

REGULATED ASBESTOS-CONTAINING MATERIEALS DEMOLITION CLEAN-UP PLAN

211 and 213 East Broadway Street
Stanwood, Cedar County, Iowa 52337

February 23, 2022
Brownfields Assessment Grant: BF97782001



Prepared for:

East Central Intergovernmental Association (ECIA)
7600 Commerce Drive
Dubuque, Iowa 52002

and

City of Stanwood, Iowa
209 East Broadway
Stanwood, Iowa 52337

Prepared by:

Terracon Consultants, Inc.
Bettendorf, Iowa

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
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ASBESTOS PROJECT DESIGNER CERTIFICATION

I hereby certify that this plan, specifications, or report was prepared by me or under my direct supervision and that I am a duly certified and licensed Asbestos Project Designer in the State of Iowa. A copy of my license is provided below.

Eric Harris
Iowa Asbestos Project Designer
License No.: 21-7098

License Type	Number	Expires
INSPECTOR	21-6518	06-11-2022
SUPERVISOR	19-3071	08-20-2020
PROJECT DESIGNER	21-7098	10-06-2022

This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

Rod A. Roberts
Rod A. Roberts
Labor Commissioner

This document has also been reviewed by the following, who is a duly certified and licensed Asbestos Project Designer in the State of Iowa and a Certified Industrial Hygienist.

Frank Mitchell (Mitch) Reiber, PG, CIH – National Director, Asbestos Services and Disaster Response
Iowa Asbestos Project Designer
License No.: 21-6356
CIH-CP: 9692

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1.0 GENERAL INFORMATION

1.1 Project Identification

The City of Stanwood, Iowa (the City, Owner, or Stanwood) is requesting a qualified contractor to furnish of all labor, materials, tools, equipment, and incidentals required for the for the demolition, clean-up, and disposal of two vacant conjoined two-story structures with a combined size of approximately 5,900 square feet. The structures were historically used as a commercial shop and residential apartments. The structures are primarily constructed with brick/block and wood. The structures are asbestos containing and demolition debris shall be handled and disposed as asbestos containing/contaminated waste. As discussed below, site conditions do not allow for prior abatement of asbestos containing materials prior to demolition. The selected contractor shall provide a pad-ready site for future redevelopment (the Project).

The project site is located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa (Cedar County parcels 0460-02-24-308-007-0 and 0460-02-24-308-008-0) (the Site). As shown in **Appendix A**, the Site is further described as Part of Lots 12 and 13 in Block 1 of the original town of Stanwood, Cedar County, Iowa, more particularly described as follows:

Commencing at a point 26 feet west of the northeast corner of said Lot 13; thence running south 62 feet; thence West 16 feet; thence south to the southeast corner of said lot 12; thence west 10 feet; thence north to Broadway Street; thence east 26 feet to the place of beginning. For the purposes of this project, the clean-up shall also include the debris located on the balance of Lot 13, as required.

The City is seeking funding from the United States Environmental Protection Agency (EPA or USEPA) Brownfields Revolving Loan Fund (RLF) to complete demolition of the site's structures.

This RACM Clean-up Plan (the Clean-up Plan) has been prepared under Brownfields Assessment Grant BF97782001 and in general accordance with the USEPA cooperative agreement awarded 9/18/2020 as grant Number: BF97782001; the East Central Intergovernmental Association (ECIA) standard consultant contract for Qualified Environmental Professional (QEP) consultant contract ECIA Brownfield coalition executed 12/3/2020; ECIA's Generic Quality Assurance Project Plan approved by EPA on March 23, 2021; Terracon's proposal dated January 21, 2022; and the Notice to Proceed dated January 21, 2022.

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As of the date of preparation of this Clean-up Plan, the City has not designed a General Contractor, QEP, or industrial hygiene consultant to assist with oversight of this project.

1.2 Site Conditions

As described in **Appendix B**, the structures are no longer structurally safe to enter due to ongoing decay as opined by Select Structural Engineering's Iowa Licensed Professional Engineer (PE). Therefore, asbestos-containing materials cannot be removed prior to demolition. Demolition¹ and disposal of the structures shall be conducted as regulated asbestos-containing materials (RACM) by an Iowa-licensed asbestos demolition contractor (the contractor). Known asbestos containing materials are identified in Terracon's Asbestos Sampling Survey Report dated July 22, 2021, included as **Appendix C**.

During a Phase II Environmental Site Assessment (Phase II ESA) conducted at the site (report dated January 14, 2022), lead concentrations (up to 500 mg/kg) was encountered in shallow soils (< 2-feet below grade) that exceeded the Iowa Department of Natural Resources (IDNR) Statewide Standards (SWS) for soil. Arsenic concentrations (up to 6.6 mg/kg) were also encountered in soil in soil, which exceeded the IDNR SWS; however, the concentrations of arsenic are within the natural occurring range typically present in Iowa soils and do not represent a suspect release to the site. A soil and groundwater management plan has been developed for the Project and is included in **Appendix D**.

1.3 Definitions

Select definitions of terms are provided in **Appendix E**.

2.0 PROJECT CONDITIONS

2.1 Site and Project Familiarization

Upon submitting a bid, the Contractor acknowledges satisfaction as to the nature and location of the work and general/local conditions; particularly those bearing upon transportation, disposal, handling and storage of materials, uncertainties of weather, site physical conditions, equipment and facilities needed prior to and during the execution of work of the project, and all other matters which can in any way affect the work of the project. Any failure by the Contractor to acquaint himself/herself with all the available information concerning these conditions will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. Contractor is to field verify all conditions, dimensions, etc. related to this project prior to bidding.

A pre-bid site reconnaissance date will be scheduled by the City for bidders to view the site and provide requests for information to the City.

¹ No controlled demolition (implosion) will be permitted on this project.

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2.2 Contract Documents and Related Requirements

This Plan, specifications, all project-related drawings, general provisions of the Contract, Bid Documents, and all other specifications, apply to the work. The Contract documents between the City and Contractor show the work of the Contract, related requirements, and conditions impacting the project. The term “Contract Documents” means this Specification and all other documents and that may apply to the demolition and abatement work to be conducted for the Project. The Contract Documents between City and a Contractor retained by the City to conduct the work, as defined below, will show the scope of the work to be conducted, related requirements, and conditions impacting the Project. Related requirements and conditions include all applicable federal, state, and local codes and regulations, required notices and permits, restrictions on use of the site, coordination of work with other contractors as required by the City, and phasing of the work. Whenever there is a conflict or overlap of the above references or federal, state, and local regulations, the most stringent provisions apply; the City and/or ECIA shall be contacted immediately if a conflict is deemed to be present.

Demolition related work of the project not specified within these documents shall conform to the latest edition of the Iowa Statewide Urban Design and Specifications (SUDAS) Design Manual. In any case where there is a conflict between sections of this specification or relevant local, State or Federal regulations, and the Scope of Work, the most stringent criteria will govern.

2.3 Pre-Demo Conference

Following the execution of the Contract and prior to demolition activities, the Contractor shall attend a mandatory pre-demo conference. The Contractor shall submit submittals as requested in Section 6.0 Contractor Submittals.

1. Attendees: Authorized representatives of the City, ECIA, EQP, etc., will be in attendance. The Contractor and the assigned supervisor and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to make decisions relating to the work.
2. Notice will be provided to participants prior to convening the Pre-Demo Conference.
3. Agenda: The meeting will be an organizational meeting, to review responsibilities and personnel assignments, to address regulated areas, utilities, power, light, water, etc. Items of significance that could affect progress will be discussed, which may include the following:
 - A. Tentative schedule
 - B. Critical work sequencing. Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - C. Inspect and discuss condition of construction to be demolished.
 - D. Review structural load limitations of existing structures.

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- E. Review and finalize erosion control plan.
- F. Review procedures for noise control and dust control
- G. Review procedures for protection of adjacent buildings
- H. Designation of responsible personnel
- I. Procedures for processing field decisions and change orders
- J. Procedures for processing applications for payment
- K. Discussion of Contract Documents
- L. Preparation of record documents
- M. Use of the premises
- N. Parking availability / Staging
- O. Plan of Action
- P. Staging
- Q. Transport plan
- R. Safety procedures
- S. First aid
- T. Security
- U. Housekeeping
- V. Working hours

2.4 City's Responsibility

The City will be responsible for providing the following:

1. The City shall provide legal access to the Site to the selected Contractor, as well as unrestricted access (to the extent determined safe and feasible) to all work areas for both Lots 12 and 13 on the Site.
2. The City will provide water from a fire hydrant (fire hydrant positioned on the north side of East Broadway, at the corner of W Main Street) at no charge to the Contractor. The Contractor will need to coordinate with the City for access and water usage. **Brian Champeau – City of Stanwood Public Works** can be reached at **319-350-1023**. The Contractor shall provide their own water meter to monitor water usage and shall also supply their own connections to a typical fire hydrant.
3. During initial stages of the deconstruction/demolition, the City may have to temporarily vacate the City Hall Building, located adjacent to the Site.
4. The City shall also provide not less than 72 hours' notice of activities that will affect operations of adjacent occupied buildings (i.e. the Lodge) and the potential need to vacate the building(s) for a brief time period while portions of the Site are razed.
5. The City will notify their own employees who work in or adjacent to the abatement areas. The City is required to keep records of all information received through the notification system, which relates to the presence, location, and quantity of ACM and PACM.
6. Other specific City responsibilities may be included in the City's agreement with the Contractor.

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7. Retain a QEP to oversee the project and collect air samples in accordance with this Plan.

2.5 Contractor's Responsibility

The Contractor will be responsible for the following:

1. Except as specifically noted, Contractor shall provide and pay for:
 - A. Labor, tools, materials, transportation, disposal, equipment, and machinery
 - B. Other facilities and services necessary for proper execution and completion of work within the required schedule
2. Comply with all federal, state, and local regulations as well as all portions of this Plan and any additional documentation provided by the City.
3. **The contract associated with this project is subject to Davis-Bacon and Related Acts.** Davis-Bacon Act and Related Act contractors and subcontractors shall pay their laborers and mechanics employed under the contract no less than the locally prevailing wages and fringe benefits for corresponding work on similar projects in the area. The Contractor shall comply with the Federal Labor standards set forth in the Davis Bacon Act Copeland Act and the Contract Work Hours and Safety Standards Act, and all rulings and interpretations of the Davis-Bacon Act and related Acts contained in 29 Code of Federal Regulations (CFR) Parts 1, 3 and 5 area herein incorporated by reference in this contract.
4. Removal and disposal of all regulated materials and proper generation and timely distribution of waste shipment records and waste disposal manifest(s).
5. Contractor's onsite workers shall hold appropriate and valid Iowa asbestos licenses; all the appropriate documentation shall be provided.
6. Contractor shall submit of all required local, state, and federal notifications and permits. Contractor shall provide copies of such notifications and submittals within 24 hours to the City.
7. Contractor shall maintain project records for as many years as required by local, state, and federal regulatory requirements.
8. Contractor shall conduct personal exposure assessment, monitoring, and other requirements as required by the Occupational Safety and Health Administration (OSHA). Personal exposure assessment and monitoring shall, at a minimum, include the following:
 - A. Complete an initial assessment to satisfy OSHA 1926.1101 alternative control methods for Class I/II asbestos abatement work per paragraphs (g) (g) and (g)(8) of the standard.

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- B. Alternative control methods shall capture or redirect dust before reaching employees. A certified industrial hygienist (CIH) or licensed professional engineer who is also qualified as a licensed asbestos project designer shall evaluate the work area, the projected work practices, and the engineering controls. The planned control methods shall be adequate to reduce direct and indirect employee exposure to below the permissible exposure limits (PELs) under worst-case conditions of use and shall prevent asbestos contamination outside of the regulated area.
9. Contractor shall schedule the Work on the Project in order to complete the Work by the scheduled completion date (to be determined). Coordination with the City/ECIA is critical.
10. Contractor shall satisfy requirements for multi-employer worksites as defined in 29 CFR 1926.1101(d), including notifications to other occupants and contractors on the Property concerning the work to be completed under this Plan as follows:
 - A. Employees of the Owner (City) who will work in or adjacent to the work areas.
 - B. On multi-employer work sites, all employers who will be performing work within or adjacent to the work areas.
 - C. Tenants who are occupying the space adjacent to the work areas.
 - D. Under OSHA, the Contractor also needs to perform and communicate to the Owner and adjacent employers who will be working in or adjacent to areas the same evaluation of the work area-identifying presence, location, and quantity of ACM and PACM prior to the project, and communicate which ACM and PACM remain after the project.
11. Persons engaged in the ACM portion of the Project hold appropriate valid Iowa asbestos licenses:
 - A. **Project Supervisor:** The Contractor shall provide a full-time Asbestos Abatement Supervisor at the work site who is experienced in administration and supervision of asbestos abatement projects including work practices, protective measures for the building and personnel, disposal procedures, project scheduling and management. The Project Supervisor shall be fluent in English. This person will be the Contractor's Representative and will function as the competent person at the work site responsible for compliance with applicable federal, state, and local regulations, including those relating to ACM.
 - Training: The Contractor's Supervisor shall have a current certification from an Iowa-approved trainer for a course that meets the requirements of the USEPA Model Accreditation Plan for asbestos abatement contractor/supervisor (40 CFR Part 763, Subpart E, Appendix C).

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- Experience: The Contractor's Supervisor shall have demonstrable experience in the successful management of asbestos abatement projects that are similar to the work of this contract.
 - Competent Person: The Supervisor shall meet the requirements of a Competent Person per OSHA 29 CFR 1926.
- B. Licensed Asbestos Workers:** The Contractor shall provide full-time Iowa licensed asbestos workers who are experienced in asbestos abatement work activities including work practices, personnel, and disposal practices. These individuals will report directly to the Competent Person.
12. Place a sufficient number of easily accessible fire extinguishers in each work area.
 13. Providing electricity with ground fault circuit interrupters (GFCI) that are protected and grounded, if necessary. Providing water to keep building materials adequately wet at all times; and decontamination units, if necessary. Providing work lighting, as necessary.
 14. Contractor shall provide their own water meter to monitor and log daily water usage, if utilizing City provided water. Hydrant hook-ups will also be the responsibility of the contractor, along with any street drive over (hose protectors) and associated warning signage necessary to bring the water to the Site. A report of the total gallons utilized on the project shall be submitted as part of the closeout submittal package.

2.6 Contractor Use of Site

The Contractor shall cooperate fully with the City to minimize conflicts and to facilitate the City's access to the site as needed during the project's duration. The Contractor shall perform all work in accordance with all federal, state, and local regulations and this Plan, the contract, and drawings. The Contractor shall use existing facilities strictly within the limits shown in the Contract Documents and the approved pre-abatement POA reviewed and approved by the City.

2.7 Site Security and Safety

The Contractor shall be responsible for the security of the Site when onsite work of the project occupies the site until onsite work of the project is complete and Contractor no longer occupies the site (including equipment, supplies, etc.). The Contractor shall be responsible for the following:

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1. Site security and safety is the Demolition Contractor's responsibility as soon as the Demolition Contractor mobilizes any equipment to the site.
2. The security of the work area against inadvertent and/or willful entry of unauthorized personnel is the responsibility of the Contractor.

The Contractor shall be responsible for securely fencing off the demolition site to restrict public access to the area. Site fencing shall be in place prior to the start of any site or exterior demolition and be maintained in good condition throughout the project.

3. The Contractor is responsible for all tools, equipment, materials, etc., relating to the work whether they are in the work area or not.
4. The means of the work and the safety of the Contractor's employees are solely the responsibility of the Contractor.

2.8 Codes and Regulations

1. **General Applicability of Codes, Regulations, and Standards:** Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith.
2. **Contractor Responsibility:** The Contractor shall assume full responsibility and liability for compliance with all applicable federal, state, and local regulations pertaining to notifications, work practices, hauling, and disposal of ACM, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records personnel as required by the applicable federal, state, and local regulations. The Contractor shall hold the City harmless for failure to comply with any applicable work, hauling, disposal, safety, health, and/or other on the part of himself, his employees, or his subcontractors. The Contractor incurs all costs including all sampling/analytical costs for sampling to comply with OSHA regulations.

The Contractor shall determine the applicability of any process patent he/she may be employing and be responsible for paying any fees, royalties, or licenses that may be required for the use of patented processes.

3. **Federal Requirements:** Federal requirements that govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:
 - A. U.S. Department of Labor, OSHA:

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- Asbestos – 29 CFR 1910.1001 (general industry) and 1926.1101 (construction).
- Respiratory protection – 29 CFR 1910.134.
- Specifications for accident prevention signs and tags – 29 CFR 1910.145.
- Medical and first aid – 29 CFR 1910.151.
- Access to employee exposure and medical records – 29 CFR 1910.1020.
- Hazard Communication – 29 CFR 1910.1200.
- Construction industry standards – 29 CFR 1926.

B. USEPA:

- Asbestos – 40 CFR 763, Subpart E–Asbestos-Containing Materials in Schools.
- National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR 61, Subpart A–General Provisions.
- NESHAP – 40 CFR 61, Subpart M–National Emission Standard for Asbestos.
- The Clean Water Act - National Pollutant Discharge Elimination System (NPDES)

C. U.S. Department of Transportation 49 CFR 171-180

- Part 171 – Hazardous Substances
- Part 172 – Hazardous Materials Tables, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans
- Part 173 – Shippers – General Requirements for Shipments and Packaging's

4. Applicable Iowa state regulations, Iowa Administrative Code (IAC): All state requirements that govern asbestos abatement work or hauling and disposal of asbestos waste materials shall apply.

- A. IAC 567-23 – Asbestos Fiber Emissions
- B. IAC 567-109 – Asbestos-Containing Waste Disposal
- C. IAC 875-10 – Occupational Exposure to Asbestos
- D. IAC 875-155 – Asbestos Removal and Encapsulation Activities

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5. Local Requirements: All local requirements shall apply.
6. Other Publications:

Other publications that apply to asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

A. American National Standards Institute (ANSI)

25 West 43rd Street, 4th floor, New York, NY 10036
212-642-4900

- ANSI/ASSP² Z9.2-2018 – Fundamentals Governing the Design and Operation of Local Exhaust Systems
- ANSI/ISEA³ Z87.1-2015 – American National Standard for Occupational and Educational Personal Eye and Face Protection Devices
- ANSI/ASSP Z88.2-2015 – American National Standard Practices for Respiratory Protection
- ANSI/ASSP Z88.6-2006 – American National Standard for Respiratory Protection – Respirator Use – Physical Qualifications for Personnel
- ANSI/ASSP Z88.7-2010 – Color Coding of Air-Purifying Respirator Canisters, Cartridges, and Filters
- ANSI/ASSE Z88.10-2010 – Respirator Fit Testing Methods
- ANSI/ISEA Z89.1-2014 – Personal Protection – Protective Headwear for Industrial Workers

B. ASTM International

100 Barr Harbor Drive, PO Box C700
West Conshohocken, PA 19428-2959
877-909-2786

- ASTM E1368 – Standard Practice for Visual Inspection of Asbestos Abatement Projects (latest edition)
- ASTM F 2413 – Standard Specification for Performance Requirements for Protective (Safety) Toe Cap Footwear (latest edition)

C. USEPA Guidance Documents: USEPA guidance documents that discuss asbestos abatement work or transport, and disposal of asbestos waste materials are listed below. These documents are made part of this section by reference.

² American Society of Safety Professionals

³ International Safety Equipment Association

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USEPA maintains an information number of 800-368-5888 (202-566-1970 in Washington, DC):

- Guidance for Controlling Asbestos-Containing materials in Buildings (Purple Book), USEPA 560/5-85-024
- Asbestos Waste Management Guidance, USEPA 530-SW-85-007
- A Guide to Respiratory Protection for the Asbestos Abatement Industry, USEPA-560-OPTS-86-001
- Guidelines for Enhanced Management of Asbestos in Water at Ordered Demolitions; EPA-453/B-16-002a July 2016

D. National Institute for Occupational Safety and Health (NIOSH) publication

- Manual of Analytical Methods, Method 7400 Asbestos Fibers by PCM⁴ (latest revision)

E. UL, LLC publication

- 586 (2009) – High-Efficiency, Particulate, Air Filter Units

F. National Fire Protection Association (NFPA®) publications

- NFPA 10 – Portable Fire Extinguishers (latest edition.)
- NFPA 701 – Standard Methods of Fire Tests for Flame Propagation of Textiles and Films (latest edition)
- NFPA 70 – National Electrical Code (latest edition)
- NFPA 90A – Installation of Air-Conditioning and Ventilating Systems (latest edition)
- NFPA 101 – Life Safety Code (latest edition)
- NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations

G. American Conference of Governmental Industrial Hygienists (ACGIH®)

- Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices (TLVs® and BEIs®) (current issue).

7. Notices:

A. USEPA or applicable state authority:

- The Contractor shall send written notification (paper or new online notification), as required by USEPA NESHAP asbestos regulations (40

⁴ Phase contrast microscopy

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CFR 61 Subpart M) and the IAC, to the IDNR and the Iowa Division of Labor (redacting) at least 10 working days prior to beginning work on abatement of asbestos-containing materials.

- Include, at a minimum, the following information in the notification sent to the IDNR and IDOL contacts:
 - 1) Name and address of the facility.
 - 2) Description of the facility being demolished or renovated, including size, age, and prior use of facility.
 - 3) Estimate of the approximate amount of friable asbestos material present in the facility in terms of linear feet of pipe and surface area on other facility components. For facilities in which the amount of friable asbestos materials is less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet), or less than 35 cubic feet on other facility components, explain techniques of estimation.
 - 4) Location of the facility being demolished or renovated.
 - 5) Scheduled starting and completion dates of demolition.
 - 6) Nature of planned demolition and method(s) to be used.
 - 7) Procedures to be used to comply with the requirements of IAC 567-23 and 109.
 - 8) Name and location of the waste disposal site where the friable asbestos waste material will be deposited.
 - Copies of NESHAP and other notifications shall be submitted to the City/ECIA/QEP for the facility's records in the same time-frame notification as given to the state and local authorities.
- B. Waste Shipment Record: A waste shipment record specifically for RACM is required for transporting asbestos waste to a disposal site. See Section 7.3 Waste Disposal Manifest.
- C. Licenses: Maintain current licenses as required by applicable federal, state, and local jurisdictions for the removal, transporting, disposal, or other regulated activity relative to the work of this Contract.
- D. Posting and Filing of Regulations: Maintain two copies of applicable federal, state, and local regulations. Post one copy of each at the job site where workers will have ready, easy access to, and daily exposure to, the regulations. Keep on file in the Contractor's office one copy of each.

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2.9 Authority to Stop Demolition

If visible emissions are observed by the QEP, the City, Contractor, or others, the demolition shall cease, and additional wetting shall be performed until no visible emissions are occurring. However, the absence of visible emissions is not sufficient evidence of materials being adequately wet. If the City, ECIA, or QEP presents a verbal and/or written *Stop Demolition Order*, the Contractor will immediately stop demolition. The Contractor will not resume demolition until authorized verbally and/or in writing by the QEP. A *Stop Demolition Order* will be issued at any time the City, ECIA, or the QEP determines conditions are not within specification or NESHAP requirements. Stoppage will continue until conditions have been corrected. Standby time and cost required for corrective action is at the Contractor's expense.

The occurrence of the following events shall be reported in writing to the City, the ECIA, or the QEP and shall require the Contractor to automatically stop RACM demolition and/or initiate additional wetting activities:

- Visible emissions
- Excessive airborne fibers on the upwind or downwind sides of the demolition area (0.1 fibers per cubic centimeter (f/cc) or greater).
- Exceedances of the OSHA asbestos excursion limit or 8-hour time-weighted average permissible exposure limit.
- Serious injury on the job site.
- Fire and/or safety emergency.
- Striking of a utility.
- Davis Bacon Wages are not being applied.
- Discovery of underground storage tanks (USTs), Archeological deposits, wells, cisterns, latrines. Follow SUDAS Specification Section 10,010 3.03 Protection of the Public protocol.
- Discovery of a hazardous condition or unanticipated hazardous materials.

3.0 WORK OF THE PROJECT

Contractor shall conduct work of the project, which includes demolition of the asbestos-contaminated building(s) located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa, level and dispose of all structures as depicted on **Appendix A**, the *Bid Form* presented in **Attachment 1** in **Appendix E**, and identified in the Pre-Bid Walkthrough, inclusive of, but not limited to: all roofing, parapets, chimneys, roof supports, joists, trusses, exterior walls, interior walls, ceilings, floors, floor coverings, windows, doors, plumbing, electrical, mechanical equipment, white metal goods, lighting, fixtures, ceilings, foundations, basements, concrete

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slabs, stone walls, cellars, cisterns, railings, planters, decks, fences. **All debris from the site shall be treated as asbestos containing/contaminated and shall be removed and disposed of by an Iowa-licensed asbestos contractor at a landfill permitted to accept RACM (to be approved by City/ECIA/QEP).** The building(s) and building materials shall be kept adequately wet⁵ at all times, starting with the demolition process through site cleanup, transport (covered containers), and final disposal.

Demolition activities are to be limited to the site property boundaries (Lots 12 and 13, as depicted in Appendix A). If additional areas are needed for staging, storage, etc., it is the Contractor's responsibility to obtain written permission from the owner(s) and the Contractor will be responsible for restoring those areas at no additional cost to the City. The gravel drive (behind the buildings) through Lots 12, 13, 14, 15, as indicated in Appendix A does not have an easement of record and is anticipated to be utilized during this project.

3.1 Protective Measures, General

1. Adjacent improvements including, but not limited to buildings, pavement, streets, sidewalks, curbs, driveways, electrical poles and lines, drainage pipes and structures, lawns, trees, handholes, signs, etc., to remain shall be protected from damage by the Contractor. City sidewalks on the north portion of the site are anticipated to remain.
Any damage during demolition shall be restored, reconstructed or replaced by the Contractor at no additional cost to the owner. All damages shall be restored or replaced to at least their original condition or as required or dictated by Federal, State, City or local governing agencies and as directed by the owner's representative.
2. Site clean-up shall be performed daily. Sidewalks, parking lots, roadways, etc. shall be kept clean at all times. It is the responsibility of the Demolition Contractor to inspect, at a minimum, each day and remove all mud, dirt, gravel, and loose materials tracked, dumped, spilled or wind-blown from this site onto adjacent properties, rights of way, public or private streets or roads, driveways, yards, or sidewalks.
3. Demolition debris that is left remaining following the end of a work shift shall be covered to the extent practicable.
4. The Contractor shall implement erosion and sediment controls and measures to prevent offsite sedimentation as required by authorities having jurisdiction.
5. All open excavations shall be protected per regulatory requirements.
6. It is necessary to meet the asbestos NESHAP requirement for keeping the regulated asbestos-containing material adequately wet at a demolition regulated by the asbestos

⁵ Adequately wet means sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

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NESHAP. Additionally, State or local dust control air quality ordinances may apply at the demolition site. The use of a low-volume misting nozzle to maintain dampness (adequately wet the debris) without excess water volume is recommended. Use a wetting agent (surfactant) to amend the water as necessary.

- A. Prevent the discharge of unpermitted demolition wastewater to ground or surface water, or to storm drains that discharge to surface water, or to the ground. Water used for demolition activities and showers should be contained and managed to prevent contamination of the demolition site and nearby areas.
- B. Do not hose down pollutants from any area to the ground, storm drains, conveyance ditches, or receiving water.
- C. Storm sewer inlets should be protected with sandbags filters, and sediment controls at the perimeter of the site.

3.2 Utilities, General

1. The Contractor shall provide verbal notice of excavation to Iowa One Call (1-800-292-8989) not less than 48 hours before excavating, excluding weekends and holidays in accordance with Iowa Code, Chapter 480.
2. The Contractor shall verify with each utility company and/or agent who is responsible to remove or relocate each existing utility. It further shall be the responsibility of the Contractor to bear the cost for the removal, termination, or relocation of utilities if the responsibility is not covered by the utility company. The Contractor will be responsible for relocating any over-head power or electrical equipment needed to complete the work to include coordinating with utility providers and any associated fees.
3. The Contractor shall locate utility mains, utility structures, and utility connections to the onsite structures.
4. Contractor shall notify the City and all the utility companies and departments 14 days or as required before demolition is to start to verify any utilities that may be present on site. All verifications, locations, size, and depths shall be made by the Contractor. When excavating around or over existing utilities, the Contractor shall notify the utility company so a representative of the utility may be present during the excavation to instruct and observe during excavation. Contractor shall verify that utilities have been disconnected and capped before starting demolition operations. The Contractor shall verify all utility service lines and verifying all utilities have been property disconnected.
5. The Contractor shall cut, remove, and cap sewer, gas, and water lines at or below the ground level and within 3-feet of the property line. The cutting and capping services shall be coordinated and verified by the City building inspector. Cap, valve, or plug and

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seal remaining utilities after bypassing according to requirements of authorities having jurisdiction.

6. The Contractor is responsible for shoring excavations as required, backfilling, and all restoration work including street patching that is required.

