ASBESTOS INSPECTION REPORT

Conducted at:

Building #1803

Fort, Sill, OK 73503

Conducted for:

Prepared By:

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SECTION **PAGE**

APPENDICES

1.0 BACKGROUND:

1.1 has conducted an AHERA asbestos survey for the presence of Asbestos-Containing Materials (ACM) at the following building:

SITE:	Building #1803 (constructed 07/01/1939)
COUNTY:	Comanche
ADDRESS:	Ft. Sill Military Reservation
INVESTIGATOR/INSPECTOR:	
SITE VISIT DATE(s):	11-10-2014 through 11-13-2014
REPORT DATE:	12-09-2014
REVISION DATE:	N/A

1.2 Field Procedures and Analysis Methodology:

Guidelines used for the inspection were established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos-Containing Materials in Buildings, Office of the Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA), OSHA, Sampling Methods, Fort Sill, AR 200-1, ODOL, DEQ.

Field information was organized as per the AHERA concept of Homogeneous Area (HA). A HA is defined as a suspect material of similar age, appearance, function and texture. Each material was grouped together as a specific HA, sampled and then assessed for condition.

Laboratory asbestos identification was conducted under EPA Method 600/R-93/116. Laboratory accreditation was certified through the National Voluntary Laboratory Accreditation Program (NVLAP).

2.0 SCOPE OF WORK:

Entire building, including interior and exterior, was inspected using guidance from 40 CFR Part 763 (AHERA), EPA and OSHA Standards for ACM inspection. The inspection was characterized by a close visual inspection of all accessible areas. Suspect materials were sampled and inventoried for quantity, condition and friability, areas, location, type, condition, potential for disturbance and rate potential.

2.1 Materials examined included:

Surfacing:	Wall / Ceiling Texturing
Thermal System Insulation:	Pipe & Ducting Insulation
Miscellaneous:	Blown-In Insulation, Magnesite Flooring, Floor Tile, Ceiling Tile, Plaster & Gyp Wall Systems, Cove Base, Stair Tread, Transite, Batting Insulation, Roofing Material and Mastics

3.0 SUMMARY OF FILE SEARCH:

The following is a listing of our findings:

3.1 Use of past survey records, if any: N/A
3.2 Past abatement records, if any: N/A

4.0 SUMMARY OF INSPECTION RESULTS:

The initial asbestos inspection was conducted on 11-10-2014 through 11-13-2014, which involved a thorough visual examination of all accessible areas and sampling of suspect material.

4.1 Building components, which have been determined to contain an asbestos presence greater than 1% by either analysis from or by PACM classification, are listed as the following:

HA-11 – 9x9" Floor Tile (Gray w/ Streaks) & Mastic (Black)
HA-12 – 9x9" Floor Tile (Beige w/ Maroon and Gray Streaks) & Mastic (Black)
HA-27 – Piping Insulation (Runs - White)
HA-29b – Adhesive (Brown) behind 1x1' Ceiling Tile (White w/ Uniform Holes)
HA-31 – Transite Flue (Gray)

4.2 Analyses from determined the samples collected from the following materials to contain less than or equal to one percent (≤1%) asbestos:

NONE

5.0 ASBESTOS QUANTITY SCHEDULE:

Approximate asbestos quantity schedules are presented on the following table:

HOMOGENEOUS AREA ID#	DESCRIPTION	% ASBESTOS	FRIABLE F / NF	CONDITION (GOOD, DAMAGED, SIGNIFICANTLY DAMAGED)	EXPOSURE POTENTIAL (LOW, MED, HIGH)	QUANTITY	LOCATION # (Functional Spaces)
HA-11a	9x9" Floor Tile	10% Chrysotile	NF	Good	Low	45 ft^2	110
HA-11b	Black Mastic	8% Chrysotile	NF	Good	Low		
HA-12a	9x9" Floor Tile	7% Chrysotile	NF	Good	Low	115 ft^2	112
HA-12b	Black Mastic	4% Chrysotile	NF	Good	Low		
HA-27	Pipe Run Insulation	25% Chrysotile 10% Amosite	F	Good	Low	20 ft	111
HA-29b	Brown Mastic	3% Chrysotile	NF	Good	Low	500 ft^2	206
HA-31	Transite Piping	PACM	NF	Good	Low	30 ft	Attic, 1st & 2nd Floors

6.0 CONCLUSIONS AND RECOMMENDATIONS:

6.1 Recommendations:

It is recommended that all ACBM be maintained in place.

6.2 Hazards and Response Actions:

HOMOGENEOUS AREA ID#	MATERIAL	FUNCTIONAL SPACE ID #	RESPONSE ACTION (SSSD, ABATE, NONE)	COST ESTIMATE (RESPONSE ACTION)
NONE	N/A	N/A	N/A	N/A

6.3 Summarizing samples and assessment results:

Thirty-five (35) homogeneous areas were observed. Representative samples were extracted from thirty (30) homogeneous areas. Analytical results identified asbestos within the matrix. Assessment concluded with a low potential for exposure at this time. ACM TSI must be removed under OSHA 29CFR 1926.1101 Class I asbestos work prior to renovation or demolition procedures. ACM transite piping must be removed under OSHA 29CFR 1926.1101 Class II asbestos work prior to renovation or demolition procedures. ACM floor tiles and mastics must be removed under OSHA 29CFR 1926.1101 Class II asbestos work prior to renovation procedures but may be left in place during demolition procedures except for areas where ACM floor tile and mastic exist on the concrete pad and the pad is to be recycled. Periodic Surveillances should be conducted on a regularly scheduled basis to determine change in condition and/or response action.

6.4 Cost estimates for abatement and O&M activities:

Thermal System Insulation - $1,500.00
Floor Tile & Mastics - $1,500.00
Ceiling Tile Adhesive - $1,500.00
Transite Piping - $1,500.00
O&M Activities - $1,500 per day as needed to maintain building.

7.0 AREAS NOT ACCESSIBLE:

Inaccessible areas may require further inspection of ACBM when become accessible.

- Wet walls behind sinks, toilets, etc.

8.0 REPORT CERTIFICATIONS:

certifies that the information contained herein is based on the physical and visual inspections conducted by and data collected during the inspection survey and file review.

12-09-2014

Date

Appendix A

9.0 ANALYTICAL RESULTS AND CHAINS OF CUSTODY

243945

CHAIN OF CUSTODY

1 of 4

Project Name and Number: Fort Sill - Building # 1803

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
1.	01-01	Bulk-Misc.	PLM - Asbestos	2'x2' Ceiling Tile-White w/Dots Only
2.	01-02	" "	" "	" " " " " " " "
3.	02-01	" "	" "	" " " " " " w/Dots & Small Gashes
4.	02-02	" "	" "	" " " " " " " "
5.	03-01	" "	" "	" " " " " " Long
6.	03-02	" "	" "	" " " " " " " "
7.	04-01	" "	" "	" " " " " " Heavy
8.	04-02	" "	" "	" " " " " " " "
9.	05-01	" "	" "	2'x4' " " " " Small
10.	05-02	" "	" "	" " " " " " " "
11.	06-01	" "	" "	" " " " " " Long
12.	06-02	" "	" "	" " " " " " " "
13.	07-01	" "	" "	" " " " " " Heavy
14.	07-02	" "	" "	" " " " " " " "
15.	08-01	" "	" "	" " " " " " Scraped
16.	08-02	" "	" "	" " " " " " " "
17.	09-01	" "	" "	12"x12" Floor-Tile-Light Beige Multi-Shaded
18.	09-02	" "	" "	" " " " " " " "
19.	10-01	" "	" "	" " " " " " Maroon Multi-Shaded
20.	10-02	" "	" "	" " " " " " " "
21.	11-01	" "	" "	9"x9" " " " Grey w/Light & Dark Streaks

Delivered By:	
Date:	Time:
Received By:	
Date:	Time:

Delivered By:	
Date:	Time:
Received By:	
Date:	Time:

Sampled By: _____ _____ **Date Sampled:** 11-13-14

24394S

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building # 1803 2 of 4

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
22	11-02	Bulk-Mis.	PLM - Asbestos	9"x9" Floor Tile - Grey w/Light & Dark Streaks
23	12-01	" "	" "	Beige w/Maroon & Grey Streaks
24	12-02	" "	" "	" " " " " "
25	13-01	" "	" "	Tan w/Maroon & White Streaks
26	13-02	" "	" "	" " " " " "
27	14-01	" "	" "	Linoleum - Beige w/Light, Dark & Orange Spots
28	14-02	" "	" "	" " " " " "
29	15-01	" "	" "	Mastic - Red
30	15-02	" "	" "	" "
31	16-01	" "	" "	Stair Tread w/Adhesive - Brown w/Square Pattern
32	16-02	" "	" "	" " " " " "
33	17-01	" "	" "	Cove Base - Black
34	17-02	" "	" "	" " "
35	18-01	" "	" "	Brown
36	18-02	" "	" "	" "
37	19-01	" "	" "	12"x12" Acoustic Tile w/Adhesive - White w/Dots & Deep Pits
38	19-02	" "	" "	" " " " " " " "
39	20-01	" "	" "	Gypsum Wall System
40	20-02	" "	" "	" " " "
41	21-01	" "	" "	Plaster
42	21-02	" "	" "	" "

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Date: Time:

Sampled By: _____ _____ Date Sampled: 11-13-14

243945

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building # 1803 3 of 4

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
43	22-01	Bulk-Surfacing	PLM - Asbestos	Texture-Brocade Style
44	22-02	" "	" "	" " "
45	22-03	" "	" "	" " "
46	22-04	" "	" "	" " "
47	22-05	" "	" "	" " "
48	22-06	" "	" "	" " "
49	22-07	" "	" "	" " "
50	23-01	" "	" "	" Knock Down
51	23-02	" "	" "	" " "
52	23-03	" "	" "	" " "
53	23-04	" "	" "	" " "
54	23-05	" "	" "	" " "
55	24-01	" "	" "	" Rolled On (Spiky)
56	24-02	" "	" "	" " "
57	24-03	" "	" "	" " "
58	25-01	Bulk-Misc.	" "	Roofing Material-Asphalt Shingle
59	25-02	" "	" "	" " "
60	26-01	" "	" "	" Felt Paper
61	26-02	" "	" "	" " "
62	27-01	Bulk-TSI	" "	Pipe Insulation-Run-White
63	27-02	" "	" "	" " "

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Date: Time:
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Date: Time:

Sampled By: _____ _____ Date Sampled: 11-13-14

243945

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building # 1803 4 of 11

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
64	27-03	Bulk-TSI	PLM - Asbestos	Pipe Insulation - Run - White
65	28-01	" "	" "	Pipe Wrapping - Brown/Black
66	28-02	" "	" "	" " " "
67	28-03	" "	" "	" " " "
68	29-01	Bulk-Misc.	" "	12"x12" Acoustic Tile w/ Asbestos - White w/ Uniform Holes
69	29-02	" "	" "	" " " " " " " "
70	30-01	" "	" "	Attic Insulation - Brown
71	30-02	" "	" "	" " "

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Date: Time:
Received By:
Date: Time:

Sampled By: _____ _____ Date Sampled: 11-13-14

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
001	01-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	35 25	Perlite Paint
002	01-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	35 25	Perlite Paint
003	02-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Perlite Paint
004	02-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Perlite Paint
005	03-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	35 25	Perlite Paint
006	03-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	35 25	Perlite Paint
007	04-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 20	Perlite Paint

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
008	04-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 20	Perlite Paint
009	05-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Perlite Paint
010	05-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Perlite Paint
011	06-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 20	Perlite Paint
012	06-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 20	Perlite Paint
013	07-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30	Perlite Paint
014	07-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 20	Perlite Paint

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
015	08-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 25 Glass Fiber 35	Perlite Paint
016	08-02	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 25 Glass Fiber 35	Perlite Paint
017	09-01	Layered	Cream Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
017a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
018	09-02	Layered	Cream Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
018a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
019	10-01	Layered	Maroon Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
019a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
020	10-02	Layered	Maroon Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
020a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
021	11-01	Layered	Gray Floor Tile	Asbestos Present Chrysotile 10	NA	Vinyl CaCO3
021a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
022	11-02	Layered	** Floor Tile	**	Not Analyzed	
Positive Stop						
022a		Layered	** Mastic	**	Not Analyzed	
Positive Stop						

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
023	12-01	Layered	Beige Floor Tile	Asbestos Present Chrysotile 7	NA	Vinyl CaCO3
023a		Layered	Black Mastic	Asbestos Present Chrysotile 4	NA	Tar
024	12-02	Layered	** Floor Tile	**	Not Analyzed	
Positive Stop						
024a		Layered	** Mastic	**	Not Analyzed	
Positive Stop						
025	13-01	Layered	Tan Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
025a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
025b		Layered	White Leveling Compound	Asbestos Not Present	NA	Gypsum

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
026	13-02	Layered	Tan Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
026a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
026b		Layered	White Leveling Compound	Asbestos Not Present	NA	Gypsum CaCO3
027	14-01	Layered	Beige Sheet Vinyl	Asbestos Not Present	Cellulose 5 Glass Fiber 10 Synthetic 10	Vinyl Binder
027a		Layered	Cream Mastic	Asbestos Not Present	NA	Glue
028	14-02	Layered	Beige Sheet Vinyl	Asbestos Not Present	Glass Fiber 15 Synthetic 10	Vinyl Binder
028a		Layered	Cream Mastic	Asbestos Not Present	NA	Glue

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
029	15-01	Homogeneous	Red Brick	Asbestos Not Present	NA	Clay Binder
030	15-02	Homogeneous	Red Brick	Asbestos Not Present	NA	Clay Binder
031	16-01	Layered	Brown Stair Tread	Asbestos Not Present	NA	Vinyl CaCO3 Binder
031a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
032	16-02	Layered	Brown Stair Tread	Asbestos Not Present	NA	Vinyl CaCO3 Binder
032a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
033	17-01	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
033a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
034	17-02	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
034a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
035	18-01	Layered	Brown Cove Base	Asbestos Not Present	NA	Vinyl Binder
035a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
036	18-02	Layered	Brown Cove Base	Asbestos Not Present	NA	Vinyl Binder
036a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

Unless otherwise noted, user accepts the condition of the sample was acceptable for analysis.

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
037	19-01	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Perlite Paint
037a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
038	19-02	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 25 Glass Fiber 35	Perlite Paint
038a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
039	20-01	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
039a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
040	20-02	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
040a		Layered	White Sheetrock	Asbestos Not Present	NA	CaCO3 Paint
041	21-01	Layered	White Skim Coat	Asbestos Not Present	Wollastonite 2	CaCO3 Binder Paint
041a		Layered	Tan Plaster	Asbestos Not Present	NA	Quartz Gypsum
042	21-02	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Binder
042a		Layered	Gray Plaster	Asbestos Not Present	NA	Quartz CaCO3 Binder
043	22-01	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Silicone
044	22-02	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
045	22-03	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint
046	22-04	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint
047	22-05	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint
048	22-06	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint
049	22-07	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Binder Paint
050	23-01	Homogeneous	Tan Texture	Asbestos Not Present	NA	Paint CaCO3
051	23-02	Homogeneous	Tan Texture	Asbestos Not Present	Cellulose 5	Paint CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

his report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
052	23-03	Homogeneous	Tan Texture	Asbestos Not Present	NA	Paint CaCO3
053	23-04	Homogeneous	Tan Texture	Asbestos Not Present	NA	Paint CaCO3
054	23-05	Homogeneous	Tan Texture	Asbestos Not Present	NA	Paint CaCO3
055	24-01	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint
056	24-02	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint
057	24-03	Homogeneous	White Texture	Asbestos Not Present	NA	CaCO3 Paint
058	25-01	Homogeneous	Brown Shingle	Asbestos Not Present	Glass Fiber 25	Quartz Tar CaCO3

Unless otherwise noted, above reports the condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
059	25-02	Homogeneous	Brown Shingle	Asbestos Not Present	Glass Fiber 25	Quartz Tar CaCO3
060	26-01	Homogeneous	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
061	26-02	Homogeneous	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
062	27-01	Homogeneous	White Pipe Insulation	Asbestos Present Chrysotile 25 Amosite 10	NA	Gypsum Binder
063	27-02	**	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
064	27-03	**	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
065	28-01	Layered	Silver/Gold Paint	Asbestos Not Present	NA	Paint Tar

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

is report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82/020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
065a		Layered	Black Pipe Wrap	Asbestos Not Present	Cellulose 75	Tar
066	28-02	Layered	Silver Paint	Asbestos Not Present	NA	Paint Tar
066a		Layered	Black Pipe Wrap	Asbestos Not Present	Cellulose 75	Tar
067	28-03	Layered	Silver Paint	Asbestos Not Present	NA	Paint Tar
067a		Layered	Black Pipe Wrap	Asbestos Not Present	Cellulose 75	Tar
068	29-01	Layered	White Floor Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 50	Paint Binder
068a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue

e condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

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Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1803
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
068b		Layered	Cream Plaster	Asbestos Not Present	NA	Quartz Binder Paint
069	29-02	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 50	Paint Binder
069a		Layered	** Mastic	**	Not Analyzed	
Positive Stop						
070	30-01	Homogeneous	Brown Insulation	Asbestos Not Present	Cellulose 95	Binder
071	30-02	Homogeneous	Brown Insulation	Asbestos Not Present	Cellulose 95	Binder

11/20/2014
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

port relates only to the specific items tested. NVLAP accreditation applies only to analysis performed using EPA/600/R-93/116 and EPA/600/R-93/116 Addenda. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

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Appendix B

10.0
FILE SEARCH DATA

(NONE)

