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BID SUBMISSION CHECKLIST

Please do **NOT** submit your bid in a binder or folder. Submit only the following forms, in this order, and stapled:

_____ Complete your bid in ink.

_____ Price Sheet completed. It is not necessary to bid on every property.

_____ Signed and completed Offer To Contract page.

_____ Include copies of licenses for asbestos abatement, if applicable, for your firm or for the firm subcontracting to you.

_____ Identify any subcontractors to be used, if applicable

_____ Completed Attachment A

_____ Insert ONLY THE ABOVE DOCUMENTS into a sealed, opaque envelope, with your name and this bid# and title on the cover.

**CITY OF BATTLE CREEK, MICHIGAN
 NOTICE OF INVITATION FOR BIDS
 IFB #2018-082B
 DEMOLITION FOR VARIOUS PROPERTIES**

IFB DUE DATE and TIME: May 10, 2018, at 2:00 pm local time (office hours 8-12 and 1-5) *NOTE!* City Hall now has Security on the 1st floor. Please allow extra time to get through Security when dropping off your bid.

BID SUBMITTAL: Bids must be submitted in a sealed envelope with the IFB number, the due date/time and the bidder's name and address clearly indicated on the envelope. Bids must be in the actual possession of the Purchasing Department Room 214, City Hall, 10 N. Division Street, Battle Creek, Michigan 49014 on or prior to the exact time and date indicated above. The prevailing clock shall be www.time.gov. Late bids will not be considered. All bids will be publicly opened and read aloud at the aforementioned address. All interested parties are invited to attend.

PROJECT DESCRIPTION: The City of Battle Creek will accept bids for demolition of various properties. Prevailing wages apply. Bonding not required.

<p>PRE-BID CONFERENCE: NONE</p>	<p>FUNDING: This project has federal funding. CDBG requirements are applicable for this contract.</p>
<p>TECHNICAL QUESTIONS OR SITE VISITATION: Richard Bolek Inspection Supervisor 269-966-3687</p>	<p>PREVAILING WAGES: Required for this project. See attached wage rates at the end of this document. Contractor shall abide by all the requirements set forth in Section 208.09, PREVAILING WAGES ON CITY PROJECTS, of the City's Administrative Code.</p>
<p>COPIES OF IFB and PLANHOLDERS LIST: Purchasing 10 N. Division Rm 214 Battle Creek, MI 49014 269-966-3390</p>	<p>FEE: NONE</p>
	<p>IFB ISSUE DATE: April 27, 2018</p>
<p>DOCUMENT EXAMINATION: City of Battle Creek, Purchasing Division Dodge Corporation in Kalamazoo, Michigan Builders Exchange in Grand Rapids, Kalamazoo & Lansing, Michigan</p>	<p>ADDENDA: Each addendum will be on file in the Office of the Purchasing Agent. To the extent possible, copies will be mailed to each person registered as having received a set of bid documents. It shall be the bidder's responsibility to make inquiry as to addenda issued. All such addenda shall become a binding part of the contract.</p>
<p>BID VALID: Bids may be withdrawn up to the time and date of the bid opening. After the bid opening, bids may not be withdrawn for a period of ninety (90) days thereafter. The City of Battle Creek reserves the right to waive any irregularity or informality in bids, to reject any and/or all bids, in whole or in part, or to award any contract to other than the low bidder, should it be deemed in its best interest to do so.</p>	

INSTRUCTIONS TO BIDDERS

1. BID SUBMISSION:

- A. Bids must be submitted in complete original form by mail or messenger to the following address:
Office of the Purchasing Agent, Room 214, City Hall, 10 N. Division Street, Battle Creek, MI 49014
- B. Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud. The prevailing clock shall be www.time.gov.
- C. All bids shall be tightly sealed in an opaque envelope and plainly marked with the Invitation for Bid number, due date and the bidder's name and address clearly indicated on the envelope.
- D. Late bids will not be accepted and will be returned to the bidder.
- E. All bids submitted in response to this invitation shall become the property of the City and be a matter of public record available for review.

2. PREPARATION OF BIDS:

- A. The Bid shall be legibly prepared with ink or typed.
- B. If a unit price or extension already entered is to be altered, it shall be crossed out and initialed by the bidder with ink.
- C. The bid shall be legally signed on the OFFER TO CONTRACT PAGE and the complete address of the bidder given thereon.
- D. The City is exempt from Federal Excise and State Sales taxes, and such taxes shall not be included in bid prices.

3. SIGNATURES: All bids, notifications, claims and statements must be signed as follows:

All bids, notifications, claims and statements must be signed by an individual authorized to bind the bidder. Any individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

4. REJECTION OR WITHDRAWAL: Submission of additional terms, conditions or agreements with the bid document is grounds for deeming a bid nonresponsive and may result in bid rejection. The City reserves the right to reject any or all bids and to waive any informalities and minor irregularities defects in bids. Bids may be withdrawn in person by a bidder, or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date and time.

5. AWARD: The bid will be awarded to that responsible, responsive bidder whose bid, conforming to this solicitation, will be most advantageous to the City, price and other factors considered. Unless otherwise specified in this IFB, the City reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of the City. Any bidder who is in default to the City at the time of submittal of the bid shall have his bid rejected. The City reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial non-conformity in the offer, as determined by the City, shall be deemed non-responsive and the offer rejected.

In evaluating bids, the City of Battle Creek shall consider the qualifications of the bidders, and where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, the City may conduct such investigations as the City deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications and financial ability of the bidders to fulfill the contract.

6. CONTRACT: A response to an IFB is an offer to contract with the City based upon the terms, conditions, and specifications contained in the City's IFB. Bids do not become contracts unless and until they are executed by the City, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions are modified by an IFB addendum or amendment, a contract amendment, or by mutually agreed terms and conditions in the contract documents.

8. BID RESULTS: A bid tabulation will be posted on the City's website and will also be on file and available for review after contract award in the Purchasing Department.

9. CHANGES AND ADDENDA TO BID DOCUMENTS: Each change or addendum issued in relation to this bid document will be on file in the Office of the Purchasing Agent. In addition, to the extent possible, copies will be mailed to each person registered as having received a set of bid documents. It shall be the bidder's responsibility to make inquiry as to changes or addenda issued. All such changes or addenda shall become part of the contract

and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the office of the City Purchasing Agent.

- 10. SPECIFICATIONS:** Unless otherwise stated by the bidder, the bid will be considered as being in accordance with the City's applicable standard specifications, and any special specifications outlined in the Bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the City, and should not be construed as excluding bids on other types of materials, equipment and supplies. However, the City does reserve the right to specify a sole brand, with no brand substitutions allowed. The bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. The City reserves the right to determine if equipment/product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of this bid, may be considered non-responsive. The City reserves the right to disregard any conflicting terms and conditions submitted by the contractor and hold the contractor to the submitted bid price. Contractors are strongly encouraged to not submit anything with their bid that is not specifically requested in this solicitation.
- 11. DELIVERY:** Bids shall include all charges for mobilization, delivery, packing, crating, containers, etc. Prices bid will be considered as being based on F.O.B. Delivered, freight included.
- 12. INTERPRETATION OF BID AND/OR CONTRACT DOCUMENTS:** All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. (Inquiries received that are not made in a timely fashion may or may not be considered).
- 13. CURRENCY:** Prices calculated by the bidder shall be stated in U.S. dollars.
- 14. PURCHASE ORDER:** The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent as evidenced by a purchase order.
- 15. CERTIFICATION:** By signature in the offer section of the Offer and Acceptance page, bidder certifies:

 - A. The submission of the offer did not involve collusion or other anti-competitive practices.
 - B. The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer.
 - C. The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.
 - D. The bidder hereby certifies that the firm will abide by the COPELAND ANTI-KICKBACK ACT, Title 18, U.S.C. June 25, 1948, Section 874, Kickbacks from Public Employees.
- 16. DEFINITIONS:**

"CITY" - The City of Battle Creek.
"CITY UNIT" - The department of the City that intends to use the resulting contract.
"CONTRACTOR" - The bidder whose proposal is accepted by the City.

GENERAL TERMS AND CONDITIONS

1. **MATERIALS AND WORKMANSHIP:** Unless otherwise specified, all materials and workmanship shall be new and of the best grade of their respective kinds for the purpose.
2. **NON-DISCRIMINATION CLAUSE:** The bidder agrees not to discriminate against any employee or applicant for employment, to be employed in the performance of such contract with respect to hire tenure, terms, conditions or privileges, of employment, or any matter directly or indirectly related to employment because of his or her actual or perceived race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability, family status, sexual orientation, or gender identity. Breach of this covenant may be regarded as a material breach of the contract as provided for in Act 220 and Act 453 of the Public Acts of 1976, as amended, entitled "Michigan Handicapper's Civil Rights Act" and/or the "Michigan Elliott Larson Civil Rights Act" and/or City of Battle Creek Chapter 214 "Discrimination Prohibited" Ordinance. The bidder further agrees to require similar provisions from any subcontractors, or suppliers. The bidder agrees to comply with the Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, as supplemented in Department of Labor regulations (41 CFR, Chapter 60).
3. **ASSIGNMENT OF CONTRACT:** No right or interest in this contract shall be assigned in whole or in part by the contractor and no delegation of any duty of Contractor shall be made without prior written permission of the City.
4. **INDEMNIFICATION:** The contractor shall protect, defend, and save the City, its officials, employees, departments and agents harmless against any demand for payment for the use of any patented material, process, or device that may enter into the manufacture, construction, or form a part of the work covered by either order or contract; and from suits or a charge of every nature and description brought against it for, or on account of, any injuries or damages received or sustained by the party or parties from any acts of the contractor, their employees, or agents; from all liability claims, demands, judgments and expenses to the persons or property occasioned, wholly, or in part, by the acts or omissions of contractor, agents or employees.
5. **CONTRACT:** The contract shall contain the entire agreement between the City and the Contractor relating to this requirement and shall prevail over any previous contracts. By signing the Offer to Contract, it is agreed that the IFB in its entirety and all enclosed forms are fully incorporated as a material part of the contract. In case of conflicts, the following order shall prevail: 1) Addendum, 2) Specifications, 3) Special Terms and Conditions 4) General Terms and Conditions, 5) Instructions to Bidders, 7) Insurance forms.
6. **PROVISIONS REQUIRED BY LAW:** Each provision of law and clause required by law to be in the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the contract shall forthwith be physically amended to make such insertion or correction.
7. **RELATIONSHIP OF PARTIES:** It is clearly understood that each party shall act in its individual capacity and not as an agent, employee, partner, joint venture, or associate of the other. An employee or agent of one party shall not be deemed or construed to be the employee or agent of the other party for any purpose whatsoever. The Contractor is advised that taxes or social security payments shall not be withheld from a City payment issued hereunder and that Contractor should make arrangements to directly pay such expenses, if any.
8. **RIGHTS AND REMEDIES:** No provision in this document or in the bidder's offer shall be construed, expressly or by implication as a waiver by either party of any existing or future right or remedy available by law in the event of any claim or default or breach of contract. The failure of either party to insist upon the strict performance of any term or condition of the contract or to exercise or delay the exercise of any right or remedy provided in the contract, or by law, or the acceptance of materials or services, obligations imposed by this contract or by law, and shall not be deemed a waiver of any right of either party to insist upon the strict performance of the contract.
9. **ADVERTISING:** Contractor shall not advertise, issue a press release or otherwise publish information concerning this IFB or contract without prior written consent of the City. The City shall not unreasonably withhold permission.
10. **APPLICABLE REGULATIONS/POLICIES:** The Revised Code of the State of Michigan, the Charter of the City of Battle Creek, all City Ordinances, Rules and Regulations and Policies shall apply. It shall be the responsibility of the Bidder to be familiar and comply with said regulations/policies.
11. **ROYALTIES, PATENTS, NOTICES AND FEES:** Contractor shall give all notices and pay all royalties and fees, and defend all suits or claims for infringement of any patent rights and shall save the City harmless from loss on account thereof. He shall comply with all laws, ordinances and codes applicable to any portion of the work.
12. **NON-COLLUSION:** By signing the Offer to Contract, the bidder, by its officers and authorized agents or representatives present at the time of filing this bid, being duly sworn on their oaths say, that neither they nor any of them have in any way entered into any arrangement or agreement with any other bidder or with any public officer of the City of Battle Creek, Michigan, whereby such affidavit or affiants or either of them has paid or is to pay to such other bidder or public officer any sum of money, or has given or is to give to such other bidder or public officer anything of value whatever, or such affidavit or affiants or either of them has not directly or indirectly, entered into any arrangement or agreement with any other bidder or bidders, which tends to or does lessen or destroy free competition in the letting of the contract sought for by the attached bids, that no inducement of any form or character other than that which appears on the face of the bid will be suggested, offered, paid or delivered to any person to influence the acceptance of the bid or awarding of the contract, nor has this bidder any agreement with any person to pay, deliver to, or share with any other person any of the proceeds of the contract sought by this bid.
13. **MICHIGAN CONSTITUTIONAL REQUIREMENT:**
 - a). Notwithstanding any provision in this Contract to the contrary, and in accordance with Article I, Section 26 of the Michigan Constitution as adopted by the electorate November 7, 2006, City and its general contractors shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of this Contract.
 - b). This section shall not prohibit any action that must be taken to establish or maintain eligibility for any federal program if ineligibility would result in a loss of federal funds in connection with this Contract, nor shall this section be interpreted as prohibiting bona fide qualifications based on sex that are reasonable necessary to the execution of this Contract.
 - c). In the event of conflict between any term of this Contract and this section, the language of this section shall control.

TERMS AND CONDITIONS FOR DEMOLITION

1. **ACCIDENT PREVENTION:** The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all the damages to persons or property either on or off the site, which occur as a result of his fault or negligence in connection with the prosecution of the work. The safety provisions of applicable laws and OSHA standards shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the city may determine to be reasonably necessary.
2. **CONFLICTS AND OMISSIONS:** The intent of the contract documents is to provide everything necessary for the proper execution of the work. In case of conflict, the work shall not proceed until a decision has been agreed upon by all parties concerned. The City's decision shall be final.
3. **WORKING CONDITIONS:** All work shall be done in accordance with all regulations governing the City Unit wherein the work is to be performed and with minimum possible interference with the proper functioning of the activities of the City Unit. Materials, tools, etc., shall be confined so as not to unduly encumber the premises.
4. **PRIOR EXAMINATION:** Contractor shall familiarize himself with local conditions affecting the job prior to submitting the bid. He shall take his own measurements and be responsible for the correctness of same. Contractor shall be held to have made such examinations and no allowances will be made in his behalf by reason of error or omission on his part. If any part of the Contractor's work depends for proper results upon existing work or the work of another contractor, the Contractor, before commencing work, shall notify the Director in writing of any defects that will affect the results.
5. **OTHER CONTRACTS:** The City may let other contracts in connection with the work and the Contractor shall properly connect and coordinate his work with the work of such other contractors. The City shall not be liable for any damages or increased costs occasioned by the failure of other contractors or sub-contractors to execute their work as may be anticipated by these documents.
6. **INSPECTION:** Contractor shall at all times permit and facilitate inspection of the work by the City.
7. **CHANGES:** Contractor shall make changes in the contracted work only as ordered in writing by the City. The actual work performed under this contract may be increased 50% or decreased 25% from the approximate quantities set forth in the Schedule included herein. Work will be performed only based on written authorization from the City. The City reserves the right to include other similar projects in this contract over and above those mentioned in said tabulations within these limitations. If extra work orders are given in accordance with the provisions of this contract, such work shall be considered a part hereof and subject to each and all of its terms and requirements.
8. **GUARANTEE:** Contractor guarantees to remedy any defects due to faulty materials or workmanship, which appear in the work within one year from the date of final acceptance by the City.
9. **PROTECTION:** Contractor shall properly protect all new and existing structures from damage. Contractor shall comply with all safety rules and regulations as published by the Michigan Dept. of Labor, Bureau of Safety and Regulations.
10. **CLEAN-UP:** Contractor shall at all times keep the premises free from accumulations of waste materials or rubbish caused by his employees or work and at the completion of the work he shall remove all his waste, tools, equipment, staging and surplus materials from the structure and grounds and leave work clean and ready for use.
11. **SAFETY RULES:** It is understood that the contractor shall perform all work under this contract in conformance with the State of Michigan general safety rules and regulations for the construction industry, being Act 89 of the Public Acts of 1963, as amended.
12. **TERMINATION FOR BREACH:** The City may terminate this contract for violations hereof when violations are not stopped immediately and corrected within a reasonable length of time after notification by the City. In the event of such termination, the City may complete the contracted work and the Contractor will be liable for any excess cost occasioned the City thereby and in such case the City may take possession of and utilize in completing the work such materials and equipment as may be on the site and necessary therefore.
13. **SUBCONTRACTORS:** Bidders shall submit with the Bid any and all subcontractors to be associated with their bid, including the type of work to be performed. Any and all subcontractors shall be bound by all of the terms, conditions and requirements of the bid/contract; however, the prime contractor shall be responsible for the performance of the total work requirements. Contractor must provide copies of licenses for subcontractors.
14. **EMPLOYEES AND SUPERINTENDENCE:** Contractor shall enforce good order among his employees and shall not employ on the work site any disorderly, intemperate or unfit person or anyone not skilled in the work assigned to him. Contractor, or a competent person having authority to act for him, shall be at the worksite at all times.

SPECIAL TERMS AND CONDITIONS

1. **AWARD:** The City reserves the right to award each property to the lowest, responsive, responsible bidder for that property.
2. **ORDER OF WORK:** If the Contractor has been awarded multiple properties, the City reserves the right to prioritize the sequence in which work shall be completed.
3. **PROPER DISPOSAL OF DEBRIS:** The Contractor must provide the City's Official of Community Services with landfill dump tickets for debris from each house before payment will be made.
4. **CITY WRECKER'S LICENSE:** The Contractor must hold a Wrecker's License with the City of Battle Creek Inspection Division in order to obtain a permit. The Wrecker's License requires a performance bond and current insurance verification meeting the requirements herein.
5. **STATE LICENSE:** The State of Michigan requires that any individual or company contracting for the wrecking of a residential structure must have a Residential Builders License or Maintenance and Alteration Contractors License. If a Maintenance and Alteration Contractors license is in force, the license must specify "wrecking" as part of the license. **The bidder MUST provide evidence of the State license with the bid.**
6. **LIQUIDATED DAMAGES FOR DELAY:** If the work is not completed within the time stipulated in the contract documents, including any extensions of time for excusable delays as pre-approved by the Purchasing Agent or Code Compliance Manager, the contractor shall pay the City for the liquidated damages, and not as punishment, a rate of **\$150.00 per day for each calendar day of delay per property beyond the completion date, unless extended in writing by the City**, until the work is completed. No extra allowance will be made for holidays. The City will enforce the liquidated damages for failure to complete the work within the allotted time frame. The City shall have the right to deduct from payment due, or to become due, to the Contractor or to sue for and recover compensation or damages for non performance of this Contract at the time stipulated herein.
7. **CONTRACTOR'S OBLIGATIONS:** The contractor shall give all notices required by, and comply with, all applicable laws, ordinances and codes of federal, state and local government. All disconnections and demolition shall comply with all applicable ordinances and codes, inclusive of all written waivers. Should the contractor fail to observe the foregoing provision and do demolition work at variance with any ordinance, code or written waivers, the contractor shall correct, with no additional cost to the City.
8. **DOCUMENTATION SUBMITTAL:** The following documentation is to be submitted to the City of Battle Creek's Code Compliance Division 10 days prior to the start of all demolitions.
 - A. A copy of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 61, Subpart M form that is required to be submitted to the Michigan Department of Environmental Quality.
 - B. Written notification of when asbestos removal will commence and end. This is mandatory in order for the City to coordinate an inspection of this process at the site prior to commencement of the demolition.
9. **HAZARDOUS MATERIAL REMOVAL:** This solicitation contains a report specifying whether or not asbestos is present in the structure being demolished. Contractor shall be a licensed asbestos abatement firm, or shall subcontract with a licensed asbestos abatement firm, in those cases where asbestos is removed. The City must be notified of all subcontractors, and receive all appropriate licenses for subcontractors, upon bid opening. Not providing this information may result in a bid being deemed non-responsive. Contractor shall be responsible for the actions of their subcontractor. Contractor is responsible for removal of structure, including all hazardous material removal, even if completed by a subcontractor.
10. **DUST CONTROL:**
 - A. The Contractor will use all means necessary, and as required by Federal and/or State and/or local laws, if applicable, to control dust on or near the work and on or near all off site areas if such dust is caused by Contractor's operations during performance of the work or if it results from the conditions in which the Contractor leaves the site.
 - B. The Contractor will use all means necessary to protect the adjacent properties before, during, and after, demolition.

- C. In the event of damage, Contractor shall immediately make all repairs and replacements necessary, to the approval of the City of Battle Creek and at no cost to the City of Battle Creek.
- D. Contractor is responsible for conducting operations in a safe and orderly fashion and in compliance with PA 154 of 1974.

11. ADDITIONAL INFORMATION: An operation is a demolition if the overall project involves the wrecking or taking out of any load supporting structural members of a subject facility. **Notification is required for demolition even if there is no asbestos containing materials in the facility.** Any related handling operations (such as clean up of demolition debris) or intentional burning of the facility is also subject to this definition.

Notice is required for demolition of all subject facilities, regardless of the amount of asbestos, including those facilities where the asbestos has been removed or has never contained asbestos.

12. TIME OF COMPLETION: The Contractor shall promptly begin work under this contract upon receipt of the Purchase Order, and all portions of the project made the subject of these contracts shall be begun and so prosecuted that they shall be completed and ready for final inspection within the time specified on the Offer to Contract page. The City may extend this completion date for contractors who are awarded many properties. Such an extension should be requested at the time of contract award. The City will approve the completion extension in writing.

13. EXTENSION OF TIME:

- A. **AVOIDABLE DELAYS:** Avoidable delays in the prosecution or completion of the work shall include all delays that might have been avoided by the exercise of care, prudence, foresight or diligence on the part of the contractor.
- B. **UNAVOIDABLE DELAYS:** Unavoidable delays in the prosecution or completion of the work under these contracts shall include all delays that are caused by an act of God, and delays which may be the result of causes beyond the control of the Contractor and which he could not have provided against by the exercise of care, prudence, foresight or diligence. Delays due to equipment failure will not be allowed for more than two (2) days per contract.

14. NOTICE OF DELAYS: Whenever the Contractor foresees any delay in the prosecution of the work, and in any event, immediately upon the occurrence of any delay, he shall notify the Community Services Department in writing of the probability of the occurrence and its cause. After the completion of the work, the Community Services Department, in approving the amount due to the Contractor, will assume that any and all delays that have occurred in its prosecution and completion have been avoidable delays, except such delays that have been requested in writing and have been approved in advanced by the Community Services Department. The Contractor shall make no claims that any delay not called to the attention of the Community Services Department at the time of its occurrence has been an unavoidable delay.

15. THE CITY OF BATTLE CREEK'S RIGHT TO WITHHOLD CERTAIN AMOUNTS: The City may withhold from payments to the Contractor such an amount or amounts as may be necessary to cover:

- A. Any Liquidated Damages that have accrued, due to delay;
- B. Any actual damages assessed by MDEQ that are the direct result of contractor negligence;
- C. Failure of the Contractor to make proper payments to a subcontractor;
- D. Failure to provide the City with landfill tickets;
- E. Damage to city or neighboring property caused by the Contractor and not remedied.

16. PENALTIES FOR TERMINATION FOR NON-PERFORMANCE: If a Contractor has a contract terminated by the City for non-performance, the Contractor may be removed from the bidders list and debarred from bidding on future bids for an indefinite period of time, commencing on the date of the termination notice. The City may reinstate a vendor when it is in the City's best interest to do so.

17. MDEQ NOTIFICATION: The Contractor shall abide by the requirement to notify the Michigan Department of Environmental Quality (MDEQ) Air Quality Division of intent to demolish. Notification must be submitted a minimum of 10 working days prior to beginning demolition. The contractor must also provide a copy of this notice to the City's Building Official of Community Services, 10 days prior to beginning demolition.

18. LAND OWNER(S) NOTIFICATION: The demolition contractor is to notify all land owners within 100 feet of the demolition site 10 days prior to the start of all demolitions.

- A. A copy of the national Emission Standards Air Pollutants (NESHAP), 40 CFR 61, Subpart Form that is required to be submitted to the Michigan Department of Environmental Quality is sufficient to comply with this provision.

19. CONTRACTOR'S INSURANCE:

- A. The Contractor shall at the time of execution of this contract, file with the City the Certificate of Insurance, which shall cover all of his insurance as required herein, including evidence of payment of premiums thereon, and the policy or policies or insurance covering said City and their officers, agents and employees. Each such policy and certificate shall be satisfactory to the City. Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from his operations under this Contract.
- B. The contractor shall maintain insurances in force at all times during the term of this agreement at the minimum amounts and types as indicated.

Coverage Afforded

		<u>Limits of Liability</u>
Workers' Compensation:		\$ 100,000 or statutory limit
Commercial General Liability: including XCU	Bodily Injury	\$1,000,000 each occurrence
	Property Damage or Combined Single Limit	\$1,000,000 each occurrence \$1,000,000
Automobile Liability:	Bodily Injury	\$ 300,000 each person
	Liability	\$ 500,000 each occurrence
	Property Damage or Combined Single Limit	\$ 500,000 \$ 500,000

The City of Battle Creek shall be listed as an additional insured on general liability coverage, and shall be provided with a Certificate of Insurance, prior to award, that reflects this additional insured status. A 30-day notice of cancellation or material change shall be provided to the City and so noted on the Certificate of Insurance. All certificates and notices shall be sent to City of Battle Creek, P.O. Box 1717, Battle Creek, Michigan 49016.

- 20. VENDOR EVALUATION:** Experience with the City shall be taken into consideration when evaluating responsibility of the vendor.
- 21. PAYMENT:** Payment shall be made within 30 days of submittal of a correct invoice for complete demolition of each property.
- 22. FINES:** In the event that the City is fined by MDEQ or any other government agency solely due to the negligence of the contractor in following the rules and regulations of that government agency, the City may seek actual damages against Contractor, pursuant to all legal means of collection. In no case shall the City seek damages greater than the fine(s).
- 23. VENUE:** Any party bringing a legal action or proceeding against any other party arising out of or relating to this Agreement or the transactions it contemplates shall bring the legal action or proceeding:
 - (i) in the United States District Court for the Western District of Michigan; or
 - (ii) in any court of the State of Michigan sitting in Calhoun County, if there is no federal subject matter jurisdiction.
- 24. GOVERNING LAW:** This agreement shall be enforced under the laws of the State of Michigan. Contractor must comply with all applicable federal, state, county, and City laws, ordinances, and regulations. Contractor shall ensure payment of all taxes, licenses, permits, and other expenses of any nature associated with the provision of services herein. Contractor shall maintain in current status all Federal, State and Local licenses and permits required for the operation of the business conducted by the Contractor.

DEMOLITION BID CONTRACT LANGUAGE REQUIRED BY MSHDA

- (1) This is a Federally Funded project.
- (2) The Contractor and Subcontractors on this project must comply with HUD contract provisions 24CFR part 85.36(i), the Davis-Bacon Act, Nondiscrimination, Equal Employment Opportunity, Affirmative Action, Section 3 requirements, Anti-Kickback Act, Federal Occupational Safety and Health Act and Department of Labor Standards and Regulations as set forth in the Contract Bid Documents. This municipality is an equal opportunity employer, businesses owned by women or minorities are strongly encouraged to bid.

EQUAL OPPORTUNITY CLAUSE (EXECUTIVE ORDER 11246)

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States." [Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SECTION 3 CONTRACTOR POLICY & REQUIREMENTS

The award of this contract is subject to full compliance with Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) (section 3).

The purpose of Section 3 is to ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulation, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons.

Section 3 Clause

Compliance

Compliance with the provisions of Section 3, the regulations set forth in 24 CFR Part 135, and all applicable rules and orders issued hereunder prior to the execution of this Contract, shall be a condition of the Federal financial assistance provided under this Contract and binding upon the City, the Contractor and any of the Contractor's subcontractors. Failure to fulfill these requirements shall subject the City, the Contractor and any of the Contractor's subcontractors, their successors and assigns, to those sanctions specified by the Contract through which Federal assistance is provided. The Contractor certifies and agrees that no contractual or other disability exists which would prevent compliance with these requirements.

The Contractor further agrees to comply with these "Section 3" requirements and to include the following language in all sub-contracts executed under this Contract:

- A. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development of 1968, as amended (12 U.S.C. 1701u). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- B. The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulation.
- C. The contractor agrees to send to each labor organization or representative or workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- D. The contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.
- E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected, but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR Part 135.

- F. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

- G. With respect to work performed in connection with Section 3 covered Indian housing assistance, Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that, to the greatest extent feasible, (1) preference and opportunities for training and employment shall be given to Indians, and (2) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of Section 3 and Section 7(b) agree to comply with Section 3, to the maximum extent feasible, but not in derogation of compliance with Section 7(b).

Preference to Section 3 Business Concerns

The City reserves the right to give preference to Section 3 Business Concerns in the award to Federally funded contracts. The City will review bids from Section 3 Business Concerns for their ability to complete the required work in a timely and efficient manner. It is determined that the Section 3 Business Concern can fulfill the obligations of the Contract, the City will allow a preference to select the Bid of the Section 3 Business Concern if said bid is within 10% of the next lowest responsive, responsible bid.

Contractor responsibility to recruit and hire Section 3 residents

Contractors receiving a Section 3 covered Contract award who will need to hire new employees to fulfill their contractual obligations to the City must document their efforts to recruit Section 3 eligible residents and/or businesses. HUD has established a numerical goal for meeting this "greatest extent feasible" requirement.

Contractor receiving a Section 3 Contract award can demonstrate compliance with the "greatest extent feasible" requirement by committing to employ Section 3 residents as 30% of the aggregate number of new hires for a one year period, or for the term of the Contract.

If a Contractor does not meet the numerical goal set forth above, the Contractor must demonstrate why it was not feasible to meet said numerical goal. Such justification may include impediments encountered despite action taken.

Efforts to recruit and employ Section 3 residents may include, but are not limited to the following activities:

- Notifying the local Housing Commission (Battle Creek Housing Commission) of employment opportunities resulting from the Contract.
- Contacting resident organizations, local community development and employment organizations.
- Distributing flyers.
- Posting signs.
- Placing ads in local newspapers.

In selecting Section 3 residents for hire, the Contractor should apply, where feasible, the following priority considerations and preferences:

1. Section 3 residents residing in the service area or neighborhood in which the Section 3 covered project is located.
2. Participants in HUD Youthbuild programs.
3. Where the Section 3 project is assisted under the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11301 *et seq.*), homeless persons residing in the service area or neighborhood in which the Section 3 covered project is located shall be given the highest priority.
4. Other Section 3 residents.

Documentation and Reporting

All bidding Contractors must respond to the following question:

Answer this question on the PRICE PAGE:

Does your company, or any subcontractors you employ under this Contract, plan to hire new employees to fulfill your obligations under the Contract if your company is awarded the Contract?

Yes _____

No _____ *

** If the answer to the above question is "No", Section 3 does not apply to the Contract.*

Contractors and subcontractors must provide documentation to the City of all efforts and activities they have utilized to recruit and employ Section 3 residents. This documentation must be submitted prior to final payment.

Contractors and subcontractors must complete a Section 3 Project Report for the Contractor and any subcontractors. This report must be submitted prior to final payment.

Contractors and subcontractors shall assist the City in the completion of the HUD Form 6002 Section 3 Summary Report to document all required Section 3 compliance efforts and outcomes.

SECTION 3 PROJECT REPORT – CONTRACTOR

*(Please complete this report by including any new hires to your company that may have worked on this project.
This document must be submitted to Code Compliance prior to your final payment being released to you.)*

Project Information:

Contractor: _____

Contract Amount: \$ _____

Section 3 Information:

YES NO Did you have any employment or training position vacancies since the time you were selected for the above referenced project?

If "YES", please list job title and rate of pay for vacant positions:

Job Title: _____ Pay Rate: _____

Job Title: _____ Pay Rate: _____

Job Title: _____ Pay Rate: _____

YES NO Have you hired any new employees since you were selected for the above referenced project?

If "YES", please complete the following information regarding those positions filled.

Job Title: _____ Pay Rate: _____

Employee Name: _____

Address: _____

Number of persons in household of employee: _____

Job Title: _____ Pay Rate: _____

Employee Name: _____

Address: _____

Number of persons in household of employee: _____

I hereby certify that the above information is true and complete to the best of my knowledge. I also certify that I have submitted Section 3 Reports for all subcontractors that worked on this project.

