is an attempt to identify ACM. However, there is no guarantee that all potential ACM was identified. As a rehabilitation, wall interiors were not assessed. If suspect ACM is discovered during the work and is not listed in this or previous limited surveys, work on that portion of the building should cease, the material wetted and covered, and an asbestos inspector brought to the site to sample and submit to a certified laboratory the sample to determine its asbestos content. Pending analytical results, an abatement crew should remove the ACM before work continues.

INTRODUCTION

The scope of our services was to conduct an asbestos survey, which includes collecting a small portion of the building materials and submitting the sample to a certified laboratory for analysis by PLM. Analysis only assesses the portion of building material collected and submitted.

- A. Collect bulk samples of suspect ACMs for laboratory analysis.
- B. Analyze the collected samples for asbestos content.

Minnesota requires surveys to be performed by a Minnesota Certified Inspector.

Samples of suspect ACMs were collected by AllPhase by removing a small portion of the suspect material and then placing the individual samples into separate sealed containers.

DISCLAIMERS

Asbestos surveys do not necessarily succeed in identifying all locations and types of ACM on-site. This is because of the variety of locations and the inconsistency of asbestos occurrence in a given building material. Our survey is based solely upon the building materials that were observed and sampled for analysis. Therefore, if unsampled building materials are encountered during the demolition, they should be assessed on a material-by-material basis. If suspect ACM is observed which has not been listed in our evaluation, it should be collected and evaluated by a certified individual and laboratory, respectively. If there is a potential for that material to be ACM, work should stop until the question of asbestos content and/or abatement is resolved in a manner that protects human health and the environment and abides by regulatory guidelines.

Certain building materials are not considered suspect ACM and are not sampled as part of the survey. These materials include but are not limited to wood, concrete (with exceptions), plastics such as polyethylene, polystyrene and polyvinylchloride, fiberglass, rubber (natural and neoprene—black synthetic), foam insulation, metals and glass.

METHODOLOGY

Building materials were analyzed by a NVLAP-accredited laboratory, #101768-0. Laboratory analysis was conducted in accordance with Environmental Protection Agency (EPA) guidelines. The examination for the presence and identification of asbestos fibers in bulk samples is performed in the laboratory using cross-polarized light microscopy and dispersion-staining, particle-identification techniques. Analysis was performed in accordance with EPA 600/M4-82-020 and EPA 600/R-93/116 where applicable. This methodology determines the presence of asbestos varieties, which include Chrysotile, Amosite, Crocidolite, Anthophyllite, Tremolite and Actinolite.

REMARKS

Some of the rules and regulations set by the Environmental Protection Agency (EPA) may apply when the existence of ACMs is confirmed. A complete review of these rules can be found in Part 3 of the Federal Register EPA, 40 CFR Part 61. Summaries of these rules are as follows:

According to §61.145 of NESHAPS, friable ACMs must be removed from the site prior to demolition. This includes materials that were originally non-friable but have become friable—that is, Category I & II material—due to damage or deterioration—for example, floor tile that has significant chipping or cracking. The necessity for the removal of Category I and II material is evaluated on a site-by-site basis.

Disturbing ACM may require that the Minnesota Pollution Control Agency and/or the Minnesota Department of Health be notified prior to activities with asbestos.

Asbestos Survey

47 Douglas Avenue, St. Paul, Minnesota

3

The environmental services performed by AllPhase's survey crew and analyst for this project have been conducted in a manner consistent with the degree of care and technical skill exercised by environmental professionals currently practicing in this area under similar budget and time constraints. Recommendations contained in this report represent our professional judgment at the time the project was performed. No other warranty is intended or implied.

A handwritten signature in black ink, appearing to read "Rennie Smith". The signature is fluid and cursive, with a prominent loop at the end.

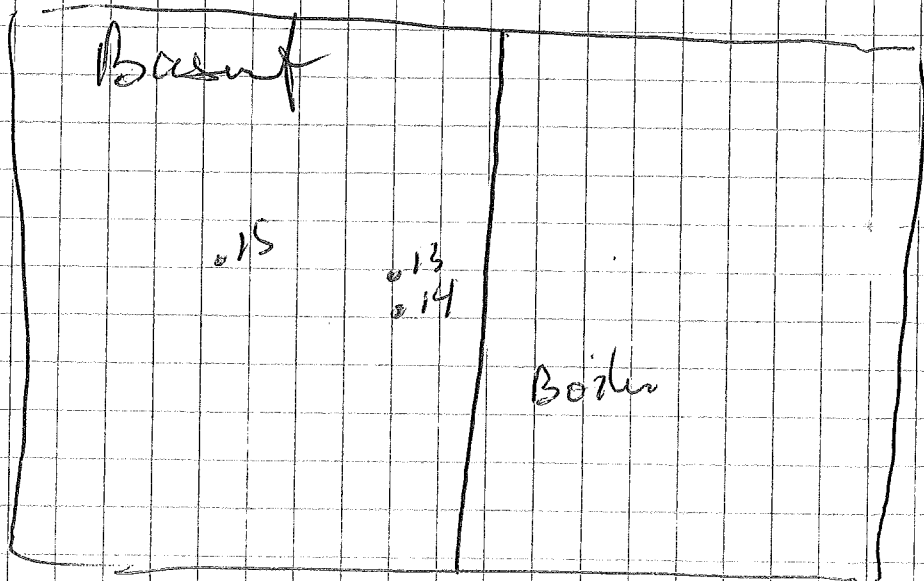
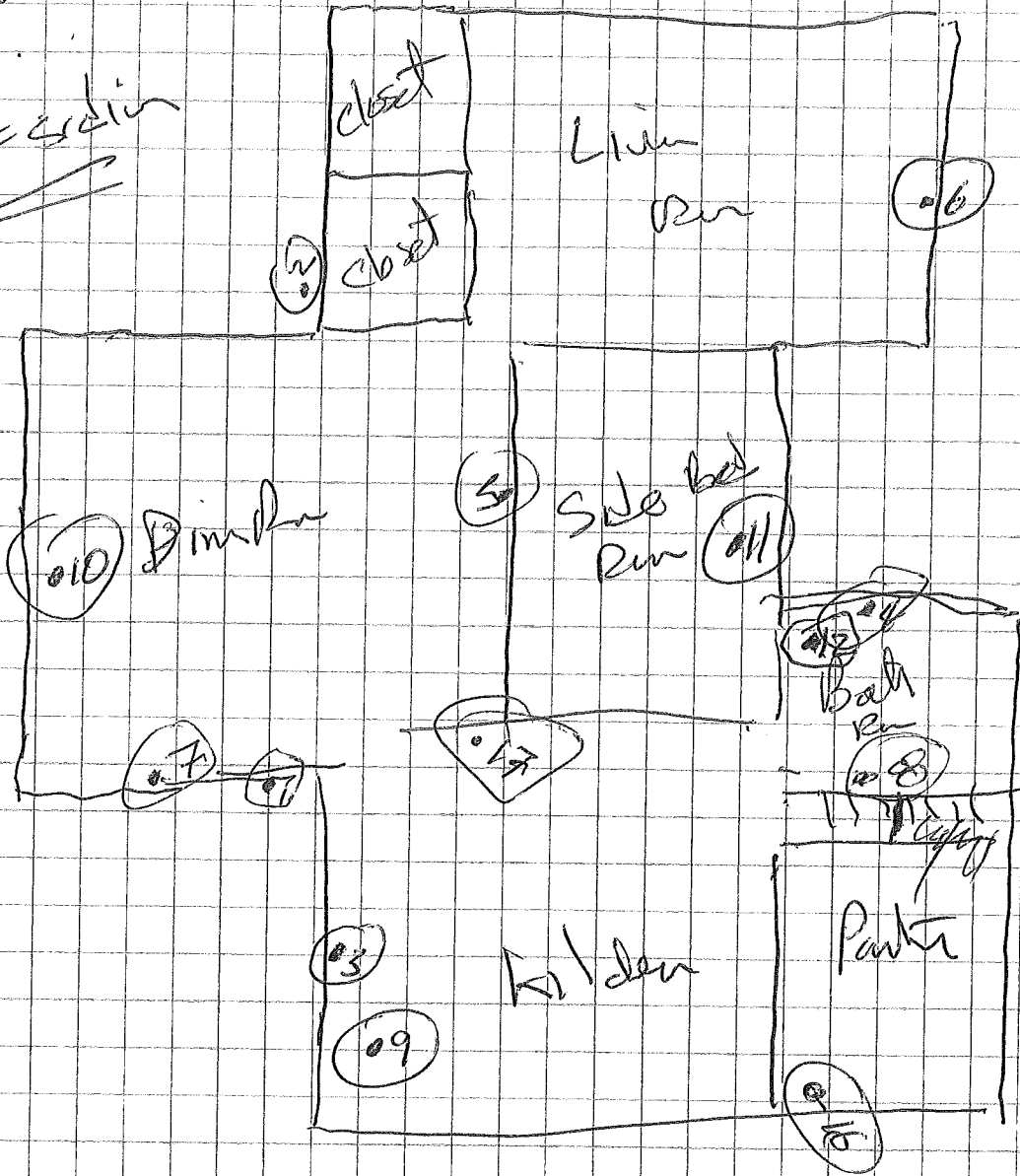
Rennie Smith, P.G.
Asbestos Inspector (#AI3119)

47 Douglas

Attic Ins

Fib

* 2 1800 SF ceiling





Report for:

Rennie Smith
AllPhase Companies, INC
404A St Croix Trail N
Lakeland, MN 55043

Regarding: Project: 47 Douglas
EML ID: 1262085

Approved by:

Dates of Analysis:
Asbestos PLM: 09-19-2014

Approved Signatory
Alana Valenzuela

Service SOPs: Asbestos PLM (EPA Methods 600/R-93/116 & 600/M4-82-020, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: AllPhase Companies, INC
C/O: Rennie Smith
Re: 47 Douglas

Date of Sampling: 09-12-2014
Date of Receipt: 09-16-2014
Date of Report: 09-19-2014

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	17
Total Samples Analysed:	17
Total Samples with Layer Asbestos Content > 1%:	7

Location: #1, exterior siding by rear

Lab ID-Version‡: 5742900-1

Sample Layers	Asbestos Content
Gray Transite Siding	8% Chrysotile
Sample Composite Homogeneity: Moderate	

Location: #2, exterior siding by front

Lab ID-Version‡: 5742901-1

Sample Layers	Asbestos Content
Gray Transite Siding	15% Chrysotile
Sample Composite Homogeneity: Moderate	

Location: #3, Kitchen sheetrock

Lab ID-Version‡: 5742902-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content: 10% Cellulose	
Sample Composite Homogeneity: Moderate	

Location: #4, Bathroom sheetrock wall

Lab ID-Version‡: 5742903-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper / White Paint	ND
Sample Composite Homogeneity: Moderate	

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: AllPhase Companies, INC
C/O: Rennie Smith
Re: 47 Douglas

Date of Sampling: 09-12-2014
Date of Receipt: 09-16-2014
Date of Report: 09-19-2014

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: #5, Dining Rm plaster wall

Lab ID-Version‡: 5742904-1

Sample Layers	Asbestos Content
White Paint / White Plaster	ND
Gray Base Coat	ND
Composite Non-Asbestos Content:	< 1% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: AllPhase Companies, INC
 C/O: Rennie Smith
 Re: 47 Douglas

Date of Sampling: 09-12-2014
 Date of Receipt: 09-16-2014
 Date of Report: 09-19-2014

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: #6, Living Rm plaster wall

Lab ID-Version‡: 5742905-1

Sample Layers	Asbestos Content
White Paint / White Plaster	ND
Gray Base Coat	ND
Composite Non-Asbestos Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: #7, Dining Rm plaster wall

Lab ID-Version‡: 5742906-1

Sample Layers	Asbestos Content
White Paint / White Plaster	ND
Gray Base Coat	ND
Composite Non-Asbestos Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: #8, Bathrm sheetrock wall

Lab ID-Version‡: 5742907-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper / White Paint	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Moderate

Location: #9, Kitchen Ceiling Spray

Lab ID-Version‡: 5742908-1

Sample Layers	Asbestos Content
White Ceiling Texture	ND
Sample Composite Homogeneity:	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: AllPhase Companies, INC
C/O: Rennie Smith
Re: 47 Douglas

Date of Sampling: 09-12-2014
Date of Receipt: 09-16-2014
Date of Report: 09-19-2014

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: #10, Dining Rm Ceiling Spray

Lab ID-Version†: 5742909-1

Sample Layers	Asbestos Content
White Ceiling Texture	ND
Sample Composite Homogeneity:	Moderate

Location: #11, Side Bed Ceiling Spray

Lab ID-Version†: 5742910-1

Sample Layers	Asbestos Content
White Ceiling Texture	ND
Multicolored Paint / White Plaster	ND
Sample Composite Homogeneity:	Moderate

Location: #12, Bath Rm Flg 2 layers

Lab ID-Version†: 5742911-1

Sample Layers	Asbestos Content
White Sheet Flooring	ND
White Floor Tile / Transparent Mastic/ White Floor Tile/ Black Mastic	2% Chrysotile
Black Fibrous Material (Backing)/ Brown Mastic	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Glass Fibers
Sample Composite Homogeneity:	Poor

Location: #13, Pipe Joint Crawlspace

Lab ID-Version†: 5742912-1

Sample Layers	Asbestos Content
Light Gray Pipe Insulation	40% Chrysotile
Composite Non-Asbestos Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

† A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: AllPhase Companies, INC
 C/O: Rennie Smith
 Re: 47 Douglas

Date of Sampling: 09-12-2014
 Date of Receipt: 09-16-2014
 Date of Report: 09-19-2014

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: #14, Pipe lagging Crawlspace

Lab ID-Version‡: 5742913-1

Sample Layers	Asbestos Content
Brown Pipe Insulation	< 1% Chrysotile
White Pipe Insulation	55% Chrysotile
Composite Non-Asbestos Content:	85% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Moderate

Location: #15, Pipe lagging Crawlspace

Lab ID-Version‡: 5742914-1

Sample Layers	Asbestos Content
White Pipe Insulation	40% Chrysotile
Composite Non-Asbestos Content:	55% Cellulose
Sample Composite Homogeneity:	Moderate

Location: #16, Roof shingle

Lab ID-Version‡: 5742915-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Green Pebbles	ND
Composite Non-Asbestos Content:	10% Glass Fibers < 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: #17, Kitchen Sink Coating

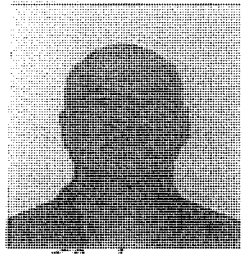
Lab ID-Version‡: 5742916-1

Sample Layers	Asbestos Content
Black Sink Undercoating	3% Chrysotile
Sample Composite Homogeneity:	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



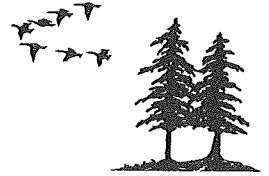
MINNESOTA ASBESTOS
MDH INSPECTOR
STATE OF MINNESOTA

Certified by:
State of Minnesota
Department of Health
Expires: 07/07/2015
Rennie N Smith
397 169th Ave
Somerset, WI 54025

Rennie N. Smith
Director, Env. Health Div.

No. AI3119 Issued: 07/08/2014

Midwest
Environmental
Consulting, L.L.C.



October 6, 2014

Rennie Smith
All Phase Companies, Inc.
404A St. Croix Trail North
Lakeland MN 55043

RE: HUD Lead-Based Paint Inspection and Risk Assessment at the Single Family Residential Property, 47 Douglas Street, St. Paul, Minnesota (All Phase Phone: 651-436-2930)

Dear Rennie Smith:

At your request, Midwest Environmental Consulting, L.L.C. (MEC) performed a HUD lead-based paint inspection and risk assessment of the single family residential located at 47 Douglas Street, St. Paul, Minnesota on September 18 and September 23, 2014.

Andrew Myers, Environmental Project Manager with MEC and licensed lead risk assessor (MN LR #578) with MEC performed all field work associated with this project. MEC credentials can be found in Appendix A.

The purpose of this project was to determine whether lead-based paint or other lead hazards are present on the interior or exterior surfaces of the residential property. This report contains the results of the HUD lead-based paint inspection and risk assessment.

The inspection was conducted following the Housing and Urban Development (HUD) *"Guidelines for the Evaluation and Control of Lead-Based Paint in Housing,"* (2012 revision). The sampling criteria used are those outlined in the HUD Standards 24 CFR Part 35 et al, *"Requirements for Notification Evaluation and Education of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance."* Also included, is an evaluation for lead dust hazards and bare soil hazards as part of the risk assessment.

According to HUD protocol, if the first 5 of a building component are identified as positive for lead-based paint, the remaining like components are assumed to be lead-based paint containing. (More than 5 window systems were tested as a part of this evaluation).