Appendix C

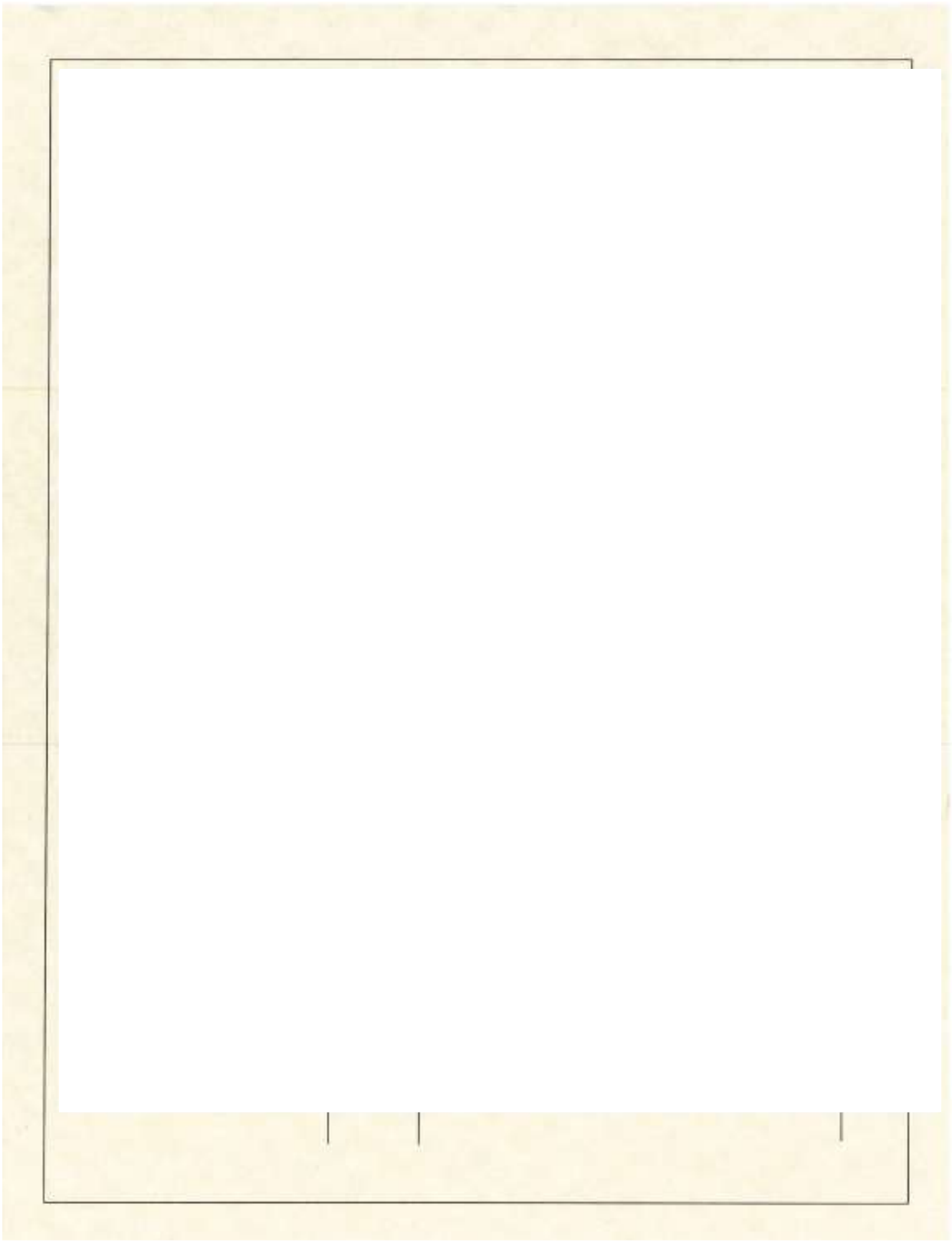
11.0
PERSONNEL LICENSES

Oklahoma Department of Labor certifies that:

Oklahoma Department of Labor certifies that:

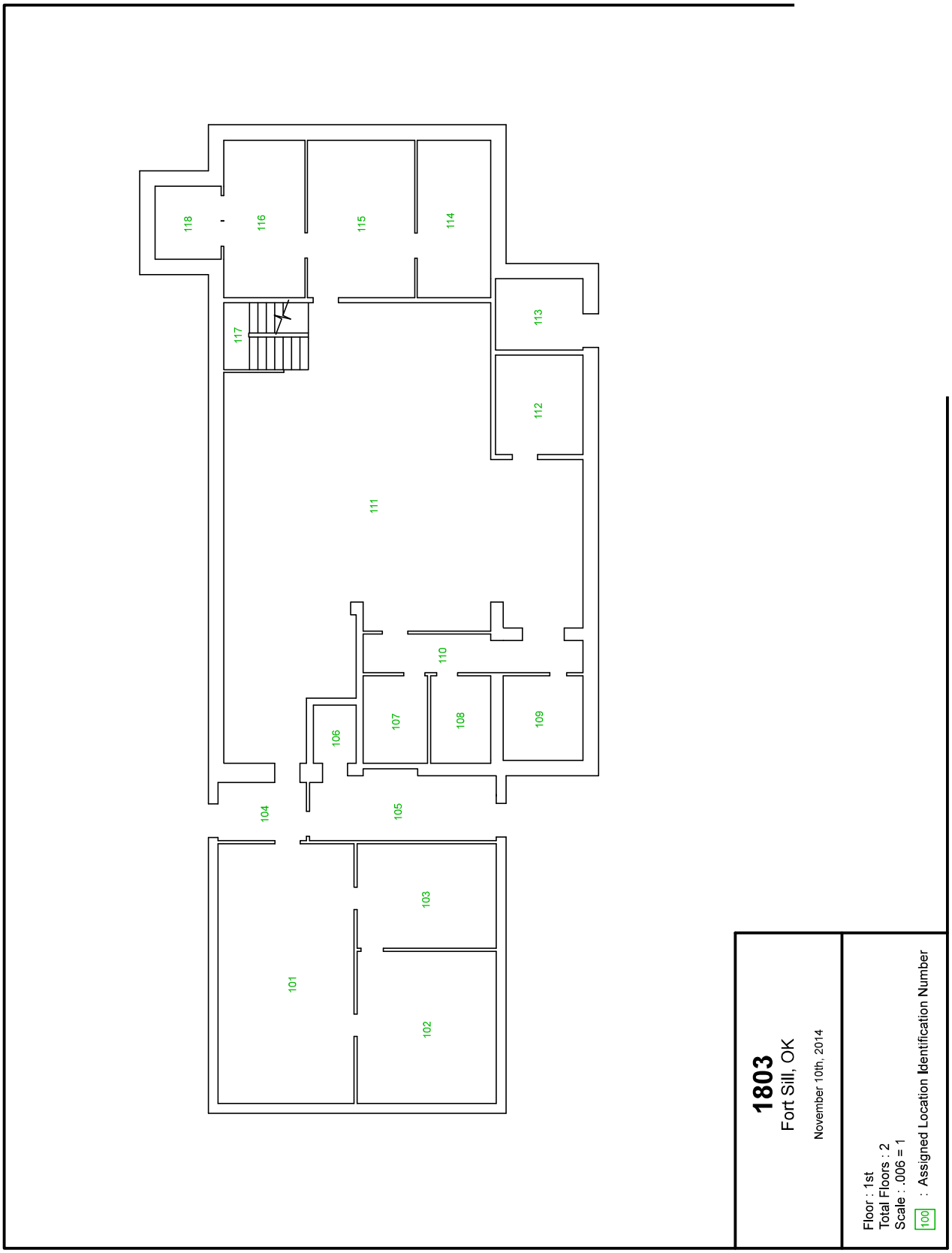
Appendix D

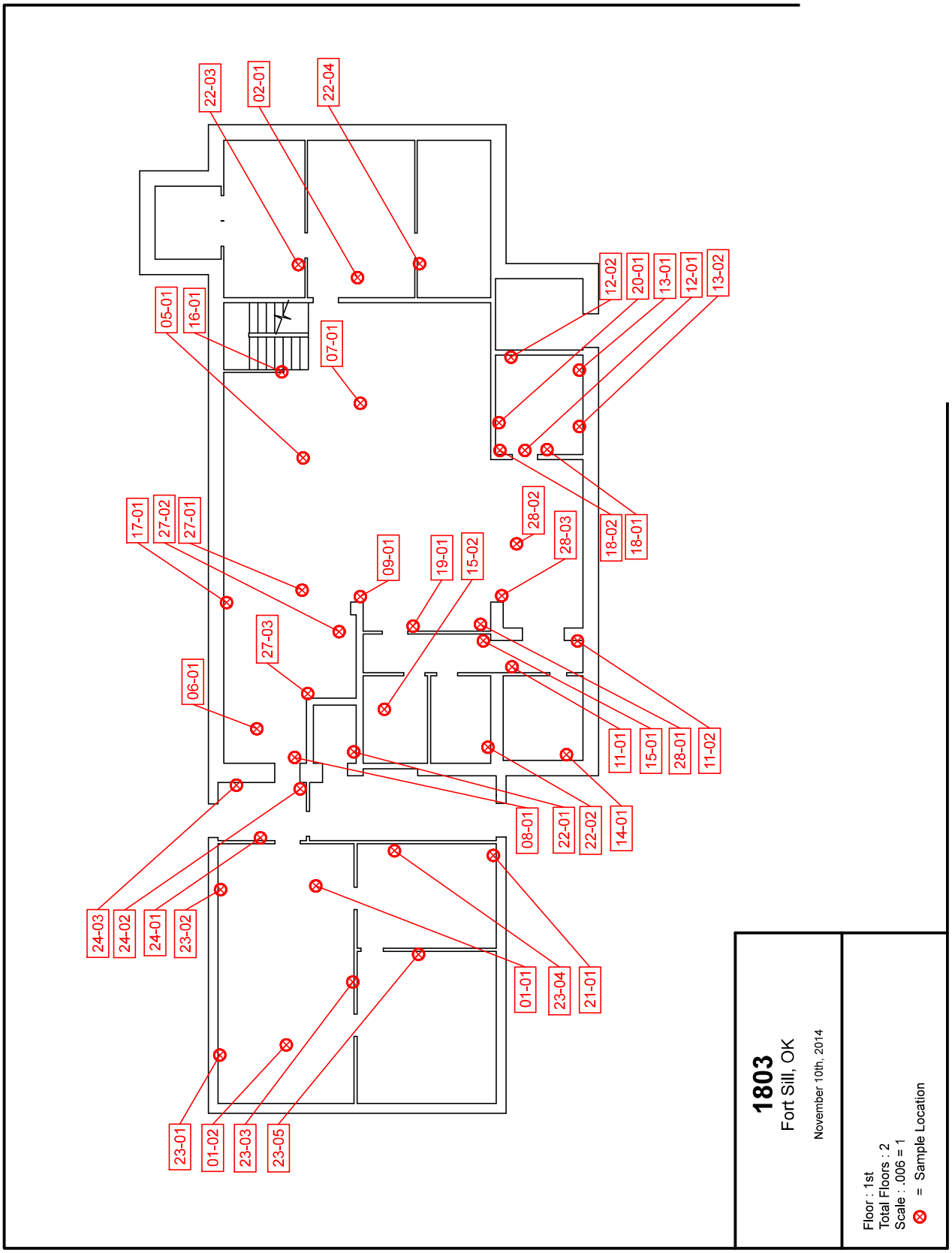
12.0 LABORATORY ACCREDITATIONS

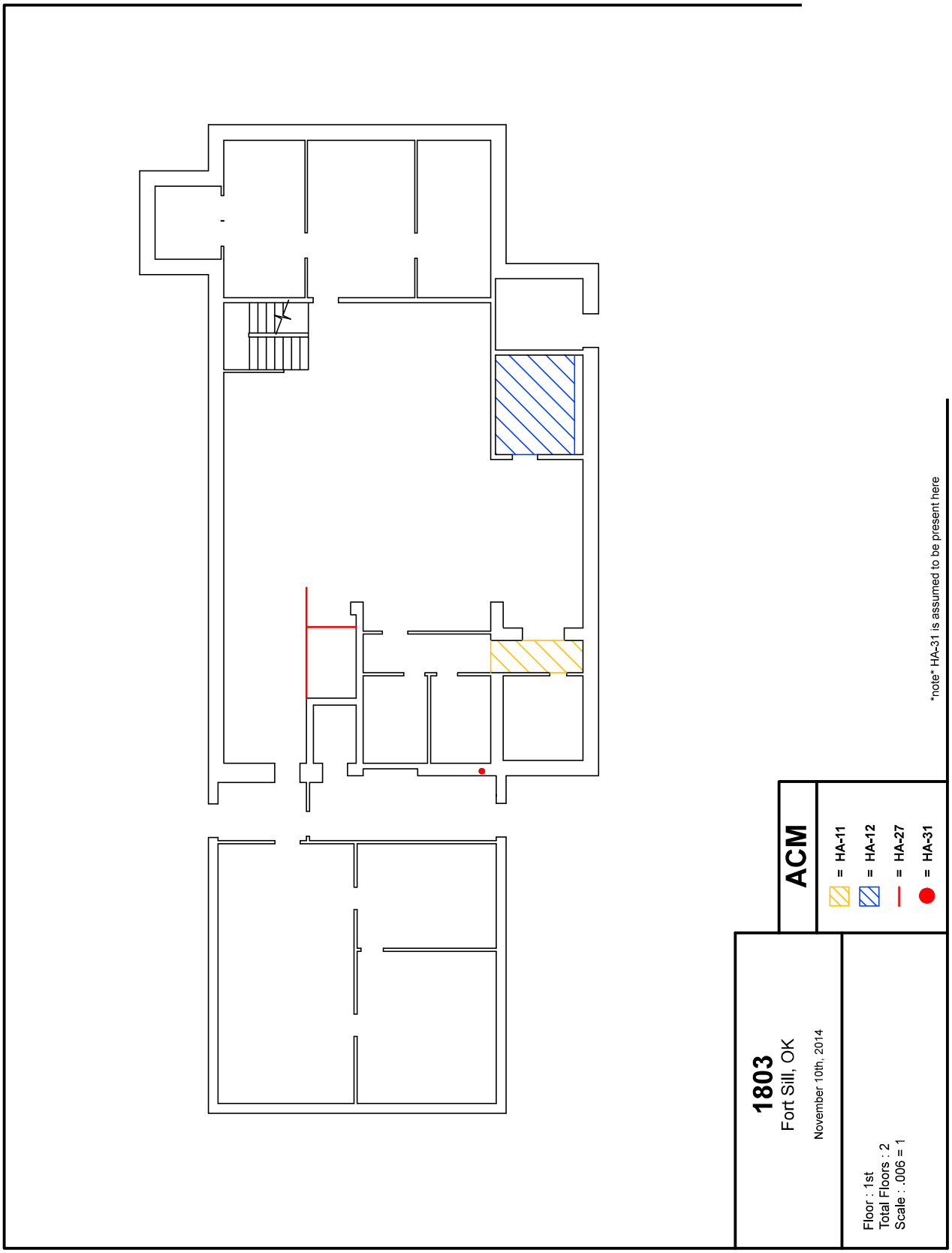


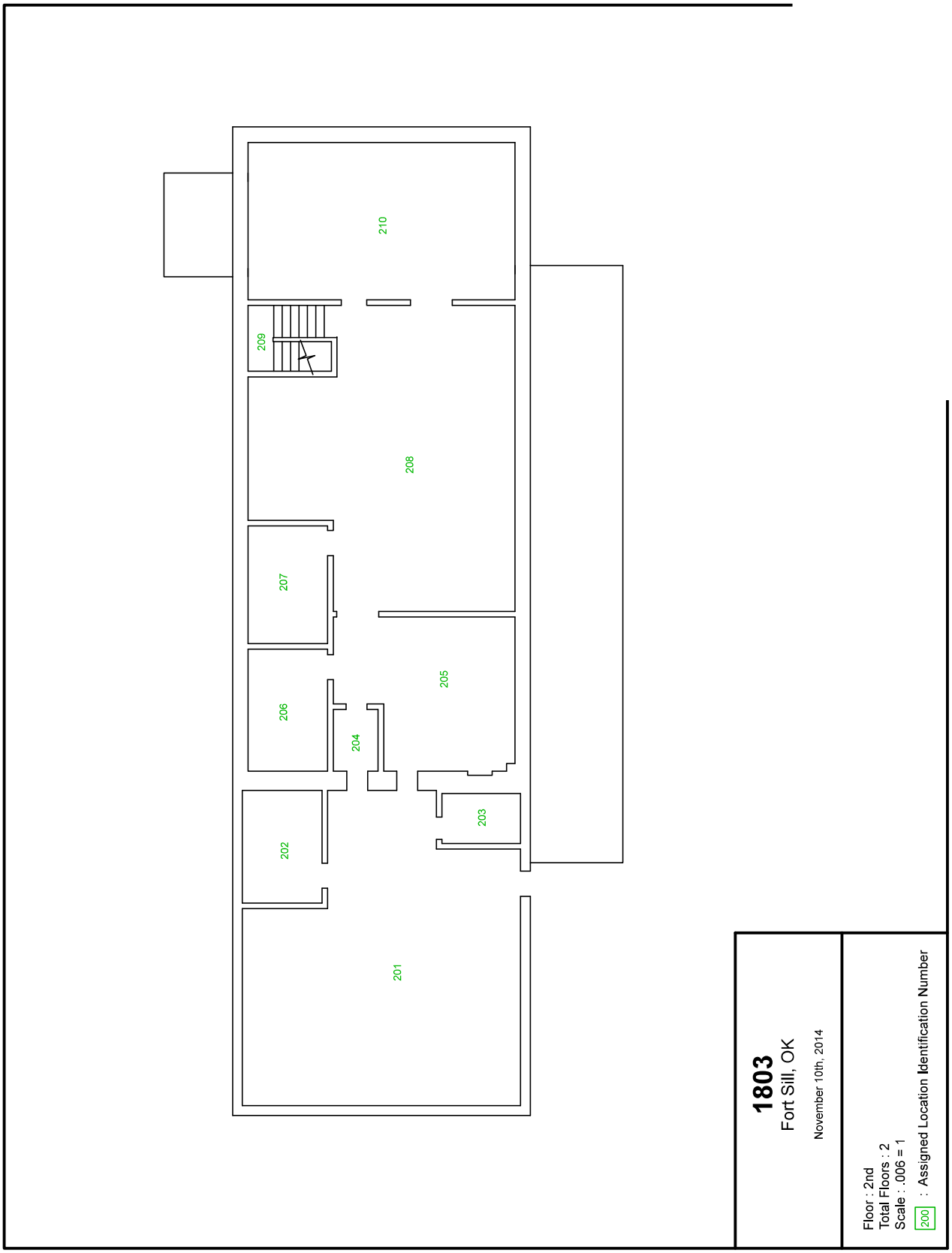
Appendix E

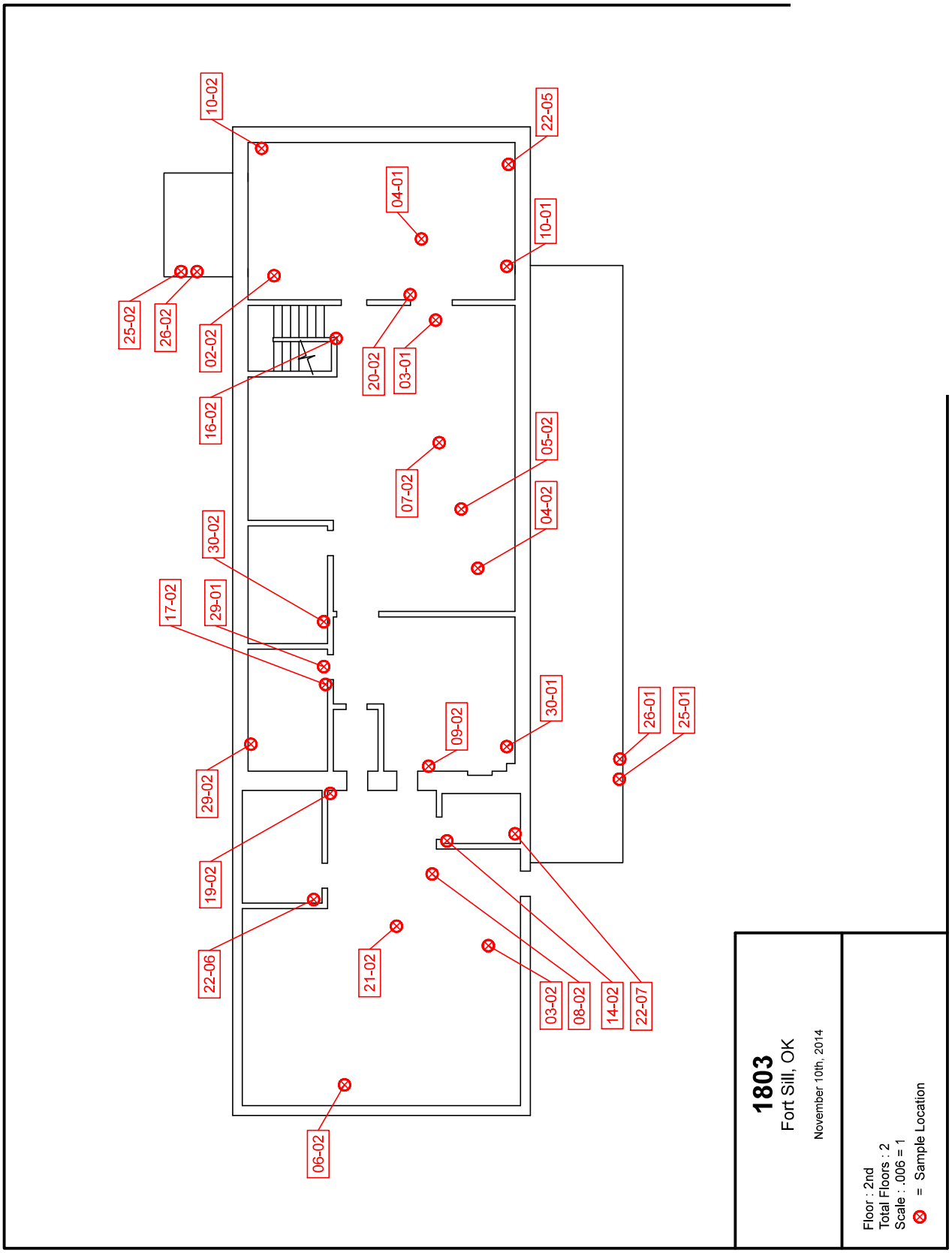
13.0
ACM LOCATION DRAWINGS & PICTURES

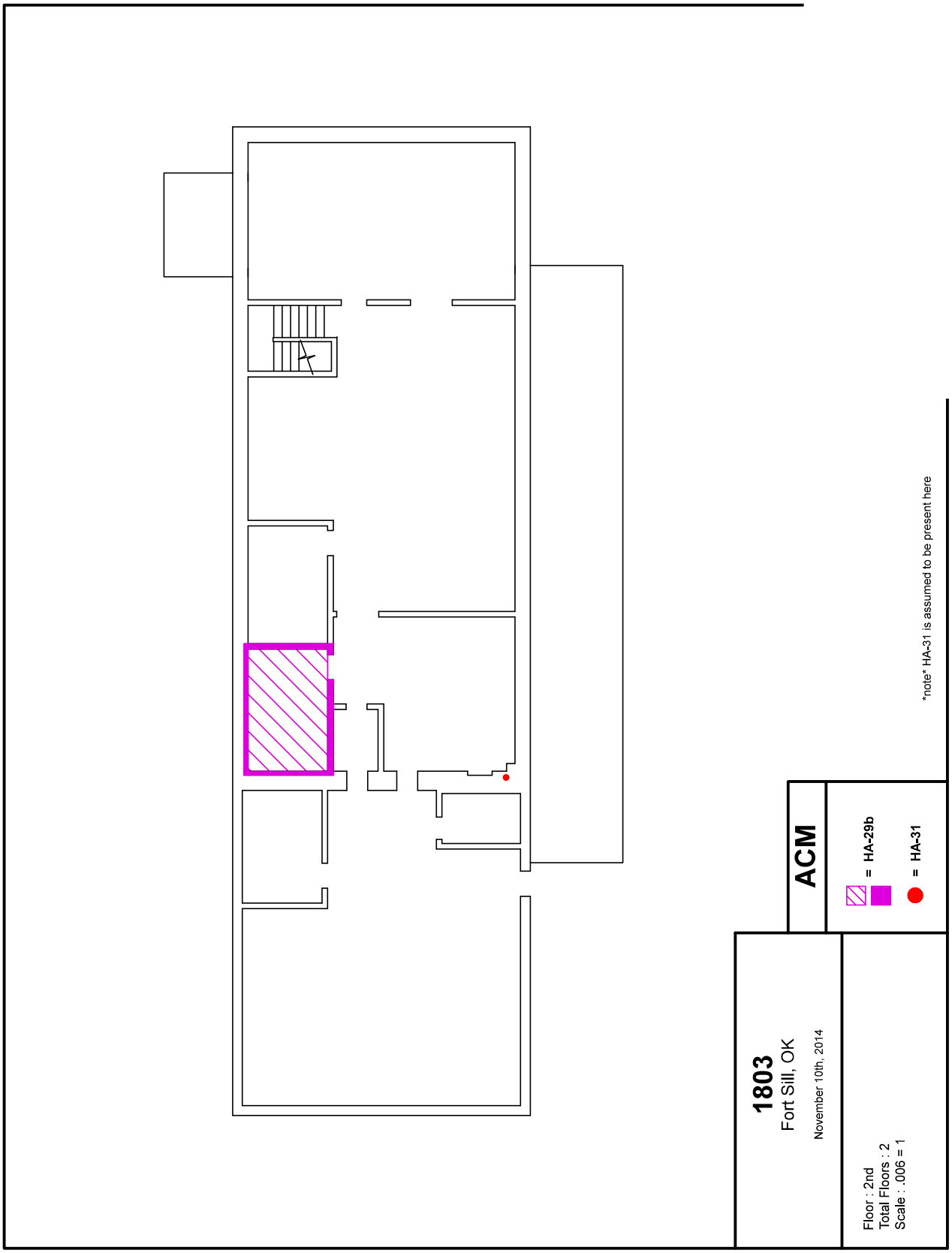

118
116
115
114
113
117
112
111
110
107
108
109
106
104
105
103
101
102
1803
Fort Sill, OK
November 10th, 2014
Floor : 1st
Total Floors : 2
Scale : .006 = 1
100 : Assigned Location Identification Number

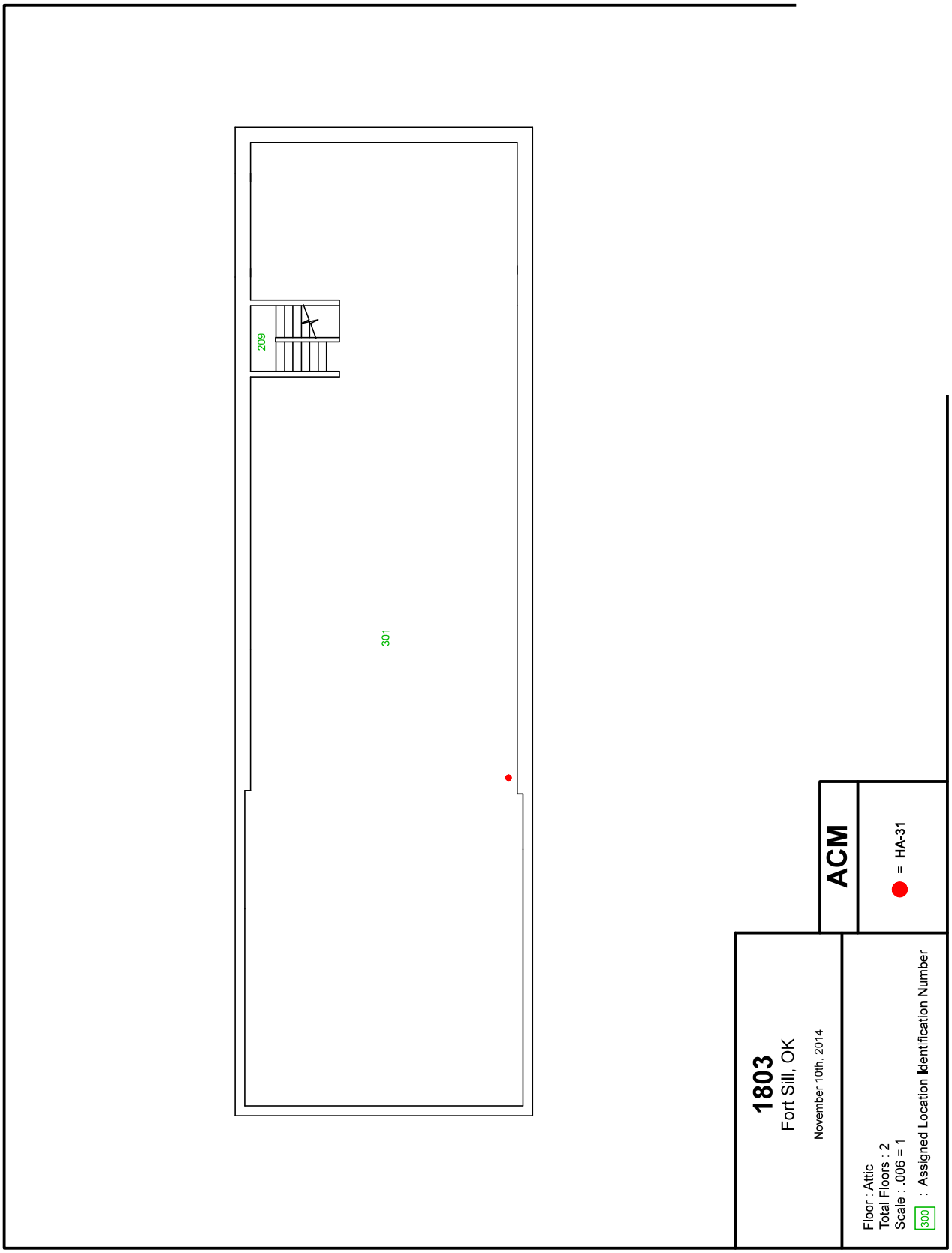

22-03
02-01
22-04
05-01
16-01
07-01
12-02
20-01
13-01
12-01
13-02
17-01
27-02
27-01
28-02
28-03
18-02
18-01
09-01
19-01
15-02
27-03
06-01
11-01
15-01
28-01
11-02
08-01
22-01
22-02
14-01
24-03
24-02
24-01
23-02
01-01
23-04
21-01
23-01
01-02
23-03
23-05
1803
Fort Sill, OK
November 10th, 2014
Floor : 1st
Total Floors : 2
Scale : .006 = 1
= Sample Location


1803
Fort Sill, OK
November 10th, 2014
Floor : 1st
Total Floors : 2
Scale : .006 = 1
ACM
= HA-11
= HA-12
= HA-27
= HA-31
note HA-31 is assumed to be present here


210
209
208
207
205
206
204
203
202
201
1803
Fort Sill, OK
November 10th, 2014
Floor : 2nd
Total Floors : 2
Scale : .006 = 1
200 : Assigned Location Identification Number


10-02
22-05
04-01
10-01
25-02
26-02
02-02
20-02
03-01
16-02
05-02
07-02
04-02
30-02
17-02
29-01
30-01
09-02
26-01
25-01
29-02
19-02
22-06
21-02
03-02
08-02
14-02
22-07
06-02
1803
Fort Sill, OK
November 10th, 2014
Floor : 2nd
Total Floors : 2
Scale : .006 = 1
= Sample Location


1803
Fort Sill, OK
November 10th, 2014
ACM
= HA-29b
= HA-31
note HA-31 is assumed to be present here
Floor : 2nd
Total Floors : 2
Scale : .006 = 1


209
301
ACM
= HA-31
1803
Fort Sill, OK
November 10th, 2014
Floor : Attic
Total Floors : 2
Scale : .006 = 1
300 : Assigned Location Identification Number

(HA-01)
No Asbestos Detected

(HA-02)
No Asbestos Detected

(HA-03)
No Asbestos Detected

(HA-04)
No Asbestos Detected

(HA-05)
No Asbestos Detected

(HA-06)
No Asbestos Detected

(HA-07)
No Asbestos Detected

(HA-08)
No Asbestos Detected

(HA-09)
No Asbestos Detected

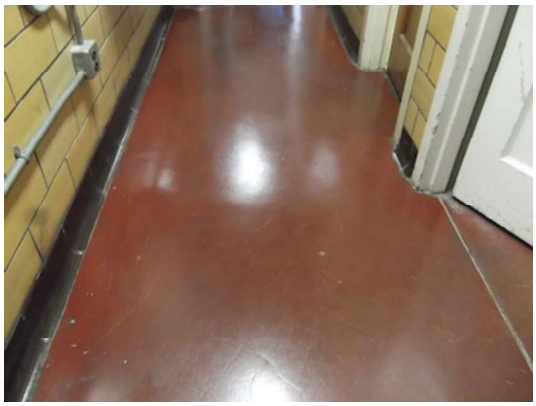
(HA-10)
No Asbestos Detected

(HA-11)
Asbestos Detected

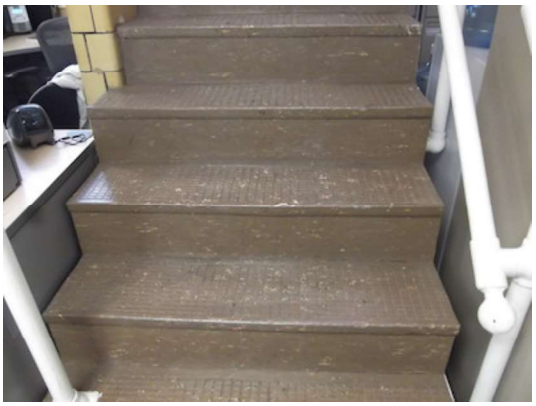
(HA-12)
Asbestos Detected

(HA-13)
No Asbestos Detected

(HA-14)
No Asbestos Detected



(HA-15)
No Asbestos Detected



(HA-16)
No Asbestos Detected

(HA-17)
No Asbestos Detected

(HA-18)
No Asbestos Detected

(HA-19)
No Asbestos Detected

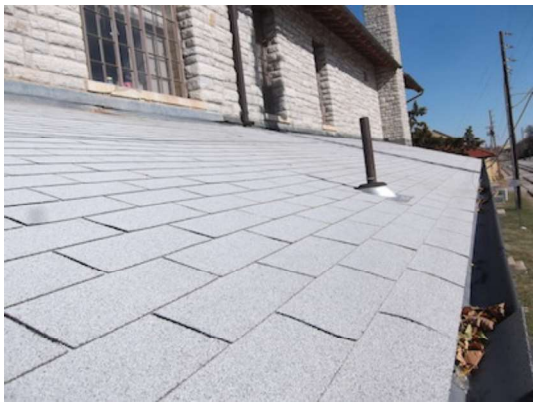
(HA-20)
No Asbestos Detected

(HA-21)
No Asbestos Detected

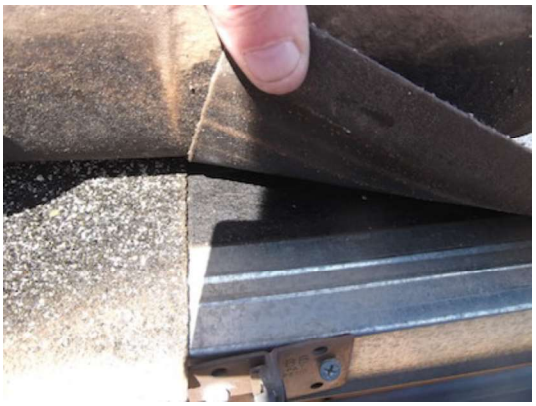
(HA-22)
No Asbestos Detected

(HA-23)
No Asbestos Detected

(HA-24)
No Asbestos Detected



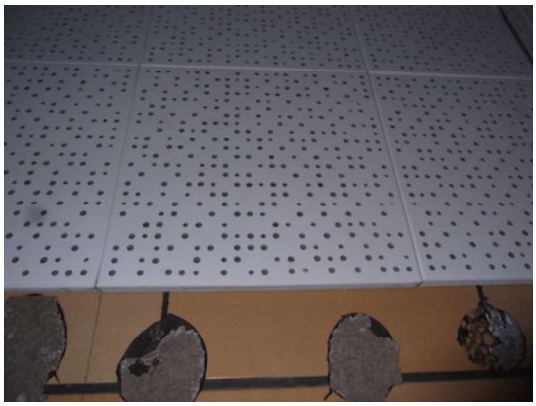
(HA-25)
No Asbestos Detected



(HA-26)
No Asbestos Detected

(HA-27)
Asbestos Detected

(HA-28)
No Asbestos Detected



(HA-29)
Asbestos Detected

(HA-30)
No Asbestos Detected

(HA-31)
Transite Flue -PACM-

(HA-32)
Black Foam

(HA-33)
Jacketed Fiberglass

(HA-34)
Jacketed Fiberglass

(HA-35)
Fiberglass

ASBESTOS INSPECTION REPORT

Conducted at:

Building #1501

Fort, Sill, OK 73503

Conducted for:

Prepared By:

TABLE OF CONTENTS

SECTION **PAGE**

APPENDICES

1.0 BACKGROUND:

1.1 has conducted an AHERA asbestos survey for the presence of Asbestos-Containing Materials (ACM) at the following building:

SITE:	Building #1501 (constructed 07/01/1934)
COUNTY:	Comanche
ADDRESS:	Ft. Sill Military Reservation
INVESTIGATOR/INSPECTOR:	
SITE VISIT DATE(s):	03-11-2014
REPORT DATE:	03-19-2014
REVISION DATE:	N/A

1.2 Field Procedures and Analysis Methodology:

Guidelines used for the inspection were established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos-Containing Materials in Buildings, Office of the Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA), OSHA, Sampling Methods, Fort Sill, AR 200-1, ODOL, DEQ.

Field information was organized as per the AHERA concept of Homogeneous Area (HA). A HA is defined as a suspect material of similar age, appearance, function and texture. Each material was grouped together as a specific HA, sampled and then assessed for condition.

Laboratory asbestos identification was conducted under EPA Method 600/R-93/116. Laboratory accreditation was certified through the National Voluntary Laboratory Accreditation Program (NVLAP).

2.0 SCOPE OF WORK:

Entire building, including interior and exterior, was inspected using guidance from 40 CFR Part 763 (AHERA), EPA and OSHA Standards for ACM inspection. The inspection was characterized by a close visual inspection of all accessible areas. Suspect materials were sampled and inventoried for quantity, condition and friability, areas, location, type, condition, potential for disturbance and rate potential.

2.1 Materials examined included:

Surfacing:	No surfacing materials were observed
Thermal System Insulation:	Pipe insulation
Miscellaneous:	Batting Insulation, Window Glaze, and Roofing Material

3.0 SUMMARY OF FILE SEARCH:

The following is a listing of our findings:

3.1 Use of past survey records, if any: N/A
3.2 Past abatement records, if any: N/A

4.0 SUMMARY OF INSPECTION RESULTS:

The initial asbestos inspection was conducted on 03-11-2014, which involved a thorough visual examination of all accessible areas and sampling of suspect material.

4.1 Analyses from confirmed the presence of asbestos in the amount greater than 1% within the samples collected from the following material:

HA-04 – Pipe Run Insulation
HA-05 – Pipe Fitting Insulation

4.2 Analyses from determined the samples collected from the following materials to contain less than or equal to one percent (≤1%) asbestos:

NONE

5.0 ASBESTOS QUANTITY SCHEDULE:

Approximate asbestos quantity schedules are presented on the following table:

HOMOGENEOUS AREA ID#	DESCRIPTION	% ASBESTOS	FRIABLE F / NF	CONDITION (GOOD, DAMAGED, SIGNIFICANTLY DAMAGED)	EXPOSURE POTENTIAL (LOW, MED, HIGH)	QUANTITY	LOCATION # (Functional Spaces)
HA-04	Pipe Run Insulation	75% Chrysotile	F	Damaged	Low	6 ft	Basement Crawlspace
HA-05	Pipe Fitting Insulation	5% Chrysotile 15% Amosite 3% Crocidolite	F	Damaged	Low	2 Fittings	Basement Crawlspace

6.0 CONCLUSIONS AND RECOMMENDATIONS:

6.1 Recommendations:

It is recommended that ACM thermal system insulation (TSI) be maintained in place.

