Asbestos Inspection Report

St. Cloud VA Health Care System – West Steam Line Project
St. Cloud, Minnesota

Prepared for:
Anderson Engineering of Minnesota, L.L.C.

January 5, 2024

Landmark Environmental, LLC
9555 James Avenue South – Suite 262 | Bloomington, MN 55431 | Phone: 952-295-9400 | www.landmarkenv.com

Asbestos Inspection Report
St. Cloud Veterans Affairs Health Care System
Replace/Add Steam Mains West Side Campus Project
St. Cloud, Minnesota

Appendices

1.0 Executive Summary

Landmark Environmental, LLC (Landmark) was retained by Anderson Engineering of Minnesota, L.L.C. (Client) to complete an asbestos survey (Survey) as part of a renovation project at the St. Cloud Veterans Affairs (VA) Health Care System (VAHCS) located in St. Cloud, Minnesota (the Property). The Survey was conducted in the western portion of the tunnel system as part of the Replace/Add Steam Mains West Side Campus – St. Cloud VAHCS project (the Project). Tunnels and building crawlspaces between manhole 21 and Building 51 were included in the Survey. In the crawlspaces of the buildings, approximately 20 feet on either side of the main steam lines were included in the Survey. A diagram of the locations included in the Survey has been included in this report.

Castle Hill Associates, LLC conducted an asbestos reinspection of the full campus, including tunnels and crawlspaces, in 2019. The results of the reinspection were released in a report titled "Asbestos Reinspection Report 2019" which was dated November 4-6, 2019 and July 13, 2020 (the Reinspection Report). The findings of this Reinspection Report were used in Landmark's Survey Report.

A summary of the Survey results are as follows:

Landmark collected 7 bulk asbestos samples as part of the Survey. The contracted laboratory, EMSL Analytical, Inc. (EMSL), analyzed all 7 samples submitted for analysis.

Based on the Reinspection Report, suspect building materials found to contain asbestos include: **contaminated soil.** Asbestos-containing material (ACM) should not be cut, drilled, sanded or disturbed.

No suspect building materials were assumed to contain asbestos during the Survey.

Electrical wiring and panels were not sampled for asbestos. Landmark does not perform bulk sampling of electrical equipment unless it has been shut down and tagged by a licensed electrician.

This Survey identifies asbestos materials as they existed on the day of the survey at the Property. Conditions may change over time.

This Survey should not be used as a bidding document. The ACM quantities provided are estimates and must be verified by the bidding contractors. Landmark recommends using a licensed asbestos project designer to design and bid all projects.

2.0 Introduction

Landmark completed an asbestos survey report (Report) at the Property. The procedures used for this Survey and assessment comply with the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), Minnesota Department of Health (MDH), and Minnesota Pollution Control Agency (MPCA) asbestos standards.

2.1 Purpose

Landmark was retained by the Client to complete the Survey and Report to identify ACM, and quantities of ACM in the Project area prior to commencing with a scheduled renovation project.

2.2 Survey Approach

The Survey and assessment, consisting of identifying, sampling, assessing, and quantifying suspect ACM within the Project work area, was conducted on December 22, 2023.

2.3 Assumptions, Limitations and Exceptions

The findings and recommendations in this Report are subject to the following assumptions, limitations, and/or exceptions:

- Based on the Project scope of work, a destructive survey was not conducted. No attempt was made to locate materials inside walls, doors, ducts, and other areas that would require destructive entry. The possibility exists that suspect materials may be present in these locations. Materials observed, or suspected in these areas, were assumed to be ACM if sampling was not feasible.

- Electrical wiring and panels were not sampled for asbestos. Landmark does not perform bulk sampling of electrical equipment unless it has been shut down and tagged by a licensed electrician.

- This Survey identifies materials as they existed on the day of the survey. Conditions may change over time.

2.4 Qualifications

The Survey was conducted by Mark Meier and Cheyenne Neess, accredited asbestos building inspectors with Landmark. A photocopy of the inspector's MDH certification is included in Appendix A.

Asbestos sample analysis for this project was conducted by EMSL located in New Hope, Minnesota. EMSL is accredited by the National Voluntary Accreditation Program (NVLAP lab code 200019-0).

3.0 Sampling Methods and Analysis

3.1 Bulk Asbestos Sampling

Building diagrams were utilized to divide the Survey areas into functional spaces for the purposes of describing sampling locations. The building diagram with sample locations has been included in Appendix B.