SITE DESCRIPTION

The single family residential property located at 47 Douglas Street, St. Paul, Minnesota is a one story wood framed home built on a concrete/stone foundation & basement constructed in approximately the early 1900's. The interior walls and ceilings are primarily plaster with some paneling over plaster. The window systems are primarily double hung wood window systems. The exterior has wood composite siding over wood lap siding. The soffits, fascia & trim are wood. Bare soil is present.

The property is currently vacant.

RESULTS OF PAINT INSPECTION

MEC used a paint inspection sampling strategy as described in the HUD *Guidelines* (2012 revision). The results of portable X-Ray Fluorescence (XRF) spectrum analysis of representative building components in each functional area or room are shown in Appendix B. Results are organized and shown in actual sequence of analysis. All tests were made using a Niton® XLp 303A X-Ray Fluorescence Spectrum Analyzers (Serial # 26848).

XRF analytical results in Appendix B, in the column labeled "Results" represent lead concentrations per square centimeter of painted surface (mg/cm^2).

HUD regulations 24 CFR Part 35 et al, the HUD *Guidelines* and the Minnesota Department of Health (MDH) define the paint action level as lead concentrations at or above the level of $1.0 \text{ mg}/\text{cm}^2$ when measured with a portable XRF instrument (0.5% by weight when measured by laboratory methods).

The lead-based paint risk assessment protocol described in the HUD *Guidelines* and the EPA regulations rely on evaluation of surface coatings meeting the definition of poor, planned renovations, presence of dust and soil above current EPA and Minnesota Department of Health (MDH) Standards.

Tests are performed on each test combination. A test combination consists of unique combinations of substrate, color, building component, and location. XRF results are classified as positive or negative. A positive classification indicates that lead is present on the testing combination at or above the HUD standards. It's important to note that the limited inspection of surfaces tested only applies to those surfaces areas tested and does not meet the requirements of a full HUD lead-based paint inspection and those surface areas not tested would be assumed to contain lead-based paint.

Appendix B includes a record of XRF calibration checks. Those checks were performed on thin films supplied by the XRF manufacturer; they contain known concentrations of

lead. The graphs in that appendix show the variation of quality control with time. The assays in the table of raw data (Appendix B) that are labeled "Calibrate" indicate that they are for quality control. Additional quality control data and information are available to you upon request.

Side A: East, faces Douglas Street
 Side B: South, faces residential properties
 Side C: West, faces residential
 Side D: North, faces alley

Specific building components determined to have a lead concentration above the action level of (1.0 mg/cm²) are listed below:

LOCATION	COMPONENT
Living Room	Painted wood door components (including closet)
Living Room	Painted wood baseboards
Living Room	Painted wood window components
Living Room	Wood closet floor
Kitchen	Painted plaster walls & ceiling
Kitchen	Painted wood doors components
Kitchen	Painted wood window components
Kitchen	Ceramic tile floor
Bathroom	Painted wood door components
Bathroom	Painted wood baseboards
Bathroom	Bathtub
Bathroom	Painted plaster walls
Bedroom 1	Painted wood door components (including closet)
Bedroom 1	Painted wood baseboards
Bedroom 1	Painted wood window components
Bedroom 2	Painted plaster & wood walls & plaster ceiling
Bedroom 2	Painted wood door components

Bedroom 2	Painted wood baseboards
Bedroom 2	Painted wood window components
Bedroom 3	Painted wood door components
Bedroom 3	Painted wood baseboards & trim
Bedroom 3	Painted wood window components
Bedroom 3	Painted plaster walls & ceiling (including closet)
Bedroom 3	Painted wood ceiling hatch
Stairway to basement	Painted wood door components
Basement	Painted wood window components
Exterior	Painted wood doors components
Exterior	Painted wood window components
Exterior	Painted wood siding, soffits, & fascia
Porch	Painted wood doors components
Porch	Painted wood window components
Porch	Painted wood floor
Porch	Painted wood walls & ceiling

Also included in Appendix B of this report is a rating of the condition of paint on components (column titled "Condition"). Comments on the condition include:

Intact: good condition; **Fair:** less than 2 square feet of damage to large interior surface, i.e., wall, less than 10 square feet of damage to large exterior surface, i.e., outside walls, or less than 10% damage to small surface areas, i.e., baseboards, trim, etc.; **Poor:** more than 2 square feet of damage on large interior surfaces, more than 10 square feet of damage to large exterior surface areas, or more than 10% damage to small surface areas.

RESULTS OF LEAD RISK ASSESSMENT

The risk assessment portion of this investigation involved two major phases: collecting information about the property through use of a visual inspection of the dwelling; and reviewing paint test data, and visual assessment notes in order to determine the type, location, and number of samples needed to further identify lead hazards at the property. These samples may consist of paint, dust, soil, and water.

- The date of construction of the residence is approximately the early 1900's.
- The property is currently set up as a single family structure.
- Interior walls & ceilings are primarily plaster with some paneling
- Window systems are primarily original vintage wood. double hung windows
- The exterior siding is wood composite siding over wood lap siding
- The exterior has wood soffits, fascia & trim.
- The property is currently vacant.
- Bare soil was observed.

Visual Inspection

MEC conducted an inspection of painted and varnished surfaces on the interior and exterior of the residence. Emphasis was placed on chewable surfaces within 5 feet of the ground or floor.

The results of the visual inspection indicate that the interior and the exterior of the structure is mainly in poor condition with a few components in fair or intact condition.

Please note, however, the condition report within the XRF table for painted or varnished surfaces found to be fair or poor, that were below the 1.0 mg/cm² action level.

Environmental Sampling Plan

Based on the location of lead-based paint, deteriorated lead-based paint, and information gathered during the visual inspection, MEC formulated the following environmental sampling plan to identify other lead hazards on this property. Water samples were not collected as they were not part of the scope of work for this project. Bare soil was observed and a bare soil sample was collected.

Samples were collected and delivered to EMSL Laboratory (ELLAP 163162), Minneapolis, Minnesota, where they were prepared and analyzed using current appropriate protocols for lead. Laboratory results for environmental samples may be found in Appendix C.

Analytical results are reported below for each sample and compared to standard action levels that have been identified for this project.

SAMPLE # DATE	LOCATION	RESULT	PROJECT ACTION LEVEL
502/0914D-W1 9/18/14	Living Room, Side A, entry floor	400 $\mu\text{g}/\text{ft}^2$	40 $\mu\text{g}/\text{ft}^2$
502/0914D-W2 9/18/14	Living Room, Side D, right window sill	3200 $\mu\text{g}/\text{ft}^2$	250 $\mu\text{g}/\text{ft}^2$
502/0914D-W3 9/18/14	Kitchen, Side C, right window sill	1300 $\mu\text{g}/\text{ft}^2$	250 $\mu\text{g}/\text{ft}^2$
502/0914D-W4 9/18/14	Kitchen, Side D, entry floor	14000 $\mu\text{g}/\text{ft}^2$	40 $\mu\text{g}/\text{ft}^2$
502/0914D-W5 9/18/14	Bedroom 3, Side C, floor	1100 $\mu\text{g}/\text{ft}^2$	40 $\mu\text{g}/\text{ft}^2$
502/0914D-W6 9/18/14	Bedroom 3, Side C, window sill	4600 $\mu\text{g}/\text{ft}^2$	250 $\mu\text{g}/\text{ft}^2$
502/0914D-W7 9/18/14	Basement, floor, middle	640 $\mu\text{g}/\text{ft}^2$	40 $\mu\text{g}/\text{ft}^2$
502/0914D-W8 9/18/14	Blind Field Blank	<10 $\mu\text{g}/\text{ft}^2$	-----
502/0914D-S1 9/18/14	Bare soil Foundation	420 ppm	100 ppm

* Unit Abbreviations: $\mu\text{g}/\text{ft}^2$ = micrograms per square foot ppm=parts per million

Dust wipe samples and a bare soil sample were collected from the residence, however, water and sodium rhodizonate swabs were not collected as part of this project.

RECOMMENDATIONS

Lead-based paint or lead hazards were found during the inspection and risk assessment of the property including window components; painted wood doors & door components; painted wood baseboards; painted plaster walls & ceilings; ceramic floor; bathtub; exterior siding, soffits & fascia and porch components.

According to HUD protocol, if the first 5 of a building component are identified as positive for lead-based paint, the remaining like components are assumed to be lead-based paint containing.

At the request of the City of St. Paul, only abatement options are provided for lead hazards identified during this evaluation. Abatement options can include removal of building components to the substrate and replacement with new lead free products; enclosure of building components under dust tight barriers; encapsulation; or removal of coatings to the substrates and re-coating with lead free coatings.

Living Room:

Painted wood doors & door components (including closet): In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood baseboards: In poor condition.

- Option 1: Remove baseboards using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Enclose under a dust tight barrier and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw openings using Lead Safe Work Practices and replace with new lead free window components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood closet floor: In poor condition.

- Option 1: Remove floor system using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coating.

Kitchen:

Painted plaster walls & ceiling: In poor condition.

- Option 1: Remove wall & ceiling systems using Lead Safe Work Practices and replace with new lead free wall system.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood doors & door components: In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw openings using Lead Safe Work Practices and replace with new lead free window components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Ceramic tile floor: In poor condition.

- Option 1: Remove ceramic tile floor system using Lead Safe Work Practices and replace with lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.

Bathroom:

Painted wood door & door components: In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood baseboards: In poor condition.

- Option 1: Remove baseboards using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Enclose under a dust tight barrier and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance

Plan with ongoing monitoring.

- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw openings using Lead Safe Work Practices and replace with new lead free window components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Bathtub: In poor condition.

- Option 1: Remove tub using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a lead free tub surround using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.

Painted plaster walls: In poor condition.

- Option 1: Remove wall systems using Lead Safe Work Practices and replace with new lead free wall system.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Bedroom 1:

Painted wood door components (including closet): In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood baseboards: In poor condition.

- Option 1: Remove baseboards using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Enclose under a dust tight barrier and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices

and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw openings using Lead Safe Work Practices and replace with new lead free window components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Bedroom 2:

Painted plaster & wood walls & plaster ceiling: In poor to intact condition.

- Option 1: Remove wall & ceiling systems using Lead Safe Work Practices and replace with new lead free wall system.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood door components: In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood baseboards: In poor condition.

- Option 1: Remove baseboards using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Enclose under a dust tight barrier and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw openings using Lead Safe Work Practices and replace with new lead free window components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Bedroom 3:

Painted wood door components: In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood baseboards & trim: In poor condition.

- Option 1: Remove baseboards using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Enclose under a dust tight barrier and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw openings using Lead Safe Work Practices and replace with new lead free window components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted plaster walls & ceiling (including closet): In poor condition.

- Option 1: Remove wall & ceiling systems using Lead Safe Work Practices and replace with new lead free wall system.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood ceiling hatch: In poor condition.

- Option 1: Remove components using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Stairway to Basement:

Painted wood door components: In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Basement:

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw openings using Lead Safe Work Practices and replace with new lead free window components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood door & door components: In poor condition.

- Option 1: Remove components using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier such as aluminum cladding using Lead Safe Work Practices making sure all seams and seals are maintained in a sealed condition with elastomeric caulk and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free window systems.
- Option 2: Enclose under a dust tight barrier such as aluminum cladding using Lead Safe Work Practices making sure all seams and seals are maintained in a sealed condition with elastomeric caulk and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood soffits & fascia & trim: In poor condition.

- Option 1: Remove components using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under dust tight barrier such as metal cladding and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood siding: In poor condition.

- Option 1: Remove siding using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier such as low maintenance vinyl or metal siding using Lead Safe Work Practices making sure all seams and seals are maintained in a sealed condition using elastomeric caulk and include into an Operation & Maintenance Plan with ongoing monitoring.

Porch:

Painted wood doors & door components: In poor condition.

- Option 1: Remove door components using Lead Safe Work Practices and replace with new lead free door components.
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free window systems.
- Option 2: Enclose under a dust tight barrier such as aluminum cladding using Lead Safe Work Practices making sure all seams and seals are maintained in a sealed condition with elastomeric caulk and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood floor: In poor condition.

- Option 1: Remove floor system using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coating.

Painted wood walls & ceiling: In poor condition.

- Option 1: Remove wall & ceiling systems using Lead Safe Work Practices and replace with new lead free wall system.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Lead Dust:

Dust was identified as a lead hazard on window and floor surfaces tested. All floors and window systems should be cleaned and made smooth and cleanable. If planned renovation or work activity will disturb lead coated surfaces, lead safe work practices should be followed, which include requirements for clean up of the work area and clearance testing.

Bare Soil:

Bare soil was observed and a bare soil sample was collected and found to be above the MDH standard of 100 parts per million.

- Abatement Option 1: Removal of bare soil and replacement with new soil of 25 parts per million of lead or less.
- Abatement Option 2: Covering bare soil with asphalt, concrete or other impervious coating.

When qualified contractors are performing the planned renovation/remodeling activities, precautions should be properly done to minimize the potential for lead-based paint contamination to the workers, occupants and the environment.

DISCUSSION

The mere presence of lead-coated surfaces does not create a lead hazard. Maintenance of lead containing coatings will prevent lead from becoming a hazard. Lead-based paint above the action level of 1.0 mg/cm² was found on surfaces tested.

Because exterior surfaces are to be remediated and lead-coatings are present, covering the ground and providing adequate protection to soil is very important. Bare soil was found to be above defined action levels.

Dust wipe samples collected found lead dust levels above the action levels on floor and window surfaces tested as defined by MDH, HUD and EPA in the sampling locations tested. Contractors will be required to clean all floor systems and window surfaces throughout the complex for lead hazards in dust following and as a part of the planned restoration.

The preceding lead reduction recommendations include different ways to treat each lead hazard that was identified by the risk assessment/inspection. The most effective treatments are considered abatement and require little or no ongoing maintenance to preserve a lead safe environment. The less effective treatments are called interim controls and these treatments require an increased amount of ongoing maintenance to preserve a lead safe environment.

If no lead dust, soil, or lead-based paint is found, then no monitoring is required.

If no hazards are found, but lead-based paint is found, then reevaluation should occur every three years, and an owner's visual survey should occur annually.

If lead dust, soil, or lead-based paint hazards are found to be present, choosing the option with removal of all lead-based paint will result in no monitoring requirements. If abatement options are chosen that include enclosure, then no re-evaluation is required, but the owner should conduct visual surveys every year to ensure the enclosure has not failed. If the interim control options (stabilize and paint) are chosen, then re-evaluation should occur after the first year and then every two years after that. Visual surveys by the owner should occur annually.

If lead dust levels are found to be more than ten times the standard levels, then reevaluation after interim control measures should occur six months after the hazard reduction.

In general, all painted surfaces should be monitored. A negative result does not necessarily indicate that no lead is present in that surface, but rather indicates that any lead present in that surface does not rise above the 1.0 mg/cm² threshold in the areas tested. Therefore, all painted surfaces should be maintained in accordance with the Minnesota Department of Health standards.

ROUGH ESTIMATED COSTS:

- Work site preparation for interior, approximately \$75.00 to \$250.00 per room.
- Window replacement, approximately \$150.00 and up, depending on style.
- Exterior preparation approximately \$35.00 to \$75.00 per component (i.e., windows, doors), removal or enclosure.
- Work area cleaning: \$0.15 to \$0.35 per square foot.
- Paint stabilization: \$0.20 to \$0.65 per square foot.
- Removal: Paint - chemical stripper: \$0.65 to \$1.50 square foot.
- Soil Remediation:
 - a. Clean-up of visible exterior paint chips: \$0.90 to \$1.35 square foot.
 - b. Seed and tack grass: \$0.45 to \$0.75 square foot.
 - c. Sod: \$1.25 to \$3.30 square foot.
 - d. Regrade at foundation and sod: \$3.00 to \$5.00 square foot.
 - e. Mulch - 4": \$0.50 to \$0.90 square foot.

- f. Concrete: \$4.50 to \$8.00 square foot.
- g. Replace soil: \$42.00 to \$65.00 cubic yard.

If work is going to be performed on these surfaces, individuals and/or contractors should be informed of the results of testing. At a minimum, the person(s) performing the work should follow the requirements of the Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1926.62, Lead in the Construction Industry.

For the protection of the occupants and workers, and because of the use of federal funds, you are required by the HUD rules to use qualified firms who are knowledgeable about the hazards associated with lead. Supervisor should be licensed and workers will be required to be licenced or certified, as MEC understands the scope of work.

Please maintain a copy of the lead inspection/risk assessment report for your records and provide a copy of the report to any contractors that may be involved in any future renovations or remodeling projects.

A copy of this lead inspection/risk assessment summary must be provided to purchasers or lessees (tenants) of this property under Federal Law (24 CFR Part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract.

The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet approved by the U.S. Environmental Protection Agency and include standard warning language in their leases or sales contracts to ensure that parents have the information they need to protect their children from lead-based paint hazards.

It has been our pleasure to provide this service to you and your organization. Please contact me if you have questions relating to any aspect of this work.