6.2 Hazards and Response Actions:

HOMOGENEOUS AREA ID#	MATERIAL	FUNCTIONAL SPACE ID #	RESPONSE ACTION (SSSD, ABATE, NONE)	COST ESTIMATE (RESPONSE ACTION)
NONE	N/A	N/A	N/A	N/A

6.3 Summarizing samples and assessment results:

Eight (8) homogeneous areas were observed. Representative samples were extracted from five (5) homogeneous areas. Analytical results identified asbestos within the matrix. Assessment concluded low potential for exposure at this time. ACM TSI must be removed under OSHA 29CFR 1926.1101 Class I asbestos work prior to renovation or demolition procedures. Periodic Surveillances should be conducted on a regularly scheduled basis to determine change in condition and/or response action.

6.4 Cost estimates for abatement and O&M activities:

Thermal System Insulation - $1,500.00
O&M Activities - $1,500 per day as needed to maintain building.

7.0 AREAS NOT ACCESSIBLE:

Inaccessible areas may require further inspection of ACBM when become accessible.

NONE

8.0 REPORT CERTIFICATIONS:

certifies that the information contained herein is based on the physical and visual inspections conducted by and data collected during the inspection survey and file review.

03-19-2014
Date

Appendix A

9.0 ANALYTICAL RESULTS AND CHAINS OF CUSTODY

Lab #232860

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building #1501

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
1	01-01	Bulk-Misc.	PLM - Asbestos	Window Glaze
2	01-02	" "	" "	" "
3	02-01	" "	" "	Roofing Material - Shingle
4	02-02	" "	" "	" " "
5	03-01	" "	" "	" " Felt Paper
6	03-02	" "	" "	" " " "
7	04-01	Bulk-TSI	" "	Pipe Insulation - Run - Greyish Brown
8	04-02	" "	" "	" " " " "
9	04-03	" "	" "	" " " " "
10	05-01	" "	" "	" " Fitting - White
11	05-02	" "	" "	" " " "
12	05-03	" "	" "	" " " "

Delivered By:
Date: _____ Time: _____
Received By:
Date: Time:

Delivered By:
Date: _____ Time: _____
Received By:
Date: Time:

Sampled By: _____ _____ **Date Sampled:** 3-11-14

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill- Building #1501
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Homogeneous	White Window Glazing	Asbestos Not Present	NA	CaCO3
002	01-02	Homogeneous	White Window Glazing	Asbestos Not Present	NA	CaCO3
003	02-01	Homogeneous	Gray Shingle	Asbestos Not Present	Glass Fiber 20	Quartz Tar
004	02-02	Homogeneous	Gray Shingle	Asbestos Not Present	Glass Fiber 20	Quartz Tar
005	03-01	Homogeneous	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
006	03-02	Homogeneous	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
007	04-01	Layered	White Pipe Insulation	Asbestos Present Chrysotile 75	Cellulose 15	Binder

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 1 of 3

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill- Building #1501
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007a		Layered	Gray Pipe Insulation	Asbestos Not Present	Cellulose 90	Binder
008	04-02	Layered	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
008a		Layered	Gray Pipe Insulation	Asbestos Present Chrysotile 8	Cellulose 85	Binder
009	04-03	Layered	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
009a		Layered	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
010	05-01	Homogeneous	White Insulation	Asbestos Present Chrysotile 5 Amosite 15 Crocidolite 3	Cellulose <1	Gypsum
011	05-02	Homogeneous	** Insulation	**	Not Analyzed	

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill- Building #1501
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
Positive Stop						
012	05-03	Homogeneous	** Insulation	**	Not Analyzed	
Positive Stop						

3/18/2014
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 3 of 3

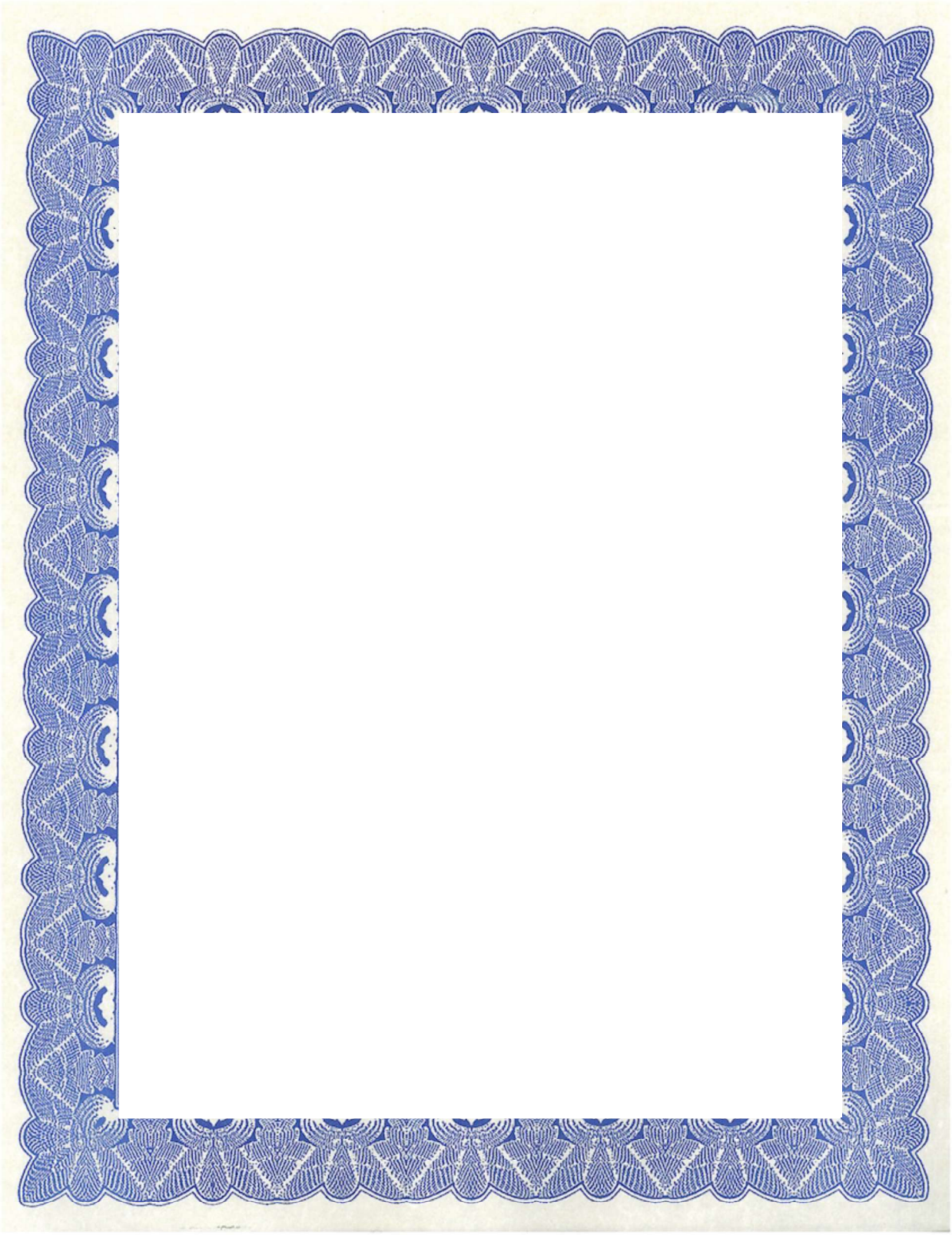
Appendix B

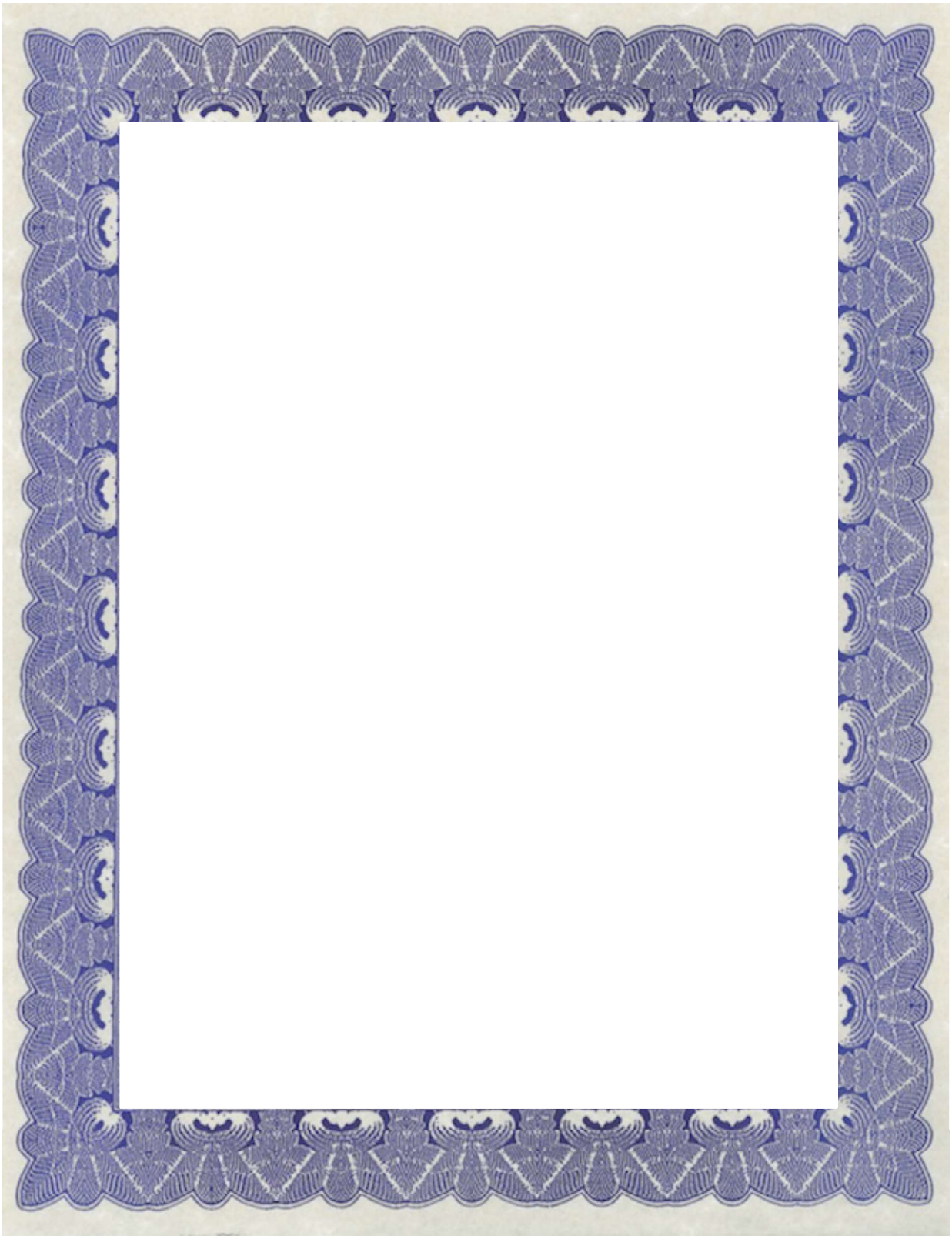
10.0
FILE SEARCH DATA

(NONE)