Contractor Signature

Date

SECTION 3 PROJECT REPORT – SUBCONTRACTOR

(Please complete this report by including any new hires to your subcontractor that may have worked on this project. This document must be turned in to Community Development prior to your final payment being released to you.)

Project Information:

SubContractor: _____.

Contractor: _____

Contract Amount: \$ _____

Section 3 Information:

YES NO Did you have any employment or training position vacancies since the time you were selected for the above referenced project?

If "YES", please list job title and rate of pay for vacant positions:

Job Title: _____ Pay Rate: _____

Job Title: _____ Pay Rate: _____

Job Title: _____ Pay Rate: _____

YES NO Have you hired any new employees since you were selected for the above referenced project?

If "YES", please complete the following information regarding those positions filled.

Job Title: _____ Pay Rate: _____

Employee Name: _____

Address: _____

Number of persons in household of employee: _____

Job Title: _____ Pay Rate: _____

Employee Name: _____

Address: _____

Number of persons in household of employee: _____

I hereby certify that the above information is true and complete to the best of my knowledge.

Contractor Signature

Date

GENERAL DEMOLITION SPECIFICATIONS APPLICABLE TO ALL PROPERTIES

1. The City has contracted with Environmental Testing Consultant (ETC) to provide hazardous material testing on buildings and supply the City with reports for the abatement of the hazardous materials. If applicable, these specifications will be included with this IFB.
2. The Contractor **must** provide the City's Building Official with landfill dump tickets for debris from each house before payment will be made.
3. Contractor shall remove all foundations, exterior walls, and basement walls including accessory structures. Contractor will remove concrete slabs, driveway and approaches. Contractor will remove no structure substantially as a whole, but demolish on the premises. Contractor shall demolish masonry walls in small sections and remove structures, steel, cast iron, and heavy timber framing by individual pieces. Contractor shall remove from the structure all interior partitions, piers, chimneys, columns, piping, furnaces apparatus, debris, etc. No construction debris shall be buried onsite.
4. The basement or part basements shall be entirely cleaned out of debris, including that debris resulting from the demolition of the structures. Following the removal of debris the floor slabs and footings shall be completely removed. An Open Hole Inspection must be performed prior to any fill placed in the hole. Concrete and masonry steps or porches shall be removed.
5. Adequate protection of persons and property shall be provided at all times. Contractor shall provide fencing, or if not feasible, then a person on the ground, in addition to any worker(s) operating equipment to monitor work area, insuring work area is clear of pedestrians or dangerous situations. Execute work in such a way as to avoid hazards to persons and property, protect entrance to the use of adjacent buildings and prevent interruption of free passage to and from such adjacent building.
6. Contractor shall raze structures in conformance with all State and Local laws.
7. The contractor shall grade the site to match the elevations of the site perimeter. Continuity of these grades will be maintained throughout the site by direction of the City. Retaining walls shall be removed, at the discretion of the city. Contractor is to fill the entire area with 4 inches of top soil and plant grass seed. All roots, sticks, rocks and similar objects shall be removed from the top six inches or graded areas. The Inspection Division prior to final payment will determine adequacy of grading.
8. The contractor shall, at his own expense, secure and pay to the appropriate department of the local government, the fees or charges for all permits for water, demolition, sidewalks, sheds, removal of abandoned water taps, sealing of house connection drains, pavement cuts, and repaving of streets and sidewalks and all other building, electrical, plumbing, gas and sewer permits necessary under the local regulatory body or any of its agencies.
9. The contractor shall comply with the applicable laws and ordinances governing the disposal of materials, debris, rubbish and trash on or off the project area, and shall commit no trespass on any public or private property in any operation due to or connected with the demolition and site clearance.
10. The contractor shall be responsible for all salvageable materials of the structure for which he has received a notice to proceed, whether or not he has removed such materials from said structure.
11. Only such property may be salvaged by the contractor as the City is authorized by the laws of the State of Michigan and the ordinances of the City of Battle Creek to declare as such and to have removed from the premises, and in the event of any doubt respecting the ownership or the right of salvage of any particular property, the contractor shall request from the City a written statement with respect thereto.
12. Subject to the above, all salvage becomes the property of the contractor, but storage of such materials and equipment on the project area will not be permitted.
13. Personal property of third persons or of occupants of buildings on the site shall not become the property of the contractor.

14. The person intending to cause a demolition or an excavation shall deliver written notice of such intent to the owner of each potentially affected adjoining lot, building or structure at least one week prior to the commencement of work. The notice shall request license to enter the potentially affected lot, building or structure prior to commencement of work and at reasonable intervals during the work to inspect and preserve the lot, building or structure from damage.
15. If afforded the necessary license to enter the adjoining lot, building or structure, the person causing the demolition or excavation to be made shall at all times and at his or her own expense preserve and protect the lot, building or structure from damage or injury. If the necessary license is not afforded, it shall be the duty of the owner of the adjoining lot, building or structure to make safe his or her own property, for the prosecution of which said owner shall be granted the necessary license to enter the premises of the demolition or excavation.
16. All waste materials shall be removed in a manner that prevents injury or damage to persons, adjoining properties and public rights-of-way.
17. If the person causing a demolition or excavation to be made is not afforded license to enter an adjoining structure, that person shall immediately notify in writing both the code official and the owner of the adjoining property that the responsibility of providing support to the adjoining lot, building or structure has become the exclusive responsibility of the owner of the adjoining property.
18. Where a structure has been demolished or removed, the vacant lot shall be filled, graded and maintained in conformity to the established elevation of the street grade at curb level nearest to the point of demolition or excavation. Provision shall be made to prevent the accumulation of water or damage to any foundations on the premises or the adjoining property.
19. All service utility connections shall be discontinued and capped in accordance with the approved rules and the requirements of the authority having jurisdiction.
20. The contractor shall daily keep all public sidewalks, streets and alleys clean to the satisfaction of the City of Battle Creek. The contractor shall leave all parcels in the contract in a condition acceptable to the City of Battle Creek before final payment will be approved.
21. Contractor is responsible for the demolition of the entire structure, including all hazardous materials identified herein and all actions of any subcontractor(s). Removal of any materials from this site shall meet all local, State, and Federal standards and laws.

PRICE PAGE

Question carried over from page 12: Does your company, or any subcontractors you employ under this Contract, plan to hire new employees to fulfill your obligations under the Contract if your company is awarded the Contract?

Yes _____ No _____ *

** If the answer to the above question is "No", Section 3 does not apply to the Contract.*

We propose to furnish all labor, materials, equipment, tools and services required to complete the work in accordance with the specifications and conditions contained herein in consideration of the sum or sums stated below

The City intends to award **by property** to the lowest, responsive, responsible bidder for each property. The City reserves the right to award to a responsive, responsible bidder other than the lowest bidder, if the City determines it is in the best interest of the City. The reserves the right to cluster bids into groups if it is deemed to be in the City's best interest. Such cases include, but are not limited to award based on reasonable expectation of the contractor's ability to manage multiple contracts and the related work load. Requests for bid withdrawal may result in debarment.

It is not a requirement to bid on all properties.

Bidder certifies that all costs listed below are all-inclusive, not-to-exceed pricing for each property. There will be no change orders allowed for additional items such as, but not limited to, permits, mobilization, overtime, bidder omissions, or insurance.

Completion date shall be June 15, 2018 for all properties.

ITEM	ADDRESS	PRICE (NO CENTS)
1	105 Marjorie., Battle Creek, MI.	\$ _____ .00
2	48 E Goguac St., Battle Creek, MI.	\$ _____ .00
3	69 South Ave., Battle Creek, MI.	\$ _____ .00
4	35 Elm St., Battle Creek, MI.	\$ _____ .00
5	17 Forest St., Battle Creek, MI.	\$ _____ .00
6	14 Fonda., Battle Creek, MI.	\$ _____ .00
7	54 Bennett St., Battle Creek, MI.	\$ _____ .00

Acknowledgement of addenda: _____; _____; _____; _____; _____; _____

OFFER TO CONTRACT:

TO THE CITY OF BATTLE CREEK:

We hereby offer and agree to furnish the materials, transportation or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation to Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete and states that he/she has authority to submit this bid, which will result in a binding contract if accepted by the City of Battle Creek.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder, and that our firm is not debarred from doing business under the Federal Excluded Parties List System (epls.gov).

I, the Contractor or Contractor's legally authorized signer, further certify compliance with the City of Battle Creek Ordinance Chapter 214, Discrimination Prohibited. I further acknowledge and agree that the Contractor's violation of Chapter 214 shall be a material breach of this contract. In addition, Contractor acknowledges and agrees that it shall be liable for any costs or expenses incurred by the City in obtaining from other sources, the work and services to be rendered or performed or the goods or properties to be furnished or delivered to the City under the contract as a result of a material breach in the Contract for violations of Chapter 214.

Company Name

Address

City State Zip

Signature of Person Authorized to Sign

Printed Name

Title

For clarification of this offer, contact:

Name: _____

Phone: _____

Fax: _____

Email: _____

ACCEPTANCE OF OFFER:

The Offer is hereby accepted for the following items:_____.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specification, amendments, etc. and the Contractor's Offer as accepted by the City.

This contract shall henceforth be referred to as Contract No. 2018-082B. The Contractor has been cautioned not to commence any billable work or to provide any material or service under this contract until Contractor receives purchase order and/or a notice to proceed from the City of Battle Creek Purchasing Agent.

COUNTERSIGNED:

APPROVED AS TO FORM BY:

City Manager Date

City Attorney

Witness Signature

Date

ATTACHMENT A - DISADVANTAGED BUSINESS (DBE) FORM

I. YOUR FIRM'S BACKGROUND:

Is your firm an MBE (at least 51% minority ownership)? YES NO
 Is your firm a WBE (at least 51% woman ownership)? YES NO
 Are you subcontracting any part of this project? YES NO

II. SUBCONTRACTING INFORMATION: If subcontracting any part of the project, the bidder/contractor expressly agrees that:

- (1) If awarded a contract as a result of this bid, the major subcontractors used in the prosecution of the work will be those listed below, and
- (2) The following list includes all subcontractors who will perform work representing approximately five percent (5%) or more of the Total Base Bid.
- (3) The Bidder represents that the subcontractors listed below are financially responsible and are qualified to do the work required.

SUBCONTRACTOR NAME	City/State	Trade or Commodity	MBE	WBE	Approximate dollar value
_____	_____	_____	Y/N	Y/N	\$ _____
_____	_____	_____	Y/N	Y/N	\$ _____
_____	_____	_____	Y/N	Y/N	\$ _____
_____	_____	_____	Y/N	Y/N	\$ _____
_____	_____	_____	Y/N	Y/N	\$ _____
_____	_____	_____	Y/N	Y/N	\$ _____
_____	_____	_____	Y/N	Y/N	\$ _____
_____	_____	_____	Y/N	Y/N	\$ _____

III. DBE RECRUITMENT ACTIVITY LOG: List the MBE's and WBE's that were approached about being a subcontractor for this job, but who are NOT listed above as a subcontractor.

NAME OF FIRM APPROACHED, BUT NOT USED ON THIS PROJECT	City/State	Trade or Commodity	MBE	WBE	Reason not used on this project
_____	_____	_____	Y/N	Y/N	_____
_____	_____	_____	Y/N	Y/N	_____

220' or longer.

GROUP 2: Crane operator with main boom and
 jib 140' or
 longer, tower crane, gantry crane, whirley
 derrick

GROUP 3: Bulldozer; Crane; Grader/Blade;
 Loader; Scraper;
 stiff leg derrick

* IRON0340-010 06/19/2017

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 24.43	
	24.67	

LABO0355-002 06/01/2017

	Rates	Fringes
LABORER: Mason Tender - Cement/Concrete.....	\$ 20.97	12.85

PAIN0312-011 06/12/2014

	Rates	Fringes
PAINTER: Brush and Roller.....	\$ 21.75	
	11.94	

PLUM0333-014 06/01/2013

	Rates	Fringes
PIPEFITTER (HVAC Pipe Installation Only).....	\$ 23.23	16.91

ROOF0070-016 06/01/2017

	Rates	Fringes
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ROOFER.....	\$ 27.80	13.79
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SHEE0007-023 06/01/2014

	Rates	Fringes
SHEET METAL WORKER, Includes HVAC Duct and Unit Installation.....	\$ 23.32	7.82

SUMI2010-010 09/16/2010

	Rates	Fringes
CARPENTER.....	\$ 18.81	6.38
CEMENT MASON/CONCRETE FINISHER...\$	19.27	5.85

LABORER: Common or General.....\$ 16.87
5.46

LABORER: Landscape.....\$ 9.64
2.81

LABORER: Pipelayer.....\$ 17.95
5.46

OPERATOR: Backhoe/Excavator.....\$ 19.94
5.46

OPERATOR: Bobcat/Skid
Steer/Skid Loader.....\$ 17.66 7.65

PLUMBER, Excludes HVAC Pipe
Installation.....\$ 26.17 7.55

TRUCK DRIVER: Dump Truck.....\$ 17.00
5.71

WELDERS - Receive rate prescribed for craft
 performing
 operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in

the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage
Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

ATTACHMENT C - ADDITIONAL SPECIFICATIONS BY PROPERTY



**NESHAP RENOVATION / DEMOLITION INSPECTION OF
ASBESTOS CONTAINING MATERIALS
AND OTHER HAZARDOUS WASTE MATERIALS**



FOR THE PROPERTY KNOWN AS:

14 Fonda Ave.
Battle Creek, MI 49014

Prepared for:

City of Battle Creek
10 North Division St, Room 117
Battle Creek, MI
49017

Prepared By:

Heather Davis
Michigan Certification #: A-48908
Environmental Testing & Consulting, Inc.
38900 West Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
ETC Job #: 205767

4/17/2018
Date of Survey

4/19/2018
Date of Report

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- 2) Information about Asbestos Inspections
 - a) Sampling Procedures
 - b) PLM Analysis Methodology
 - c) Interpretation of Inspection Results
 - d) Other Hazardous Materials
- 3) Regulatory Requirements
 - a) MIOSHA Construction Asbestos Requirements
 - b) NESHAPs Requirements
 - c) Notification Requirements
 - d) Abatement Requirements
- 4) Summary and Conclusions
 - Chart A – Materials Sampled and Asbestos Content
 - Chart B – Other Hazardous Materials Located
- 5) Inspector's Information/Certification

Appendices

Appendix A - Polarized Light Microscopy Asbestos Analysis Results

Appendix B – Site Map

Appendix C - State of Michigan Notification of Intent to Renovate or Demolish

1. Introduction

City of Battle Creek contracted Environmental Testing & Consulting, Inc. (ETC) to perform a renovation/demolition inspection of the building located at 14 Fonda Ave., Battle Creek, MI 49014. This inspection was conducted on 4/17/2018.

The EPA, under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule, requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work can begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Heather Davis, conducted the asbestos containing building material (ACBM) inspection and identified materials suspected of containing asbestos. Heather Davis's State of Michigan Asbestos Building Inspector's certification number is A-48908.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspected material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities on the property. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspected asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAP regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. **To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.**

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not in the client's best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. **In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).**

b. PLM Analysis Methodology

Polarized Light Microscopy (PLM) samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. **Please note, the contract DID NOT include point counting as defined in NESHAP.** Should City of Battle Creek wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10%, these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included on Chart B in Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous, and that may require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand, if there were a few pesticide containers present as would be found in most homes, these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation/demolition of residential homes and asbestos materials. The MIOSHA Asbestos Construction Standard has requirements to protect the workers performing the renovation/demolition, while the EPA – NESHAP regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL, the employer will have to:

- Notify workers
- Provide worker training
- Post danger signs
- Establish periodic air monitoring regulated areas and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Conduct employee respiration monitoring
- Maintain/provide record keeping

- Perform medical surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners, in this case City of Battle Creek, are now required to notify all renovation/demolition workers of the presence, location and quantity of all ACM's within the building.

In most cases, it is more practical to have an asbestos contractor remove the ACM from the building prior to renovation/demolition than have the renovation/demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ, prior to renovation or demolition activities, requires any identified asbestos materials be removed that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation/demolition process, it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A signed document from a licensed asbestos abatement supervisor that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that the material stays intact.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within an area/building during renovation or demolition activities. If the MDEQ reviews the site and finds the material crumbled or disturbed, both the contractor and building owner may be sited up to \$27,500 per day. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material **greater than** 160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not require a notification.

If removing **more than** 15 square feet but **less than** 160 square feet, or **greater than** 10 linear feet but **less than** 260 linear feet, the contractor only needs to notify LARA as stated above.

For removals of **less than** 15 square feet or **less than** 10 linear feet, no notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee must reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, and workers are licensed by LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance.
- An asbestos supervisor must be on-site at all times when work is occurring.
- All work must be completed within regulated work areas.
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations.
- On-site personnel sampling be conducted during the removal activities.
- Prior to dismantling and leaving the site, the contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Battle Creek insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)

- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work
- Copy of the final asbestos clearance report

By requiring these documents, City of Battle Creek will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Battle Creek or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

Quantities that are listed are estimates only; in general, listed quantities represent only what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should always be assumed to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

Chart A – Materials Sampled and Asbestos Content

Material #	Material Description	Asbestos	Quantity	Location (Refer to map in Appendix B)
1	Plaster, grey with white skim	No	7000 SF	Throughout
2	Texture, white/green	YES	2100 SF	Room 1-6, 9-11, 13
3	Duct wrap, grey	YES	200 SF	Throughout
4	Transite, grey	YES	121 SF	Room 12
5	Ceiling panel, white with holes	No	162 SF	Room 12
6	9x9 Floor tile, white and black	YES	240 SF	Room 5, 19
7	Covebase, stain	No	30 SF	Room 11, 12
8	Mastic, tan	No	30 SF	Room 11, 12
9	Blown-in-insulation, grey	No	1400 SF	Room 1-6
10	Drywall, white	YES	1500 SF	Room 1, 8-15, 19
11	Mastic, black	No	240 SF	Room 5, 19
12	12x12 Floor tile, green	YES	50 SF	Room 12
13	Mastic, black	No	50 SF	Room 12
14	12x12 Peel and stick, tan	No	350 SF	Room 12
15	Glue, yellow	No	900 SF	Room 11, 12
16	Linoleum, white	No	350 SF	Room 12
17	12x12 Floor tile, red	YES	192 SF	Room 5
18	Linoleum, red	No	20 SF	Room 3, 12
19	Poured concrete, grey	No	1305 SF	Room 17, 18
20	Window glaze, white	YES	36 windows	Exterior
21	Foundation caulk, white	No	10 SF	Exterior
22	House wrap, tan	No	3000 SF	Exterior
23	Shingle, black	No	1500 SF	Exterior
24	Asphalt shingle, blue/white	No	3000 SF	Exterior
25	Fiberboard, brown	No	3000 SF	Exterior
26	Linoleum, tan	No	20 SF	Room 10, 15 (closet)
27	Linoleum, blue	No	10 SF	Room 10 (closet)

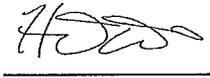
Chart B – Other Hazardous Materials Located
(Above the household quantity Limitations)

Material #	Material Description	Quantity	Location
1	Florescent Light Bulb	1	Room 15

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:



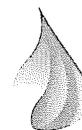
Heather Davis
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-48908

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

ENVIRONMENTAL TESTING LABORATORIES, INC.



38900 HURON RIVER DRIVE, SUITE 200
ROMULUS, MICHIGAN 48174
(734) 955-6600
FAX: (734) 955-6604

REVISED REPORT

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Project Location :
14 Fonda Ave, Battle Creek, MI 49014

Attention : Rick Bolek

Client Project : N/A

ETC Job : 205767
Report Date : 4/19/2018

Login #	Sample ID	Work Requested	Completed
720188	01A	Asbestos Analysis	04/19/2018
720189	01B	Asbestos Analysis	04/19/2018
720190	01C	Asbestos Analysis	04/19/2018
720191	01D	Asbestos Analysis	04/19/2018
720192	01E	Asbestos Analysis	04/19/2018
720193	01F	Asbestos Analysis	04/19/2018
720194	01G	Asbestos Analysis	04/19/2018
720195	02A	Asbestos Analysis	04/19/2018
720196	02B	Asbestos Analysis	04/19/2018
720197	02C	Asbestos Analysis	04/19/2018
720198	02D	Asbestos Analysis	04/19/2018
720199	02E	Asbestos Analysis	04/19/2018
720200	03A	Asbestos Analysis	04/19/2018
720201	03B	Asbestos Analysis	04/19/2018
720202	03C	Asbestos Analysis	04/19/2018
720203	04A	Asbestos Analysis	04/19/2018
720204	04B	Asbestos Analysis	04/19/2018
720205	04C	Asbestos Analysis	04/19/2018
720206	05A	Asbestos Analysis	04/19/2018
720207	05B	Asbestos Analysis	04/19/2018

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Login #	Sample ID	Work Requested	Completed
720208	05C	Asbestos Analysis	04/19/2018
720209	06A	Asbestos Analysis	04/19/2018
720210	06B	Asbestos Analysis	04/19/2018
720211	06C	Asbestos Analysis	04/19/2018
720212	07A	Asbestos Analysis	04/19/2018
720213	07B	Asbestos Analysis	04/19/2018
720214	07C	Asbestos Analysis	04/19/2018
720215	08A	Asbestos Analysis	04/19/2018
720216	08B	Asbestos Analysis	04/19/2018
720217	08C	Asbestos Analysis	04/19/2018
720218	09A	Asbestos Analysis	04/19/2018
720219	09B	Asbestos Analysis	04/19/2018
720220	09C	Asbestos Analysis	04/19/2018
720221	10A	Asbestos Analysis	04/19/2018
720222	10B	Asbestos Analysis	04/19/2018
720223	10C	Asbestos Analysis	04/19/2018
720224	11A	Asbestos Analysis	04/19/2018
720225	11B	Asbestos Analysis	04/19/2018
720226	11C	Asbestos Analysis	04/19/2018
720227	12A	Asbestos Analysis	04/19/2018
720228	12B	Asbestos Analysis	04/19/2018
720229	12C	Asbestos Analysis	04/19/2018
720230	13A	Asbestos Analysis	04/19/2018
720231	13B	Asbestos Analysis	04/19/2018
720232	13C	Asbestos Analysis	04/19/2018
720233	14A	Asbestos Analysis	04/19/2018
720234	14B	Asbestos Analysis	04/19/2018

Login #	Sample ID	Work Requested	Completed
720235	14C	Asbestos Analysis	04/19/2018
720236	15A	Asbestos Analysis	04/19/2018
720237	15B	Asbestos Analysis	04/19/2018
720238	15C	Asbestos Analysis	04/19/2018
720239	16A	Asbestos Analysis	04/19/2018
720240	16B	Asbestos Analysis	04/19/2018
720241	16C	Asbestos Analysis	04/19/2018
720242	17A	Asbestos Analysis	04/19/2018
720243	17B	Asbestos Analysis	04/19/2018
720244	17C	Asbestos Analysis	04/19/2018
720245	18A	Asbestos Analysis	04/19/2018
720246	18B	Asbestos Analysis	04/19/2018
720247	18C	Asbestos Analysis	04/19/2018
720248	19A	Asbestos Analysis	04/19/2018
720249	19B	Asbestos Analysis	04/19/2018
720250	19C	Asbestos Analysis	04/19/2018
720251	20A	Asbestos Analysis	04/19/2018
720252	20B	Asbestos Analysis	04/19/2018
720253	20C	Asbestos Analysis	04/19/2018
720254	21A	Asbestos Analysis	04/19/2018
720255	21B	Asbestos Analysis	04/19/2018
720256	21C	Asbestos Analysis	04/19/2018
720257	22A	Asbestos Analysis	04/19/2018
720258	22B	Asbestos Analysis	04/19/2018
720259	22C	Asbestos Analysis	04/19/2018
720260	23A	Asbestos Analysis	04/19/2018
720261	23B	Asbestos Analysis	04/19/2018

Login #	Sample ID	Work Requested	Completed
720262	23C	Asbestos Analysis	04/19/2018
720263	24A	Asbestos Analysis	04/19/2018
720264	24B	Asbestos Analysis	04/19/2018
720265	24C	Asbestos Analysis	04/19/2018
720266	25A	Asbestos Analysis	04/19/2018
720267	25B	Asbestos Analysis	04/19/2018
720268	25C	Asbestos Analysis	04/19/2018
720269	26A	Asbestos Analysis	04/19/2018
720270	26B	Asbestos Analysis	04/19/2018
720271	26C	Asbestos Analysis	04/19/2018
720272	27A	Asbestos Analysis	04/19/2018
720273	27B	Asbestos Analysis	04/19/2018
720274	27C	Asbestos Analysis	04/19/2018

Reviewed by:



Quality Assurance Coordinator



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720188 01A Rm 12 S Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720188 01A Rm 12 S Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720189 01B Rm 10 E Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720189 01B Rm 10 E Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720190 01C Rm 11 W Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720190 01C Rm 11 W Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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NVLAP LAB CODE 201028-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus,MI 48174

Location :
14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767

Client Project : N/A

Date Collected : 04/17/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720191 01D Rm 14 W Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720191 01D Rm 14 W Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720192 01E Rm 6 Ceiling Center Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720192 01E Rm 6 Ceiling Center Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720193 01F Rm 4 W Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720193 01F Rm 4 W Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174
Location :
 14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720194 01G Rm 10 N Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720194 01G Rm 10 N Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720195 02A Rm 7 Center Ceiling Layer-1 Analyst: Scott Larabell	Texture	White/Green Non-Fibrous Homogenous	5% Cellulose	92% Other	3% Chrysotile
720195 02A Rm 7 Center Ceiling Layer-2 Analyst: Scott Larabell	Drywall	Grey Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720196 02B Rm 5 S Wall Layer-1 Analyst: Scott Larabell		Not Analyzed			
720196 02B Rm 5 S Wall Layer-2 Analyst: Scott Larabell	Drywall	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174
 Location :
 14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720197 02C Rm 6 NW Ceiling Layer-1 Analyst: Scott Larabell		Not Analyzed			
720197 02C Rm 6 NW Ceiling Layer-2 Analyst: Scott Larabell	Drywall	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720198 02D Rm 13 Ceiling Center Layer-1 Analyst: Scott Larabell		Not Analyzed			
720198 02D Rm 13 Ceiling Center Layer-2 Analyst: Scott Larabell	Drywall	Grey Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720199 02E Rm 11 Center Ceiling Layer-1 Analyst: Scott Larabell		Not Analyzed			
720199 02E Rm 11 Center Ceiling Layer-2 Analyst: Scott Larabell	Drywall	Grey Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720200 03A Rm 7 Duct Analyst: Scott Larabell	Duct Wrap	Grey Fibrous Homogenous	15% Cellulose	65% Other	20% Chrysotile

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 38900 Huron River Drive
 Romulus, MI 48174
 Location :
 14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720201 03B Rm 17 Duct Analyst: Scott Larabell		Not Analyzed			
720202 03C Rm 17 Duct Analyst: Scott Larabell		Not Analyzed			
720203 04A Rm 12 SE Ceiling Analyst: Scott Larabell	Transite	Grey Fibrous Homogenous	25% Cellulose	45% Other	30% Chrysotile
720204 04B Rm 12 Center Ceiling Analyst: Scott Larabell		Not Analyzed			
720205 04C Rm 12 SW Ceiling Analyst: Scott Larabell		Not Analyzed			
720206 05A Rm 12 NE Ceiling Analyst: Scott Larabell	Ceiling Panel	White Fibrous Homogenous	80% Cellulose	20% Other	None Detected
720207 05B Rm 12 N Ceiling Analyst: Scott Larabell	Ceiling Panel	White Fibrous Homogenous	70% Cellulose	30% Other	None Detected

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 Romulus, MI 48174

Location :
 14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767

Client Project : N/A

Date Collected : 04/17/2018

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Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720208 05C Rm 12 NW Ceiling Analyst: Scott Larabell	Ceiling Panel	White Fibrous Homogenous	80% Cellulose	20% Other	None Detected
720209 06A Rm 19 N Floor Analyst: Scott Larabell	9x9 Floor Tile	White/Black Non-Fibrous Homogenous	2% Cellulose	96% Other	2% Chrysotile
720210 06B Rm 19 Center Floor Analyst: Scott Larabell		Not Analyzed			
720211 06C Rm 19 S Floor Analyst: Scott Larabell		Not Analyzed			
720212 07A Rm 12 S Wall Analyst: Scott Larabell	Covebase	Stain Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720213 07B Rm 12 W Wall Analyst: Scott Larabell	Covebase	Stain Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720214 07C Rm 12 E Wall Analyst: Scott Larabell	Covebase	Stain Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected

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NVLAP LAB CODE 201028-D

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767

Client Project : N/A

Date Collected : 04/17/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720215 08A Rm 12 S Wall Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720216 08B Rm 12 W Wall Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720217 08C Rm 12 E Wall Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720218 09A Rm 3 Ceiling Center Analyst: Scott Larabell	Blown-In Insulation	Grey Fibrous Homogenous	90% Mineral wool 2% Cellulose	8% Other	None Detected
720219 09B Rm 4 Center Ceiling Analyst: Scott Larabell	Blown-In Insulation	Grey Fibrous Homogenous	85% Mineral wool 3% Cellulose	12% Other	None Detected
720220 09C Rm 1 Center Ceiling Analyst: Scott Larabell	Blown-In Insulation	Grey Fibrous Homogenous	2% Cellulose 80% Mineral wool	18% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720221 10A Rm 1 S Ceiling Layer-1 Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720221 10A Rm 1 S Ceiling Layer-2 Analyst: Scott Larabell	Texture	White Non-Fibrous Homogenous	4% Cellulose	94% Other	2% Chrysotile
720222 10B Rm 10 Center Ceiling Layer-1 Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720222 10B Rm 10 Center Ceiling Layer-2 Analyst: Scott Larabell		Not Analyzed			
720223 10C Rm 9 S Ceiling Layer-1 Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720223 10C Rm 9 S Ceiling Layer-2 Analyst: Scott Larabell		Not Analyzed			
720224 11A Rm 19 N Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

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 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205767
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Location :
 14 Fonda Ave, Battle Creek, MI 49014

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720225 11B Rm 19 Center Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720226 11C Rm 19 S Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720227 12A Rm 12 E Floor Analyst: Scott Larabell	12x12 Floor Tile	Green Non-Fibrous Homogenous	3% Cellulose	94% Other	3% Chrysotile
720228 12B Rm 12 SE Floor Analyst: Scott Larabell		Not Analyzed			
720229 12C Rm 12 E Floor Analyst: Scott Larabell		Not Analyzed			
720230 13A Rm 12 E Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720231 13B Rm 12 SE Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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NVLAP LAB CODE 201023-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

ETC Job : 205767

Client Project : N/A

Date Collected : 04/17/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Location :

14 Fonda Ave, Battle Creek, MI 49014

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720232 13C Rm 12 E Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720233 14A Rm 12 E Floor Analyst: Scott Larabell	12x12 Peel and Stick	Tan Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720234 14B Rm 12 SE Floor Analyst: Scott Larabell	12x12 Peel and Stick	Tan Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720235 14C Rm 12 E Floor Analyst: Scott Larabell	12x12 Peel and Stick	Tan Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720236 15A Rm 12 N Wall Analyst: Scott Larabell	Glue	Yellow Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720237 15B Rm 12 W Wall Analyst: Scott Larabell	Glue	Yellow Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720238 15C Rm 12 E Wall Analyst: Scott Larabell	Glue	Yellow Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected

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NVLAP LAB CODE 201623-D

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus,MI 48174

Location :
14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767

Client Project : N/A

Date Collected : 04/17/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720239 16A Rm 12 Center Floor Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
720240 16B Rm 12 S Floor Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
720241 16C Rm 12 SW Floor Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	8% Cellulose	92% Other	None Detected
720242 17A Rm 5 N Floor Analyst: Scott Larabell	12x12 Floor Tile	Red Non-Fibrous Homogenous	2% Cellulose	96% Other	2% Chrysotile
720243 17B Rm 5 W Floor Analyst: Scott Larabell		Not Analyzed			
720244 17C Rm 5 E Floor Analyst: Scott Larabell		Not Analyzed			
720245 18A Rm 3 Under Sink Analyst: Scott Larabell	Linoleum	Red Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected

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NVLAP LAB CODE 201024-D

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(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767

Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720246 18B Rm 3 Under Sink Analyst: Scott Larabell	Linoleum	Red Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
720247 18C Rm 12 Under Sink Analyst: Scott Larabell	Linoleum	Red Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
720248 19A Rm 17 Center Floor Analyst: Scott Larabell	Poured Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720249 19B Rm 17 W Floor Analyst: Scott Larabell	Poured Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720250 19C Rm 17 W Floor Analyst: Scott Larabell	Poured Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720251 20A Ext Window Rm 12 Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	95% Other	3% Chrysotile
720252 20B Ext Window Rm 11 Analyst: Scott Larabell		Not Analyzed			

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 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205767
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Location :
 14 Fonda Ave, Battle Creek, MI 49014

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720253 20C Ext Window Rm 10 Analyst: Scott Larabell		Not Analyzed			
720254 21A NE Wall Ext House Analyst: Scott Larabell	Foundation Caulk	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720255 21B NE Wall Ext House Analyst: Scott Larabell	Foundation Caulk	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720256 21C NE Wall Ext House Analyst: Scott Larabell	Foundation Caulk	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720257 22A Ext Wall N Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
720258 22B Ext Wall W Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
720259 22C Ext Wall NW Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected

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Location :
 14 Fonda Ave, Battle Creek, MI 49014

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720260 23A N Ext Roof Analyst: Scott Larabell	Shingle	Black Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720261 23B NE Ext Roof Analyst: Scott Larabell	Shingle	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720262 23C NW Ext Roof Analyst: Scott Larabell	Shingle	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720263 24A Ext Wall N Analyst: Scott Larabell	Asphalt Siding	Blue/White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720264 24B Ext Wall W Analyst: Scott Larabell	Asphalt Siding	Blue/White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720265 24C Ext Wall NW Analyst: Scott Larabell	Asphalt Siding	Blue/White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720266 25A Ext Wall N Analyst: Scott Larabell	Fiberboard	Brown Fibrous Homogenous	80% Cellulose	20% Other	None Detected

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Location :
14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720267 25B Ext Wall W Analyst: Scott Larabell	Fiberboard	Brown Fibrous Homogenous	85% Cellulose	15% Other	None Detected
720268 25C Ext Wall NW Analyst: Scott Larabell	Fiberboard	Brown Fibrous Homogenous	85% Cellulose	15% Other	None Detected
720269 26A Rm 10 Closet Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	7% Cellulose	93% Other	None Detected
720270 26B Rm 10 Closet Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	8% Cellulose	92% Other	None Detected
720271 26C Rm 15 Closet Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
720272 27A Rm 10 Closet Analyst: Scott Larabell	Linoleum	Blue Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
720273 27B Rm 10 Closet Analyst: Scott Larabell	Linoleum	Blue Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected

ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M4-82/020 or NYS/DOH-ELAP Item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 14 Fonda Ave, Battle Creek, MI 49014

ETC Job : 205767
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720274 27C Rm 10 Closet Analyst: Scott Larabell	Linoleum	Blue Non-Fibrous Homogenous	18% Cellulose	82% Other	None Detected



Lab Supervisor/Other Signatory



Analyst: Scott Larabell

400 Point Count Results by EPA 600/R-93/116 PLM (denoted by "PC")
 Item 198.1: PLM Methods for Identifying and Quantitating Asbestos in Bulk Samples
 Item 198.6: PLM Methods for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples
 EPA 600/R-93/116: Method for Determination of Asbestos in Bulk Building Materials
 EPA 600/M4-82-020: Interim Method for Determination of Asbestos in Bulk Insulation Samples

ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M4-82/020 or NYSDOH-ELAP item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.