Respectfully submitted,



Andrew Myers
Environmental Services Project Manager

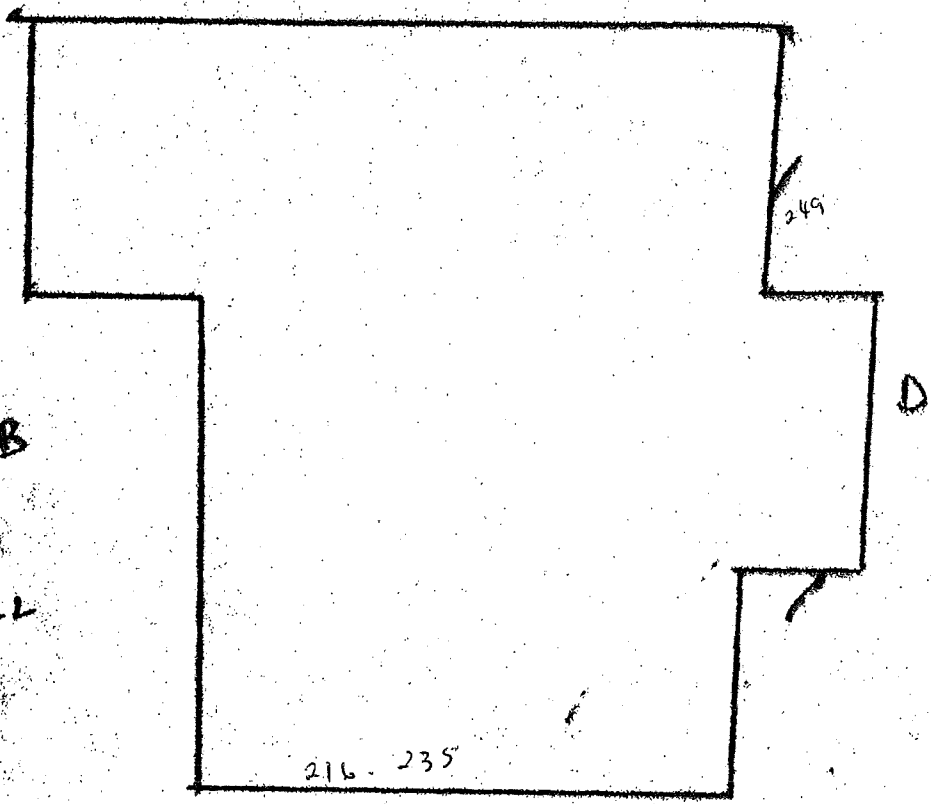
APPENDIX A
INSPECTOR CREDENTIALS

APPENDIX B

**XRF TEST RESULTS
SAMPLING MAPS
DATA PAGES
CALIBRATION DATA**

→ N

C



B

D

Residential

216 - 235

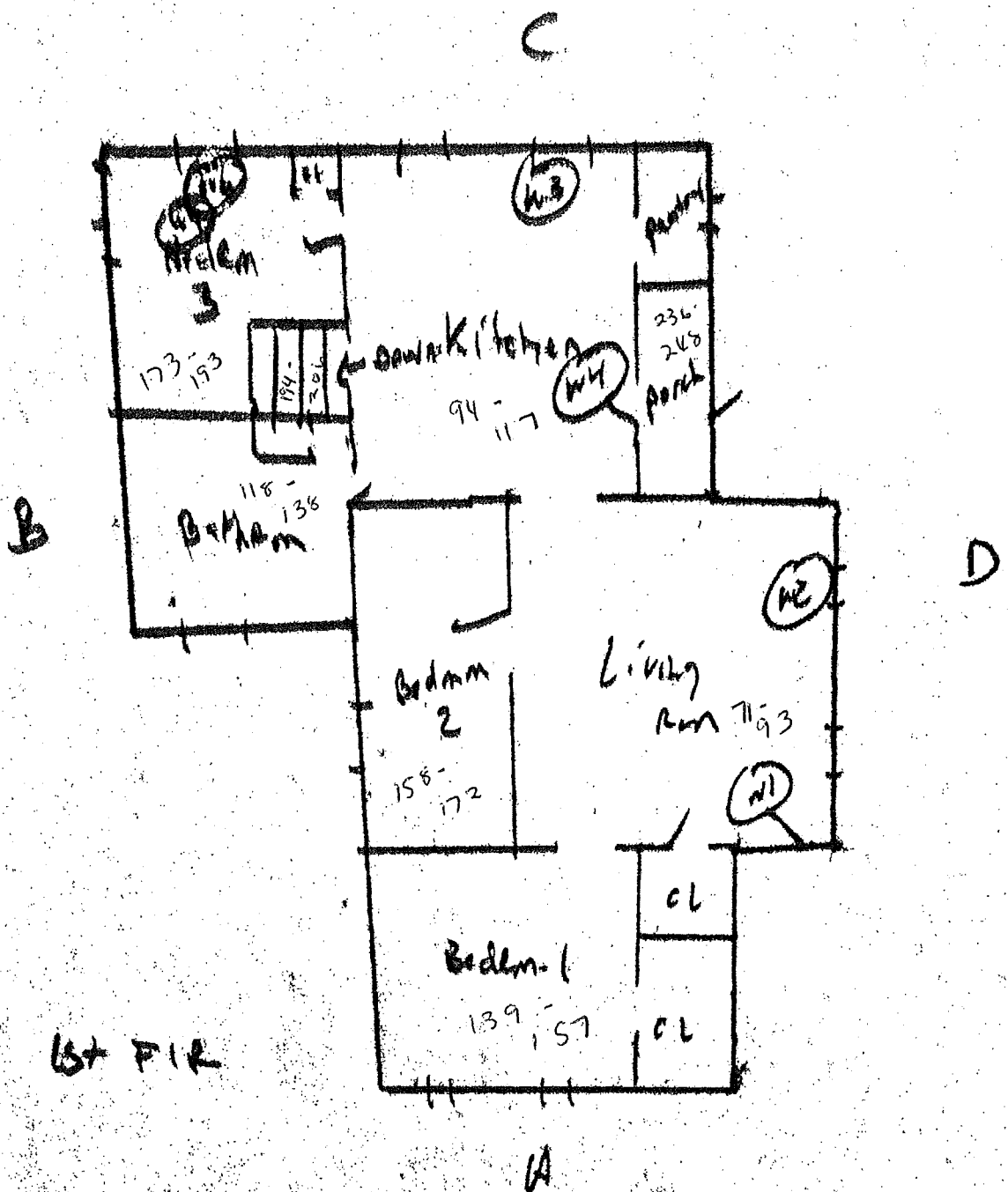
249

A

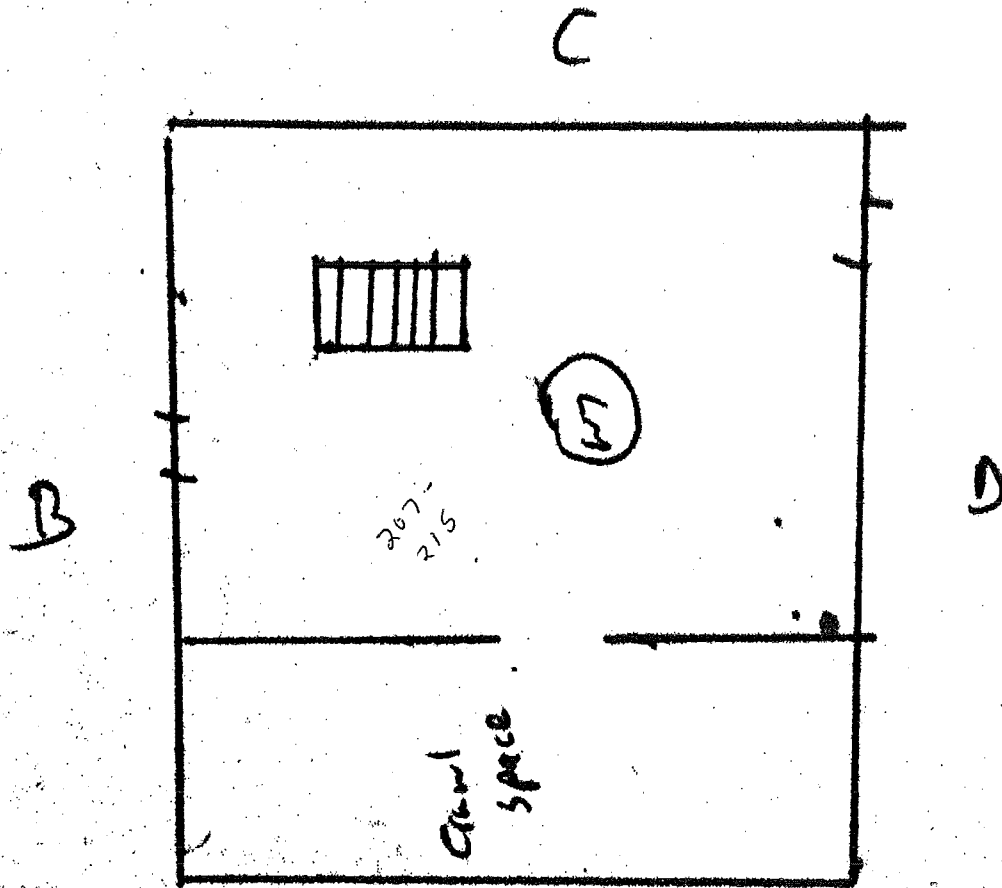
Residential

Rwy

Days St



1st F12



Basement

A

Site	XRF #	Date/Time	Floor	Room	Rm #	Side	Component	Substrate	Condition	Color	Results	PbC	PbL	PbK	Duration	Depth	Insp.
Site: All Phase Companies: 47 Douglas Street, St. Paul MN																	
Date: Sept. 23, 2014																	
XRF: Xlp 303A, Serial #: 26848																	
	67	9/23/2014 12:01					calibrate				Neg	0.9	0.9	< LOD	11.18	1.05	AM
	68	9/23/2014 12:03					calibrate				POS	1	1	0.5	21.18	1.1	AM
	69	9/23/2014 12:04					calibrate				Neg	0.9	0.9	< LOD	14.66	1.06	AM
	70	9/23/2014 13:50										1.66	0.4	0.01	162.3		AM
47 Douglas St.	71	9/23/2014 13:54	1	LIVING ROOM	A		DOOR	WOOD	POOR	WHITE	POS	9	6.2	9	2.37	10	AM
47 Douglas St.	72	9/23/2014 13:54	1	LIVING ROOM	A		DOOR casing	WOOD	POOR	WHITE	POS	11.8	2.9	11.8	2.22	10	AM
47 Douglas St.	73	9/23/2014 13:54	1	LIVING ROOM	A		BASEBOARD	WOOD	POOR	WHITE	POS	19.5	4.2	19.5	2.06	10	AM
47 Douglas St.	74	9/23/2014 13:55	1	LIVING ROOM	C		DOOR JAMB	WOOD	POOR	WHITE	POS	8.1	5.2	8.1	1.9	2.69	AM
47 Douglas St.	75	9/23/2014 13:56	1	LIVING ROOM	D		WINDOW casing	WOOD	POOR	WHITE	POS	11.6	2.9	11.6	2.06	10	AM
47 Douglas St.	76	9/23/2014 13:57	1	LIVING ROOM	D		WINDOW sash	WOOD	POOR	WHITE	POS	18.3	7.1	18.3	1.9	10	AM
47 Douglas St.	77	9/23/2014 13:57	1	LIVING ROOM	D		WINDOW trough	WOOD	POOR	WHITE	POS	13.2	3.7	13.2	2.06	10	AM
47 Douglas St.	78	9/23/2014 13:57	1	LIVING ROOM	D		Wndw Part. Bead	WOOD	POOR	WHITE	POS	15.1	8.5	15.1	2.04	7.88	AM
47 Douglas St.	79	9/23/2014 13:58	1	LIVING ROOM	D		RADIATOR	METAL	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.37	2.11	AM
47 Douglas St.	80	9/23/2014 13:58	1	LIVING ROOM			FLOOR	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.38	1	AM
47 Douglas St.	81	9/23/2014 13:58	1	LIVING ROOM	A		CLOSET DR	WOOD	POOR	WHITE	POS	14.7	4.8	14.7	2.06	10	AM
47 Douglas St.	82	9/23/2014 13:59	1	LIVING ROOM	A		CLOSET DR CASING	WOOD	POOR	WHITE	POS	10	4.7	10	2.21	10	AM
47 Douglas St.	83	9/23/2014 13:59	1	LIVING ROOM	A		CLOSET SHELF	WOOD	POOR	WHITE	Null	< LOD	< LOD	< LOD	0.95	1	AM
47 Douglas St.	84	9/23/2014 13:59	1	LIVING ROOM	A		CLOSET SHELF	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	1.58	1	AM
47 Douglas St.	85	9/23/2014 13:59	1	LIVING ROOM	A		Cst Shelf Sup	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	86	9/23/2014 14:00	1	LIVING ROOM			CLOSET FLR	WOOD	POOR	BROWN	POS	1.7	1.7	< LOD	2.37	2.11	AM
47 Douglas St.	87	9/23/2014 14:01	1	LIVING ROOM	A		CLOSET WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.41	1.23	AM
47 Douglas St.	88	9/23/2014 14:01	1	LIVING ROOM	A		WALL	PLASTER	POOR	BEIGE	Neg	< LOD	< LOD	< LOD	3.16	1	AM
47 Douglas St.	89	9/23/2014 14:01	1	LIVING ROOM	B		WALL	PLASTER	POOR	BEIGE	Neg	< LOD	< LOD	< LOD	2.85	1.1	AM
47 Douglas St.	90	9/23/2014 14:02	1	LIVING ROOM	C		WALL	PLASTER	POOR	BEIGE	Neg	< LOD	< LOD	< LOD	4.42	1	AM
47 Douglas St.	91	9/23/2014 14:02	1	LIVING ROOM	D		WALL	PLASTER	POOR	BEIGE	Neg	< LOD	< LOD	< LOD	3.96	1.48	AM
47 Douglas St.	92	9/23/2014 14:03	1	LIVING ROOM			CEILING	PLASTER	POOR	WHITE	Null	< LOD	< LOD	< LOD	1.89	1	AM
47 Douglas St.	93	9/23/2014 14:03	1	LIVING ROOM			CEILING	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	5.49	1	AM
47 Douglas St.	94	9/23/2014 14:04	1	KITCHEN			CEILING	PLASTER	POOR	WHITE	Null	< LOD	< LOD	< LOD	3.46	1	AM
47 Douglas St.	95	9/23/2014 14:04	1	KITCHEN			CEILING	PLASTER	POOR	WHITE	Null	< LOD	< LOD	< LOD	1.42	1	AM
47 Douglas St.	96	9/23/2014 14:04	1	KITCHEN			CEILING	PLASTER	POOR	WHITE	Null	< LOD	< LOD	< LOD	0.63	1	AM
47 Douglas St.	97	9/23/2014 14:05	1	KITCHEN			CEILING	PLASTER	POOR	WHITE	POS	1.7	< LOD	1.7	8.49	1	AM
47 Douglas St.	98	9/23/2014 14:06	1	KITCHEN	D		DOOR	WOOD	POOR	WHITE	POS	2.5	2.5	5.2	1.89	2.12	AM
47 Douglas St.	99	9/23/2014 14:06	1	KITCHEN	D		DOOR casing	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.38	2.6	AM
47 Douglas St.	100	9/23/2014 14:06	1	KITCHEN	D		BASEBOARD	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.21	1	AM
47 Douglas St.	101	9/23/2014 14:07	1	KITCHEN	B		DOOR	WOOD	POOR	WHITE	POS	8.1	4.3	8.1	2.37	8.26	AM
47 Douglas St.	102	9/23/2014 14:07	1	KITCHEN	B		DOOR casing	WOOD	POOR	WHITE	POS	3.4	3.4	5.6	2.37	7.83	AM