Appendix C

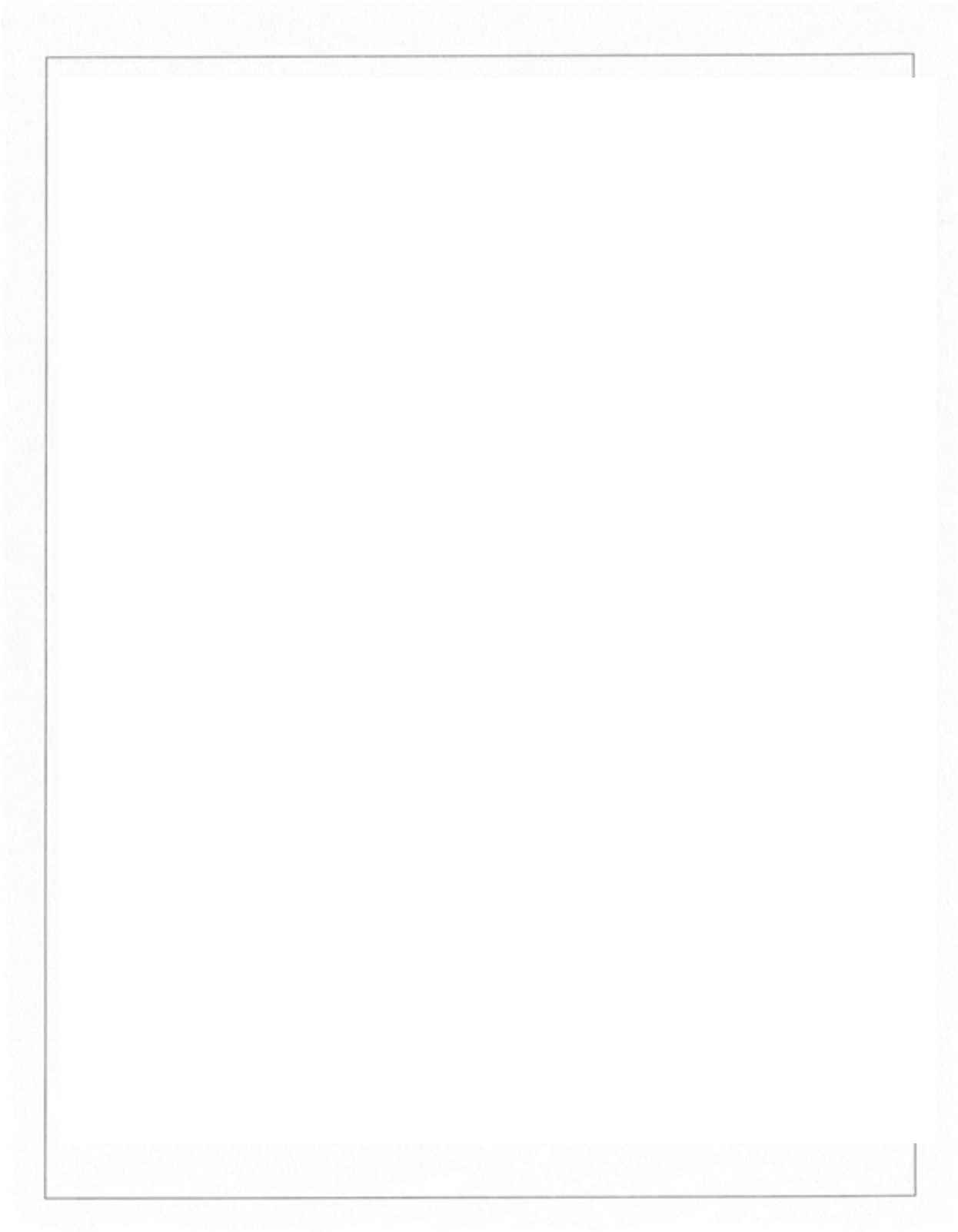
11.0
PERSONNEL LICENSES





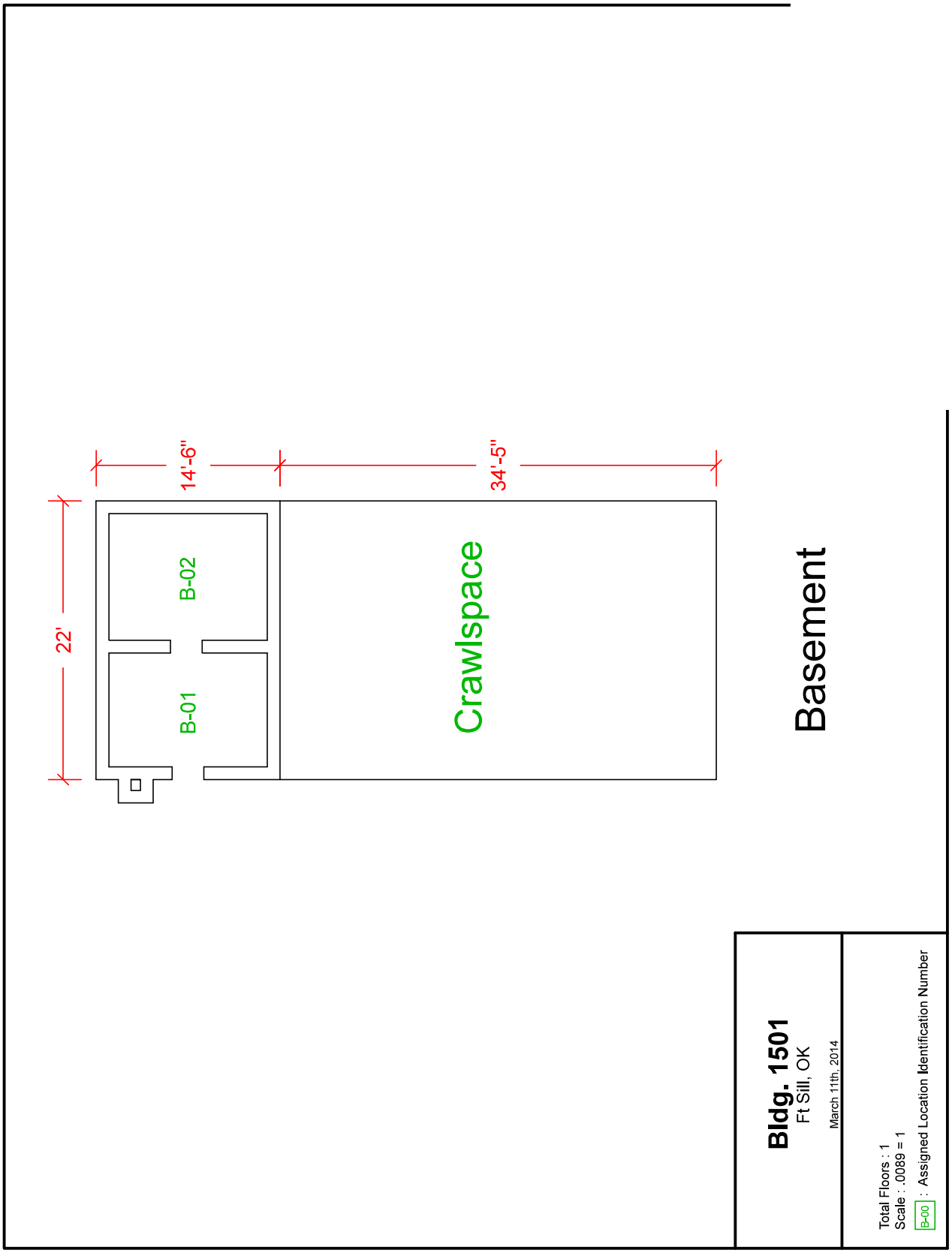
Appendix D

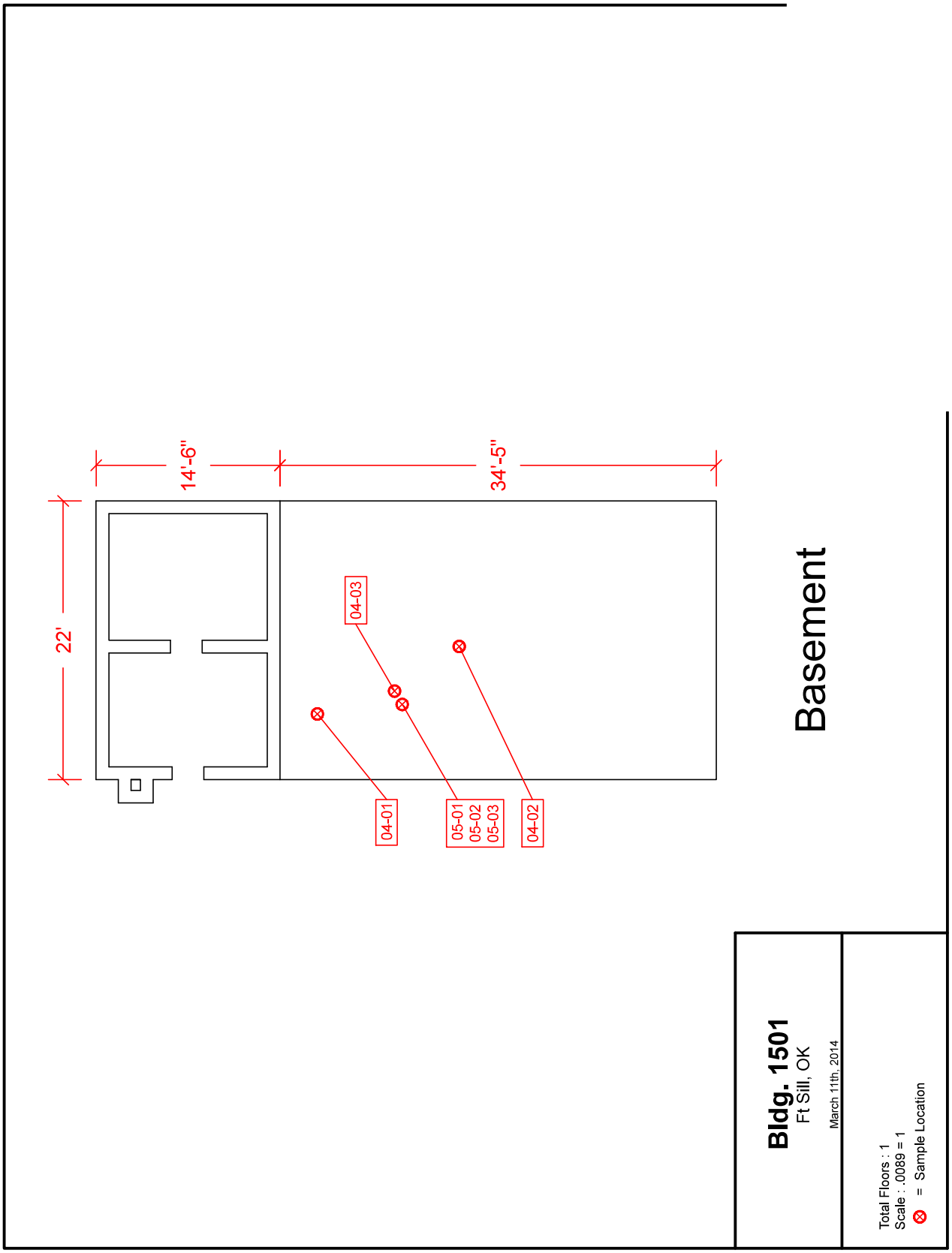
12.0 LABORATORY ACCREDITATIONS

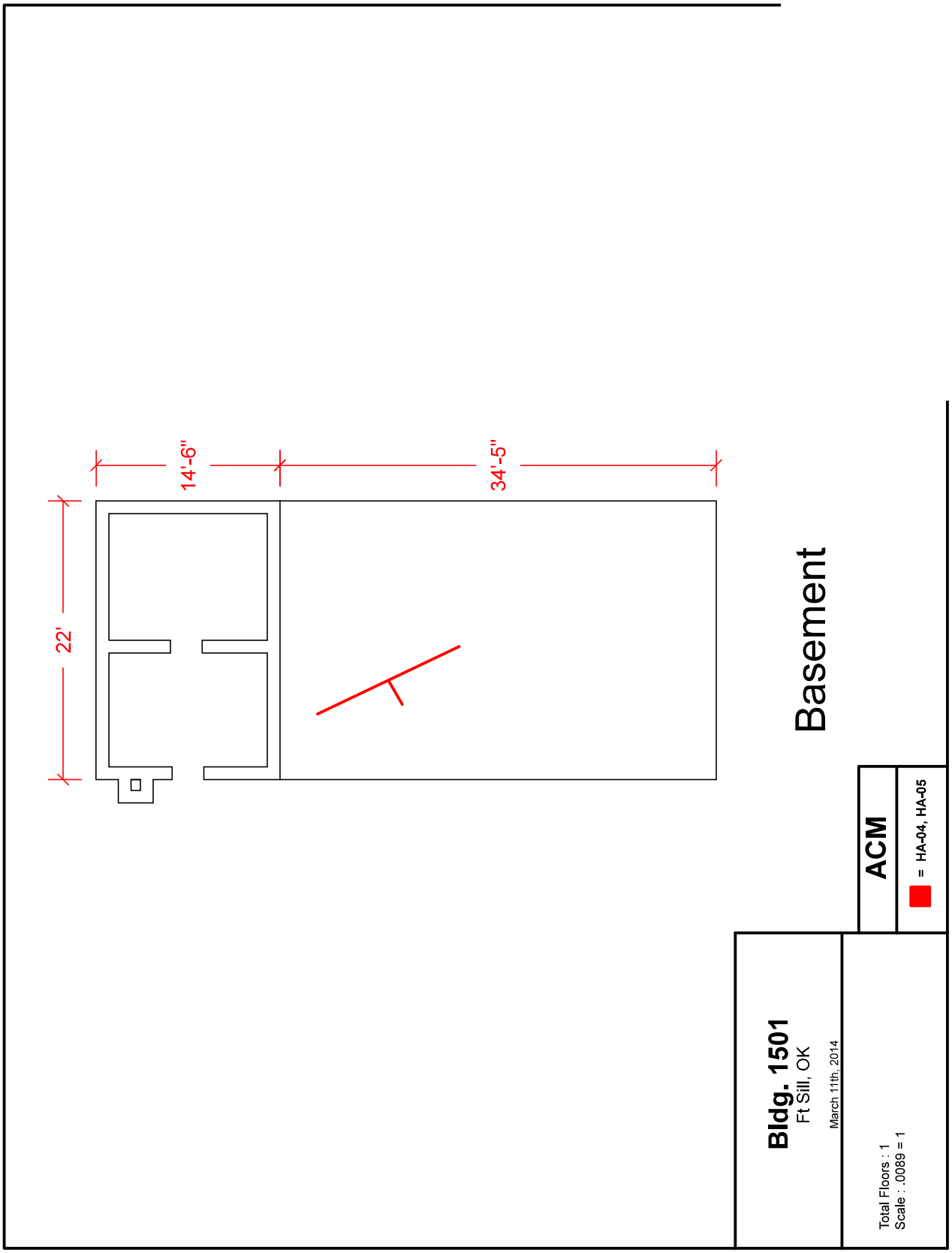


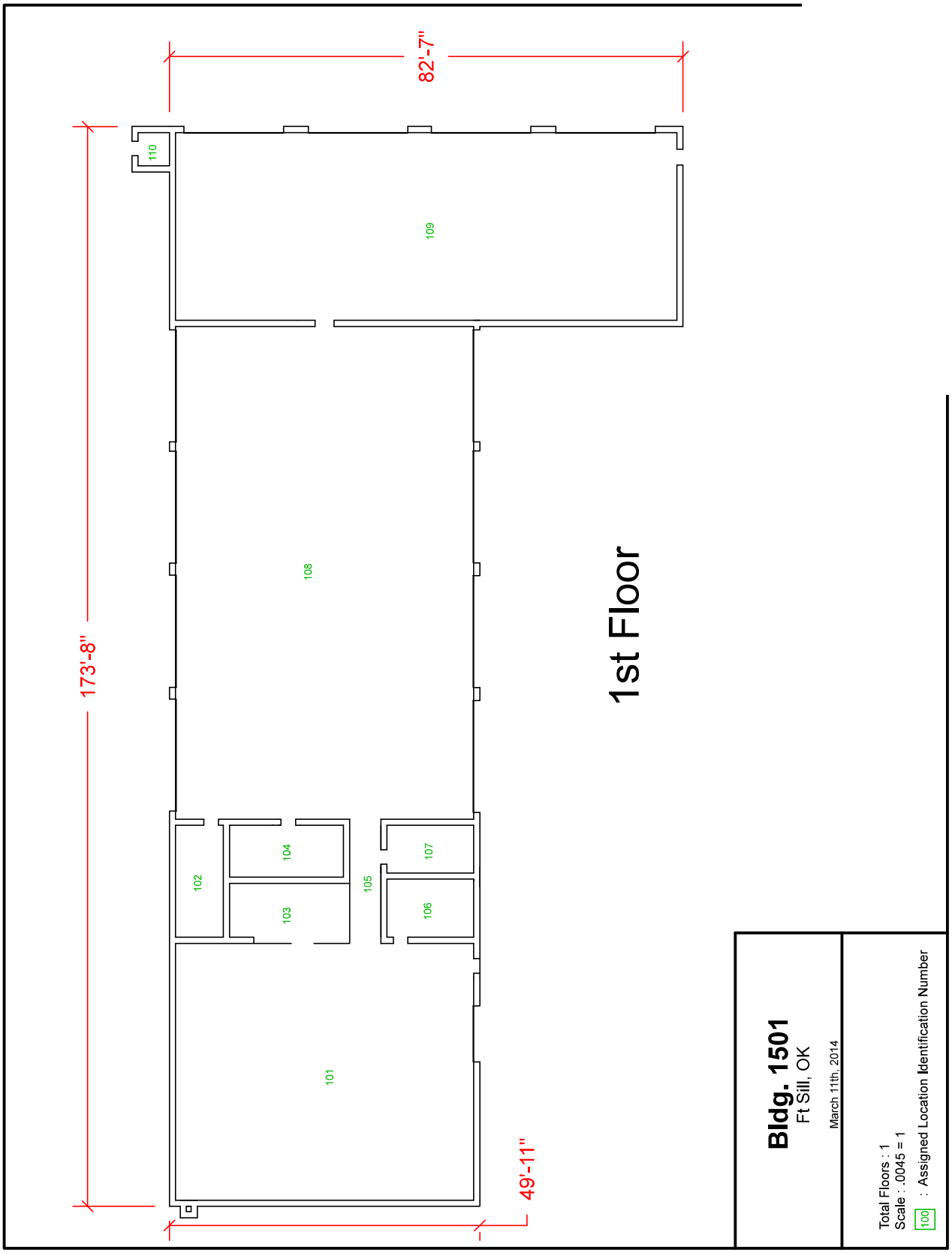
Appendix E

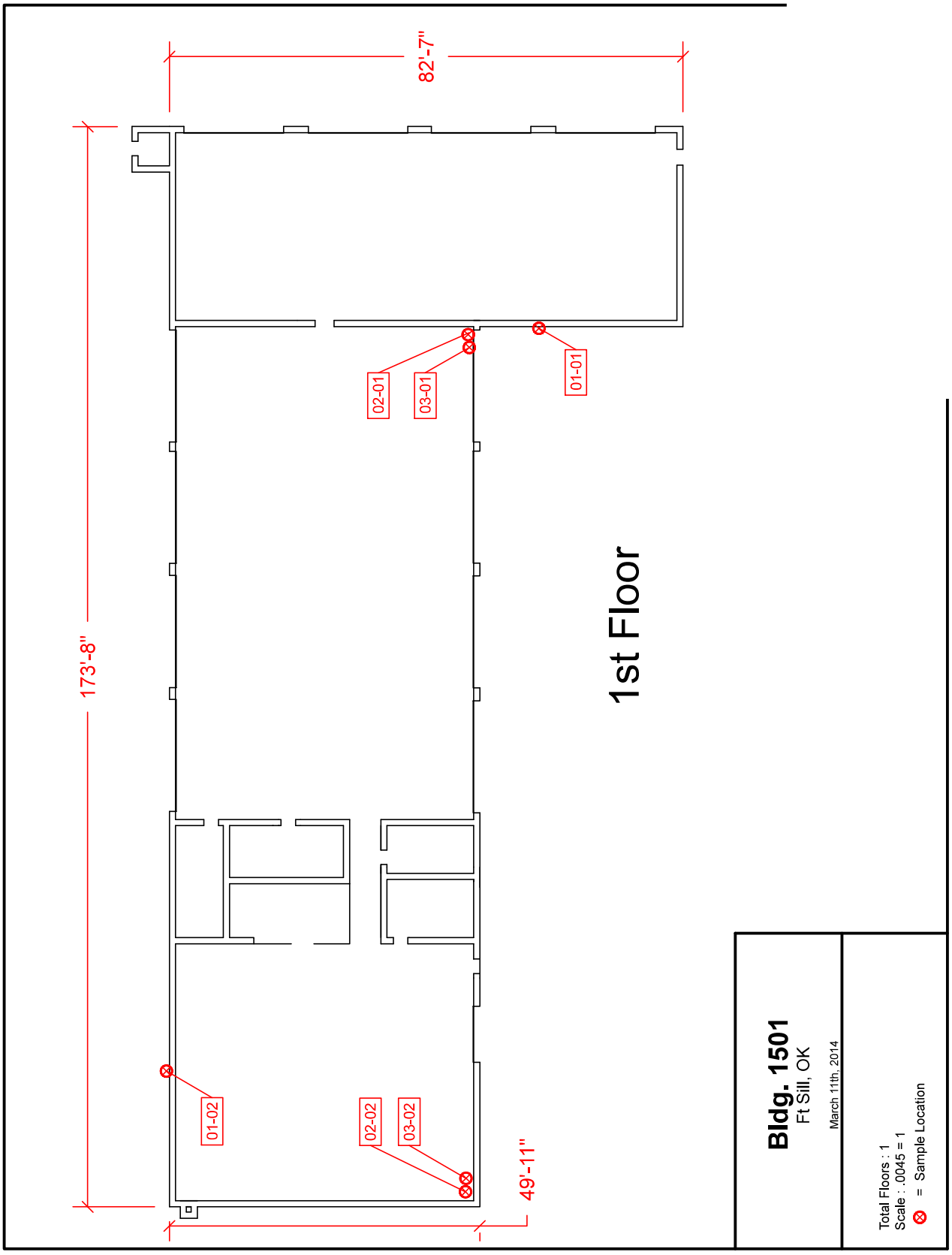
13.0
ACM LOCATION DRAWINGS & PICTURES


14'-6"
34'-5"
22'
B-02
B-01
Crawlspace
Basement
Bldg. 1501
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0089 = 1
B-00 : Assigned Location Identification Number


14'-6"
34'-5"
22'
04-03
04-01
05-01
05-02
05-03
04-02
Basement
Bldg. 1501
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0089 = 1
= Sample Location


14'-6"
34'-5"
22'
Basement
ACM
= HA-04, HA-05
Bldg. 1501
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0089 = 1


82'-7"
173'-8"
49'-11"
110
109
108
102
104
103
105
107
106
101
1st Floor
Bldg. 1501
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0045 = 1
100 : Assigned Location Identification Number


82'-7"
173'-8"
49'-11"
01-01
02-01
03-01
01-02
02-02
03-02
1st Floor
Bldg. 1501
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0045 = 1
⊗ = Sample Location

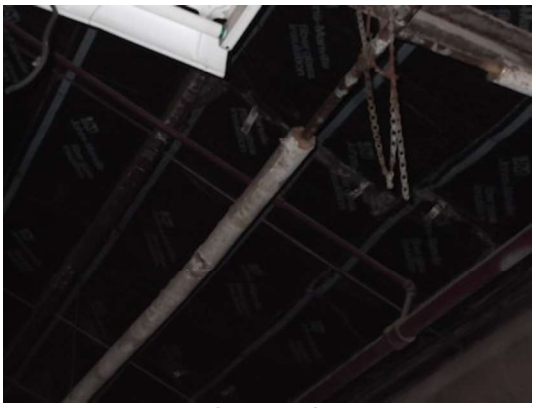
(HA-01)
No Asbestos Detected

(HA-02)
No Asbestos Detected

(HA-03)
No Asbestos Detected

(HA-04)
Asbestos Detected

(HA-05)
Asbestos Detected



(HA-06)
Fiberglass

(HA-07)
Fiberglass

(HA-08)
Fiberglass

ASBESTOS INSPECTION REPORT

Conducted at:

Building #1502

Fort, Sill, OK 73503

Conducted for:

Prepared By:

TABLE OF CONTENTS

SECTION **PAGE**

APPENDICES

1.0 BACKGROUND:

1.1 has conducted an AHERA asbestos survey for the presence of Asbestos-Containing Materials (ACM) at the following building:

SITE:	Building #1502 (constructed 07/01/1934)
COUNTY:	Comanche
ADDRESS:	Ft. Sill Military Reservation
INVESTIGATOR/INSPECTOR:	
SITE VISIT DATE(s):	03-11-2014
REPORT DATE:	03-19-2014
REVISION DATE:	N/A

1.2 Field Procedures and Analysis Methodology:

Guidelines used for the inspection were established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos-Containing Materials in Buildings, Office of the Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA), OSHA, Sampling Methods, Fort Sill, AR 200-1, ODOL, DEQ.

Field information was organized as per the AHERA concept of Homogeneous Area (HA). A HA is defined as a suspect material of similar age, appearance, function and texture. Each material was grouped together as a specific HA, sampled and then assessed for condition.

Laboratory asbestos identification was conducted under EPA Method 600/R-93/116. Laboratory accreditation was certified through the National Voluntary Laboratory Accreditation Program (NVLAP).

2.0 SCOPE OF WORK:

Entire building, including interior and exterior, was inspected using guidance from 40 CFR Part 763 (AHERA), EPA and OSHA Standards for ACM inspection. The inspection was characterized by a close visual inspection of all accessible areas. Suspect materials were sampled and inventoried for quantity, condition and friability, areas, location, type, condition, potential for disturbance and rate potential.

2.1 Materials examined included:

Surfacing:	No surfacing materials were observed
Thermal System Insulation:	Pipe Insulation
Miscellaneous:	Debris, Batting Insulation, Window Glaze, and Roofing Material

3.0 SUMMARY OF FILE SEARCH:

The following is a listing of our findings:

3.1 Use of past survey records, if any: N/A
3.2 Past abatement records, if any: N/A

4.0 SUMMARY OF INSPECTION RESULTS:

The initial asbestos inspection was conducted on 03-11--2014, which involved a thorough visual examination of all accessible areas and sampling of suspect material.

4.1 Analyses from confirmed the presence of asbestos in the amount greater than 1% within the samples collected from the following material:

HA-04 – Pipe Run Insulation (Brown)
HA-05 – Pipe Run Insulation (White)

4.2 Analyses from determined the samples collected from the following materials to contain less than or equal to one percent (≤1%) asbestos:

NONE

5.0 ASBESTOS QUANTITY SCHEDULE:

Approximate asbestos quantity schedules are presented on the following table:

HOMOGENEOUS AREA ID#	DESCRIPTION	% ASBESTOS	FRIABLE F / NF	CONDITION (GOOD, DAMAGED, SIGNIFICANTLY DAMAGED)	EXPOSURE POTENTIAL (LOW, MED, HIGH)	QUANTITY	LOCATION # (Functional Spaces)
HA-04	Pipe Run Insulation	75% Chrysotile	F	Damaged	Low	12 ft	B-01, Crawlspace
HA-05	Pipe Run Insulation	10% Chrysotile 5% Chrysotile	F	Damaged	Low	3 ft	Basement Crawlspace

6.0 CONCLUSIONS AND RECOMMENDATIONS:

6.1 Recommendations:

It is recommended that thermal system insulation (TSI) be maintained in place.