**Bulk Asbestos
 Chain of Custody**

ETL Project #: 205767

Client: ETC	Contact: Liv Hagerman	Project Location/Name: 14 Fonda Ave, Battle Creek MI
Address: 721 N. Capitol Ave. Suite 3, Lansing, MI 48906	Phone: (734) 955-6600	Client Project #:
	Fax: (734) 955-6604	Date Sampled: 4/17/18
	E-mail: results@2etc.com	
Please Provide Results: <input type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Verbal <input type="checkbox"/> Other _____		

Turnaround Time (TAT): RUSH Same Day 24 hr 48 hr Standard (3 days) Other _____

PLM Instructions
 (Check all that apply) 3 days

<input checked="" type="checkbox"/> PLM EPA600/R-93/116, 1993 (Standard method)	<input checked="" type="checkbox"/> Stop at 1st Positive - Clearly mark Homogenous Group
<input type="checkbox"/> Point Counting: 400 Points*	<input type="checkbox"/> Soil or Vermiculite Analysis *
<input type="checkbox"/> PLM Non-Building Material (Dust, Wipe, Tape)	

* Additional charge and turnaround may be required

Lab ID	Sample ID	Sample Location	Material Description
	01A-G		
	02A-E	See attached sheets	
	03A-C		
	↓		
	27A-C		

	Date	Time
Relinquished (Name/Organization): Heather Davis	4/17/18	5:30 am
Received (Name/ETL): Batt Swinell	4/18/18	11:00 am
Microscopical Analysis (Name/ETL): Batt Swinell	4-18-18	12:00 am
Sample Login (Name/ETL): Batt Swinell	4/18/18	11:45 am
Analysis (Name/ETL): Batt Swinell	4-18-18	12:00 am
A/QC Review (Name/ETL): Batt Swinell	4/19/18	2:53 am
Special Instructions:	Remarks	

Asbestos Material Sampling Summary Sheet

Surfacing materials

Revision date 5/7/2015

Job #:	Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205 767					14 fonda Ave, Battle Creek	4/17/18		
		Material: Plaster						
	01	gray w/ white skim	F	A	Rm 12 south wall 720188		7000	
				B	Rm 10 east wall 189	Throughout	SF	19
				C	Rm 11 west wall 190			
				D	Rm 14 west wall 191			
				E	Rm 6 ceiling center 192			
				F	Rm 4 west wall 193			
				G	Rm 10 north wall 194			
				A	Rm 9 center ceiling 195			
		Material: Texture						
				B	Rm 5 south wall 196	13, 9, 10,	2100	
			f	C	Rm 6 NW ceiling 197	11,	SF	
	02	white/green		D	Rm 13 ceiling center 198			
				E	Rm 11 center ceiling 199	2nd floor		
		Material:						

<1000 SF = 3 samples

1000 - <5000 = 5 samples

>5000 = 7 samples

Asbestos Material Sampling Summary Sheet
 TSI (Thermal System Insulation) materials

Revision date 5/7/2015

Job #:	205767		14 Fonder Ave, Battle Creek		4/17/18	Quantity	Picture #
Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)		
3	Material: Duct wrap	F	A	Rm 7 duct 7200200	Throughout	200	19
	Description: grey		B	Rm 17 duct 201	ducts	SF	
	Material: Description		C	Rm 17 duct 202			
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						

3 samples with the exception of patches less than 6 LF or 6 SF, then only 1 sample

Asbestos Material Sampling Summary Sheet
Miscellaneous materials

Revision date 5/7/2015

Job #:	205 767		14 Fonda Ave Battle Creek		4/17/18		
Material no.	Material Description	Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
04	Material: Transite Description: grey	F	A B C	Rm 12 se ceiling 720203 Rm 12 center ceiling 20412 Rm 12 SW ceiling 205		121 SF	27
05	Material: Ceiling Panel Description: white w/ holes	NF	A B C	Rm 12 NE ceiling 206 Rm 12 North ceiling 20712 Rm 12 NW ceiling 208		162 SF	10
06	Material: 9x9 floor Tile Description: white & black	NF	A B C	Rm 19 north floor 209 Rm 19 center floor 210 Rm 19 south floor 211	19, 5	240 SF	15
07	Material: baseboard Covebase Description: stain	NF	A B C	Rm 12 south wall 212 Rm 12 west wall 213 Rm 12 east wall 214	12, 11	30 SF	43
08	Material: mastic Description: tan	NF	A B C	Same as 07A 215 Same as 07B 216 Same as 07C 217	12, 11	30 SF	43
09	Material: Blown-Fn Insulation Description: grey	F	A B C	Rm 3 ceiling center 218 Rm 4 center ceiling 219 Rm 1 center ceiling 220	2nd floor ceilings	1400 SF	24
10	Material: Drywall Description: white	F	A B C	Rm 1 south ceiling 221 Rm 10 center ceiling 222 Rm 9 south ceiling 223	1st floor ceilings	1500 SF	25

Asbestos Material Sampling Summary Sheet

Miscellaneous materials

Revision date 5/7/2015

Job #:	Material Description		Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205767	14 fonda Ave					4/17/18		
11	Material: Mastic Description: black	NF	A B C	same as 06A same as 06B same as 06C	720824 225	19,5	240 SF	13
12	Material: 12x12 floor tile Description: green	NF	A B C	Nm12 east floor Nm12 SE floor Nm12 east floor	227 228 229	12	50 SF	33
13	Material: mastic Description: black	NF	A B C	same as 12A same as 12B same as 12C	230 231 232	12	50 SF	33
14	Material: 12x12 PFS Description: tan	NF	A B C	same as 12A same as 12B same as 12C	233 234 235	12	350 SF	33
15	Material: Glue Description: yellow	NF	A B C	Nm12 north wall Nm12 west wall Nm12 east wall	236 237 238	12,11	900 SF	13
16	Material: white vinyl Description: white Linoleum	NF	A B C	Nm12 center floor Nm12 south floor Nm12 SW floor	239 240 241	12	350 SF	32
17	Material: 12x12 floor tile Description: red	NF	A B C	Nm5 north floor Nm5 west floor Nm5 east floor	242 243 244	5	192 SF	22

Asbestos Material Sampling Summary Sheet

Miscellaneous materials

Revision date 5/7/2015

Job #:	205767		14 Fonda Ave		4/17/18		
Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
18	Material: Linoleum Description: red	NF	A B C	Rm 3 under sink Rm 3 under sink Rm 12 under sink	5, 3, 12	20 SF	36
19	Material: Poured Concrete Description: grey	NF	A B C	Rm 17 center floor Rm 17 west floor Rm 17 east floor	8, 17, 18	1305 SF	20
20	Material: window Glaze Description: white	NF	A B C	ext window ext window ext window	ext ext ext	36 UNITS	7
21	Material: foundation caulk Description: white	NF	A B C	NE wall NE wall NE wall	ext house ext house ext house	10 SF	47
22	Material: House wrap Description: tan	NF	A B C	ext wall north ext wall west ext wall NW	ext house ext house ext house	3000 SF	34
23	Material: Shingle Description: black	NF	A B C	north ext roof north east ext roof NW ext roof	ext house ext house roof	1500 SF	4
24	Material: Asphalt siding Description: blue/white	NF	A B C	same as 22A same as 22B same as 22C	ext house	3000 SF	8

Asbestos Material Sampling Summary Sheet
Miscellaneous materials

Revision date 5/7/2015

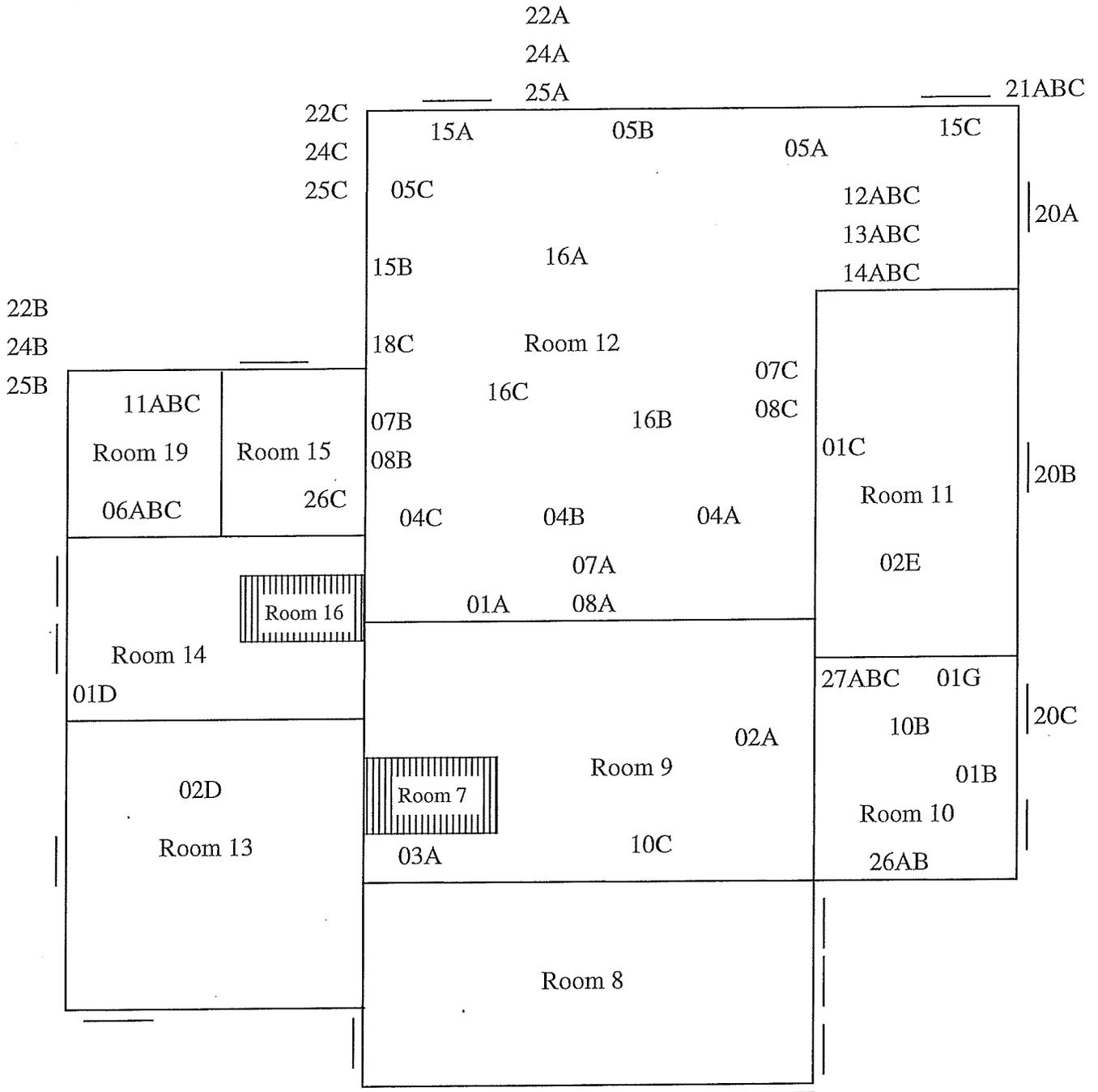
Job #:	205767	14 Fonda Ave	4/17/18		
Material no.	Material Description	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
25	Material: fiber board	same as 24A 720866	ext	3000 SF	41
	Description: brown	same as 24B 267	house		
		same as 24C 268			
26	Material: Linoleum	Pr10 closet 269	10,15 closers	20 SF	47
	Description: tan	Pr10 closet 270			
		Pr15 closet 271			
27	Material: Linoleum	Pr10 closet 272	10 closet	10 SF	46
	Description: blue	Pr10 closet 273			
		Pr10 closet 274			
	Material: Description				
	Material: Description				
	Material: Description				
	Material: Description				
	Material: Description				
	Material: Description				

APPENDIX B

SITE MAP

1st floor

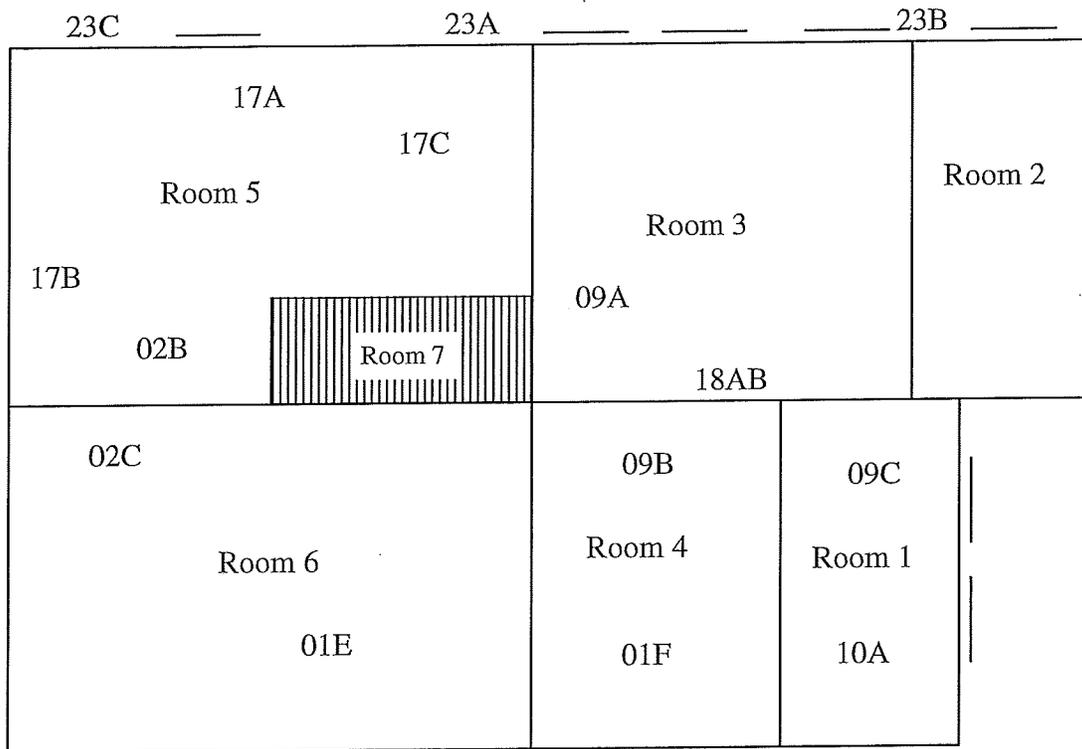
14 Fonda Ave, Battle Creek, MI 49014



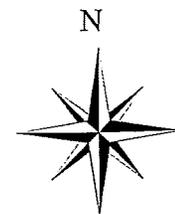
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.

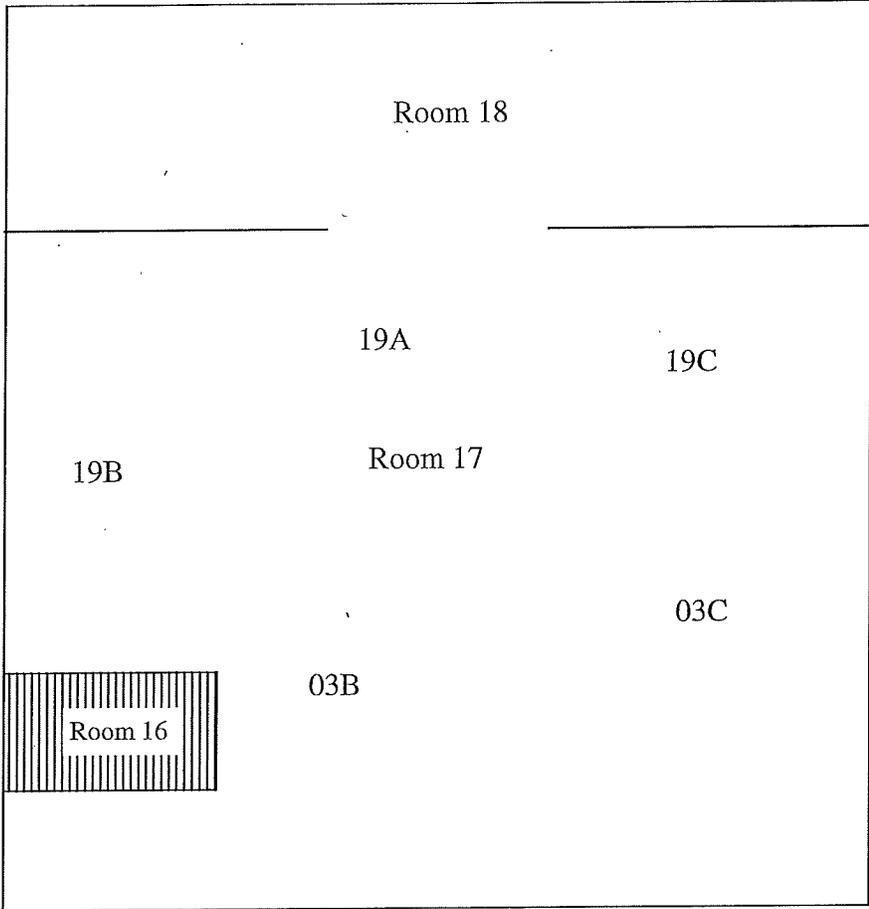


City of Battle Creek
205767

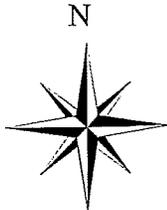


Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.





Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



APPENDIX C

**STATE OF MICHIGAN NOTIFICATION OF
INTENT TO REMOVE/DEMOLISH**

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ___/___/___ Rec'd Date ___/___/___
 Emergency Date ___/___/___ Valid No. _____
 OK Send Def Ltr. Date of Def Ltr. ___/___/___
 FOLLOW UP ___/___/___ Spoke w/ _____
 Comments: _____

 Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
 Total Project Cost: _____ x 0.01 = _____
 Type of Contractor: _____ License No.: _____
 Licensing Authority: _____

1. NOTIFICATION:
 Date of Notification: _____
 Date of Revision(s): _____
 Notification Type: Original Revised Canceled Annual
Mark appropriate boxes: (both DEQ and LARA may apply):
DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]
 Planned Renovation – 10 working days notice
 Emergency Renovation
 Scheduled Demolition – 10 working days notice
 Intentional Burn – 10 working days notice
 Ordered Demolition
LARA (MIOSHA) [Will not accept annual notifications]
 Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
 Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
 +Include only those dates you are conducting asbestos removal/demo.
 Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:
 Facility Name: _____
 Location Address/Description: _____
 _____ If Apt. # of units: _____
 City/Twp. _____ State: _____ Zip Code: _____
 County: _____ Nearest Crossroad: _____
 Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
 Age: _____ Present Use: _____ Prior Use: _____
 Specific Location(s) in Facility: _____

7. DISPOSAL SITE:
 Name: _____
 Location Address: _____
 City/State/Zip: _____

8. WASTE TRANSPORTER 1:	WASTE TRANSPORTER 2:
Name: _____	_____
Address: _____	_____
City/State/Zip: _____	_____
Phone: _____	_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.
 Gov't Agency Ordering Demo: _____
 Name/Title of Person Signing Order: _____

 Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? Yes No To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (NOTE: In a demolition, cementitious ACM **cannot** remain in a structure, as it is likely to become regulated in the demolition/handling process. It **must** be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM not removed prior to demo.		Units of Measure	
		Category I	Category II		
_____	_____	_____	_____	<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
_____	_____	_____	_____	<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
_____	_____	_____	_____	<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete A) for Renovation (asbestos removal/encapsulation) and/or B) for Demolition:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

- Piping Fittings Boiler(s) Tanks(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Mag Block Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

- Piping Fittings Boiler(s) Tank(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date*

Signature of Owner or Demolition Contractor *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
 Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee *Date*

Signature of Asbestos Abatement Contractor Representative *Date*

NOTE: It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date*

Signature of Owner/Operator *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



**NESHAP RENOVATION / DEMOLITION INSPECTION OF
ASBESTOS CONTAINING MATERIALS
AND OTHER HAZARDOUS WASTE MATERIALS**



FOR THE PROPERTY KNOWN AS:

17 Forest St.
Battle Creek, MI 49037

Prepared for:

City of Battle Creek
10 North Division St, Room 117
Battle Creek, MI
49017

Prepared By:

Jake Gleason
Michigan Certification #: A-49991
Environmental Testing & Consulting, Inc.
38900 West Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
ETC Job #: 205766

4/16/2018
Date of Survey

4/17/2018
Date of Report

TABLE OF CONTENTS

- 1) Introduction
- 2) Information about Asbestos Inspections
 - a) Sampling Procedures
 - b) PLM Analysis Methodology
 - c) Interpretation of Inspection Results
 - d) Other Hazardous Materials
- 3) Regulatory Requirements
 - a) MIOSHA Construction Asbestos Requirements
 - b) NESHAPs Requirements
 - c) Notification Requirements
 - d) Abatement Requirements
- 4) Summary and Conclusions
 - Chart A – Materials Sampled and Asbestos Content
 - Chart B – Other Hazardous Materials Located
- 5) Inspector's Information/Certification

Appendices

Appendix A - Polarized Light Microscopy Asbestos Analysis Results

Appendix B – Site Map

Appendix C - State of Michigan Notification of Intent to Renovate or Demolish

1. Introduction

City of Battle Creek contracted Environmental Testing & Consulting, Inc. (ETC) to perform a renovation/demolition inspection of the building located at 17 Forest St., Battle Creek, MI 49037. This inspection was conducted on 4/16/2018.

The EPA, under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule, requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work can begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Jake Gleason, conducted the asbestos containing building material (ACBM) inspection and identified materials suspected of containing asbestos. Jake Gleason's State of Michigan Asbestos Building Inspector's certification number is A-49991.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspected material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities on the property. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspected asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAP regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. **To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.**

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not in the client's best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. **In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).**

b. PLM Analysis Methodology

Polarized Light Microscopy (PLM) samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. **Please note, the contract DID NOT include point counting as defined in NESHAP.** Should City of Battle Creek wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10%, these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included on Chart B in Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous, and that may require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand, if there were a few pesticide containers present as would be found in most homes, these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation/demolition of residential homes and asbestos materials. The MIOSHA Asbestos Construction Standard has requirements to protect the workers performing the renovation/demolition, while the EPA – NESHAP regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL, the employer will have to:

- Notify workers
- Provide worker training
- Post danger signs
- Establish periodic air monitoring regulated areas and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Conduct employee respiration monitoring
- Maintain/provide record keeping

- Perform medical surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners, in this case City of Battle Creek, are now required to notify all renovation/demolition workers of the presence, location and quantity of all ACM's within the building.

In most cases, it is more practical to have an asbestos contractor remove the ACM from the building prior to renovation/demolition than have the renovation/demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ, prior to renovation or demolition activities, requires any identified asbestos materials be removed that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation/demolition process, it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A signed document from a licensed asbestos abatement supervisor that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that the material stays intact.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within an area/building during renovation or demolition activities. If the MDEQ reviews the site and finds the material crumbled or disturbed, both the contractor and building owner may be sited up to \$27,500 per day. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material **greater than** 160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not require a notification.

If removing **more than** 15 square feet but **less than** 160 square feet, or **greater than** 10 linear feet but **less than** 260 linear feet, the contractor only needs to notify LARA as stated above.

For removals of **less than** 15 square feet or **less than** 10 linear feet, no notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee must reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, and workers are licensed by LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance.
- An asbestos supervisor must be on-site at all times when work is occurring.
- All work must be completed within regulated work areas.
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations.
- On-site personnel sampling be conducted during the removal activities.
- Prior to dismantling and leaving the site, the contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Battle Creek insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)

- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work
- Copy of the final asbestos clearance report

By requiring these documents, City of Battle Creek will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Battle Creek or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

Quantities that are listed are estimates only; in general, listed quantities represent only what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should always be assumed to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

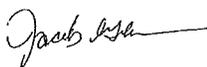
Chart A – Materials Sampled and Asbestos Content				
Material #	Material Description	Asbestos	Quantity	Location (Refer to map in Appendix B)
1	Plaster, grey	No	3950 SF	Throughout
2	Duct wrap, white	YES	120 SF	Throughout
3	9x9 Floor tile, grey	YES	280 SF	Room 3, 4
4	Mastic, beige/yellow (under 3)	No	280 SF	Room 3, 4
5	Linoleum, tan	No	140 SF	Room 1
6	12x12 Peel and stick, flower tan	No	140 SF	Room 1
7	Linoleum, tan	No	50 SF	Room 1
8	Drywall, tan	No	200 SF	Room 5
9	Poured concrete, grey	No	1000 SF	Room 8
10	House wrap, tan	No	1675 SF	Exterior
11	Roofing material, black	No	1200 SF	Exterior (roof)
12	Window glaze, white	No	19 windows	Exterior

Chart B – Other Hazardous Materials Located (Above the household quantity Limitations)			
Material #	Material Description	Quantity	Location
None above household quantity.			

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:



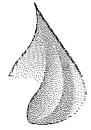
Jake Gleason
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-49991

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

ENVIRONMENTAL TESTING LABORATORIES, INC.