Similar systems and materials were grouped into "homogeneous areas of building materials" (homogeneous materials). Homogeneous materials often exist in more than one functional space within the Property building. Each homogeneous material was assigned a discrete number; the homogeneous material number is indicated in the first number of the sample name. Multiple samples of each homogeneous material were taken in accordance with the EPA-Asbestos Hazard Emergency Response Act (AHERA) guidelines using a random sampling procedure. These multiple samples were designated "A, B, C," etc. for each homogenous material, as indicated in the sample name. The sample locations and sample descriptions are shown on the building diagram and the asbestos laboratory report in Appendix B.

Samples were collected by carefully removing a small representative sample of the suspect material and sealing it in a plastic bag.

3.2 Bulk Asbestos Analysis

Landmark collected 7 bulk asbestos samples as part of the Survey. EMSL, analyzed all 7 samples submitted for analysis. Laboratory results are presented in the attached report in Appendix B.

The bulk samples were analyzed by polarized light microscopy (PLM) with dispersion staining, EPA method 600/R-93/116 and EPA method 600/M4-82-020. Quantity determinations are made by visual estimation. For each homogeneous material, once a positive sample was identified, the remaining samples were not analyzed.

EPA National Emission Standards for Hazardous Air Pollutants (NESHAP)-Rule 40 CFR Part 61 states that samples found to contain less than 10% asbestos by visual estimation may be further quantified by point count analysis.

The Asbestos rule states that all multi-layer systems, except for wall systems where joint compound was used only at the joints and nail holes, must be analyzed as separate materials. If any layer contains greater than one percent asbestos, that layer must be treated as asbestos-containing. This requires all layers in a multi-layered system to be

treated as asbestos-containing if the layers cannot be separated without disturbing the asbestos-containing layer.

Asbestos samples will be held for 30 days after the date of this report.

3.3 Chain of Custody Procedures

To ensure that samples collected in the field are neither lost nor their identity misidentified, all samples, from the point of collection to receipt in the laboratory, proceeds as follows. Each sample is first assigned a unique and distinct sampling number. After a sample is placed into a plastic bag, that unique number is assigned to that bag. This same number is documented on the laboratory's chain of custody. The inspector signs each chain of custody before delivering to the lab. Upon receipt of the samples, the lab analyst verifies that each sample matches the corresponding chain of custody number and signs and dates the chain of custody. After analysis, the analyst generates a report that includes the sample results and the project chain of custody forms.

4.0 Asbestos-Containing Material Assessment

In each functional space, each homogeneous material was quantified and assessed for friability (i.e. material can be crumbled, pulverized, or reduced to powder by hand pressure when dry). Suspect ACM was then assessed as to their condition and potential for disturbance. This information was recorded on the asbestos physical assessment shown in Appendix C. The model for this system is described in the *EPA Draft Curriculum for Training Building Inspectors*.

5.1 Summary of Asbestos-Containing Materials

Suspect homogeneous material found to contain asbestos and their sample numbers include:

Thermal Insulation

Contaminated soil in Building 49 (Castle Hill Sample S-11, S-12, S-13, S-14).
Contaminated soil in Building 50 (Castle Hill Sample S-15, S-16, S-17).
Contaminated soil in Building 51 (Castle Hill Sample S-18, S-19, S-20).
Contaminated soil in Manhole 21 to Building 48 Tunnel (Castle Hill Sample S-9).
Contaminated soil in Building 48-49 Tunnel (Castle Hill Sample S-10).

Surfacing Material – None Observed

Miscellaneous Materials - None Observed

Assumed Materials – None Observed

5.2 Summary of Non-Asbestos-Containing Materials

Suspect ACM is considered negative for asbestos when all samples of the material are found to contain one percent or less asbestos. Suspect homogeneous material found to be negative includes:

1. Black tar on wall (Landmark Sample 1).
2. Red firestop putty (Landmark Sample 2).
3. Hard fitting on fiberglass (Landmark Sample 3).*
4. Mud on pipe hanger (Landmark Sample 4).*
5. Black tar on wall (Landmark Sample 5).
6. Tar expansion joint (Landmark Sample 6).
7. Tar expansion joint (Landmark Sample 7).

*-confirmation bulk samples of materials previously sampled and found negative.

6.0 Recommendations

Based on the Survey and assessment results, as well as the proposed future use of the Property building, the following recommendations for each ACM are summarized below.