6.2 Hazards and Response Actions:

HOMOGENEOUS AREA ID#	MATERIAL	FUNCTIONAL SPACE ID #	RESPONSE ACTION (SSSD, ABATE, NONE)	COST ESTIMATE (RESPONSE ACTION)
NONE	N/A	N/A	N/A	N/A

6.3 Summarizing samples and assessment results:

Nine (9) homogeneous areas were observed. Representative samples were extracted from six (6) homogeneous areas. Analytical results identified asbestos within the matrix. Assessment concluded low potential for exposure at this time. ACM TSI must be removed under OSHA 29CFR 1926.1101 Class I asbestos work prior to renovation or demolition procedures. Periodic Surveillances should be conducted on a regularly scheduled basis to determine change in condition and/or response action.

6.4 Cost estimates for abatement and O&M activities:

Thermal System Insulation - $1,500.00
O&M Activities - $1,500 per day as needed to maintain building.

7.0 AREAS NOT ACCESSIBLE:

Inaccessible areas may require further inspection of ACBM when become accessible.

NONE

8.0 REPORT CERTIFICATIONS:

Air & Earth, Inc. certifies that the information contained herein is based on the physical and visual inspections conducted by Air & Earth, Inc. and data collected during the inspection survey and file review.

03-19-2014
Date

Appendix A

9.0 ANALYTICAL RESULTS AND CHAINS OF CUSTODY

Lab # 232858

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building # 1502

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
1	01-01	Bulk-Misc.	PLM - Asbestos	Window Glaze
2	01-02	" "	" "	" "
3	02-01	" "	" "	Roofing Material - Shingle
4	02-02	" "	" "	" " "
5	03-01	" "	" "	" " Felt Paper
6	03-02	" "	" "	" " "
7	04-01	Bulk-TSI	" "	Pipe Insulation - Run - Greyish Brown
8	04-02	" "	" "	" " " " "
9	04-03	" "	" "	" " " " "
10	05-01	" "	" "	" " " White
11	05-02	" "	" "	" " " "
12	05-03	" "	" "	" " " "
13	06-01	Bulk-Misc.	" "	Debris on Ground in Crawlspace
14	06-02	" "	" "	" " " " "

Delivered By:	
Date:	Time:
Received By:	
Date:	Time:

Delivered By:	
Date:	Time:
Received By:	
Date:	Time:

Sampled By: _____ **Date Sampled:** 3-11-14

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill-Building #1502
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Homogeneous	White Window Glazing	Asbestos Not Present	NA	CaCO3
002	01-02	Homogeneous	Pink Window Glazing	Asbestos Not Present	NA	CaCO3
003	02-01	Homogeneous	Multi-Color Shingle	Asbestos Not Present	Glass Fiber 20	Quartz Tar
004	02-02	Homogeneous	Multi-Color Shingle	Asbestos Not Present	Glass Fiber 20	Quartz Tar
005	03-01	Homogeneous	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
006	03-02	Homogeneous	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
007	04-01	Layered	White Pipe Insulation	Asbestos Present Chrysotile 75	Cellulose 15	Binder

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to [illegible] methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 1 of 3

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill-Building #1502
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007a		Layered	Gray Pipe Insulation	Asbestos Not Present	Cellulose 95	Binder
008	04-02	Layered	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
008a		Layered	Gray Pipe Insulation	Asbestos Not Present	Cellulose 95	Binder
009	04-03	Layered	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
009a		Layered	Gray Pipe Insulation	Asbestos Not Present	Cellulose 95	Binder
010	05-01	Homogeneous	White Pipe Insulation	Asbestos Present Chrysotile 10 Crocidolite 5	NA	Gypsum
011	05-02	Homogeneous	** Pipe Insulation	**	Not Analyzed	
Positive Stop						

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill-Building #1502
Project Location: Fort Sill, OK
Project Number: N/A

Sample ID	Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
012	05-03	Homogeneous	** Pipe Insulation	**	Not Analyzed	
Positive Stop						
013	06-01	Composite	White/Tan Debris	Asbestos Not Present	NA	CaCO3 Quartz Binder
014	06-02	Composite	White Debris	Asbestos Not Present	Cellulose <1	CaCO3 Binder

3/18/2014
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

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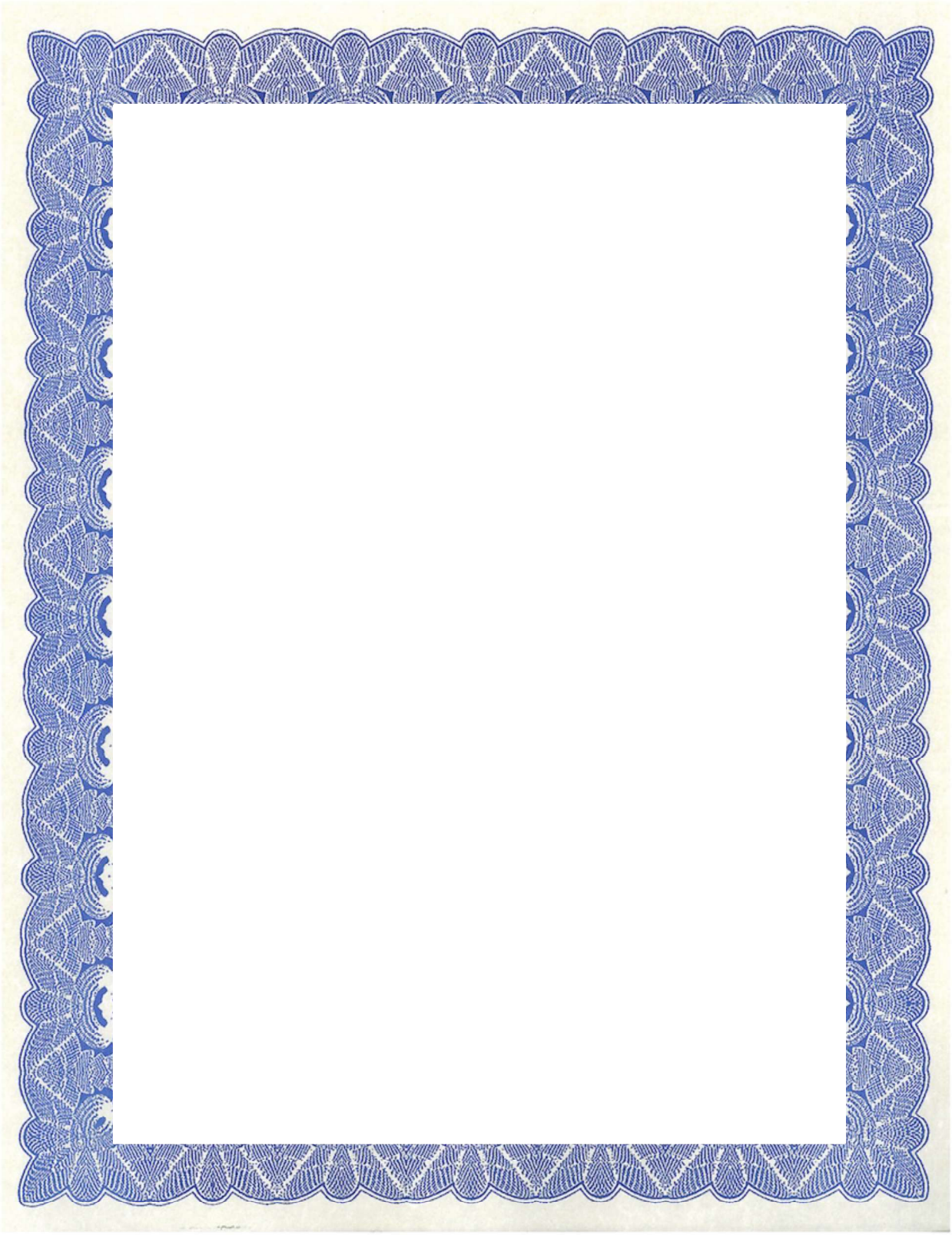
Appendix B

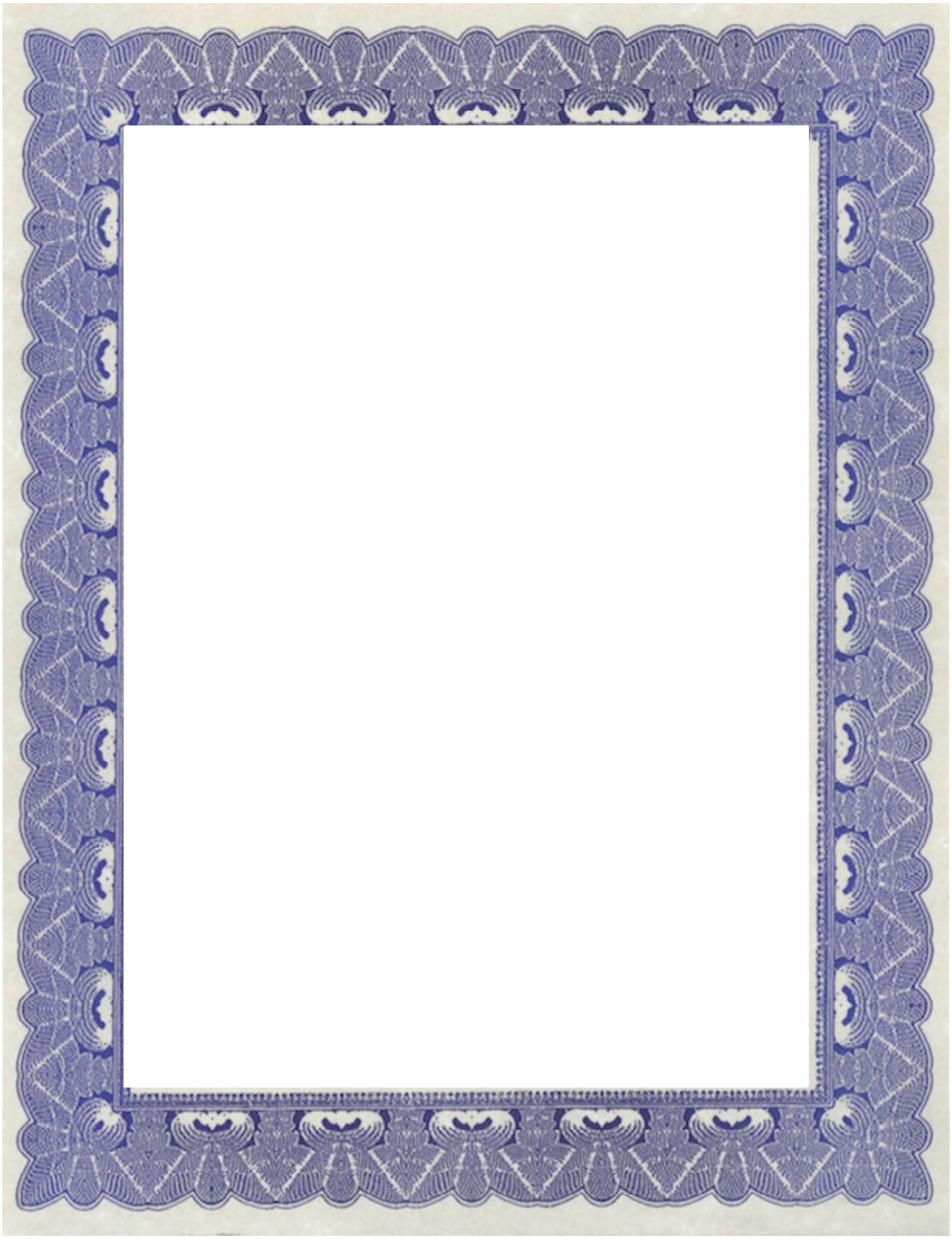
10.0
FILE SEARCH DATA

(NONE)