38900 HURON RIVER DRIVE, SUITE 200
ROMULUS, MICHIGAN 48174
(734) 955-6600
FAX: (734) 955-6604

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Project Location :
17 Forest St, Battle Creek, MI 49037

Attention : Rick Bolek

Client Project : N/A

ETC Job : 205766
Report Date : 4/19/2018

Login #	Sample ID	Work Requested	Completed
719831	01A	Asbestos Analysis	04/19/2018
719832	01B	Asbestos Analysis	04/19/2018
719833	01C	Asbestos Analysis	04/19/2018
719834	01D	Asbestos Analysis	04/19/2018
719835	01E	Asbestos Analysis	04/19/2018
719836	02A	Asbestos Analysis	04/19/2018
719837	02B	Asbestos Analysis	04/19/2018
719838	02C	Asbestos Analysis	04/19/2018
719839	03A	Asbestos Analysis	04/19/2018
719840	03B	Asbestos Analysis	04/19/2018
719841	03C	Asbestos Analysis	04/19/2018
719842	04A	Asbestos Analysis	04/19/2018
719843	04B	Asbestos Analysis	04/19/2018
719844	04C	Asbestos Analysis	04/19/2018
719845	05A	Asbestos Analysis	04/19/2018
719846	05B	Asbestos Analysis	04/19/2018
719847	05C	Asbestos Analysis	04/19/2018
719848	06A	Asbestos Analysis	04/19/2018
719849	06B	Asbestos Analysis	04/19/2018
719850	06C	Asbestos Analysis	04/19/2018

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Login #	Sample ID	Work Requested	Completed
719851	07A	Asbestos Analysis	04/19/2018
719852	07B	Asbestos Analysis	04/19/2018
719853	07C	Asbestos Analysis	04/19/2018
719854	08A	Asbestos Analysis	04/19/2018
719855	08B	Asbestos Analysis	04/19/2018
719856	08C	Asbestos Analysis	04/19/2018
719857	09A	Asbestos Analysis	04/19/2018
719858	09B	Asbestos Analysis	04/19/2018
719859	09C	Asbestos Analysis	04/19/2018
719860	10A	Asbestos Analysis	04/19/2018
719861	10B	Asbestos Analysis	04/19/2018
719862	10C	Asbestos Analysis	04/19/2018
719863	11A	Asbestos Analysis	04/19/2018
719864	11B	Asbestos Analysis	04/19/2018
719865	11C	Asbestos Analysis	04/19/2018
719866	12A	Asbestos Analysis	04/19/2018
719867	12B	Asbestos Analysis	04/19/2018
719868	12C	Asbestos Analysis	04/19/2018

Reviewed by:



Quality Assurance Coordinator

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
17 Forest St, Battle Creek, MI 49037

ETC Job : 205766
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/17/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719831 01A Rm 1 N Wall Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719832 01B Rm 1 Ceiling Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719833 01C Rm 5 Ceiling Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719834 01D Rm 10 N Wall Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719835 01E Rm 11 Ceiling Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719836 02A Rm 8 Ceiling Duct Analyst: Scott Larabell	Duct Wrap	White Fibrous Homogenous	15% Cellulose	50% Other	35% Chrysotile
719837 02B Rm 1 S Wall Analyst: Scott Larabell		Not Analyzed			

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NVLAP LAB CODE 201023-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :

17 Forest St, Battle Creek, MI 49037

ETC Job : 205766

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/17/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719838 02C Rm 1 S Wall Analyst: Scott Larabell		Not Analyzed			
719839 03A Rm 4 At Door Analyst: Scott Larabell	9x9 Floor Tile	Grey Non-Fibrous Homogenous	2% Cellulose	95% Other	3% Chrysotile
719840 03B 03 At Door Analyst: Scott Larabell		Not Analyzed			
719841 03C 03 N Wall Analyst: Scott Larabell		Not Analyzed			
719842 04A Rm 4 At Door Analyst: Scott Larabell	Mastic	Beige/Yellow Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719843 04B 03 At Door Analyst: Scott Larabell	Mastic	Beige/Yellow Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719844 04C 03 N Wall Analyst: Scott Larabell	Mastic	Beige/Yellow Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

ETC Job : 205766
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/17/2018
Date Analyzed : 04/19/2018

Location :
17 Forest St, Battle Creek, MI 49037

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719845 05A Rm 1 At Door Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected
719846 05B Rm 1 At Door Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
719847 05C Rm 1 At Door Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
719848 06A Rm 1 At N Wall Analyst: Scott Larabell	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous	7% Cellulose	93% Other	None Detected
719849 06B Rm 1 At N Wall Analyst: Scott Larabell	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous	10% Cellulose	90% Other	None Detected
719850 06C Rm 1 At N Wall Analyst: Scott Larabell	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
719851 07A Rm 1 At Side Entry Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	25% Cellulose	75% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205766
 Client Project : N/A
 Date Collected : 04/16/2018
 Date Received : 04/17/2018
 Date Analyzed : 04/19/2018

Location :
 17 Forest St, Battle Creek, MI 49037

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719852 07B Rm 1 At Side Entry Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	22% Cellulose	78% Other	None Detected
719853 07C Rm 1 At Side Entry Analyst: Scott Larabell	Linoleum	Tan Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
719854 08A Rm 5 W Wall Analyst: Scott Larabell	Drywall	Tan Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
719855 08B Rm 5 W Wall Analyst: Scott Larabell	Drywall	Tan Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719856 08C Rm 5 W Wall Analyst: Scott Larabell	Drywall	Tan Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719857 09A Rm 8 Center Floor Analyst: Scott Larabell	Panel Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719858 09B Rm 8 Center Floor Analyst: Scott Larabell	Panel Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

ETC Job : 205766
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/17/2018
Date Analyzed : 04/19/2018

Location :
17 Forest St, Battle Creek, MI 49037

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719859 09C Rm 8 Center Floor Analyst: Scott Larabell	Panel Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719860 10A N Ext Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
719861 10B S Ext Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected
719862 10C W Ext Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected
719863 11A Ext Roof N Side Analyst: Scott Larabell	Roofing Material	Black Non-Fibrous Homogenous	2% Cellulose 5% Fiberglass	93% Other	None Detected
719864 11B Ext Roof S Side Analyst: Scott Larabell	Roofing Material	Black Non-Fibrous Homogenous	2% Cellulose 3% Fiberglass	95% Other	None Detected
719865 11C Ext Roof W Side Analyst: Scott Larabell	Roofing Material	Black Non-Fibrous Homogenous	3% Cellulose 3% Fiberglass	94% Other	None Detected



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205766
 Client Project : N/A
 Date Collected : 04/16/2018
 Date Received : 04/17/2018
 Date Analyzed : 04/19/2018

Location :
 17 Forest St, Battle Creek, MI 49037

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719866 12A N Window Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719867 12B S Window Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719868 12C E Window Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

Lab Supervisor/Other Signatory

Analyst: Scott Larabell

400 Point Count Results by EPA 600/R-93/116 PLM (denoted by "PC")
 Item 198.1: PLM Methods for Identifying and Quantitating Asbestos in Bulk Samples
 Item 198.6: PLM Methods for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples
 EPA 600/R-93/116: Method for Determination of Asbestos in Bulk Building Materials
 EPA 600/M4-82-020: Interim Method for Determination of Asbestos in Bulk Insulation Samples

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ENVIRONMENTAL TESTING LABORATORIES, INC
 38900 HURON RIVER DRIVE
 ROMULUS, MICHIGAN 48174
 (734) 955-6600
 FAX: (734) 992-2261
 www.2etil.com

**Bulk Asbestos
 Chain of Custody**

ETL Project #: 205766

Client: ETC	Contact: LW Hagerman	Project Location/Name: 17 Forest st, Battle creek, MI 49037
Address: 721 N. Capitol Ave. Suite 3, Lansing, MI 48906	Phone: (734) 955-6600 Fax: (734) 955-6604 E-mail: results@2etil.com	Client Project #: 205766
Please Provide Results: <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Verbal <input type="checkbox"/> Other		Date Sampled: 4/16/18

Turnaround Time (TAT): RUSH Same Day 24 hr 48 hr Standard (3+ days) Other

PLM Instructions
 (Check all that apply)

- | | |
|---|---|
| <input checked="" type="checkbox"/> PLM EPA600/R-93/116, 1993 (Standard method) | <input checked="" type="checkbox"/> Stop at 1st Positive -
Clearly mark Homogenous Group |
| <input type="checkbox"/> Point Counting: 400 Points* | <input type="checkbox"/> Soil or Vermiculite Analysis * |
| <input type="checkbox"/> PLM Non-Building Material (Dust, Wipe, Tape) | |

* Additional charge and turnaround may be required

Lab ID	Sample ID	Sample Location	Material Description
719831	01 A-E	- Please see attached sheets -	
	02 A-C		
719868	012 A-C		

One

	Date	Time
Relinquished (Name/Organization): Jake Gleason ETC Group	4/16/18	5:00 am
Received (Name/ETL): Annise [Signature]	4-17-18	10:34 am
Microscopical Analysis (Name/ETL): [Signature]	4-18-18	4:49 pm
Sample Login (Name/ETL): Sarah [Signature]	4/18/18	9:33 am
Analysis (Name/ETL): [Signature]	4-18-18	9:44 am
VQC Review (Name/ETL): Rebecca [Signature]	4-19-18	8:36 am

Special Instructions: _____ **Remarks:** _____

Asbestos Material Sampling Summary Sheet

Surfacing materials

Revision date 5/7/2015

Job #:	205766		17 FOREST ST, BATTLE CREEK MI			Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location				
01	Plaster Gren	NF	A	Rm 1 N. Wall 711831	Throughout	3900		
			B	Rm 1 Ceiling 832				
			C	Rm 5 Ceiling 833				
			D	Rm 10 N. wall 834				
			E	Rm 11 Ceiling 835				
	Material:							
	Material:							
	Material:							

<1000 SF = 3 samples

1000 - <5000 = 5 samples

2 of 5
>5000 = 7 samples

Asbestos Material Sampling Summary Sheet
 TSI (Thermal System Insulation) materials

Revision date 5/7/2015

Job #:	Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
2057466	02	Duct wrap	F	A	Rm 8 Ceiling Duct	throughout	120 SF	711835 837 838
		White		B	Rm 1 S. wall			
				C	Rm 1 S. wall			
		Material: Description						
		Material: Description						
		Material: Description						
		Material: Description						
		Material: Description						
		Material: Description						
		Material: Description						

3 of 9

3 samples with the exception of patches less than 6 LF or 6 SF, then only 1 sample

Asbestos Material Sampling Summary Sheet
Miscellaneous materials

Revision date 5/7/2015

Job #:	205766		17 Forest, Batta Creek ME		Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location			
03	Material: 9x9 Floor tile	NF	A	Rm 1 @ Door 719 831	Rm 3, 4	280 SF	
	Description: Grey		B	03 @ Door 840			
			C	03 N. Wall 841			
04	Material: Mastic under 03	F	A	Same As 03A 842	Rm 3.4	280 SF	
	Description: Beige/yellow		B	03B 843			
			C	03C 844			
05	Material: Linoleum	NF	A	Rm 1 @ Door 845	Rm 1	110 SF	
	Description: TAN		B	846			
			C	847			
06	Material: 12x12 p/s	NF	A	Rm 1 @ W. wall 848	Rm 1	140 SF	
	Description: Flower TAN		B	849			
			C	850			
07	Material: Linoleum	NF	A	Rm 1 @ side entry 851	Rm 1	50 SF	
	Description: TAN		B	852			
			C	853			
08	Material: Drywall	F	A	Rm 5 W. wall 854	Rm 5	200 SF	
	Description: TAN		B	855			
			C	856			
09	Material: Poured concrete	NF	A	Rm 8 Center floor 857	Rm 8	1000 SF	
	Description: Grey		B	858			
			C	859			

Asbestos Material Sampling Summary Sheet

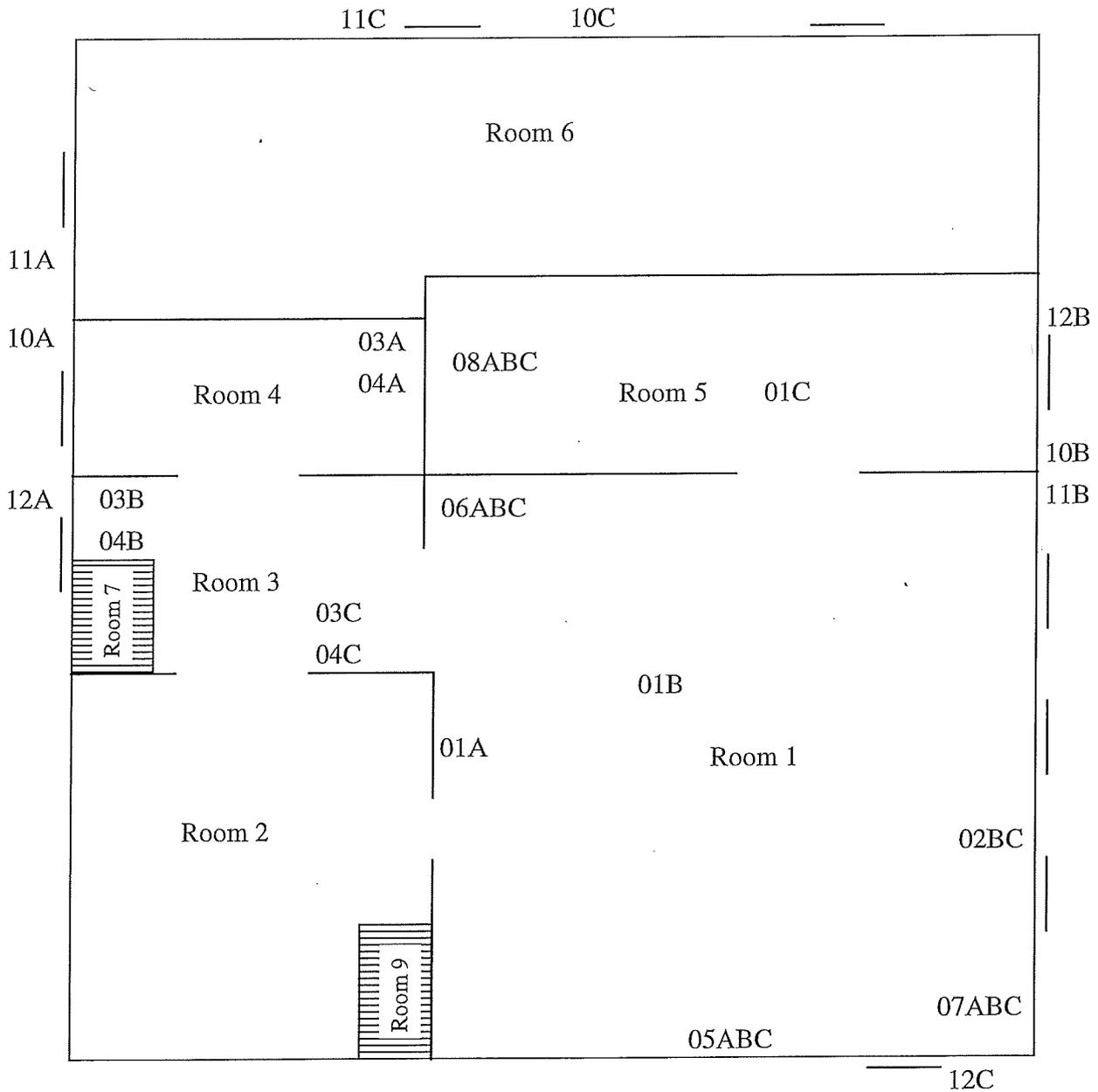
Miscellaneous materials

Revision date 5/7/2015

Job #:	Material Description		Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205766	17 FOREST ST, BATTLE CREEK					86		
10	Material: House wrap		F	A	N.E. EXT wall 719 860	EXT House	1675	
	Description			B	S. EXT wall 861			
				C	W. EXT wall 862			
11	Material: Roofing materials		NF F	A	EXT ROOF N. Side 863	EXT Roof	1200	
	Description			B	EXT ROOF S. Side 864			
				C	EXT ROOF W. Side 865			
12	Material: Window Glaze		F	A	N. Window 866	ext Windows	19 Units	
	Description			B	S. Windows 867			
				C	E. window 868			
	Material: Description							
	Material: Description							
	Material: Description							
	Material: Description							

APPENDIX B

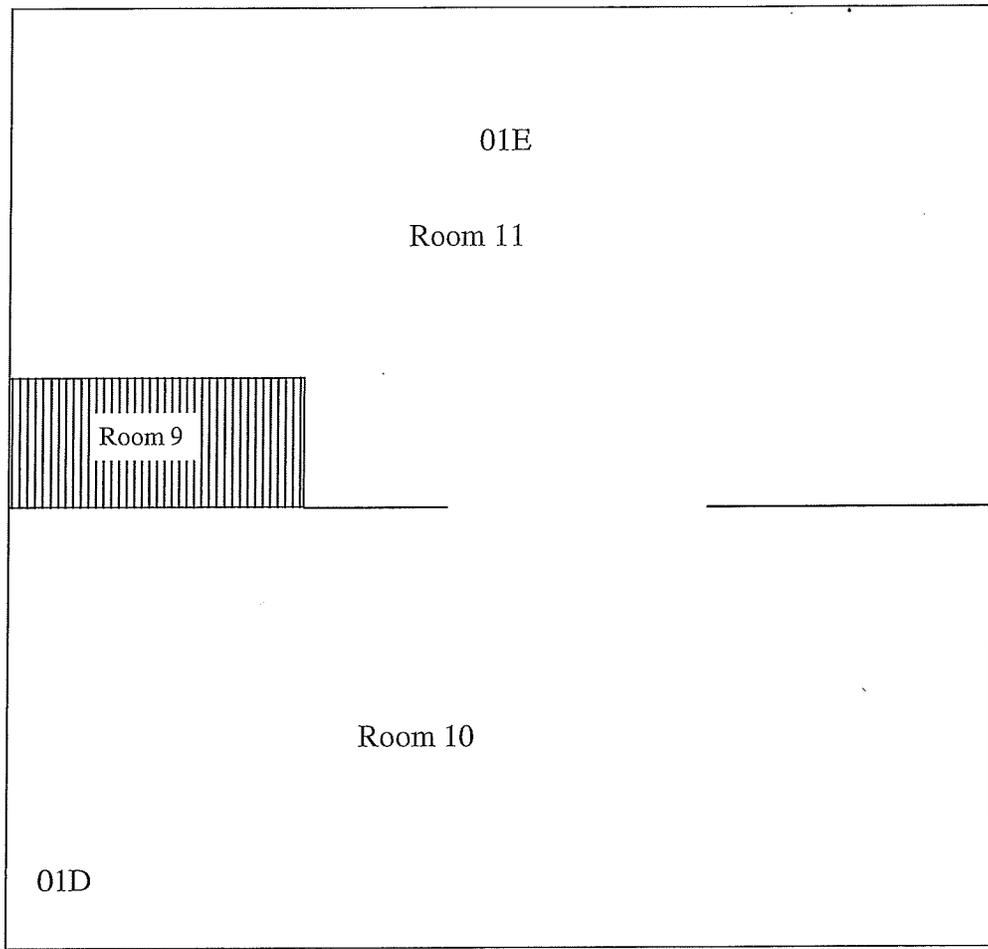
SITE MAP



Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.

2nd floor

17 Forest St, Battle Creek, MI 49037



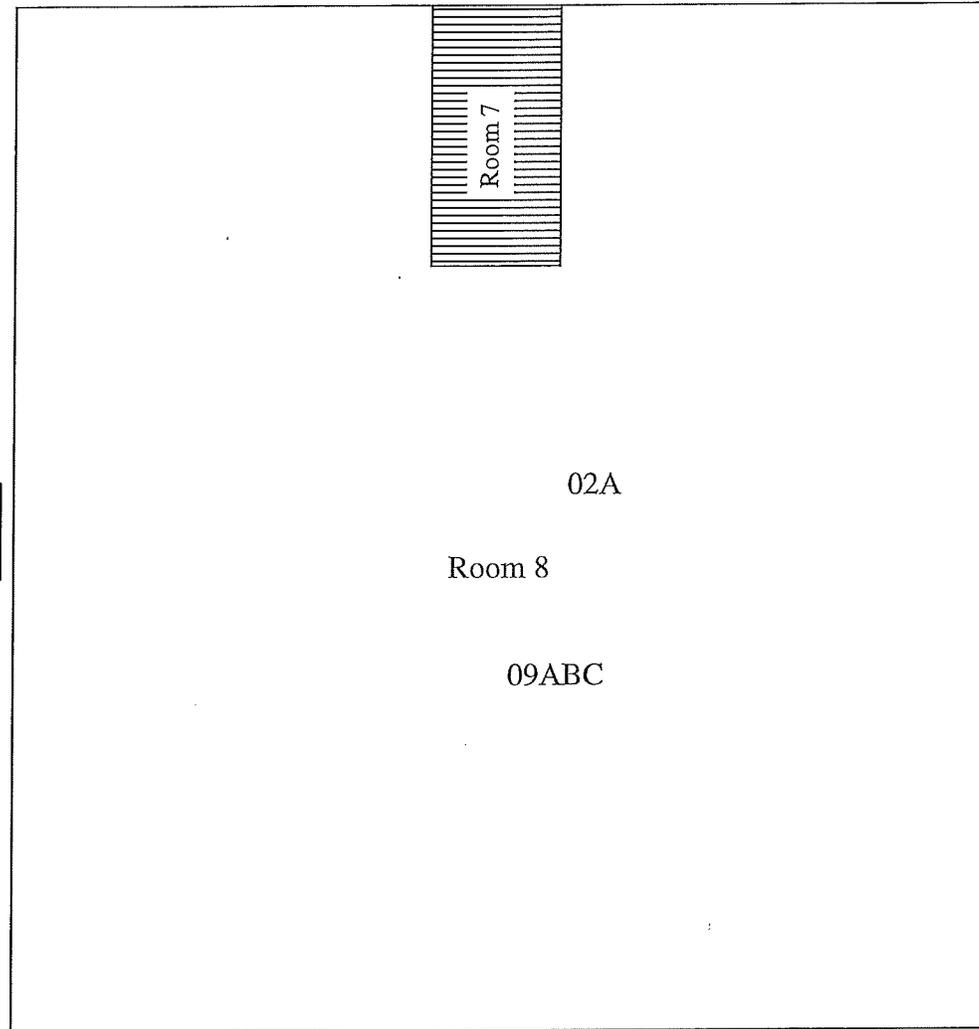
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205766

Basement

17 Forest St, Battle Creek, MI 49037



Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205766

APPENDIX C

**STATE OF MICHIGAN NOTIFICATION OF
INTENT TO REMOVE/DEMOLISH**

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ___/___/___ Rec'd Date ___/___/___
 Emergency Date ___/___/___ Valid No. _____
 OK Send Def Ltr. Date of Def Ltr. ___/___/___
 FOLLOW UP ___/___/___ Spoke w/ _____
 Comments: _____

 Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
 Total Project Cost: _____ x 0.01 = _____
 Type of Contractor: _____ License No.: _____
 Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
 Date of Revision(s): _____
 Notification Type: Original Revised Canceled Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is threshold]

- Planned Renovation – 10 **working** days notice
- Emergency Renovation
- Scheduled Demolition – 10 **working** days notice
- Intentional Burn – 10 **working** days notice
- Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- Demo, Reno, Encap. (>10 In. ft./15 sq. ft.) 10 **calendar** days notice
- Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
 +Include **only** those dates you are conducting asbestos removal/demo.

Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
 Location Address/Description: _____
 _____ If Apt. # of units: _____
 City/Twp. _____ State: _____ Zip Code: _____
 County: _____ Nearest Crossroad: _____
 Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
 Age: _____ Present Use: _____ Prior Use: _____
 Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
 Location Address: _____
 City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
 Address: _____
 City/State/Zip: _____
 Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
 Name/Title of Person Signing Order: _____

 Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? Yes No To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (NOTE: In a demolition, cementitious ACM **cannot** remain in a structure, as it is likely to become regulated in the demolition/handling process. It **must** be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II	<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete A) for Renovation (asbestos removal/encapsulation) and/or B) for Demolition:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

- Piping Fittings Boiler(s) Tanks(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Mag Block Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

- Piping Fittings Boiler(s) Tank(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date*

Signature of Owner or Demolition Contractor *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date*

Signature of Asbestos Abatement Contractor Representative *Date*

NOTE: It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date*

Signature of Owner/Operator *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



**NESHAP RENOVATION / DEMOLITION INSPECTION OF
ASBESTOS CONTAINING MATERIALS
AND OTHER HAZARDOUS WASTE MATERIALS**



FOR THE PROPERTY KNOWN AS:

54 Bennett St.
Battle Creek, MI 49014

Prepared for:

City of Battle Creek
10 North Division St, Room 117
Battle Creek, MI
49017

Prepared By:

Jake Gleason
Michigan Certification #: A-49991
Environmental Testing & Consulting, Inc.
38900 West Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
ETC Job #: 205768

4/16/2018
Date of Survey

4/24/2018
Date of Report

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- 2) Information about Asbestos Inspections
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 - b) PLM Analysis Methodology
 - c) Interpretation of Inspection Results
 - d) Other Hazardous Materials
- 3) Regulatory Requirements
 - a) MIOSHA Construction Asbestos Requirements
 - b) NESHAPs Requirements
 - c) Notification Requirements
 - d) Abatement Requirements
- 4) Summary and Conclusions
 - Chart A – Materials Sampled and Asbestos Content
 - Chart B – Other Hazardous Materials Located
- 5) Inspector's Information/Certification

Appendices

Appendix A - Polarized Light Microscopy Asbestos Analysis Results

Appendix B – Site Map

Appendix C - State of Michigan Notification of Intent to Renovate or Demolish

1. Introduction

City of Battle Creek contracted Environmental Testing & Consulting, Inc. (ETC) to perform a renovation/demolition inspection of the building located at 54 Bennett St., Battle Creek, MI 49014. This inspection was conducted on 4/16/2018.

The EPA, under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule, requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work can begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Jake Gleason, conducted the asbestos containing building material (ACBM) inspection and identified materials suspected of containing asbestos. Jake Gleason's State of Michigan Asbestos Building Inspector's certification number is A-49991.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspected material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities on the property. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspected asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAP regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. **To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.**

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not in the client's best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. **In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).**

b. PLM Analysis Methodology

Polarized Light Microscopy (PLM) samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. **Please note, the contract DID NOT include point counting as defined in NESHAP.** Should City of Battle Creek wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10%, these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included on Chart B in Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous, and that may require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand, if there were a few pesticide containers present as would be found in most homes, these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation/demolition of residential homes and asbestos materials. The MIOSHA Asbestos Construction Standard has requirements to protect the workers performing the renovation/demolition, while the EPA – NESHAP regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL, the employer will have to:

- Notify workers
- Provide worker training
- Post danger signs
- Establish periodic air monitoring regulated areas and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Conduct employee respiration monitoring
- Maintain/provide record keeping

- Perform medical surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners, in this case City of Battle Creek, are now required to notify all renovation/demolition workers of the presence, location and quantity of all ACM's within the building.

In most cases, it is more practical to have an asbestos contractor remove the ACM from the building prior to renovation/demolition than have the renovation/demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ, prior to renovation or demolition activities, requires any identified asbestos materials be removed that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation/demolition process, it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A signed document from a licensed asbestos abatement supervisor that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that the material stays intact.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within an area/building during renovation or demolition activities. If the MDEQ reviews the site and finds the material crumbled or disturbed, both the contractor and building owner may be sited up to \$27,500 per day. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material **greater than** 160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not require a notification.

If removing **more than** 15 square feet but **less than** 160 square feet, or **greater than** 10 linear feet but **less than** 260 linear feet, the contractor only needs to notify LARA as stated above.

For removals of **less than** 15 square feet or **less than** 10 linear feet, no notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee must reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, and workers are licensed by LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance.
- An asbestos supervisor must be on-site at all times when work is occurring.
- All work must be completed within regulated work areas.
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations.
- On-site personnel sampling be conducted during the removal activities.
- Prior to dismantling and leaving the site, the contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Battle Creek insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)

- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work
- Copy of the final asbestos clearance report

By requiring these documents, City of Battle Creek will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Battle Creek or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

Quantities that are listed are estimates only; in general, listed quantities represent only what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should always be assumed to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

Chart A – Materials Sampled and Asbestos Content

Material #	Material Description	Asbestos	Quantity	Location (Refer to map in Appendix B)
1	Plaster, grey	YES	11470 SF	Throughout
2	Texture, white	No	11470 SF	Throughout
3	Duct wrap, grey	YES	100 SF	Room 25
4	Linoleum, white	No	400 SF	Room 2, 3
5	Mastic, yellow (under 4)	No	400 SF	Room 2, 3
6	Linoleum, white	No	192 SF	Room 5
7	Mastic, yellow (under 6)	No	192 SF	Room 5
8	Ceiling panel, white worm hole	No	192 SF	Room 2
9	Linoleum, white	No	192 SF	Room 11
10	Blown-in-insulation, grey	No	11470 SF	Throughout
11	Drywall, white	No	11470 SF	Throughout
12	Mud, white	No	11470 SF	Throughout
13	Tape, white mesh	No	11470 SF	Throughout
14	Roofing material, black/white	No	3200 SF	Exterior
15	Asphalt siding, green	No	5000 SF	Exterior
16	Chimney stack cement, grey	No	6 SF	Room 25
17	Poured concrete, grey	No	1000 SF	Room 25
18	Vermiculite, grey	YES (assumed)	10000 SF	Throughout

Chart B – Other Hazardous Materials Located
(Above the household quantity Limitations)

Material #	Material Description	Quantity	Location
None about household quantity.			

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:



Jake Gleason
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-49991

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

APPENDIX B

SITE MAP

APPENDIX C

**STATE OF MICHIGAN NOTIFICATION OF
INTENT TO REMOVE/DEMOLISH**



**NESHAP RENOVATION / DEMOLITION INSPECTION OF
ASBESTOS CONTAINING MATERIALS
AND OTHER HAZARDOUS WASTE MATERIALS**



FOR THE PROPERTY KNOWN AS:

105 Marjorie St.
Battle Creek, MI 49014

Prepared for:

City of Battle Creek
10 North Division St, Room 117
Battle Creek, MI
49017

Prepared By:

Heather Davis
Michigan Certification #: A-48908
Environmental Testing & Consulting, Inc.
38900 West Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
ETC Job #: 205761

4/16/2018
Date of Survey

4/24/2018
Date of Report

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- 2) Information about Asbestos Inspections
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 - b) PLM Analysis Methodology
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 - c) Notification Requirements
 - d) Abatement Requirements
- 4) Summary and Conclusions
 - Chart A – Materials Sampled and Asbestos Content
 - Chart B – Other Hazardous Materials Located
- 5) Inspector's Information/Certification

Appendices

Appendix A - Polarized Light Microscopy Asbestos Analysis Results

Appendix B – Site Map

Appendix C - State of Michigan Notification of Intent to Renovate or Demolish

1. Introduction

City of Battle Creek contracted Environmental Testing & Consulting, Inc. (ETC) to perform a renovation/demolition inspection of the building located at 105 Marjorie St., Battle Creek, MI 49014. This inspection was conducted on 4/16/2018.

The EPA, under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule, requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work can begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Heather Davis, conducted the asbestos containing building material (ACBM) inspection and identified materials suspected of containing asbestos. Heather Davis's State of Michigan Asbestos Building Inspector's certification number is A-48908.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspected material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities on the property. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspected asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAP regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. **To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.**

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not in the client's best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. **In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).**

b. PLM Analysis Methodology

Polarized Light Microscopy (PLM) samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. **Please note, the contract DID NOT include point counting as defined in NESHAP.** Should City of Battle Creek wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10%, these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included on Chart B in Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous, and that may require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand, if there were a few pesticide containers present as would be found in most homes, these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation/demolition of residential homes and asbestos materials. The MIOSHA Asbestos Construction Standard has requirements to protect the workers performing the renovation/demolition, while the EPA – NESHAP regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL, the employer will have to:

- Notify workers
- Provide worker training
- Post danger signs
- Establish periodic air monitoring regulated areas and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Conduct employee respiration monitoring
- Maintain/provide record keeping

- Perform medical surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners, in this case City of Battle Creek, are now required to notify all renovation/demolition workers of the presence, location and quantity of all ACM's within the building.

In most cases, it is more practical to have an asbestos contractor remove the ACM from the building prior to renovation/demolition than have the renovation/demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ, prior to renovation or demolition activities, requires any identified asbestos materials be removed that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation/demolition process, it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A signed document from a licensed asbestos abatement supervisor that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that the material stays intact.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within an area/building during renovation or demolition activities. If the MDEQ reviews the site and finds the material crumbled or disturbed, both the contractor and building owner may be sited up to \$27,500 per day. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material **greater than** 160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not require a notification.

If removing **more than** 15 square feet but **less than** 160 square feet, or **greater than** 10 linear feet but **less than** 260 linear feet, the contractor only needs to notify LARA as stated above.

For removals of **less than** 15 square feet or **less than** 10 linear feet, no notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee must reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, and workers are licensed by LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance.
- An asbestos supervisor must be on-site at all times when work is occurring.
- All work must be completed within regulated work areas.
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations.
- On-site personnel sampling be conducted during the removal activities.
- Prior to dismantling and leaving the site, the contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Battle Creek insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)

- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work
- Copy of the final asbestos clearance report

By requiring these documents, City of Battle Creek will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Battle Creek or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

Quantities that are listed are estimates only; in general, listed quantities represent only what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should always be assumed to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

Chart A – Materials Sampled and Asbestos Content

Material #	Material Description	Asbestos	Quantity	Location (Refer to map in Appendix B)
1	Plaster, grey	YES	7266 SF	Throughout
2	Texture, white	No	1074 SF	Room 3, 4, 10-14 (ceiling)
3	Duct wrap, grey	YES	200 SF	Throughout
4	Ceiling tile, white	No	288 SF	Room 1
5	9x9 Floor tile, grey with green spots	YES	288 SF	Room 1
6	Mastic, black	No	288 SF	Room 1
7	Tape, white	No	1143 SF	Room 6, 14
8	Mud, white	No	1143 SF	Room 6, 14
9	Drywall, white	No	1143 SF	Room 6, 14
10	Blown-in-insulation, white	No	800 SF	Attic
11	12x12 Peel and stick, green/gold	No	36 SF	Room 5
12	Linoleum, white	No	36 SF	Room 5
13	Mastic, tan	No	36 SF	Room 5
14	Linoleum, cream	No	135 SF	Room 14
15	Mastic, tan	No	135 SF	Room 14
16	Window glaze, white	No	14 windows	Exterior
17	Poured cement, grey	No	810 SF	Room 8
18	Skim coat, blue/grey	No	240 SF	Room 8
19	Chimney stack cement, grey	No	5 SF	Room 8
20	Fiber board, tan	No	4032 SF	Exterior
21	House wrap, tan	No	4032 SF	Exterior
22	Shingle, black	No	2015 SF	Exterior
23	Poured cement, grey	No	724 SF	Room 15

Chart B – Other Hazardous Materials Located
(Above the household quantity Limitations)

Material #	Material Description	Quantity	Location
1	Smoke Detector	2	Room 3, 7
2	Thermostat	1	Room 3
3	Tires	2	Room 15, exterior (garage)
4	Boat	2	Room 15
5	Misc. Item	2	Room 1, 2

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:



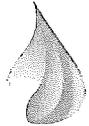
Heather Davis
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-48908

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

ENVIRONMENTAL TESTING LABORATORIES, INC.