3.3 Traffic/Pedestrian Control

The Contractor shall provide traffic and pedestrian control measures (signs, barricades, flaggers, etc.) that are in compliance with Part VI of the Manual on Uniform Traffic Control Devices (MUTCD), latest edition and in accordance with local regulations/permitting.

3.4 Demolition, General

1. Salvage of any material is not permitted.
2. Demolition and deconstruction work shall be completed in the safe manner using manual cleaning of the demolition site to remove all materials from the site.
3. The Contractor shall be equipped with the normal tools of their trade and shall furnish all labor, tools, and other items necessary for and incidental to executing and completing all required work.
4. All equipment and vehicles utilized by the Contractor shall meet all the requirements of the federal, state, and local regulations including, without limitation, all USDOT, Iowa DOT and safety regulations, and are subject to the approval of the City. All loads shall be secured, and solid metal tailgates shall be used on all loads. Sideboards shall be sturdy and may not extend more than two feet above the metal sides of the truck or trailer.
 - A. Loading the materials with techniques to maintain a sufficient distance from personnel to reduce excessive exposure to airborne material.
 - B. Tarping, covering loads or otherwise preventing material from becoming airborne during hauling.

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5. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
6. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.
7. Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
8. General: Demolish indicated buildings and site improvements completely. Use methods required to complete the work within limitations of governing regulations and as follows:
 - A. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire-suppression devices during flame-cutting operations.
 - B. Maintain fire watch during and for at least 2 hours after flame cutting operations.
 - C. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
9. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - A. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from City and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction. The Contractor shall provide traffic and pedestrian control measures (signs, barricades, flaggers, etc.) In compliance with Part VI of the MUTCD, latest edition.
10. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection (NESHAP) regulations. Do not create hazardous or objectionable conditions, such as ice, flooding, and pollution. Manage, collect, filter

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water utilized in the demolition in accordance with EPA guidance and all Federal, state, and local regulations.

11. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.
12. Remove debris from elevated portions of the building and lower to ground by method suitable to minimize ground impact and dust generation.
13. Remove below-grade construction, including basements, foundation walls, and footings, completely.
14. Review and implement the contaminant exposure precautions and other measures as specified in the Soil and Groundwater Management Plan, included as Appendix D.
15. Existing Utilities: Demolish existing utilities and below-grade utility structures that are within existing foundation walls. Abandon utilities outside this area.
 - A. Fill abandoned utility structures with satisfactory soil materials according to backfill requirements for authorities having jurisdiction.
 - B. Piping: Disconnect piping at unions, flanges, valves, or fittings.

3.5 Waste Removal and Disposal

3.5.1 Disposal of RACM Construction Debris

The Demolition Contractor shall be responsible for the prompt off-site disposal of all demolition debris and rubbish. There shall be no on site burning or burial of any demolition debris permitted. Demolition debris shall be properly disposed of at a licensed landfill, or recycling facility in accordance with all applicable disposal regulations. Demolition debris that is left remaining following the end of a work shift shall be covered to the extent practicable.

All asbestos waste shall be stored, transported, and disposed of as per, but not limited to, the following regulations:

- All applicable federal, state, and local statutes.
- USEPA Asbestos NESHAP 40 CFR 61
- USEPA Asbestos Waste Management Guidance USEPA-530-SW-85-007
- US Department of Transportation 49 CFR 171-180

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3.5.2 Other Regulated Materials/Household Hazardous Wastes:

To the extent feasible or as required by appropriate regulators, segregate, clean/decontaminate, collect, handle, and properly dispose of other regulated materials (ballasts, refrigerant, white goods, tires) in accordance with local, State, and Federal regulations.

3.5.3 Transporters/Haulers and Waste Vessels

Transporters and haulers of asbestos waste are subject to the following:

1. The Contractor shall place caution labels on the transport vessels in accordance with OSHA regulation 29 CFR 1910.1101. During loading or unloading, mark vehicles used to transport asbestos-containing waste with the following sign, which shall be visible:

**DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST**

2. As required by the U. S. Department of Transportation, warning labels on waste vessels shall contain the following statements:

**Asbestos NA2212
Generator's Name and Location
and a Class 9 Label**

The waste transport container (truck, dumpster) shall have the Class 9 placard with the asbestos ID number NA2212.

3. As required by USEPA 40 CFR Part 61 NESHAP, each individual waste container shall be tagged with the name or USEPA identification number of the waste generator and the location at which the waste was generated.
4. The disposal site shall be approved by the City/ECIA/QEP.
5. All RACM waste shall be removed from the site only during normal working hours.
6. The Contractor shall have the transporter give the dates and times of arrival at the disposal site.
7. The transporter and the Contractor shall inspect all the transport containers prior to taking possession and signing the asbestos waste manifest. **The transporter shall not**

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have any off-site transfers or combine this asbestos waste with any other site's asbestos materials.

8. All asbestos waste hauling vessel containers are subject to the following procedures:
 - A. The asbestos waste hauling containers shall be plasticized and sealed with a minimum of one layer of 6-mil polyethylene on the sides and two layers of 6-mil polyethylene on the floor and the top shall be sealed/covered to prevent fiber, dust, or spread of debris. The waste shall be placed in an enclosable system (burrito wrapped) that is leak tight.

The Contractor shall provide plastic sheeting of at least 6-mil thickness in widths large enough to minimize the frequency of joints. The tape used for sealing of adjacent sheets of plastic sheeting and for attachment of plastic sheets to finished and unfinished surfaces of dissimilar material shall be capable of adhering under dry and wet conditions. The tape shall be able to withstand wind forces from highway driving.
 - B. The Contractor is responsible for determining and complying with applicable requirements for securing loads while in transit and that all trucks have a solid tailgate made out of metal. Contractor shall assure that all loads are properly secured and transported without threat of harm to the general public, private property, and public infrastructure.
 - C. The asbestos waste containers will not be permitted to leave the work site without the proper signatures.
 - D. The QEP, EICA, and or City may initiate random checks at the disposal site to ensure that the procedures outlined herein are complied with.

3.5.4 Waste Disposal Manifest

The asbestos waste disposal manifest (or waste shipment record (WSR)) is subject to the following procedures:

1. An asbestos waste manifest as provided for under NESHAP and/or individual states shall be provided by the Contractor and is the only manifest to be utilized.
2. The Contractor shall complete the manifest and verify that all information and amounts are accurate and that the proper signatures are in place.
3. The manifest shall have the signatures of the Contractor Supervisor and the transporter prior to any waste being removed from the work site.
4. The manifest shall be signed by the disposal facility operator to certify receipt of the asbestos-containing materials covered by the manifest.

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5. An original copy of the completed manifest shall be returned to the City/ECIA by the Contractor within 30 days of removal from the site.

3.5.5 Compliance

Compliance with the procedures described herein is mandatory and subject to the following:

1. The Contractor acknowledges, represents and warrants to the City/ECIA that it is familiar with all laws relating to disposal of the materials as stated herein and is familiar with and will comply with all guidelines, requirements, laws, regulations, and any other federal, state or local agencies or authorities. Failure to adhere to these procedures shall constitute a material breach of the Contract and the City/ECIA shall have the right to and may terminate the Contract. Termination shall not relieve the Contractor from future compliance.
2. All building materials shall be disposed of as asbestos waste and kept adequately wet until disposal.
3. Disposal of RACM waste shall be at an authorized disposal site in accordance with the requirements of the appropriate disposal authorities.
4. The Abatement Contractor shall submit to the City and ECIA the completed waste manifest form and attached receipts.
5. Waste materials shall be transported in enclosed systems to prevent loose material from falling off the vehicle.
6. At the disposal site, follow the procedures set forth by the disposal agency and in accordance with all applicable regulations.

3.6 Air Sampling

Contractor shall utilize the following general air sampling strategy during the project, as appropriate and as required by the City, ECIA, RLF, or the contract documents. This section of the document details the type of air sampling that will be performed for this project.

Fibers referred to in this section shall be either all fibers regardless of composition as counted by NIOSH Method 7400 or asbestos fibers of any size as counted using USEPA's TEM method.

3.6.1 Air Sampling During Removal

As required by contract, the QEP shall conduct the following daily area air sampling scheme (utilizing PCM sampling and analysis) outlined below. The sampling scheme may be altered to best fit site situations and contract requirements.

- Samples up-wind and down-wind of the demolition work area, as appropriate. Samples will be collected in safe locations and adjoining the regulated area.

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- The goal in each case is for the sampling volume to be at least 1,200 liters with a flow rate of approximately 2 to 10 liters per minute.
- Ambient air samples will be analyzed using PCM in accordance with NIOSH Method 7400. If excessive fiber counts are identified, the samples may be transmitted to an accredited laboratory for analysis by alternative methods.
- All sample pumps will be fitted with 25-millimeter, cowed cassettes with 0.8- μ m pore size, mixed cellulose ester filters.
- Sample pumps will be calibrated before and after every use.

3.6.2 Final Air Clearance Sampling Via PCM

Final air clearance sampling will be the responsibility of the City and the QEP and shall not be the responsibility of the Contractor.

When required, the QEP will collect PCM samples from the work area, as feasible. When feasible, a five-sample set will be collected (plus blanks). The sampling volume shall be at least 1,200 liters with a flow rate of 5 to 15 liters per minute. The final clearance release criteria will be less than 0.01 f/cc for five samples collected and analyzed in accordance with NIOSH Method 7400.

The Contractor shall provide the City and the QEP a minimum of 24-hour notice prior to the anticipated date of completion of onsite demolition and disposal activities as needed for final air clearance sampling.

3.6.3 Final Air Clearance Sampling Via TEM - Reserved

3.6.4 OSHA Personal Air Sampling

The Contractor shall collect personal air samples daily for the purpose of determining an eight-hour time-weighted average (TWA) and excursion levels during the RACM demolition process as required by OSHA.

The Contractor's competent person is responsible for managing all personnel monitoring, inspecting, and testing required by these specifications, the OSHA regulation 29 CFR 1926.1101, and for continuous monitoring of all sub-systems and procedures affecting the safety of the Contractor's employees. Safety of the Contractor's employees and providing safe conditions inside and outside the work area shall be the primary concern of the competent person. The analytical laboratory that will be used by the Contractor to analyze the samples shall be accredited by the AIHA® Laboratory Accreditation Programs, LLC under the Industrial Hygiene Laboratory Accreditation Program (IHLAP). If the samples are analyzed onsite, the analyst shall, at a minimum, participate in the AIHA® Laboratory Accreditation Programs, LLC Proficiency in Analytical Testing (PAT) Program and be rated proficient. Post a daily log of the results of personal samples and make such log available to the City/ECIA/QEP and other officials. The daily log for

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personnel shall contain information on the person sampled, the date of sample collection the time of sample start and finish, flow rate, sample volume, and fiber/cc.

The following shall be employed for the project:

- The Contractor shall collect personal air samples from the breathing zone of a minimum of 20% of the workers performing demolition and shall include both the operators of equipment and ground crew.
- The sampling volume will be 240 to 1,200 liters, with a flow rate of 0.5 to 2.5 liters per minute.
- Results of the OSHA personal air samples shall be provided to the City's Representative as soon as available and posted on the site.

3.7 Site Restoration / Earthwork

3.7.1 Earthwork, Summary

1. The Contractor shall conduct excavation, filling, compaction and grading operations as required to demolish and remove the existing structure and to achieve grades and elevations indicated on project plans or as directed elsewhere in the project specifications. Site may be utilized for future development that may include structures and pavements.
2. The Contractor shall provide suitable fill from off-site if on-site quantities are insufficient or unacceptable, and legally dispose of excess fill off-site.
3. It is expressly understood that the City, ECIA or consultants will not be responsible for interpretations or conclusions drawn therefrom by Contractor. Subsurface data, if included has been made available for the convenience of Contractor. Additional test borings and other exploratory operations may be made by Contractor at no cost to City.

3.7.2 Backfill and Fill

1. Contractor shall place and compact acceptable material in layers to required elevations. Do not place materials on surfaces that are unstable, muddy, frozen, or contain ice, or frost. Backfill excavations as promptly as work permits.
2. Contractor shall place acceptable materials in layers not more than 8" in loose depth for materials compacted by heavy equipment and not more than 4" in loose depth for materials compacted by hand equipment to subgrades indicated as follows:
 - A. Structural Fill: Use under foundations, slabs on grade and pavements.
 - B. Select Fill: Use as a stabilizing layer or under proposed foundations where directed by the testing agency
 - C. Common Fill: Use under unpaved nonstructural areas.

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Fill material descriptions are as following:

Fill Type	Description
Common fill:	Mineral soil, crushed aggregate or crushed recycled hard durable material substantially free from unsuitable materials such as organic matter, debris and frozen particles, and free from particles larger than 2" in diameter.
Select fill:	Select fill shall meet the minimum requirements of common fill, and additionally be one of the following: 1. Cohesive soil with a plasticity index less than 23 and a liquid limit less than 45 2. Granular material (sands, gravels, aggregates)
Structural fill:	Structural fill shall be a crushed aggregate meeting Iowa DOT standard for granular subbase, modified subbase, or class A roadstone.

Materials, including both imported and onsite materials shall be evaluated for use as fill by the testing agency. Substitute materials may be utilized with prior approval from the City, ECIA, QEP.

3.7.3 Earthwork Testing and Inspection

1. As indicated in the Soil and Groundwater Management Plan included in Appendix D, imported fill materials from off-site locations shall be assessed by the Contractor for potential environmental impacts. If imported fill from an off-site location(s) are to be used to backfill excavations or level the site, the material shall be assessed for impacts. It is recommended that a historical records review be performed to identify potential chemicals of concern that may be associated with the off-site location(s). The QEP will recommend sampling of the material at its source based on the historical review. It is recommended that, at minimum, one sample be collected per 1,000 cubic yards of imported material regardless of source location. The samples, at minimum, shall be analyzed for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), total extractable hydrocarbons (TEH), and Resource Conservation and Recovery Act (RCRA) Metals or other chemicals (based on the historical review) and compared to the SWS. If concentrations of the analyzed constituents are below the SWS, the soil would be considered suitable for clean fill.
2. Testing Laboratory and Reporting: The Contractor shall employ the services of a qualified independent geotechnical testing laboratory to perform soil testing and inspection service during earthwork operations.
3. Laboratory testing of fill material to be performed in accordance with ASTM D698, Standard Proctor test.
4. Field testing of fill material to be performed in accordance with ASTM D6938, field density testing by nuclear methods. Frequency of test: One in-place compaction test shall be performed for each 2,500 square feet of fill placed, per lift, with a minimum of three tests per lift, unless otherwise recommended by testing laboratory.

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5. Subgrade shall be observed by testing laboratory to confirm the presence of firm, stable native soil relatively free of unsuitable materials and water before backfilling begins. If a geotechnical engineering report is available, observations shall be made to confirm compliance with the recommendations provided in that report.
6. Non-conforming work shall be corrected as directed by testing laboratory.
7. Testing laboratory shall submit approved final field density test reports within 7 days of obtaining data. Reports shall identify project, date of testing, test locations, materials, and test results.

3.7.4 Quality Assurance

Compaction of engineered fill (Unless otherwise indicated in Geotechnical Analysis or as recommended by Testing Laboratory):

1. Under structures, building slabs, steps, pavements, and walkways, 98% minimum density per ASTM D698. Moisture content of fill shall range from 2% below to 2% above optimum moisture content for clays and 3% below to 3% above for granular materials.
2. Under lawns or unpaved areas, 90% minimum density, ASTM D698-12, at moisture content range of 4% below to 4% above optimum moisture content.
3. Grading Tolerances Outside Building Lines: Plus or minus 1-inch unless otherwise noted on the grading plans.

3.7.5 Dewatering, Snow, And Ice Removal

Contractor shall maintain site, excavations, and construction areas to be substantially free of water, snow, and ice, as necessary for protection and execution of the work.

3.7.6 Site Restoration

1. Prior to backfilling excavations, holes, depressions, or other areas of the Site (the excavation area), the Contractor shall coordinate a site inspection with the City, the QEP, ECIA, and materials/geotechnical engineer to evaluate site conditions.
2. The Contractor shall be responsible for any cost associated with the testing of import fill materials and shall consider costs associated for both environmental and materials testing. See Section 11.0 Imported Fill requirements in the Soil and Groundwater Management Plan included as Appendix D.
3. Backfill materials under future structures, building slabs, steps, pavements, and walkways, 98% minimum density per ASTM D698. Moisture content of fill shall range from 2% below to 2% above optimum moisture content for clays and 3% below to 3% above for granular materials.

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4. The site shall be uniformly rough graded within the area of demolished construction, not a smooth surface, free from irregular surface changes, provide a smooth transition between adjacent grades and new grade and ensure that water does not collect on site.
5. If requested by City, the site shall be topped with 4-6 inches of clean topsoil and seeded per SUDAS.

4.0 WORKER PROTECTION

4.1 Training Prior to Engaging in Work

The Contractor shall ensure that workers are trained in accordance with OSHA 29 CFR 1926.1101 and this section. Workers shall be trained and be knowledgeable on the following topics:

- Methods of recognizing ACM and/or PACM.
- Health effects of asbestos exposure.
- Effects of smoking and asbestos exposure.
- Activities that could result in hazardous exposures.
- Protective controls, practices, and procedures to minimize exposure including engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, protective clothing, decontamination procedures, emergency procedures, and waste transportation and disposal.
- Review OSHA 29 CFR 1910.134 for respiratory protection.
- Medical surveillance program.
- Personal exposure monitoring.
- HASP

4.2 Regulated Area Signage

The approaches to the regulated area shall have in English, Spanish, and any/all other appropriate languages that reads:

**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA**

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4.3 Respiratory Protection

4.3.1 General

The Contractor shall provide respiratory protection in accordance with these regulations, specifications, and standards: OSHA regulations 29 CFR 1910.134 and 29 CFR 1926.1101; EPA regulations 40 CFR 763.120 and 121; Compressed Gas Association (CGA) Pamphlet G-7 *Compressed Air for Human Respiration* and specification G-7.1 *Commodity Specification for Air*; NIOSH standards; and comply with all state and local requirements. In case of conflict, the most stringent requirements are applicable for the Project.

4.3.2 Respiratory Protection Program (RPP)

It is the responsibility of the Contractor to develop, implement, and maintain a respiratory protection program.

4.3.3 Written Statement of Company Policy

The Contractor shall provide a written Statement of Intent to provide a safe and healthful workplace for workers. This written Statement shall include assignment of individual responsibility, accountability, enforcement procedures, and authority for required activities.

4.3.4 Respirators for Abatement Operations

Where a person is, or could reasonably be expected to be, exposed during abatement operations to airborne asbestos, one of the following minimum levels of respiratory protection is required:

NIOSH-Approved Respiratory Protection	Maximum Use Concentration
Half-mask, air-purifying (APR) with N, R, or P-100 filters	1 f/cc ⁶
Full-facepiece, air-purifying with N, R, or P-100 filters	5 f/cc
Powered air-purifying (PAPR), full-facepiece with high efficiency particulate air (HEPA) filters	100 f/cc
Full-facepiece, supplied air (SAR) operated continuous flow mode	100 f/cc
Full-facepiece, supplied air operated in pressure demand mode	100 f/cc

4.4 Medical Examination

The Contractor shall provide medical examinations for all workers and any other employee(s) entering the regulated area per OSHA 29 CFR 1926.1101 regardless of exposure level. In addition, the Contractor's physician shall perform an evaluation of each individual's ability to work in heat stress environments.

⁶ f/cc = fibers per cubic centimeter of air

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4.5 Protective Clothing

The Contractor shall provide all safety clothing and equipment required by OSHA for personnel protection for all workers. These items include, but are not limited to, safety shoes (meeting ANSI Standard Z41.1-1967), hard hats (meeting the requirements of ANSI Standard Z87.1-1981), eye protection (meeting the requirements of ANSI Standard Z87.1-1979), hearing protection, gloves, etc. The Contractor is required to ensure all equipment is well-maintained and meets OSHA requirements for personal protection. Provide all persons entering the work area with disposable full body coveralls, disposable head covers, and 18" boot-type covers. Ensure that disposable clothing integrity shall not be compromised by employees. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the disposable gloves but shall not be used alone. Use tape to secure sleeves at the wrists and to secure foot coverings at the ankle.

4.6 Employee Decontamination Procedures

The Contractor shall ensure that all workers remove gross contamination from clothing using a high efficiency particulate (HEPA) vacuum. The Contractor shall provide a personnel decontamination facility (PDF). The Contractor shall provide temporary water service connection to the PDF. Provide back-flow protection at the point of connection to the building distribution system. Provide UL-rated electric hot water heater to supply hot water at a minimum of 100°F to the showers of the PDF.

Water supply must:

1. Be properly pressurized and temperature balanced at shower discharge.
2. Be secured at the shower and at the source at the end of each work shift to prevent flooding from ruptured hoses etc.

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

5.0 CONTRACTOR QUALIFICATIONS

The Contractor and assigned personnel for this project shall meet the following general requirements. The Contractor shall provide confirmation of the requirements along with their bids for the project.

1. Contractor shall have a minimum of 5 years of documented successful experience in the type of structure demolition specified herein and can meet the requirements of this Plan and the Contract Documents as a single-source responsibility and warranty.
2. Contractor conducted RACM demo of projects that are comparable in complexity and dollar value with this project; especially considering the proximity of adjoining structures.
3. Contractor has not been cited or has not been a defending party of any legal action for violation of asbestos regulations during the last three years.
4. Contractor shall carry liability insurance for asbestos abatement work per the term of the contract with the City (contract terms not provided herein).
5. Contractor is permitted in Iowa as an asbestos abatement contractor and is permitted in Iowa to conduct demolition work and has on file such records.
6. Contractor can provide an adequate number of qualified and licensed personnel available for this project.
7. Contractor has an established written standard operating procedure for training, medical surveillance, respiratory protection, safety, emergency, and monitoring.
8. Contractor can provide equipment, materials, and supplies in adequate quantity, capacity, and condition to perform the work of this project.

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

6.0 CONTRACTOR SUBMITTALS

6.1 Pre-Demolition Contractor Submittals

At least 10 days prior to commencement of the demolition work, the Contractor shall present the following to the City/ECIA for review and approval:

1. Bonds (payment, surety)
2. Certificate of Insurance (Term of insurance will be per terms and conditions between the selected Contractor and the City).
3. Copies of the Contractor's required permits, licenses, and IDNR/IDOL asbestos abatement and demolition notification.
4. Copies of worker licenses, certificates, medical determination, and respirator fit testing documentation for each employee assigned to the project.
5. Delineation of responsibility of work site supervision including a listing of emergency telephone numbers.
6. A demolition plan of action (written) will be submitted to the City and ECIA prior to any work onsite. RACM Demolition Contractor will prepare a written Plan of Action (POA) of the procedures proposed to comply with the requirements of this specification. The POA shall include:
 - A. The sequencing of demolition activities. Indicate the following:
 - Detailed sequence of demolition work, with starting and ending dates for each activity.
 - Temporary interruption of utility services/ relocation of utility services, including the delineation of responsibilities.
 - Shutoff and capping or re-routing of utility services.
 - B. Site plan indicating placement of perimeter fencing, silt fencing, SWPPP BMPs, site access/egress.
 - C. Description of methodologies, equipment to be utilized, plan to keep materials adequately wet, and removal/dismantling methods to be utilized.
 - D. Proposed Protection Measures: The Contractor shall submit a site-specific Health and Safety plan for the safe demolition and removal of all onsite structures and associated debris, and protection of their employees. Submit an informational plan, including but not limited to, drawings, measures proposed for protecting individuals and property, proposed actions for environmental protection, for dust control, water, wastewater control, and for noise control (see E and F below and other

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

- sections of this document). Indicate proposed locations and construction of barriers.
- E. Adjacent Buildings: Detail special measures proposed to protect adjacent buildings to remain including means of egress to/from those buildings.
 - F. A detailed description of the methods to be employed to control ACM, noise, water, stormwater, precipitation, and particulate pollution.
 - G. Explanation of the handling of RACM, including transport.
 - H. The disposal site to be used.
 - I. Site restoration procedures,
 - J. Sourcing of fill, type of fill materials, proctor test results (Contractor shall identify the 3rd party testing agencies for both environmental and materials testing services.)
- 7. The Contractor shall have established standard operating procedures (SOPs) included in their written POA. The SOPs shall be in printed form, on site, consisting of simplified diagrams, sketches, and pictures that establish and clearly explain the ways and procedures to be followed during all phases of work by their employees. The SOP shall be modified as necessary to address any specific requirements of the project and shall be submitted for review and approval prior to the start of any demo work.
 - 8. Before start of work, the Contractor shall submit product data for surfactants and/or removal encapsulants, lock back encapsulants, or other hazardous materials, including safety data sheets (SDSs), instructions for use, and manufacturer recommendations.
 - 9. Written negative exposure assessment for a similar project, if available.
 - 10. Initial assessment to meet the requirements of paragraphs (g)(6) and (g)(8) of 1926.1101 for alternative controls for Class I/II asbestos abatement work.
 - 11. A Health and Safety Plan (HASP) shall be developed in accordance with OSHA 29 CFR 1926 and OSHA 29 CFR 1910 and include, but not limited to:
 - A. Listing of emergency telephone numbers, including but not limited to: police, fire department, Public Works/City Staff, Electric Supplier, Gas Supplier, and HazMat team, IDNR Air Quality Bureau staff),
 - B. Hospital location information, including a route map showing streets with directions of the hospital.
 - C. Considerations of fire, explosion, toxic atmospheres, electrical hazards, slips, trips and falls, confined spaces, heat -related and other injuries;

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

- D. Considerations to address possible work exposure to contaminants of concern in soil and/or groundwater, as described in the Soil and Groundwater Management Plan included in Appendix D.
- E. Measures for the safe demolition and removal of all onsite structures and associated debris, and protection of the site workers.

Employees shall be informed of the Health and Safety Planning and trained in evacuation/response procedures in the event of workplace emergencies. Contractor shall provide certification that all staff have received HASP training.

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RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
 February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

- 12. A copy of the Respiratory Protection Program/Plan. Description of respiratory protection to be utilized during demolition.
- 13. A copy of the Hazard Communication Program.
- 14. A copy of any deviations from the project technical specifications.
- 15. Completion of the Enhanced Management Practices (EMP) checklist for water management at ordered demolitions, as presented below.

	YES/NO	DATE	If no, explain:
Has a certified asbestos inspector provided an inspection report of the building(s) to be demolished?			
Has a Work Plan been developed for demolition of building(s)?			
Does the Work Plan comply with all applicable local ordinances, and State and Federal rules?			
Does the Work Plan include planning for contingencies, such as weather events, interruption in electric service, water, or other utilities?			
Does the Work Plan incorporate EMPs for the surface and soil types present at the demolition?			
Do all personnel assignments reflect the appropriate level of expertise for the work expected to be performed, per the work plan?			
Are the training requirements for all personnel up to date?			
Have regular meetings been scheduled for effective communication?			
Have weather forecasts been checked for possible weather events?			
Have satellite imagery, geospatial maps and the site terrain been reviewed by the project manager to check the expected direction of water flow against the locations of placed berms and barriers?			
Have the surfaces and surface soils been evaluated at the work site?			
Have sufficient resources been allocated for the demolition, cleanup, and remediation work?			
Have all water management tools and equipment been ordered and are these expected to be delivered to the work site in time to prepare the site for the planned demolition work?			
OTHER TO Dos:			

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

6.2 In-Progress Submittals

Contractor shall provide the City, ECIA, and the QEP weekly work progress submittals, which shall generally include laboratory results of personal monitoring required by OSHA, and the week's daily water usage if utilizing supply from the City's hydrant.

6.3 Contractor Logbook

The Contractor shall maintain a logbook at the job site, which shall be available at all times to the City, ECIA, QEP, and other project officials. The logbook serves as a ready reference for this project and may be used in legal proceedings, thus, care shall be taken to assure its completeness and its documentation accuracy. The logbook shall contain the following information at a minimum and shall be maintained in a 3-ring binder. Any deviation shall be confirmed in writing by the City. A complete copy shall be submitted to ECIA, the City and QEP within 30 business days of Project completion.

1. Date stamped copies of all federal, state, and local project notifications and filings including waivers and copies of applicable regulations.
2. Insurance Certificate, as required by the City/ECIA.
3. Sign-in and sign-out forms noting who entered the work area, their affiliation with the project, time and purpose of entry, and departure time.
4. Records of pertinent daily events, checks of containment and equipment and all accidents and injuries occurring on the job.
5. Personal air sampling documentation and lab results.
6. United States Environmental Protection Agency (USEPA) generator identification number, copy of waste disposal manifest, and name of disposal site used. If a subcontractor is used, all information required above shall still be provided. All the above documentation including trip tickets and landfill invoices shall be provided to the City/ECIA/QEP after project completion.
7. Reports of inspection by federal, state, and local authorities.
8. Detailed reports of any problems and incidents that arose, the date and time, and how they were handled. These reports shall be signed by supervisory personnel.