Appendix C

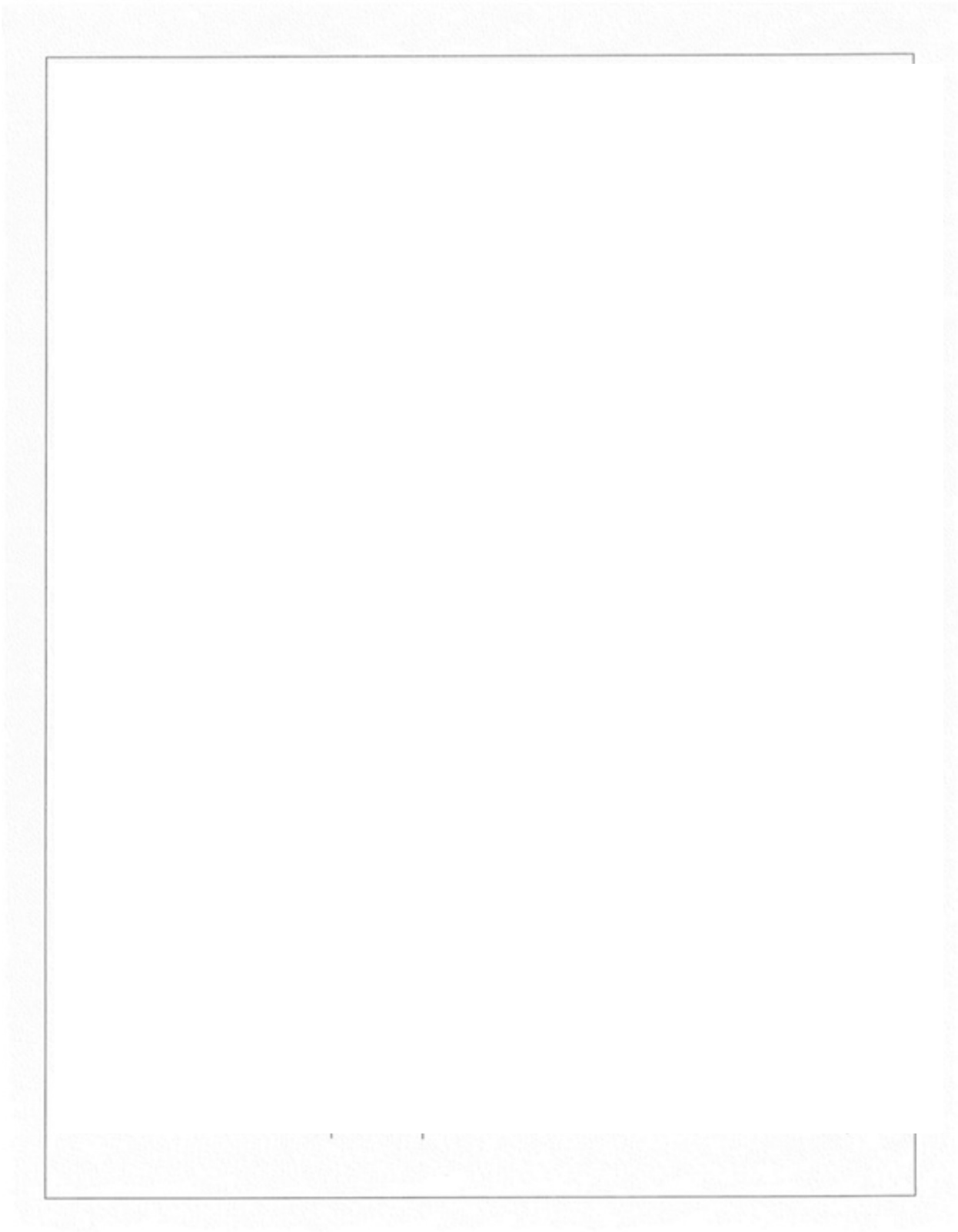
11.0
PERSONNEL LICENSES





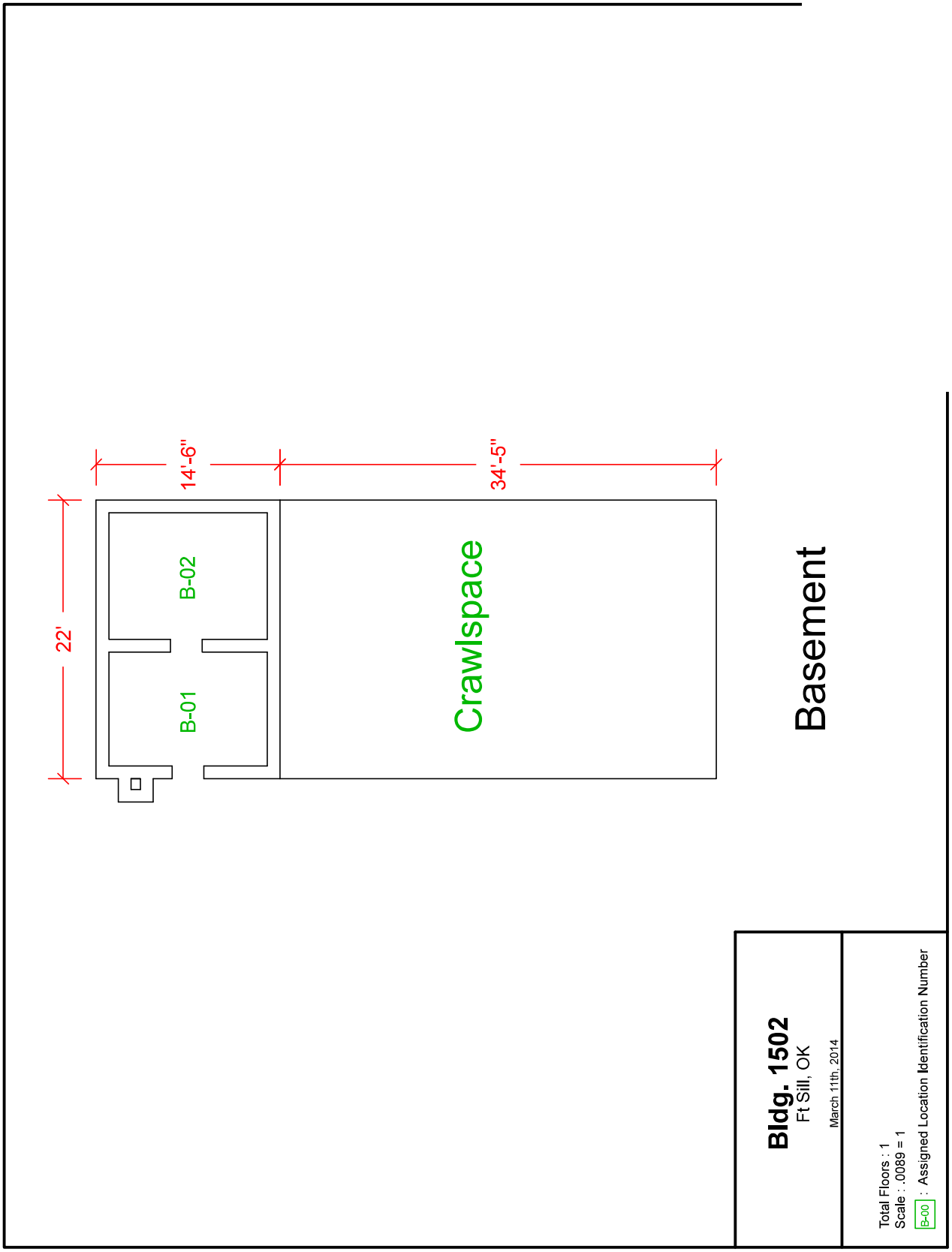
Appendix D

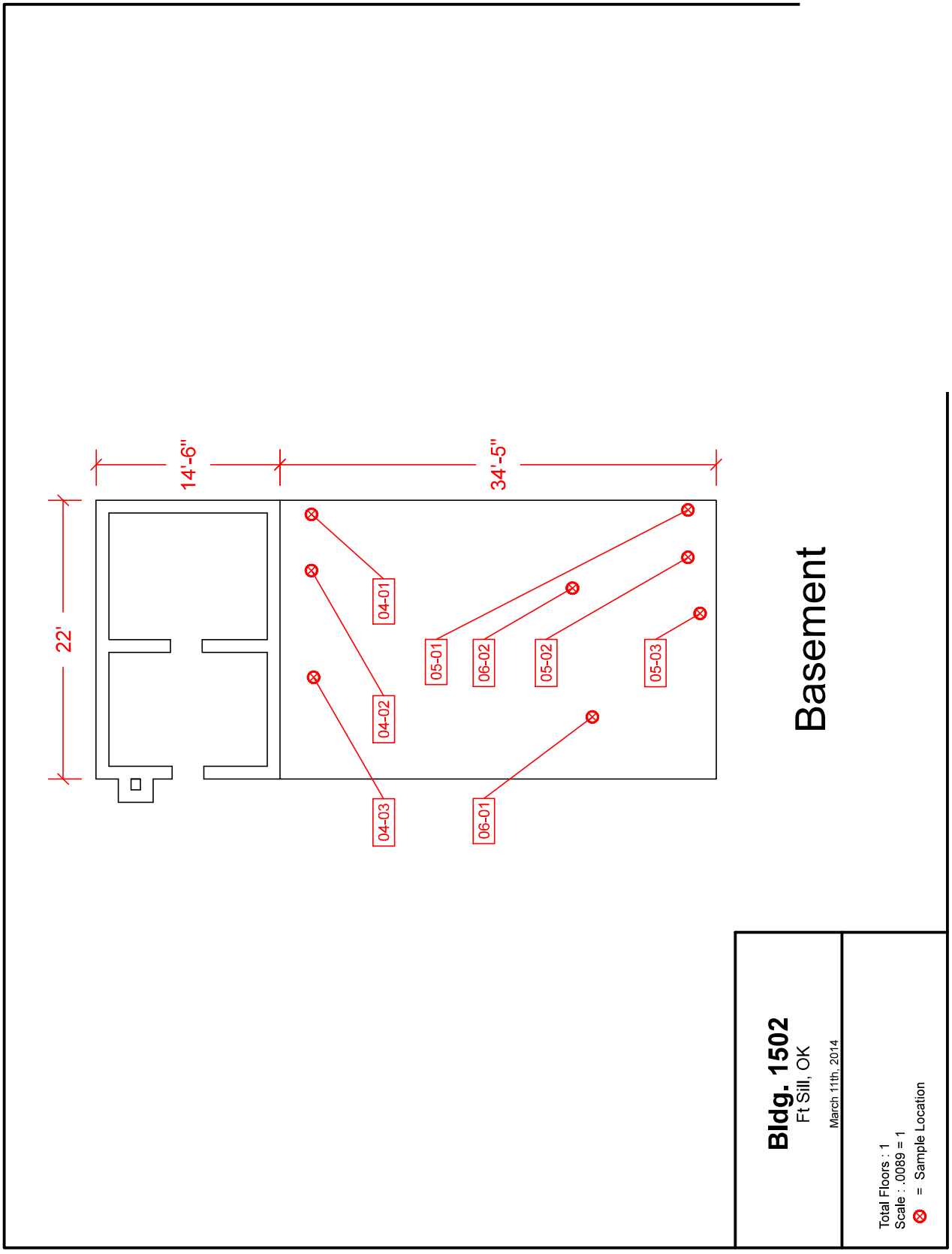
12.0 LABORATORY ACCREDITATIONS

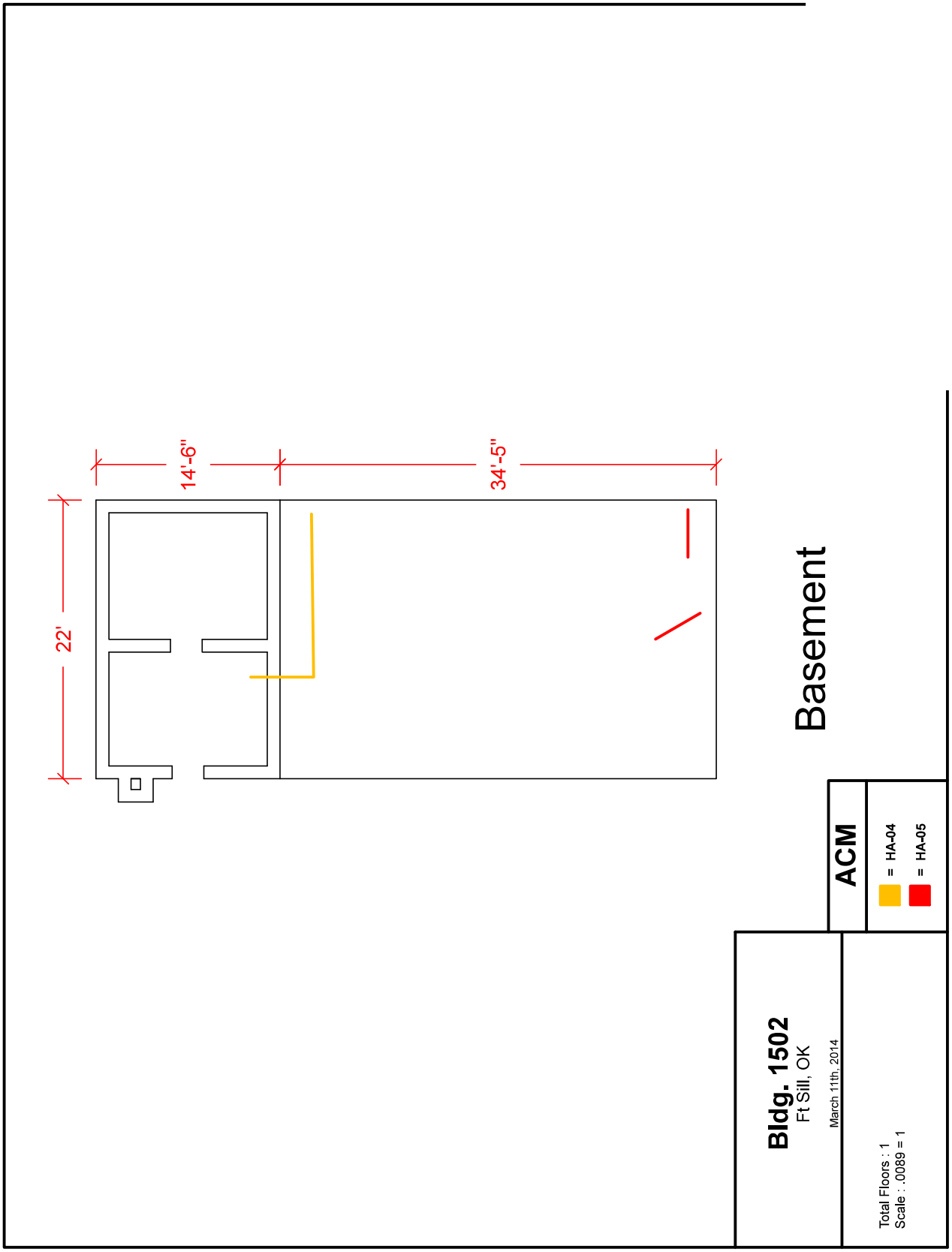


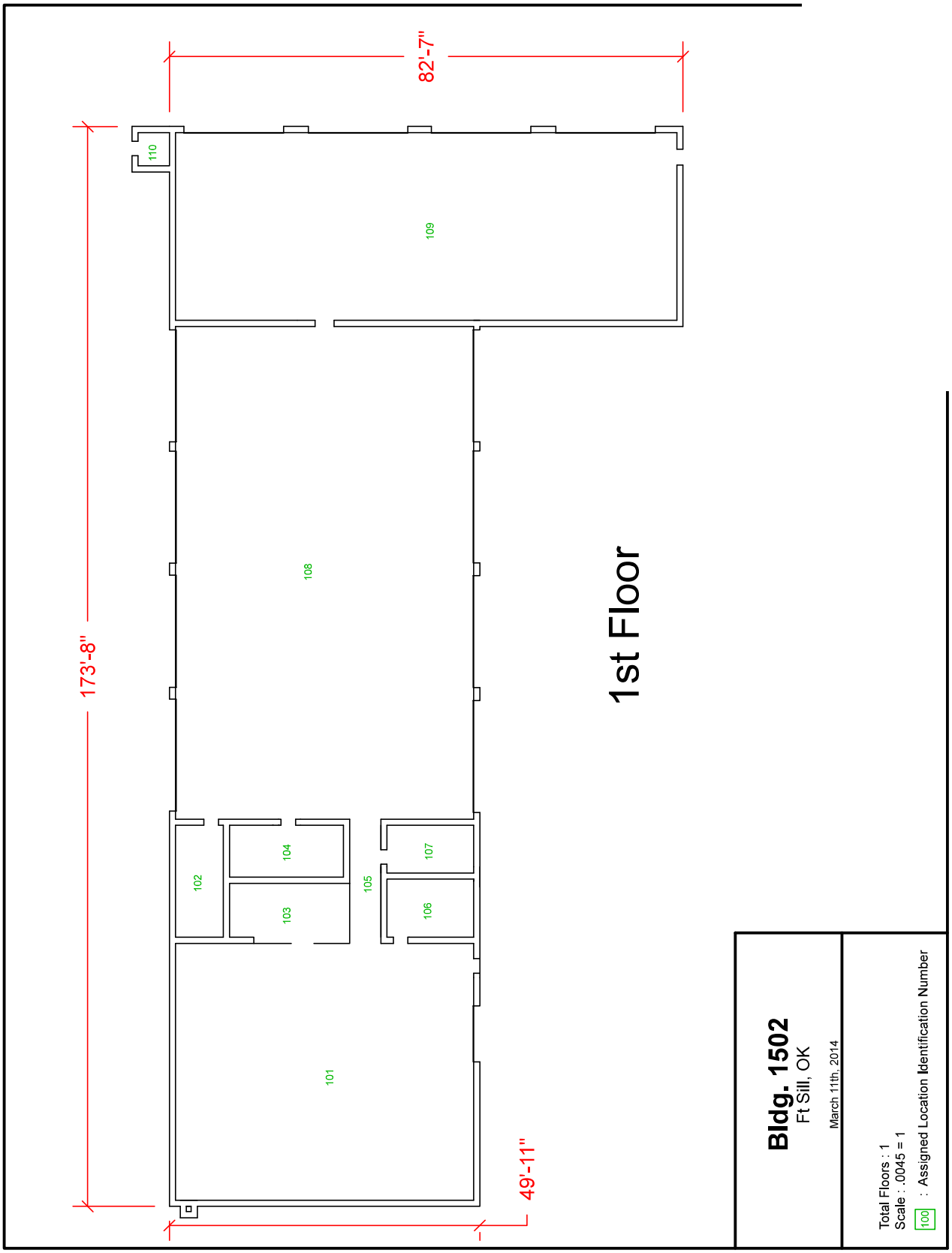
Appendix E

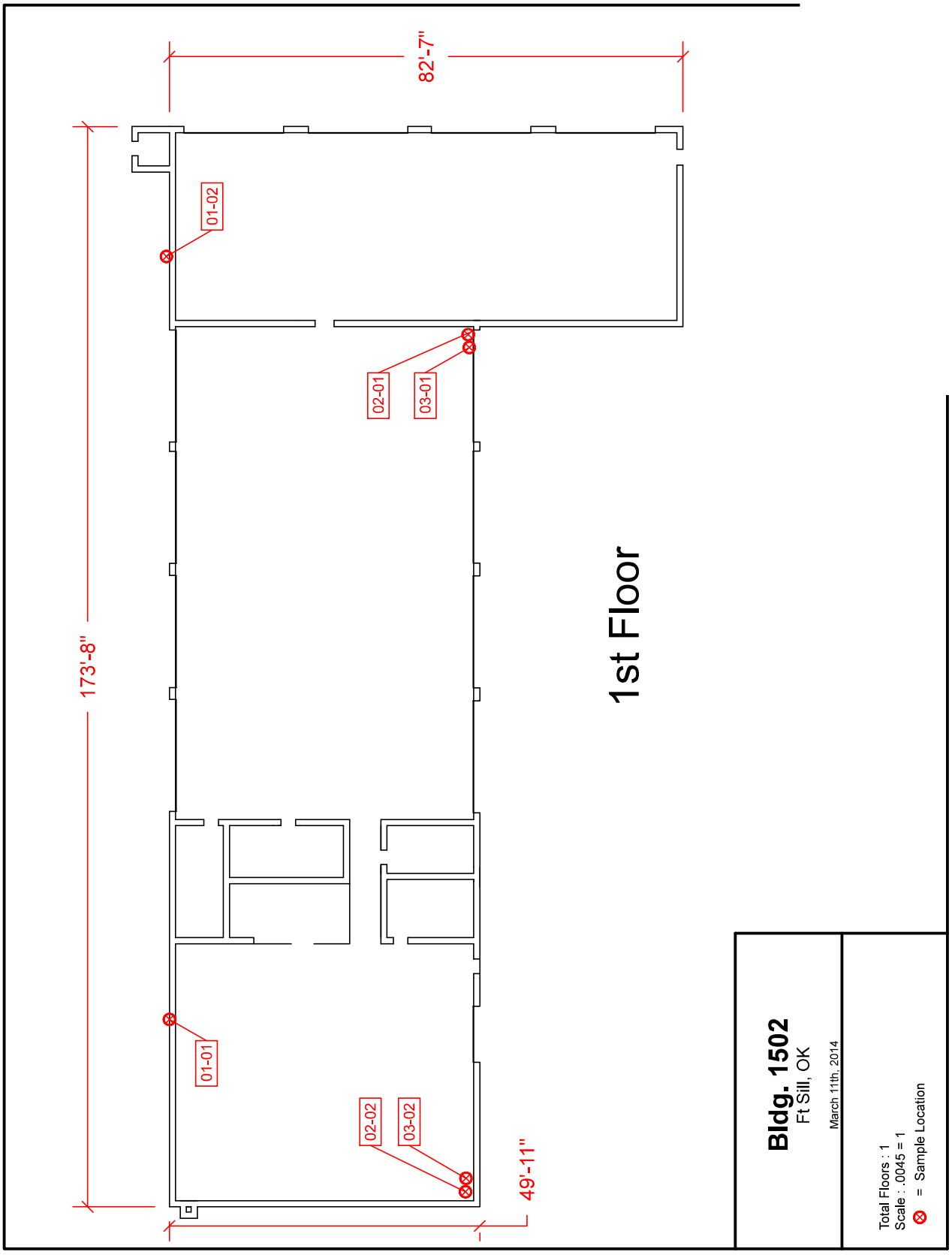
13.0
ACM LOCATION DRAWINGS & PICTURES


Basement
Crawlspace
B-02
B-01
22'
14'-6"
34'-5"
Bldg. 1502
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0089 = 1
B-00 : Assigned Location Identification Number


14'-6"
34'-5"
22'
04-01
04-02
04-03
05-01
06-02
05-02
05-03
06-01
Basement
Bldg. 1502
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0089 = 1
= Sample Location


14'-6"
34'-5"
22'
Basement
ACM
= HA-04
= HA-05
Bldg. 1502
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0089 = 1


82'-7"
173'-8"
49'-11"
110
109
108
102
104
103
105
107
106
101
1st Floor
Bldg. 1502
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0045 = 1
100 : Assigned Location Identification Number


82'-7"
173'-8"
49'-11"
01-02
02-01
03-01
01-01
02-02
03-02
1st Floor
Bldg. 1502
Ft Sill, OK
March 11th, 2014
Total Floors : 1
Scale : .0045 = 1
⊗ = Sample Location

(HA-01)
No Asbestos Detected

(HA-02)
No Asbestos Detected

(HA-03)
No Asbestos Detected

(HA-04)
Asbestos Detected

(HA-05)
Asbestos Detected

(HA-06)
No Asbestos Detected

(HA-07)
No Asbestos Detected

(HA-08)
No Asbestos Detected

(HA-09)
No Asbestos Detected

ASBESTOS INSPECTION REPORT

Conducted at:

Building #1504

Fort, Sill, OK 73503

Conducted for:

Prepared By:

TABLE OF CONTENTS

SECTION **PAGE**

APPENDICES

1.0 BACKGROUND:

1.1 Air & Earth, Inc. has conducted an AHERA asbestos survey for the presence of Asbestos-Containing Materials (ACM) at the following building:

SITE:	Building #1504 (constructed 07/01/1933)
COUNTY:	Comanche
ADDRESS:	Ft. Sill Military Reservation
INVESTIGATOR/INSPECTOR:	
SITE VISIT DATE(s):	02-26-2014
REPORT DATE:	03-07-2014
REVISION DATE:	N/A

1.2 Field Procedures and Analysis Methodology:

Guidelines used for the inspection were established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos-Containing Materials in Buildings, Office of the Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA), OSHA, Sampling Methods, Fort Sill, AR 200-1, ODOL, DEQ.

Field information was organized as per the AHERA concept of Homogeneous Area (HA). A HA is defined as a suspect material of similar age, appearance, function and texture. Each material was grouped together as a specific HA, sampled and then assessed for condition.

Laboratory asbestos identification was conducted under EPA Method 600/R-93/116. Laboratory accreditation was certified through the National Voluntary Laboratory Accreditation Program (NVLAP).

2.0 SCOPE OF WORK:

Entire building, including interior and exterior, was inspected using guidance from 40 CFR Part 763 (AHERA), EPA and OSHA Standards for ACM inspection. The inspection was characterized by a close visual inspection of all accessible areas. Suspect materials were sampled and inventoried for quantity, condition and friability, areas, location, type, condition, potential for disturbance and rate potential.

2.1 Materials examined included:

Surfacing:	No surfacing materials were observed
Thermal System Insulation:	Pipe and Ducting Insulation
Miscellaneous:	Floor Tile, Gyp Wall System, Batting Insulation, Window Glaze, Roofing Material and Mastics

3.0 SUMMARY OF FILE SEARCH:

The following is a listing of our findings:

3.1 Use of past survey records, if any: N/A
3.2 Past abatement records, if any: N/A

4.0 SUMMARY OF INSPECTION RESULTS:

The initial asbestos inspection was conducted on 02-26-2014, which involved a thorough visual examination of all accessible areas and sampling of suspect material.