Site	XRF #	Date/Time	Floor	Room	Rm #	Side	Component	Substrate	Condition	Color	Results	PbC	Pbl	PbK	Duration	Depth	Insp.
47 Douglas St.	103	9/23/2014 14:07	1	KITCHEN		C	RADIATOR	METAL	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.38	2.07	AM
47 Douglas St.	104	9/23/2014 14:08	1	KITCHEN		C	WINDOW casing	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	3.64	1	AM
47 Douglas St.	105	9/23/2014 14:08	1	KITCHEN		C	WINDOW casing	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.38	2.85	AM
47 Douglas St.	106	9/23/2014 14:09	1	KITCHEN		C	WINDOW jamb	WOOD	POOR	WHITE	POS	3.8	3.8	4.7	2.38	7.83	AM
47 Douglas St.	107	9/23/2014 14:09	1	KITCHEN		C	WINDOW sash	WOOD	POOR	WHITE	POS	4.4	4.4	6.3	2.36	6.21	AM
47 Douglas St.	108	9/23/2014 14:09	1	KITCHEN		C	WINDOW trough	WOOD	POOR	WHITE	POS	4.3	4.3	6.4	2.38	7.17	AM
47 Douglas St.	109	9/23/2014 14:09	1	KITCHEN		C	CABINET	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	110	9/23/2014 14:10	1	KITCHEN		C	CABINET	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.36	1	AM
47 Douglas St.	111	9/23/2014 14:10	1	KITCHEN			FLOOR	CERAMIC	POOR	TAN	POS	25.3	9.8	25.3	1.59	1.69	AM
47 Douglas St.	112	9/23/2014 14:11	1	KITCHEN		D	PANTRY WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.26	1	AM
47 Douglas St.	113	9/23/2014 14:11	1	KITCHEN		D	PANTRY CEILING	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.28	4.02	AM
47 Douglas St.	114	9/23/2014 14:12	1	KITCHEN		A	WALL	PLASTER	POOR	BLUE	Neg	< LOD	< LOD	< LOD	3.15	1	AM
47 Douglas St.	115	9/23/2014 14:12	1	KITCHEN		B	WALL	PLASTER	POOR	BLUE	Neg	< LOD	< LOD	< LOD	3.79	1	AM
47 Douglas St.	116	9/23/2014 14:13	1	KITCHEN		C	WALL	PLASTER	POOR	BLUE	Neg	< LOD	< LOD	< LOD	5.05	4.09	AM
47 Douglas St.	117	9/23/2014 14:13	1	KITCHEN		D	WALL	PLASTER	POOR	PINK	POS	12	2.6	12	2.05	10	AM
47 Douglas St.	118	9/23/2014 14:14	1	BATHROOM		D	DOOR	WOOD	POOR	WHITE	POS	15.9	5.3	15.9	1.89	10	AM
47 Douglas St.	119	9/23/2014 14:14	1	BATHROOM		D	DOOR casing	WOOD	POOR	BROWN	POS	18.6	3.7	18.6	1.89	10	AM
47 Douglas St.	120	9/23/2014 14:14	1	BATHROOM		D	BASEBOARD	WOOD	POOR	BROWN	POS	17.5	4	17.5	2.06	10	AM
47 Douglas St.	121	9/23/2014 14:15	1	BATHROOM		A	WINDOW casing	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.36	1	AM
47 Douglas St.	122	9/23/2014 14:15	1	BATHROOM		A	WINDOW caing	WOOD	POOR	BROWN	POS	16	5.1	16	1.89	10	AM
47 Douglas St.	123	9/23/2014 14:15	1	BATHROOM		A	WINDOW sash	WOOD	POOR	WHITE	POS	20.4	4.9	20.4	1.9	10	AM
47 Douglas St.	124	9/23/2014 14:15	1	BATHROOM		A	Wndw Part. Bead	WOOD	POOR	BROWN	POS	19.3	4.8	19.3	1.9	10	AM
47 Douglas St.	125	9/23/2014 14:16	1	BATHROOM		A	RADIATOR	METAL	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	126	9/23/2014 14:16	1	BATHROOM		B	TUB	METAL	POOR	WHITE	POS	29	5	29	1.58	1.97	AM
47 Douglas St.	127	9/23/2014 14:17	1	BATHROOM			FLOOR	VINYL	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.25	1.06	AM
47 Douglas St.	128	9/23/2014 14:17	1	BATHROOM		C	CABINET	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.21	2.51	AM
47 Douglas St.	129	9/23/2014 14:17	1	BATHROOM		C	CABINET	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.38	1	AM
47 Douglas St.	130	9/23/2014 14:18	1	BATHROOM		C	TRIM	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	131	9/23/2014 14:18	1	BATHROOM		B	SHELF	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.36	3.67	AM
47 Douglas St.	132	9/23/2014 14:18	1	BATHROOM		B	SHELF support	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	133	9/23/2014 14:19	1	BATHROOM		A	CROWN MOLDING	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	3.32	2.23	AM
47 Douglas St.	134	9/23/2014 14:20	1	BATHROOM			CEILING	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.42	1.22	AM
47 Douglas St.	135	9/23/2014 14:20	1	BATHROOM		A	WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	3.48	1	AM
47 Douglas St.	136	9/23/2014 14:21	1	BATHROOM		B	WALL	PLASTER	POOR	WHITE	POS	2.1	< LOD	2.1	4.91	1.64	AM
47 Douglas St.	137	9/23/2014 14:21	1	BATHROOM		C	WALL	PLASTER	POOR	WHITE	POS	2.3	< LOD	2.3	4.9	1	AM
47 Douglas St.	138	9/23/2014 14:22	1	BATHROOM		D	WALL	PLASTER	POOR	WHITE	POS	1.7	< LOD	1.7	10.58	1.47	AM
47 Douglas St.	139	9/23/2014 14:23	1	BEDROOM 1		C	DOOR casing	WOOD	POOR	WHITE	POS	14.4	< LOD	14.4	1.75	10	AM
47 Douglas St.	140	9/23/2014 14:23	1	BEDROOM 1		C	BASEBOARD	WOOD	POOR	WHITE	POS	18.1	8.1	18.1	2.05	9.89	AM
47 Douglas St.	141	9/23/2014 14:24	1	BEDROOM 1		A	WINDOW casing	WOOD	POOR	WHITE	POS	10.8	5.6	10.8	2.2	10	AM
47 Douglas St.	142	9/23/2014 14:24	1	BEDROOM 1		A	WINDOW sash	WOOD	POOR	WHITE	POS	13.7	7.7	13.7	2.05	8.94	AM

Site	XRF #	Date/Time	Floor	Room	Rm #	Side	Component	Substrate	Condition	Color	Results	PbC	PbL	PbK	Duration	Depth	Insp.
47 Douglas St.	143	9/23/2014 14:24	1	BEDROOM 1	A		WINDOW trough	WOOD	POOR	WHITE	POS	14.2	8	14.2	2.05	8.81	AM
47 Douglas St.	144	9/23/2014 14:24	1	BEDROOM 1	B		RADIATOR	METAL	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.38	1	AM
47 Douglas St.	145	9/23/2014 14:25	1	BEDROOM 1			FLOOR	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	146	9/23/2014 14:25	1	BEDROOM 1	D		CLOSET dr jamb	WOOD	POOR	BROWN	POS	8.6	3.8	8.6	2.36	9.47	AM
47 Douglas St.	147	9/23/2014 14:26	1	BEDROOM 1	D		CLOSET shelf	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	3.48	4.06	AM
47 Douglas St.	148	9/23/2014 14:26	1	BEDROOM 1	D		CLOSET shelf	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	149	9/23/2014 14:27	1	BEDROOM 1	D		CLOSET wall	PLASTER	POOR	WHITE	Neg	0.3	0.3	< LOD	3.63	2.01	AM
47 Douglas St.	150	9/23/2014 14:27	1	BEDROOM 1	D		CLOSET wall	PLASTER	POOR	WHITE	Null	< LOD	< LOD	< LOD	1.58	2.41	AM
47 Douglas St.	151	9/23/2014 14:27	1	BEDROOM 1	D		CLOSET wall	PLASTER	POOR	WHITE	Neg	0.1	0.1	< LOD	4.41	1.93	AM
47 Douglas St.	152	9/23/2014 14:28	1	BEDROOM 1	A		WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	3.96	1.54	AM
47 Douglas St.	153	9/23/2014 14:28	1	BEDROOM 1	B		WALL	PLASTER	POOR	WHITE	Null	< LOD	< LOD	< LOD	0.64	10	AM
47 Douglas St.	154	9/23/2014 14:29	1	BEDROOM 1	B		WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.27	1	AM
47 Douglas St.	155	9/23/2014 14:29	1	BEDROOM 1	C		WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	3.31	1	AM
47 Douglas St.	156	9/23/2014 14:29	1	BEDROOM 1	D		WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	3.15	1	AM
47 Douglas St.	157	9/23/2014 14:30	1	BEDROOM 1			CEILING	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.26	1.68	AM
47 Douglas St.	158	9/23/2014 14:32	1	BEDROOM 2			CEILING	PLASTER	POOR	WHITE	Neg	0.6	0.6	< LOD	3.63	7.33	AM
47 Douglas St.	159	9/23/2014 14:33	1	BEDROOM 2			CEILING	PLASTER	POOR	WHITE	POS	2.4	< LOD	2.4	4.4	10	AM
47 Douglas St.	160	9/23/2014 14:34	1	BEDROOM 2	D		DOOR casing	WOOD	POOR	WHITE	POS	12.2	4.1	12.2	2.06	10	AM
47 Douglas St.	161	9/23/2014 14:35	1	BEDROOM 2	D		BASEBOARD	WOOD	POOR	WHITE	POS	25.2	8.3	25.2	2.83	10	AM
47 Douglas St.	162	9/23/2014 14:35	1	BEDROOM 2	B		WINDOW casing	WOOD	POOR	WHITE	POS	17.2	< LOD	17.2	1.1	10	AM
47 Douglas St.	163	9/23/2014 14:35	1	BEDROOM 2	B		WINDOW sash	WOOD	POOR	WHITE	POS	16.3	9.7	16.3	2.05	6.92	AM
47 Douglas St.	164	9/23/2014 14:36	1	BEDROOM 2	C		RADIATOR	METAL	POOR	BROWN	Null	< LOD	< LOD	< LOD	0.63	1.46	AM
47 Douglas St.	165	9/23/2014 14:36	1	BEDROOM 2	C		RADIATOR	METAL	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.21	2.12	AM
47 Douglas St.	166	9/23/2014 14:37	1	BEDROOM 2			FLOOR	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.54	3.63	AM
47 Douglas St.	167	9/23/2014 14:37	1	BEDROOM 2	A		WALL	WOOD	INTACT	WHITE	Neg	0.22	0.22	< LOD	3.94	3.16	AM
47 Douglas St.	168	9/23/2014 14:38	1	BEDROOM 2	B		WALL	WOOD	INTACT	WHITE	Neg	0.6	0.6	< LOD	3.94	5.88	AM
47 Douglas St.	169	9/23/2014 14:38	1	BEDROOM 2	C		WALL	WOOD	INTACT	WHITE	Neg	0.7	0.7	< LOD	5.37	5.26	AM
47 Douglas St.	170	9/23/2014 14:38	1	BEDROOM 2	C		WALL	WOOD	INTACT	WHITE	POS	6.8	5.5	6.8	1.58	1.62	AM
47 Douglas St.	171	9/23/2014 14:39	1	BEDROOM 2	D		WALL	WOOD	INTACT	WHITE	Neg	< LOD	0.17	< LOD	3.46	4.66	AM
47 Douglas St.	172	9/23/2014 14:39	1	BEDROOM 2	D		WALL	PLASTER	POOR	BLUE	POS	8.2	6.4	8.2	1.59	1.69	AM
47 Douglas St.	173	9/23/2014 14:41	1	BEDROOM 3	D		DOOR	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.84	1	AM
47 Douglas St.	174	9/23/2014 14:41	1	BEDROOM 3	D		DOOR casing	WOOD	POOR	WHITE	POS	13.6	3.7	13.6	2.04	10	AM
47 Douglas St.	175	9/23/2014 14:41	1	BEDROOM 3	D		BASEBOARD	WOOD	POOR	WHITE	POS	9.5	4	9.5	2.21	10	AM
47 Douglas St.	176	9/23/2014 14:42	1	BEDROOM 3	D		TRIM	WOOD	POOR	WHITE	POS	12	2.9	12	3.32	10	AM
47 Douglas St.	177	9/23/2014 14:42	1	BEDROOM 3	C		WINDOW casing	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.21	1	AM
47 Douglas St.	178	9/23/2014 14:42	1	BEDROOM 3	C		WINDOW casing	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	1.57	6.26	AM
47 Douglas St.	179	9/23/2014 14:43	1	BEDROOM 3	B		WINDOW casing	WOOD	POOR	WHITE	POS	12.6	3.8	12.6	2.21	10	AM
47 Douglas St.	180	9/23/2014 14:43	1	BEDROOM 3	B		WINDOW sash	WOOD	POOR	WHITE	POS	9.1	5.4	9.1	2.54	10	AM
47 Douglas St.	181	9/23/2014 14:43	1	BEDROOM 3	B		Wndw Part. Bead	WOOD	POOR	WHITE	POS	9.2	4.9	9.2	2.22	10	AM
47 Douglas St.	182	9/23/2014 14:44	1	BEDROOM 3	C		RADIATOR	METAL	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.84	4.55	AM

Site	XRF #	Date/Time	Floor	Room	Rm #	Side	Component	Substrate	Condition	Color	Results	PbC	PbL	PbK	Duration	Depth	Insp
47 Douglas St.	183	9/23/2014 14:44	1	BEDROOM 3			FLOOR	WOOD	POOR	BROWN	Neg	< LOD	< LOD	< LOD	2.36	1	AM
47 Douglas St.	184	9/23/2014 14:44	1	BEDROOM 3		C	CLOSET dr	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	185	9/23/2014 14:45	1	BEDROOM 3		C	CLOSET dr	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.38	1	AM
47 Douglas St.	186	9/23/2014 14:45	1	BEDROOM 3		C	CLOSET shelf	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.36	1	AM
47 Douglas St.	187	9/23/2014 14:47	1	BEDROOM 3		C	CLOSET wall	PLASTER	POOR	WHITE	POS	1.5 < LOD	1.5	1.5	18.3	1.23	AM
47 Douglas St.	188	9/23/2014 14:47	1	BEDROOM 3		A	WALL	PLASTER	POOR	WHITE	POS	10.9 < LOD	10.9	10.9	2.37	10	AM
47 Douglas St.	189	9/23/2014 14:47	1	BEDROOM 3		B	WALL	PLASTER	POOR	WHITE	POS	11.3 < LOD	11.3	11.3	2.05	10	AM
47 Douglas St.	190	9/23/2014 14:48	1	BEDROOM 3		C	WALL	PLASTER	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.68	1	AM
47 Douglas St.	191	9/23/2014 14:48	1	BEDROOM 3		D	WALL	PLASTER	POOR	WHITE	POS	8.4 < LOD	8.4	8.4	2.36	10	AM
47 Douglas St.	192	9/23/2014 14:48	1	BEDROOM 3			CEILING	PLASTER	POOR	WHITE	POS	8.7 < LOD	8.7	8.7	2.21	10	AM
47 Douglas St.	193	9/23/2014 14:49	1	BEDROOM 3		D	CEILING hatch	WOOD	POOR	WHITE	POS	8.6 < LOD	8.6	8.6	2.36	10	AM
47 Douglas St.	194	9/23/2014 14:50	0	STAIR		D	DOOR	WOOD	POOR	WHITE	POS	11.6	5	11.6	2.06	5.87	AM
47 Douglas St.	195	9/23/2014 14:50	0	STAIR		D	DOOR jamb	WOOD	POOR	WHITE	POS	9	5.5	9	2.05	5.1	AM
47 Douglas St.	196	9/23/2014 14:50	0	STAIR		B	shelf	WOOD	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	197	9/23/2014 14:50	0	STAIR		B	shelf	WOOD	POOR	PINK	Null	< LOD	< LOD	< LOD	0.16	1	AM
47 Douglas St.	198	9/23/2014 14:51	0	STAIR		B	shelf support	WOOD	POOR	PINK	Neg	< LOD	< LOD	< LOD	2.37	1	AM
47 Douglas St.	199	9/23/2014 14:51	0	STAIR		D	TREAD	WOOD	POOR	grey	Neg	< LOD	< LOD	< LOD	2.37	1.1	AM
47 Douglas St.	200	9/23/2014 14:52	0	STAIR		D	RISER	WOOD	POOR	grey	Neg	0.27	0.27	< LOD	3.47	1.84	AM
47 Douglas St.	201	9/23/2014 14:52	0	STAIR		C	skirt	WOOD	POOR	PINK	Neg	< LOD	< LOD	< LOD	3.31	1.75	AM
47 Douglas St.	202	9/23/2014 14:52	0	STAIR		A	WALL	PLASTER	POOR	PINK	Neg	< LOD	< LOD	< LOD	2.21	1	AM
47 Douglas St.	203	9/23/2014 14:53	0	STAIR		B	WALL	PLASTER	POOR	PINK	Neg	< LOD	< LOD	< LOD	2.69	1.85	AM
47 Douglas St.	204	9/23/2014 14:53	0	STAIR		C	WALL	PLASTER	POOR	PINK	Neg	< LOD	< LOD	< LOD	3.32	1	AM
47 Douglas St.	205	9/23/2014 14:53	0	STAIR		D	WALL	PLASTER	POOR	PINK	Neg	< LOD	< LOD	< LOD	3.33	3.27	AM
47 Douglas St.	206	9/23/2014 14:54	0	STAIR			CEILING	PLASTER	POOR	PINK	Neg	< LOD	< LOD	< LOD	3.01	4.89	AM
47 Douglas St.	207	9/23/2014 14:55	0	BASEMENT		D	COLUMN	WOOD	POOR	grey	Neg	0.8	0.8	1.2	5.69	1.93	AM
47 Douglas St.	208	9/23/2014 14:55	0	BASEMENT		B	WINDOW	WOOD	POOR	grey	Neg	< LOD	< LOD	< LOD	2.36	1	AM
47 Douglas St.	209	9/23/2014 14:56	0	BASEMENT		B	WINDOW	WOOD	POOR	grey	POS	2.3	1.2	2.3	4.41	2.21	AM
47 Douglas St.	210	9/23/2014 14:57	0	BASEMENT		A	WALL	CONCRETE	POOR	WHITE	Neg	< LOD	< LOD	< LOD	5.51	1	AM
47 Douglas St.	211	9/23/2014 14:57	0	BASEMENT		B	WALL	CONCRETE	POOR	WHITE	Null	< LOD	< LOD	< LOD	2.21	1	AM
47 Douglas St.	212	9/23/2014 14:58	0	BASEMENT		B	WALL	CONCRETE	POOR	WHITE	Neg	< LOD	< LOD	< LOD	4.4	1	AM
47 Douglas St.	213	9/23/2014 14:58	0	BASEMENT		C	WALL	CONCRETE	POOR	WHITE	Null	< LOD	< LOD	< LOD	1.74	1	AM
47 Douglas St.	214	9/23/2014 14:58	0	BASEMENT		C	WALL	CONCRETE	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.53	1	AM
47 Douglas St.	215	9/23/2014 14:59	0	BASEMENT		D	WALL	CONCRETE	POOR	WHITE	Neg	< LOD	< LOD	< LOD	2.38	1.23	AM
47 Douglas St.	216	9/23/2014 15:00		OUTSIDE		A	DOOR	WOOD	POOR	grey	POS	1.8	1.8	< LOD	2.37	2.1	AM
47 Douglas St.	217	9/23/2014 15:00		OUTSIDE		A	DOOR casing	WOOD	POOR	grey	POS	15.2	3	15.2	1.88	2.4	AM
47 Douglas St.	218	9/23/2014 15:00		OUTSIDE		A	DOOR	WOOD	POOR	grey	POS	9.6	7.2	9.6	1.9	4.94	AM
47 Douglas St.	219	9/23/2014 15:01		OUTSIDE		A	DOOR casing	WOOD	POOR	grey	POS	1.3	1.3	1.4	4.59	2.05	AM
47 Douglas St.	220	9/23/2014 15:01		OUTSIDE		A	WINDOW casing	WOOD	POOR	grey	POS	2.9	2.9	< LOD	2.05	2.27	AM
47 Douglas St.	221	9/23/2014 15:02		OUTSIDE		A	WINDOW casing	WOOD	POOR	grey	Null	0.9	0.9	< LOD	3.94	2.03	AM
47 Douglas St.	222	9/23/2014 15:02		OUTSIDE		A	WINDOW casing	WOOD	POOR	grey	POS	15.7	6.4	15.7	1.42	3.38	AM