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

6.4 Close-Out Submittals

The Contractor shall submit a project report consisting (at a minimum) of:

1. The daily logbook and the documentation of events during abatement including personal air monitoring data and the disposal manifests signed by the operator of the licensed landfill or disposal facility.
2. Gallons of water utilized during the duration of the project (meter and hydrant hook-up required to be supplied by Contractor).
3. Recorded locations of capped utilities and any subsurface obstructions on a record drawing set (depth and location 1-foot).

7.0 SCHEDULE

As of the preparation of this Plan, a specific work schedule has not yet been determined or established. The schedule for the work will be determined by the City of Stanwood, though allowances for contractor-determined schedules may be permitted by the City. Due to the funding mechanism, work is anticipated to commence in the summer of 2022. The required "Asbestos Notice of Demolition and Renovation" form (Iowa Department of Natural Resources Form 542-1476) will need to be submitted a minimum of 10 business days before the work begins. The required bonds and certificate of insurance shall be on file with the City Clerk within 5 working days of awarding the contract and before the Notice to Proceed will be issued. All bids submitted shall be based on each contractor's current workload staffing capability to complete the project, which is to be represented in the estimated timeline on the Bid Form. The City project team will review and compare all bids received for the project and reserves the right to modify the schedule as needed at the time of project authorization.

The work under the proposed contract shall commence within fifteen (15) days after the issuance of the Notice to Proceed and shall be completed as sated in the Notice to Proceed and the associated Contract Documents.

8.0 DEMOLITION/ABATEMENT INSPECTION AND TESTING

Since this project is totally or partially funded by the RLF, a site monitor(s) may be present to observe and monitor worksite procedures. At this time, it is unknown if USEPA will require a site-specific asbestos oversight Sampling and Analysis Plan (SAP) for this project. It is anticipated that the generic Quality Assurance Project Plan (QAPP) prepared for ECIA and approved by USEPA can be utilized for this project. The QEP will be responsible for the preparation of the SAP and/or QAPP, if required by the USEPA.

RACM CLEAN-UP PLAN

211 and 213 East Broadway Street ■ Stanwood, Iowa
February 23, 2022 ■ Brownfields Assessment Grant: BF97782001

The Contractor Shall notify the QEP in advance for the performance of the final visual clearance inspection after the on-site supervisor completes the visual inspection.

8.1 Oversight and Inspections

The QEP will provide an Iowa-licensed asbestos professional who will be on-site during the demolition phase of the project, as warranted by contract. The QEP will observe and document demolition and abatement activities and will provide clarifications with respect to these documents. The QEP will be responsible for collecting daily logs, recording site observations, discussions with contractors and to complete air sampling as indicated in Section 9.0. The QEP will transmit the third-party oversight documentation to the City/ECIA at the end of the project.

Final visual inspection shall include the entire demolition area, the personnel decontamination facilities, all plastic sheeting, equipment, etc. If any debris, residue on surfaces, dust, or other matter is detected, additional cleaning shall be repeated. Bulk or dust samples may be collected and analyzed to confirm visual findings.

8.2 Final Testing

After a satisfactory final visual inspection, the QEP may undertake final air testing, if required by the City, ECIA or other requirements. Final air samples, if collected will be collected by the QEP and analyzed in accordance with the procedures for phase contrast microscopy (PCM) or transmission electron microscopy (TEM), as required by federal, state, or local law or by contract. If release criteria are not met, the Contractor shall repeat cleaning and additional decontamination procedures from that point; additional inspection and testing will be at the expense of the Contractor.

9.0 CLOSE-OUT AND CERTIFICATE OF COMPLIANCE

Contractor shall provide post job submittals which will inclusive of waste manifests, personal air monitoring results, documentation of worker training, respirator fit tests, medical surveillance documentation and applicable accreditations and licensure. Contractor shall fulfill other project close-out requirements as specified elsewhere in this document.

End Technical Specifications

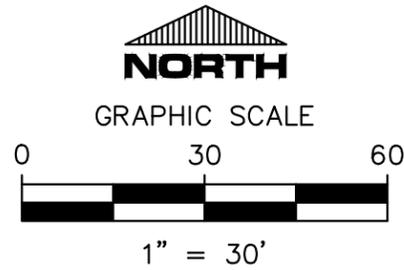
ATTACHMENT A

PROPERTY EXHIBIT

DRAFT

PROPERTY EXHIBIT

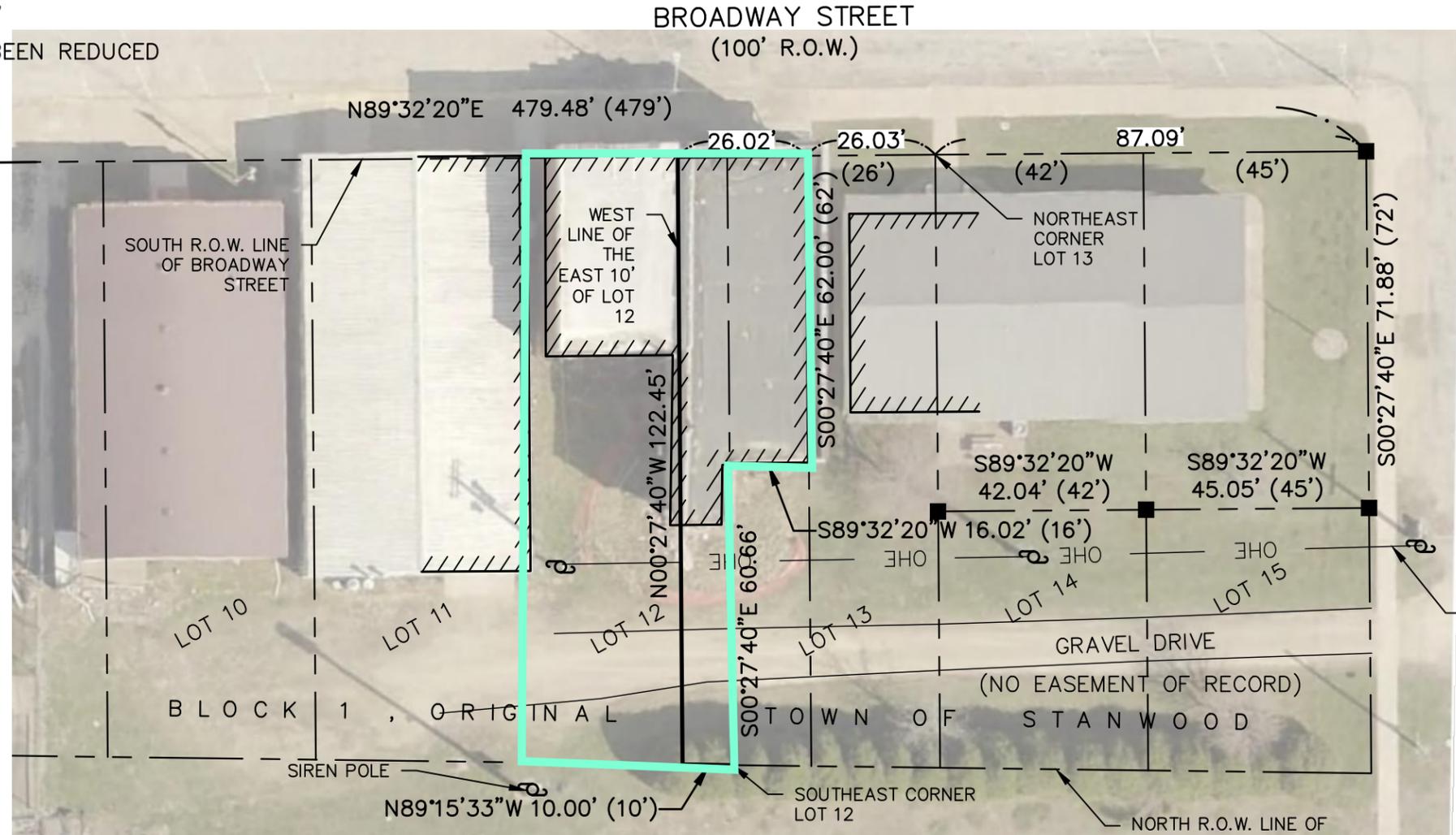
PART OF LOTS 12 AND 13 IN BLOCK 1 OF THE ORIGINAL PLAT OF THE TOWN OF STANWOOD, CEDAR COUNTY, IOWA



DRAWING MAY HAVE BEEN REDUCED

FOR RECORDER USE

3/8" REBAR
(FOUND 0.74'
SOUTH OF LINE)



LEGEND

	PROPERTY BOUNDARY
	LOT LINE
	EXISTING BUILDING
	RIGHT-OF-WAY RECORDED AS FOUND 1/2" SMOOTH IRON ROD UNLESS OTHERWISE NOTED

LEGAL DESCRIPTION

PART OF LOTS 12 AND 13 IN BLOCK 1 OF THE ORIGINAL TOWN OF STANWOOD, CEDAR COUNTY, IOWA, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT A POINT 26 FEET WEST OF THE NORTHEAST CORNER OF SAID LOT 13; THENCE RUNNING SOUTH 62 FEET; THENCE WEST 16 FEET; THENCE SOUTH TO THE SOUTHEAST CORNER OF SAID LOT 12; THENCE WEST 10 FEET; THENCE NORTH TO BROADWAY STREET; THENCE EAST 26 FEET TO THE PLACE OF BEGINNING.

DATE OF SURVEY: OCTOBER 29, 2021
TOTAL AREA SURVEYED: 2,219 SQ. FT.

THIS SURVEY IS SUBJECT TO EASEMENTS, RESERVATIONS, RESTRICTIONS AND RIGHTS-OF-WAY OF RECORD AND NOT OF RECORD.

origin design
800 556-4491 origindesign.com

DRAWN	JJB	PLAT NO.	43-IA-21
CHECKED	CLG	PROJ. NO.	21738
DATE	12-15-21	SHEET	1 of 1
P: \21\700\738\DRAWINGS\SURVEY\21738 EXHIBIT			

Index Legend	Location: PART OF LOTS 12 AND 13 OF BLOCK 1 OF THE ORIGINAL PLAT OF THE TOWN OF STANWOOD, CEDAR COUNTY, IOWA
Proprietor:	CITY OF STANWOOD
Requestor:	YTT DESIGN SOLUTIONS
Surveyor:	CRAIG L. GEISER
Surveyor Company:	ORIGIN DESIGN CO., 137 MAIN STREET DUBUQUE, IOWA 52001 PHONE: (563)556-2464

ATTACHMENT B

STRUCTURAL ASSESSMENT LETTER

DRAFT



Friday, January 14, 2022

Lisa Burch
3500 Center Point Road Northeast, Suite 3
Cedar Rapids, Iowa 52402

RE: Deconstruction Structural Feasibility Letter
211 & 213 E Broadway
Stanwood, IA

To Whom It May Concern,

The purpose of this letter is to report the condition of the structure at the above referenced project. This is an older brick building which is deteriorating rapidly. The city of Stanwood would like to demolish it in order to make way for future development. With that, they have engaged professionals to determine the method of deconstruction and feasibility of salvaging the existing material for different projects.

This structure is an old 2 story brick building with no access to basement. It was unclear as to if there was a basement on site or if it was just on grade construction. The exterior of the building is a multi wythe façade which doubles as bearing walls to support the floor and roof systems. The floor and roof are constructed with a combination of truss framing and heavy timber framing in different parts of the facility.

The condition of the building is rapidly deteriorating and is currently uninhabitable. The roof is no longer water tight which has caused the roof trusses to rot. With that, the roof structure is not safe to walk on and it is dangerous to be under for risk of collapse. Similarly, the water infiltration into the structure causing the floor trusses to rot and the floor system to become unstable. Nobody should walk on the upstairs floor as a failure of the floor sheathing and floor framing is possible if not imminent.

There was discussion to remove and reclaim the brick walls for future construction however this would be impossible for two reasons. The first reason is that this structure was constructed with asbestos in it which is a hazardous carcinogen. Once the brick was removed it would have to go through decontamination in order to make it be reusable in the future. Furthermore, the deconstruction crew would need to have PPE including respirators during recovery in order to comply with OSHA. For these reasons it is not financially viable to reuse the brick from this structure.

The second reason the brick cannot be salvaged is due to the stability of the building. In order to salvage the brick, the roof structure would need to be removed first since the brick walls support the roof. In order to remove the roof the second story will need to be occupied by the deconstruction crew. As stated above, the floor system on the second story is compromised and is unsafe for crews to occupy and presents a real risk of partial or complete collapse of the floor system.

One solution that normally could be explored is to use shoring on the first story to help support the second story structure. In this case, this is still not possible because of the condition of the floor joists for both crushing and shear failure. If a jack post is placed on the underside of the floor truss and then a load is applied to the top of the truss (workers walking on the second story) then the truss is at risk of crushing because of how compromised it is. Furthermore, the sheathing on the second story has deteriorated enough that it is possible for a heavy individual or and individual with a lot of equipment to punch through the floor sheathing and fall.

Safe & Efficient Designs

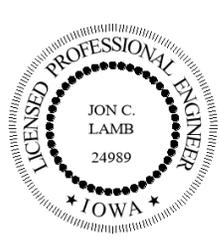
Practical Experience

Due to these considerations, it is not possible to deconstruct the structure with people inside without presenting safety hazards to those individuals. The deconstruction process will have to be performed from the exterior of the building and therefore the brick and other materials cannot be salvage. Please let me know if you have any questions regarding this report or its findings at jlamb@select-structural.com or (319)365-1150.

Respectfully,



Jon Lamb, PE
 Structural Engineer
 Select Structural Engineering

	I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED AND THE RELATED ENGINEERING WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.					
	<table border="0"> <tr> <td></td> <td>11/14/2022</td> </tr> <tr> <td>JON C. LAMB</td> <td>DATE</td> </tr> </table> <p>LICENSE NUMBER 24989 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023 PAGES OR SHEETS COVERED BY THIS SEAL:</p> <table border="0"> <tr> <td>_____</td> <td>LETTER</td> </tr> </table>		11/14/2022	JON C. LAMB	DATE	_____
	11/14/2022					
JON C. LAMB	DATE					
_____	LETTER					



Safe & Efficient Designs

Practical Experience



Safe & Efficient Designs

Practical Experience



Safe & Efficient Designs

Practical Experience



Safe & Efficient Designs

Practical Experience



Safe & Efficient Designs

Practical Experience



Safe & Efficient Designs

Practical Experience



Safe & Efficient Designs

Practical Experience



Safe & Efficient Designs

Practical Experience

ATTACHMENT C

ASBESTOS SURVEY REPORT

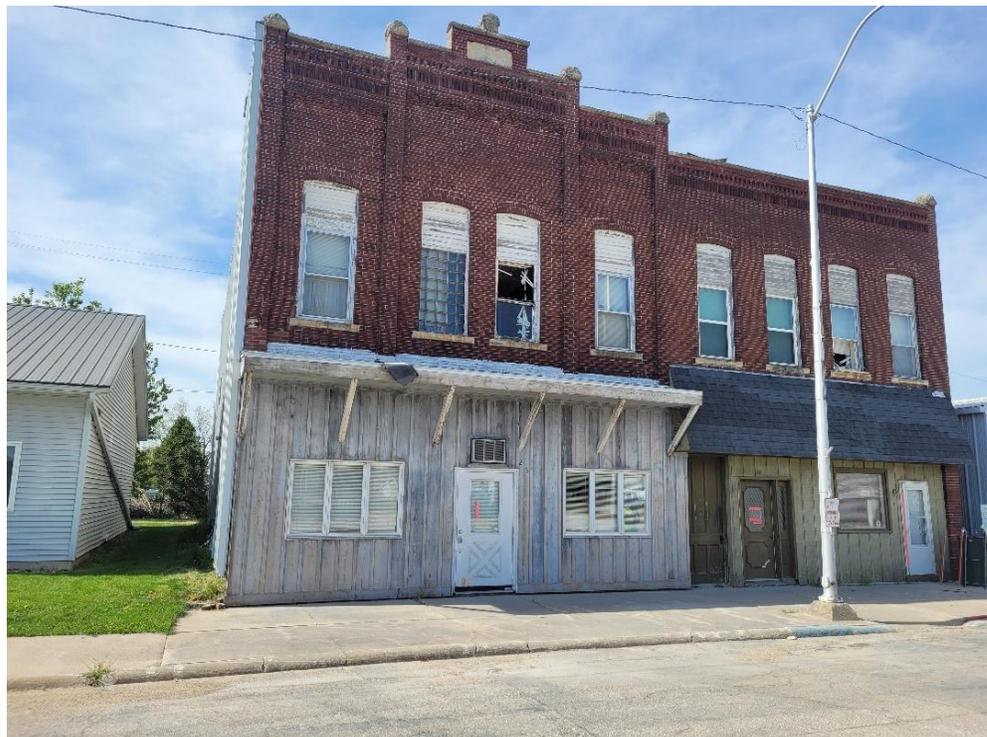
DRAFT

Asbestos Sampling Survey Report

211 and 213 East Broadway Street
Stanwood, Cedar County, Iowa 52337

July 22, 2021

Terracon Project No. 07207086; Task 5



Prepared for:
East Central Intergovernmental Association (E.C.I.A.)
Dubuque, Iowa

Prepared by:
Terracon Consultants, Inc.
Bettendorf, Iowa

terracon.com

Terracon

Environmental ● Facilities ● Geotechnical ● Materials



July 22, 2021

Ms. Dawn Danielson
East Central Iowa Intergovernmental Association
7600 Commerce Park
Dubuque, Iowa 52002-9673

Re: Asbestos Sampling Survey Report
211 and 213 East Broadway Street
Stanwood, Cedar County, Iowa 52337
Terracon Project No. 07207086; Task 5
Brownfields Assessment Grant: BF97782001

Dear Ms. Danielson:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached report for the above referenced site to East Central Iowa Intergovernmental Association (ECIA). The purpose of this report is to present the results of the asbestos sampling survey conducted on May 14 and 24, 2021. The assessment was conducted in accordance with the Standard Consultant Contract *For Qualified Environmental Professional (QEP) Consultant Contract, ECIA Brownfield Coalition* dated December 3, 2020, and the Notice to Proceed Asbestos Inspection on 211-213 Broadway, Stanwood, dated May 4, 2021. The survey was requested to identify asbestos-containing materials (ACMs) in the buildings located at 211 and 213 East Broadway Street Stanwood, Iowa.

Asbestos-containing materials (ACMs) were identified in the samples collected on May 14 and 24, 2021 from suspect ACMs associated with the above-referenced location. Please refer to the attached report for additional details.

Terracon appreciates the opportunity to provide this service to ECIA. If you have questions regarding this report, please contact the undersigned at 563-355-0702.

Sincerely,
Terracon Consultants, Inc.

Alexander J. Davis
Environmental Scientist

James R. Baxter
Environmental Group Manager

Asbestos Survey Report

211 and 213 East Broadway Street ■ Stanwood, Iowa
July 22, 2021 ■ Terracon Project No. 07217086; Task 5



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ASBESTOS SAMPLING SURVEY REPORT
211 and 213 East Broadway Street
Cedar County, Stanwood, Iowa
Terracon Project No. 07217086; Task 5

July 22, 2021

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted an asbestos survey of the buildings located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa for East Central Iowa Intergovernmental Association (ECIA). The survey was conducted on May 14 and 24, in accordance with the Standard Consultant Contract *For Qualified Environmental Professional (QEP) Consultant Contract, ECIA Brownfield Coalition (The Agreement)* dated December 3, 2020, the Notice to Proceed Asbestos Inspection on 211-213 Broadway, Stanwood, dated May 4, 2021, the Generic Quality Assurance Project Plan (QAPP), dated April 7, 2021. We understand the survey was requested to identify asbestos-containing materials (ACMs) in advance of planned demolition of the buildings.

The purpose of this survey report is to present the findings for bulk samples of building materials collected at the site. The scope of Terracon's services for the survey included the following:

- n Sampling of suspect asbestos-containing materials associated with the buildings; and
- n Completion of this survey report.

Suspect ACM samples were collected in accordance with the sampling protocols outlined in US Environmental Protection Agency (USEPA) regulation 40 Code of Federal Regulations Part 763-Asbestos, Subpart E-Asbestos-Containing Materials in Schools (40 CFR 763; known as the Asbestos Hazard Emergency Response Act, [AHERA]) and Terracon's Sampling and Analysis Plan and delivered to a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory for analysis by polarized light microscopy (PLM).

1.1 Project Objective

We understand this asbestos survey was requested to satisfy requirements of USEPA 40 CFR 61 Subpart M, the asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), which applies to buildings or structures that are demolished or renovated.

1.2 Reliance

This report is for the exclusive use of ECIA for the project being discussed. Reliance by other parties on this report is prohibited without written authorization of Terracon and ECIA. Reliance on this report by ECIA and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report, and the Standard Consultant Contract. The limitations of liability defined in The Agreement is the aggregate limit of Terracon's liability to ECIA.

2.0 SITE DESCRIPTION

Terracon understands that the site consists of two structures, located at 211 and 213 East Broadway street in Stanwood, cedar county, Iowa. Based on information obtained from the cedar county assessor's office, the structures appear to have been constructed circa 1900 and are slated for demolition. Visual inspection shows structural damage to the south end of the building. The structures are 2-story buildings on a concrete slab the exterior of the buildings is brick and interior finishes of drywall, drop ceilings, terrazzo, carpet, floor tile, and vinyl sheet flooring.

3.0 FIELD ACTIVITIES

In accordance with the asbestos Sampling and Analysis Plan (SAP) dated April 12, 2021, the sampling was conducted by State of Iowa licensed asbestos inspectors Mr. Alexander J. Davis (license number 20-5247) on May 14, 2021 and Mr. Steven M. Mack (license number 21-5471) on May 21, 2021. Copies Mr. Davis' and Mr. Mack's asbestos inspector licenses are included in Appendix C.

3.1 Visual Assessment

Sampling activities were initiated with visual assessments at the station to identify homogeneous areas of suspect ACM. A homogeneous area (HA) consists of materials that appear similar throughout in terms of color and texture with consideration given to the date of application. Components identified as fiberglass, glass, metal, rubber, or wood are not considered suspect ACM and therefore, were not sampled.

3.2 Physical Assessment

A physical assessment of each HA of suspect ACM was conducted to assess the friability and condition of the heater components. A friable material is defined by the USEPA as a material that can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect components.

3.3 Sample Collection

Based on results of the visual assessment, bulk samples of suspect ACM were collected in general accordance with USEPA sampling protocols. Samples of the suspect components were collected from the building. Bulk samples were collected using wet methods as applicable to reduce the potential for fiber release. Samples were placed in unused, dedicated and disposable sealable bags; an indelible marker was used to record the unique sample identification code on each bag. Asbestos content of suspect ACM does not diminish, degrade, or alter as a result of sample collection, holding periods, and laboratory analysis. Therefore, preservation methods and hold time limits do not apply to quality assurance/quality control (QA/QC) measures of field and laboratory activities.

To improve representativeness of samples collected to the various homogeneous areas, Terracon collected a minimum of three samples of each homogeneous area. Asbestos content in some building materials may not be constant; therefore, variation in some building materials may not indicate inaccuracy. Terracon collected 72 bulk samples from 23 homogeneous areas of ACM associated with the buildings. A summary of suspect ACM samples collected during the survey and quantity of samples collected for each homogeneous area is included as **Table 3** in **Appendix A**.

3.4 Sample Analysis

The bulk samples collected were submitted under chain of custody to EMSL Analytical, Inc. (EMSL) of Cinnaminson, New Jersey, for analysis by PLM with dispersion staining techniques per USEPA's *Method for the Determination of Asbestos in Bulk Building Materials* (600/R-93/116). The percentage of asbestos, if present, was determined by microscopic visual estimation. EMSL is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), Accreditation No. 101048-0. EMSL personnel conducted laboratory data validation for precision and accuracy in accordance with their standard laboratory analytical procedures provided with the Generic QAPP dated April 7, 2021. Based on findings via PLM analysis, supplemental analysis (point counting or other similar process to improve data precision) was not warranted or recommended by the lab to determine whether samples collected and analyzed represent asbestos containing materials in accordance with 40 CFR Part 61 subpart M.

4.0 REGULATORY OVERVIEW

In Iowa, asbestos activities are regulated by the Iowa Department of Natural Resources (IDNR) and the Division of Labor, Iowa Workforce Development (IWD). IDNR regulates asbestos fiber emissions under Iowa Administrative Code 567 Chapter 23 (IAC 567-23) and asbestos-containing waste disposal under IAC 567-109. IWD regulates occupational exposure to asbestos under IAC 875-10 and asbestos removal and encapsulation activities under IAC 875-155.

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IAC 567-23.1(3) adopts USEPA's asbestos NESHAP (40 CFR Part 61, Subpart M) by reference. Subpart M regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as friable, Category I nonfriable, or Category II nonfriable ACM. Friable materials are those that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Category I nonfriable ACM includes packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos. Category II nonfriable ACM are any materials other than Category I materials that contain more than 1% asbestos.

Regulated ACM (RACM) must be removed before renovation or demolition activities that will disturb the materials. RACM includes:

- n Friable ACM;
- n Category I nonfriable ACM that has become friable or will be subjected to drilling, sanding, grinding, cutting, or abrading; and
- n Category II nonfriable ACM that could be crumbled, pulverized, or reduced to powder during renovation or demolition activities.

The owner or operator must provide the IDNR and IWD with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by an Iowa-permitted asbestos abatement contractor.

IAC 875-155 Asbestos Removal and Encapsulation require that any asbestos-related activity conducted in a public building must be conducted by personnel licensed or permitted by the IWD. Inspections for ACM must be conducted by IWD-licensed inspectors. Asbestos abatement must be conducted by IWD-permitted asbestos abatement contractors. When an abatement project design is prepared, it must be prepared by an IWD-licensed project designer.

IAC 875-10 adopts the OSHA Asbestos Standard for construction (29 CFR 1926.1101) by reference. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below the permissible exposure limits (PELs) of 0.1 asbestos fiber per cubic centimeter of air (0.1 f/cc) as an 8-hour time-weighted average (TWA) or 1.0 f/cc as a 30-minute excursion limit. The OSHA standard classifies construction and maintenance activities that could disturb ACM and specifies work practices and precautions that employers must follow when engaging in each class of regulated work.

5.0 FINDINGS

Laboratory analysis of bulk samples confirmed the presence of asbestos in samples collected on May 14 and 24, 2021. Based on the results of the asbestos sampling, the following ACMs were confirmed:

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- n Roof flashing – black, gray, and white coating (3% Chrysotile) Located on building 213 roof, south end flashing
- n Build-up roof – black, gray with brown fibrous insulation (8-10%Chrysotile) Located on building 213 roof
- n Build-up roof – black, gray, and white tar coating (3% Chrysotile) Located on Building 211 roof
- n Window glazing – white (3% Chrysotile) Located on the exterior of the building on older windows
- n Window caulk – white (3% Chrysotile) Located on the exterior of the building around older window openings
- n Vinyl sheet flooring – brown and tan (25% Chrysotile) Located in building 211 north end apartment kitchen
- n Vinyl sheet flooring – brown square pattern (25% Chrysotile) Located in building 211 South end apartment kitchen
- n Vinyl sheet flooring – off-white/gray squared pattern (20% Chrysotile) Located in 213 north end apartment bathroom
- n Terrazzo flooring (3% Chrysotile) Located in building 213 1st floor path ways
- n Vinyl sheet flooring – off-white/gray with streaks (20% Chrysotile) Located in 211 1st floor office on east side of building in bathroom
- n Vinyl sheet flooring – yellow, pebble pattern (20% Chrysotile) Located in 211 1st floor office on west side of building in bathroom and middle room

The ACM is considered a Category I nonfriable material and must be removed by a licensed asbestos abatement contractor prior to demolition of the buildings and must be disposed of at an approved landfill.

A Less Than 1% ACM Summary is included as **Table 1**, A Confirmed ACM Summary is included as Table 2 in Appendix A, the Asbestos Survey Sample Location Summary is included as **Table 3** in **Appendix A**, and a copy of the asbestos analytical laboratory data is included as **Appendix B**. A confirmed ACM Photo Log is included as **Appendix D** and a Positive ACM Sample Location Map is included as **Appendix E**.