38900 HURON RIVER DRIVE, SUITE 200
ROMULUS, MICHIGAN 48174
(734) 955-6600
FAX: (734) 955-6604

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Project Location :
105 Marjorie St, Battle Creek, MI 49014

Attention : Rick Bolek

Client Project : N/A

ETC Job : 205761
Report Date : 4/19/2018

Login #	Sample ID	Work Requested	Completed
719872	01A	Asbestos Analysis	04/19/2018
719873	01B	Asbestos Analysis	04/19/2018
719874	01C	Asbestos Analysis	04/19/2018
719875	01D	Asbestos Analysis	04/19/2018
719876	01E	Asbestos Analysis	04/19/2018
719877	01F	Asbestos Analysis	04/19/2018
719878	01G	Asbestos Analysis	04/19/2018
719879	02A	Asbestos Analysis	04/19/2018
719880	02B	Asbestos Analysis	04/19/2018
719881	02C	Asbestos Analysis	04/19/2018
719882	02D	Asbestos Analysis	04/19/2018
719883	02E	Asbestos Analysis	04/19/2018
719884	03A	Asbestos Analysis	04/19/2018
719885	03B	Asbestos Analysis	04/19/2018
719886	03C	Asbestos Analysis	04/19/2018
719887	04A	Asbestos Analysis	04/19/2018
719888	04B	Asbestos Analysis	04/19/2018
719889	04C	Asbestos Analysis	04/19/2018
719890	05A	Asbestos Analysis	04/19/2018
719891	05B	Asbestos Analysis	04/19/2018

Login #	Sample ID	Work Requested	Completed
719892	05C	Asbestos Analysis	04/19/2018
719893	06A	Asbestos Analysis	04/19/2018
719894	06B	Asbestos Analysis	04/19/2018
719895	06C	Asbestos Analysis	04/19/2018
719896	07A	Asbestos Analysis	04/19/2018
719897	07B	Asbestos Analysis	04/19/2018
719898	07C	Asbestos Analysis	04/19/2018
719899	08A	Asbestos Analysis	04/19/2018
719900	08B	Asbestos Analysis	04/19/2018
719901	08C	Asbestos Analysis	04/19/2018
719902	09A	Asbestos Analysis	04/19/2018
719903	09B	Asbestos Analysis	04/19/2018
719904	09C	Asbestos Analysis	04/19/2018
719905	10A	Asbestos Analysis	04/19/2018
719906	10B	Asbestos Analysis	04/19/2018
719907	10C	Asbestos Analysis	04/19/2018
719908	11A	Asbestos Analysis	04/19/2018
719909	11B	Asbestos Analysis	04/19/2018
719910	11C	Asbestos Analysis	04/19/2018
719911	12A	Asbestos Analysis	04/19/2018
719912	12B	Asbestos Analysis	04/19/2018
719913	12C	Asbestos Analysis	04/19/2018
719914	13A	Asbestos Analysis	04/19/2018
719915	13B	Asbestos Analysis	04/19/2018
719916	13C	Asbestos Analysis	04/19/2018
719917	14A	Asbestos Analysis	04/19/2018
719918	14B	Asbestos Analysis	04/19/2018

Login #	Sample ID	Work Requested	Completed
719919	14C	Asbestos Analysis	04/19/2018
719920	15A	Asbestos Analysis	04/19/2018
719921	15B	Asbestos Analysis	04/19/2018
719922	15C	Asbestos Analysis	04/19/2018
719923	16A	Asbestos Analysis	04/19/2018
719924	16B	Asbestos Analysis	04/19/2018
719925	16C	Asbestos Analysis	04/19/2018
719926	17A	Asbestos Analysis	04/19/2018
719927	17B	Asbestos Analysis	04/19/2018
719928	17C	Asbestos Analysis	04/19/2018
719929	18A	Asbestos Analysis	04/19/2018
719930	18B	Asbestos Analysis	04/19/2018
719931	18C	Asbestos Analysis	04/19/2018
719932	19A	Asbestos Analysis	04/19/2018
719933	19B	Asbestos Analysis	04/19/2018
719934	19C	Asbestos Analysis	04/19/2018
719935	20A	Asbestos Analysis	04/19/2018
719936	20B	Asbestos Analysis	04/19/2018
719937	20C	Asbestos Analysis	04/19/2018
719938	21A	Asbestos Analysis	04/19/2018
719939	21B	Asbestos Analysis	04/19/2018
719940	21C	Asbestos Analysis	04/19/2018
719941	22A	Asbestos Analysis	04/19/2018
719942	22B	Asbestos Analysis	04/19/2018
719943	22C	Asbestos Analysis	04/19/2018
719944	23A	Asbestos Analysis	04/19/2018
719945	23B	Asbestos Analysis	04/19/2018

Login #	Sample ID	Work Requested	Completed
719946	23C	Asbestos Analysis	04/19/2018

Reviewed by: *Jammy Wall*
Quality Assurance Coordinator

Certificate of Analysis



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174
Location :
 105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719872 01A Rm 3 N Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	3% Cellulose	94% Other	PC 3% Chrysotile
719872 01A Rm 3 N Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719873 01B Rm 4 E Wall Layer-1 Analyst: Scott Larabell		Not Analyzed			
719873 01B Rm 4 E Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719874 01C Rm 4 S Wall Layer-1 Analyst: Scott Larabell		Not Analyzed			
719874 01C Rm 4 S Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M4-82/020 or NYSDOH-ELAP item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.



NVLAP LAB CODE 201024-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719875 01D Rm 5 Ceiling Layer-1 Analyst: Scott Larabell		Not Analyzed			
719875 01D Rm 5 Ceiling Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719876 01E Rm 5 W Wall Layer-1 Analyst: Scott Larabell		Not Analyzed			
719876 01E Rm 5 W Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719877 01F Rm 11 N Wall Layer-1 Analyst: Scott Larabell		Not Analyzed			
719877 01F Rm 11 N Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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NVLAP LAB CODE 201023-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus,MI 48174

Location :
105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719878 01G Rm 12 N Wall Layer-1 Analyst: Scott Larabell		Not Analyzed			
719878 01G Rm 12 N Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719879 02A Rm 3 Center Ceiling Analyst: Scott Larabell	Texture	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719880 02B Rm 4 Center Ceiling Analyst: Scott Larabell	Texture	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719881 02C Rm 11 N Ceiling Analyst: Scott Larabell	Texture	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719882 02D Rm 12 Center Ceiling Analyst: Scott Larabell	Texture	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719883 02E Rm 13 Center Ceiling Analyst: Scott Larabell	Texture	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected

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NVLAP LAB CODE 201028-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719884 03A Rm 6 Vent Analyst: Scott Larabell	Duct Wrap	Grey Fibrous Homogenous	15% Cellulose	45% Other	40% Chrysotile
719885 03B Rm 13 Vent Analyst: Scott Larabell		Not Analyzed			
719886 03C Rm 14 Vent Analyst: Scott Larabell		Not Analyzed			
719887 04A Rm 1 Center Ceiling Analyst: Scott Larabell	Ceiling Tile	White Fibrous Homogenous	90% Cellulose	10% Other	None Detected
719888 04B Rm 1 S Ceiling Analyst: Scott Larabell	Ceiling Tile	White Fibrous Homogenous	80% Cellulose	20% Other	None Detected
719889 04C Rm 1 N Ceiling Analyst: Scott Larabell	Ceiling Tile	White Fibrous Homogenous	80% Cellulose	20% Other	None Detected
719890 05A Rm 1 W Floor Analyst: Scott Larabell	9x9 Floor Tile	Grey/Green Non-Fibrous Homogenous	2% Cellulose	96% Other	2% Chrysotile

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NVLAP LAB CODE 201023-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719891 05B Rm 1 E Floor Analyst: Scott Larabell		Not Analyzed			
719892 05C Rm 1 Center Floor Analyst: Scott Larabell		Not Analyzed			
719893 06A Rm 1 W Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719894 06B Rm 1 E Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719895 06C Rm 1 Center Floor Analyst: Scott Larabell	Mastic	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719896 07A Rm 14 W Wall Analyst: Scott Larabell	Tape	White Fibrous Homogenous	3% Cellulose 85% Fiberglass	12% Other	None Detected
719897 07B Rm 14 N Wall Analyst: Scott Larabell	Tape	White Fibrous Homogenous	3% Cellulose 90% Fiberglass	7% Other	None Detected

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Certificate of Analysis

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719898 07C Rm 6 N Wall Analyst: Scott Larabell	Tape	White Fibrous Homogenous	2% Cellulose 90% Fiberglass	8% Other	None Detected
719899 08A Rm 14 W Wall Analyst: Scott Larabell	Mud	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719900 08B Rm 14 N Wall Analyst: Scott Larabell	Mud	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719901 08C Rm 6 N Wall Analyst: Scott Larabell	Mud	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719902 09A Rm 14 W Wall Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
719903 09B Rm 14 N Wall Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
719904 09C Rm 6 N Wall Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected

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NVLAP LAB CODE 201023-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



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(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.

38900 Huron River Drive

Romulus, MI 48174

Location :

105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719905 10A Attic Analyst: Scott Larabell	Blown-In Insulation	White Fibrous Homogenous	3% Cellulose 80% Mineral wool	17% Other	None Detected
719906 10B Attic Analyst: Scott Larabell	Blown-In Insulation	White Fibrous Homogenous	3% Cellulose 85% Mineral wool	12% Other	None Detected
719907 10C Attic Analyst: Scott Larabell	Blown-In Insulation	White Fibrous Homogenous	2% Cellulose 85% Mineral wool	13% Other	None Detected
719908 11A Rm 5 E Floor Analyst: Scott Larabell	12x12 Peel and Stick	Green/Gold Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719909 11B Rm 5 E Floor Analyst: Scott Larabell	12x12 Peel and Stick	Green/Gold Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719910 11C Rm 5 N Floor Analyst: Scott Larabell	12x12 Peel and Stick	Green/Gold Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719911 12A Rm 5 E Floor Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected

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Certificate of Analysis



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719912 12B Rm 5 E Floor Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
719913 12C Rm 5 N Floor Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
719914 13A Rm 5 E Floor Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719915 13B Rm 5 E Floor Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719916 13C Rm 5 N Floor Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719917 14A Rm 14 S Floor Analyst: Scott Larabell	Linoleum	Cream Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
719918 14B Rm 14 E Floor Analyst: Scott Larabell	Linoleum	Cream Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected

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NVLAP LAB CODE 201028-0

Certificate of Analysis

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(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.

38900 Huron River Drive

Romulus, MI 48174

Location :

105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719919 14C Rm 14 Center Floor Analyst: Scott Larabell	Linoleum	Cream Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected
719920 15A Rm 14 S Floor Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
719921 15B Rm 14 E Floor Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	7% Cellulose	93% Other	None Detected
719922 15C Rm 14 Center Floor Analyst: Scott Larabell	Mastic	Tan Non-Fibrous Homogenous	7% Cellulose	93% Other	None Detected
719923 16A Rm 8 N Window Ext Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719924 16B Rm 8 S Window Ext Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719925 16C Rm 12 N Window Ext Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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NVLAP LAB CODE 201021-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719926 17A Rm 8 Center Floor Analyst: Scott Larabell	Poured Cement Basement	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719927 17B Rm 8 N Floor Analyst: Scott Larabell	Poured Cement Basement	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719928 17C Rm 8 W Floor Analyst: Scott Larabell	Poured Cement Basement	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719929 18A Rm 8 E Wall Analyst: Scott Larabell Appears to be Concrete	Skim	Blue/Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719930 18B Rm 8 E Wall Analyst: Scott Larabell Appears to be Concrete	Skim	Blue/Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719931 18C Rm 8 E Wall Analyst: Scott Larabell Appears to be Concrete	Skim	Blue/Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719932 19A Rm 8 Chimney Analyst: Scott Larabell	Chimney Stack Cement	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761

Client Project : N/A
 Date Collected : 04/16/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719933 19B Rm 8 Chimney Analyst: Scott Larabell	Chimney Stack Cement	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719934 19C Rm 8 Chimney Analyst: Scott Larabell	Chimney Stack Cement	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719935 20A Ext House E Wall Analyst: Scott Larabell	Fiberboard	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
719936 20B Ext House E Wall Analyst: Scott Larabell	Fiberboard	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected
719937 20C Ext House S Wall Analyst: Scott Larabell	Fiberboard	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected
719938 21A Ext House E Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	80% Cellulose	20% Other	None Detected
719939 21B Ext House E Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

ETC Job : 205761
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Location :
105 Marjorie St, Battle Creek, MI 49014

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719940 21C Ext House S Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	80% Cellulose	20% Other	None Detected
719941 22A W Roof Ext House Analyst: Scott Larabell	Shingle	Black Non-Fibrous Homogenous	2% Cellulose 2% Fiberglass	96% Other	None Detected
719942 22B N Roof Ext House Analyst: Scott Larabell	Shingle	Black Non-Fibrous Homogenous	3% Cellulose 5% Fiberglass	92% Other	None Detected
719943 22C N Roof Ext Garage Analyst: Scott Larabell	Shingle	Black Non-Fibrous Homogenous	3% Cellulose 5% Fiberglass	92% Other	None Detected
719944 23A Rm 15 W Floor Analyst: Scott Larabell	Poured Cement Garage	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719945 23B Rm 15 Center Floor Analyst: Scott Larabell	Poured Cement Garage	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719946 23C Rm 15 E Floor Analyst: Scott Larabell	Poured Cement Garage	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

Certificate of Analysis



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174
Location :
 105 Marjorie St, Battle Creek, MI 49014

ETC Job : 205761
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
--------	-------------	------------	-----------	---------------	------------

Lab Supervisor/Other Signatory

Analyst: Scott Larabell

400 Point Count Results by EPA 600/R-93/116 PLM (denoted by "PC")
 Item 198.1: PLM Methods for Identifying and Quantitating Asbestos in Bulk Samples
 Item 198.6: PLM Methods for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples
 EPA 600/R-93/116: Method for Determination of Asbestos in Bulk Building Materials
 EPA 600/M4-82-020: Interim Method for Determination of Asbestos in Bulk Insulation Samples

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ENVIRONMENTAL TESTING LABORATORIES, INC
 38900 HURON RIVER DRIVE
 ROMULUS, MICHIGAN 48174
 (734) 955-6600
 FAX: (734) 992-2261
 www.2etl.com

**Bulk Asbestos
 Chain of Custody**

ETL Project #: 205761

Client: ETC	Contact: <u>Liv Hagerman</u>	Project Location/Name: <u>105 Marjorie St, Battle Creek MI</u>
Address: <u>721 N. Capitol Ave. Suite 3, Lansing, MI 48906</u>	Phone: (734) 955-6600	Client Project #:
E-mail: <u>results@2etl.com</u>		Date Sampled: <u>4/16/18</u>
Please Provide Results: <input type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Verbal <input type="checkbox"/> Other _____		

Turnaround Time (TAT): RUSH Same Day 24 hr 48 hr Standard (3+ days) Other _____

PLM Instructions
 (Check all that apply)

3 days

<input checked="" type="checkbox"/> PLM EPA600/R-93/116, 1993 (Standard method)	<input checked="" type="checkbox"/> Stop at 1st Positive - Clearly mark Homogenous Group
<input type="checkbox"/> Point Counting: 400 Points*	
<input type="checkbox"/> PLM Non-Building Material (Dust, Wipe, Tape)	<input type="checkbox"/> Soil or Vermiculite Analysis *

* Additional charge and turnaround may be required

Lab ID	Sample ID	Sample Location	Material Description
	01A-G	see attached sheets	
	02A-E		
	03A-C		
	↓		
	23A-C		

	Date	Time
Relinquished (Name/Organization): <u>Heather Davis</u>	<u>4/16/18</u>	<u>5:20 am/pm</u>
Received (Name/ETL): <u>Anise Asman</u>	<u>4-17-18</u>	<u>10:34 am/pm</u>
Stereoscopy Analysis (Name/ETL): <u>Scott Swadlow</u>	<u>4-18-18</u>	<u>10:17 am/pm</u>
Sample Login (Name/ETL): <u>Brittany Woods</u>	<u>4/18/18</u>	<u>9:50 am/pm</u>
Analysis (Name/ETL): <u>Scott Swadlow</u>	<u>4-18-18</u>	<u>10:17 am/pm</u>
VQC Review (Name/ETL): <u>Brittany Woods</u>	<u>4/19/18</u>	<u>11:15 am/pm</u>
Special Instructions:	Remarks	

Asbestos Material Sampling Summary Sheet

Surfacing materials

Revision date 5/7/2018

Job #:	Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205761								
		Material: Plaster						
	0	green w/ swim	F	A	Rm 3 north wall 719872	Throughout	7266 SF	
				B	Rm 4 east wall 873			
				C	Rm 4 south wall 874			
				D	Rm 5 ceiling 875			
				E	Rm 5 south wall 876			
				F	Rm 11 north wall 877			
				G	Rm 12 north wall 878			
		Material: Texture						
	0	white	F	A	Rm 3 center ceiling 879	2nd Floor ceiling & 304 ceiling	1074 SF	
				B	Rm 4 center ceiling 880			
				C	Rm 11 north ceiling 881			
				D	Rm 12 center ceiling 882			
				E	Rm 13 center ceiling 883			
		Material:						

<1000 SF = 3 samples

1000 - <5000 = 5 samples

>5000 = 7 samples

**Asbestos Material Sampling Summary Sheet
TSI (Thermal System Insulation) materials**

Revision date 5/7/2015

Job #:	Material Description		Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205761	105 Majorie, Battle Creek						4/16/18	
03	Material: Description	Duct wrap Grey	F	A	m6 vent 719884	Throughout Ducts	200 SF	
	Material: Description			B	m13 vent 885			
	Material: Description			C	m14 vent 886			
	Material: Description							
	Material: Description							
	Material: Description							
	Material: Description							
	Material: Description							
	Material: Description							
	Material: Description							

3 samples with the exception of patches less than 6 LF or 6 SF, then only 1 sample

Asbestos Material Sampling Summary Sheet
Miscellaneous materials

Revision date 5/7/2015

Job #:	Material no.	Material Description	Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205761						4/16/18		
	04	Material: Ceiling Tile Description: white	NF	A B C	Rm 1 center ceiling 719887 Rm 1 south ceiling 888 Rm 1 north ceiling 889	1	288 SF	
	05	Material: 9x9 grey Floor Tile Description: grey w/ green spots	NF	A B C	Rm 1 west floor 890 Rm 1 east floor 891 Rm 1 center floor 892	1	288 SF	
	06	Material: Mastic Description: black	NF	A B C	same as 05A 893 same as 05B 894 same as 05C 895	1	288 SF	
	07	Material: Tape Description: white	F	A B C	Rm 14 west wall 896 Rm 14 north wall 897	6, 14	1143 SF	
	08	Material: Mud Description: white	F	A B C	Rm 6 north wall 898 same as 07A 899 same as 07B 900 same as 07C 901	6, 14	1143 SF	
	09	Material: Dry wall Description: white	F	A B C	same as 07A 902 same as 07B 903 same as 07C 904	6, 14	1143 SF	
	10	Material: Blown In-Insulation Description: white	F	A B C	Attic 905 Attic 906 Attic 907	Attic	800 SF	

Asbestos Material Sampling Summary Sheet

Miscellaneous materials

Revision date 5/7/2011

Job #:	205761	105 Majorie Battle creek	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
Material no.	Material Description	Friable (F)/ Non-Friable (NF)					
11	Material: 12x12 P&S	NF	A	Rm 5 east floor 719908	5	36 SF	
	Description: green & gold		B	Rm 5 east floor 909			
	Material: Linoleum		C	Rm 5 north floor 910			
12	Description: white	NF	A	Same as 11A	5	36 SF	
	Material: Mastix		B	Same as 11B			
	Description: tan		C	Same as 11C			
13	Material: Mastix	NF	A	Same as 11A	5	36 SF	
	Description: tan		B	Same as 11B			
	Material: Linoleum		C	Same as 11C			
14	Description: Cream	NF	A	Rm 14 south floor 917	14	135 SF	
	Material: Mastix		B	Rm 14 east floor 918			
	Description: tan		C	Rm 14 center floor 919			
15	Material: Mastix	NF	A	Same as 14A	14	135 SF	
	Description: tan		B	Same as 14B			
	Material: Window Glaze		C	Same as 14C			
16	Description: white	NF	A	Rm 8 north window ext 920	14	14	units
	Material: Poured Cement bsmt		B	Rm 8 south window ext 921			
	Description: grey		C	Rm 12 north window ext 922			
17	Material: Poured Cement bsmt	NF	A	Rm 8 center floor 926	8	810 SF	
	Description: grey		B	Rm 8 north floor 927			
			C	Rm 8 west floor 928			

Asbestos Material Sampling Summary Sheet
Miscellaneous materials

Revision date 5/7/2011

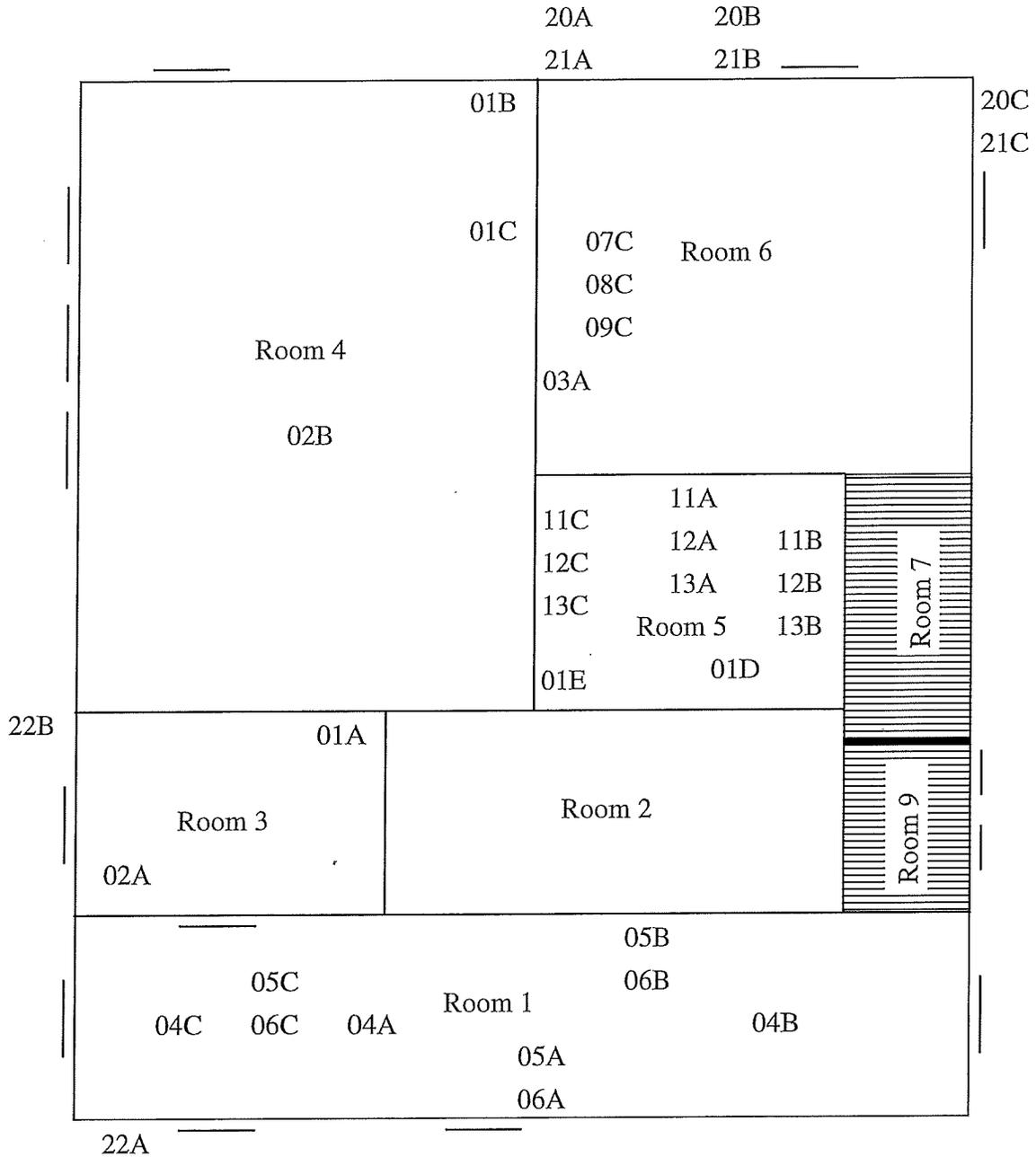
Job #:	Material no.	Material Description	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205761			105 Majorie, Battle Creek	4/16/18		
18		Material: Skim Coat Description: blue/grey	Room 8 east wall 910A Room 8 east wall 910B Room 8 east wall 910C	8	240 SF	
19		Material: Chimney stack cement Description: grey	Room 8 Chimney 910A Room 8 Chimney 910B Room 8 Chimney 910C	Room 8 Chimney	5 SF	
20		Material: Fiberboard Description: tan	ext house east wall 910A ext house east wall 910B ext house south wall 910C	ext house	4032 SF	
21		Material: House wrap Description: tan	Same as 20A 910A Same as 20B 910B Same as 20C 910C	ext house	4032 SF	
22		Material: Shingle Description: black	west roof ext house 910A north roof ext house 910B north roof ext garage 910C	ext house	2015 SF	
23		Material: Poured Cement Course Description: grey	Room 15 west floor 910A Room 15 center floor 910B Room 15 east floor 910C	15	729 SF	

APPENDIX B

SITE MAP

1st floor

105 Marjorie St, Battle Creek, MI 49014



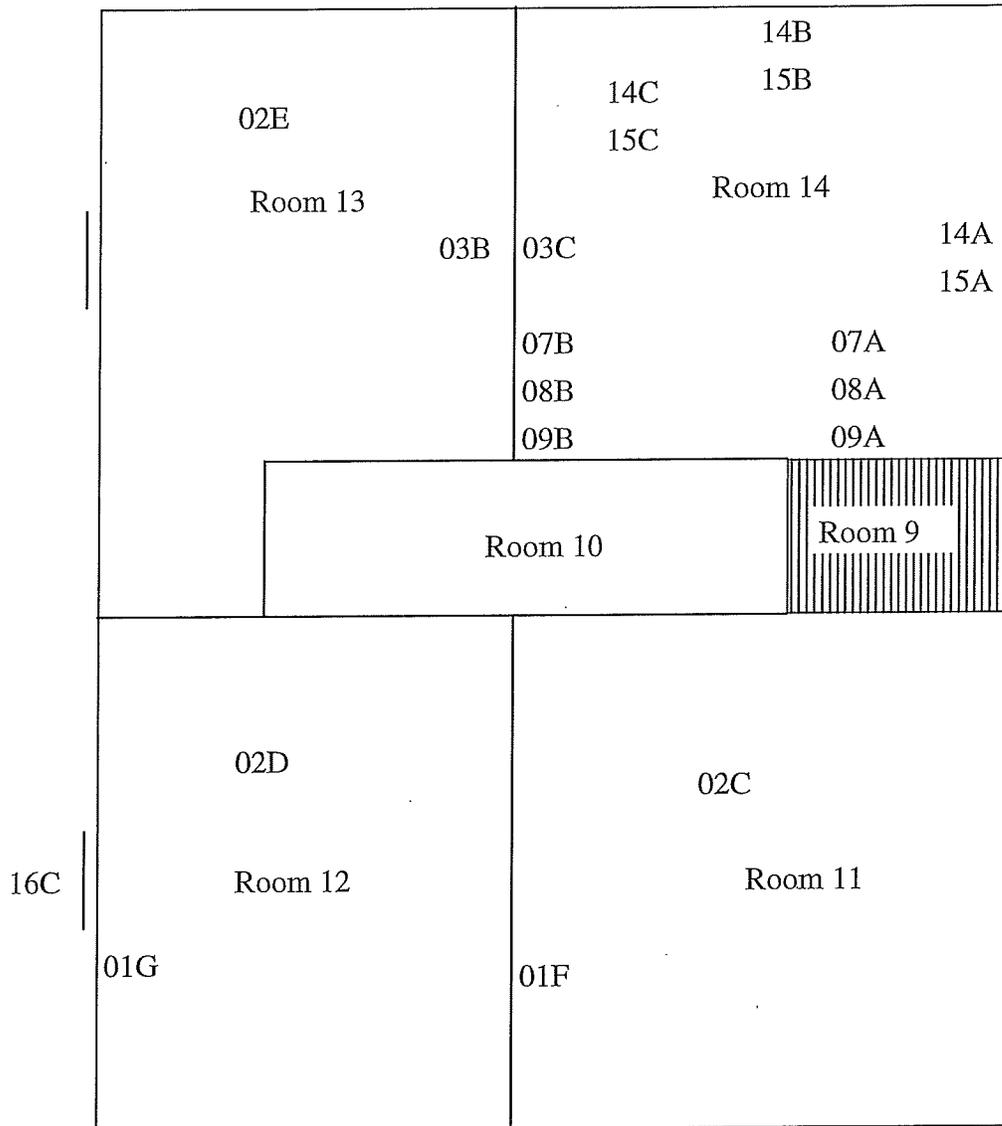
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205761

2nd floor

105 Marjorie St, Battle Creek, MI 49014



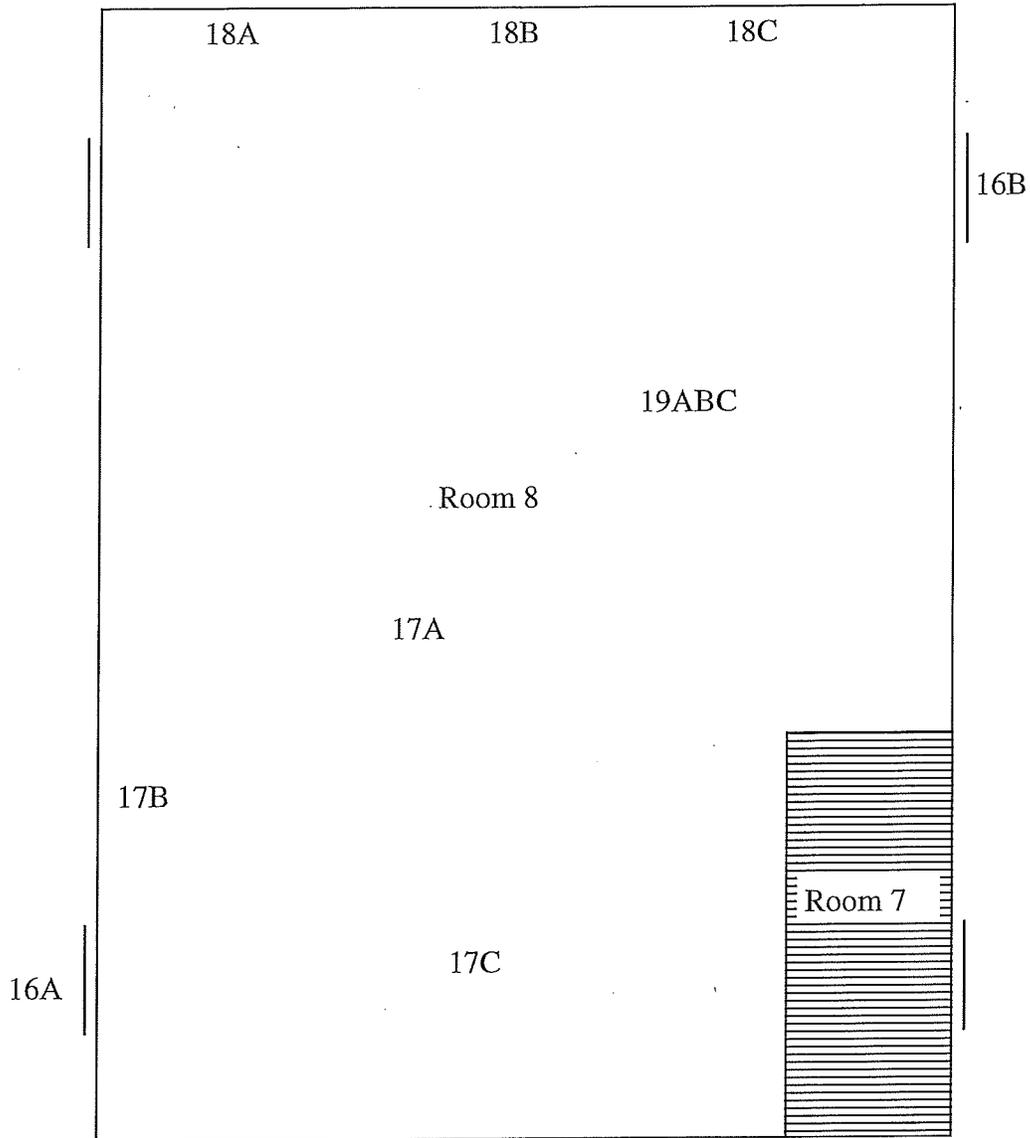
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205761

Basement

105 Marjorie St, Battle Creek, MI 49014



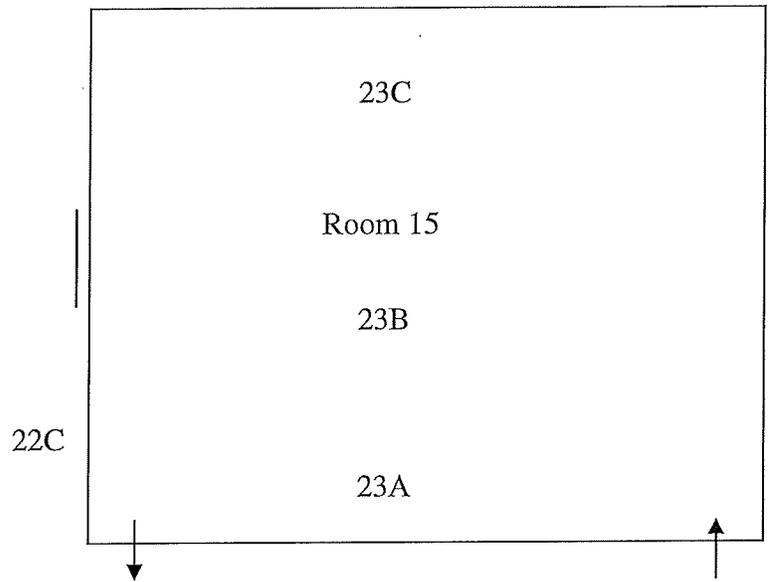
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