Site	XRF #	Date/Time	Floor	Room	Rm #	Side	Component	Substrate	Condition	Color	Results	PbC	PbL	PbK	Duration	Depth	Insp.
47 Douglas St.	223	9/23/2014 15:02	OUTSIDE	OUTSIDE	A	A	soffit	WOOD	POOR	grey	POS	17.9	5.2	17.9	1.89	2.76	AM
47 Douglas St.	224	9/23/2014 15:02	OUTSIDE	OUTSIDE	A	A	fascia	WOOD	POOR	grey	POS	16.9	4.8	16.9	1.74	2.72	AM
47 Douglas St.	225	9/23/2014 15:03	OUTSIDE	OUTSIDE	A	A	siding	WOOD	POOR	grey	POS	3.7	< LOD	3.7	3.3	1	AM
47 Douglas St.	226	9/23/2014 15:05	OUTSIDE	OUTSIDE	B	B	siding	WOOD	POOR	grey	Null	< LOD	< LOD	1	20.87	1	AM
47 Douglas St.	227	9/23/2014 15:05	OUTSIDE	OUTSIDE	B	B	siding	WOOD	POOR	grey	Null	< LOD	< LOD	< LOD	1.58	1.88	AM
47 Douglas St.	228	9/23/2014 15:05	OUTSIDE	OUTSIDE	B	B	siding	WOOD	POOR	grey	Null	< LOD	< LOD	< LOD	1.58	2.06	AM
47 Douglas St.	229	9/23/2014 15:05	OUTSIDE	OUTSIDE	B	B	siding	WOOD	POOR	grey	Null	< LOD	< LOD	< LOD	1.59	3.95	AM
47 Douglas St.	230	9/23/2014 15:06	OUTSIDE	OUTSIDE	B	B	siding	WOOD	POOR	grey	POS	9.5	8.2	9.5	1.58	1.41	AM
47 Douglas St.	231	9/23/2014 15:06	OUTSIDE	OUTSIDE	C	C	siding	WOOD	POOR	grey	POS	7.8	6.7	7.8	2.67	1.42	AM
47 Douglas St.	232	9/23/2014 15:06	OUTSIDE	OUTSIDE	D	D	siding	WOOD	POOR	grey	POS	9.2	8.1	9.2	2.68	1.48	AM
47 Douglas St.	233	9/23/2014 15:07	OUTSIDE	OUTSIDE	C	C	WINDOW	WOOD	POOR	grey	POS	12.1	7	12.1	1.74	2.56	AM
47 Douglas St.	234	9/23/2014 15:07	OUTSIDE	OUTSIDE	D	D	DOOR	WOOD	POOR	grey	POS	13.1	6.3	13.1	1.74	2.4	AM
47 Douglas St.	235	9/23/2014 15:08	OUTSIDE	OUTSIDE	D	D	DOOR casing	WOOD	POOR	grey	POS	19.8	6.8	19.8	1.74	2.83	AM
47 Douglas St.	236	9/23/2014 15:08	PORCH	PORCH	D	D	DOOR	WOOD	POOR	grey	POS	12.7	6.4	12.7	1.58	2.72	AM
47 Douglas St.	237	9/23/2014 15:08	PORCH	PORCH	D	D	DOOR casing	WOOD	POOR	grey	POS	4	4	7.6	1.75	2.27	AM
47 Douglas St.	238	9/23/2014 15:09	PORCH	PORCH	D	D	WINDOW casing	WOOD	POOR	grey	POS	13.3	3.5	13.3	2.83	2.69	AM
47 Douglas St.	239	9/23/2014 15:09	PORCH	PORCH	D	D	WINDOW sash	WOOD	POOR	grey	POS	3.8	3.8	4.9	1.75	2.5	AM
47 Douglas St.	240	9/23/2014 15:09	PORCH	PORCH	B	B	DOOR casing	WOOD	POOR	grey	POS	11.5	4.3	11.5	1.74	2.23	AM
47 Douglas St.	241	9/23/2014 15:10	PORCH	PORCH	B	B	DOOR threshold	WOOD	POOR	grey	POS	3.4	3.4	5.4	1.74	2.13	AM
47 Douglas St.	242	9/23/2014 15:11	PORCH	PORCH			FLOOR	WOOD	POOR	grey	POS	1.1	1.1	1	9.99	1.25	AM
47 Douglas St.	243	9/23/2014 15:11	PORCH	PORCH			CEILING	WOOD	POOR	grey	POS	11	4.4	11	1.58	2.24	AM
47 Douglas St.	244	9/23/2014 15:11	PORCH	PORCH	A	A	WALL	WOOD	POOR	grey	POS	3.7	< LOD	3.7	4.26	2.16	AM
47 Douglas St.	245	9/23/2014 15:12	PORCH	PORCH	B	B	WALL	WOOD	POOR	grey	POS	2.6	< LOD	2.6	4.42	2.33	AM
47 Douglas St.	246	9/23/2014 15:12	PORCH	PORCH	C	C	WALL	WOOD	POOR	grey	POS	2.5	< LOD	2.5	4.42	2.21	AM
47 Douglas St.	247	9/23/2014 15:12	PORCH	PORCH	D	D	WALL	WOOD	POOR	grey	Null	< LOD	< LOD	< LOD	0.79	10	AM
47 Douglas St.	248	9/23/2014 15:13	PORCH	PORCH	D	D	WALL	WOOD	POOR	grey	Neg	< LOD	< LOD	< LOD	4.41	1	AM
47 Douglas St.	249	9/23/2014 15:13	OUTSIDE	OUTSIDE	D	D	TREAD	WOOD	POOR	grey	Neg	< LOD	< LOD	< LOD	2.36	2.7	AM
47 Douglas St.	250	9/23/2014 15:14					calibrate				Neg	0.9	0.9	< LOD	6.33	1.02	AM
47 Douglas St.	251	9/23/2014 15:15					calibrate				Neg	0.9	0.9	< LOD	6	1.08	AM
47 Douglas St.	252	9/23/2014 15:16					calibrate				POS	1	1	< LOD	21.21	1.08	AM

Description of Column Titles

- Site:** The sequential number of the site (homes or buildings) inspected on a particular day.
- No:** The sequential XRF sample number for a given site.
- XL No/Map:** The sample number recorded on the maps of a particular site.
- Date:** Date that the XRF sample was analyzed.
- Time:** Time of XRF sample analysis.
- Floor:** The sample location floor level (0 = basement, 1 = first floor, 2 = second floor).
- Room:** The specific location where the sample was analyzed on the site. Calibrate is also recorded in this column when appropriate.
- Side:** Side of the room based on sampling methodology as described earlier in this report. The only four sides that can be designated are **A, B, C, and D.**
- Structure:** This refers to the general building component that the test was performed on. It may also include modifications such as: upper, lower, exterior, interior, right, and left.
- Feature:** Specifies additional information about a structure.
- Condition:** Describes whether the surface being tested is **Intact:** good condition; **Fair:** less than 2 square feet of damage to large interior surface, i.e., wall, less than 10 square feet of damage to large exterior surface, i.e., outside walls, or less than 10% damage to small surface areas, i.e., baseboards, trim, etc.; **Poor:** more than 2 square feet of damage on large interior surfaces, more than 10 square feet of damage to large exterior surface areas, or more than 10% damage to small surface areas.
- Substrate:** Refers to the material that the structure was made of, i.e., wood, concrete, drywall, etc.
- Color:** Color of surface tested.
- Result:** The lead concentration in mg/cm^2 as determined with L-shell and K-shell X-ray data.
- PbL(mg/cm^2):** The lead concentration as determined with L-shell X-ray data.
- RES:** Results: POS - above action level, NEG - below action level.
- PbK:** The lead concentration in mg/cm^2 on the K-shell X-ray data spectrum.
- PbC:** The combined lead concentration in mg/cm^2 of the L-shell and K-shell X-ray data spectrum.
- Depth:** This is the index that is a qualitative indication of the depth of the lead in paint. As the number approaches 1, the lead is concentrated close to the top layers of paint. The largest number available for depth index is 10. The greater the number, the more likely interfering elements may have been detected.
- Duration:** The length of the XRF sample analysis in seconds.
- Inspector:** When multiple inspectors are used, this number indicates who sampled at the time indicated.
- Note:** This refers to any notes that were collected during the analysis of the particular sample. Then can be found on the field data sheet titled "Lead-Based Paint Inspection Data Page."

SAMPLING METHODOLOGY

Buildings were systematically inspected for lead-based paints. The **A** side of the building is the side facing the street. Starting from the **A** side, the other sides are lettered consecutively (**B, C, D**), going clockwise around the building.

Inside the unit, each floor was assigned a number starting with **0** for the basement, **1** for the first floor, and **2** for the second floor.

Some rooms that are unique in the building are named on the inspection report. These would include things like pantry, kitchen, halls, bathrooms, and staircases. If there is more than one of a certain type of named room, then they are numbered (e.g., staircases to basements are numbered staircase 1, while staircases to the second floor are labeled staircase 2). Room numbering starts in the **A-D** corner of the building and continues clockwise from that point.

Within each room of the building, each of the sides of the room are named. The naming of walls in a room, for instance, follows the same pattern as that used on the exterior of the building, namely, the street side of each room is labeled **A**, and then clockwise from that wall, walls are labeled **B, C, D**.

APPENDIX C

**LABORATORY RESULTS
CHAIN-OF-CUSTODY**



EMSL Analytical, Inc.

14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
<http://www.EMSL.com> minneapolislab@emsl.com

EMSL Order: 351405868
CustomerID: MIDW56
CustomerPO: cc/
ProjectID:

Attn: **Greg Myers**
Midwest Environmental Consulting, L.L.C.
125 Railroad Ave SW

Phone: (763) 691-0111
Fax: (763) 691-0145
Received: 09/19/14 1:15 PM
Collected: 9/18/2014

Mora, MN 55051

Project: 502/0914D, Douglas St. St. Paul

Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	Collected	Analyzed	Area Sampled	RDL	Lead Concentration
502/0914D-W1 351405868-0001	9/18/2014	9/22/2014	144 in ² Site: Living Rm Side A Entry FLR	10 µg/ft ²	400 µg/ft ²
502/0914D-W2 351405868-0002	9/18/2014	9/22/2014	36 in ² Site: Lving Rm Side D Rht Window Sill	1200 µg/ft ²	3200 µg/ft ²
502/0914D-W3 351405868-0003	9/18/2014	9/22/2014	36 in ² Site: Kitchen Side C Rht Window Sill	40 µg/ft ²	1300 µg/ft ²
502/0914D-W4 351405868-0004	9/18/2014	9/22/2014	144 in ² Site: Kitchen Side D Entry FLR	1000 µg/ft ²	14000 µg/ft ²
502/0914D-W5 351405868-0005	9/18/2014	9/22/2014	144 in ² Site: Bed Rm 3 Side C FLR	500 µg/ft ²	1100 µg/ft ²
502/0914D-W6 351405868-0006	9/18/2014	9/22/2014	36 in ² Site: Bed Rm 3 Side C Window Sill	2000 µg/ft ²	4600 µg/ft ²
502/0914D-W7 351405868-0007	9/18/2014	9/22/2014	144 in ² Site: Basement Middle FLR	300 µg/ft ²	640 µg/ft ²
502/0914D-W8 351405868-0008	9/18/2014	9/22/2014	144 in ² Site: Hall Middle FLR	10 µg/ft ²	<10 µg/ft ²

Rachel Travis, Laboratory Manager
or other approved signatory

*Analysis following Lead in Dust by EMSL SOP/ Determination of Environmental Lead by FLAA. Reporting limit is 10 ug/wipe. ug/wipe = ug/ft² x area sampled in ft². Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities (such as volume sampled) or analytical method limitations. Samples received in good condition unless otherwise noted. The lab is not responsible for data reported in µg/ft² which is dependant on the area provided by non-lab personnel. The test results contained within this report meet the requirements of NELAC unless otherwise noted. "<" (less than) results signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise
Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn AIHA-LAP, LLC-ELLAP Accredited #163162

Initial report from 09/22/2014 13:50:13



EMSL Analytical, Inc.

14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
<http://www.EMSL.com> minneapolislab@emsl.com

EMSL Order: 351405868
CustomerID: MIDW56
CustomerPO: cc/
ProjectID:

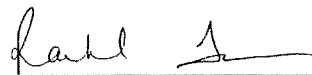
Attn: **Greg Myers**
Midwest Environmental Consulting, L.L.C.
125 Railroad Ave SW

Mora, MN 55051
Project: 502/0914D, Douglas St. St. Paul

Phone: (763) 691-0111
Fax: (763) 691-0145
Received: 09/19/14 1:15 PM
Collected: 9/18/2014

Test Report: Lead in Soils by Flame AAS (SW 846 3050B/7000B)*

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>RDL</i>	<i>Lead Concentration</i>
502/0914D-S1 351405868-0009	9/18/2014	9/22/2014 Site: Bare Soil Foundation	40 mg/Kg	420 mg/Kg



Rachel Travis, Laboratory Manager
or other approved signatory

*Analysis following Lead in Soil/Solids by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 40 mg/kg based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. Results reported based on dry weight. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise
Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn AIHA-LAP, LLC-ELLAP Accredited #163162

Initial report from 09/22/2014 13:50:13

5868

Midwest Environmental Consulting, L.L.C.