6.0 LIMITATIONS/GENERAL COMMENTS

The survey was conducted utilizing limited destructive sampling techniques. This asbestos survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on the specific conditions during our sampling. The information contained in this report is relevant to the date on which the sampling was conducted and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by ECIA for

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specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A
211 and 213 East Broadway Street
Stanwood, Stanwood Cedar County, Iowa

Table 1. Less Than 1% ACM by Homogeneous Area (HA)

HA #	HA Material Description	HA Material Location	Percent/Type Asbestos	Friability	Condition	Estimated Quantity (LF) ¹
1	Roof flashing – black, gray, and white coating	Building 213 roof, south end flashing	<1% chrysotile	Non-friable	Significant damage	120 LF

Table 2. Confirmed Asbestos-Containing Materials by Homogeneous Area (HA)

HA #	HA Material Description	HA Material Location	Percent/Type Asbestos	Friability	Condition	Estimated Quantity (LF)
1	Roof flashing – black, gray, and white coating	Building 213 roof, south end flashing	3% chrysotile	Non-friable	Significant damage	120 LF
2	Build-up roof – black, gray with brown fibrous insulation	Building 213 roof, south end, near roof edge	8-10% chrysotile	Non-friable	Significant damage	900 SF
2	Build-up roof – black, gray, and white tar coating	Building 211 roof, south end, near roof edge	3% chrysotile	Non-friable	Significant damage	750 SF
3	Window glazing - white	Around the building	3% chrysotile	Friable	Damaged	7 Units
4	Window caulk - white	Around original window openings	3% chrysotile	Friable	Damaged	200 LF
8	Vinyl sheet flooring – brown and tan	Building 211 kitchen, north end apartment	25% chrysotile	Non-friable	Good	70 SF
9	Vinyl sheet flooring – brown square pattern	Building 211 kitchen, north end apartment	25% chrysotile	Non-friable	Good	70 SF

¹ Estimated quantities are based on a cursory field evaluation, and actual quantities may vary significantly, especially if asbestos containing materials are present in hidden and/or inaccessible areas not evaluated as part of this survey. LF = linear feet

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13	Vinyl sheet flooring – off-white/gray squared pattern	Bathroom of apartment 213, 2 nd floor	20% chrysotile	Non-friable	Good	70 SF
15	Terrazzo flooring	Building 213, 1 st floor paths	3% chrysotile	Non-friable	Good	525 SF
18	Vinyl sheet flooring – off-white/gray with streaks	Building 211, 1 st floor bathroom, east side	20% chrysotile	Non-friable	Good	32 SF
21	Vinyl sheet flooring – yellow, pebble pattern	Building 211, west side, middle of 1 st floor	20% chrysotile	Non-friable	Good	140 SF

Table 3. Asbestos Survey Sample Location Summary

HA #	Sample #	Material Description	Layer	Sample Locations	Lab Results
1	1-MA1-1	Red brick with gray mortar	Brick	Southwest corner of the building	ND ²
			Mortar		ND
	1-MA1-2		Brick	South center of building in rubble	ND
			Mortar		ND
	1-MA1-3		Brick	Northeast corner of building	ND
			Mortar		ND
2	2-MA6-4	Gray stucco	Stucco	Back of building west wall	ND
	2-MA6-5		Stucco	South center of building in rubble	ND
	2-MA6-6		Stucco	Southeast corner of building	ND
3	3-SC1-7	White window glazing	Glaze	South end east wall lower window	3% chrysotile
	3-SC1-8		Glaze	Northeast 2 nd floor far window	ND
	3-SC1-9		Glaze	Northwest 2 nd floor far window	3% chrysotile

² ND = none detected

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HA #	Sample #	Material Description	Layer	Sample Locations	Lab Results
4	4-CA1-10	White window caulk	Caulk	Southwest east wall 1st floor upper window	ND
	4-CA1-11		Caulk	South end 2 nd floor 2 nd to last window to west	ND
	4-CA1-12		Caulk	North side east end 2 nd floor 3 rd window to west end	3% chrysotile
5	5-CA2-13	White door caulk	Caulk	South center door	ND
	5-CA2-14		Caulk	Northwest most door	ND
	5-CA2-15		Caulk	Northeast corner of building wood to brick	ND
6	6-WB1-16	White drywall, tape, mud	Drywall	211 2 nd floor north end apartment living room wall	ND
	6-WB1-17		Drywall	213 2 nd floor north end apartment ceiling	ND
	6-WB1-18		Drywall	213 1 st floor south wall entry room wall	ND
7	7-WB4-19	White popcorn texture ceiling	Texture	211 north end apartment bathroom	ND
	7-WB4-20		Texture	211 south apartment living room	ND
	7-WB4-21		Texture	Staircase to upstairs apartments	ND
8	8-SG1-22	Brown and tan vinyl sheet flooring	Vinyl flooring	211 north apartment kitchen northeast center	25% chrysotile
	8-SG1-23		Vinyl flooring	211 north apartment kitchen south end by wall	25% chrysotile
	8-SG1-24		Vinyl flooring	211 north apartment kitchen center of room	25% chrysotile
9	9-SG1-25	Gray square pattern vinyl sheeting 2 nd layer brown and tan vinyl sheet flooring	Vinyl flooring	211 south apartment kitchen south end	ND
			Vinyl flooring		25% chrysotile
	9-SG1-26		Vinyl flooring	211 south apartment north end by sink	ND
			Vinyl flooring		25% chrysotile
	9-SG1-27		Vinyl flooring	211 south apartment center of room	ND
			Vinyl flooring		25% chrysotile

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HA #	Sample #	Material Description	Layer	Sample Locations	Lab Results
10	10-SG1-28	12" tan square pattern vinyl sheet flooring	Vinyl flooring	211 south apartment doorway to bathroom	ND
	10-SG1-29		Vinyl flooring	211 south apartment bathroom by bath tub	ND
	10-SG1-30		Vinyl flooring	211 south apartment center of bathroom	ND
11	11-MG7-31	Yellow carpet glue	Glue	North end apartment 211 living room	ND
	11-MG7-32		Glue	213 2 nd floor east side apartment living room	ND
	11-MG7-33		Glue	211 1 st floor east side middle room	ND
12	12-SG1-34	9" gray squares and tar paper	Flooring	Center of kitchen in building 213 2 nd floor apartment	ND
			Tar paper		ND
	12-SG1-35		Flooring	Doorway into apartment 213 2 nd floor	ND
			Tar paper		ND
	12-SG1-36		Flooring	Center of bedroom under carpet in building 213 apartment	ND
			Tar paper		ND
13	13-SG1-37	Off white/gray square pattern vinyl sheet flooring	Vinyl flooring	Entry to 213 bathroom 2 nd floor apartment	20% chrysotile
	13-SG1-38		Vinyl flooring	North end window in 213 2 nd floor apartment	20% chrysotile
	13-SG1-39		Vinyl flooring	Center of bathroom in 213 2 nd floor apartment	20% chrysotile
14	14-FT2-40	12" x 12" gray square pattern floor tile and associated adhesive	Flooring	213 apartment entry way south door way	ND
	14-FT2-41		Flooring	213 apartment entry way center of area	ND
	14-FT2-42		Flooring	213 apartment entry way northeast by apartment doorway	ND
15	15-MS5-43	Gray terrazzo with speckles	Terrazzo	Center of north room building 213 1 st floor	3% chrysotile
	15-MS5-44		Terrazzo	Center of middle room building 213 1 st floor	3% chrysotile
	15-MS5-45		Terrazzo	West side of north room building 213 1 st floor	3% chrysotile

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HA #	Sample #	Material Description	Layer	Sample Locations	Lab Results
16	16-SG1-46	Gray rock pattern vinyl sheet flooring	Vinyl flooring	Building 213 1 st floor entry way at doorway	ND
	16-SG1-47		Vinyl flooring	Building 213 1 st floor entry way in the center	ND
	16-SG1-48		Vinyl flooring	Building 213 1 st floor entry way on west side of room	ND
17	17-CT2-49	2; x 3' white ceiling tiles	Ceiling tile	Buildign213 1 st floor far south end of building	ND
	17-CT2-50		Ceiling tile	Building 213 1 st floor in center of room	ND
	17-CT2-51		Ceiling tile	Building 213 1 st floor from fallen tile in south room	ND
18	18-SG1-52	Off white/gray with streaks vinyl sheet flooring	Vinyl flooring	Doorway to bathroom 211 east side 1 st floor	20% chrysotile
	18-SG1-53		Vinyl flooring	South wall of bathroom 211 east side 1 st floor	20% chrysotile
	18-SG1-54		Vinyl flooring	Center of bathroom 211 east side 1 st floor	20% chrysotile
19	19-CT1-55	2' x 4' white with small fissures and pinholes ceiling tile	Ceiling tile	Center of middle room 211 east side 1 st floor	ND
	19-CT1-56		Ceiling tile	By doorway middle and north room 211 east side 1 st floor	ND
	19-CT1-57		Ceiling tile	Center of north room in 211 east side 1 st floor	ND
20	20-SG1-58	4" square pattern multi-color vinyl sheet flooring	Vinyl flooring	By north door to room 1 st floor building 211 east side	ND
	20SG1-59		Vinyl flooring	Center of room 1 st floor building 211 east side	ND
	20-SG1-60		Vinyl flooring	By door to middle room 1 st floor building 211 east side	ND
21	21-SG1-61	Yellow pebble pattern vinyl sheet flooring	Vinyl flooring	Under shower 1 st floor building 211 west side	20% chrysotile
	21-SG1-62		Vinyl flooring	Under carpet center of middle room building 211 west side	20% chrysotile
	21-SG1-63		Vinyl flooring	From debris pile in middle room building 211 west side	20% chrysotile
MAY 24, 2021 ROOF SAMPLING					
1	1-RF4-01	Roof flashing	Black/gray/white	Southeast corner of building on the parapet wall	<1% chrysotile
	1-RF4-02		Black	South end center of the building, near the roof edge	3% chrysotile
	1-RF4-03		Black	South end center on the brick parapet bump-out	<1% chrysotile
	1-RF4-04		Gray/white	South end center on the brick parapet bump-out	ND

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HA #	Sample #	Material Description	Layer	Sample Locations	Lab Results
2	2-RF8-04	Building 213 - Build-up roof	Black/brown	Southeast corner near parapet wall	8% chrysotile
	2-RF8-05		Black/brown	South end center area, near the roof edge	10% chrysotile
	2-RF8-06		Black/brown	Southwest side near parapet wall	8% chrysotile
	2-RF8-07	Building 211 - Build-up roof	White	Southeast corner near parapet wall	ND
	2-RF8-07		Black	Southeast corner near parapet wall	3% chrysotile
	2-RF8-08		White	South end center area near bump-out	ND

APPENDIX B

ASBESTOS ANALYTICAL LABORATORY REPORT



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042111622

Customer ID: TEI93

Customer PO: 07207086

Project ID:

Attention: Kathy Toft
Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, IA 52722

Phone: (563) 355-0702

Fax: (319) 355-4789

Received Date: 05/17/2021 8:40 AM

Analysis Date: 05/19/2021 - 05/20/2021

Collected Date: 05/14/2021

Project: Starwood / 211 and 213 East Broadway, Stanwood, Iowa / 211 and 213 / 07207086

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-MA1-1-Brick <small>042111622-0001</small>	Southwest Corner of Building - Red Brick	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-MA1-1-Mortar <small>042111622-0001A</small>	Southwest Corner of Building - Gray Mortar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-MA1-2-Brick <small>042111622-0002</small>	South Center of Building in Rubble - Red Brick	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-MA1-2-Mortar <small>042111622-0002A</small>	South Center of Building in Rubble - Gray Mortar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-MA1-3-Brick <small>042111622-0003</small>	Northeast Corner of Building - Red Brick	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-MA1-3-Mortar <small>042111622-0003A</small>	Northeast Corner of Building - Gray Mortar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-MA6-4 <small>042111622-0004</small>	Back of Building West Wall - Gray Stucco	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-MA6-5 <small>042111622-0005</small>	South Center of Building in Rubble - Gray Stucco	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-MA6-6 <small>042111622-0006</small>	Southeast Corner of Building - Gray Stucco	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-SC1-7 <small>042111622-0007</small>	South End East Wall Lower Window - White Glaze	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
3-SC1-8 <small>042111622-0008</small>	Northeast 2nd Floor Far Window - White Glaze	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-SC1-9 <small>042111622-0009</small>	Northwest 2nd Floor Far Window - White Glaze	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
4-CA1-10 <small>042111622-0010</small>	Southwest East Wall Upper Window - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-CA1-11 <small>042111622-0011</small>	South End 2nd Floor 2nd to Last Window to West - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-CA1-12 <small>042111622-0012</small>	North Side East End 2nd Floor Window to East End - White Caulk	White Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
5-CA2-13 <small>042111622-0013</small>	South Center Door - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/21/2021 12:22:01



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

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EMSL Order: 042111622
Customer ID: TEI93
Customer PO: 07207086
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
5-CA2-14 <small>042111622-0014</small>	Northwest Most Door - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5-CA2-15 <small>042111622-0015</small>	Northeast Corner of Building Wood to Brick - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6-WB1-16 <small>042111622-0016</small>	211 North End Apartment Living Room Wall - White Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6-WB1-17 <small>042111622-0017</small>	213 2nd Floor North End Apartment Ceiling - White Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6-WB1-18 <small>042111622-0018</small>	213 1st Floor South Wall Entry Room Wall - White Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7-WB4-19 <small>042111622-0019</small>	211 North End Room Bathroom - White Popcorn Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7-WB4-20 <small>042111622-0020</small>	211 South End Room Living Room - White Popcorn Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7-WB4-21 <small>042111622-0021</small>	Staircase to Upstairs - White Popcorn Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8-SG1-22 <small>042111622-0022</small>	Northeast Corner - Brown and Tan Vinyl Flooring	Brown Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
8-SG1-23 <small>042111622-0023</small>	South End by Weall - Brown and Tan Vinyl Flooring	Brown Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
8-SG1-24 <small>042111622-0024</small>	Center of Floor - Brown and Tan Vinyl Flooring	Brown Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
9-SG1-25-Sheet Flooring <small>042111622-0025</small>	South End - Brown Square Pattern Vinyl Sheet Flooring	Brown Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
9-SG1-25- Sheet Flooring 2 <small>042111622-0025A</small>	South End - Gray Square Pattern Vinyl Sheet Flooring	Gray Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
9-SG1-26-Sheet Flooring <small>042111622-0026</small>	North End by Sink - Brown Square Pattern Vinyl Sheet Flooring	Brown Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
9-SG1-26-Sheet Flooring 2 <small>042111622-0026A</small>	North End by Sink - Gray Square Pattern Vinyl Sheet Flooring	Gray Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
9-SG1-27-Sheet Flooring <small>042111622-0027</small>	Center of Kitchen - Brown Square Pattern Vinyl Sheet Flooring	Brown Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile

Initial report from: 05/21/2021 12:22:01



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

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EMSL Order: 042111622

Customer ID: TE193

Customer PO: 07207086

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
9-SG1-27-Sheet Flooring 2 042111622-0027A	Center of Kitchen - Gray Square Pattern Vinyl Sheet Flooring	Gray Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
10-SG1-28 042111622-0028	Doorway to Bathroom - 12" Square Tan Pattern Vinyl Flooring	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-SG1-29 042111622-0029	By Bathtub - 12" Square Tan Pattern Vinyl Flooring	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-SG1-30 042111622-0030	Center of Bathroom - 12" Square Tan Pattern Vinyl Flooring	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-MG7-31 042111622-0031	Northeast Apt 211 Living Room - Yellow Carpet Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-MG7-32 042111622-0032	213 2nd Floor East Side Apt Living Room - Yellow Carpet Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-MG7-33 042111622-0033	211 1st Floor East Side Middle Room - Yellow Carpet Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-SG1-34-Floor Tile 042111622-0034	Center of Kitchen in 213 Apt - Gray Squares 9" Floor Tile	Gray Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
12-SG1-34-Tar Paper 042111622-0034A	Center of Kitchen in 213 Apt - Tar Paper	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
12-SG1-35-Floor Tile 042111622-0035	Doorway into 213 Apt - Gray Squares 9" Floor Tile	Gray Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
12-SG1-35-Tar Paper 042111622-0035A	Doorway into 213 Apt - Tar Paper	Black Non-Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
12-SG1-36-Floor Tile 042111622-0036	Center of 213 Apt Bedroom under Carpet - Gray Squares 9" Floor Tile	Tan Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
12-SG1-36-Tar Paper 042111622-0036A	Center of 213 Apt Bedroom under Carpet - Tar Paper	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
13-SG1-37 042111622-0037	Entry to 213 Bathroom - Off-white/Gray Square Pattern Vinyl Sheet	White Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
13-SG1-38 042111622-0038	By Northend Window 213 Bathroom - Off-white/Gray Square Pattern Vinyl Sheet	White Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
13-SG1-39 042111622-0039	Center of 213 Bathroom - Off-white/Gray Square Pattern Vinyl Sheet	White Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile

Initial report from: 05/21/2021 12:22:01



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042111622

Customer ID: TEI93

Customer PO: 07207086

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
14-FT2-40 042111622-0040	South Doorway - 12"x12" Gray Square Pattern Floor Tile Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-FT2-41 042111622-0041	Center of Entryway - 12"x12" Gray Square Pattern Floor Tile Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-FT2-42 042111622-0042	Northeast by Door to Apt - 12"x12" Gray Square Pattern Floor Tile Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-MS5-43 042111622-0043	Center of North Room Suite 213 1st Floor - Terrazo	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
15-MS5-44 042111622-0044	Center of Middle Room - Terrazo	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
15-MS5-45 042111622-0045	West Side of North Room - Terrazo	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
16-SG1-46 042111622-0046	At Doorway - Gray Rock Pattern Vinyl Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-SG1-47 042111622-0047	In the Center - Gray Rock Pattern Vinyl Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-SG1-48 042111622-0048	On West Side of Room - Gray Rock Pattern Vinyl Flooring	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17-CT2-49 042111622-0049	Far South End of Building - 2'x3' Ceiling Tile White	White Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
17-CT2-50 042111622-0050	In Center of Center Room - 2'x3' Ceiling Tile White	White Non-Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
17-CT2-51 042111622-0051	From Falling Tiles in South Room - 2'x3' Ceiling Tile White	White Non-Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18-SG1-52 042111622-0052	Doorway to Bathroom 211 East Side 1st Floor - Off-white/Gray with Streak Vinyl Sheet Flooring	White Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
18-SG1-53 042111622-0053	South Wall of Bathroom 1st 211 East Side - Off-white/Gray with Streak Vinyl Sheet Flooring	White Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
18-SG1-54 042111622-0054	Center of Bathroom 1st 211 East Side - Off-white/Gray with Streak Vinyl Sheet Flooring	White Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile

Initial report from: 05/21/2021 12:22:01



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Tel/Fax: (800) 220-3675 / (856) 786-5974

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EMSL Order: 042111622
Customer ID: TEI93
Customer PO: 07207086
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
19-CT-55 <i>042111622-0055</i>	Center of Middle Room 1st Floor 211 East Side - 2'x4' White Small Fissures and Pinholes	White Fibrous Homogeneous	65% Cellulose 30% Min. Wool	5% Non-fibrous (Other)	None Detected
19-CT-56 <i>042111622-0056</i>	By Doorway to Middle and Noprth Room 1st 211 East Side - 2'x4' White Small Fissures and Pinholes	White Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
19-CT-57 <i>042111622-0057</i>	Center of North Room 1st 211 East Side - 2'x4' White Small Fissures and Pinholes	White Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
20-SG1-58 <i>042111622-0058</i>	By North Door to Room 1st 211 East Side - 4" Square Multi-color Vinyl Sheet Flooring	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-SG1-59 <i>042111622-0059</i>	Center of Room 1st 211 East Side - 4" Square Multi-color Vinyl Sheet Flooring	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-SG1-60 <i>042111622-0060</i>	By Door to the Middle Room 1st 211 East Side - 4" Square Multi-color Vinyl Sheet Flooring	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-SG1-61 <i>042111622-0061</i>	Under Shower 1st Floor 211 West Side - Yellow Pebble Pattern Vinyl Sheet Flooring	Yellow Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
21-SG1-62 <i>042111622-0062</i>	Under Carepet Center of Middle Room - Yellow Pebble Pattern Vinyl Sheet Flooring	Yellow Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
21-SG1-63 <i>042111622-0063</i>	From Debris Pile in Middle Room - Yellow Pebble Pattern Vinyl Sheet Flooring	Yellow Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile

Analyst(s) _____
Stephen Severn (72)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. South Portland, ME NVLAP Lab Code 500094-0, NY ELAP 12129, MA AA000236, VT AL197271, ME LM-0039, CT PH-0346

Initial report from: 05/21/2021 12:22:01

042111622

Lab Order ID:

Select a Laboratory: _____

Lab Location: HQ - Cinnaminson, NJ 101048-0

Page 1 of 4

Asbestos Bulk Sample and Chain of Custody Form

Project Name:	Stanwood
Project Address:	211 & 213 East Broadway
Site/Building:	211 & 213

Project Number:	07207086
City/State / Zip:	Stanwood, Iowa

Project Manager:	James Baxter DNU as SM contact
Email Results/Invoice/Sample Confirmation To:	Alex.Davis@terracon.com James.Baxter@terracon.com
EMSL Login: Enter Customer Contact as:	Kathy.Toft@terracon.com

Sample Identification	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification ¹	Notes/Physical Condition ²
HA - BS - Sample Code - #						
1 -MA1 - 1	South west corner of building	Exterior of building	red brick gray mortar			
1 -MA1 - 2	South center of building in rubble			F C1 C2	G D SD	
1 -MA1 - 7	North East corner of building					
2 -MA6 - 4	back of building west wall	South end of building	gray stucco			
2 -MA6 - 5	South center of building in rubble			F C1 C2	G D SD	
2 -MA6 - 6	southeast corner of building					
3 -SC1 - 7	South East East wall lower window	around building	White Slatel	7 units	F C1 C2	G D SD
3 -SC1 - 8	North East 2nd floor far window					
3 -SC1 - 9	North West 2nd floor far window					
4 -CA1 - 10	South West East wall ^{upper} window	around windows	white Caulk	11	F C1 C2	G D SD
4 -CA1 - 11	South end 2nd floor 2nd to last window to west					
4 -CA1 - 12	North side East end 2nd floor 3 Window to East End					
5 -CA2 - 13	South center door	around door s + Edge of building	White Caulk	80 18	F C1 C2	G D SD
5 -CA2 - 14	North west most door					
5 -CA2 - 15	North east corner of building wood to brick					

Sampling Date: 5-14-21	Collected by (print): Alex Davis	Inspector's Signature: <i>[Signature]</i>	
Relinquished by: Alex Davis	Date/Time: 5-14-21	Received by: <i>[Signature]</i>	Date/Time: 5-17-21
Analysis: PLM EPA 600/R-93/116 <input checked="" type="checkbox"/> PLM 400 Point Count <input type="checkbox"/> TEM <input type="checkbox"/> Other _____		Instructions: Terracon ARMS: <input checked="" type="checkbox"/> Stop Positive: <input type="checkbox"/> Number of samples: _____	
Turnaround Time: <input checked="" type="checkbox"/> 24 Hrs <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> 5 Days <input type="checkbox"/> Other _____			

Order ID: 042111622

Page 1 of 4

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63

¹ F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Lab Location: HQ - Cinnaminson, NJ 101048-0

Page 2 of 4

Sample Identification		Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP ¹ Classification	Notes/Physical Condition ²
HA	BS Code						
6	WB1	16	throughout Buildings	white dry wall tape mud		F C1 C2	G D SD
6	WB1	17					
6	WB1	18					
7	WB4	19	211 2nd floor ceilings	white Popcorn texture +	925 SF	F C1 C2	G D SD
7	WB4	20					
7	WB4	21					
8	SG1	22	Kitchen in all North end APT	brown + tan vinyl flooring	70 SF	F C1 C2	G D SD
8	SG1	23					
8	SG1	24					
9	SG1	25	Kitchen in all south end APT	gray square pattern vinyl sheet flooring	70 SF	F C1 C2	G D SD
9	SG1	26					
9	SG1	27					
10	SG1	28	bathroom in 211 south end APT	12' square tan pattern vinyl flooring	30 SF	F C1 C2	G D SD
10	SG1	29					
10	SG1	30					
11	MGT	31	throughout entire building 211	yellow carpet mastic		F C1 C2	G D SD
11	MGT	32					
11	MGT	33					

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OrderID: 042111622

Asbestos Bulk Sample and Chain of Custody Form

042111622 Lab Order ID:

Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Page 2 of 4

Sample Identification	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP ¹ Classification	Notes/Physical Condition ²
HA - BS - Sample #						
12-SG1-34	center of kitchen in 213 APT	Kitchen	gray squares	185 SF	F C1 C2	G D SD
12-SG1-35	door doorway into 213 APT	Bedroom	9" square	SF		
12-SG1-36	center of 213 APT bedroom under carpet	213 APT 2nd floor	Floor tile, rad paper			
13-SG1-37	Entry to 213 bathroom	bathroom	off white/gray square pattern	70 SF	F C1 C2	G D SD
13-SG1-38	by Northend window 213 bathroom	213 APT 2nd floor	vinyl sheet			
13-SG1-39	center of 213 bathroom					
14-FT2-40	South doorway	Entry way	12" x 12" gray square pattern floor tile adhesive	50 SF	F C1 C2	G D SD
14-FT2-41	center of Entryway	TO 213 APT 2nd floor				
14-FT2-42	Northeast by door to APT					
15-M55-43	center of north room suite 213 1st floor	Building 213 1st floor	Terrazzo	325 SF	F C1 C2	G D SD
15-M55-44	center of middle room					
15-M55-45	West side of North room	paths				
16-SG1-46	at doorway	building 213 1st floor	gray rock pattern	120 SF	F C1 C2	G D SD
16-SG1-47	in the center		Vinyl flooring			
16-SG1-48	on west side of room	Entry				
17-CT2-49	far south end of building	Through out 213 1st fl building	2' x 3' ceiling tile white	2,600 SF	F C1 C2	G D SD
17-CT2-50	in center of center room					
17-CT2-51	from falling tiles in south room					

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CINNAMINSON, N.J.