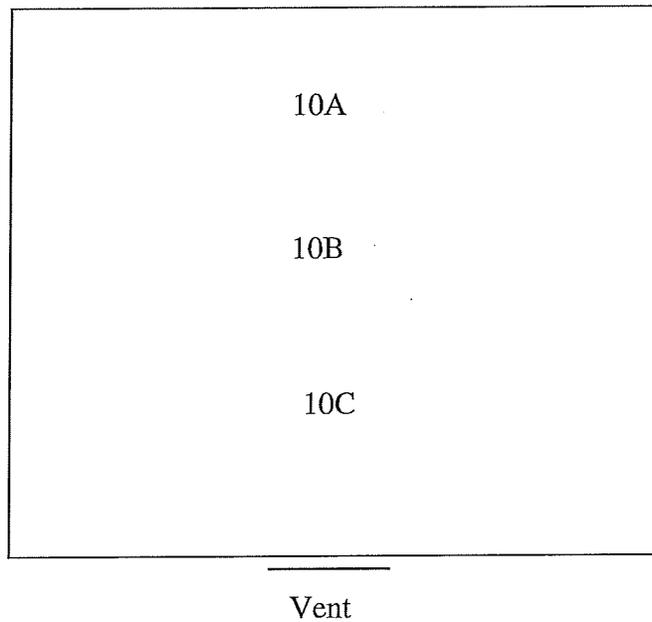
City of Battle Creek
205761

Garage

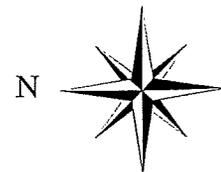
105 Marjorie St, Battle Creek, MI 49014



Attic



Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205761

APPENDIX C

STATE OF MICHIGAN NOTIFICATION OF INTENT TO REMOVE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ___/___/___ Rec'd Date ___/___/___
 Emergency Date ___/___/___ Valid No. _____
 OK Send Def Ltr. Date of Def Ltr. ___/___/___
 FOLLOW UP ___/___/___ Spoke w/ _____
 Comments: _____

 Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
 Total Project Cost: _____ x 0.01 = _____
 Type of Contractor: _____ License No.: _____
 Licensing Authority: _____

1. NOTIFICATION:
 Date of Notification: _____
 Date of Revision(s): _____
 Notification Type: Original Revised Canceled Annual
Mark appropriate boxes: (both DEQ and LARA may apply):
DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]
 Planned Renovation – 10 **working** days notice
 Emergency Renovation
 Scheduled Demolition – 10 **working** days notice
 Intentional Burn – 10 **working** days notice
 Ordered Demolition
LARA (MIOSHA) [Will not accept annual notifications]
 Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
 Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
 +Include **only** those dates you are conducting asbestos removal/demo.
 Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:
 Facility Name: _____
 Location Address/Description: _____
 _____ If Apt. # of units: _____
 City/Twp. _____ State: _____ Zip Code: _____
 County: _____ Nearest Crossroad: _____
 Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
 Age: _____ Present Use: _____ Prior Use: _____
 Specific Location(s) in Facility: _____

7. DISPOSAL SITE:
 Name: _____
 Location Address: _____
 City/State/Zip: _____

8. WASTE TRANSPORTER 1:	WASTE TRANSPORTER 2:
Name: _____	_____
Address: _____	_____
City/State/Zip: _____	_____
Phone: _____	_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.
 Gov't Agency Ordering Demo: _____
 Name/Title of Person Signing Order: _____

 Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? Yes No To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (NOTE: In a demolition, cementitious ACM **cannot** remain in a structure, as it is likely to become regulated in the demolition/handling process. It **must** be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM not removed prior to demo.		Units of Measure	
		Category I	Category II		
_____	_____	_____	_____	<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
_____	_____	_____	_____	<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
_____	_____	_____	_____	<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete A) for Renovation (asbestos removal/encapsulation) and/or B) for Demolition:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

- Piping Fittings Boiler(s) Tanks(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Mag Block Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

- Piping Fittings Boiler(s) Tank(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date*

Signature of Owner or Demolition Contractor *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
 Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date*

Signature of Asbestos Abatement Contractor Representative *Date*

NOTE: It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date*

Signature of Owner/Operator *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

For NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)

517.636.4551 (office), 517.322.1713 (fax)



**NESHAP RENOVATION / DEMOLITION INSPECTION OF
ASBESTOS CONTAINING MATERIALS
AND OTHER HAZARDOUS WASTE MATERIALS**



FOR THE PROPERTY KNOWN AS:

69 South Ave.
Battle Creek, MI 49014

Prepared for:

City of Battle Creek
10 North Division St, Room 117
Battle Creek, MI
49017

Prepared By:

Heather Davis
Michigan Certification #: A-48908
Environmental Testing & Consulting, Inc.
38900 West Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
ETC Job #: 205759

4/16/2018
Date of Survey

4/24/2018
Date of Report

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- 2) Information about Asbestos Inspections
 - a) Sampling Procedures
 - b) PLM Analysis Methodology
 - c) Interpretation of Inspection Results
 - d) Other Hazardous Materials
- 3) Regulatory Requirements
 - a) MIOSHA Construction Asbestos Requirements
 - b) NESHAPs Requirements
 - c) Notification Requirements
 - d) Abatement Requirements
- 4) Summary and Conclusions
 - Chart A – Materials Sampled and Asbestos Content
 - Chart B – Other Hazardous Materials Located
- 5) Inspector's Information/Certification

Appendices.

Appendix A - Polarized Light Microscopy Asbestos Analysis Results

Appendix B – Site Map

Appendix C - State of Michigan Notification of Intent to Renovate or Demolish

1. Introduction

City of Battle Creek contracted Environmental Testing & Consulting, Inc. (ETC) to perform a renovation/demolition inspection of the building located at 69 South Ave., Battle Creek, MI 49014. This inspection was conducted on 4/16/2018.

The EPA, under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule, requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work can begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Heather Davis, conducted the asbestos containing building material (ACBM) inspection and identified materials suspected of containing asbestos. Heather Davis's State of Michigan Asbestos Building Inspector's certification number is A-48908.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspected material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities on the property. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspected asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAP regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. **To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.**

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not in the client's best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. **In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).**

b. PLM Analysis Methodology

Polarized Light Microscopy (PLM) samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. **Please note, the contract DID NOT include point counting as defined in NESHAP.** Should City of Battle Creek wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10%, these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included on Chart B in Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous, and that may require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand, if there were a few pesticide containers present as would be found in most homes, these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation/demolition of residential homes and asbestos materials. The MIOSHA Asbestos Construction Standard has requirements to protect the workers performing the renovation/demolition, while the EPA – NESHAP regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL, the employer will have to:

- Notify workers
- Provide worker training
- Post danger signs
- Establish periodic air monitoring regulated areas and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Conduct employee respiration monitoring
- Maintain/provide record keeping

- Perform medical surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners, in this case City of Battle Creek, are now required to notify all renovation/demolition workers of the presence, location and quantity of all ACM's within the building.

In most cases, it is more practical to have an asbestos contractor remove the ACM from the building prior to renovation/demolition than have the renovation/demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ, prior to renovation or demolition activities, requires any identified asbestos materials be removed that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation/demolition process, it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A signed document from a licensed asbestos abatement supervisor that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that the material stays intact.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within an area/building during renovation or demolition activities. If the MDEQ reviews the site and finds the material crumbled or disturbed, both the contractor and building owner may be sited up to \$27,500 per day. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material **greater than** 160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not require a notification.

If removing **more than** 15 square feet but **less than** 160 square feet, or **greater than** 10 linear feet but **less than** 260 linear feet, the contractor only needs to notify LARA as stated above.

For removals of **less than** 15 square feet or **less than** 10 linear feet, no notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee must reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, and workers are licensed by LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance.
- An asbestos supervisor must be on-site at all times when work is occurring.
- All work must be completed within regulated work areas.
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations.
- On-site personnel sampling be conducted during the removal activities.
- Prior to dismantling and leaving the site, the contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Battle Creek insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)

- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work
- Copy of the final asbestos clearance report

By requiring these documents, City of Battle Creek will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Battle Creek or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

Quantities that are listed are estimates only; in general, listed quantities represent only what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should always be assumed to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

Chart A – Materials Sampled and Asbestos Content				
Material #	Material Description	Asbestos	Quantity	Location (Refer to map in Appendix B)
1	Plaster, grey/red	No	6048 SF	Exterior
2	Plaster, grey with skim coat	No	3000 SF	Throughout (interior)
3	House wrap, black	No	6048 SF	Exterior
4	Ceiling tile, white	No	144 SF	Room 15
5	Linoleum, cream	No	144 SF	Room 8
6	Floor tile, green/black	No	200 SF	Room 34, 35
7	Roofing material, black asphalt	No	3888 SF	Exterior
8	Shingle, brown	No	3888 SF	Exterior
9	Blown-in-insulation, tan	No	2200 SF	Throughout

Chart B – Other Hazardous Materials Located (Above the household quantity Limitations)			
Material #	Material Description	Quantity	Location
1	Tire	1	Room 3
2	Paint	13	Room 10

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:



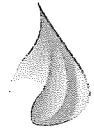
Heather Davis
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-48908

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

ENVIRONMENTAL TESTING LABORATORIES, INC.



38900 HURON RIVER DRIVE, SUITE 200
ROMULUS, MICHIGAN 48174
(734) 955-6600
FAX: (734) 955-6604

REVISED REPORT

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Project Location :
69 South Ave, Battle Creek, MI 49014

Attention : Rick Bolek

Client Project : N/A

ETC Job : 205759
Report Date : 4/19/2018

Login #	Sample ID	Work Requested	Completed
719565	01A	Asbestos Analysis	04/19/2018
719566	01B	Asbestos Analysis	04/19/2018
719567	01C	Asbestos Analysis	04/19/2018
719568	01D	Asbestos Analysis	04/19/2018
719569	01E	Asbestos Analysis	04/19/2018
719570	01F	Asbestos Analysis	04/19/2018
719571	01G	Asbestos Analysis	04/19/2018
719572	02A	Asbestos Analysis	04/19/2018
719573	02B	Asbestos Analysis	04/19/2018
719574	02C	Asbestos Analysis	04/19/2018
719575	02D	Asbestos Analysis	04/19/2018
719576	02E	Asbestos Analysis	04/19/2018
719577	03A	Asbestos Analysis	04/19/2018
719578	03B	Asbestos Analysis	04/19/2018
719579	03C	Asbestos Analysis	04/19/2018
719580	04A	Asbestos Analysis	04/19/2018
719581	04B	Asbestos Analysis	04/19/2018
719582	04C	Asbestos Analysis	04/19/2018
719583	05A	Asbestos Analysis	04/19/2018
719584	05B	Asbestos Analysis	04/19/2018

This report is intended for use solely by the individual or entity to which it is addressed. This report may not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. It may contain information that is privileged, confidential and otherwise exempt by law from disclosure. If the reader of this information is not the intended recipient or an employee of its intended recipient, you are herewith notified that any dissemination, distribution or copying of this information is strictly prohibited. If you have received this information in error, please notify ETL immediately. Thank you.

Login #	Sample ID	Work Requested	Completed
719585	05C	Asbestos Analysis	04/19/2018
719586	06A	Asbestos Analysis	04/19/2018
719587	06B	Asbestos Analysis	04/19/2018
719588	06C	Asbestos Analysis	04/19/2018
719589	07A	Asbestos Analysis	04/19/2018
719590	07B	Asbestos Analysis	04/19/2018
719591	07C	Asbestos Analysis	04/19/2018
719592	08A	Asbestos Analysis	04/19/2018
719593	08B	Asbestos Analysis	04/19/2018
719594	08C	Asbestos Analysis	04/19/2018
719595	09A	Asbestos Analysis	04/19/2018
719596	09B	Asbestos Analysis	04/19/2018
719597	09C	Asbestos Analysis	04/19/2018

Reviewed by:



Quality Assurance Coordinator



Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus,MI 48174

ETC Job : 205759

Client Project : N/A

Date Collected : 04/16/2018

Date Received : 04/18/2018

Date Analyzed : 04/19/2018

Location :

69 South Ave, Battle Creek, MI 49014

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719565 01A Ext House W Side Analyst: Daniel Agnew Labelled as Plaster	Concrete/Cement	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719566 01B Ext House N Side Analyst: Daniel Agnew Labelled as Plaster	Concrete/Cement	Grey Non-Fibrous Homogenous		100% Other	None Detected
719567 01C Ext House E Side Analyst: Daniel Agnew Labelled as Plaster	Concrete/Cement	Grey Non-Fibrous Homogenous		100% Other	None Detected
719568 01D Ext house W Side Analyst: Daniel Agnew Labelled as Plaster	Concrete/Cement	Grey Non-Fibrous Homogenous		100% Other	None Detected
719569 01E Ext House W Side Analyst: Daniel Agnew Labelled as Plaster	Concrete/Cement	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719570 01F Ext House W Side Analyst: Daniel Agnew Labelled as Plaster	Concrete/Cement	Grey Non-Fibrous Homogenous		100% Other	None Detected
719571 01G Ext House S Side Analyst: Daniel Agnew Labelled as Plaster	Concrete/Cement	Grey Non-Fibrous Homogenous		100% Other	None Detected

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Certificate of Analysis

Environmental Testing Laboratories, Inc.
 38900 Huron River Drive,
 Suite 200, Romulus, Michigan 48174,
 (734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 69 South Ave, Battle Creek, MI 49014

ETC Job : 205759
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719572 02A Rm 18 Side E Wall Layer-1 Analyst: Daniel Agnew	Plaster	Grey Non-Fibrous Homogenous	0.25% Cellulose	99.75% Other	PC None Detected
719572 02A Rm 18 Side E Wall Layer-2 Analyst: Daniel Agnew	Skim	White Non-Fibrous Homogenous		100% Other	None Detected
719573 02B Rm 19 N Wall Layer-1 Analyst: Daniel Agnew	Plaster	Grey Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected
719573 02B Rm 19 N Wall Layer-2 Analyst: Daniel Agnew	Skim	White Non-Fibrous Homogenous		100% Other	None Detected
719574 02C Rm 25 W Wall Layer-1 Analyst: Daniel Agnew	Plaster	Grey Non-Fibrous Homogenous		100% Other	None Detected
719574 02C Rm 25 W Wall Layer-2 Analyst: Daniel Agnew	Skim	White Non-Fibrous Homogenous		100% Other	None Detected

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 38900 Huron River Drive,
 Suite 200, Romulus, Michigan 48174,
 (734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 69 South Ave, Battle Creek, MI 49014

ETC Job : 205759
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719575 02D Rm 23 Center Ceiling Layer-1 Analyst: Daniel Agnew	Plaster	Grey Non-Fibrous Homogenous		100% Other	None Detected
719575 02D Rm 23 Center Ceiling Layer-2 Analyst: Daniel Agnew	Skim	White Non-Fibrous Homogenous		100% Other	None Detected
719576 02E Rm 8 S Wall Layer-1 Analyst: Daniel Agnew	Plaster	Grey Non-Fibrous Homogenous		100% Other	None Detected
719576 02E Rm 8 S Wall Layer-2 Analyst: Daniel Agnew	Skim	White Non-Fibrous Homogenous		100% Other	None Detected
719577 03A N Ext House Analyst: Daniel Agnew	House Wrap	Black Fibrous Homogenous	93% Cellulose	7% Other	None Detected
719578 03B S Ext House Analyst: Daniel Agnew	House Wrap	Black Fibrous Homogenous	95% Cellulose	5% Other	None Detected
719579 03C S Ext House Analyst: Daniel Agnew	House Wrap	Black Fibrous Homogenous	95% Cellulose	5% Other	None Detected

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38900 Huron River Drive,
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(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

ETC Job : 205759
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Location :
69 South Ave, Battle Creek, MI 49014

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719580 04A Rm 15 N Ceiling Analyst: Daniel Agnew	Ceiling Tile	White Fibrous Homogenous	100% Cellulose		None Detected
719581 04B Rm 15 Center Ceiling Analyst: Daniel Agnew	Ceiling Tile	White Fibrous Homogenous	100% Cellulose		None Detected
719582 04C Rm 15 S Ceiling Analyst: Daniel Agnew	Ceiling Tile	White Fibrous Homogenous	100% Cellulose		None Detected
719583 05A Rm 8 Center Floor Layer-1 Analyst: Daniel Agnew	Linoleum	Cream Non-Fibrous Homogenous		100% Other	None Detected
719583 05A Rm 8 Center Floor Layer-2 Analyst: Daniel Agnew	Backing	Beige Fibrous Homogenous	50% Cellulose	50% Other	None Detected
719584 05B Rm 8 W Floor Layer-1 Analyst: Daniel Agnew	Linoleum	Cream Non-Fibrous Homogenous		100% Other	None Detected
719584 05B Rm 8 W Floor Layer-2 Analyst: Daniel Agnew	Backing	Beige Fibrous Homogenous	40% Cellulose	60% Other	None Detected

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Certificate of Analysis

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 69 South Ave, Battle Creek, MI 49014

ETC Job : 205759
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719585 05C Rm 8 E Floor Layer-1 Analyst: Daniel Agnew	Linoleum	Cream Non-Fibrous Homogenous		100% Other	None Detected
719585 05C Rm 8 E Floor Layer-2 Analyst: Daniel Agnew	Backing	Beige Fibrous Homogenous	50% Cellulose	50% Other	None Detected
719586 06A Rm 34 Center Floor Analyst: Daniel Agnew Labelled as Floor Tile	Linoleum	Green/Black Fibrous Homogenous	85% Cellulose	15% Other	None Detected
719587 06B Rm 34 W Floor Analyst: Daniel Agnew Labelled as Floor Tile	Linoleum	Green/Black Fibrous Homogenous	85% Cellulose	15% Other	None Detected
719588 06C Rm 35 E Floor Analyst: Daniel Agnew Labelled as Floor Tile	Linoleum	Green/Black Fibrous Homogenous	85% Cellulose	15% Other	None Detected
719589 07A Ext House W Roof Layer-1 Analyst: Daniel Agnew	Roofing Material	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719589 07A Ext House W Roof Layer-2 Analyst: Daniel Agnew	Roof Paper	Black Fibrous Homogenous	40% Cellulose 15% Other fibrous	45% Other	None Detected

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NVLAP LAB CODE 201628-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
69 South Ave, Battle Creek, MI 49014

ETC Job : 205759
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719590 07B Ext House W Roof Analyst: Daniel Agnew	Roofing Material	Black Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected
719591 07C Ext House W Roof Layer-1 Analyst: Daniel Agnew	Roofing Material	Black Non-Fibrous Homogenous		100% Other	None Detected
719591 07C Ext House W Roof Layer-2 Analyst: Daniel Agnew	Roof Paper	Black Fibrous Homogenous	45% Cellulose 20% Other fibrous	35% Other	None Detected
719592 08A Ext House E Roof Analyst: Daniel Agnew	Shingle	Brown Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719593 08B Ext House E Roof Analyst: Daniel Agnew	Shingle	Brown Non-Fibrous Homogenous		100% Other	None Detected
719594 08C Ext House E Roof Analyst: Daniel Agnew	Shingle	Brown Non-Fibrous Homogenous		100% Other	None Detected
719595 09A Rm 28 S Wall Analyst: Daniel Agnew	Blown-In Insulation	Brown Fibrous Homogenous	100% Cellulose		None Detected

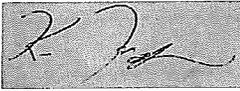
ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M-82/020 or NYSDOH-ELAP item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174
Location :
 69 South Ave, Battle Creek, MI 49014

ETC Job : 205759
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719596 09B Rm 30 S Wall Analyst: Daniel Agnew	Blown-In Insulation	Brown Fibrous Homogenous	100% Cellulose		None Detected
719597 09C Rm 20 N Wall Analyst: Daniel Agnew	Blown-In Insulation	Brown Fibrous Homogenous	100% Cellulose		None Detected



Lab Supervisor/Other Signatory



Analyst: Daniel Agnew

400 Point Count Results by EPA 600/R-93/116 PLM (denoted by "PC")
 Item 198.1: PLM Methods for Identifying and Quantitating Asbestos in Bulk Samples
 Item 198.6: PLM Methods for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples
 EPA 600/R-93/116: Method for Determination of Asbestos in Bulk Building Materials
 EPA 600/M4-82-020: Interim Method for Determination of Asbestos in Bulk Insulation Samples

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Asbestos Material Sampling Summary Sheet

Surfacing materials

Revision date 5/7/2015

Job #:	205 759	69 South Ave	4/16/18	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location		
01	Material: Plaster (Ext) grey/red white stucco	F	A	Ext house westside 719565		
			B	Ext house north side 51101		
			C	Ext house east side 507		
			D	Ext house west side 51101 house		
			E	Ext house west side 5109		
			F	Ext house west side 510		
			G	Ext house south side 511		
02	Material: Plaster (int) Grey w/ Shim Coat	F	A	Rm 18 side east wall 512		3000 SF
			B	Rm 19 north wall 513		
			C	Rm 25 west wall 514		
			D	Rm 23 center ceiling 515		
			E	Rm 8 south wall 516		
	Material:					

<1000 SF = 3 samples

1000 - <5000 = 5 samples

>5000 = 7 samples

Asbestos Material Sampling Summary Sheet

Miscellaneous materials

Revision date 5/7/2015

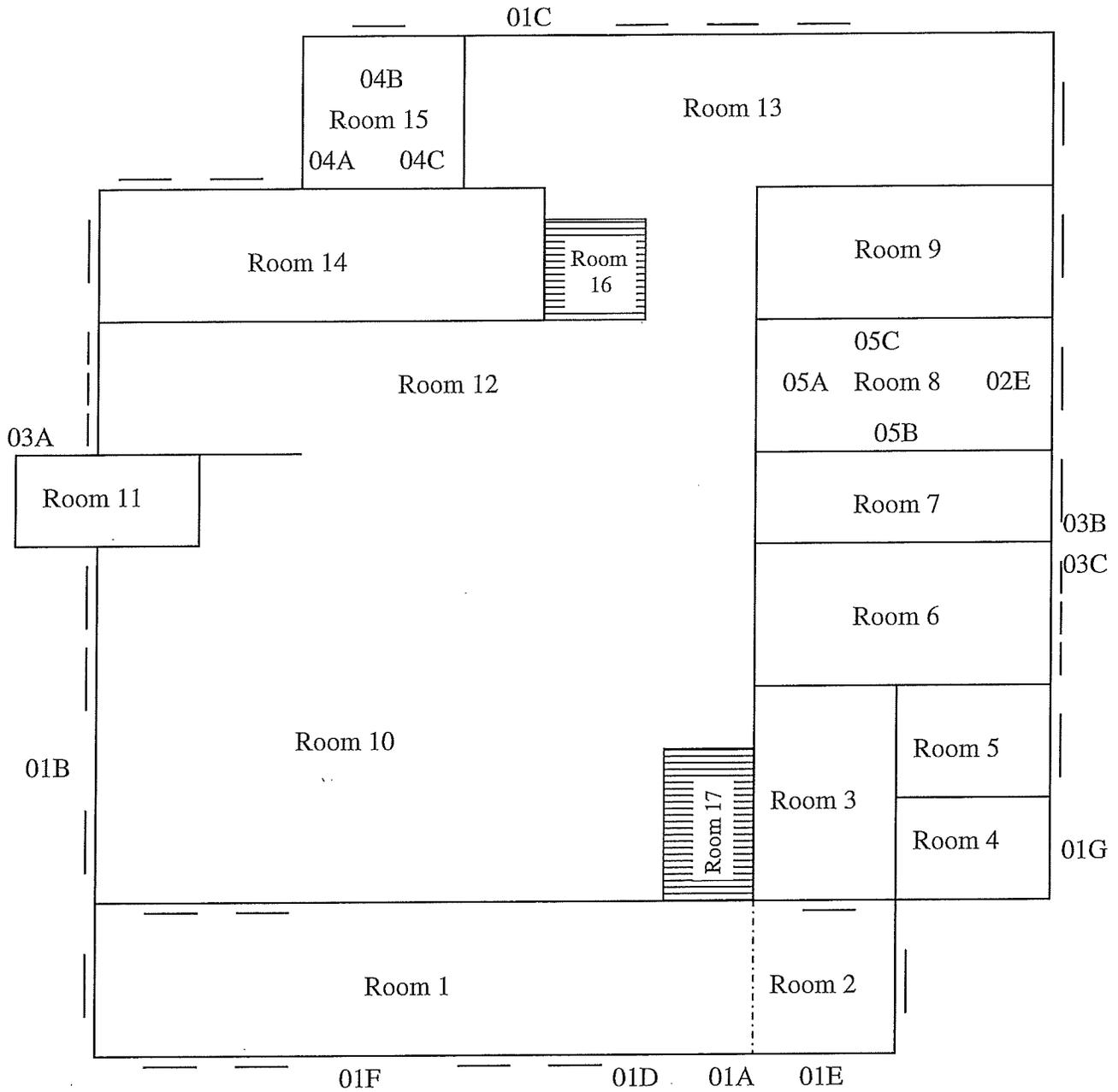
Job #:	Material no.	Material Description	Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205759					69 South Ave, Battle Creek	4/16/18		
03	Material: House wrap Description: black	NF	A	North ext house 719577	Ext house			
04	Material: Ceiling Tile Description: White	NF	B	South ext house 578				
05	Material: Floor Tile Indoleum Description: Green	NF	C	South ext house 579				
06	Material: Floor Tile Description: green/black	NF	A	Rm 15 north ceiling 580	15 ceiling	144 SF		
07	Material: Roofing material Description: black Asphalt shingle	NF	B	Rm 15 center ceiling 581				
08	Material: Shingle Description: brown	NF	C	Rm 8 center floor 582	8 floor	144 SF		
09	Material: Down-Insulation Description: tan	F	A	Rm 8 west floor 584				
			B	Rm 8 east floor 585				
			C	Rm 8 center floor 586				
			A	Rm 34 center floor 587	35, 34	200 SF		
			B	Rm 34 west floor 588				
			C	Rm 35 east floor 589				
			A	ext house west roof 590	Ext roof			
			B	ext house west roof 591	Ext roof			
			C	ext house west roof 592	Ext roof			
			A	ext house east roof 593	Ext roof			
			B	ext house east roof 594	Ext roof			
			C	ext house east roof 595	Ext roof			
			A	Rm 28 south wall 596	Throughout	2200 SF		
			B	Rm 30 south wall 597				
			C	Rm 20 north wall 598				

APPENDIX B

SITE MAP

1st floor

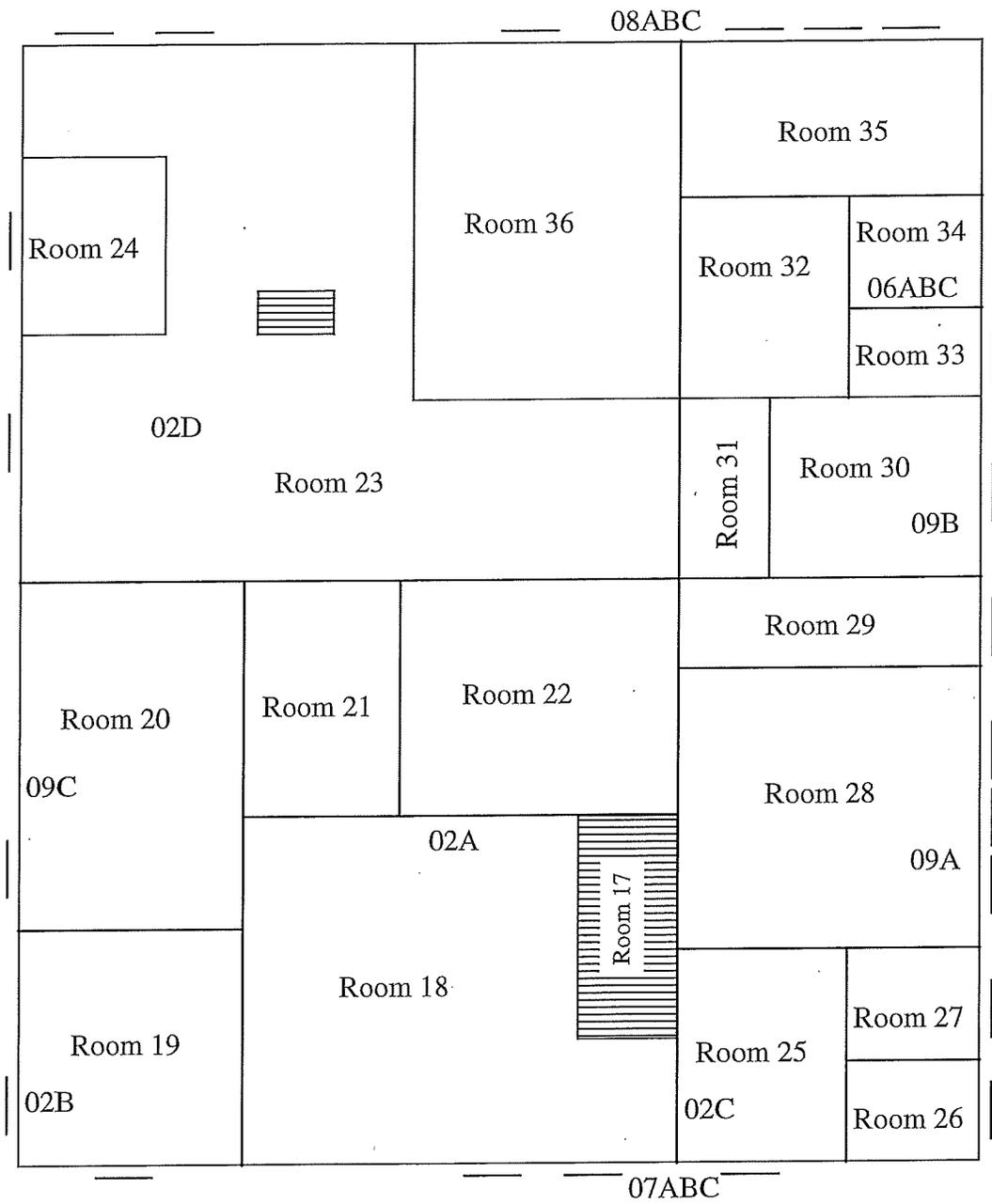
69 South Ave, Battle Creek, MI 49014



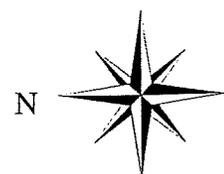
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205759



Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



APPENDIX C

STATE OF MICHIGAN NOTIFICATION OF INTENT TO REMOVE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ___/___/___ Rec'd Date ___/___/___
 Emergency Date ___/___/___ Valid No. _____
 OK Send Def Ltr. Date of Def Ltr. ___/___/___
 FOLLOW UP ___/___/___ Spoke w/ _____
 Comments: _____

 Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
 Total Project Cost: _____ x 0.01 = _____
 Type of Contractor: _____ License No.: _____
 Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
 Date of Revision(s): _____
 Notification Type: Original Revised Canceled Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- Planned Renovation – 10 **working** days notice
- Emergency Renovation
- Scheduled Demolition – 10 **working** days notice
- Intentional Burn – 10 **working** days notice
- Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
- Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
 +Include **only** those dates you are conducting asbestos removal/demo.

Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:
 Facility Name: _____
 Location Address/Description: _____
 _____ If Apt. # of units: _____
 City/Twp. _____ State: _____ Zip Code: _____
 County: _____ Nearest Crossroad: _____
 Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
 Age: _____ Present Use: _____ Prior Use: _____
 Specific Location(s) in Facility: _____

7. DISPOSAL SITE:
 Name: _____
 Location Address: _____
 City/State/Zip: _____

8. WASTE TRANSPORTER 1:	WASTE TRANSPORTER 2:
Name: _____	_____
Address: _____	_____
City/State/Zip: _____	_____
Phone: _____	_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.
 Gov't Agency Ordering Demo: _____
 Name/Title of Person Signing Order: _____

 Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? Yes No To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (NOTE: In a demolition, cementitious ACM **cannot** remain in a structure, as it is likely to become regulated in the demolition/handling process. It **must** be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
_____	_____	_____	_____	<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
_____	_____	_____	_____	<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
_____	_____	_____	_____	<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete A) for Renovation (asbestos removal/encapsulation) and/or B) for Demolition:

- A) RENOVATION: Mark all surfaces/types of RACM to be removed:**
 Piping Fittings Boiler(s) Tanks(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Mag Block Other (describe) _____

- Encapsulation (for LARA): Mark surfaces/types to be encapsulated:**
 Piping Fittings Boiler(s) Tank(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date*

Signature of Owner or Demolition Contractor *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
 Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee *Date*

Signature of Asbestos Abatement Contractor Representative *Date*

NOTE: It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date*

Signature of Owner/Operator *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



**NESHAP RENOVATION / DEMOLITION INSPECTION OF
ASBESTOS CONTAINING MATERIALS
AND OTHER HAZARDOUS WASTE MATERIALS**



FOR THE PROPERTY KNOWN AS:

48 Goguac St SE
Battle Creek, MI 49015

Prepared for:

City of Battle Creek
10 North Division St, Room 117
Battle Creek, MI
49017

Prepared By:

Jake Gleason
Michigan Certification #: A-49991
Environmental Testing & Consulting, Inc.
38900 West Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
ETC Job #: 205762

4/16/2018
Date of Survey

4/19/2018
Date of Report

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Appendix A - Polarized Light Microscopy Asbestos Analysis Results

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1. Introduction

City of Battle Creek contracted Environmental Testing & Consulting, Inc. (ETC) to perform a renovation/demolition inspection of the building located at 48 Goguac St SE, Battle Creek, MI 49015. This inspection was conducted on 4/16/2018.