125 Railroad Avenue SW • Mora, MN 55051
 763-691-0111 / 320-679-4054
 Fax: 763-691-0145 / 320-679-4442
 Client Address: _____
 Contact: _____



CHAIN OF CUSTODY

Project Number: 502/0914D
 Client: ARC FIRST
 Project: 47 Dwyer St St. Paul
 Phone/Fax: _____

Sample ID	Sample Description	Collection Date/Time	Matrix (Vol./Area)	Analysis Requested
502/0914D-01	Living Room Side-A Entry PIR	9-18-14	12" x 12"	PB/43FZ
02	" Side-D Pht window sill		2" x 18"	
03	Kitchen side-c Rht "		"	
04	" Side-D Entry PIR		12" x 12"	
05	Bedroom-3 side-c PIR		"	
06	" " window sill		2" x 18"	
07	Basement middle PIR		12" x 12"	
08	Hall " "		"	
502/0914D-51	Base Soil Remediation		Indistinct	PB/43FZ

Sampled by: [Signature] Date: 9-18-14 Time: _____
 Received by: [Signature] Date: 9/19/14 Time: 1:15
 Received by Lab: _____ Date: _____ Time: _____
 Disposition of Samples: _____
 Delivered by: [Signature] Date: 9-18-14 Time: 1:15
 Delivered by: _____ Date: _____ Time: _____

Notes: 24 hrs Analysis

Neighborhood Energy Connection

Residential Energy Specification

Customer: City of Saint Paul

Auditor: Michael Childs

Address: 47 Douglas Street 10/10/2014

Phone: 651-789-5710

Spec ID#	Spec Title	Specification	Location / Notes
104	Replace Furnace with 95%+ AFUE, Multi-stage, Forced Air Furnace or boiler (see below)	All work is to be performed to manufacturer's specifications and be in compliance with current building codes. Remove existing furnace, recycle all metal components and dispose of all other materials in a code legal dump. Install a new ENERGY STAR rated, gas-fired, multi-stage burner, forced air furnace with a minimum AFUE rating of 95%+ and ECM distribution fan with 2" rise above floor. Connect to existing duct work and gas line. New furnace to be vented with PVC piping per manufacturer's specifications. New furnace will have minimum limited warranties of 20 years on heat exchangers; 5 years on parts. Include auto setback thermostat controls, vent pipe & new shut-off valve. Rework cold air return if necessary to ensure easy access, good fit & easy replacement of air filter. An exterior return air filter box shall be installed on one side, both sides or bottom of new furnace. Seal all exposed duct joints with duct mastic. Remove all existing cloth duct tape prior to installing mastic. Any asbestos containing equipment and materials will be abated in accordance with State laws and regulations.	

202	Replace Boiler with 90% AFUE Hot Water Boiler or furnace (see above)	All work is to be performed to manufacturer's specifications and be in compliance with current building codes. Replace existing boiler with a gas fired, modulating, direct vent, 90% AFUE+ hot water boiler. Installation to include all power & control wiring, a setback thermostat, expansion tank, one circulation pump, water & gas supply & flue piping. The installation is required to maintain a minimum 70 F indoor temperature evenly throughout the conditioned space when outdoor temperature is - 10 F. Remove existing boiler, recycle all metal components and dispose of all other materials in a code legal dump. Any asbestos containing equipment and materials will be abated in accordance with State laws and regulations.	
302	Replace Water Heater with an Energy Star rated power vent or direct vent model	All work is to be performed to manufacturer's specifications and be in compliance with current building codes. Replace water heater with an Energy Star rated power vent or direct vent model. Include pressure & temperature release valve, discharge tube to within 6" of floor and PVC flue to power vent to exterior.	
500	Seal Attic Bypasses	Contractor shall seal all attic bypasses. Bypasses shall be defined as any building air leakage pathway between conditioned and unconditioned areas. Bypass locations include, but are not limited to, the following areas: chimney chases, combustion and soil stack chases, open wall tops, dropped ceilings, open plumbing walls, beneath knee walls and around duct work, electrical work and attic access points. Bypasses shall be sealed in such a manner that the movement of air through the bypass is essentially stopped. "Essentially stopped" means that air leakage will not be detected by an infrared scan when the house is pressurized to 50 Pascals. Materials used for bypass sealing are determined by the size and location of the bypass and shall be installed to manufacturer's recommendations and shall meet current building code requirements. These materials include high quality caulks (20-year life span), polyethylene rod stock, foam, sheetrock, sheet metal, extruded polystyrene and densely packed insulation.	

510	Blow Open Attic to R-50	Before insulating the attic, Contractor shall confirm proper air sealing. Installation must meet or exceed the Minnesota Energy Code where space permits. Blow insulation to depth indicated on manufacturer's coverage chart, consistently and evenly to R-50. Provide attic insulation depth markers. One marker shall be placed for every 100 sq. ft. of attic area, and all markers must be visible from attic access points. A signed manufacturer's coverage chart or attic information card shall be posted at each attic access point which lists the number of bags used or pounds installed, the date of installation, installed thickness in inches, sq. ft. of coverage area, installed R-value, and contractor information.	
512	Dense Pack Slants to capacity	Determine cavities are free of hazards and can support dense packing pressures, locate drilling hazards. If drilling from the interior, control dust and plug, patch and sand holes. Installation must meet or exceed the Minnesota Energy Code where space permits. Blow Slant walls with cellulose to capacity using the Dense Pack Method to a minimum density 3.5 lbs./ft ³ , or dense pack spider fiberglass per manufacturer's instructions.	
530	Install Air Chutes	All work shall meet Minnesota State Residential and Energy Codes. When soffit vents are installed or existing, a passage for air movement shall be cleared before insulating. Vent chutes and wind baffles shall be installed at all soffit vents. Attic areas below the baffle or chute shall be insulated to R-50 or to capacity as space allows.	
532	Build Dam, insulate and weather strip attic hatch	Access hatch door to attic shall be insulated to R-50 as space allows with a rigid insulation dam constructed around the opening. Opening shall be weather stripped to provide an air tight seal.	
602	Dense pack exterior walls.	Determine cavities are free of hazards and can support dense packing pressures. Locate drilling hazards and ensure openings into the house are blocked. - Exterior Treatment: Shakes and siding shall be removed before drilling access holes. Holes in sheathing shall be plugged with tight fitting wood or urethane foam	

		<p>plugs before shakes or siding are nailed back without damage using appropriate galvanized nails. Stucco shall be punched or drilled to provide access. Holes must be plugged weather tight with tight fitting plugs and patched.</p> <p>- Interior Treatment: Control dust when drilling from interior. Holes must be filled with tight fitting plugs and patched.</p> <p>Completely fill each cavity to a consistent density. Dense pack cellulose to a minimum density of 3.5 lbs./ft³ or dense pack spider fiberglass per manufacturer's instructions. Follow all applicable Lead Safe Work Practices as per the EPA's RRP Rules.</p>	
802	Air Seal and Insulate Rim Joist	<p>Remove existing insulation if present. Seal cracks and holes in rim joist before insulating. Caulk or foam 3 inches of rigid insulation in place; or apply two-part polyurethane foam evenly and consistently according to manufacturer's instructions to insulate to R-10 around basement rim joist.</p>	
1010	Install continuous ventilation	<p>Install Continuous Ventilation - Install an ENERGY STAR rated two-speed bathroom fan rated for continuous use, maximum of 1.0 sone for full flow rate of 110 cfm or less and maximum of 1.5 sones for a full flow rate above 110 cfm, with a pre-set low-speed of 25-35 CFM and a minimum 70 cfm high-speed boost capability initiated by a wall switch or motion detector manual or automatic two-speed switch (such as an occupancy sensor) that toggles the fan between the high and low flow rates only; the switch shall not turn the fan off. Alternately, install an ENERGY STAR rated kitchen exhaust fan rated for continuous use. Vent fan using rigid duct insulated to R-8 minimum and vented to the exterior with dampered roof vent.</p>	

Radon Test Result: < 0.3 ±0.8 pCi/L

Test Started 08/22/14 at 11:00 am

Test Ended 08/26/14 at 3:00 pm

Closed house conditions maintained during test.

Location Basement



TCHU YAJH
47 DOUGLAS ST
SAINT PAUL, MN 55102

INTERPRETING YOUR TEST RESULT

The US EPA action level for indoor radon is 4.0 pCi/L. Test results in this range(0.5 pCi/L or less) are, for all practical purposes, equivalent to the radon levels found in fresh air. However, if you make any structural changes or start to use a lower level of the building more frequently you should test again.

You may be able to obtain additional information about radon related subjects by contacting your state radon office at "www.health.mn.gov/radonkit" or by calling the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8PM EST.



Air Chek, Inc.

PO Box 2000

Naples, NC 28760

www.radon.com

Your Test Result

This result has been rounded to one-tenth (0.1) of a pCi/L (picocurie per liter). This test result reflects the amount of radon measured in this sample AFTER it arrived at our laboratory. All analysis calculations are automatically adjusted to reflect the length of test, the amount of moisture in the sample, temperature, time from the end of test, and the amount of radiation measured. If your test kit was used prior to the Use By date, ALL the testing protocols and instructions were carefully followed, and the data recorded properly on the test packet, then it is reasonable to assume this is an accurate assessment of the average level of the radon this sample was exposed to during the test period.

Health Risks

The primary health risk from long-term exposure to radon is lung cancer. The risk of developing a lung cancer from radon exposure depends both on how much radon is present and how long you are exposed to radon. The higher the radon level or the longer the time of exposure, even if the levels are relatively low, the greater the risk. EPA has set an Action Level for radon at 4 pCi/L; however radon concentrations less than 4 pCi/L still pose some health risks. The Indoor Radon Abatement Act set a goal for indoor radon concentrations to equal the amount of radon found outdoors, which is estimated to be ~ 0.4 pCi/L.

Conducting Follow-up Measurements

USEPA protocol describes two general types of radon measurements: short-term tests conducted from 48 hours up to 90 days, and long-term tests that last from 91 to 365 days. Your first test (initial/screening) should be a short-term 'worst-case' screening to see if there is a potential for high exposure to radon. Screening tests should be conducted under closed-building conditions, in the lowest lived-in area in the house, because the highest concentrations of radon will usually be found in a room closest to the underlying soil. Tests made under these conditions are less likely to miss a house with a potential for high concentrations. On the other hand, if the results of worst-case screening tests are very low, there is a high probability that the average annual concentrations in the house are also low.

(Continued on Back)

Most states have a radon office to assist citizens with general questions about radon and radon reduction techniques. Many states maintain a list of licensed or certified radon testing and mitigation professionals. You can visit www.state-radon.info to find the list of state radon contacts, as well as links to additional radon resources in your area.

Conducting Follow-up Measurements

The higher your initial (screening) tests, the sooner you should conduct follow-up measurements. The EPA states that you should retest the same location that was tested initially.

For additional or follow-up testing, make sure at least one test is conducted in the **lowest lived-in level** of the home. Also choose regularly used rooms, such as family rooms, dens, playrooms, or bedrooms. A bedroom on the lower level may be a good choice, because people generally spend the most time in their bedrooms (approximately one-third of the year). If there are children, it may be appropriate to test their rooms or other areas where they spend a lot of time, especially at the lower levels. All short-term follow-up tests **must** be conducted under closed-building conditions. If closed-building conditions cannot be maintained, a long-term measurement conducted under normal living conditions could be used to help estimate average annual exposures.

Tests **should not be conducted** in a kitchen or a bathroom because high humidity, exhaust fans, and other factors can adversely affect the test results. Tests **should not be conducted** in storage areas or laundry rooms, because relatively little time is spent there. Although radon in water may be a contributor to the concentration of airborne radon, radon in air should be **confirmed** before a test for radon in water is performed.

It is recommended that before spending any time or money on radon mitigation, one should conduct multiple (two or more) tests to be certain there is a need. A few more tests will most certainly cost considerably less than any mitigation work.

If follow-up measurements have **confirmed** that the average annual level of radon is equal to or greater than 4 pCi/L, the USEPA recommends that the building or home be mitigated for radon. Consider also that a future buyer is likely to demand that the building pass a radon test before purchasing.

Variations in Radon Levels – What can affect your test results and why it may be important to conduct confirmation tests.

When tests are performed in different seasons or under different weather conditions, the initial screening and follow-up tests may vary considerably. Radon levels can vary significantly between seasons, so different results **are often expected**. Even during normal weather, indoor radon levels may rise and fall by a factor of two on a daily cycle; for example, from 5 pCi/L to 10 pCi/L in 24 hours. During rapidly changing or stormy weather, the levels may change more dramatically.

If you are comparing tests, or are averaging a series of tests, bear in mind that any radon test returns only the average of the levels present during a **specific period of time** at the **precise location** of the test. Conditions during a different test period or at a different location in the building are **expected to be different**.

Test results can also vary if the radon test instructions were not carefully followed. A laboratory measuring radon in samples taken outside the lab **must rely on the person conducting the test**. For example, the wrong starting or ending date of a test will significantly affect the calculated result. The location of each radon test can also influence the result. For example, a test placed in the blowing air stream of a fan is likely to collect more radon than it would under normal conditions. Also, three tests conducted in one home, but in three different rooms, **would be expected to have at least slightly different test results**.

Test results from a properly used activated charcoal test will more closely reflect the average radon concentrations over the last three to four days of the test period. This happens because the radon collected by the activated charcoal has a radioactive half-life of only four days. This means, for example, over one-half of the radon collected during the first three days of a seven day test 'died' before the test ended.

If you have further questions regarding this test or need advice on follow-up testing, call fax or email our technical service department listed below.

Thank you for choosing the Air Chek test device

PERFORMING RADON TESTS FOR A REAL ESTATE TRANSACTION

EPA guidelines recommend that at least two short-term tests should be conducted, either together or sequentially, in the lowest level of the building usable by the buyers. If the average of all the tests is 4 pCi/L or more, the recommendation is to have the building mitigated by a certified professional. If the average is below 4 pCi/L, then no further action is necessary at this time, although testing in the future is recommended. It is **highly recommended** that any property transaction tests be conducted by a certified radon professional. To locate a listed or certified radon tester, contact your state radon office (www.state-radon.info) or go to www.nrpp.info to download a list of professionals certified by the National Radon Proficiency Program (NRPP).

Also visit www.epa.gov/radon to download the latest copy of their publication: *Home Buyer's and Seller's Guide to Radon*.

Limitation of Liability: While we at Air Chek, Inc. make every effort to maintain the highest possible quality control and include several checks and verification steps in our procedures, we make **NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS** with respect to any item furnished, information supplied or services rendered you by Air Chek, Inc. Before any action is taken on the basis of test results given to you by Air Chek, Inc. we recommend that further testing be done. Neither Air Chek, Inc., nor any of our employees or agents, shall be liable under any claim, charge, or demand, whether in contract, tort or otherwise, for any and all losses, costs, charges, claims, demands, fees, expenses, injuries or damages (including without limitation **INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH ARE EXCLUDED**) of any nature or kind arising out of, connected with, resulting from, or sustained as a result of any item furnished, information supplied, or service rendered to you by Air Chek, Inc.

Notice to Pennsylvania Residents: The Radon Certification Act requires that anyone who provides any radon-related service or product to the general public must be certified by the Pennsylvania Department of Environmental Protection. You are entitled to evidence of certification from any person who provides such services or products. You are also entitled to a price list for services or products offered. All radon measurement data will be sent to the Department as required in the Act and will be kept confidential. If you have any questions, comments, or complaints concerning persons who provide radon-related services, please contact the Department of Environmental Protection, P.O. Box 8469, Harrisburg, PA 17105-8469 (717-783-4594).

The radon test kit(s) used for this report is certified by the National Radon Proficiency Program (NRPP), Lab ID: 101138AL, for use in all fifty states. It is also listed or certified for use in all states that have a radon program.

For technical information, call (800) 247-2435. Office hours are Mon-Fri 8:30 to 5:30 Eastern
You can reach us by Fax at (828) 684-8498 or by email at info@radon.com
Web Site: www.radon.com

LITTLE BOHEMIA NEIGHBORHOOD / UPPERTOWN
WEST SEVENTH / FORT ROAD FEDERATION

OUTLINE SCOPES OF WORK & HISTORICAL RESEARCH SUMMARIES

326 HARRISON AVENUE - 69 GARFIELD STREET - 301 STURGIS STREET - 47 DOUGLAS STREET



326 Harrison Avenue
69 Garfield Street

301 Sturgis Street

47 Douglas Street

Prepared for:
Community Neighborhood Housing Services
West 7th/Fort Road Federation
Little Bohemia Neighborhood Association

Prepared by:
Becca Hine, architect
Jim Sazevich, historian

Funding provided by:
Ward 2 City Council
Community Organization Partnership Program (COPP)

September, 2013

LITTLE BOHEMIA NEIGHBORHOOD / UPPERTOWN

"Little Bohemia" is one of several sub-neighborhoods of Uppertown (originally Upper Town), which is part of the larger West Seventh Street community. Uppertown is one of two original neighborhoods in the City of Saint Paul, and home to some of the oldest houses in the City. The Lower Landing, at the foot of Jackson Street, spawned the Lower Town (Lowertown) neighborhood. The Upper Landing, at the foot of Chestnut Street, gave birth to Uppertown. The two neighborhoods shared a common border at St. Peter Street.

The original boundaries of Uppertown consisted of Summit Avenue on the north, St. Peter Street on the east, the Mississippi River on the south, and Toronto/Dale Street on the west. From the incorporation of the city in 1854, everything west of Toronto Street was outside of the city and part of the Reserve Township of Ramsey County, until 1872, when the first of three annexations of the Reserve occurred. The boundaries of Uppertown today are Hwy 35E to the north, Kellogg Blvd to the east, the Mississippi River to the south, and Toronto and Drake Streets to the west. The boundaries of Little Bohemia have been defined as the area bounded by 35E to the North, Smith Avenue to the East, West 7th Street to the South, and Grace Street to the West (-Jim Sazevich).