042111622

Sample Identification		Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP ¹ Classification	Notes/Physical Condition ²
IA	BS Code - Sample #						
18-SG1-52		door way to bathroom all East side 1 ST Fl	off white / gray with streak vinyl sheet flooring	In bathroom to all East side 1 ST floor	32 SF	F C1 C2	G D SD
18-SG1-53		South wall of bathroom 1 ST all East side					
18-SG1-54		center of bathroom 1 ST all East side					
19-CT-55		center of middle room 1 ST Fl all East side	In Entry/middle room all 1 ST floor East side	2' x 4' white small fissures + pinholes	200 SF	F C1 C2	G D SD
19-CT-56		by door way to middle + North room 1 ST all East side					
19-CT-57		center of North room 1 ST all East side					
20-SG1-58		by North door to room 1 ST all East side	In Entry room all 1 ST floor East side	4" inch square multi color vinyl sheet flooring	100 SF	F C1 C2	G D SD
20-SG1-59		center of room 1 ST all East side					
20-SG1-60		by door to the middle room 1 ST all East side					
21-SG1-61		under shower 1 ST Fl all West side	In middle room all 1 ST floor West side	yellow public pattern vinyl sheet flooring	140 SF	F C1 C2	G D SD
21-SG1-62		under carpet center of middle room					
21-SG1-63		from debris pile in middle room					
-	-					F C1 C2	G D SD
-	-					F C1 C2	G D SD
-	-					F C1 C2	G D SD
-	-					F C1 C2	G D SD
-	-					F C1 C2	G D SD
-	-					F C1 C2	G D SD
-	-					F C1 C2	G D SD

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<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042112351

Customer ID: TEI93

Customer PO: 07207086

Project ID:

Attention: Kathy Toft
Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, IA 52722

Phone: (563) 355-0702

Fax: (319) 355-4789

Received Date: 05/25/2021 9:45 AM

Analysis Date: 06/01/2021

Collected Date: 05/24/2021

Project: Stanwood Demo. Bldg. 211-213 E. Broadway / Bldg. 211 +213 / 07207086 / Stanwood, Iowa 52337

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-RF4-01 <small>042112351-0001</small>	Southeast Corner of Building on Parapet Wall - Black/Gray/White Coating Build-up Roofing	Gray/White/Black Fibrous Homogeneous	10% Cellulose 5% Glass	85% Non-fibrous (Other)	<1% Chrysotile
1-RF4-02 <small>042112351-0002</small>	South End Center of Building Near Roof Edge - Black/Gray/White Coating Build-up Roofing	Black Fibrous Homogeneous	15% Cellulose	82% Non-fibrous (Other)	3% Chrysotile
1-RF4-03-Built Up Roofing <small>042112351-0003</small>	South End Center on Brick Parapet Bump-out - Black/Gray/White Coating Build-up Roofing	Black Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	<1% Chrysotile
1-RF4-03-Membrane <small>042112351-0003A</small>	South End Center on Brick Parapet Bump-out - Black/Gray/White Coating Build-up Roofing	Gray/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
2-RF8-04 <small>042112351-0004</small>	Southeast Corner Near Parapet Wall - Black/Gray with Brown Fibrous Insulation	Brown/Black Fibrous Homogeneous	10% Cellulose	82% Non-fibrous (Other)	8% Chrysotile
2-RF8-05 <small>042112351-0005</small>	South End Center Area Near Roof Edge - Black/Gray with Brown Fibrous Insulation	Brown/Black Fibrous Homogeneous	10% Cellulose	80% Non-fibrous (Other)	10% Chrysotile
2-RF8-06 <small>042112351-0006</small>	Southwest Side Near Parapet Wall - Black/Gray with Brown Fibrous Insulation	Brown/Black Fibrous Homogeneous	20% Cellulose	72% Non-fibrous (Other)	8% Chrysotile
2-RF8-07-White Coating <small>042112351-0007</small>	Southeast Corner Near Parapet Wall - Black/Gray/White Tar and Coatings	White Fibrous Homogeneous	25% Synthetic	75% Non-fibrous (Other)	None Detected
2-RF8-07-Built Up Roofing <small>042112351-0007A</small>	Southeast Corner Near Parapet Wall - Black/Gray/White Tar and Coatings	Black Fibrous Homogeneous	10% Cellulose	87% Non-fibrous (Other)	3% Chrysotile
2-RF8-08-White Coating <small>042112351-0008</small>	South End Center Area Near Bump-out - Black/Gray/White Tar and Coatings	White Fibrous Homogeneous	10% Synthetic	90% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2021 14:07:50



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EMSL Order: 042112351
Customer ID: TEI93
Customer PO: 07207086
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-RF8-08-Built Up Roofing <small>042112351-0008A</small>	South End Center Area Near Bump-out - Black/Gray/White Tar and Coatings	Gray/Black Fibrous Homogeneous	15% Cellulose	83% Non-fibrous (Other)	2% Chrysotile
2-RF8-09-White Coating <small>042112351-0009</small>	Southwest Corner Near Parapet Wall - Black/Gray/White Tar and Coatings	White Fibrous Homogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
2-RF8-09-Built Up Roofing <small>042112351-0009A</small>	Southwest Corner Near Parapet Wall - Black/Gray/White Tar and Coatings	Black Fibrous Homogeneous	15% Cellulose	83% Non-fibrous (Other)	2% Chrysotile

Analyst(s)

Michelle Quach (5)

Mark Shuts (8)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367, LA #04127

Initial report from: 06/01/2021 14:07:50

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 042112351

Select a Laboratory: _____

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Lab Location: HQ - Cinnaminson, NJ 101048-0

Page 1 of _____

Project Name: Stanwood Demo. Bldg.
Project Address: 211-213 E. Broadway
Site/Building: Bldg. 211 + 213

Project Number: 07207086
City/State / Zip: Stanwood, Iowa 52337

Project Manager: James Baxter DNU as SM contact
Email Results/Invoice/Sample Confirmation To: Steve.Mack@terracon.com
James.Baxter@terracon.com
EMSL Login: Enter Customer Contact as: Kathy.Toft@terracon.com

Sample Identification HA - BS - Sample Code - #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification ¹	Notes/Physical Condition ²
1-RF4-01	Southeast corner of building on Parpet wall	Building 213	Black/gray	900 ^{sf}	F C1 C2	G D SD
1-RF4-02	South end center of building near roof edge	Roof and	White coating	900 ^{sf}	F C1 C2	G D SD
1-RF4-03	South end center on brick Parpet bump-out	Building 211 roof	Build-up Roofing	120 ^{cf}		
2-RF8-04	South east corner near Parpet wall	Building 213	Black/gray			
2-RF8-05	South end, center area near th roof edge	Build-up roof	with Brown fibrous insulation	900 ^{sf}	F C1 C2	G D SD
2-RF8-06	South west side, near Parpet wall					
2-RF8-07	South east corner near Parpet wall	Building 211	Black/gray			
2-RF8-08	South center ^{end} center area near bump-out	Build-up Roof	white tar & coatings	750 ^{sf}	F C1 C2	G D SD
2-RF8-09	South west corner near Parpet wall					
-					F C1	G D SD
-					F C1 C2	G D SD

Sampling Date: ~~May 20, 2021~~ May 24, 2021 Collected by (print): ~~Steven Mack~~ Steven Mack Inspector's Signature: Steven Mack
Relinquished by: Steven Mack Date/Time: ~~5/24/21~~ 5/24/21 Received by: AMB-tx Date/Time: 5-25-21 9:45
Analysis: PLM EPA 600/R-93/116 PLM 400 Point Count TEM Other _____ Instructions: _____
Turnaround Time: 3 Hrs 24 Hrs 2 Days 3 Days 5 Days Other _____ Terracon ARMS: Stop Positive: Number of samples: _____

¹ F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

OrderID: 042112351

Page 1 of 1

(9) 4

APPENDIX C

LICENSES

ALEXANDER DAVIS

DOB: 09-17-1990

Issued: 11-13-2020



This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type

Number

Expires

INSPECTOR

20-5247

10-15-2021

SUPERVISOR

20-5248

10-16-2021



Asbestos

Rod A. Roberts

**Rod A. Roberts
Labor Commissioner**

APPENDIX D

CONFIRMED ACM PHOTO LOG

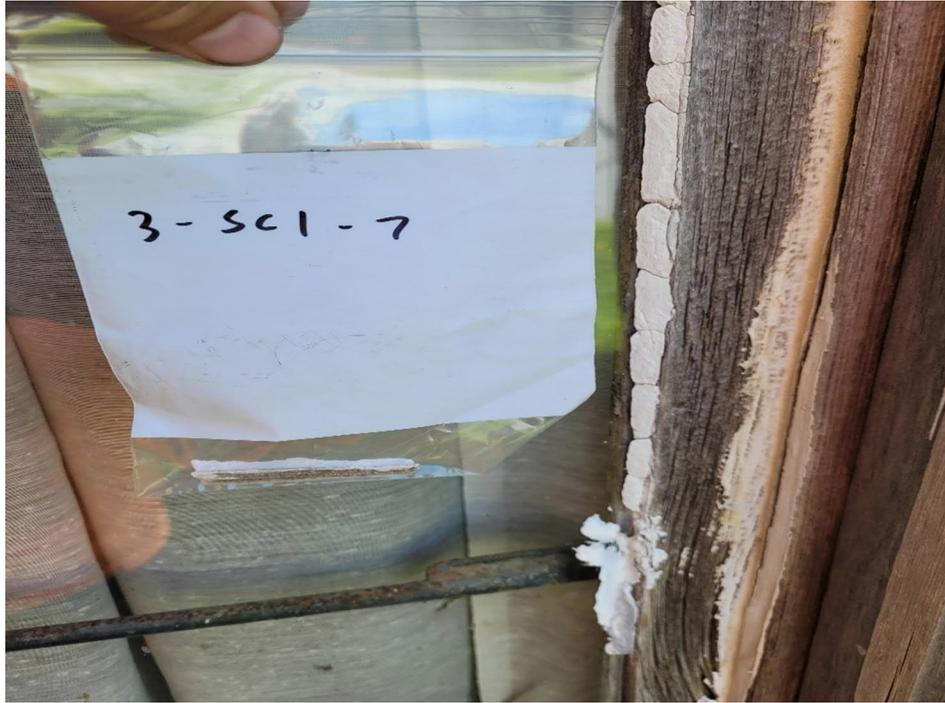


Photo 1: View of positive window glazing

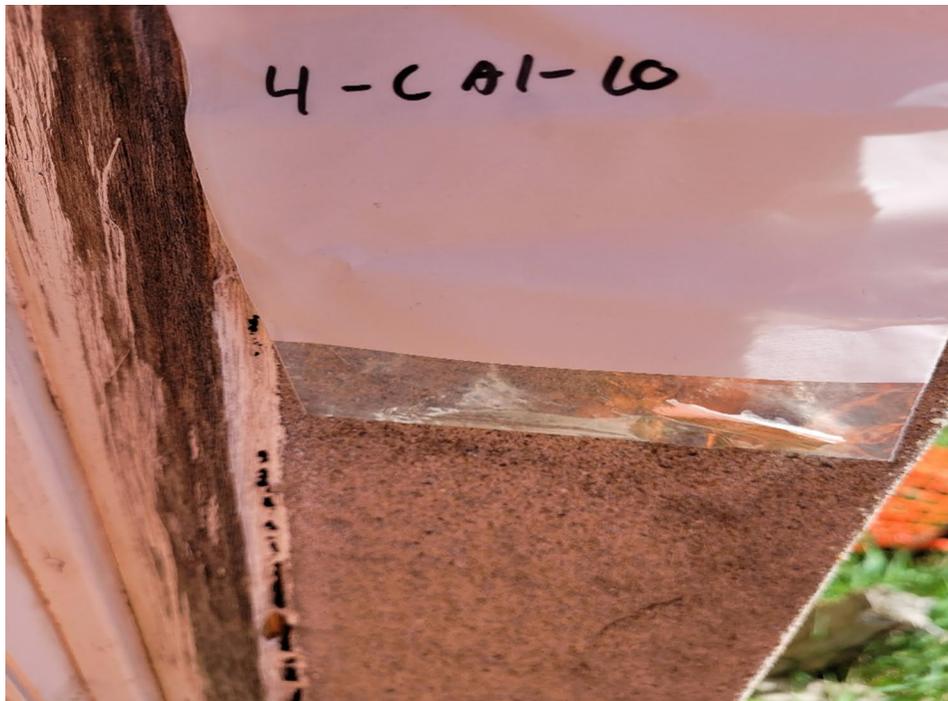


Photo 2: View of positive window caulking



Photo 3: View of positive vinyl sheet flooring in building 211 2nd floor north end apartment kitchen.

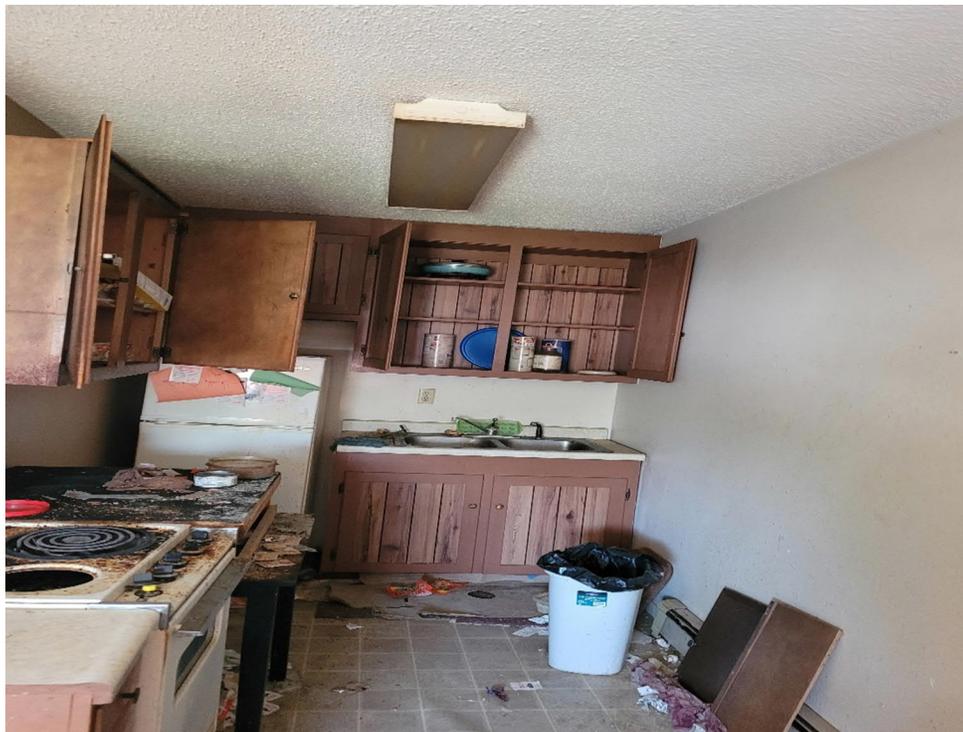


Photo 4: View of positive vinyl sheet flooring 2 layers in building 211 2nd floor south end apartment kitchen.



Photo 5: View of positive vinyl sheet flooring in bathroom of building 213 2nd floor apartment.



Photo 6: View of positive terrazzo flooring in building 213 1st floor office space.

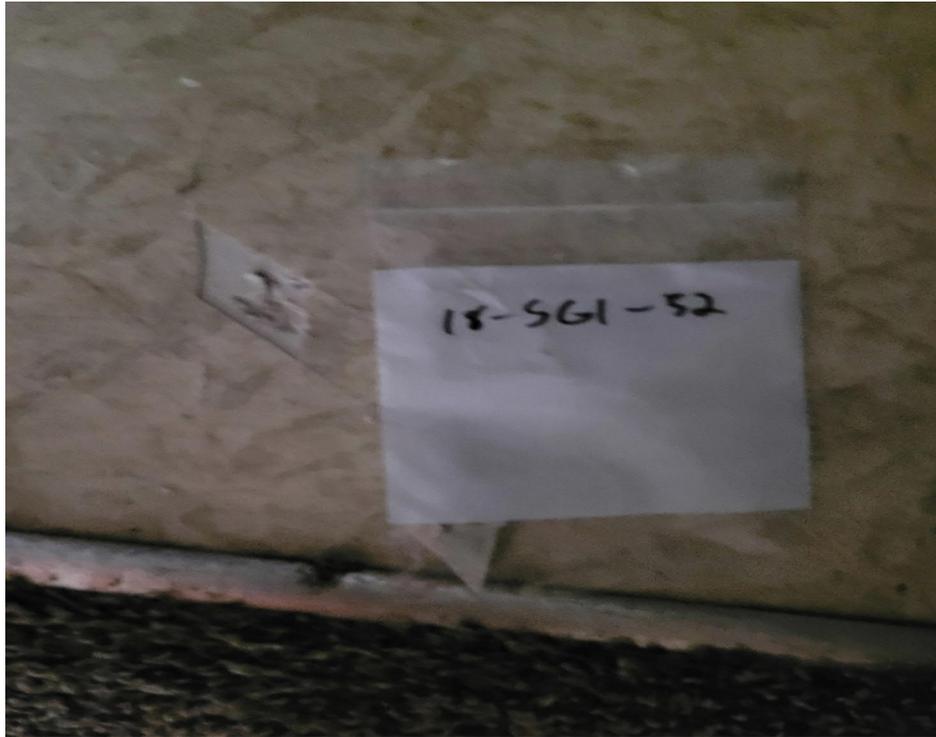


Photo 7: View of positive vinyl sheet flooring in building 211 1st floor east side office bathroom.



Photo 8: View of positive vinyl sheet flooring debris pile in building 211 1st floor west side office located in middle room and under carpet and shower.



Photo 9: View of positive roof decking and flashing throughout both building roofs.

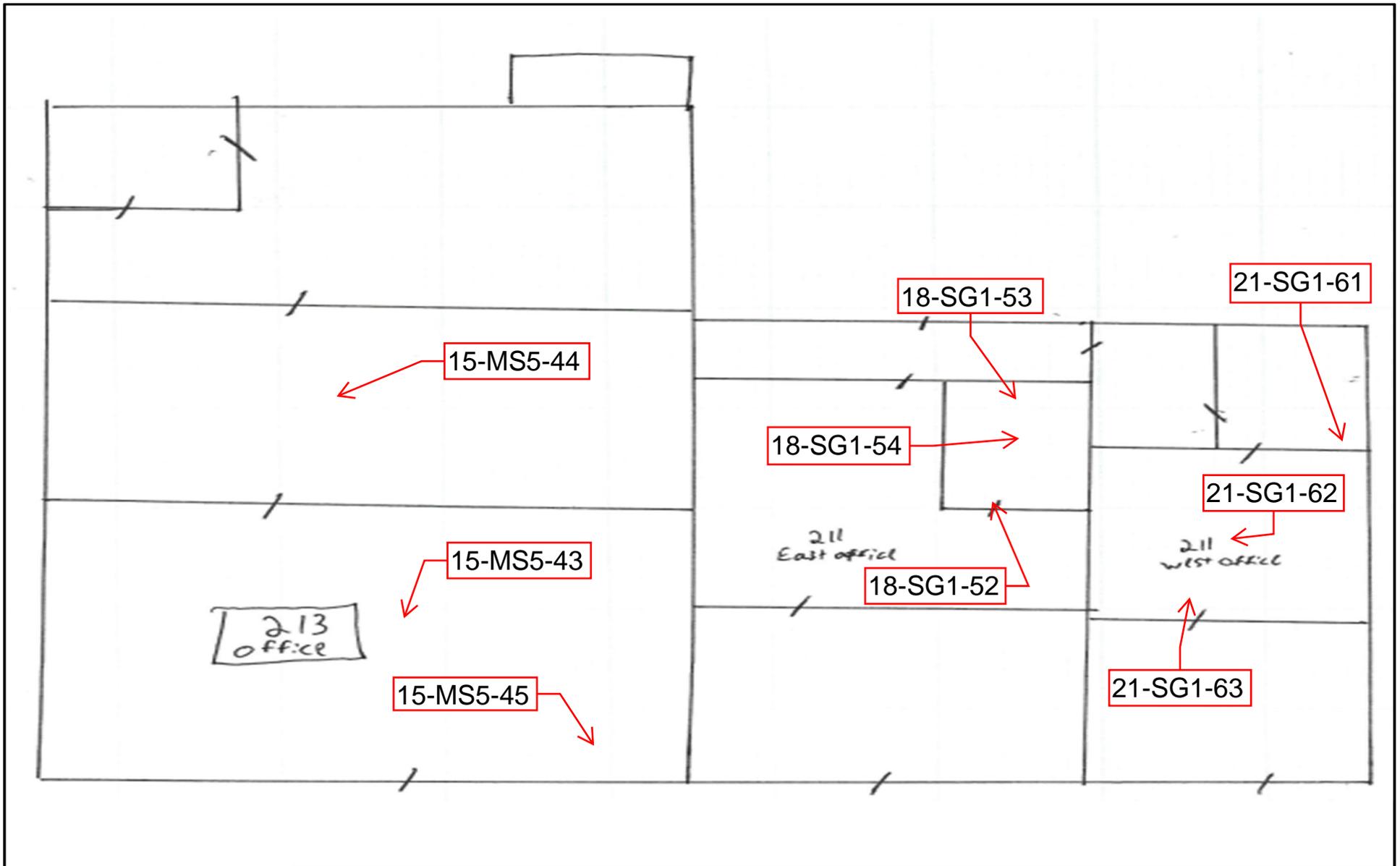
APPENDIX E

POSITIVE ACM LOCATIONS MAPS

E1 – POSITIVE SAMPLE LOCATION MAP 1F

E2 – POSITIVE SAMPLE LOCATION MAP 2F

E3 – POSITIVE SAMPLE LOCATION MAP ROOF



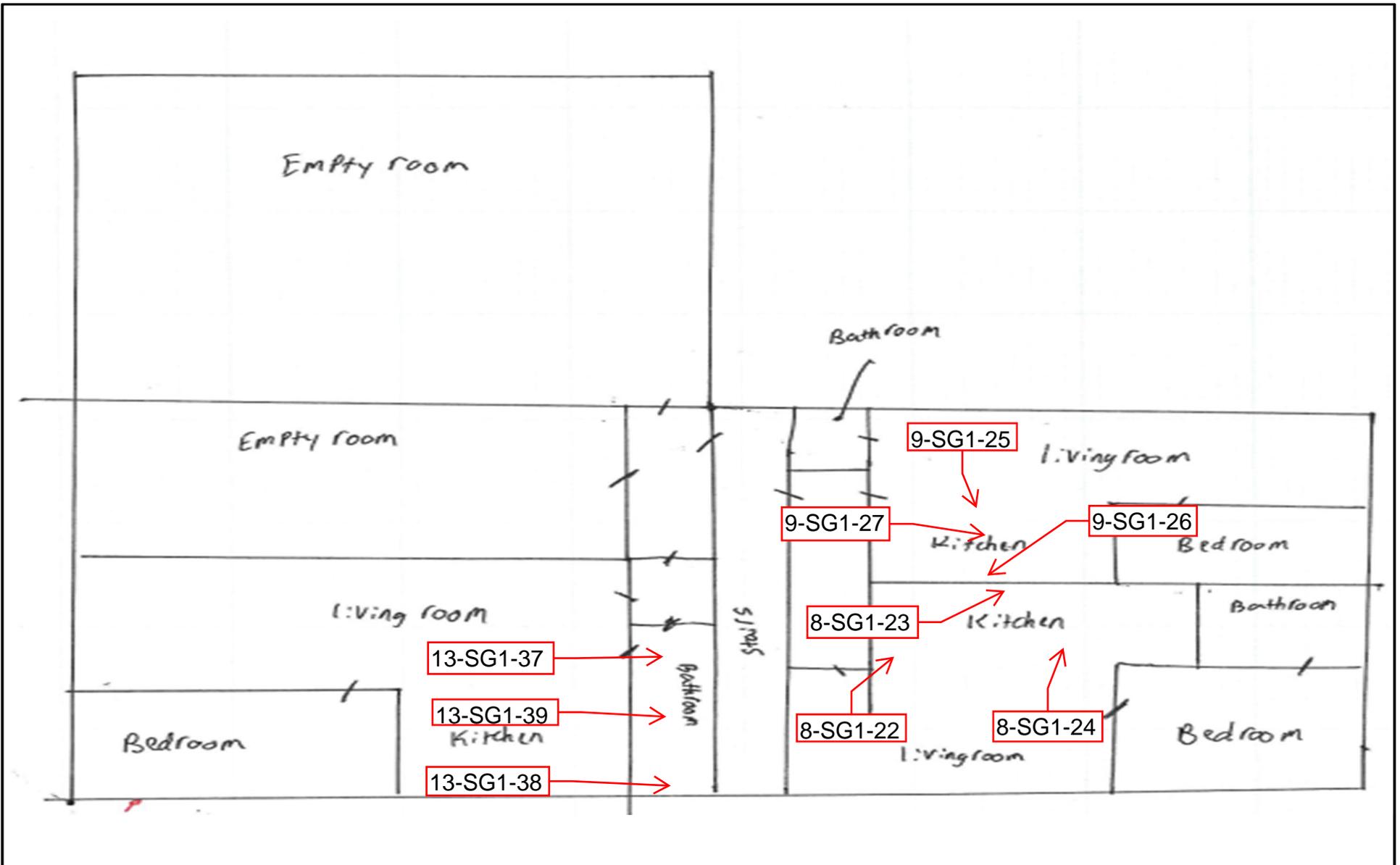
Project Manager:	JRB	Project No.	07207086
Drawn by:	AJD	Scale:	Not To Scale
Checked by:	JRB	File Name:	
Approved by:	JRB	Date:	June 11 2021


Terracon
 Consulting Engineers & Scientists

870 40th Avenue Bettendorf, Iowa 52722
 PH. (563) 355-0702 FAX. (563) 355-4789

POSITIVE SAMPLE LOCATION MAP 1F 211 AND 213 East Broadway Street STANWOOD, IOWA 52337
--

Appendix
E1



Project Manager:	JRB	Project No.	07207086
Drawn by:	AJD	Scale:	Not To Scale
Checked by:	JRB	File Name:	
Approved by:	JRB	Date:	June 11 2021

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POSITIVE SAMPLE LOCATION MAP 2F
211 AND 213 East Broadway Street STANWOOD, IOWA 52337

Appendix
E2



Project Manager:	JRB	Project No.	07207086
Drawn by:	AJD	Scale:	Not To Scale
Checked by:	JRB	File Name:	
Approved by:	JRB	Date:	June 11 2021

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POSITIVE SAMPLE LOCATION MAP ROOF
211 AND 213 East Broadway Street STANWOOD, IOWA 52337

Appendix
E3

ATTACHMENT D

SOIL AND GROUNDWATER MANAGEMENT PLAN

DRAFT

Soil and Groundwater Management Plan

211 and 213 East Broadway Street
Stanwood, Cedar County, Iowa

United States Environmental Protection Agency – Region 7
Brownfields Assessment Grant: BF97782001
Terracon Project No. 07207086

February 3, 2022



Prepared for:

East Central Intergovernmental Association (ECIA)
7600 Commerce Drive
Dubuque, Iowa 52002

&

City of Stanwood, Iowa
209 East Broadway
Stanwood, Iowa 52337

Prepared by:

Terracon Consultants, Inc.
Bettendorf, Iowa

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials



February 3, 2022

East Central Iowa Intergovernmental Association
7600 Commerce Park
Dubuque, Iowa 52002-9673

Attn: Ms. Dawn Danielson
P: (563) 690-5772

Re: Soil and Groundwater Management Plan
ECIA Brownfields Assessment Services
211 & 213 East Broadway Street
Stanwood, Cedar County, Iowa 52337
Terracon Project No. 07207086

Dear Ms. Danielson:

This Soil Management Plan (Plan) has been prepared for the site referenced above that may involve soil management. These activities are likely to include earthwork for site redevelopment by the City of Stanwood.

This plan is intended as a supporting document and does not function as a corrective action plan. It cannot be all inclusive or anticipate every future condition involving workers or construction involving on-site soils and groundwater. This document does not represent a general site safety plan for construction workers to address construction hazards.

We appreciate the opportunity to perform these services for you. Please do not hesitate to contact Benjamin LaPointe, 563-468-4311, or via email (benjamin.lapointe@terracon.com) if you have questions regarding this information or if we can provide any other services.

Sincerely,
Terracon Consultants, Inc.

Benjamin M. LaPointe, CHMM
Environmental Department Manager

Dennis R. Sensenbrenner, PG, CGP
Senior Associate

Terracon Consultants Inc. 870 40th Ave Bettendorf, IA 52722-1607

P 563-355-0702 F 563-355-4789 terracon.com



Environmental

Facilities

Geotechnical

Materials

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APPENDICES

APPENDIX A – Exhibits

- Exhibit 1 – Topographic Site Map
- Exhibit 2 – Soil Contaminants of Concern

APPENDIX B – Toxicological Data Fact Sheets

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) prepared this Soil and Groundwater Management Plan (Plan) for the property located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa (site). The Plan was prepared based on Terracon's prior Phase II Environmental Site Assessment dated January 14, 2022, as summarized in **Section 3.1** below. The purpose of the plan is to provide environmental information so that general contractors can review the information, make professional opinions regarding site development activities, and incorporate health and safety management into their bid package for the construction.

The approximately 0.12-acre site is currently developed with two 2-story vacant commercial buildings. According to the information provided by the client, we understand that the City of Stanwood plans on redeveloping the site as greenspace, office space, or as a building extension. A Topographic/Site Location Map is provided as **Exhibit 1** and an aerial view of the site is provided as **Exhibit 2** located in **Appendix A**.

Terracon completed a Phase II Environmental Site Assessment (ESA) at the site on January 14, 2022. The Phase II ESA was conducted to identify contaminants of concern associated with RECs identified in Terracon's Phase I ESA dated July 21, 2021. The Phase II ESA identified contaminants encountered in soil at concentrations that exceeded the Iowa Department of Natural Resources (IDNR) Statewide Standards (SWS) for soil.

2.0 PURPOSE

This Plan was prepared based on Terracon's Phase II ESA, as described above in **Section 1.0**. The purpose of the plan is to provide environmental information so that the general contractors can review the information, make professional opinions regarding site development activities, and incorporate health and safety into their bid package for the construction.

This Plan includes the following elements:

- A description of known or suspected contaminants at the property;
- A description of site information and IDNR requirements so contractors can review and make professional opinions on soil and groundwater management procedures to be in accordance with regulatory requirements;
- A description of the site safety responsibilities and contingency actions to be implemented, if necessary, at the property;
- A description of management practices for potential impacted groundwater or storm water (i.e. groundwater/stormwater contact with known contaminated soils during excavation) that requires treatment or disposal;

- Hazard recognition procedures when working with impacted media; and
- Hazard response procedures, if needed, when working with impacted media.

2.1 Contractor Notification

Contractors anticipated to be working at the property should review the site information provided in this Plan and associated reports and make their own professional opinions on proper procedures in compliance with regulations.

2.2 Worker Education and Safety

This plan provides contractors information for use in complying with employer obligations such as employee right-to-know, worker safety, and other regulatory programs. It provides general guidelines for reducing potential exposures of workers to environmental media having chemical impact.

This plan serves as an educational document for contractors and site workers involved with management of environmental media on the property. It is intended to draw awareness to the concept and value of media management and to provide contractors with knowledge of the potential contaminants of concern at the property, derived from information gathered during previous environmental investigations.

This plan is not intended for direct, unmodified use by employers to protect workers. Rather, it intends to provide general information and considerations for forming professional opinions and modification and incorporation by employers into their existing worker safety programs. Each employer is responsible for the health and safety of its own workers. This plan may be used by contractors to support employee right-to-know for workers performing excavation or other activities that disturb impacted media on the site.

2.3 Hazard Recognition

A key element of this plan is to inform and educate contractors and their site workers to be alert for new or undiscovered conditions that could potentially pose chemical risk. The plan provides a process for qualitatively and quantitatively identifying whether the changed condition presents a potential hazard condition different from conditions evaluated.

2.4 Media Management

This Plan provides procedures for contractors to control soil or groundwater suspected to contain residual contaminants. Soils with concentrations below Statewide Standards¹ and Tier 1 Values² may exhibit staining or odors but may not require special management. Statewide Standards and

¹ Iowa Administrative Code (IAC) 567 Chapter 137.5

² IAC 567 Chapter 135.9(1)

Tier 1 Values were developed by the Iowa Department of Natural Resources (IDNR) to represent concentrations of contaminants in respective environmental media at which normal exposure is considered unlikely to pose a threat to human health or the environment. Residual contaminant concentrations above these standards do not necessarily represent a hazard to workers or site occupants.