The EPA, under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule, requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work can begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Jake Gleason, conducted the asbestos containing building material (ACBM) inspection and identified materials suspected of containing asbestos. Jake Gleason's State of Michigan Asbestos Building Inspector's certification number is A-49991.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspected material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities on the property. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspected asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAP regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. **To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.**

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not in the client's best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. **In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).**

b. PLM Analysis Methodology

Polarized Light Microscopy (PLM) samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. **Please note, the contract DID NOT include point counting as defined in NESHAP.** Should City of Battle Creek wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10%, these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included on Chart B in Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous, and that may require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand, if there were a few pesticide containers present as would be found in most homes, these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation/demolition of residential homes and asbestos materials. The MIOSHA Asbestos Construction Standard has requirements to protect the workers performing the renovation/demolition, while the EPA – NESHAP regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL, the employer will have to:

- Notify workers
- Provide worker training
- Post danger signs
- Establish periodic air monitoring regulated areas and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Conduct employee respiration monitoring
- Maintain/provide record keeping

- Perform medical surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners, in this case City of Battle Creek, are now required to notify all renovation/demolition workers of the presence, location and quantity of all ACM's within the building.

In most cases, it is more practical to have an asbestos contractor remove the ACM from the building prior to renovation/demolition than have the renovation/demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ, prior to renovation or demolition activities, requires any identified asbestos materials be removed that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation/demolition process, it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A signed document from a licensed asbestos abatement supervisor that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that the material stays intact.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within an area/building during renovation or demolition activities. If the MDEQ reviews the site and finds the material crumbled or disturbed, both the contractor and building owner may be sited up to \$27,500 per day. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material **greater than** 160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not require a notification.

If removing **more than** 15 square feet but **less than** 160 square feet, or **greater than** 10 linear feet but **less than** 260 linear feet, the contractor only needs to notify LARA as stated above.

For removals of **less than** 15 square feet or **less than** 10 linear feet, no notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee must reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, and workers are licensed by LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance.
- An asbestos supervisor must be on-site at all times when work is occurring.
- All work must be completed within regulated work areas.
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations.
- On-site personnel sampling be conducted during the removal activities.
- Prior to dismantling and leaving the site, the contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Battle Creek insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)

- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work
- Copy of the final asbestos clearance report

By requiring these documents, City of Battle Creek will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Battle Creek or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

Quantities that are listed are estimates only; in general, listed quantities represent only what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should always be assumed to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

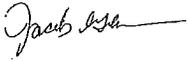
Chart A – Materials Sampled and Asbestos Content				
Material #	Material Description	Asbestos	Quantity	Location (Refer to map in Appendix B)
1	Ceiling texture, white	No	1000 SF	Throughout ceilings
2	12x12 Peel and stick, tan	No	50 SF	Room 2
3	12x12 Peel and stick, tan pebble	No	144 SF	Room 4
4	Linoleum, tan almond	No	64 SF	Room 8
5	Poured concrete, grey	No	300 SF	Room 12
6	Drywall/mud/tape, white	No	3250 SF	Throughout
7	Asphalt shingle, black	No	3500 SF	Exterior
8	Window glaze, white	No	19 windows	Exterior

Chart B – Other Hazardous Materials Located (Above the household quantity Limitations)			
Material #	Material Description	Quantity	Location
1	Car	2	Exterior
2	Tires	4	Exterior

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:



Jake Gleason
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-49991

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

ENVIRONMENTAL TESTING LABORATORIES, INC.



38900 HURON RIVER DRIVE, SUITE 200
ROMULUS, MICHIGAN 48174
(734) 955-6600
FAX: (734) 955-6604

REVISED REPORT

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Project Location :
48 Goguac St E, Battle Creek, MI 49015

Attention : Rick Bolek

Client Project : N/A

ETC Job : 205762
Report Date : 4/19/2018

Login #	Sample ID	Work Requested	Completed
719738	01A	Asbestos Analysis	04/19/2018
719739	01B	Asbestos Analysis	04/19/2018
719740	01C	Asbestos Analysis	04/19/2018
719741	01D	Asbestos Analysis	04/19/2018
719742	01E	Asbestos Analysis	04/19/2018
719743	02A	Asbestos Analysis	04/19/2018
719744	02B	Asbestos Analysis	04/19/2018
719745	02C	Asbestos Analysis	04/19/2018
719746	03A	Asbestos Analysis	04/19/2018
719747	03B	Asbestos Analysis	04/19/2018
719748	03C	Asbestos Analysis	04/19/2018
719749	04A	Asbestos Analysis	04/19/2018
719750	04B	Asbestos Analysis	04/19/2018
719751	04C	Asbestos Analysis	04/19/2018
719752	05A	Asbestos Analysis	04/19/2018
719753	05B	Asbestos Analysis	04/19/2018
719754	05C	Asbestos Analysis	04/19/2018
719755	06A	Asbestos Analysis	04/19/2018
719756	06B	Asbestos Analysis	04/19/2018
719757	06C	Asbestos Analysis	04/19/2018

This report is intended for use solely by the individual or entity to which it is addressed. This report may not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. It may contain information that is privileged, confidential and otherwise exempt by law from disclosure. If the reader of this information is not the intended recipient or an employee of its intended recipient, you are herewith notified that any dissemination, distribution or copying of this information is strictly prohibited. If you have received this information in error, please notify ETL immediately. Thank you.

Login #	Sample ID	Work Requested	Completed
719758	07A	Asbestos Analysis	04/19/2018
719759	07B	Asbestos Analysis	04/19/2018
719760	07C	Asbestos Analysis	04/19/2018
719761	08A	Asbestos Analysis	04/19/2018
719762	08B	Asbestos Analysis	04/19/2018
719763	08C	Asbestos Analysis	04/19/2018

Reviewed by:



Quality Assurance Coordinator



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205762
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/17/2018
Date Analyzed : 04/19/2018

Location :
 48 Goguac St E, Battle Creek, MI 49015

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719738 01A Rm 1 Center Ceiling Analyst: Dave Cousino	Ceiling Texture	White Fibrous Homogenous	15% Cellulose	85% Other	None Detected
719739 01B Rm 3 Center Ceiling Analyst: Dave Cousino	Ceiling Texture	White Fibrous Homogenous	12% Cellulose	88% Other	None Detected
719740 01C Rm 4 Ceiling Analyst: Dave Cousino	Ceiling Texture	White Fibrous Homogenous	15% Cellulose	85% Other	None Detected
719741 01D Rm 7 Center Ceiling Analyst: Dave Cousino	Ceiling Texture	White Fibrous Homogenous	10% Cellulose	90% Other	None Detected
719742 01E Rm 9 Center Ceiling Analyst: Dave Cousino	Ceiling Texture	White Fibrous Homogenous	8% Cellulose	92% Other	None Detected
719743 02A Rm 2 At Door Analyst: Dave Cousino	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected
719744 02B Rm 2 At Door Analyst: Dave Cousino	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected

ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M4-82/020 or NYSDOH-ELAP item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.



NVLAP LAB CODE 201028-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
48 Goguc St E, Battle Creek, MI 49015

ETC Job : 205762

Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/17/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719745 02C Rm 2 At Door Analyst: Dave Cousino	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719746 03A Rm 4 Center Floor Layer-1 Analyst: Dave Cousino	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous		100% Other	PC None Detected
719746 03A Rm 4 Center Floor Layer-2 Analyst: Dave Cousino	Mastic	Brown Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719747 03B Rm 4 Center Floor Layer-1 Analyst: Dave Cousino	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous		99.4% Other	PC 0.6% Chrysotile
719747 03B Rm 4 Center Floor Layer-2 Analyst: Dave Cousino	Mastic	Brown Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719748 03C Rm 4 Center Floor Layer-1 Analyst: Dave Cousino	12x12 Floor Tile P/S	Tan Non-Fibrous Homogenous		99.4% Other	PC 0.6% Chrysotile
719748 03C Rm 4 Center Floor Layer-2 Analyst: Dave Cousino	Mastic	Brown Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719749 04A Rm 8 At Door Analyst: Dave Cousino	Linoleum	Tan Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :

48 Goguac St E, Battle Creek, MI 49015

ETC Job : 205762

Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/17/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719750 04B Rm 8 At Door Analyst: Dave Cousino	Linoleum	Tan Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719751 04C Rm 8 At Door Analyst: Dave Cousino	Linoleum	Tan Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected
719752 05A Rm 12 At Center Floor Analyst: Dave Cousino	Poured Concrete	Grey Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
719753 05B Rm 12 At Center Floor Analyst: Dave Cousino	Poured Concrete	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719754 05C Rm 12 At Center Floor Analyst: Dave Cousino	Poured Concrete	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719755 06A Rm 1 W Wall Layer-1 Analyst: Dave Cousino	Drywall	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719755 06A Rm 1 W Wall Layer-2 Analyst: Dave Cousino	Tape	White Non-Fibrous Homogenous	10% Cellulose	90% Other	None Detected
719755 06A Rm 1 W Wall Layer-3 Analyst: Dave Cousino	Mud	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Certificate of Analysis



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
48 Goguac St E, Battle Creek, MI 49015

ETC Job : 205762
Client Project : N/A
Date Collected : 04/16/2018
Date Received : 04/17/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719756 06B Rm 3 W Wall Layer-1 Analyst: Dave Cousino	Drywall	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719756 06B Rm 3 W Wall Layer-2 Analyst: Dave Cousino	Tape	White Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
719756 06B Rm 3 W Wall Layer-3 Analyst: Dave Cousino	Mud	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719757 06C Rm 9 W Wall Layer-1 Analyst: Dave Cousino	Drywall	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
719757 06C Rm 9 W Wall Layer-2 Analyst: Dave Cousino	Tape	White Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
719757 06C Rm 9 W Wall Layer-3 Analyst: Dave Cousino	Mud	White Non-Fibrous Homogenous	4% Cellulose	96% Other	None Detected
719758 07A N Roof House Layer-1 Analyst: Dave Cousino	Asphalt Shingle	Black Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
719758 07A N Roof House Layer-2 Analyst: Dave Cousino	Shingle	Brown Non-Fibrous Homogenous	3% Cellulose 5% Fiberglass	92% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205762
 Client Project : N/A
 Date Collected : 04/16/2018
 Date Received : 04/17/2018
 Date Analyzed : 04/19/2018

Location :
 48 Goguc St E, Battle Creek, MI 49015

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
719759 07B N Roof Garage Layer-1 Analyst: Dave Cousino	Asphalt Shingle	Black Non-Fibrous Homogenous	4% Cellulose	96% Other	None Detected
719759 07B N Roof Garage Layer-2 Analyst: Dave Cousino	Shingle	Brown Non-Fibrous Homogenous	2% Cellulose 3% Fiberglass	95% Other	None Detected
719760 07C N Roof Garage Layer-1 Analyst: Dave Cousino	Asphalt Shingle	Black Non-Fibrous Homogenous	6% Cellulose	94% Other	None Detected
719760 07C N Roof Garage Layer-2 Analyst: Dave Cousino	Shingle	Brown Non-Fibrous Homogenous	2% Cellulose 3% Fiberglass	95% Other	None Detected
719761 08A E Window Ext Analyst: Dave Cousino	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
719762 08B W Window Ext Analyst: Dave Cousino	Window Glaze	White Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected
719763 08C W Window Ext Analyst: Dave Cousino	Window Glaze	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 48 Goguac St E, Battle Creek, MI 49015

ETC Job : 205762
 Client Project : N/A
 Date Collected : 04/16/2018
 Date Received : 04/17/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
--------	-------------	------------	-----------	---------------	------------



Lab Supervisor/Other Signatory



Analyst: Dave Cousino

400 Point Count Results by EPA 600/R-93/116 PLM (denoted by "PC")
 Item 198.1: PLM Methods for Identifying and Quantitating Asbestos in Bulk Samples
 Item 198.6: PLM Methods for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples
 EPA 600/R-93/116: Method for Determination of Asbestos in Bulk Building Materials
 EPA 600/M4-82-020: Interim Method for Determination of Asbestos in Bulk Insulation Samples

ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M4-82/020 or NYSDOH-ELAP item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.

ENVIRONMENTAL TESTING LABORATORIES, INC

38900 HURON RIVER DRIVE
 ROMULUS, MICHIGAN 48174
 (734) 955-6600
 FAX: (734) 992-2261
 www.2etil.com

**Bulk Asbestos
 Chain of Custody**

ETL Project #: 205762

Client: ETC	Contact: <u>Liv Hagerman</u>	Project Location/name: <u>48 Gogue St, Battle Creek MI 49037</u>
Address: 721 N. Capitol Ave. Suite 3, Lansing, MI 48906	Phone: (734) 955-6600	Client Project #: <u>205762</u>
	Fax: (734) 955-6604	Date Sampled: <u>4/16/18</u>
	E-mail: <u>results@2etil.com</u>	
Please Provide Results: <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Verbal <input type="checkbox"/> Other _____		

Turnaround Time (TAT): RUSH Same Day 24 hr 48 hr Standard (3+ days) Other _____

PLM Instructions
 (Check all that apply)

<input checked="" type="checkbox"/> PLM EPA600/R-93/116, 1993 (Standard method)	<input checked="" type="checkbox"/> Stop at 1st Positive - Clearly mark Homogenous Group
<input type="checkbox"/> Point Counting: 400 Points*	
<input type="checkbox"/> PLM Non-Building Material (Dust, Wipe, Tape)	<input type="checkbox"/> Soil or Vermiculite Analysis *

* Additional charge and turnaround may be required

Lab ID	Sample ID	Sample Location	Material Description
<u>719738</u>	<u>01 A-E</u>	<u>- Please See Attached Sheets -</u>	
	<u>02 ABC</u>		
<u>719763</u>	<u>08 ABC</u>		

	Date	Time
Relinquished (Name/Organization): <u>Jake Glasgow ETL Group</u>	<u>4/16/18</u>	<u>5:00 am/pm</u>
Received (Name/ETL): <u>Am. Elomakin</u>	<u>4-17-18</u>	<u>10:34 am/pm</u>
Microscopical Analysis (Name/ETL): <u>me</u>		<u>am/pm</u>
Sample Login (Name/ETL): <u>David Poirier</u>	<u>4/18/18</u>	<u>9:23 am/pm</u>
Analysis (Name/ETL): <u>David Cousino</u>	<u>4/18/18</u>	<u>10:00 am/pm</u>
A/QC Review (Name/ETL): <u>Rosemary Sparta</u>	<u>4-19-18</u>	<u>8:55 am/pm</u>
Special Instructions:	Remarks	

Asbestos Material Sampling Summary Sheet

Surfacing materials

Revision date 5/7/2015

Job #:	Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205762					48 Grogue St, Battle Creek MI	70		
		Material: Ceiling texture		A	Rm 1 Center ceiling	Throughout ceiling ONLY	1000 SF	712738
		Material: Ceiling texture	F	B	Rm 3 Center ceiling			
				C	Rm 4 Ceiling			
				D	Rm 7 Center Ceiling			
				E	Rm 9 Center ceiling			
		Material: Ceiling texture						
		Material: Ceiling texture						
		Material: Ceiling texture						

<1000 SF = 3 samples

1000 - <5000 = 5 samples

2 of 3

>5000 = 7 samples

Asbestos Material Sampling Summary Sheet
Miscellaneous materials

Revision date: 5/7/2015

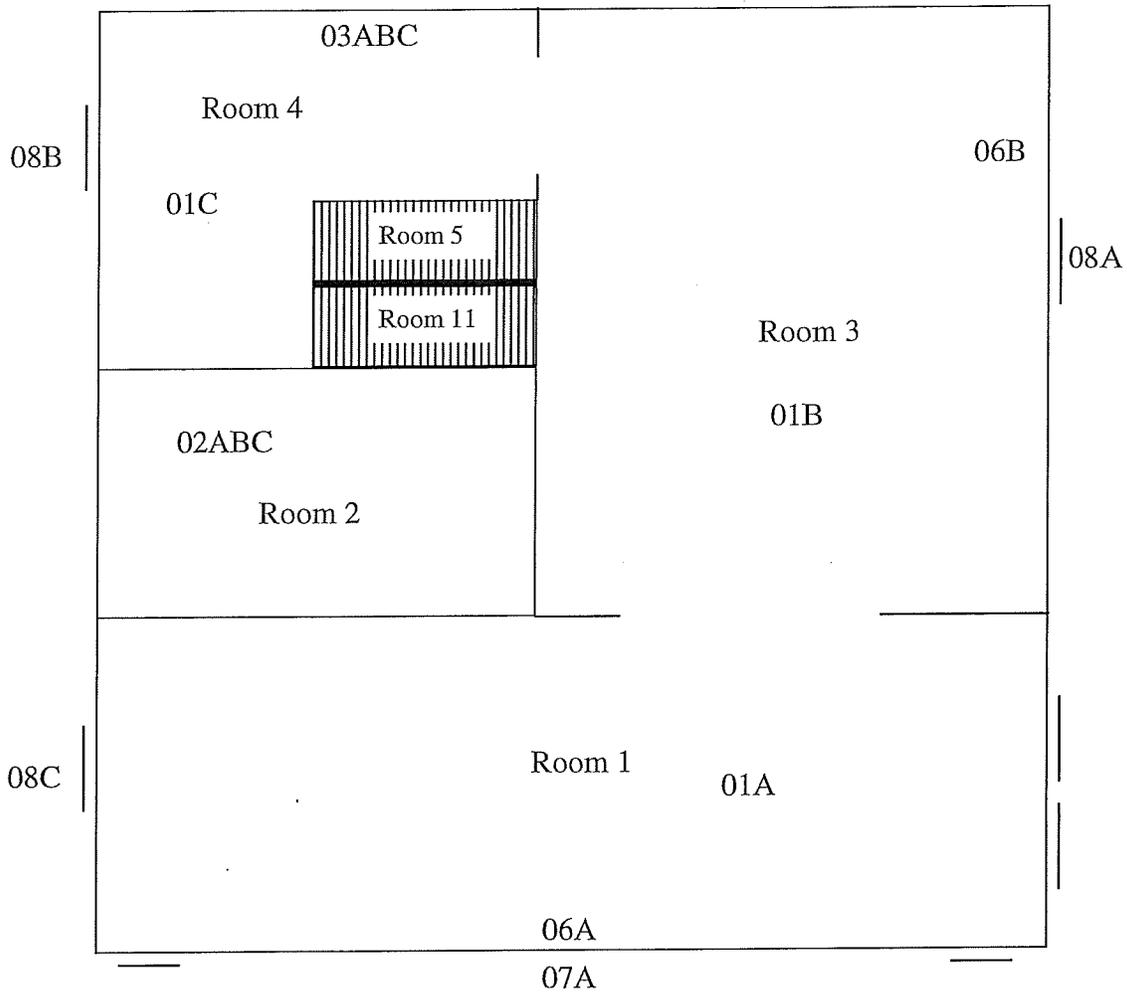
Job #:	205762		48 Gogoyac St. BATTLE CREEK		Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
Material no.	Material Description	Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location			
02	Material: 12x12 Pxs Description: TRAP	F	A B C	Rm 2 @ Door I	Rm 2	50 SF	719793 744 745
03	Material: 12x12 Pxs Description: Fan Belts	F	A B C	Rm 4 center floor I	Rm 4	144	746 747 748
04	Material: Linoleum Description: Trap Room	F	A B C	Rm 6 Door I	Rm 8	64 SF	749 756 751
05	Material: Poured concrete Description: Grey	NF	A B C	Rm 12 e center floor I	Rm 12	300 SF	752 753 754
06	Material: Drywall mud tape Description: White	F	A B C	Rm 1 N. wall Rm 3 w. wall Rm 9 n. wall	Throughout	3750 SF	755 756 757
07	Material: Asphalt Shingles Description: Black	F	A B C	N. Roof House N. Roof Garage I	ext + room Garage I	3400 SF	758 759 760
08	Material: Window Jaze Description: White	F	A B C	E. Window ext W. Window ext Windows ext	ext I	19 Windows	761 762 763

APPENDIX B

SITE MAP

1st floor

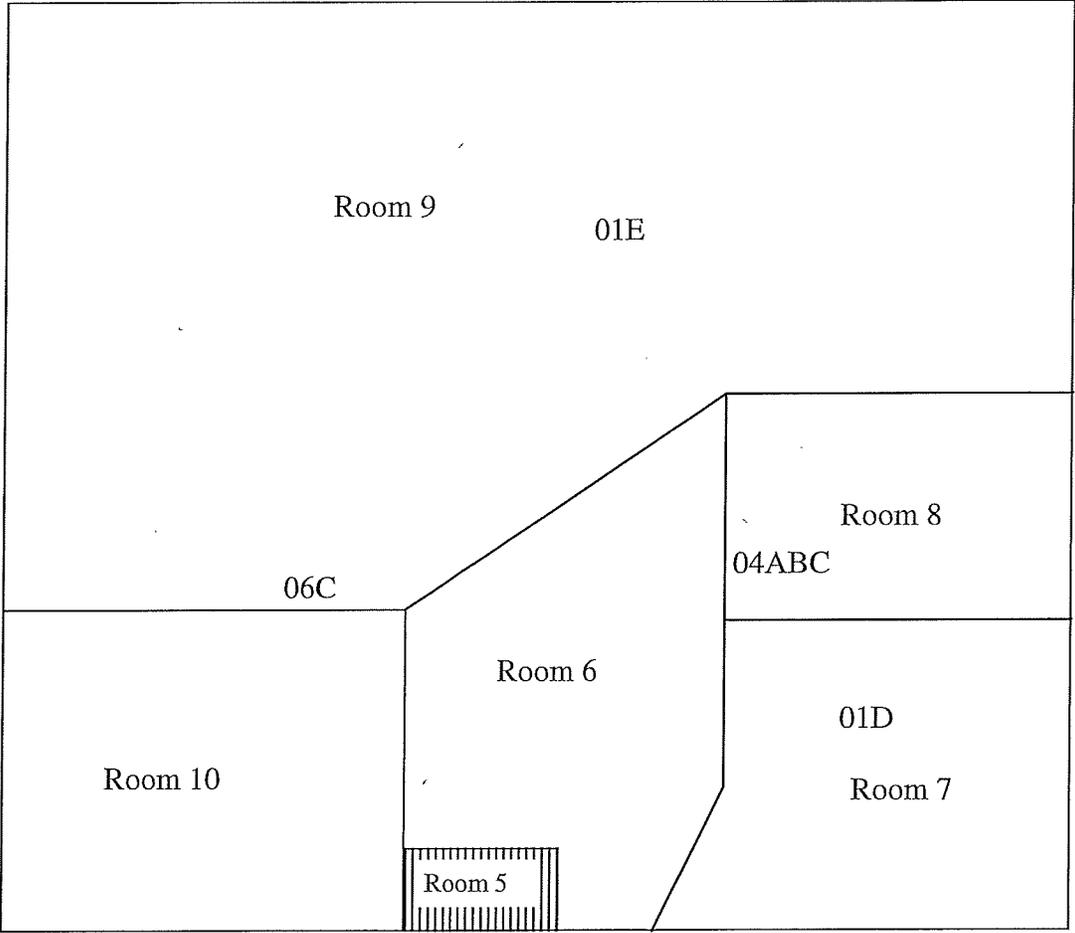
48 Goguac St, Battle Creek, MI 49015



Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205762

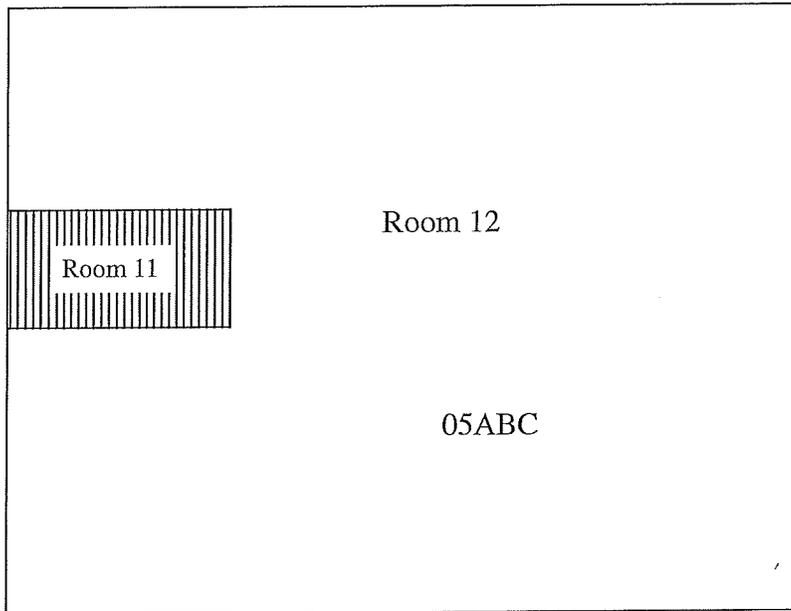


Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.

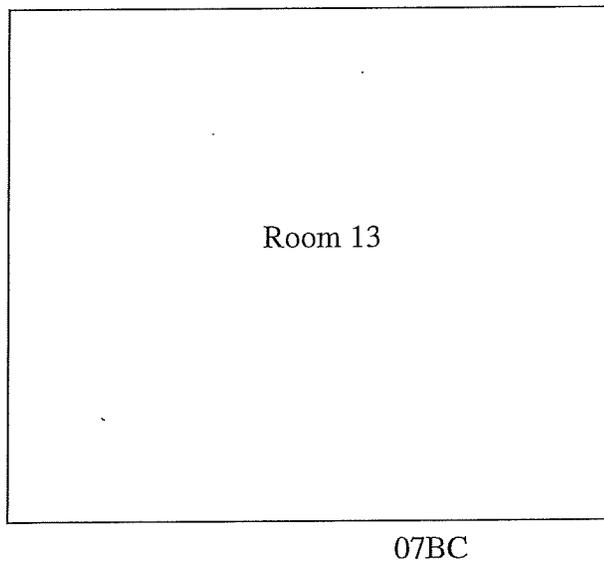


Basement

48 Goguac St, Battle Creek, MI 49015



Garage



Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.



City of Battle Creek
205762

APPENDIX C

STATE OF MICHIGAN NOTIFICATION OF INTENT TO REMOVE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ___/___/___ Rec'd Date ___/___/___
 Emergency Date ___/___/___ Valid No. _____
 OK Send Def Ltr. Date of Def Ltr. ___/___/___
 FOLLOW UP ___/___/___ Spoke w/ _____
 Comments: _____

 Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: _____ (1% Project Fee)
 Total Project Cost: _____ x 0.01 = _____
 Type of Contractor: _____ License No.: _____
 Licensing Authority: _____

1. NOTIFICATION:
 Date of Notification: _____
 Date of Revision(s): _____
 Notification Type: Original Revised Canceled Annual
Mark appropriate boxes: (both DEQ and LARA may apply):
DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]
 Planned Renovation – 10 **working** days notice
 Emergency Renovation
 Scheduled Demolition – 10 **working** days notice
 Intentional Burn – 10 **working** days notice
 Ordered Demolition
LARA (MIOSHA) [Will not accept annual notifications]
 Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
 Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
 +Include **only** those dates you are conducting asbestos removal/demo.
 Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:
 Facility Name: _____
 Location Address/Description: _____
 _____ If Apt. # of units: _____
 City/Twp. _____ State: _____ Zip Code: _____
 County: _____ Nearest Crossroad: _____
 Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
 Age: _____ Present Use: _____ Prior Use: _____
 Specific Location(s) in Facility: _____

7. DISPOSAL SITE:
 Name: _____
 Location Address: _____
 City/State/Zip: _____

8. WASTE TRANSPORTER 1:	WASTE TRANSPORTER 2:
Name: _____	_____
Address: _____	_____
City/State/Zip: _____	_____
Phone: _____	_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.
 Gov't Agency Ordering Demo: _____
 Name/Title of Person Signing Order: _____

 Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? Yes No To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (NOTE: In a demolition, cementitious ACM **cannot** remain in a structure, as it is likely to become regulated in the demolition/handling process. It **must** be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM not removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete A) for Renovation (asbestos removal/encapsulation) and/or B) for Demolition:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

- Piping Fittings Boiler(s) Tanks(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Mag Block Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

- Piping Fittings Boiler(s) Tank(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date*

Signature of Owner or Demolition Contractor *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date*

Signature of Asbestos Abatement Contractor Representative *Date*

NOTE: It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date*

Signature of Owner/Operator *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

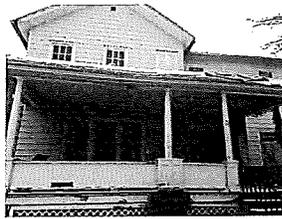
For NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



**NESHAP RENOVATION / DEMOLITION INSPECTION OF
ASBESTOS CONTAINING MATERIALS
AND OTHER HAZARDOUS WASTE MATERIALS**



FOR THE PROPERTY KNOWN AS:

35 Elm St.
Battle Creek, MI 49017

Prepared for:

City of Battle Creek
10 North Division St, Room 117
Battle Creek, MI
49017

Prepared By:

Heather Davis
Michigan Certification #: A-48908
Environmental Testing & Consulting, Inc.
38900 West Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
ETC Job #: 205764

4/17/2018
Date of Survey

4/24/2018
Date of Report

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1. Introduction

City of Battle Creek contracted Environmental Testing & Consulting, Inc. (ETC) to perform a renovation/demolition inspection of the building located at 35 Elm St., Battle Creek, MI 49017. This inspection was conducted on 4/17/2018.

The EPA, under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule, requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work can begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Heather Davis, conducted the asbestos containing building material (ACBM) inspection and identified materials suspected of containing asbestos. Heather Davis's State of Michigan Asbestos Building Inspector's certification number is A-48908.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspected material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities on the property. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspected asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAP regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. **To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.**

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not in the client's best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. **In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).**

b. PLM Analysis Methodology

Polarized Light Microscopy (PLM) samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. **Please note, the contract DID NOT include point counting as defined in NESHAP.** Should City of Battle Creek wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10%, these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included on Chart B in Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous, and that may require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand, if there were a few pesticide containers present as would be found in most homes, these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation/demolition of residential homes and asbestos materials. The MIOSHA Asbestos Construction Standard has requirements to protect the workers performing the renovation/demolition, while the EPA – NESHAP regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL, the employer will have to:

- Notify workers
- Provide worker training
- Post danger signs
- Establish periodic air monitoring regulated areas and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Conduct employee respiration monitoring
- Maintain/provide record keeping

- Perform medical surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners, in this case City of Battle Creek, are now required to notify all renovation/demolition workers of the presence, location and quantity of all ACM's within the building.

In most cases, it is more practical to have an asbestos contractor remove the ACM from the building prior to renovation/demolition than have the renovation/demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ, prior to renovation or demolition activities, requires any identified asbestos materials be removed that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation/demolition process, it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A signed document from a licensed asbestos abatement supervisor that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that the material stays intact.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within an area/building during renovation or demolition activities. If the MDEQ reviews the site and finds the material crumbled or disturbed, both the contractor and building owner may be sited up to \$27,500 per day. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material **greater than** 160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not require a notification.

If removing **more than** 15 square feet but **less than** 160 square feet, or **greater than** 10 linear feet but **less than** 260 linear feet, the contractor only needs to notify LARA as stated above.