Description	Total Estimated
Thermal System Insulation	
Contaminated soil (Crawlspace Building 49)	16,625 sf
Contaminated soil (Crawlspace Building 50)	9,500 sf
Contaminated soil (Crawlspace Building 51)	16,625 sf
Contaminated soil (Tunnel Manhole 21 to Building 48)	980 sf
Contaminated soil (Tunnel Building 48-49 Tunnel)	935 sf
Surfacing Material	**None observed**
Miscellaneous Materials	**None observed**
Assumed Materials	**None observed**

A certified asbestos abatement contractor must remove identified and assumed asbestos containing materials prior to renovation or demolition activities in accordance with the applicable state and federal regulatory requirements. Non-asbestos certified persons or companies are prohibited from disturbing, removing, or rending the material friable.

Access to the tunnels and crawlspaces with contaminated soil shall be limited to properly trained individuals.

If untested material(s) are discovered during renovation or demolition activities, stop work, and assume the material(s) contains asbestos or have the material(s) tested to determine the asbestos content.

No attempt was made to locate materials inside walls, doors, ducts, and other areas that would require destructive entry. If any newly discovered suspect material is found during asbestos abatement or building demolition, work should stop until the material can be sampled to determine asbestos content, or assumed to contain asbestos and abated by a licensed asbestos abatement contractor.

Electrical wiring and panels were not sampled and should be assumed to contain asbestos. Landmark does not perform bulk sampling of electrical equipment unless it has been shut down and tagged by a licensed electrician.

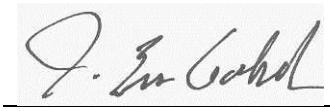
This Survey identifies asbestos as they existed on the day of the survey at the Property. Conditions may change over time.

This Survey should not be used as a bidding document. The ACM quantities provided are estimates and must be verified by the bidding contractors.

7.0 Signatures of Environmental Professional(s)

We declare that, to the best of our professional knowledge and belief, the Survey referenced by this report, and the report itself, were conducted in accordance with intent of the EPA, MPCA, MDH, AHERA regulations to the best of my ability and knowledge.

Mark Meier, Asbestos Building Inspector (AI-3893)



Eric Gabrielson, Vice President

Appendices

Appendix A

DEPARTMENT OF HEALTH

ASBESTOS INSPECTOR

Certified by:
State of Minnesota
Department of Health

Expires: 05/31/2024

Mark W Meier
7570 Dallas Ln N
Maple Grove, MN 55311

Director, Env. Health Div.

No. AI3893

Issued: 06/06/2023

DEPARTMENT OF HEALTH

ASBESTOS SITE SUPERVISOR

Certified by:
State of Minnesota
Department of Health

Expires: 07/14/2024

Cheyenne E Neess
5320 23rd St W , Suite 270
St Louis Park, MN 55416

Director, Env. Health Div. No. AS15443 Issued: 08/03/2023

DEPARTMENT OF HEALTH

ASBESTOS INSPECTOR

Certified by:
State of Minnesota
Department of Health

Expires: 07/26/2024

Cheyenne E Neess
5320 23rd St W , Suite 270
St Louis Park, MN 55416

Director, Env. Health Div. No. AI15443 Issued: 08/03/2023

Appendix B

EMSL Analytical, Inc.

3410 Winnetka Avenue North New Hope, MN 55427

Tel/Fax: (763) 449-4922 / (763) 449-4924

http://www.EMSL.com / minneapolislab@emsl.com

EMSL Order:	352311372
Customer ID:	LMEN42
Customer PO:	
Project ID:	

Attention:	Mark Meier	**Phone:**	(952) 666-2422
	Landmark Environmental, LLC	**Fax:**	(952) 887-9605
	9555 James Avenue South – Suite 262	**Received Date:**	12/22/2023 2:10 PM
	Bloomington, MN 55431	**Analysis Date:**	12/27/2023
		Collected Date:	12/22/2023
Project:	STCVA Steam Tunnel		

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 *352311372-0001*	by manhole 21 - Black Tar on Wall	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2 *352311372-0002*	CS 48 - Red Fire Stop Putty	Red Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
3 *352311372-0003*	CS 49 - Hard Fitting on Fiberglass	Beige Fibrous Homogeneous	15% Cellulose 15% Min. Wool	70% Non-fibrous (Other)	None Detected
4 *352311372-0004*	CS 49 - Mud on pipe hanger	Beige Fibrous Homogeneous	10% Cellulose 15% Min. Wool	75% Non-fibrous (Other)	None Detected
5 *352311372-0005*	Past Tunnel 49 - Black Tar	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6 *352311372-0006*	Past 49 in tunnel - Tar Expansion Joint	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
7 *352311372-0007*	Tunnel 50 To 51 - Blk Tar Exp. Joint	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Analyst(s)