The IDNR regulates handling and disposal of environmental media with contaminant concentrations above the Statewide Standards or Tier 1 Values. Until suspect media can be tested for comparison to Statewide Standards and Tier 1 Values, contractors should prudently implement containment and control of removed media or materials.

3.0 PREVIOUS ENVIRONMENTAL ASSESSMENTS

Terracon's Phase II ESA dated January 14, 2022 was conducted at the site to examine the potential for contaminated soils and/or groundwater commonly associated with the identified RECs from Terracon's Phase I ESA dated July 21, 2021. Contaminants of concern included volatile organic hydrocarbons (VOCs), RCRA 8³ metals, and Total Extractable Hydrocarbons (TEH). The analytical results were compared to the IDNR SWS for soil and groundwater. Based on the Phase II ESA, soils were found to be impacted with lead at concentrations that exceed IDNR SWS for soil.

Concentrations of arsenic in soil exceeded the IDNR SWS; however, the concentrations are within the natural occurring range typically present in Iowa soils⁴ and do not represent a suspect release to the site. Concentrations of RCRA 8 metals in filtered groundwater samples were below IDNR SWS for groundwater. Total Arsenic, barium, chromium, and lead were present in unfiltered groundwater at concentrations likely representative of natural occurring sediments in the groundwater.

4.0 SITE CONTAMINANTS

Near surface soils are known to be impacted with lead at concentrations exceeding the Iowa SWS.

Note: Arsenic was present in soils at concentrations exceeding IDNR SWS; however, the concentration is within the natural range typically encountered in Iowa soils and is not suspect evidence of a release and/or contamination.

³ Resource Conservation and Recovery Act (RCRA) 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver)

⁴ The Iowa Statewide Trace Element Soil sampling Project: Design and Implementation, R. Rowden, June 2010, Smith, D.B., Cannon, W.F., Woodruff, L.G., Solano, Federico, Kilburn, J.E., and Fey, D.L., 2013, Geochemical and mineralogical data for soils of the conterminous United States: U.S. Geological Survey Data Series 801, 19 p., <http://pubs.usgs.gov/ds/801/>.

Dissolved concentrations of RCRA metals in groundwater did not exceed IDNR SWS. Total arsenic, barium, chromium, and lead were present in unfiltered groundwater, which is likely representative of natural sediments in the groundwater.

The known soil contaminants discussed above do not include complete delineation and characterization of site contaminants. Although not encountered while conducting the LSI, other potential contaminants such as other VOCs, other RCRA 8 metals, and/or petroleum compounds could have impacted soils onsite in other areas not yet defined. If elevated concentrations of these or other contaminants are encountered during property redevelopment, further testing may be warranted to determine potential exposure risk to construction workers or future site occupants. Copies of available toxicological data fact sheets for known site contaminants are provided in **Appendix B**.

5.0 HAZARD ASSESSMENT

The contaminant compounds listed in Table 1 above are the known contaminants of concern identified during a previous environmental investigation at the property. Disturbance of soil could potentially expose personnel to these compounds and/or additional constituents not yet identified.

Workers should understand that smell/odor is an ineffective indicator of “contamination.” It is common for soils that have residual contamination, particularly diesel fuel, to exhibit odors without exceeding SWSs or Tier 1 Values for nonresidential, commercial uses. For example, the odor threshold of diesel fuel can be as low as 0.11 ppm in air (MFA Oil Material Safety Data Sheet, Diesel Fuel No. 2, 2005), hundreds of times lower than the equivalent ‘safe’ concentration in soils. Alternatively, certain types of contaminants at concentrations above acceptable risk thresholds do not emit significant odors.

At a minimum, prior to excavation activities at the site, the contractor should develop a safety plan to address possible worker exposure to contaminants of concern from soil and/or groundwater (if groundwater is suspect to be impacted such as by contact with contaminated soil) at the site. The safety plan should be implemented consistent with OSHA regulations (29 CFR 1910 and 1926), state, and local regulations.

5.1 Chemical Acute/Chronic (cumulative) Exposure Risk

Humans are exposed to thousands of natural and man-made chemical compounds every day. Chemical compounds are in the water we drink, the air we breathe, and in the materials and equipment we use daily. Excess chemical risk requires a chemical of sufficient toxicity, exposure to a sufficient amount over a sufficient time-period, and a complete exposure pathway for the exposure to produce excess, or unacceptable, chemical risk to the public. The following **Figure 1** depicts this concept.

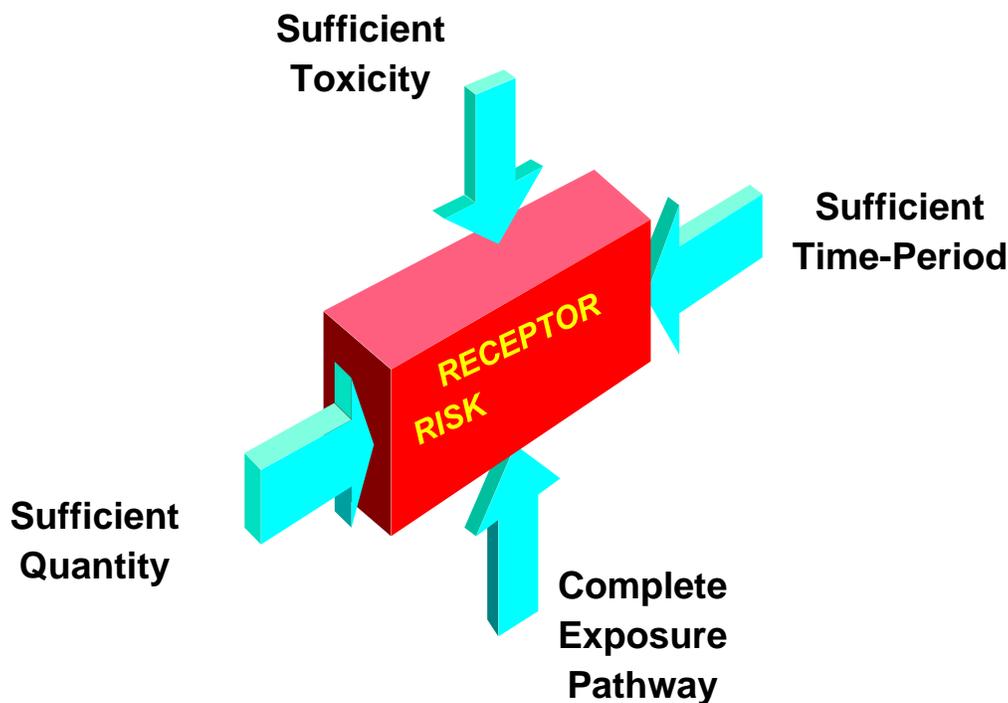


Figure 1 Concept of Risk

5.2 Chemical Toxicity

When the amount of material helps (as in the case of medicine) or does not harm the body, a condition of acceptable chemical risk exists. When a chemical exceeds the amount where it can begin to do harm immediately or over a long period, a condition of unacceptable risk is felt to exist. It is at this point of unacceptable risk where a chemical becomes harmful or toxic. A chemical becomes toxic when the amount of material which enters the body begins to produce harm. If the harm is realized in a relatively short period (minutes, days or weeks), the material is said to have an acute toxicity. If harm is realized over a relatively long period (years, decades or a person's lifetime), the material has a chronic toxicity. For example, consider a chemical used as a pain killer in medicine.

- In proper doses and short periods of exposure, the chemical has a beneficial medicinal effect.
- Used improperly in small doses over time (addiction), the chemical has a negative chronic effect.
- Used improperly in large doses (overdose), the chemical has a negative acute effect.

The IDNR does not make its own studies to determine a chemical's toxicity. The IDNR relies on the same chemistry and toxicity studies conducted by the Environmental Protection Agency (EPA) to set national levels of protection for our air and drinking water.

The Iowa regulatory programs must determine a level of target risk that is acceptable. In Iowa, the target risk for a chemical is to produce cancer effects at less than five additional cancer occurrences in one million, or 5-in-1,000,000. In comparison, workplace standards to protect workers from chemical exposure are often calculated using 1-in-10,000 risk levels. For chemicals which might produce other non-cancer health effects, the level is calculated to be protective of no ill effect over an average person's lifetime.

5.3 Exposure

Exposure is the manner in which a chemical encounters the body. Exposure consists of three basic parts:

- The physical material, or media, that carries the chemical to the body. For the property, this was determined to be soils with chemical impact above objectives;
- The period of time, or duration, that the body occupies the property impacted by the chemical. Under IDNR programs, this assumes 30 years residential occupancy at a site, 25 years for commercial occupancy, and 1 year for construction worker occupancy; and,
- The number of times, or frequency, that the contact and chemical delivery might occur during occupancy. Under IDNR programs, exposure frequency is assumed to occur 350 days per year for residential occupants, 250 days per year for commercial occupants, and 30 days per year for construction workers. A day is considered 24 hours.

In comparing to the objectives, it was assumed that the person is theoretically exposed to the mean amount of chemical measured at the property. Chemical measurements at the property were typically less than the maximum used for comparison.

5.4 Completing Exposure Pathways

An exposure pathway is the physical manner in which the chemical moves from its source to enter the body to do harm. An exposure pathway for this property would be complete if the environmental media with chemical impact is made available to a person or if there is a likelihood in the future that this condition could occur. Basic considerations in determining pathway completions for the property were:

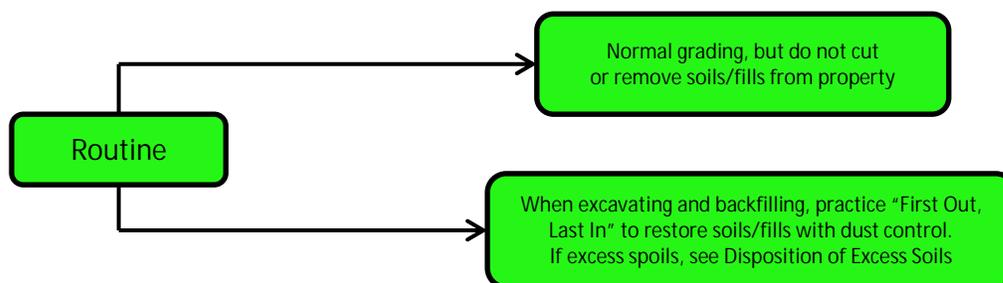
- Soils with chemical impact could be present for exposure to contractors and site workers disturbing materials, although individual exposures will likely be less than the 30 days per year, 24 hours per day assumed for the pathway;
- The analysis presented in this plan is based upon data obtained from the previously referenced environmental assessments and from other information discussed herein. This plan does not reflect any variations in subsurface stratigraphy that may occur between sample locations or across the property. Actual subsurface conditions and contaminant concentrations may vary. The extent of such variations may not become evident without additional exploration.

6.0 CONTAMINANT EXPOSURE PRECAUTIONS

This plan recognizes that site construction or maintenance activities may disturb impacted media at the property and that unplanned or as yet unknown activities might expose workers to the chemicals identified in soils and/or in groundwater (if groundwater is suspected to be impacted such as by contact with known lead-impacted shallow soils). The plan will advise contractors and site workers of the precautionary measures for minimizing potential exposures while operating on-site, and for recognizing and addressing potential new discoveries at the property.

6.1 Routine Control

Incidental disturbance of soils should be avoided. Earthwork and trenching should be planned to minimize disturbance of soils from original locations and original elevations. Where excavations are advanced to facilitate construction, the contractor should minimize the time excavations remain uncompleted to reduce potential exposure. The contractors and site workers must have a physical method of measuring and monitoring horizontal and vertical control when disturbing soils on the property to maintain the current conditions.



During routine operations involving soils at the property, contractor and site workers should use normal construction safety apparel of their respective contractor's safety program, augmented with gloves and rubberized safety footwear or safety footwear with disposable latex covers to reduce soil contact in areas of enhanced awareness.

For work beyond routine operations, a site health and safety plan should be developed. The contractor may contact the environmental engineer for assistance if their firm does not have the necessary resources or training to complete a site-specific health and safety plan under 29 CFR 1910.

6.2 Dust Control Measures

Dust control measures should be employed at the property to achieve no visible emissions. Personnel operating mobile equipment should be instructed to drive slowly to reduce dust generation. Low tipping of excavated loads and covering of soil stockpiles should be implemented to limit the generation of visible airborne dust. Use of a water spray unit to dampen surface

materials should be considered if visible dust is generated during excavation and soil movement. Workers should avoid over-spraying the area to prevent runoff and muddy work surfaces.

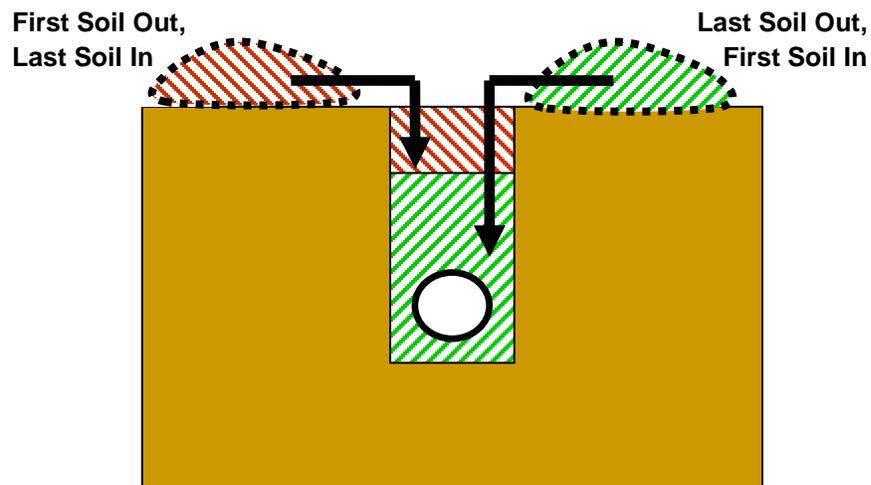
6.3 Surface Grading

When working at existing grades, workers should minimize the movement of surface soils from their original location to other areas of the property. In areas of enhanced awareness, contractors and site workers should plan their work to account for minimal soil movement and to adapt types and application of grading equipment to this end.

Surface disturbances such as rutting should be repaired immediately by localized leveling. Contractors involved in grading should minimize leveling of the surface through “back-dragging” by earthmoving equipment until imported fills have been placed. The Plan recognizes that absolute restoration of materials to original locations is difficult. However, workers should attempt to restore soils to original conditions as is practical.

6.4 Underground Excavation and Trenching

Vertical control of soils is very important. The Plan recognizes the construction of utilities or other structures will disturb the vertical positions of soil. The general rule will be to remove and stockpile soils so that a “last out, first in” process occurs. For example, during excavation, soils in the upper three feet should be stockpiled to one side. These soils should be the last returned to the excavation during backfill. Similarly, soils removed from below three feet should be replaced first.



Concerns and methods for environmental handling of soils do not preclude or modify any of the OSHA safety requirements for worker safety incumbent upon contractors for regular site safety and trenching/excavation activities. The OSHA safety requirements will dictate adjustment of the soil management method where necessary.

Installation of utilities or structures may displace soil volume in these zones, resulting in excess soils as excavation spoils. Excess spoils from excavations not needed on the property will require special handling and disposal. See discussion in **Section 9.0** - Disposition of Excess Soils.

6.5 Waste Minimization

To the extent practical, measures should be taken to minimize the volume of excess soils, to limit the need for dewatering activities, and to prevent contact between storm water and impacted soils. Excavations should be backfilled promptly to minimize exposure. The size or length of excavations should be controlled to allow for proper completion of immediately pending activities but should not be left open for extended periods with little or no activity.

Excavation areas should be protected from storm water run-on by constructing soil berms or other diversionary structures on the upslope side of the area to direct water away from exposed soils and into proper storm water conveyance structures. If necessary, storm water detention areas can be constructed to allow for collection and transfer of un-impacted storm water by pumping or other means around excavation areas.

7.0 PERSONAL PROTECTION

7.1 Skin Protection

Contractors are responsible for completing a site health and safety plan under 29 CFR 1910 identifying and providing appropriate personal protective equipment for their employees working at the property. At a minimum, it is recommended that personnel begin project activity in the following work attire.

- Standard work uniform
- Safety footwear or safety footwear with disposable latex covers
- Hard hat
- Cotton lined impermeable gloves of nitrile rubber or PVC

In order to minimize the potential for carrying contaminated soils off the property that could later be accidentally ingested by site workers or family members, especially children, it is suggested that clothing soiled on site be changed at the property or removed and laundered as soon as possible following each work day. Do not wear clothing soiled on the property for other projects until it has been laundered. Soiled clothing should be laundered separately from other articles of clothing.

7.2 Personal Hygiene

Site personnel are advised to use good personal hygiene practices during activities that disturb impacted media at the property. Work gloves as outlined above should be worn, and hands, face,

and forearms should be washed with soap and water prior to eating, drinking, smoking, or using restroom facilities. Contractors and site workers should avoid chewing gum and tobacco, and refrain from any other behavior that could increase the possibility of hand-to-mouth transfer of potentially contaminated media. No eating, drinking, or smoking should take place in areas where construction or maintenance activities could expose impacted material.

7.3 Decontamination

Contractors should use brushes, shovels, etc. to conduct gross soil removal from equipment used to excavate or move apparently impacted soils at the property. Decontamination with a high-pressure washer is recommended for equipment that has contacted obviously impacted soil. Personnel decontamination should consist of thorough washing of hands, forearms and face before eating, drinking, or smoking. Gross soils should be removed from footwear before leaving the property. A full-body shower should be taken as soon as possible upon completion of the work shift.

8.0 CHANGED CONDITIONS

If chemical odors, stained or saturated soils, a sheen on water in excavations, or other evidence of potential chemical contamination is encountered during subsurface activities that has not been described in this document, contractors and site workers should contact their health and safety manager. Recommended procedures for management of changed conditions are described below.

The notifications for reporting discovery of contaminated soil or groundwater are as follows.

- Site Owner Representative: _____ (write in name)

Cell #: _____

- General Contractor Superintendent: _____ (write in name)

Cell #: _____

8.1 Isolate Suspect Soils

Contractors should upgrade normal construction safety attire with nitrile or chemical resistant gloves and provide sufficient open-air ventilation consistent with the employer's safety plan.

Contractors should be aware of the regulatory implications of improper management or disposal of contaminated soils. As previously stated, soil that exhibits concentrations above the most stringent (e.g., for residential use, construction worker or consumption of groundwater) Tier 1 SROs, or whose headspace has measurable vapors above background (measured with a

photoionization detector, or PID), cannot be considered Clean Soil Fill and must be disposed of at an approved facility.

Suspect materials should be isolated as soon as possible from contact and disturbance by rain and wind until laboratory results may be evaluated. Suspect materials should be placed on and covered with plastic sheeting. The plastic sheeting should be weighted down with planks or sandbags. Until the suspect materials are covered, construction flagging attached to laths can be used to prevent accidental movement of the materials during earthwork operations.

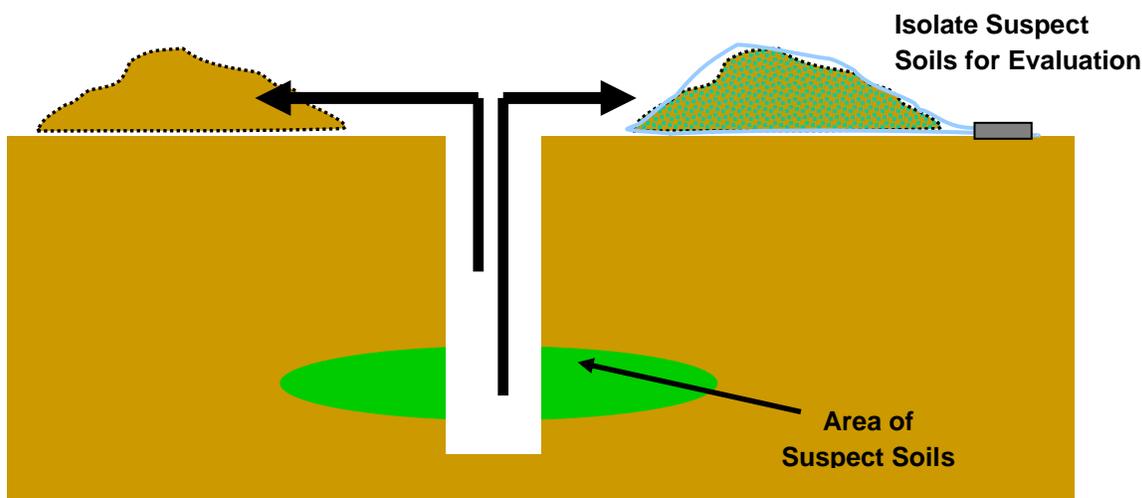


Figure 2 Isolation of Suspect Soils

8.2 Containerize Suspect Groundwater

Groundwater suspected of being contaminated (based on changed condition) and storm water that contacts contaminated soils should be collected and containerized in drums, totes, or frac tanks until laboratory analyses of the water can be completed. A subcontractor experienced in these activities is recommended. Discharge of contaminated groundwater and storm water to the ground or to surface waters will require IDNR approval and possibly other permits. Contractors should upgrade normal construction safety attire with rubber gloves and provide sufficient open-air ventilation consistent with their safety plan. See **Section 10.0** for additional details.

8.3 Measurement of Changed Condition

Upon discovery of a possible changed condition, it is necessary to make chemical measurements to determine if the materials pose a previously unidentified chemical risk. This requires laboratory chemical analyses, which takes time. The amount of time varies depending on the type of test. In general, the laboratory analysis can take on the order of 5-10 days unless special arrangements are made with the laboratory for more expensive “rush” results.

The number of samples to be submitted for chemical analyses is dependent on actual conditions and volumes encountered at the property. The analyses should be sufficient to evaluate potential

Soil and Groundwater Management Plan

ECIA Brownfields Assessment Services ■ Stanwood, Iowa

February 3, 2022 ■ Terracon Project No. 07207086



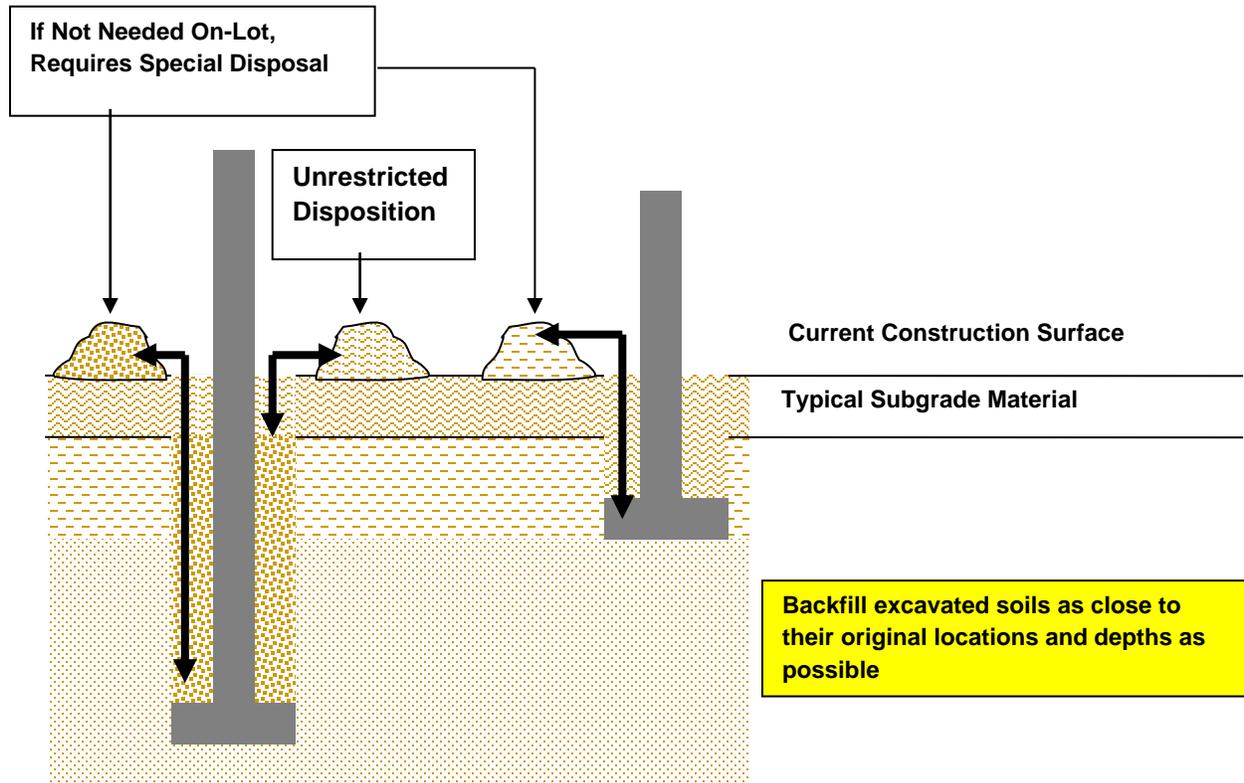
disposal options at permitted local and area landfills or water treatment facilities. Samples of excavated materials should be collected at a frequency adequate to achieve generally accepted regulatory practice.

Potentially impacted environmental media should be further isolated from worker and public exposure. Special handling and care must be taken in sampling and transporting soil and groundwater samples for the laboratory tests to be accurate. The workers in physical contact or breathing zone of apparently impacted environmental media should have Hazardous Waste Operations and Emergency Response training consistent with 29 OSHA 1910.120.

9.0 DISPOSITION OF EXCESS SOILS

Soils at the property may have varying degrees of chemical impact, ranging from no measurement to elevated concentrations of chemicals of concern. In these locations and at conditions of exposure evaluated by the previous environmental assessments these chemical impacts do not appear to pose excess health risk. If soils leave their original locations or the property, the onsite conditions that allow control of exposures and risk management may no longer apply. If excess materials are produced from an excavation as spoils that cannot be restored to original depths through the process of “first out, last in”, they must be handled with special care.

The contractor should plan from the onset of redevelopment activity to maintain physical segregation of materials by degrees of depth during the excavation activity. The contractor and site workers must exercise care in documenting and recording the location and original elevations of the source of materials relative to site benchmarks and the original property boundaries.



Excess materials produced by excavation and trenching that cannot be used on the property must be managed as discussed in the following sections.

9.1 Onsite Disposition

Excess materials generated as excavation spoils may require laboratory testing. If the laboratory testing indicates that chemicals are less than applicable IDNR SWS, the excess excavation spoils can be reincorporated into the project as fill material in landscaped areas or as engineered fill provided the material is determined to be suitable for reuse by the Geotechnical Engineer.

9.2 Confirmatory Chemical Analysis

Following selective excavation/removal of the soils, samples of any excess materials should be collected for laboratory chemical analyses. While the number of samples to be submitted for chemical analyses is dependent on actual conditions and volumes encountered at the property, analyses should be sufficient to evaluate potential disposal options at permitted local and area landfills. Samples of excavated materials should be collected at a frequency adequate to achieve generally accepted regulatory practice.

9.3 Off-Site Removal

Excess materials that are not eligible for onsite redistribution (environmentally or structurally) must be removed from the property in a manner consistent with general industry practices as discussed below. The contractor will transport the excess materials offsite to a permitted disposal facility if elevated concentrations of contaminants are observed or to a location selected by the contractor if no chemical impairment is observed. Uncontaminated excess materials proposed for offsite reuse must be handled and managed in accordance with Federal, State, and Local regulations.

Results of the previous environmental assessments indicate that some soils may exhibit detectable concentrations of contaminants that measure above IDNR standards. These materials may require removal from the property if the vertical control requirements, as discussed in **Section 6.4** and discussed above, cannot be met.

Upon receipt of chemical analyses and receipt of disposal authorization from an appropriately permitted landfill, arrangements for offsite transport and disposal of excavation spoils and excess soils will be coordinated with the appropriate contractor.

9.4 Capping Lead Impacted Areas

Should the developer or owner not choose to remediate (excavate & dispose) the area where lead was identified in shallow soil, capping would be recommended. Capping can include placement of a barrier (concrete or asphalt) over the area of concern. An alternative to concrete or asphalt would be a minimum of two feet of clean overburden in areas that could be green space.

10.0 GROUNDWATER MANAGEMENT

Based on the typical construction practices, utility trenches or foundation excavations could encounter groundwater. Dewatering of excavations due to groundwater infiltration or storm water flow into open excavations should comply with the guidance provided. In this section of the plan, as well as the approved Stormwater Pollution Prevention Plan (SWPPP) for the project (if necessary), modifications to a generic SWPPP may be necessary to account for the diversion of stormwater from impacted environmental media. Construction activities should be sequenced to reduce the amount of excavation open at any given time to reduce the volume of water requiring management and disposal. Groundwater suspected to be impacted based on changed condition or contact with contaminated soils and/or stormwater coming in contact with contaminated soil should be managed as potentially contaminated water as discussed below.