For removals of **less than** 15 square feet or **less than** 10 linear feet, no notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee must reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, and workers are licensed by LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance.
- An asbestos supervisor must be on-site at all times when work is occurring.
- All work must be completed within regulated work areas.
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations.
- On-site personnel sampling be conducted during the removal activities.
- Prior to dismantling and leaving the site, the contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Battle Creek insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)

- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work
- Copy of the final asbestos clearance report

By requiring these documents, City of Battle Creek will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Battle Creek or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

Quantities that are listed are estimates only; in general, listed quantities represent only what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should always be assumed to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

Chart A – Materials Sampled and Asbestos Content

Material #	Material Description	Asbestos	Quantity	Location (Refer to map in Appendix B)
1	Plaster, grey with white skim coat	No	9800 SF	Throughout
2	Texture, white/grey	YES	2800 SF	Room 1-7, 14 (ceiling)
3	Duct wrap, grey	YES	225 SF	Throughout
4	Drywall, white	No	9500 SF	Throughout
5	House wrap, tan	No	4800 SF	Exterior
6	Fiber board, tan	No	4800 SF	Exterior
7	House wrap, black	No	4800 SF	Exterior
8	Linoleum, white	No	20 SF	Room 10
9	Tape, white	No	4500 SF	Throughout
10	Mud, white	No	4500 SF	Throughout
11	Blown-in-insulation, tan	No	9800 SF	Throughout
12	Roofing material, black	No	2000 SF	Exterior
13	Poured concrete, grey	No	3200 SF	Room 17
14	Window glaze, white	No	28 windows	Exterior
15	Linoleum, grey/black with burlap back	No	30 SF	Room 16
16	Linoleum, white/black diamonds	No	30 SF	Room 16
17	Linoleum, blue/white	No	50 SF	Room 16

Chart B – Other Hazardous Materials Located
(Above the household quantity Limitations)

Material #	Material Description	Quantity	Location
1	Alarm System	1	Room 9
2	Tire	5	Room 9, 12, 17
3	Paint Cans	27	Room 10, 14, 17
4	Thermostat	1	Room 11
5	Misc. Items	7	Room 2, 5, 9, 12, 17
6	Cars	3	Exterior
7	Electronics	33	Room 1, 3-7, 9, 11, 12
8	Refrigerator	2	Room 12, 15
9	Florescent Light Bulbs	12	Room 17
10	Fire Extinguisher	1	Room 12

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:



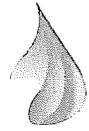
Heather Davis
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-48908

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

ENVIRONMENTAL TESTING LABORATORIES, INC.



38900 HURON RIVER DRIVE, SUITE 200
ROMULUS, MICHIGAN 48174
(734) 955-6600
FAX: (734) 955-6604

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Project Location :
35 Elm St, Battle Creek, MI 49017

Attention : Rick Bolek

Client Project : N/A

ETC Job : 205764
Report Date : 4/19/2018

Login #	Sample ID	Work Requested	Completed
720058	01A	Asbestos Analysis	04/19/2018
720059	01B	Asbestos Analysis	04/19/2018
720060	01C	Asbestos Analysis	04/19/2018
720061	01D	Asbestos Analysis	04/19/2018
720062	01E	Asbestos Analysis	04/19/2018
720063	01F	Asbestos Analysis	04/19/2018
720064	01G	Asbestos Analysis	04/19/2018
720065	02A	Asbestos Analysis	04/19/2018
720066	02B	Asbestos Analysis	04/19/2018
720067	02C	Asbestos Analysis	04/19/2018
720068	02D	Asbestos Analysis	04/19/2018
720069	02E	Asbestos Analysis	04/19/2018
720070	03A	Asbestos Analysis	04/19/2018
720071	03B	Asbestos Analysis	04/19/2018
720072	03C	Asbestos Analysis	04/19/2018
720073	04A	Asbestos Analysis	04/19/2018
720074	04B	Asbestos Analysis	04/19/2018
720075	04C	Asbestos Analysis	04/19/2018
720076	05A	Asbestos Analysis	04/19/2018
720077	05B	Asbestos Analysis	04/19/2018

Login #	Sample ID	Work Requested	Completed
720078	05C	Asbestos Analysis	04/19/2018
720079	06A	Asbestos Analysis	04/19/2018
720080	06B	Asbestos Analysis	04/19/2018
720081	06C	Asbestos Analysis	04/19/2018
720082	07A	Asbestos Analysis	04/19/2018
720083	07B	Asbestos Analysis	04/19/2018
720084	07C	Asbestos Analysis	04/19/2018
720085	08A	Asbestos Analysis	04/19/2018
720086	08B	Asbestos Analysis	04/19/2018
720087	08C	Asbestos Analysis	04/19/2018
720088	09A	Asbestos Analysis	04/19/2018
720089	09B	Asbestos Analysis	04/19/2018
720090	09C	Asbestos Analysis	04/19/2018
720091	10A	Asbestos Analysis	04/19/2018
720092	10B	Asbestos Analysis	04/19/2018
720093	10C	Asbestos Analysis	04/19/2018
720094	11A	Asbestos Analysis	04/19/2018
720095	11B	Asbestos Analysis	04/19/2018
720096	11C	Asbestos Analysis	04/19/2018
720097	12A	Asbestos Analysis	04/19/2018
720098	12B	Asbestos Analysis	04/19/2018
720099	12C	Asbestos Analysis	04/19/2018
720100	13A	Asbestos Analysis	04/19/2018
720101	13B	Asbestos Analysis	04/19/2018
720102	13C	Asbestos Analysis	04/19/2018
720103	14A	Asbestos Analysis	04/19/2018
720104	14B	Asbestos Analysis	04/19/2018

Login #	Sample ID	Work Requested	Completed
720105	14C	Asbestos Analysis	04/19/2018
720106	15A	Asbestos Analysis	04/19/2018
720107	15B	Asbestos Analysis	04/19/2018
720108	15C	Asbestos Analysis	04/19/2018
720109	16A	Asbestos Analysis	04/19/2018
720110	16B	Asbestos Analysis	04/19/2018
720111	16C	Asbestos Analysis	04/19/2018
720112	17A	Asbestos Analysis	04/19/2018
720113	17B	Asbestos Analysis	04/19/2018
720114	17C	Asbestos Analysis	04/19/2018

Reviewed by:



Quality Assurance Coordinator



Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Location :
35 Elm St, Battle Creek, MI 49017

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720058 01A Rm 13 S Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720058 01A Rm 13 S Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720059 01B Rm 14 E Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720059 01B Rm 14 E Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720060 01C Rm 8 W Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720060 01C Rm 8 W Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M4-82/020 or NYSDOH-ELAP item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 35 Elm St, Battle Creek, MI 49017

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720061 01D Rm 1 N Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720061 01D Rm 1 N Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720062 01E Rm 2 Center Ceiling Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720062 01E Rm 2 Center Ceiling Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720063 01F Rm 7 E Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720063 01F Rm 7 E Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 35 Elm St, Battle Creek, MI 49017

ETC Job : 205764
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720064 01G Rm 5 S Wall Layer-1 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720064 01G Rm 5 S Wall Layer-2 Analyst: Scott Larabell	Skim	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720065 02A Rm 3 Center Ceiling Layer-1 Analyst: Scott Larabell	Texture	White Non-Fibrous Homogenous	2% Cellulose	95% Other	3% Chrysotile
720065 02A Rm 3 Center Ceiling Layer-2 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720066 02B Rm 5 Center Ceiling Layer-1 Analyst: Scott Larabell		Not Analyzed			
720066 02B Rm 5 Center Ceiling Layer-2 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected

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NVLAP LAB CODE 201624-D

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus,MI 48174

Location :
35 Elm St, Battle Creek, MI 49017

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720067 02C Rm 6 N Ceiling Layer-1 Analyst: Scott Larabell		Not Analyzed			
720067 02C Rm 6 N Ceiling Layer-2 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720068 02D Rm 7 S Ceiling Layer-1 Analyst: Scott Larabell		Not Analyzed			
720068 02D Rm 7 S Ceiling Layer-2 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720069 02E Rm 1 S Ceiling Layer-1 Analyst: Scott Larabell		Not Analyzed			
720069 02E Rm 1 S Ceiling Layer-2 Analyst: Scott Larabell	Plaster	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720070 03A Rm 17 Duct W/Boot Analyst: Scott Larabell	Duct Wrap	Grey Fibrous Homogenous	10% Cellulose	55% Other	35% Chrysotile

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To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 35 Elm St, Battle Creek, MI 49017

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720071 03B Rm 17 Duct E/Boot Analyst: Scott Larabell		Not Analyzed			
720072 03C Rm 17 Center Duct/Boot Analyst: Scott Larabell		Not Analyzed			
720073 04A Rm 13 NW Ceiling Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
720074 04B Rm 9 E Wall Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720075 04C Rm 12 Center Ceiling Analyst: Scott Larabell	Drywall	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720076 05A Ext House S Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
720077 05B Ext House S Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

Location :
 35 Elm St, Battle Creek, MI 49017

ETC Job : 205764
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720078 05C Ext House E Wall Analyst: Scott Larabell	House Wrap	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected
720079 06A Ext House S Wall Analyst: Scott Larabell	Fiber Board	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
720080 06B Ext House S Wall Analyst: Scott Larabell	Fiber Board	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
720081 06C Ext House E Wall Analyst: Scott Larabell	Fiber Board	Tan Fibrous Homogenous	90% Cellulose	10% Other	None Detected
720082 07A Ext House N Wall Analyst: Scott Larabell	House Wrap	Black Fibrous Homogenous	85% Cellulose	15% Other	None Detected
720083 07B Ext House NE Wall Analyst: Scott Larabell	House Wrap	Black Fibrous Homogenous	80% Cellulose	20% Other	None Detected
720084 07C Ext House NW Wall Analyst: Scott Larabell	House Wrap	Black Fibrous Homogenous	80% Cellulose	20% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205764
 Client Project : N/A
 Date Collected : 04/17/2018
 Date Received : 04/18/2018
 Date Analyzed : 04/19/2018

Location :
 35 Elm St, Battle Creek, MI 49017

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720085 08A E Floor Rm 10 Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected
720086 08B E Floor Rm 10 Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	12% Cellulose	88% Other	None Detected
720087 08C E Floor Rm 10 Analyst: Scott Larabell	Linoleum	White Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected
720088 09A Rm 13 NW Ceiling Analyst: Scott Larabell	Tape	White Fibrous Homogenous	80% Fiberglass 3% Cellulose	17% Other	None Detected
720089 09B Rm 9 E Wall Analyst: Scott Larabell	Tape	White Fibrous Homogenous	85% Fiberglass 5% Cellulose	10% Other	None Detected
720090 09C Rm 12 Center Ceiling Analyst: Scott Larabell	Tape	White Fibrous Homogenous	90% Fiberglass 2% Cellulose	8% Other	None Detected
720091 10A Rm 13 NW Ceiling Analyst: Scott Larabell	Mud	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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NVLAP LAB CODE 201124-D

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus,MI 48174

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Location :
35 Elm St, Battle Creek, MI 49017

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720092 10B Rm 9 E Wall Analyst: Scott Larabell	Mud	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720093 10C Rm 12 Center Ceiling Analyst: Scott Larabell	Mud	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720094 11A Rm 2 Center Ceiling Analyst: Scott Larabell	Blown-In Insulation	Tan Fibrous Homogenous	85% Cellulose	15% Other	None Detected
720095 11B Rm 6 Center Ceiling Analyst: Scott Larabell	Blown-In Insulation	Tan Fibrous Homogenous	80% Cellulose	20% Other	None Detected
720096 11C Rm 5 NE Ceiling Analyst: Scott Larabell	Blown-In Insulation	Tan Fibrous Homogenous	80% Cellulose	20% Other	None Detected
720097 12A Ext Roof N Layer-1 Analyst: Scott Larabell	Roofing Materials	Black Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720097 12A Ext Roof N Layer-2 Analyst: Scott Larabell	Shingle	White Non-Fibrous Homogenous	3% Cellulose 3% Fiberglass	94% Other	None Detected

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NVLAP LAB CODE 201023-0

Certificate of Analysis

Environmental Testing Laboratories, Inc.



38900 Huron River Drive,
Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Location :
35 Elm St, Battle Creek, MI 49017

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720098 12B Ext Roof NE Layer-1 Analyst: Scott Larabell	Roofing Materials	Black Non-Fibrous Homogenous	2% Fiberglass 2% Cellulose	96% Other	None Detected
720098 12B Ext Roof NE Layer-2 Analyst: Scott Larabell	Shingle	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720099 12C Ext Roof NW Layer-1 Analyst: Scott Larabell	Roofing Materials	Black Non-Fibrous Homogenous	2% Cellulose 3% Fiberglass	95% Other	None Detected
720099 12C Ext Roof NW Layer-2 Analyst: Scott Larabell	Shingle	White Non-Fibrous Homogenous	2% Cellulose 5% Fiberglass	93% Other	None Detected
720100 13A Rm 17 S Floor Analyst: Scott Larabell	Poured Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720101 13B Rm 17 N Floor Analyst: Scott Larabell	Poured Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
720102 13C Rm 17 SW Floor Analyst: Scott Larabell	Poured Concrete	Grey Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Location :
35 Elm St, Battle Creek, MI 49017

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720103 14A Rm 11 Ext Window Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720104 14B Rm 13 Ext Window Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720105 14C Rm 12 Ext Window Analyst: Scott Larabell	Window Glaze	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
720106 15A Rm 16 Landing Analyst: Scott Larabell	Linoleum	Grey/Black Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected
720107 15B Rm 16 Landing Analyst: Scott Larabell	Linoleum	Grey/Black Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
720108 15C Rm 16 Landing Analyst: Scott Larabell	Linoleum	Grey/Black Non-Fibrous Homogenous	13% Cellulose	87% Other	None Detected
720109 16A Rm 16 Landing Analyst: Scott Larabell	Linoleum	White/Black Non-Fibrous Homogenous	7% Cellulose	93% Other	None Detected

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Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
 38900 Huron River Drive
 Romulus, MI 48174

ETC Job : 205764
Client Project : N/A
Date Collected : 04/17/2018
Date Received : 04/18/2018
Date Analyzed : 04/19/2018

Location :
 35 Elm St, Battle Creek, MI 49017

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
720110 16B Rm 16 Landing Analyst: Scott Larabell	Linoleum	White/Black Non-Fibrous Homogenous	10% Cellulose	90% Other	None Detected
720111 16C Rm 16 Landing Analyst: Scott Larabell	Linoleum	White/Black Non-Fibrous Homogenous	10% Cellulose	90% Other	None Detected
720112 17A Rm 16 Tread Analyst: Scott Larabell	Linoleum	Blue/White Non-Fibrous Homogenous	15% Cellulose	85% Other	None Detected
720113 17B Rm 16 Tread Analyst: Scott Larabell	Linoleum	Blue/White Non-Fibrous Homogenous	20% Cellulose	80% Other	None Detected
720114 17C Rm 16 Tread Analyst: Scott Larabell	Linoleum	Blue/White Non-Fibrous Homogenous	18% Cellulose	82% Other	None Detected

Lab Supervisor/Other Signatory

Analyst: Scott Larabell

400 Point Count Results by EPA 600/R-93/116 PLM (denoted by "PC")
 Item 198.1: PLM Methods for Identifying and Quantitating Asbestos in Bulk Samples
 Item 198.6: PLM Methods for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples
 EPA 600/R-93/116: Method for Determination of Asbestos in Bulk Building Materials
 EPA 600/M4-82-020: Interim Method for Determination of Asbestos in Bulk Insulation Samples

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**Bulk Asbestos
 Chain of Custody**

ETL Project #: 205764

Client: ETC	Contact: <u>Liv Hagerman</u>	Project Location/Name:
Address: 721 N. Capitol Ave, Suite 3, Lansing, MI 48906	Phone: (734) 955-6600	<u>35 Elm St, Battle Creek MI</u>
	Fax: (734) 955-6604	Client Project #:
	E-mail: results@2etc.com	Date Sampled: <u>4/17/18</u>
Please Provide Results: <input type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Verbal <input type="checkbox"/> Other _____		

Turnaround Time (TAT): RUSH Same Day 24 hr 48 hr Standard (3+ days) Other _____

PLM Instructions
 (Check all that apply) 3 days

<input checked="" type="checkbox"/> PLM EPA600/R-93/116, 1993 (Standard method)	<input checked="" type="checkbox"/> Stop at 1st Positive - Clearly mark Homogenous Group
<input type="checkbox"/> Point Counting: 400 Points*	
<input type="checkbox"/> PLM Non-Building Material (Dust, Wipe, Tape)	<input type="checkbox"/> Soil or Vermiculite Analysis *

* Additional charge and turnaround may be required

Lab ID	Sample ID	Sample Location	Material Description
<u>720058</u>	<u>01A-G</u>	<u>See attached sheets</u>	
	<u>02A-E</u>		
	<u>03A-C</u>		
<u>720114</u>	<u>17A-C</u>		

	Date	Time
Relinquished (Name/Organization): <u>Heather Davis</u>	<u>4/17/18</u>	<u>5:30</u> am/pm
Received (Name/ETL): <u>Sarah Poirier</u>	<u>4/18/18</u>	<u>10:15</u> am/pm
Microscopical Analysis (Name/ETL): <u>Scott Swadlow</u>	<u>4-18-18</u>	<u>4:45</u> am/pm
Sample Login (Name/ETL): <u>Sarah Poirier</u>	<u>4/18/18</u>	<u>10:41</u> am/pm
Analysis (Name/ETL): <u>Scott Swadlow</u>	<u>4-18-18</u>	<u>4:45</u> am/pm
QC Review (Name/ETL): <u>Matthew Walls</u>	<u>4/19/18</u>	<u>1:19</u> am/pm
Special Instructions:	Remarks	

Asbestos Material Sampling Summary Sheet

Surfacing materials

Revision date 5/7/2015

Job #:	205764	35 Elm St, Battle Creek MI	4/17/18	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #	
Material no.	Material Description	Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location			
01	Material: Plaster grey w/skim coat white	F	A	Rm 13 south wall 720058	Throughout	9800 SF	51 32
			B	Rm 14 east wall 059			
			C	Rm 8 west wall 060			
			D	Rm 1 north wall 061			
			E	Rm 2 center ceiling 062			
			F	Rm 7 east wall 063			
			G	Rm 5 south wall 064			
02	Material: Texture white / grey	F	A	Rm 3 center ceiling 065	2nd Floor Ceilings Rm 14	2800 SF	3
			B	Rm 5 Center ceiling 066			
			C	Rm 6 North ceiling 067			
			D	Rm 7 South ceiling 068			
			E	Rm 1 south ceiling 069			
	Material:						

<1000 SF = 3 samples

1000 - <5000 = 5 samples

>5000 = 7 samples

Asbestos Material Sampling Summary Sheet
 TSI (Thermal System Insulation) materials

Revision date 5/7/2015

Job #:	205764	35 Elm St, Battle Creek	4/17/18				
Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
03	Material: Duct wrap Description: gung	F	A	m17 duct west / boot	Ducts throughout	225 225 SF	720070
			B	m17 duct east / boot			071
			C	m17 center duct / boot			072
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						

3 samples with the exception of patches less than 6 LF or 6 SF, then only 1 sample

Asbestos Material Sampling Summary Sheet

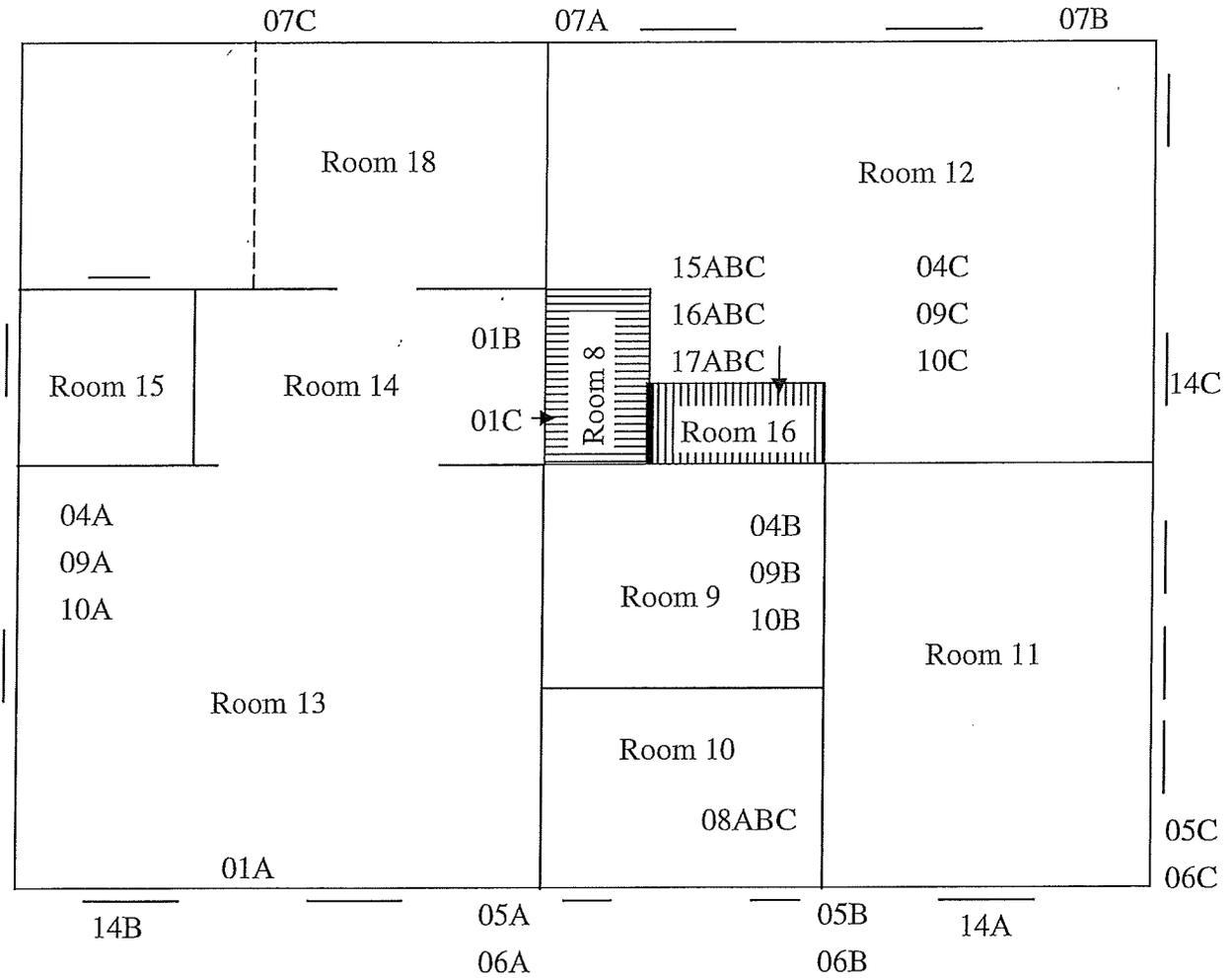
Miscellaneous materials

Revision date 5/7/2015

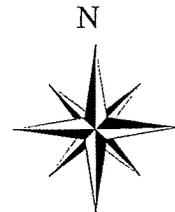
Job #:	Material no.		Material Description	Friable (F)/ Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
205764	35		ELM St, Battle Creek				4/17/18		
11	Material: Blown-In Insulation Description: tan		F	A	Rm 2 center ceiling	720094	Throughout	9800 SF	30
12	Material: Roofing Materials Description: shingles black		NF	B	Rm 6 center ceiling	095			
13	Material: Painted Concrete Description: grey		NF	C	Rm 5 NE ceiling	096			
14	Material: Window Glaze Description: white		NF	A	Ext roof north	097	Ext	2000 SF	55
15	Material: Linoleum Description: grey/black		NF	B	Ext roof NE	098	roof		
16	Material: Linoleum Description: white/black diamonds		NF	C	Ext roof NW	099			
17	Material: Linoleum Description: blue/white		NF	A	Rm 17 south floor	100			
18	Material: Linoleum Description: grey/black		NF	B	Rm 17 north floor	101			
19	Material: Linoleum Description: white/black		NF	C	Rm 17 SW floor	102	17	3200 SF	9
20	Material: Linoleum Description: white/black		NF	A	Rm 12 ext window	103	Ext	20 UMF	6
21	Material: Linoleum Description: white/black		NF	B	Rm 13 ext window	104	Windows		
22	Material: Linoleum Description: white/black		NF	C	Rm 12 ext window	105			
23	Material: Linoleum Description: white/black		NF	A	Rm 16 landing	106	16	30 SF	15
24	Material: Linoleum Description: white/black		NF	B	Rm 16 landing	107			
25	Material: Linoleum Description: white/black		NF	C	Rm 16 landing	108			
26	Material: Linoleum Description: white/black		NF	A	Rm 16 landing	109			
27	Material: Linoleum Description: white/black		NF	B	Rm 16 landing	110	16	30 SF	15
28	Material: Linoleum Description: white/black		NF	C	Rm 16 landing	111			
29	Material: Linoleum Description: white/black		NF	A	Rm 16 tread	112			
30	Material: Linoleum Description: white/black		NF	B	Rm 16 tread	113	16	50 SF	14
31	Material: Linoleum Description: white/black		NF	C	Rm 16 tread	114			

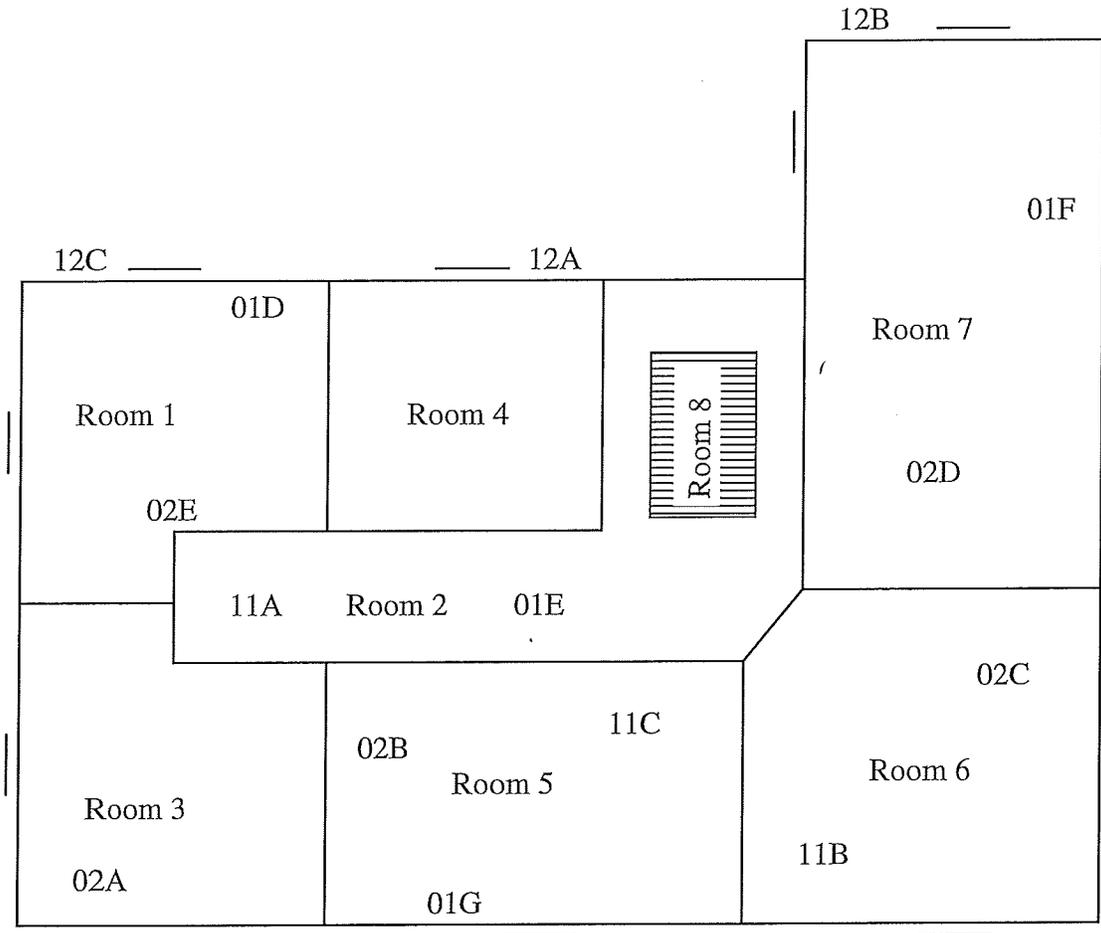
APPENDIX B

SITE MAP

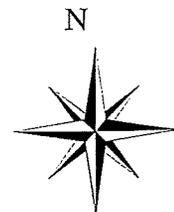


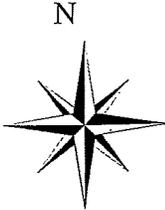
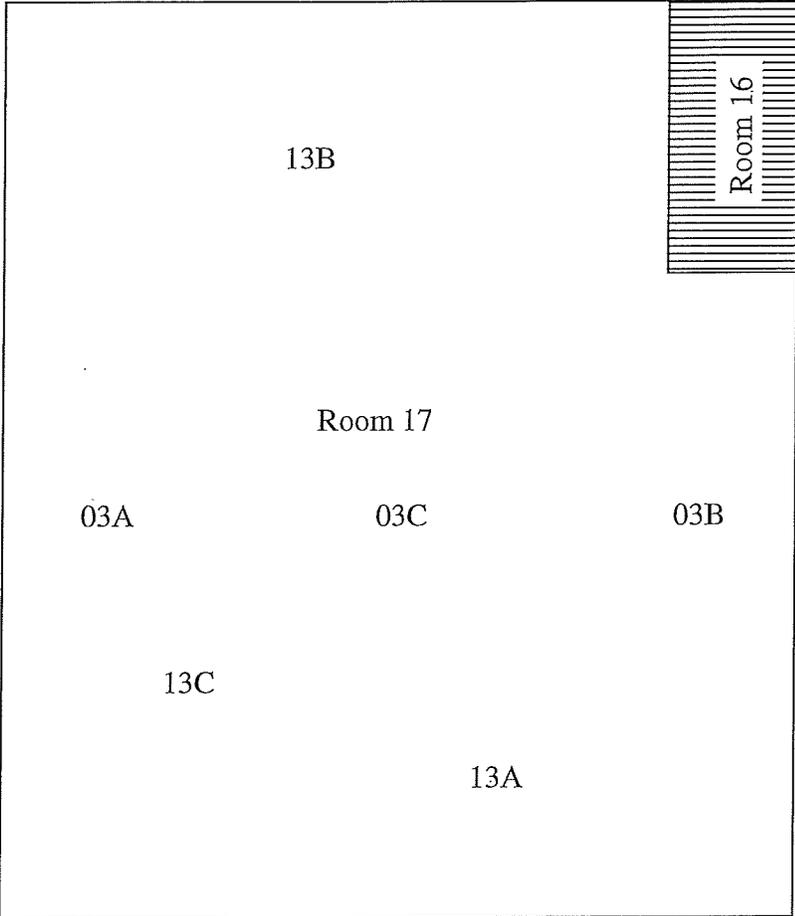
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.





Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.





Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.

APPENDIX C

STATE OF MICHIGAN NOTIFICATION OF INTENT TO REMOVE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ___/___/___ Rec'd Date ___/___/___
 Emergency Date ___/___/___ Valid No. _____
 OK Send Def Ltr. Date of Def Ltr. ___/___/___
 FOLLOW UP ___/___/___ Spoke w/ _____
 Comments: _____

 Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
 Total Project Cost: _____ x 0.01 = _____
 Type of Contractor: _____ License No.: _____
 Licensing Authority: _____

1. NOTIFICATION:
 Date of Notification: _____
 Date of Revision(s): _____
 Notification Type: Original Revised Canceled Annual
Mark appropriate boxes: (both DEQ and LARA may apply):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is threshold]
 Planned Renovation – 10 **working** days notice
 Emergency Renovation
 Scheduled Demolition – 10 **working** days notice
 Intentional Burn – 10 **working** days notice
 Ordered Demolition
LARA (MIOSHA) [Will not accept annual notifications]
 Demo, Reno, Encap. (>10 In. ft./15 sq. ft.) 10 **calendar** days notice
 Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
 +Include **only** those dates you are conducting asbestos removal/demo.
 Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:
 Facility Name: _____
 Location Address/Description: _____
 _____ If Apt. # of units: _____
 City/Twp. _____ State: _____ Zip Code: _____
 County: _____ Nearest Crossroad: _____
 Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
 Age: _____ Present Use: _____ Prior Use: _____
 Specific Location(s) in Facility: _____

7. DISPOSAL SITE:
 Name: _____
 Location Address: _____
 City/State/Zip: _____

8. WASTE TRANSPORTER 1:	WASTE TRANSPORTER 2:
Name: _____	_____
Address: _____	_____
City/State/Zip: _____	_____
Phone: _____	_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.
 Gov't Agency Ordering Demo: _____
 Name/Title of Person Signing Order: _____

 Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? Yes No To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (NOTE: In a demolition, cementitious ACM **cannot** remain in a structure, as it is likely to become regulated in the demolition/handling process. It **must** be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM not removed prior to demo.		Units of Measure	
		Category I	Category II		
_____	_____	_____	_____	<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
_____	_____	_____	_____	<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
_____	_____	_____	_____	<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete A) for Renovation (asbestos removal/encapsulation) and/or B) for Demolition:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

- Piping Fittings Boiler(s) Tanks(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Mag Block Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

- Piping Fittings Boiler(s) Tank(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
 Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator Date

Signature of Owner/Operator Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)