HISTORIC ASSETS AND COMMUNITY REDEVELOPMENT

After identifying the historic assets and evaluating the reuse alternatives for vacant properties in the Little Bohemia neighborhood, the property reports advocate for preserving the existing housing stock and guiding future development in a historically sensitive manner. Rehabilitation, versus demolition, supports the larger community goals of protecting and enhancing the cultural heritage of the West 7th neighborhood. The four properties selected for evaluation have been deteriorating for years and a fear of demolition escalated the need for action.

Buildings from the 1850s to the early 1870s are rare in the Uppertown neighborhood and the city as a whole. Existing buildings dating from the 1850's, 1860s, or early 1870s, are an irreplaceable architectural asset. A few hundred residential structures were built in Uppertown during the 1850s, and only a couple dozen of those survive today. For the decade 1860 – 1870, even fewer structures were built in Uppertown, and very few of those still stand. In all of Uppertown's approximately 650 structures, there are about twenty buildings dating from the 1860s, and roughly ninety buildings dating from the early 1870s (-Jim Sazevich).

In the late 1990's, the West 7th/Fort Road Federation (W7/FRF) identified this unique area of the West 7th neighborhood as a priority redevelopment district. With its historic housing stock, proximity to downtown, and adjacency to the United Hospital, Little Bohemia is positioned to be a thriving residential area. Instead, due to a high concentration of substandard rental units, problem properties and vacant buildings, the neighborhood has been in need of a strategic intervention. In partnership with the City of Saint Paul's Housing and Redevelopment Authority (HRA), the W7/FRF has acquired more than twenty vacant properties in the target area. Four single family rehabilitations have been completed and financing is in place to complete an additional eight single family projects by the end of 2014. Additional funding sources will be required to address the remaining structures and vacant lots.

Based on the W7/FRF's founding principle, "that citizens acting together can maintain and improve the quality of life in their neighborhoods and help commercial endeavors prosper", the Little Bohemia Neighborhood Association formed in 2009 to provide community input and local support of the redevelopment plans. Residents, landlords, and business owners meet on a monthly basis to monitor redevelopment efforts and implement community projects supporting their mission to provide a safe, clean, pedestrian-friendly residential neighborhood.

LITTLE BOHEMIA NEIGHBORHOOD / UPPERTOWN
WEST SEVENTH / FORT ROAD FEDERATION

OUTLINE SCOPE OF WORK & HISTORICAL RESEARCH SUMMARY

47 DOUGLAS STREET



THE GALVIN-SHEAREN HOUSE, 1883

Category 2 Registered Vacant Building: 09/16/2009
Owner: City of Saint Paul/Housing and Redevelopment Authority
Developer: West 7th/Fort Road Federation, Phase II

Scope prepared by Becca L. Hine, beccahine@gmail.com
Historical research by Jim Sazevich, jimsazevich@yahoo.com

47 DOUGLAS - HIGHLIGHTS FOR REHAB

1. Full rehabilitation required, interior and exterior
2. New front porch, wrap to North side
3. New stoop and/or porch at rear/side entrance
4. Examine foundation walls and crawl space under bay, identify required corrections
5. Selective demolition/further investigation:
 - a. expose original exterior siding, soffit, fascia, & trim details
 - b. evaluate front porch, identify work to be performed
 - c. evaluate foundation walls, joists and rim conditions, identify work to be performed
 - d. evaluate plaster walls and ceilings, identify areas for repair and/or replacement
6. Explore off street parking options with adjacent properties
7. Reconfigure floor plan, restore front entrance hall
8. Prepare Bid documents, by developer/architect

SCOPE SUMMARY

The outline scope is intended to guide future development in a historically sensitive manner; it is not intended to be conclusive and allows the developer/architect broad latitude on final design decisions.

Scope recommendations support a long standing neighborhood priority to maintain the historic character and architectural details of the West 7th housing stock. While historically appropriate rehabilitation methods favor a preference for restoration of original materials, replacement is often necessary and easily achieved. Appropriate alternates have been specified, so long as they maintain a similar material, size and profile.

The scope of work has been based on:

1. Visual observations and discussions with Ed Johnson and Jim Glendening (W7/FRF)
2. Visual observations and discussions with the Little Bohemia Neighborhood Association
3. Preservation based rehabilitation standards
4. City of Saint Paul/HRA Design Standards (v6, August 2013)

The outline scope assumes that the:

1. Project will meet Code Compliance, see report requirements
2. HVAC, plumbing, and electrical systems will be new, install per code
3. Energy efficiency and sustainable design methods and materials will be integrated
 - a. Specific funding requirements to be addressed at time of redevelopment
 - i. Enterprise Green Communities Certification (see criteria 5.1c)
4. Energy Audit/HERS testing will be completed
5. Painted surfaces contain Lead
6. Exterior siding, laminate flooring and kitchen &/or bath fixtures contain Asbestos
7. Radon levels are acceptable
8. Grading, storm water management and landscape plans will be incorporated
9. Connections to all City services and utilities will be provided
10. Developer/architect will determine the full scope of work and prepare construction documents at the time of redevelopment

OUTLINE SCOPE OF WORK

Division 1 – General Requirements

1. To be determined by developer/architect

Division 2 – Existing Conditions

Additional locations to be determined by developer/architect

1. Demolition (see Lead and Asbestos Reports)
 - a. Roofing, all layers
 - b. Roof decking, areas where damaged
 - c. Asbestos siding, including attachments and underlayments
 - d. Front and side entry steps
 - e. Concrete walks, pavers
 - f. Parging at exterior foundation walls
 - g. Kitchen plumbing fixtures, cabinets, appliances, and tile flooring
 - h. Bathroom plumbing fixtures, clothes washer & dryer, and tile flooring
 - i. Wall and ceiling plaster at deteriorated locations
 - j. Wall and ceiling insulation at deteriorated locations
 - k. Obsolete HVAC, plumbing and electrical services
 - l. Provide as alternate: chimney removal
2. Asbestos Remediation
 - a. Testing and appropriate remediation to be performed
3. Lead Hazard Control Activities
 - a. Testing and appropriate remediation to be performed
4. Radon Mitigation
 - a. Testing and appropriate remediation to be performed

Division 3 – Concrete

Additional locations to be determined by developer/architect

1. Cast in Place Concrete
 - a. Front and side entry stairs, new footings
 - b. Front and side porches, new footings
 - c. Basement columns/slab, verify on site

Division 4 – Masonry

Additional locations to be determined by developer/architect

1. Maintenance of Masonry
 - a. Repair and repoint all foundation walls, interior and exterior
2. Concrete Unit Masonry
 - a. Stabilize unexcavated areas in basement

Division 5 – Metals

Additional locations to be determined by developer/architect

1. Decorative Metal Railings
 - a. Exterior
2. Miscellaneous
 - a. Exterior and interior

Division 6 – Wood, Plastics and Composites

Additional locations to be determined by developer/architect

1. Rough Carpentry (see Division 02)
 - a. Exterior Rough Carpentry
 - i. Front and side entry stairs
 - ii. Front and side porch construction
 - iii. Eave and rake framing repairs
 1. replacement where required
 - iv. New openings
 - v. Provide as alternate: replace wood roof decking

- b. Interior Rough Carpentry (see Division 02)
 - i. Framing required per code
 - 1. Double up framing where required
 - 2. Install headers at existing openings, when missing
 - 3. Stairs to remain in place, upgrade per inspector requirements
 - 4. Install blocking where required
 - ii. Reconfigure plan per developer/architect
 - iii. Coordinate all heating, plumbing and electrical locations
- 2. Finish Carpentry
 - a. Exterior Finish Carpentry (see Division 02)
 - i. Front and side entry stairs
 - ii. Front and side entry porches
 - iii. Wood siding and trim to be repaired
 - 1. replaced where required
 - iv. Wood fascia boards and soffits to be repaired
 - 1. replaced where required
 - v. Repair and/or replace
 - 1. Frieze board and bed molding
 - 2. Window sill extensions and trim
 - 3. Water table and weather board
 - b. Interior Finish Carpentry (see Division 02)
 - i. Existing wood trim and base to be repaired throughout (painted)
 - ii. New casing and base where required
 - 1. Similar to existing size and style
 - iii. Patch interior trim and base at all areas altered by new work

Division 7 – Thermal and Moisture Protection

Selections and additional locations to be determined by developer/architect

- 1. Thermal Insulation
 - a. Attic (R-50)
 - b. Sloped ceilings (R-30)
 - c. Exterior walls (R-19)
 - d. Basement rim joist (R-10)
- 2. Weather Barriers
 - a. Install where required, original wood siding to remain
 - b. Provide as alternate: full house
- 3. Air Barriers
 - a. Seal attic bypass locations
 - b. Install and seal new attic hatch
 - c. Seal basement rim joist
 - d. Seal areas prone to air leakage
- 4. Asphalt Shingles
 - a. New roof, house
 - b. New roof, front and side porches
- 5. Wood Fiber Board Siding
 - a. Provide as alternate: house
 - i. LP SmartSide, smooth, lap
 - ii. Trim, fascia, soffits
- 6. Sheet Metal Flashing and Trim
 - a. Roof drip edge
 - b. Roof joint at vertical walls, porches
 - c. Roof joint at chimney
- 7. Manufactured Gutters and Downspouts
 - a. Locate downspouts per landscape plan

Division 8 – Openings

Selections and additional locations to be determined by developer/architect

1. Exterior Metal Doors and Frames
 - a. Storm doors only
2. Wood Door Restoration (see Division 02)
 - a. Repair and repaint original doors
3. Wood Doors
 - a. New locations, interior and exterior, see plans
4. Fiberglass Doors
 - a. Provide as alternate, exterior
 - b. Smooth finish, painted
5. Wood Window Restoration (see Division 02)
 - a. Repair and repaint original windows, maintain divided lites
 - b. Install jamb liners, including insulation and weather-stripping
6. Wood Windows
 - a. Double Hung
 - b. Energy Star rated
 - c. Basement
 - d. New locations, see plans
7. Fiberglass Windows
 - a. Provide as alternate, all windows
 - b. Double Hung
 - i. Simulated divided lite patterns to match existing
 - c. Energy Star rated
 - d. Standard color
8. Storm Windows
 - a. Provide flush mount, full screen combination windows
9. Hardware
 - a. Provide all required hardware: locks, lifts, and screens

Division 9 – Finishes

Selections and additional locations to be determined by developer/architect

1. Repair of Plaster and Gypsum Board
 - a. Walls to be repaired and skim coated
 - b. Ceilings to be repaired and skim coated
 - c. Texture to be verified by developer/architect
2. Hardwood Flooring Restoration
 - a. Patch where required
 - b. Sand existing wood floors
 - c. Stain and refinish existing wood floors
 - d. Provide as alternate: expose original “wide board” flooring
3. Gypsum Board Installation
 - a. New wall construction, see plans
 - b. Replace plaster with gypsum board in areas of repair, verify
 - c. Cement backerboard at tub/shower surrounds
4. Tiling
 - a. Floors; kitchen, bath, laundry
 - b. Walls; kitchen, bath
5. Laminate Flooring
 - a. Provide as alternate: kitchen, bath, laundry
6. Carpeting
 - a. Provide as alternate: bedroom
7. Painting and Coating (see Division 02)
 - a. Exterior, all wood surfaces
 - b. Exterior, stain porch floors

- c. Exterior, doors and windows
- d. Interior, all plaster and gypsum surfaces
- e. Interior, all door and window components
- f. Interior, all wood trim and base
- g. Basement, where required
- 8. Concrete and Masonry Coating
 - a. Exterior, where required at perimeter
 - b. Basement, walls and floor

Division 10 – Specialties

Selections and additional locations to be determined by developer/architect

- 1. Closet Storage Shelving

Division 11 - Equipment

Selections and additional locations to be determined by developer/architect

- 1. Appliances, Energy Star
 - a. Kitchen, laundry
- 2. Garage door openers

Division 12 - Furnishings

Selections and additional locations to be determined by developer/architect

- 1. Mailbox and Address Numbers
- 2. Bathroom Furnishings
 - a. Toilet paper holder, shower curtain rod, towel bars (2)
 - b. Mirror
- 3. Residential Casework
 - a. Kitchen, bath, laundry
 - i. Plywood box, wood face and frame, dovetail joinery
 - ii. Provide crown molding
 - iii. Provide all hardware and finish end panels

Division 22 - Plumbing

Selections and additional locations to be determined by developer/architect

- 1. Plumbing Equipment
 - a. New hot water heater
- 2. Plumbing Fixtures and Piping
 - a. All new supply and waste piping throughout house.
 - i. Connect waste lines to existing cast iron drain at basement slab
 - ii. Reconfigure main stack to accommodate plumbing requirements
 - iii. Limited access in areas, system may require slim fit design solutions
 - b. Kitchen and Bath Fixtures
 - i. Low flow fixtures
 - ii. Gas stove
 - c. Laundry fixtures
 - i. W/D hook ups
 - ii. Gas dryer
 - d. Basement
 - i. Laundry tub
 - e. Exterior
 - i. Hose Bibs (2), with backflow preventer

Division 23 - HVAC: Heating, Ventilating, and Air-Conditioning

Selections and additional locations to be determined by developer/architect

1. Residential Ventilation
 - a. Install kitchen, bath and laundry exhaust
2. Forced Air Furnace and Ducts
 - a. Install new furnace, ducts and floor registers
 - i. Reuse existing where possible
 - ii. Limited access in areas, system may require slim fit design solutions
3. Forced Air A/C
 - a. Provide as alternate

Division 26 - Electrical

Selections and additional locations to be determined by developer/architect

1. Power, Wiring and Devices
 - a. Entire house to comply with Saint Paul Bulletin 80-1.
 - b. Category 2 and 3 vacant properties require additional hardwired smoke detection
 - c. Install new service panel
 - d. Install new wiring, remove all obsolete wiring
 - e. Provide all new outlets, switches, and cover plates
 - f. Provide cable and phone jack
 - g. Coordinate electrical plan with developer/architect
2. Lighting
 - a. Exterior and interior
 - b. Provide all new lighting fixtures and compact fluorescent lamps

Division 28 - Electronic Safety and Security

1. Intrusion Detection
 - a. Provide as alternate

Division 31 - Earthwork

Locations to be determined by developer/architect

1. Grading
 - a. Finish grade to be 6" minimum below exterior siding materials

Division 32 - Exterior Improvements

Selections and locations to be determined by developer/architect

1. Fencing
2. Concrete Paving
3. Sodding
4. Plants

HISTORICAL RESEARCH SUMMARY

The Galvin – Shearen House

47 Douglas Street (formerly 269 Harrison Avenue)
Saint Paul, MN 55102

This one-story frame cottage, with gabled roof, was built around 1883 and moved to its present location in 1912. Originally located at 269 Harrison, the house was moved to the rear (northerly) portion of the Harrison lot and rotated to face Douglas Street. To accommodate the building on its new site, because the house was too long, the structure was rearranged and the rear portion of the original house was attached to the south side of the structure, forming a new wing to the building. The property is sited adjacent to an alley, on a very small lot, and has been readdressed as 47 Douglas.

The house sits on a native limestone foundation with a full basement. The exterior of the house is covered with asbestos based fireproof siding and the original windows are still intact. An open frame porch once covered the front, and part of the north (side) wall of the house, but it was removed many years ago. While records indicate the house was likely built about 1883, the interior millwork suggests an earlier construction date, perhaps the late 1870s. It is possible that older style millwork was used in the building to save money, or it may have been salvaged from another structure that was being razed.

The property on which 47 Douglas Street stands was first platted in 1849, (the same year Minnesota became an official territory of the United States), and then was re-platted into smaller lots six years later. One of the three owners, who had the land re-platted in 1855, was Mary Mullen, a thirty year old Irish immigrant, who later married Henry Galvin. The approximate 20 acres of property was divided into 96 lots, each measuring about 48 feet x 123 feet. The plat is known as the Whitacre, Brisbin, and Mullen Subdivision of Lots 1 & 2 of Leech's Outlots. Mary Mullen retained ownership of several lots in the plat for the next several decades.

Lot numbered 96 of the plat, where No 269 Harrison and No. 47 Douglas St. stands, remained empty until c. 1883, when a single-story house, with a gabled roof was built on the lot facing Prairie Street (in 1889 renamed Harrison avenue, to honor the serving U.S. president), at the corner of Douglas. Built for Henry and Mary (Mullen) Galvin, the house was used as rental property by the owners for the next twenty years. Mary Mullen Galvin, with her husband Henry lived at 331 Ramsey Street, near Pleasant Avenue. Henry was a policeman (appointed in 1856, and often considered the city's first policeman) for the city of St. Paul, and the couple had four children. John, Henry, Mary, and Louis, were all born in St. Paul, between 1857 and 1862. Henry and Mary's second son, Henry Galvin, Jr., who was born in 1859, died in 1866. The other three children all reached maturity, married, and lived as adults in St. Paul. After his wife Mary (Mullen) Galvin died in 1890, Henry Galvin married Margaret Franklin, in May of 1894. The second marriage lasted only a little more than a year, when Margaret (Franklin) Galvin died in October 1895, at age 48. The house the Galvin family built, in c. 1883, and occupied on Ramsey Street still stands on the same property. Moved to the back of the lot years ago, the house now faces Irvine Avenue.