Known concentrations of lead in soils could adversely impact groundwater and/or stormwater encountered within excavations. Groundwater or stormwater entering an excavation that requires

Soil and Groundwater Management Plan

ECIA Brownfields Assessment Services ■ Stanwood, Iowa

February 3, 2022 ■ Terracon Project No. 07207086



removal to facilitate construction and water generated during excavation dewatering should be pumped to a portable holding tank or to a municipal sanitary sewer system under the permit and requirements of the wastewater treatment provider.

If dewatering is pumped to a holding tank, the contents should be sampled and tested to determine if contaminants are present. Discharge of untested or untreated groundwater to the ground surface, storm sewer, or sanitary system is prohibited. Depending on the results of laboratory analysis, the accumulated water shall be either transported off site for disposal at a licensed facility, discharged to a municipal sanitary sewer system under the permit and requirements of the wastewater treatment provider, or discharged in accordance with applicable National Pollutant Discharge Elimination System (NPDES) and/or other federal, state, or local permit requirements.

11.0 IMPORTED FILL

If imported fill from an off-site location(s) are to be used to backfill excavations or level the site, the material should be assessed for impacts. It is recommended that a historical records review be performed to identify potential chemicals of concern that may be associated with the off-site location(s). Terracon will recommend sampling of the material at its source based on the historical review. It is recommended that, at minimum, one sample be collected per 1,000 cubic yards of imported material regardless of source location. The samples, at minimum, should be analyzed for VOCs, PAHs, TEH, and RCRA Metals or other chemicals (based on the historical review) and compared to the SWS. If concentrations of the analyzed constituents are below the SWS, the soil would be considered suitable for clean fill.

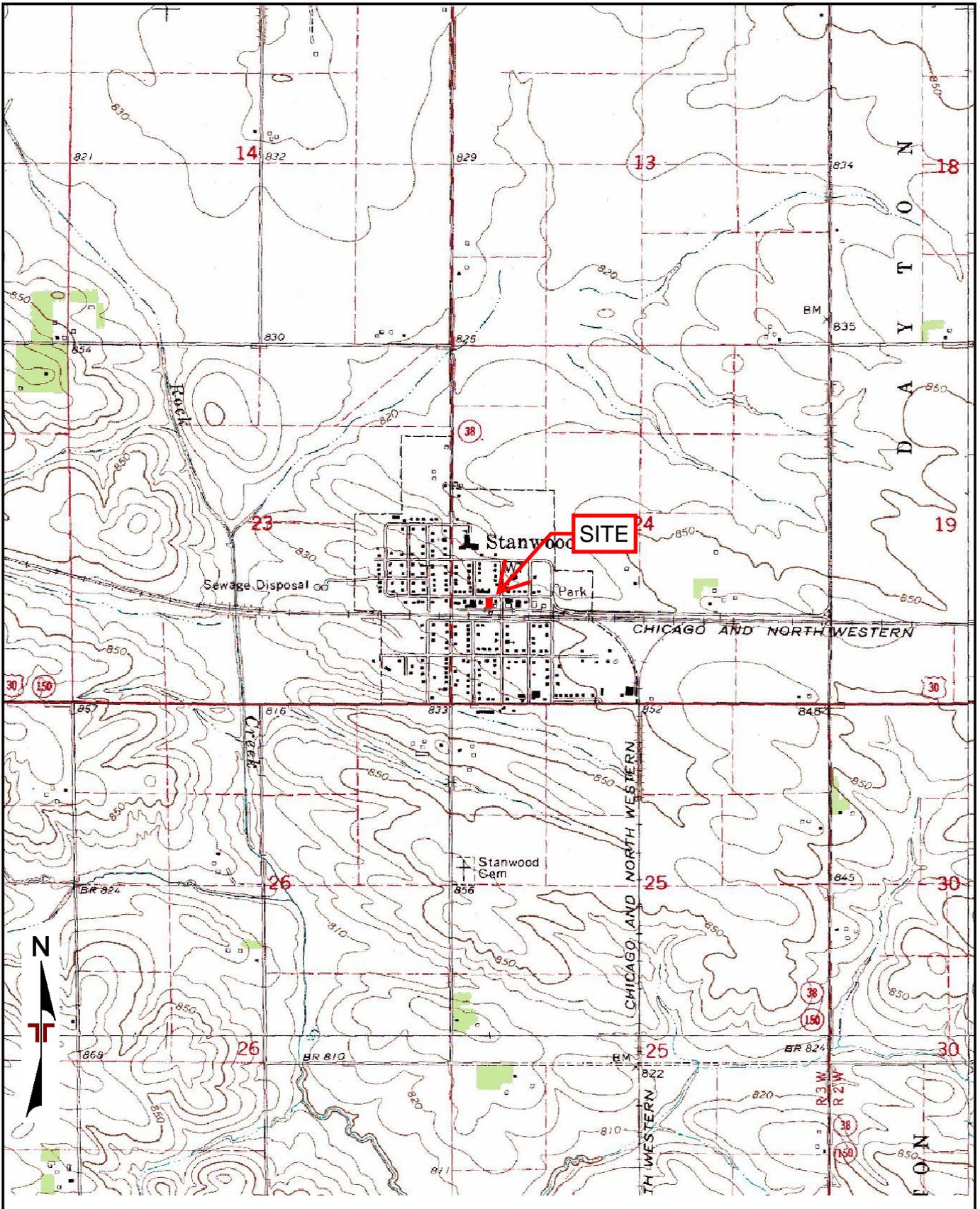
12.0 SUMMARY

This document has been developed to inform contractors and site workers of the site environmental information. The concentrations of contaminants in environmental media pose a limited health hazard to construction personnel via inhalation of contaminated dust or vapors and the accidental ingestion and direct contact of soil or groundwater. The precautions included herein are intended to reduce the potential for adverse health effects to personnel excavating and managing environmental media at the property. This plan is intended to address the potential for health hazards due to exposure to contaminants previously identified in environmental media. **It is not intended as a comprehensive construction safety program.** Contractors should review the site information, make their own professional opinions to comply with required regulations, and are responsible for conducting site activities in accordance with federal, state and local environmental and safety regulations.

APPENDIX A

Exhibit 1 – Topographic Map

Exhibit 2 – Soil Contaminants of Concern



Project Manager:	BML
Drawn by:	BJS
Checked by:	BML
Approved by:	BML

Project No.	07207086
Scale:	1"=2,000'
Date:	2/2/2022

Terracon
 870 40th Avenue
 Bettendorf, Iowa 52722-1607

TOPOGRAPHIC MAP
 Soil and Groundwater Management Plan
 ECIA Brownfields Assessment Services
 211 and 213 East Broadway Street, Stanwood, Iowa

Exhibit	1
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Arsenic concentrations were within the range of natural concentrations typically found within Iowa soils.

B-3 0'-2'
12/13/2021
Arsenic – <2.0 mg/Kg
Lead – BSWS

B-3 18'-20'
12/13/2021
Arsenic – 3.4 mg/Kg
Lead - BSWS

B-1 0'-2'
12/13/2021
Arsenic – 4.0 mg/Kg
Lead – BSWS

B-1 22'-24'
12/13/2021
Arsenic – 3.2 mg/Kg
Lead - BSWS

B-2 0'-2'
12/13/2021
Arsenic – <10.8 mg/Kg
Lead – 500 mg/Kg

B-2 16'-18'
12/13/2021
Arsenic – 3.7 mg/Kg
Lead - BSWS

E Broadway St



Legend

-  – Soil Boring
- mg/Kg – milligrams per kilogram (PPM)
- BSWS – Below IDNR Statewide Standards for Soil
- < - Below Laboratory Reporting Limits. However, reporting limits exceed SWS
- BRL – Below Laboratory Reporting Limits

100 feet



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DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Project Manager: BML	Project No. 07207086	Terracon 870 40th Ave Bettendorf, IA 52722-1607	Soil Contaminants of Concern	Exhibit
Drawn by: BJS	Scale: AS SHOWN		Soil and Groundwater Management Plan ECIA Brownfields Assessment Services 211 and 213 East Broadway Street, Stanwood, Iowa	2
Checked by: BML				
Approved by: BML	Date: 2/2/2022			

APPENDIX B
Toxicological Data Fact Sheets

This fact sheet answers the most frequently asked health questions (FAQs) about arsenic. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to higher than average levels of arsenic occur mostly in the workplace, near hazardous waste sites, or in areas with high natural levels. At high levels, inorganic arsenic can cause death. Exposure to lower levels for a long time can cause a discoloration of the skin and the appearance of small corns or warts. Arsenic has been found in at least 1,149 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).

What is arsenic?

Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds.

Inorganic arsenic compounds are mainly used to preserve wood. Copper chromated arsenate (CCA) is used to make "pressure-treated" lumber. CCA is no longer used in the U.S. for residential uses; it is still used in industrial applications. Organic arsenic compounds are used as pesticides, primarily on cotton fields and orchards.

What happens to arsenic when it enters the environment?

- Arsenic occurs naturally in soil and minerals and may enter the air, water, and land from wind-blown dust and may get into water from runoff and leaching.
- Arsenic cannot be destroyed in the environment. It can only change its form.
- Rain and snow remove arsenic dust particles from the air.
- Many common arsenic compounds can dissolve in water. Most of the arsenic in water will ultimately end up in soil or sediment.
- Fish and shellfish can accumulate arsenic; most of this arsenic is in an organic form called arsenobetaine that is much less harmful.

How might I be exposed to arsenic?

- Ingesting small amounts present in your food and water or breathing air containing arsenic.
- Breathing sawdust or burning smoke from wood treated with arsenic.
- Living in areas with unusually high natural levels of arsenic in rock.
- Working in a job that involves arsenic production or use, such as copper or lead smelting, wood treating, or pesticide application.

How can arsenic affect my health?

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs.

Ingesting very high levels of arsenic can result in death. Exposure to lower levels can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet.

Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the appearance of small "corns" or "warts" on the palms, soles, and torso.

Skin contact with inorganic arsenic may cause redness and swelling.

ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>

Almost nothing is known regarding health effects of organic arsenic compounds in humans. Studies in animals show that some simple organic arsenic compounds are less toxic than inorganic forms. Ingestion of methyl and dimethyl compounds can cause diarrhea and damage to the kidneys

How likely is arsenic to cause cancer?

Several studies have shown that ingestion of inorganic arsenic can increase the risk of skin cancer and cancer in the liver, bladder, and lungs. Inhalation of inorganic arsenic can cause increased risk of lung cancer. The Department of Health and Human Services (DHHS) and the EPA have determined that inorganic arsenic is a known human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic arsenic is carcinogenic to humans.

How can arsenic affect children?

There is some evidence that long-term exposure to arsenic in children may result in lower IQ scores. There is also some evidence that exposure to arsenic in the womb and early childhood may increase mortality in young adults.

There is some evidence that inhaled or ingested arsenic can injure pregnant women or their unborn babies, although the studies are not definitive. Studies in animals show that large doses of arsenic that cause illness in pregnant females, can also cause low birth weight, fetal malformations, and even fetal death. Arsenic can cross the placenta and has been found in fetal tissues. Arsenic is found at low levels in breast milk.

How can families reduce the risks of exposure to arsenic?

If you use arsenic-treated wood in home projects, you should wear dust masks, gloves, and protective clothing to decrease exposure to sawdust.

- If you live in an area with high levels of arsenic in water or soil, you should use cleaner sources of water and limit contact with soil.
- If you work in a job that may expose you to arsenic, be aware that you may carry arsenic home on your clothing, skin, hair, or tools. Be sure to shower and change clothes before going home.

Is there a medical test to determine whether I've been exposed to arsenic?

There are tests available to measure arsenic in your blood, urine, hair, and fingernails. The urine test is the most reliable test for arsenic exposure within the last few days. Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6-12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict whether the arsenic levels in your body will affect your health.

Has the federal government made recommendations to protect human health?

The EPA has set limits on the amount of arsenic that industrial sources can release to the environment and has restricted or cancelled many of the uses of arsenic in pesticides. EPA has set a limit of 0.01 parts per million (ppm) for arsenic in drinking water.

The Occupational Safety and Health Administration (OSHA) has set a permissible exposure limit (PEL) of 10 micrograms of arsenic per cubic meter of workplace air (10 µg/m³) for 8 hour shifts and 40 hour work weeks.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for Arsenic (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about lead. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to lead can happen from breathing workplace air or dust, eating contaminated foods, or drinking contaminated water. Children can be exposed from eating lead-based paint chips or playing in contaminated soil. Lead can damage the nervous system, kidneys, and reproductive system. Lead has been found in at least 1,272 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).

What is lead?

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing.

Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

What happens to lead when it enters the environment?

- Lead itself does not break down, but lead compounds are changed by sunlight, air, and water.
- When lead is released to the air, it may travel long distances before settling to the ground.
- Once lead falls onto soil, it usually sticks to soil particles.
- Movement of lead from soil into groundwater will depend on the type of lead compound and the characteristics of the soil.

How might I be exposed to lead?

- Eating food or drinking water that contains lead. Water pipes in some older homes may contain lead solder. Lead can leach out into the water.

- Spending time in areas where lead-based paints have been used and are deteriorating. Deteriorating lead paint can contribute to lead dust.

- Working in a job where lead is used or engaging in certain hobbies in which lead is used, such as making stained glass.

- Using health-care products or folk remedies that contain lead.

How can lead affect my health?

The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production.

How likely is lead to cause cancer?

We have no conclusive proof that lead causes cancer in humans. Kidney tumors have developed in rats and mice that had been given large doses of some kind of lead compounds. The Department of Health and Human Services

ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>

(DHHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens and the EPA has determined that lead is a probable human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.

How can lead affect children?

Small children can be exposed by eating lead-based paint chips, chewing on objects painted with lead-based paint, or swallowing house dust or soil that contains lead.

Children are more vulnerable to lead poisoning than adults. A child who swallows large amounts of lead may develop blood anemia, severe stomachache, muscle weakness, and brain damage. If a child swallows smaller amounts of lead, much less severe effects on blood and brain function may occur. Even at much lower levels of exposure, lead can affect a child's mental and physical growth.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood.

How can families reduce the risks of exposure to lead?

- Avoid exposure to sources of lead.
- Do not allow children to chew on mouth surfaces that may have been painted with lead-based paint.
- If you have a water lead problem, run or flush water that has been standing overnight before drinking or cooking with it.
- Some types of paints and pigments that are used as make-up or hair coloring contain lead. Keep these kinds of products away from children
- If your home contains lead-based paint or you live in an area contaminated with lead, wash children's hands and faces

often to remove lead dusts and soil, and regularly clean the house of dust and tracked in soil.

Is there a medical test to determine whether I've been exposed to lead?

A blood test is available to measure the amount of lead in your blood and to estimate the amount of your recent exposure to lead. Blood tests are commonly used to screen children for lead poisoning. Lead in teeth or bones can be measured by X-ray techniques, but these methods are not widely available. Exposure to lead also can be evaluated by measuring erythrocyte protoporphyrin (EP) in blood samples. EP is a part of red blood cells known to increase when the amount of lead in the blood is high. However, the EP level is not sensitive enough to identify children with elevated blood lead levels below about 25 micrograms per deciliter ($\mu\text{g}/\text{dL}$). These tests usually require special analytical equipment that is not available in a doctor's office. However, your doctor can draw blood samples and send them to appropriate laboratories for analysis.

Has the federal government made recommendations to protect human health?

The Centers for Disease Control and Prevention (CDC) recommends that states test children at ages 1 and 2 years. Children should be tested at ages 3–6 years if they have never been tested for lead, if they receive services from public assistance programs for the poor such as Medicaid or the Supplemental Food Program for Women, Infants, and Children, if they live in a building or frequently visit a house built before 1950; if they visit a home (house or apartment) built before 1978 that has been recently remodeled; and/or if they have a brother, sister, or playmate who has had lead poisoning. CDC considers a blood lead level of 10 $\mu\text{g}/\text{dL}$ to be a level of concern for children.

EPA limits lead in drinking water to 15 μg per liter.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for lead (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

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ATTACHMENT E
GLOSSARY OF TERMS

DRAFT

Glossary of Terms

ASBESTOS TERMS:

ACS: Asbestos-contaminated soil.

Aerosol: A system consisting of particles, solid or liquid, suspended in air.

Aggressive sampling: EPA-defined clearance sampling methods using air moving equipment such as fans and leaf blowers to stir the air.

Aggressive method: Removal or disturbance of building material by sanding, abrading, grinding, or other method that breaks, crumbles, or disintegrates intact ACM and/or PACM.

Air cell: Pre-formed, factory-made insulation normally used on pipes and duct-work. This corrugated cardboard almost always contains asbestos fibers combined with cellulose or refractory binder.

Air sample collection filter: Membrane filter used to collect fibers/particulates which are counted and/or otherwise analyzed. Mixed cellulose ester (**MCE**) filters are used for phase contrast microscopy (**PCM**) and polycarbonate or MCE filters are used for transmission electron microscopy (**TEM**.)

Air monitoring: The sampling for and measuring of contaminants in the air.

Amended water: Water to which a surfactant has been added.

APR: Air-purifying respirator.

Asbestos: The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), amosite, anthophyllite, actinolite, and tremolite. For purposes of determining respiratory and worker protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and or altered shall be considered asbestos.

Asbestos-contaminated elements (ACE): Building elements such as ceilings, walls, lights, and duct work that are contaminated by asbestos.

Asbestos-containing material (ACM): Any material containing more than one percent (**1%**) by volume of asbestos of any type or mixture of types.

Asbestos-containing waste material: Any material which is known to be or suspected of being contaminated with asbestos which is to be removed from a work area for disposal.

Asbestos waste decontamination facility: Airlock system consisting of drum/bag washing facilities and temporary storage area for cleaned containers. Used as exit for waste and equipment leaving the abatement area. May be used in an emergency to evacuate personnel.

Authorized person: Any person authorized by the employer and required by work duties to be present in regulated areas.

Authorized visitor: The Owner or a representative of any federal, state, or local regulatory or other agency having authority over the project.

Barrier: Any surface that seals off the work area to inhibit the movement of fibers.

Breathing zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

Bridging encapsulant: An encapsulant that forms a discrete layer on the surface of an in-place asbestos matrix.

Glossary of Terms

Bulk test: The collection and analysis of samples of suspected asbestos materials. A small amount, or bulk sample, of the material is physically removed from the structure and placed in a rigid airtight container for transportation to an accredited laboratory for analysis.

Category I nonfriable: (NESHAP definition) Materials such as floor tile, roofing materials, and mastics that are normally nonfriable, but may become friable during renovation/demolition activities shall be removed prior to disturbance. Always consult with the state regulators regarding any state-specific requirements. Always consult with landfills regarding their specific requirements for disposal of these materials. Landfills accept and bury these materials somewhat differently.

Category II nonfriable: (NESHAP definition) Materials such as cement asbestos board (Transite™) that are normally nonfriable, but are likely to become friable during renovation/demolition activities shall be removed prior to disturbance. If removed and disposed of in a nonfriable state, it is not regulated. Always consult with the state regulators regarding any state-specific requirements. Always consult with landfills regarding their specific requirements for disposal of these materials. Landfills accept and bury these materials somewhat differently.

Ceiling concentration: The concentration of an airborne substance that shall not be exceeded.

Certified industrial hygienist (CIH): An industrial hygienist certified in comprehensive practice by the American Board of Industrial Hygiene.

CFR: Code of Federal Regulations.

Changing area: Normally the first chamber of the personnel decontamination facilities, i.e., the clean room.

Class I asbestos work (OSHA): Activities involving the removal of thermal system insulation (TSI) and surfacing ACM and presumed ACM (PACM).

Class II asbestos work (OSHA): Activities involving the removal of ACM and/or PACM which is not TSI or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles and construction mastics.

Class III asbestos work (OSHA): Repair and maintenance operations, where ACM and/or PACM, including TSI and surfacing material, are likely to be disturbed.

Class IV asbestos work (OSHA): Maintenance and custodial activities during which employees contact ACM and/or PACM and activities to clean up waste and debris containing ACM and/or PACM.

Clean room: An uncontaminated room having facilities for the storage of employees' street clothing and uncontaminated materials and equipment.

Closely resemble: The major workplace conditions which have contributed to the levels of historic asbestos exposure, are no more protective than conditions of the current workplace.

Competent person: A person properly trained and capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure and has the authority to take corrective measures to eliminate them, under requirements of 29 CFR 1926.1101.

Glossary of Terms

Count: Refers to fiber count, or the average number of asbestos fibers greater than five micrometers (μm) in length per cubic centimeter of air (**f/cc**).

Critical barrier: One or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

Decontamination area: An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.

Demolition: The wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products.

Disposal bag: Six-millimeter (**6-mil**) thick, leak-tight plastic bag used for transporting asbestos-containing waste material from work and to disposal site. Each is labeled with the DOT designation Asbestos NA2212 RQ, Class 9 and the following:

**DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD**

or (based on revisions to 29 CFR 1910.1200 Hazard Communication)

**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS**

Disturbance: Any contact which releases fibers from ACM and/or PACM, or debris containing ACM and/or PACM.

Drum: A rigid, impermeable container made of cardboard, metal, or plastic which can be sealed in an air and liquid tight manner.

EDF: Equipment decontamination facilities

Employee exposure: The exposure to airborne asbestos that would occur if the employee were not using respiratory protection.

Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.

Encapsulation: Treatment of asbestos-containing materials with encapsulant.

Enclosure: The construction of an air-tight, impermeable, permanent barrier around asbestos-containing materials to control the release of asbestos fibers into the air.

Entrance port: A name sometimes used for the main entrance airlock in an OSHA-defined negative air containment area.

EPA: Environmental Protection Agency

Glossary of Terms

Equipment room: A contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

Excursion limit (EL): An airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (**1 f/cc**) as averaged over a sampling period of 30 minutes.

f/cc: Fibers per cubic centimeter of air; standard measurement units used to measure the level of asbestos contamination in the air.

Filter: A media component used in respirators to remove solid or liquid particles from the air breathed.

Friable asbestos-containing material: Material that contains more than 1% asbestos and that can be crumbled, pulverized, or reduced to powder by hand pressure.

Glovebag: An impervious plastic bag-like enclosure with glove-like appendages through which material and tools may be handled.

HEPA filter: A high efficiency particulate air (**HEPA**) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 micrometers (**µm**) in length.

HEPA filter vacuum collection equipment: HEPA-filtered vacuum collection equipment with a filter system capable of collecting and retaining 99.97% of asbestos fibers greater than 0.3 µm in length.

High efficiency filter: A filter which removes from air 99.97% or more of monodisperse dioctyl phthalate (DOP) particles having a mean particle diameter of 0.3 µm.

Industrial hygienist (IH): A person who is professionally qualified by education, training, and experience to anticipate, recognize, evaluate, and develop controls for occupational health hazards.

IH technician: A person working under the supervision of the IH with special training, experience, certifications, and/or licenses required for the industrial hygiene work assigned to be performed.

Intact: The ACM and/or PACM has not crumbled, been pulverized, or otherwise deteriorated so that it is likely to remain bound with its matrix.

IAC: Iowa Administrative Code

Lock-back: This is the encapsulation of all surfaces in the regulated work area at the conclusion of ACM and/or PACM removal and before removal of primary barriers.

MCEF: Mixed cellulose ester filter.

Negative exposure assessment: A demonstration by the employer that employee exposure to airborne asbestos during an operation is expected to be consistently below the permissible exposure limits (**PELs**).

Negative pressure: Air pressure lower than surrounding areas, created by exhausting air from a sealed space (work area).

Negative pressure respirator: A respirator in which the air pressure inside the respiratory inlet covering is positive during exhalation in relation to the pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

Negative pressure ventilation system: A local exhaust system, utilizing HEPA filtration, capable of maintaining a negative pressure inside the work area and a constant air flow

Glossary of Terms

from adjacent areas into the work area and that exhausts that air through HEPA filters to air outside the work area.

NESHAP: National Emission Standards for Hazardous Air Pollutants.

NIOSH: National Institute for Occupational Safety and Health

Nonfriable asbestos-containing material (NF-ACM): Material that contains more than 1% asbestos but cannot be crumbled, pulverized, or reduced to powder by hand pressure when dry. Nonfriable asbestos materials can release fibers when power tool such as grinders, drills, sanders, etc. are used on them.

OSHA: Occupational Safety and Health Administration.

Owner: The governmental or public body or authority, corporation, association, firm, or person with whom the Contractor has entered into the Agreement and for whom the Work is to be provided who is the authorized representative of (or the actual) the Owner of the facility in/on which the work is to be performed.

OV: Organic vapor.

PACM: OSHA acronym for presumed asbestos-containing material.

PAPR: Powered air-purifying respirator.

PCM: Phase contrast microscopy. PCM uses a light microscope for the purpose of counting fibers. Reference NIOSH method 7400.

PDF: Personnel decontamination facilities

PEL: Permissible exposure limit

Penetrating encapsulant: An encapsulant that is absorbed by the asbestos matrix without leaving a discrete surface layer.

Personal air sampling: Air sample collected with a special battery-powered, portable, low-volume pump unit which is fitted on the body of the monitored person. The collection device (filter cassette) is located within the individual's breathing zone.

Personal monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

Penetrating encapsulant: An encapsulant that is absorbed by the in-place asbestos matrix without leaving a discrete surface layer.

Permissible exposure limit: The level of exposure OSHA allows. For asbestos fibers, the PELs are 0.1 f/cc as an 8-hour time-weighted average and 1.0 f/cc as a 30 minute excursion limit.

Plastic sheeting: Barrier material not as strong as polyethylene.

PLM: Polarized light microscopy with dispersion staining using light microscopy and refractive indices to identify type of asbestos present.

Polyethylene sheeting: Strong, usually transparent plastic barrier material.

Positive/negative pressure fit check: A method to check respirator fit, performed by placing the palm of one hand over the exhalation valve and exhaling (positive pressure) and feeling for facepiece-to-face fit leakage or, covering the filters cartridges with the palms of the hand and inhaling (negative pressure) while feeling for facepiece-to-face fit leakage.

Pressure differential system: A system which restricts airflow from adjacent areas into work area and continuously refilters air from the HEPA filtration machine. Minimal exhaust

Glossary of Terms

ventilation is utilized by maintaining a pressure differential of two-hundredths of an inch (0.02") of water (H₂O).

Project designer: A person who has successfully completed training requirements for an abatement project designer specified in 40 CFR 763-Asbestos and is licensed in the state of Iowa.

Protection factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

QNFT: Quantitative fit test.

RACM: EPA-NESHAP acronym for regulated asbestos-containing material.

Regulated area: The area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted and any other adjoining area where debris and waste from such asbestos work accumulates; and a work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the PELs.

Removal: All operations (including demolition) where ACM and/or PACM are taken out or stripped from structures or substrates.

Removal encapsulant: A penetrating encapsulant specifically designed for removal of ACM rather than encapsulation.

Demolition: Modification of any existing structure, or portion thereof.

QEP: Qualified environmental professional

Repair: Overhauling, rebuilding, reconstructing, or reconditioning of, mechanical equipment, structures, or substrates, including encapsulation or other repair of ACM and/or PACM attached to mechanical equipment, structures, or substrates.

Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

RPP: Respiratory protection program.

RPPC: Respiratory protection program coordinator.

SAR: Supplied air respirator.

SCBA: Self-contained breathing apparatus.

Sealant: Another name for encapsulating material. This term also refers to the paint which is used to cover brown-coat ceilings after asbestos surfaces have been removed.

Sealed work area: Refers to the work area after containment barriers and decontamination facilities have been erected and a negative pressure air system installed.

Showers: Shower stalls installed in the personnel decontamination facilities and used as part of the decontamination process, required for every person leaving the sealed work area. Also used in the equipment decontamination facilities to wash disposal bags.

SOP: Standard operating procedures required to be submitted by the Contractor.

Stationary or area sample: Refers to air samples collected at a specific spot, or station, with high-volume air pumps.

Glossary of Terms

Surfactant: A chemical wetting agent added to water to improve penetration, thus increasing the effective wetting properties of water when applied to asbestos-containing materials required for a given removal operation.

Surfacing material: Material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings, and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, decorative texturing, and other purposes).

Surfacing ACM: Surfacing material which contains more than 1% asbestos.

TEM: Transmission electron microscopy. TEM is used for the purpose of fiber counting and has the analytical capacity of specifically identifying asbestos fibers.

Thermal system insulation (TSI): This means ACM and/or PACM containing more than 1% asbestos that is applied to pipes, fittings, boilers, breech, tanks, ducts, or other mechanical/structural components to prevent heat loss or gain.

Time-weighted average (TWA): The average concentration of a contaminant in air during a specific time period, usually 8 hours.

VAT: Vinyl asbestos floor tile.

Visible emissions: Any emissions containing particulate asbestos-containing materials that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

Wetting agent: See Surfactant.

Wet cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos-containing waste.