Louis Miller (7)

Rachel Travis, Laboratory Manager
or Other Approved Signatory

Initial report from: 12/27/2023 16:25:51

OrderID: 352311372

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number *(Lab Use Only)*: 11372

3410 Winnetka Avenue North
New Hope, MN 55427
PHONE: (763) 449-4922
FAX: (763) 449-4924

Company : Landmark Environmental LLC	**EMSL-Bill to:** ☑ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: 9555 James Avenue South - Suite 262	*Third Party Billing requires written authorization from third party*
City: Bloomington **State/Province:** MN	**Zip/Postal Code:** 55431 **Country:** US
Report To (Name): Mark Meier	**Telephone #:** 952-295-9410
Email Address: mmeier@landmarkenv.com	**Fax #:** **Purchase Order:**
Project Name/Number: STCVA Steam Tunnel	**Please Provide Results:** ☐ Fax ☑ Email ☐ Mail
U.S. State Samples Taken: MN	**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☒ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PLM - Bulk (reporting limit)	TEM – Bulk
☒ PLM EPA 600/R-93/116 (<1%)	☐ TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
☐ PLM EPA NOB (<1%)	☐ NY ELAP Method 198.4 (TEM)
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)	☐ Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)	☐ TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
☐ NIOSH 9002 (<1%)	☐ TEM Qualitative via Filtration Prep Technique
☐ NY ELAP Method 198.1 (friable in NY)	☐ TEM Qualitative via Drop Mount Prep Technique
☐ NY ELAP Method 198.6 NOB (non-friable-NY)	**Other**
☐ OSHA ID-191 Modified	☐
☐ Standard Addition Method	

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** **Date Sampled:** 12/22/23

Samplers Name: Mark Meier **Samplers Signature:**

Sample #	HA #	Sample Location	Material Description
1		by Manhole 21	Black Tar on Wall
2		CS 48	Red Fire Stopping
3		CS 49	Hard Fitting on Fiberglass
4		CS 49	Mud on pipe hanger
5		Past Tunnel 49	Black Tar
6		~~CS 50~~ Past 49 in tunnel	Tar Expansion Joint
7		Tunnel 50 To 51	Blk Tar Exp. Joint

Client Sample # (s): **Total # of Samples:**

Relinquished (Client): **Date:** 12/22/23 **Time:** 2PM

Received (Lab): Alicia WSI **Date:** 12-22-23 **Time:** 2:10 pm

Comments/Special Instructions:

OrderID: 352311372

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

3410 Winnetka Avenue Nort

New Hope, MN 55427
PHONE: (763) 449-4922
FAX: (763) 449-4924

Asbestos Bulk Building Material Chain of Custody

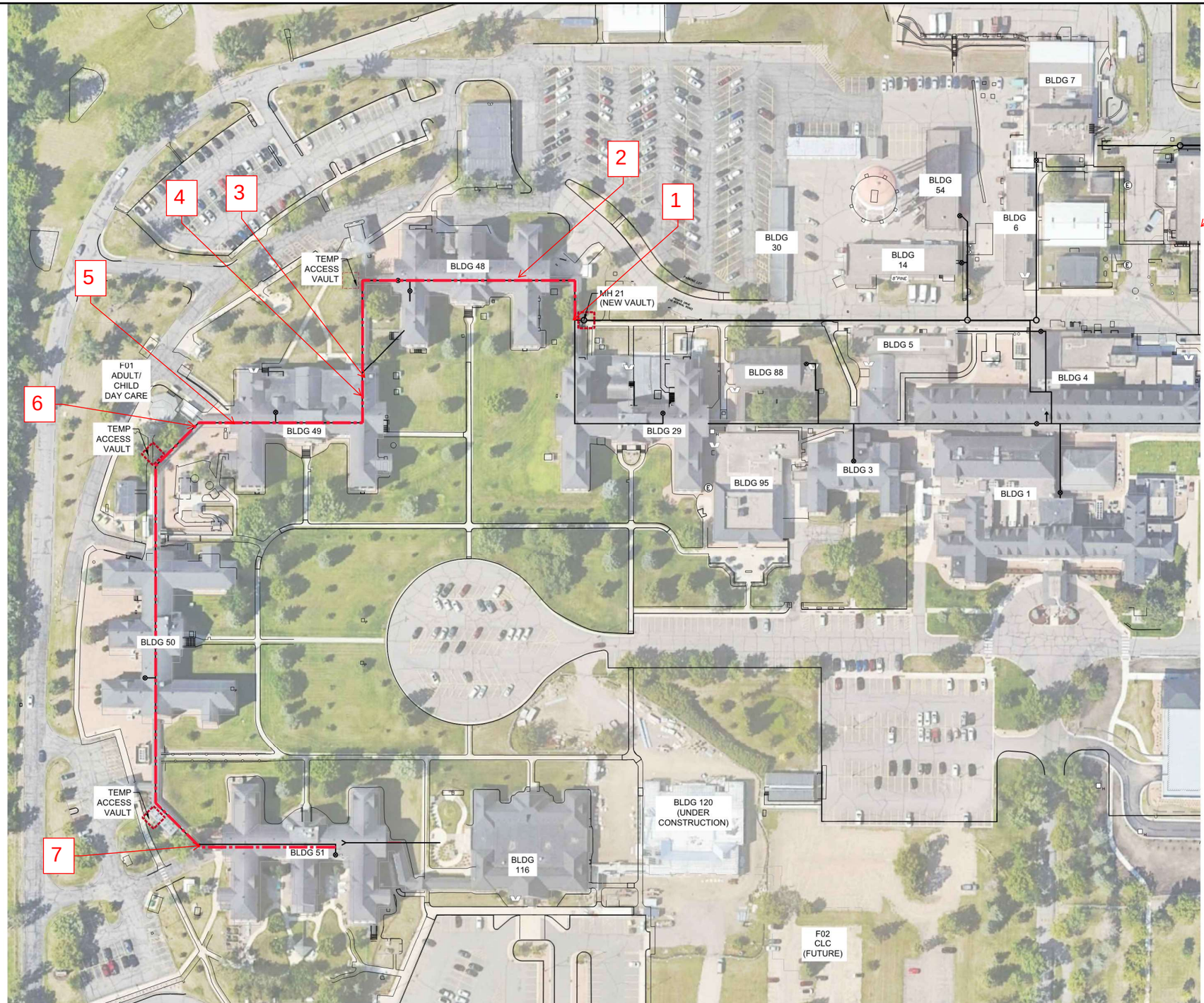
EMSL Order Number *(Lab Use Only)*:

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description

***Comments/Special Instructions:**

Page _____ of _____ pages



LEGEND

X Asbestos Bulk Sample Location

N

0 60' 120'

ANDERSON

13605 1st Avenue N. #100
Plymouth, MN 55441 | ae-mn.com
P 763.412.4000 | F 763.412.4090
Anderson Engineering of Minnesota, LLC

ST CLOUD VA STEAM TUNNEL REPLACEMENT

ST CLOUD, MINNESOTA

US DEPARTMENT OF VETERANS AFFAIRS

REVISION LOG

NO.	DATE	DESCRIPTION OF REVISIONS

PRELIMINARY

DESIGNED:	DRAWN:	CHECKED BY:
CL	CL	LRK

DRAWING TITLE

CIVIL OVERALL ROUTING EXHIBIT

DRAWING NO.

C1

PLOTTED:	COMM. NO.
---	17187

Appendix C

ST. CLOUD VAHCS
WEST MAIN STEAM LINE PROJECT
ASBESTOS-CONTAINING MATERIAL ASSESSMENT DATABASE

Floor	Functional Space	Location	Type	Description	Quantity	Height (Feet)	Condition	Disturbance Potential	Homog. Material
Tunnel	1	Manhole 21 to Building 48	MISC	Contaminated soil	980	sf	G	L	Previously Sampled
Crawlspace	2	Building 48		No ACM Observed in Landmark's or Prior Surveys					
Tunnel	3	Building 48 to Building 49	MISC	Contaminated soil	935	sf	G	L	Previously Sampled
Crawlspace	4	Building 49	MISC	Contaminated soil	16,625	sf	G	L	Previously Sampled
Tunnel	5	Building 49 to Building 50	MISC	No ACM Observed in Landmark's or Prior Surveys					
Crawlspace	6	Building 50	MISC	Contaminated soil	9,500	sf	G	L	Previously Sampled
Tunnel	7	Building 50 to Building 51	MISC	No ACM Observed in Landmark's or Prior Surveys					

Type: TSI=Thermal System Insulation SURF=Surfacing Materials MISC=Misc.
Quantity: CF=Cubic Ft LF=Linear Ft SF=Square Ft

Condition: G=Good F=Fair P=Poor

Dist. Pot.: L=Low M=Medium H=High