The first residents of the rental house were the John (1840-1899) and Mary Zwolanek (1840-1919) family, who lived in the house from 1883 to 1893. John was a tailor, and worked for various tailors in downtown St. Paul. Their son Anthony was a musician.

In 1893, the Galvin family sold the house to John Safranek, a saloon keeper and musician.

Safranek sold the house in 1897 to David T. Shearen. The Shearen family owned the house until the early 1980s, or for about 85 years. David Thomas Shearen was appointed as engineer to St. Paul Fire Dept. in 1885

The David and Mary Shearen family occupied the house until 1912, when they had the house moved to 47 Douglas Street, on the back of the lot, in order to make way for their new home at 269 Harrison Avenue.

David J. Shearen, the son of David T. and Mary, lived in their home at 47 Douglas from 1921 until approximately 1982.

Two building permits issued for the property at 269: Add to rear of house, and summer kitchen.

Historical research by Jim Sazevich, Copyright 2013. All rights reserved.

STATEMENT OF SIGNIFICANCE FOR 47 DOUGLAS

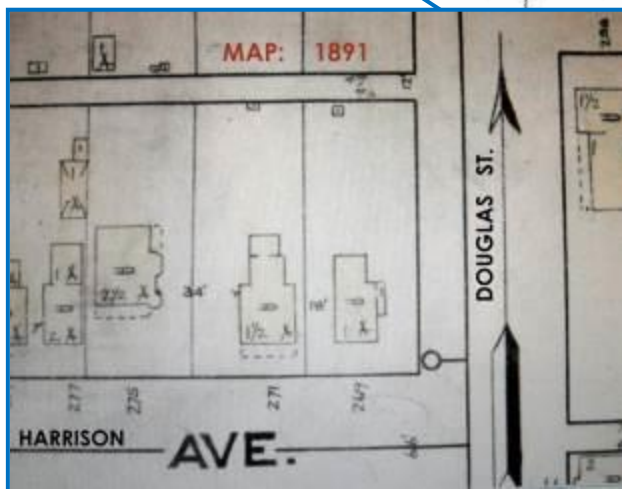
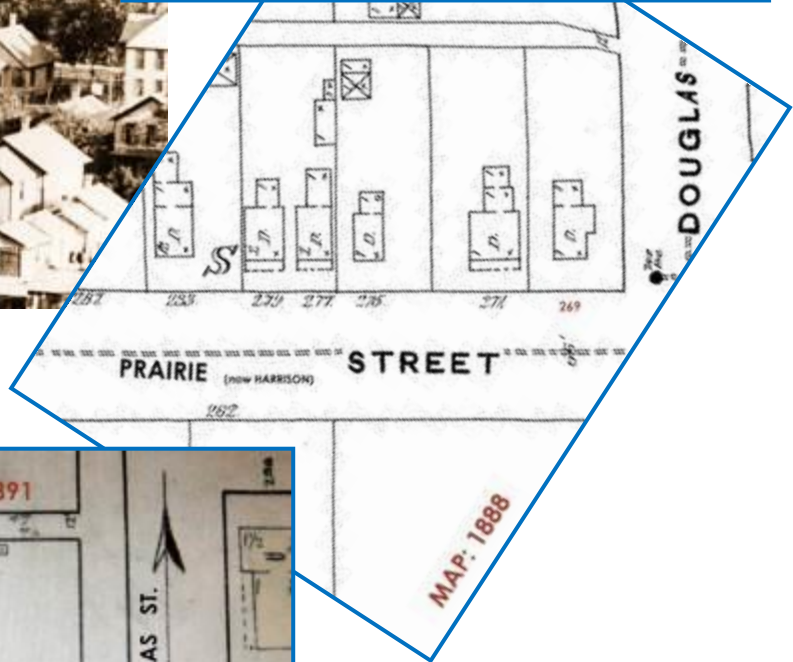
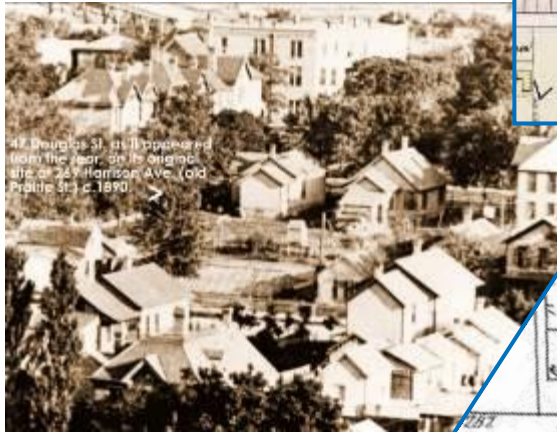
The house at 47 Douglas Street was built about 1883, on the present site of 269 Harrison Avenue, and moved to the back of the lot in 1912, to make way for the present house at No. 269. The house retains the majority of its original fabric from the early 1880s, and can be easily rehabilitated and/or restored with little guess work. The interior of the house maintains much of its original floor plan, almost all of its original (and somewhat rare) millwork, including door and window frames, baseboards, subflooring, and later hardwood floors. Only one or two of the original doors survive intact, but most of the original two-over-two window sashes remain with the building. The house appears to be in a fair state of repair.

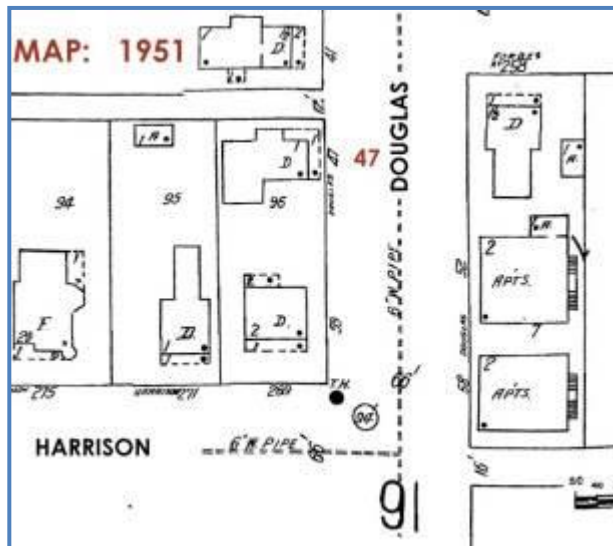
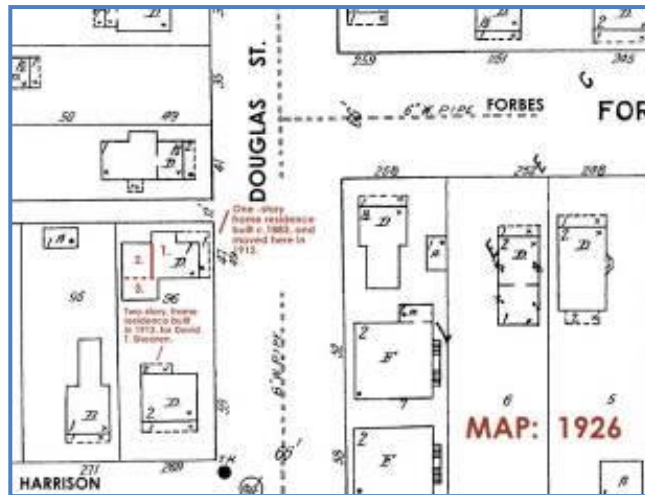
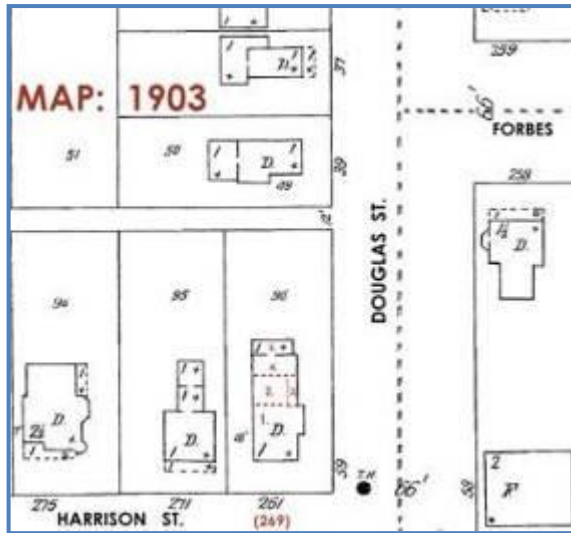
The original owners of the property, and the house, were two of the earliest pioneer settlers in the Uppertown neighborhood, and the city as a whole. Both Henry and Mary (Mullen) Galvin arrived in the city before Minnesota became a state, and likely before St. Paul was even incorporated as city in 1854.

Mary Mullen Galvin was one of the three property owners who purchased two of Leech's ten-acre out lots in 1855, and then re-platted the land into 96 city sized building lots. The plat still carries her maiden name of "Mullen", as part of its title. About a year later, she married Henry Galvin, who had been appointed an officer in the newly expanded St. Paul Police Department that same year. He would live into the 1890s, becoming the longest serving officer on the force. In the last years of his life, he served as a special police officer for the St. Paul City Council.

Historical research by Jim Sazevich, Copyright 2013. All rights reserved.

SEE ATTACHED PROPERTY MAPS AND BIOGRAPHICAL INFORMATION





PIONEER POLICEMAN 1 of 3 OF ST. PAUL IS DEAD

Henry Galvin, a Member of the City's Force Since 1856, Passes Away.

Henry Galvin, a pioneer of St. Paul, the first policeman of the town and who served the city continuously since 1856 to the present time, died yesterday at the home of his son, Patrolman Louis Galvin, 32 West Central avenue.

He was appointed policeman July 15, 1856, and the force for some time thereafter consisted of himself and Ed Ma-

St. Paul Globe - Apr. 28, 1903

Globe. 4-28-1903

3 of 3

her. He served continuously as patrolman till 1892. He was pensioned off under the Wright administration and was appointed sergeant-at-arms of the city council, which position he held till his death.

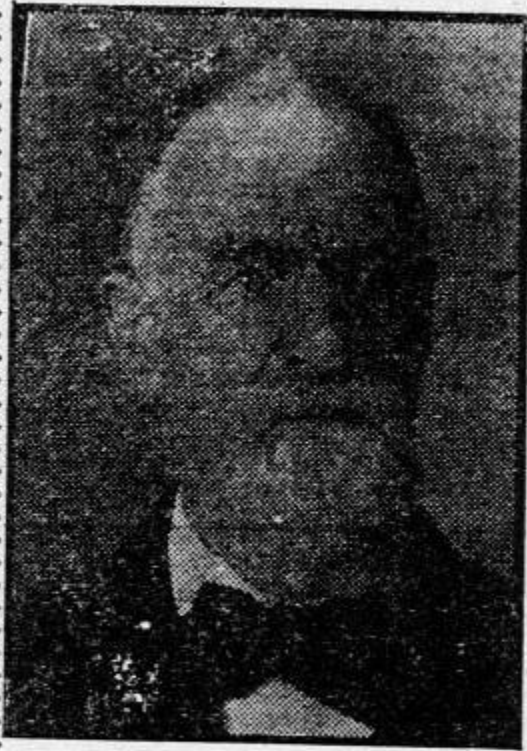
Henry Galvin was born in Westmeath county, Ireland, eighty-three years ago. He landed in New York when he was eighteen years of age and remained in that city for ten years, after which he came West. He leaves an older brother, John Galvin, and his son, Louis.

The funeral services will be held at the Cathedral Wednesday morning at 9 o'clock and the interment will be at Calvary. The police department will be well represented and it is likely that there will be a procession of police officers. The pallbearers will be policemen.

Globe - 4-28-1903

2 of 3

HENRY GALVIN.



First Patrolman Appointed on the St. Paul Police Force.

A POLITICIAN.

Gen. Flower is a natural politician, and in the past has taken very active part in the counsels of the Republican party. He was elected to the Republican state convention in 1878, and has been for a long time secretary of the state central committee, and delegate to all kinds of Republican conventions. During the past year he has been gradually dropping out of politics, and just now, with the Democracy in power, he is quite willing to let somebody else run the ship of state. He is a small man, quick in his movements yet slow to act until the matter has been fully canvassed, and then he is energetic in carrying out his plans. He is quiet, unobtrusive, social and amiable, well qualified for the position he has just vacated.

HENRY GALVIN.

> That familiar face and those familiar buttons—that steady tread and that good-na-

Globe, 5-17-1885

1 of 2

Globe, 5-17-1885

2 of 2

tured bearing, that pleasant smile and that soldier-like performance of duty, fully remind me that Henry Galvin has been on the police force for twenty-nine years, and ranks among

THE OLDEST POLICEMEN

in the city. He is a landmark and his star always twinkles. Born in Ireland in 1830, Mr. Galvin acquired a common school education and came to America in 1852. He spent three years in Connecticut and removed to St. Paul in 1855; in 1856 he was appointed on the police force of this city, and has continued in that capacity for over a quarter of a century. Since 1875 he has been assigned to the railroad depots and has performed his duties with great moderation and discretion yet promptly and faithfully. He married Miss Mary Mullen in 1855. Mr. Galvin is a well-formed and a well-preserved man; always self-poised; strictly temperate, watchful, careful, prudent, gentlemanly, and is never off his beat. He is greatly esteemed by those who know him, and fully appreciated by the citizens whose interests he so faithfully guards.

POLICE WILL BE THE ESCORT TO THE GRAVE

Every Honor Will Be Paid Remains of Henry Galvin.

The funeral services of the late Henry Galvin, who died Monday at the residence of his son, Patrolman Louis Galvin, 32 West Central avenue, will be held at the Cathedral this morning.

The pallbearers will be members of the police force, with which the deceased was so long connected. They are the following: Capt. John Clark, Sergeant P. Murnane, Sergeant J. Daly, Detective M. Daly, Detective Sweeney and Patrolman Benjamin McGuire.

Globe, 4-29-1903

Globe, 4-28-1903

SEYMOUR—April 26, 1903, at the home of her daughter, Mrs. E. C. Stringer, Elmira A. Seymour, widow of the late McNeil Seymour, of Mount Morris, N. Y. Funeral services at 4 o'clock p. m., Tuesday, April 28, 1903, at 471 Ashland avenue. Interment at Mount Morris, N. Y. The favor of no flowers is requested.

KEEGAN—In Minneapolis at 9 a. m. Monday, Patrick Keegan, aged seventy-six years. Funeral from the residence of his daughter, Mrs. Thomas Kennealy, Egantown, at 9 a. m. Wednesday. Services at St. Peter's church, Mendota, at 10 o'clock.

X GALVIN—In St. Paul, at residence of son, Louis Galvin, 32 West Central, Monday, April 27, at 4:20 a. m., Henry Galvin, aged eighty-one years. Funeral from above residence Wednesday, April 29, at 8:30. Service at the Cathedral, 9 o'clock. Brooklyn papers please copy.

Funeral of Henry Galvin.

The funeral of Henry Galvin, the veteran policeman, was attended by a large number of police officers and city officials at the Cathedral yesterday morning. The pall bearers were Capt. John Clark, Sergeant Patrick Murnane, Sergeant J. Daly, Detective M. Daly, Detective Sweeney and Patrolman Ben McGuire.

Globe, 4-30-1903

Death of Mrs. Henry Galvin.

Mrs. Mary Galvin, wife of Henry Galvin, the policeman longest in service of any on the force, died at the family residence, 275 Harrison avenue, yesterday. She had lived with her husband in St. Paul thirty-three years. She was born at Athlone, county Antrim, Ireland, sixty-five years ago.

St. Paul Globe, Feb. 10, 1890.

DIED.

GALVIN—In St. Paul, Feb. 9, at family residence, No. 275 Harrison avenue, Mary, beloved wife of Henry Galvin, aged sixty-five years. Funeral will leave at 9 o'clock today for the cathedral. Brooklyn and Westport, Conn., papers please copy.

FOR FUNERALS.

Fine first-class carriages for funerals, \$2. John Grace's Livery, 370 East Ninth street. Telephone 1248-2.

St. Paul Globe, 2-11-1890

X Mrs. Mary Galvin, the wife of Officer Henry Galvin, who died on Sunday, was a native of Ballymena, County Antrim, Ireland, instead of Athlone, as given in yesterday's GLOBE.

St. Paul Globe, 2-11-1890

The fishmonger, Krakowski, who complained to the mayor that an officer took his fish, apologized yesterday by saying that he was convinced it was not a regular policeman, but a masquerader from a ball near by.

A number of ladies and gentlemen belonging to the Central Presbyterian church visited the building inspector's office yesterday for the purpose of examining different kinds of window glass, with a view to selecting the glass for the new church.