Work area: The area where asbestos-related work or removal operations are performed which is defined and or isolated to prevent the spread of asbestos dust, fibers, debris and entry by unauthorized personnel. Work area is a regulated area as defined by 29 CFR 1926.1101.

ATTACHMENT F

RACM DEMO BID DOCUMENTS

DRAFT

REGULATED ASBESTOS-CONTAINING MATERIAL(RACM) DEMOLITION BID DOCUMENTS

**211 and 213 East Broadway Street
Stanwood, Cedar County, Iowa 52337**

February 23, 2022

Brownfields Assessment Grant: BF97782001



Prepared for:

East Central Intergovernmental Association (ECIA)

7600 Commerce Drive

Dubuque, Iowa 52002

AND

The City of Stanwood, Iowa

209 East Broadway

Stanwood, Iowa 52337

Prepared by:

Terracon Consultants, Inc.

Bettendorf, Iowa

February 23, 2022



Re: Regulated Asbestos Containing Material (RACM) Demolition Bid Documents
211 and 213 East Broadway Street
Stanwood, Cedar County, Iowa 52337

Dear Contractor:

The City of Stanwood, Iowa (the City) is seeking sealed bids for the demolition, clean-up, and disposal of the asbestos contaminated building(s)/debris located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa (the Site). A professional structural engineer has opined that the building(s) is no longer safe to enter due to ongoing decay and as a result, the asbestos-containing materials identified in Terracon's Asbestos Sampling Survey Report dated July 22, 2021 cannot be removed prior to demolition. The City is requesting Brownfields Revolving Loan Funding (RLF) to complete the RACM demolition and is requiring that the selected Iowa-licensed contractor (the contractor) provide a pad-ready site for future redevelopment (the project).

If you have questions regarding this project, please contact the City:

Ms. Stephanie VonBehren, City Clerk
City of Stanwood, Iowa
209 East Broadway
Stanwood, Iowa 52337
Stanwood@netins.net
563-942-3340

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ATTACHMENTS

ATTACHMENT 1 – BID FORM

DRAFT

1.0 INVITATION TO BID

- 1.1 The City of Stanwood, Iowa (the City, Owner, or Stanwood) is requesting bids for the furnishing of all labor, materials, tools, equipment, and incidentals required for the for the demolition, clean-up, and disposal of the asbestos containing/contaminated building(s)/debris located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa (Cedar County parcels 0460-02-24-308-007-0 and 0460-02-24-308-008-0) (the Site). The Site is further described as Part of Lots 12 and 13 in Block 1 of the original town of Stanwood, Cedar County, Iowa, more particularly described as follows:

Commencing at a point 26 feet west of the northeast corner of said Lot 13; thence running south 62 feet; thence West 16 feet; thence south to the southeast corner of said lot 12; thence west 10 feet; thence north to Broadway Street; thence east 26 feet to the place of beginning. For the purposes of this project, the clean-up shall also include the debris located on the balance of Lot 13, as required.

- 1.2 The work is to be performed in accordance with all Federal, state, local regulations, the applicable plans, specifications, Codes of Stanwood, Iowa. **Since the Site has been declared unsafe and is asbestos-contaminated, only Iowa-licensed asbestos demolition contractors will be permitted to submit bids for the project.**
- 1.3 All bidders must attend a mandatory pre-bid walkthrough with the City. Prospective bidders shall contact the City Clerk (information below) to complete a walkthrough. Contractors who have not attended a walkthrough of the property with City personnel will not be permitted to submit a bid for the project. The bid due date for the project will be determined by City personnel and will be communicated to each prospective bidder at the time these documents are provided.
- 1.4 The City will accept sealed bids until **12:00 (PM)** on _____, **2022**. Submit a fully executed copy of the *Bid Form (Attachment 1)* in a sealed envelope plainly marked **211 and 213 East Broadway Street Demolition Bid** to the following:

Ms. Stephanie VonBehren, City Clerk
City of Stanwood, Iowa
209 East Broadway
Stanwood, Iowa 52337
Stanwood@netins.net
563-942-3340

- 1.5 The bids will be publicly opened shortly after the submittal timeframe and read on _____, **2022** at City Hall.

2.0 BIDDING REQUIREMENTS

2.1 The City reserves the right to reject any and all bids. The City reserves the right to waive any irregularities in the bids or bidding process if it is in the best interest of the City to do so. The City reserves the right to award this project to the lowest **responsible** bidder, therefore, this project may not necessarily be awarded to the bidder with the lowest price.

In addition to the quoted price, the following is a substantial list (in no particular order of importance) of the criteria that will be used in the City's determination of Bidder's responsibility and suitability:

- Satisfactory experience in the timely completion of demolitions;
- Contractor's reputation and financial status;
- Past experience and service provided by the bidder to the City/ECIA;
- Favorable references from firms with projects of similar scopes that indicate that the bidder has the ability to carry out the services specified;
- Contractor's ability to meet the insurance and bonding requirements;
- Contractor's ability to immediately fully staff the project with certified, licensed staff.

2.2 The City reserves the right to review and approve product, equipment, materials, and procedural submittals. Submit to the City at least five (5) working days prior to the beginning of the abatement project, two (2) copies of any waivers (in states or local jurisdictions where applicable) granted to the Contractor by the state or local jurisdictions for review. The City reserves the right to reject waivers, in whole or part, at their own discretion. The City also reserves the right to accept or reject any or all bids; to request rebids; to waive irregularities and technicalities in bids, such as shall best serve its requirements and interests.

2.3 The City reserves the right to terminate the contract for any reason, at any time. The City agrees to pay for any portion of the contract previously performed by the Contractor according to the percentage for work completed or established unit prices. Termination will not relieve the Contractor of any penalties, damages, fines, bonding, insurance, fees, etc. already assessed for the work.

2.4 The Bidder agrees to protect, defend, indemnify and hold harmless the City of Stanwood, the ECIA, their officers and employees, their agencies, agents and consultants from any and all claims, damages, liability, loss and expense of every kind and nature made, arising out of, resulting from or incurred by reason of any claims, actions or suits based upon or alleging bodily injury, including death, or property damage arising out of resulting from the Contractor's operation under this contract, whether by themselves or by any subcontractor

Regulated Asbestos Containing Material (RACM) Demolition Bid Documents

City of Stanwood, Iowa

211 and 213 East Broadway Street

or anyone directly or indirectly employed by either of them. Contractor is not and shall not be deemed an agent or employee of the City of Stanwood, Iowa.

- 2.5 The City agrees to assist the Contractor in every way feasible so that both may succeed on the project. Major material changes from the Scope of Work and the Clean-up Plan must be approved in advance and in writing by the City.
- 2.6 The Contractor, by submitting this bid, is stating that the Contractor understands their responsibility under all federal, state, and local laws and regulations with regard to the work and worker safety, including proper work practices, training, medical surveillance, deconstruction/demolition techniques to protect the adjoining properties and existing infrastructure, utility disconnects, backfill/site restoration.
- 2.7 The Contractor further understands that it is their responsibility to make any and all Supervisors and workers assigned to duties on the project for which this bid has been submitted aware of their duties under the Contract Documents, Project Specifications, and other documents presented as part of this project and all federal, state, and local laws and regulations.
- 2.8 The Contractor shall be licensed to perform RACM demolition in the State of Iowa. Simply, no subcontracting (less disposal and testing services) will be allowed for work under this solicitation.
- 2.9 The Contractor is responsible to call to the City's attention, prior to signing a contract, any omissions or errors noted in the Specifications or Scope of Work that are at variance with the intent of the bid documents, the project, or any federal, state, or local laws or regulations.
- 2.10 The Contractor understands that a State of Iowa registered Professional Engineer (structural) has determined that the structure(s) is no longer safe to enter due to ongoing decay. The building shall not be entered.
- 2.11 The contract will be between the Contractor and the City.
- 2.12 The contract associated with **this project is subject to Davis-Bacon and Related Acts.** Davis-Bacon Act and Related Act contractors and subcontractors must pay their laborers and mechanics employed under the contract no less than the locally prevailing wages and fringe benefits for corresponding work on similar projects in the area. The Contractor shall comply with the Federal Labor standards set forth in the Davis Bacon Act Copeland Act and the Contract Work Hours and Safety Standards Act, and all rulings and interpretations of the Davis-Bacon Act and related Acts contained in 29 CFR Parts 1, 3 and 5 area herein incorporated by reference in this contract.

Regulated Asbestos Containing Material (RACM) Demolition Bid Documents

City of Stanwood, Iowa

211 and 213 East Broadway Street

- 2.13 Bids will not be accepted from Contractors who did not attend the pre-bid walkthrough with the City.
- 2.14 **Questions shall be submitted to the following no later than 5:00 PM _____, 2022.**

Ms. Stephanie VonBehren, City Clerk
City of Stanwood, Iowa
209 East Broadway
Stanwood, Iowa 52337
Stanwood@netins.net
563-942-3340

- 2.15 Questions will be responded to in the form of written addenda and will be submitted to contractors in the form of email, uploaded to the City or ECIA website, or another suitable location. Such addenda will become part of the Contract Documents. Addenda shall be acknowledged and dated on the *Bid Form (Attachment 1)*.

3.0 CONTRACTOR QUALIFICATIONS

The Contractor and assigned personnel for this project shall meet the following requirements:

- 3.1 The demolition contractor is an established asbestos abatement business for at least three years and is permitted in the State of Iowa.
- 3.2 Has conducted within the last three years, five comparable projects in complexity and dollar value with this project.
- 3.3 Has not been cited or has not been a defending party of any legal action for violation of asbestos regulations during the last three years.
- 3.4 Carries liability insurance for asbestos abatement work and can produce a certificate of insurance and minimum acceptable limits of liability.
- 3.5 Has an adequate number of qualified personnel available for this project.
- 3.6 Has an established written standard operating procedure for training, medical surveillance, entry and exit procedures, respiratory protection, safety, emergency, and monitoring.
- 3.7 Has available equipment, materials and supplies in adequate quantity, capacity, and number to perform the work of this project.

4.0 SITE INVESTIGATION

- 4.1 By submitting a bid, the Contractor acknowledges that they have investigated and satisfied themselves as to:
- 4.1.1 The conditions affecting the work, including, but not limited to, physical conditions of the site which may bear upon site access, current condition of the onsite structures, potential of future decay of the structures, positioning of overhead electric, proximity of adjacent structures, handling and storage of equipment and materials, access to water, electric or other utilities or otherwise affect performance of required activities.
 - 4.1.2 The proximity of adjacent structure(s) which are not to be damaged under any circumstance.
 - 4.1.3 The character and quantity of all surfaces and subsurface materials or obstacles to be encountered in so far as this information is reasonably ascertainable from an inspection of the site, exploratory work done by the City or designated Consultants, and information presented in the specification included with this contract;
 - 4.1.4 The environmental condition, including the presence, location, and condition of ACM and other regulated/hazardous materials at the site. Any failure by the Contractor to acquaint themselves with available information will not relieve them from the responsibility for estimating properly the difficulty or cost of successfully performing the work.
- 4.2 No increase in contract cost will be considered due to the Contractor's failure to physically verify all site attributes affecting the work, or other materials specified by this document or Clean-up Plan.
- 4.3 The City is not responsible for any conclusions or interpretations made by the Contractor on the basis of the information made available by the City.

5.0 SCOPE OF WORK

- 5.1 Demolition of the asbestos-contaminated building(s) located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa, level and dispose of all structures indicated on Appendix A, the Bid Form presented in Attachment 1 in Appendix E, and identified the Pre-Bid Walkthrough, inclusive of, but not limited to: all roofing, parapets, chimneys, roof supports, joists, trusses, exterior walls, interior walls, ceilings, floors, floor

Regulated Asbestos Containing Material (RACM) Demolition Bid Documents

City of Stanwood, Iowa

211 and 213 East Broadway Street

coverings, windows, doors, plumbing, electrical, mechanical equipment, white metal goods, lighting, fixtures, ceilings, foundations, basements, concrete slabs, stone walls, cellars, cisterns, railings, planters, decks and fences. All debris from the site shall be treated as asbestos contaminated and must be removed and disposed of by an Iowa-licensed asbestos contractor at a landfill permitted to accept RACM (to be approved by City/ECIA/QEP). The building(s) and building materials must be kept adequately wet at all times, starting with the demolition process through site cleanup, transport (covered containers), and final disposal.

Additional tasks to be completed, as specified, and further described in of the RACM Clean-Up Plan (inclusive, but limited to Section 1.3.1, et. Al.).

- 5.1.1 Protective Measures
 - 5.1.2 Utilities
 - 5.1.3 Traffic/Pedestrian Control and Safety
 - 5.1.4 Other Regulated Materials/Household Hazardous Wastes/White Metal Goods
 - 5.1.5 Prompt Disposal
 - 5.1.6 Site Restoration
 - 5.1.7 Record Keeping
 - 5.1.8 Site Security/Safety
 - 5.1.9 Testing, Inspection, and Monitoring
- 5.2 Work shall be conducted according to applicable federal, state, and local rules/regulations/codes, ANSI/ASSE A106, NFPA 241, and the contract documents.
- 5.2.1 **The Contractor is responsible for all required legal notifications, permits and approvals associated with this work.**
 - 5.2.2 The contractor shall develop and implement a Stormwater Pollution Protection Plan (SWPPP) and utilize all best management practices (BMPs), as required.
 - 5.2.3 The Contractor shall submit an Asbestos Notification of Demolition and Renovation (the notification) to the Iowa Department of Natural Resources (IDNR) and the Iowa Department of Labor (IDOL) upon receipt of a Notice-to-Proceed from the City. The Contractor will be responsible for the fees associated with the notification. The City will be responsible for providing the necessary documentation for line item 17 of the notification – If Ordered by a Government Agency, Identify the Agency, and Attach a Copy of the Order.
 - 5.2.4 The Contractor shall submit a site-specific Health and Safety plan for the safe demolition and removal of all onsite structures and associated debris, and protection of their employees.
- 5.3 The demolition should be coordinated with the City, ECIA, the qualified environmental professional (QEP), and other contractors / trades required for project completion.

Regulated Asbestos Containing Material (RACM) Demolition Bid Documents

City of Stanwood, Iowa

211 and 213 East Broadway Street

- 5.4 The Contractor will furnish all labor, supervision, materials, services, insurance, equipment, power, water, lighting, and emergency lighting/power necessary for the demolition/deconstruction listed in the documents herein.
- 5.5 It is understood that the bid provided will cover all activities and expenses necessary to complete this project. Therefore, the bid shall include all charges for mobilization, labor, materials, material removal/disposal expenses, reimbursables, etc. as needed to complete this project.
- 5.6 The Contractor shall employ a competent, Iowa licensed abatement Supervisor, who is fluent in the English language; and necessary Iowa-licensed abatement workers and qualified demolition crews. Such Supervisor shall represent the Contractor and all communications given to the Supervisor shall be binding as if given to the Contractor. The Supervisor shall be dedicated to this project.
- 5.7 The Contractor is responsible for demarcating the work areas (including approaches to the regulated area) and limiting access to authorized individuals only.
- 5.8 The Contractor is responsible for the cost of any required Occupational Health and Safety Administration (OSHA) personal air sample collection and analysis.
- 5.9 Work will be required to be completed during first shift hours (7 AM to sunset), Monday through Friday.

6.0 CONTRACTOR SUBMITTALS

The Contractor will provide the following documentation with the Bid Form

- 6.1 Bid Bond, see *Section 7 – Performance Securities*, below.
- 6.2 List of three references, including contact information, for comparable projects in complexity and dollar value with this project.
- 6.3 Evidence of the following insurance and minimum acceptable limits of liability for the asbestos abatement work must be submitted with the bid.

6.3.1 Unemployment and Worker's Compensation Insurance

6.3.1.1 Unemployment Compensation and Worker's Compensation Insurance

6.3.1.2 Worker's Compensation (including Occupational Disease Provisions) covering the obligations of the entity

Regulated Asbestos Containing Material (RACM) Demolition Bid Documents

City of Stanwood, Iowa

211 and 213 East Broadway Street

6.3.1.3 Employer's Liability with a statutory limit

6.3.2 General Liability Insurance

6.3.2.1 Bodily Injury and Property Damage - \$1,000,000 each occurrence, \$2,000,000 aggregate.

6.3.2.2 Personal Injury Damage - \$1,000,000 each occurrence, \$2,000,000 aggregate.

6.3.2.3 Contractual Liability - \$1,000,000 each occurrence.

6.3.2.4 Products Liability and Completed Operations - \$1,000,000 each occurrence, \$2,000,000 aggregate.

6.3.3 Automobile Liability Insurance

6.3.3.1 Bodily Injury and Property Damage - \$1,000,000 Combined Single Limit.

6.3.4 Umbrella Liability Insurance

6.3.4.1 Umbrella Liability Insurance: \$1,000,000 each occurrence and aggregate.

6.3.5 Asbestos Liability Insurance. Insurance shall be True Occurrence not Claims Made.

6.3.5.1 The Bidder shall take out and maintain coverage for claims arising from bodily injury, property damage, and the use of owned, hired, or leased autos. The insurance shall cover all asbestos liability aspects of the abatement project, including the project site, during transportation from the project site to the asbestos disposal site, and during unloading operations at the disposal site. Additionally, coverage shall include all costs of the cleanup of any releases to the environment of any asbestos-containing materials during project abatement and transportation for disposal. Such coverage shall have limits of no less than \$3,000,000 per occurrence and \$5,000,000 per project aggregate.

6.3.6 The standard Acord® Certificate of Insurance shall be submitted prior to the commencement of work showing the specific limits of insurance coverage required by all sections. The Certificate of Insurance must list the City of Stanwood, Iowa, the ECIA, as additionally insured, prior to commencement of work. The Companies affording coverage and the Additional Insured expressly agree and state that the purchase of this policy of insurance by the Insured and

Regulated Asbestos Containing Material (RACM) Demolition Bid Documents

City of Stanwood, Iowa

211 and 213 East Broadway Street

the listing of the City of Stanwood, Iowa as an Additional Insured hereunder do not waive any of the defenses of government immunity available to the Additional Insured under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.

The Companies and the Additional Insured further agree that this policy of insurance shall cover only those claims not subject to the defense of government immunity under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.

The Additional Insured shall be responsible for asserting any defense of government immunity and may do so at any time and shall do so upon the timely written request of the Companies.

The Companies shall not deny coverage under this policy and the Companies shall not deny any of the rights and benefits accruing to the Insured or the Additional Insured under this policy for reasons of government immunity unless and until a court of competent jurisdiction has ruled in favor of the defense(s) of government immunity asserted by the Additional Insured.

- 6.3.7 Insurance policies and certificates must provide at least a thirty (30) day written notice to the City of any change in or cancellation or termination of the coverage or coverages.
- 6.3.8 Following the award and prior to commencement of the work, the Contractor shall present, in writing, to the City/ECIA, copies of submittal documentation as requested in the Clean-up Plan.

7.0 PERFORMANCE SECURITIES

- 7.1 A Bid Bond from the Contractor equivalent to five percent (5%) of the bid price is required. The bid bond will be assurance that the Contractor will, upon acceptance of its bid, execute such contractual documents as may be required within the time specified.
- 7.2 The Contractor, in accordance with Iowa Code Section 573.2, shall furnish a Surety Bond in the full amount of the contract, when the contract price equals or exceeds \$25,000. The Surety Bond shall guarantee faithful performance of all provisions of the Contract, obligations, bills, etc. that arises from the Contract work. The Surety Bond shall be provided prior to signing a Contract.
- 7.3 A payment bond in the full amount of the contract shall be provided prior to signing a Contract. The payment bond is executed in connection with a contract to assure payments

Regulated Asbestos Containing Material (RACM) Demolition Bid Documents

City of Stanwood, Iowa

211 and 213 East Broadway Street

are required by law of all persons supplying labor and material in execution of the work provided for in the contract.

- 7.4 The Contractor awarded this project shall guarantee all work executed under this contract for a period of twelve (12) months after the date of substantial completion. (Special guarantee provisions, if any, specified elsewhere in this document shall take precedence.) Neither final payment nor any provision of the contract documents shall relieve the Contractor of any responsibility for faulty materials or workmanship. The Contractor shall remedy any defect and pay for all damages to work that appears within a period of twelve (12) months from the date of final completion.
- 7.4 The Contractor shall be responsible for all damages to public and private property. The Contractor shall have at least one responsible individual who is dedicated to resolving reports of property damage. Contractor shall maintain a log of property damage reports and their resolution, including dates for each damage report, pictures, contact information, and resolution. If public or private property damaged by the Contractor is not repaired or resolved on a timely basis to the satisfaction of the City, the City has the option of having the damage repaired at the Contractor's expense to be reimbursed to the City or withheld from retainage or submitted to Contractor's Surety for payment under Contractor's Performance Bond. The City/ECIA will retain 5% of the amount due to the Contractor as per Iowa Code Section 573.12(1). Said retainage will be for the purposes of both ensuring the completion of work to the City's satisfaction and as an offset to damages to public or private property.

8.0 EXECUTION OF CONTRACT

- 8.1 The Contract will be between the City of Stanwood, Iowa and the Contractor and will be provided at a later date. The successful bidder shall execute the contract per the requirements. The contract will be subject to Davis-Bacon and Related Acts.
- 8.2 Notwithstanding any delay in the preparation and execution of the formal contract agreement, the Bidder shall be prepared, upon written notice of bid acceptance, to notify IDNR and to commence work on the date stipulated in such notice.
- 8.3 Contract approval is contingent upon receipt of RLF funding and City Council approval.

9.0 PAYMENT

9.1 Payments are subject to the approval of the City of Stanwood City Council.

9.2 Payment shall be requested in writing by the Contractor on a properly executed claim, bill or statement and shall include at a minimum:

- Contractor Name
- Project Name
- Project Address
- Description of services rendered
- Dates of services rendered
- Remittance information

9.3 Request for payment shall be mailed to:
Ms. Stephanie VonBehren, City Clerk
City of Stanwood, Iowa
209 East Broadway, Stanwood, Iowa 52337

DRAFT

ATTACHMENT 1
BID FORM

DRAFT

BID FORM

RACM Demo: 211 and 213 East Broadway, Stanwood, Iowa

The following documents are to be completed and submitted with your bid. Failure to do so may result in the disqualification of your bid.

1. Bid Form, with all blanks executed.
2. Proof to obtain insurance, as requested.
3. Bid Bond (5%).

AUTHORIZED REPRESENTATIVE:

The undersigned bidder, in response to your Request for Bid for the demolition, clean-up, and disposal of the asbestos contaminated building(s)/debris located at 211 and 213 East Broadway Street, Stanwood, Cedar County, Iowa (the Site), having examined the Drawings, Specifications, and other Bidding Documents, and being familiar with the conditions surrounding the work of the proposed project including the sites, locality, and all local conditions and laws and regulations that in any manner may affect cost, progress and performance or furnishing of the work, hereby proposes to furnish all labor, material, equipment, removal and disposal of materials and perform all work in strict accordance with the proposed Contract Documents, within the specified timeframe and pricing stated below. Prices are to cover all expenses incurred in performing the work required under the proposed Contract Documents, of which this bid is a part. The City/ECIA does not guarantee any quantity of work under this Contract. Actual quantities, whether lesser or greater than estimated by the Contractor will not affect the pricing process as indicated nor the total project price bid by the Contractor and accepted by the City/ECIA. Payment will be made based on the quantities listed in the Contract Documents regardless of the amounts included.

Bidder acknowledges that they have received, read, and understand the requirements set forth in the following documents:

Item	Date Issued	Initials of bidder
RACM Clean-up Plan		
RACM Bid Documents		

BASE BID:

Bidder proposes and agree to perform asbestos abatement as described in the RACM Clean-up Plan, the RACM Demolition Bid Documents, drawings and all associated contract documents for the not-to-exceed written sum of:

_____ DOLLARS

The bid amount shall be shown in words (above) and figures (below). In case of discrepancy, the amount shown in words shall govern. Bids are on a not-to-exceed basis; changes in scope of work will take the form of written amendments. The bidder shall not include sales tax in the bid. The City of Stanwood will distribute tax exemption certificates and authorization letters to the Contractor. The Contractor may make copies of the tax exemption certificates and provide a copy to each supplier providing construction materials. These tax exemption certificates and authorization letters are applicable only for this specific project under the contract.

Description	Total Cost
Deconstruction / RACM Demolition	\$

BID FORM

RACM Demo: 211 and 213 East Broadway, Stanwood, Iowa

SCHEDULE:

Please provide a schedule for the following phases/items. The schedule for the work will be determined by the City of Stanwood, though allowances for contractor-determined schedules may be permitted by the City. Due to the funding mechanism, work is anticipated to commence in the summer of 2022. The required "Asbestos Notice of Demolition and Renovation" form (Iowa Department of Natural Resources Form 542-1476) will need to be submitted a minimum of 10 business days before the work begins. The required bonds, certificate of insurance must be on file with the City Clerk within 5 working days of awarding the contract and before the Notice to Proceed will be issued. All bids submitted should be based on each contractor's current workload staffing capability to complete the project, which is to be represented in the estimated timeline above. The City project team will review and compare all bids received for the project and reserves the right to modify the schedule as needed at the time of project authorization. The work under the proposed contract shall commence within fifteen (15) days after the issuance of the Notice to Proceed and shall be completed as sated in the Notice to Proceed and the associated Contract Documents.

Phase	Start Date	Anticipated Date of Completion	Total Days
Deconstruction/Demolition			
Site Restoration/Earthwork			
Total:			

DISPOSAL SITE:

Identify the permitted facility where RACM waste will be disposed:

Disposal Agency Name	Address	City	State

REFERENCES:

List of three references, including contact information, for comparable projects in complexity and dollar value with this project.

Project Name	Project Value (\$)	Client	Client Contact	Phone	Email

BID FORM

RACM Demo: 211 and 213 East Broadway, Stanwood, Iowa

BIDDER CERTIFICATION:

The Bidder hereby certifies that:

1. I have examined the Bidding Documents, the RACM Clean-up Plan, the RACM Bid Documents, the Contract, Addenda (if provided), and accept the determination of the extent of the technical data contained in such reports and drawings upon which Bidder may make his own conclusions and for which Bidder is solely responsible.
2. Bidder has correlated the results of all such observations, examinations, investigations, tests, explorations, reports, and studies with the terms and conditions of the Contract Documents.
3. This bid is genuine and is not made in the interest of or on behalf of any undisclosed person, firm, or corporation.
4. Bidder has not directly or indirectly inducted or solicited any other bidder to put in a false or sham bid; Bidder has not solicited or inducted any person, firm, or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain any advantage over any other bidder or over the City of Stanwood, Iowa (the City), East Central Intergovernmental Association (ECIA), Terracon, or the US EPA.
5. Bidder enters into, and executes a contract (the Contract), based upon this bid, if this bid is accepted by the City/ECIA.
6. Bidder hereby certifies that the bidder is permitted by the Iowa Workforce Development to conduct asbestos abatement in the State of Iowa.
7. Bidder agrees to comply with all federal and state affirmative action/equal employment opportunity requirements concerning fair employment and will not discriminate between or among by reason of race, color, religion, sex, national origin, or physical handicap.
8. The Bidder shall conform with all provisions of the Federal Civil Rights Act; The Code of Iowa, Chapter 216 Civil Rights Commissions rules and regulations; and also conform to provisions set forth in Iowa Code 692A.11.
9. All work under this contract will be conducted in accordance with local, state, and federal regulations.
10. The Contractor shall comply with the Federal Labor standards set forth in the Davis Bacon Act Copeland Act and the Contract Work Hours and Safety Standards Act, and all rulings and interpretations of the Davis-Bacon Act and related Acts contained in 29 CFR Parts 1, 3 and 5 area herein incorporated by reference in this contract.
11. Bidder agrees that this bid shall remain valid and shall not be withdrawn for a period of thirty (30) calendar days after the date for receipt of bids.
12. Bidder agrees that if written notice of acceptance of this bid is mailed, emailed, or delivered to the undersigned within 30 days after the date in which bids are due, or at any time thereafter before it is withdrawn, the undersigned will sign and return the Contract Agreement, prepared in accord with the Bidding Documents and this bid as accepted; and will also provide proof of insurance coverage.
13. Bidder understands that the Owner reserves the right to reject any and all bids, and to waive irregularities or informalities and enter into a contract for the work, as the Owner deems to be in the best interest.
14. Bidder has given the Owner written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by the Owner's Representative(s) is acceptable to Bidder.

BID FORM

RACM Demo: 211 and 213 East Broadway, Stanwood, Iowa

BIDDER IDENTIFICATION/AUTHENTICATION:

Bid Form shall be signed by an officer of the company with authority to bind in a contract. Notice of acceptance, or request for additional information, may be addressed to the undersigned at the address set forth below:

Name of Firm or Company Submitting Bid		
Business Address of Firm or Company Submitting Bid		
City	State	Zip Code
Fax Number	Telephone Number	Mobile Number
Signature of Bidder	Title	Printed/Typed Name of Signatory
Email Address		
Date		
Federal Tax Identification Number		

END OF BID FORM DOCUMENT