4.1 Analyses from confirmed the presence of asbestos in the amount greater than 1% within the samples collected from the following material:

HA-01 – 9x9" Floor Tile (Brown) & Mastic

4.2 Analyses from determined the samples collected from the following materials to contain less than or equal to one percent (≤1%) asbestos:

HA-03 – Window Glaze

5.0 ASBESTOS QUANTITY SCHEDULE:

Approximate asbestos quantity schedules are presented on the following table:

HOMOGENEOUS AREA ID#	DESCRIPTION	% ASBESTOS	FRIABLE F / NF	CONDITION (GOOD, DAMAGED, SIGNIFICANTLY DAMAGED)	EXPOSURE POTENTIAL (LOW, MED, HIGH)	QUANTITY	LOCATION # (Functional Spaces)
HA-01	9x9" Floor Tile	3% Chrysotile	NF	Damaged	Low	125 ft^2	105
HA-01b	Black Mastic	10% Chrysotile	NF	Good	Low		
HA-03	Window Glaze	0.25% Chrysotile	N/A	N/A	N/A	N/A	N/A

6.0 CONCLUSIONS AND RECOMMENDATIONS:

6.1 Recommendations:

It is recommended that ACM floor tiles and mastics be maintained in place.

6.2 Hazards and Response Actions:

HOMOGENEOUS AREA ID#	MATERIAL	FUNCTIONAL SPACE ID #	RESPONSE ACTION (SSSD, ABATE, NONE)	COST ESTIMATE (RESPONSE ACTION)
NONE	N/A	N/A	N/A	N/A

6.3 Summarizing samples and assessment results:

Eight (8) homogeneous areas were observed. Representative samples were extracted from four (4) homogeneous areas. Analytical results identified asbestos within the matrix. Assessment concluded low potential for exposure at this time. ACM floor tile and mastics must be removed prior to renovation procedures under OSHA 29CFR 1926.1101 Class II asbestos work, but may be left in place during demolition procedures unless the concrete pad is to be recycled. Periodic Surveillances should be conducted on a regularly scheduled basis to determine change in condition and/or response action.

6.4 Cost estimates for abatement and O&M activities:

Floor Tile & Mastic - $1,500.00
O&M Activities - $1,500 per day as needed to maintain building.

7.0 AREAS NOT ACCESSIBLE:

Inaccessible areas may require further inspection of ACBM when become accessible.

- Wet walls behind sinks, toilets, etc.

8.0 REPORT CERTIFICATIONS:

certifies that the information contained herein is based on the physical and visual inspections conducted by and data collected during the inspection survey and file review.

03-07-2014
Date

Appendix A

9.0 ANALYTICAL RESULTS AND CHAINS OF CUSTODY

LAB# 232426

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building # 1501

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
1	01-01	Bulk-Misc.	PLM - Asbestos	9"x9" Floor Tile - Brown
2	01-02	" "	" "	" " " "
3	02-01	" "	" "	Gyp Wall System
4	02-02	" "	" "	" " "
5	03-01	" "	" "	Window Glaze
6	03-02	" "	" "	" "
7	04-01	" "	" "	Roofing Material - Asphalt Shingles
8	04-02	" "	" "	

Delivered By:
Date: _____ Time: _____
Received By:
Date: Time:

Delivered By:
Date: _____ Time: _____
Received By:
Date: Time:

Sampled By: _____ **Date Sampled:** 2-26-14

Polarized Light Microscopy Asbestos Analysis Report

Project: Ft. Sill REVISED
Project Location: Fort Sill, OK
Project Number: Building #1504

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
001a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
002	01-02	Layered	** Floor Tile	**	Not Analyzed	
Positive Stop						
002a		Layered	** Mastic	**	Not Analyzed	
Positive Stop						
003	02-01	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
003a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 2	Gypsum
004	02-02	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

is report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 1 of 2

Polarized Light Microscopy Asbestos Analysis Report

Project: Ft. Sill REVISED
Project Location: Fort Sill, OK
Project Number: Building #1504

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
004a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	2	Gypsum
005	03-01	Layered	White Window Glazing	Asbestos Present Chrysotile <1	Talc	<1	CaCO3 Talc
005a		Layered	White Window Glazing	Asbestos Present Chrysotile <0.25 400 Point Count	NA		
006	03-02	Homogeneous	Tan Window Glazing	Asbestos Not Present	NA		CaCO3
007	04-01	Homogeneous	Gray Shingle	Asbestos Not Present	Glass Fiber	20	Tar Sand
008	04-02	Homogeneous	Gray Shingle	Asbestos Not Present	Glass Fiber	20	Tar Sand

3/6/2014
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

his report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 2 of 2

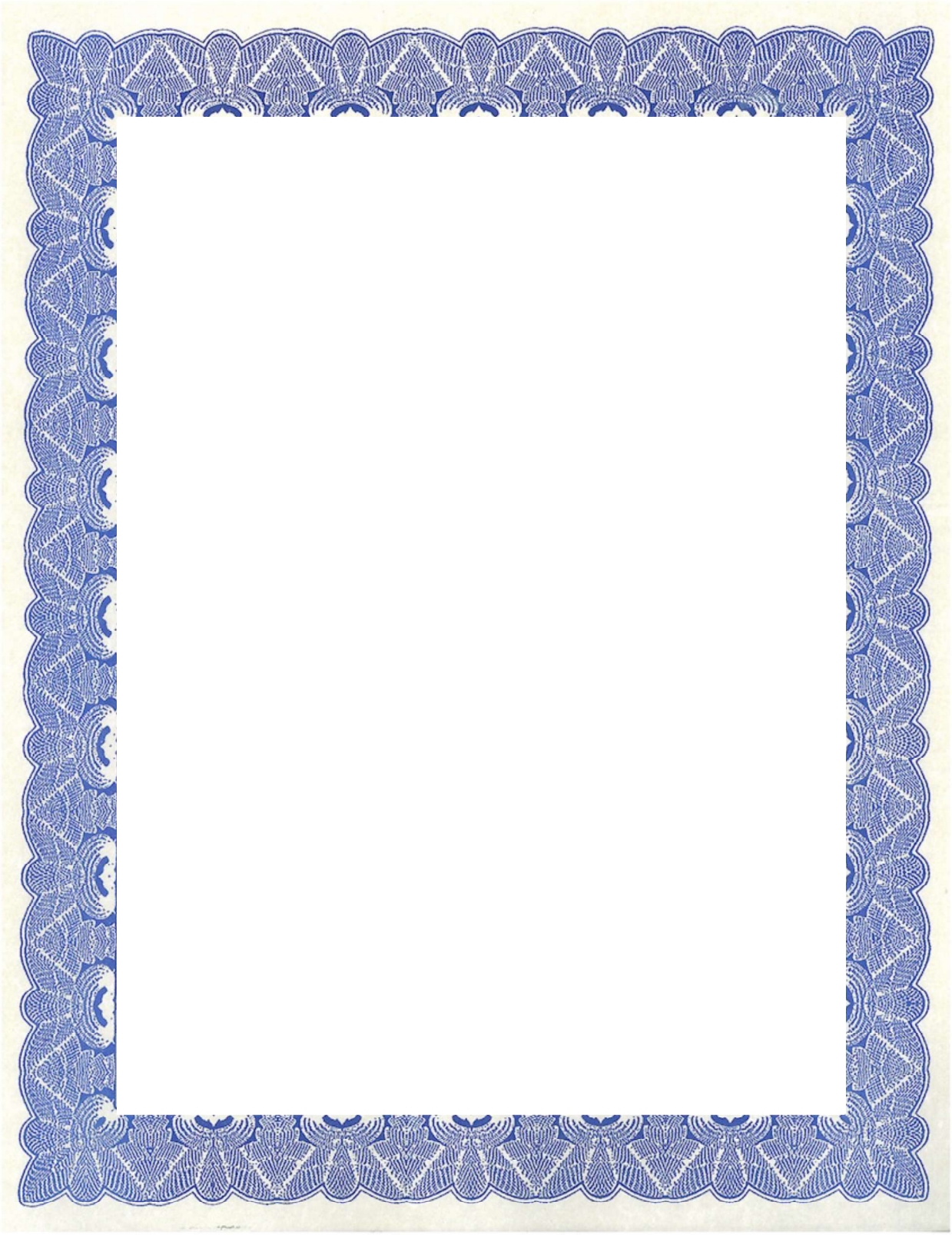
Appendix B

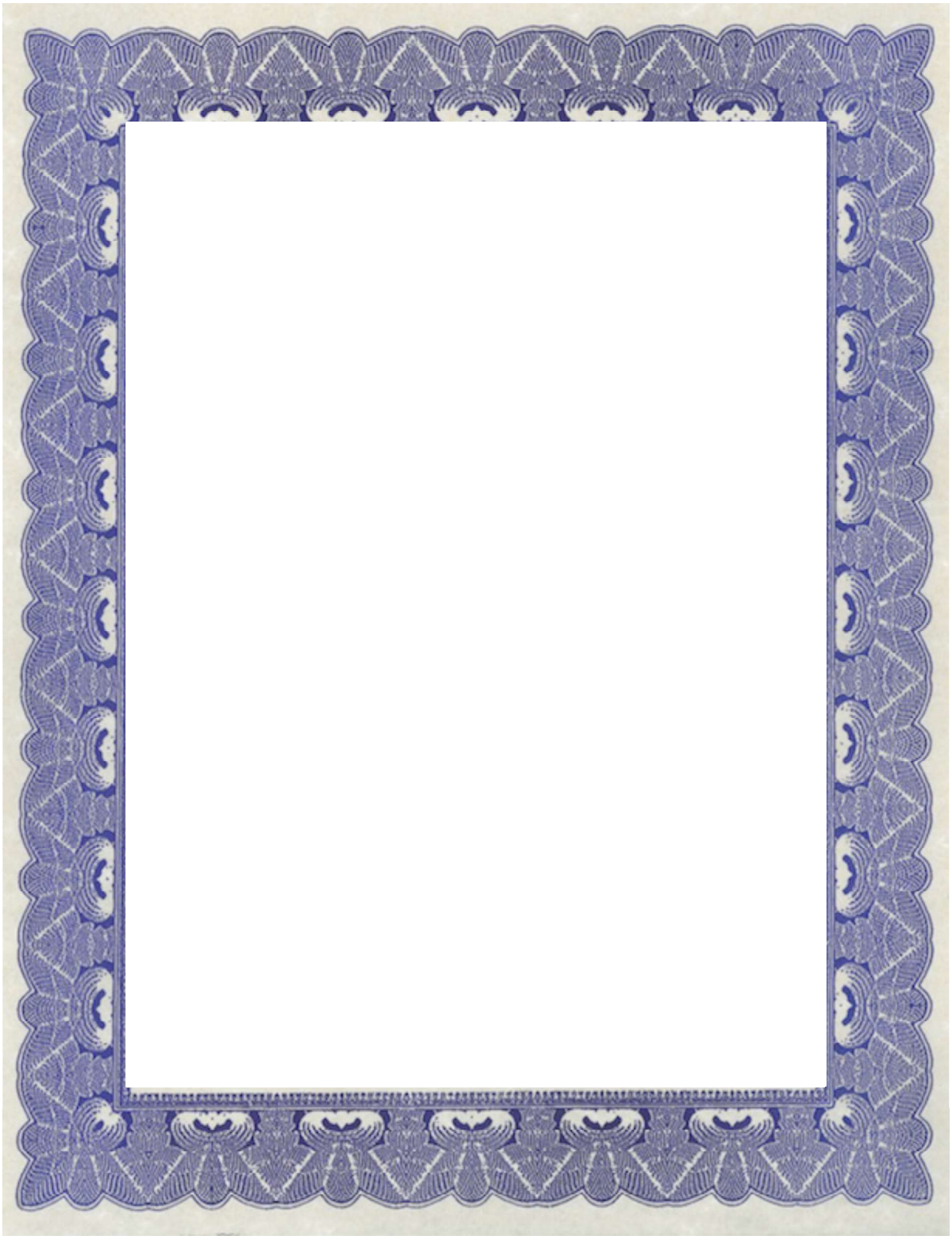
10.0
FILE SEARCH DATA

(NONE)

Appendix C

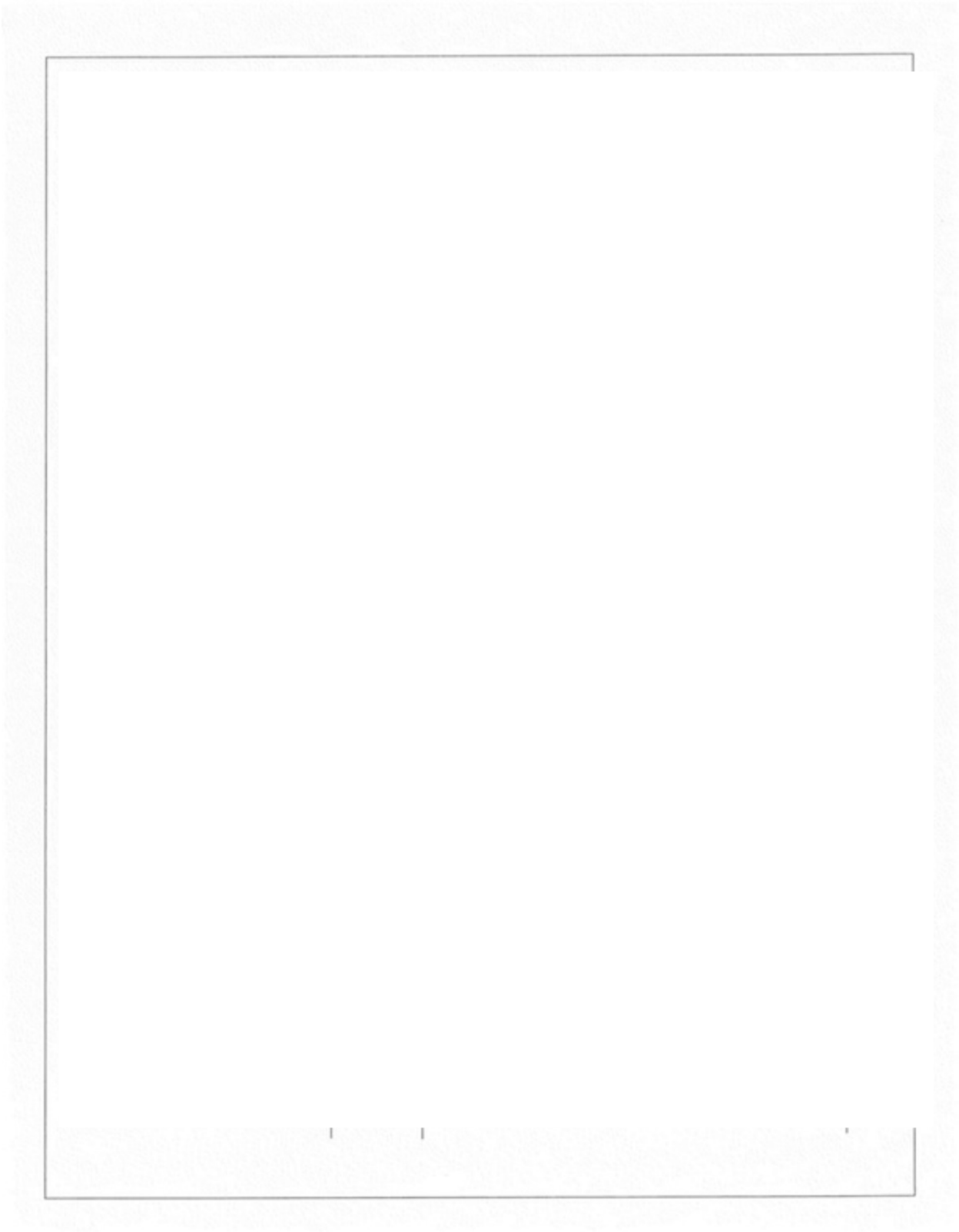
11.0
PERSONNEL LICENSES





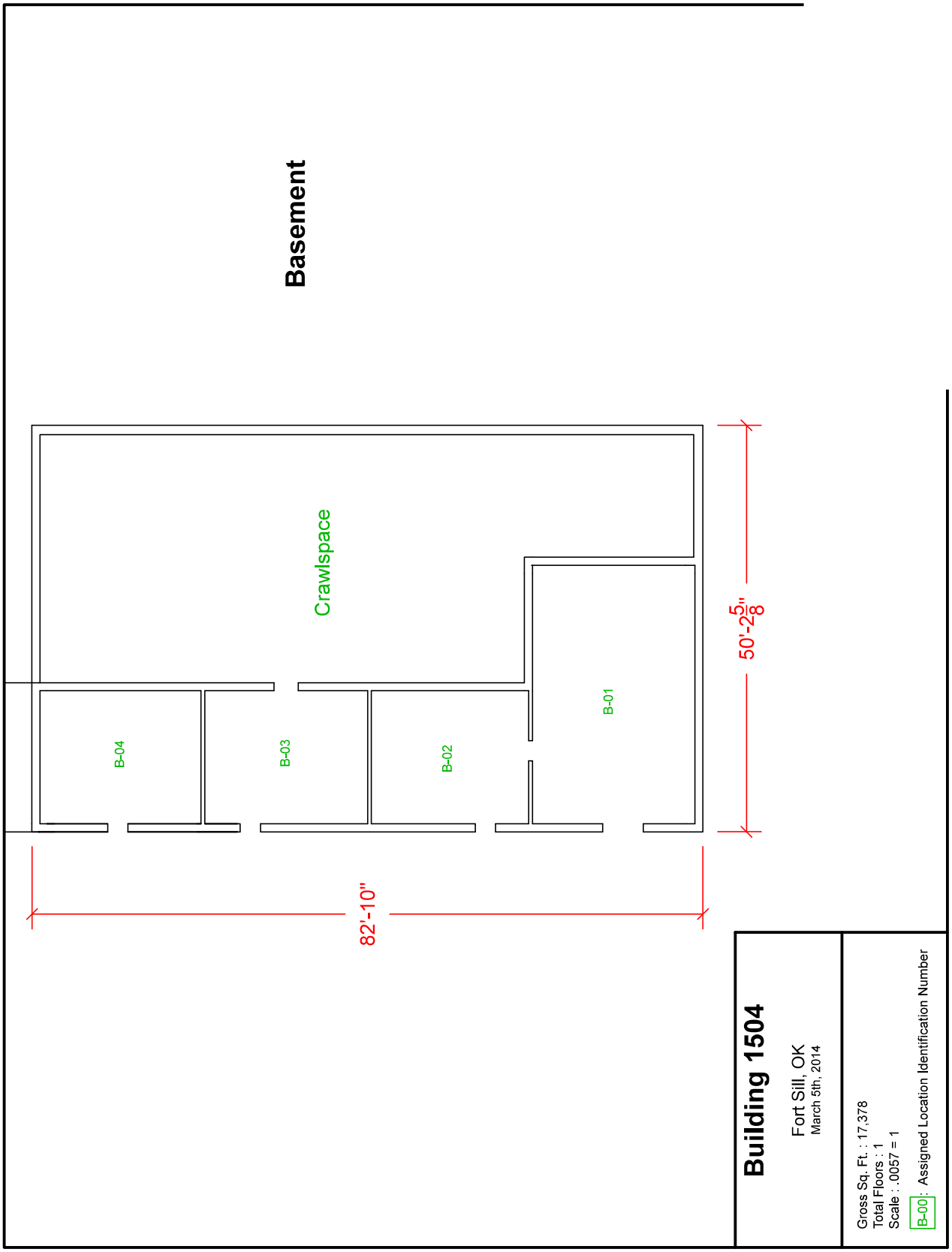
Appendix D

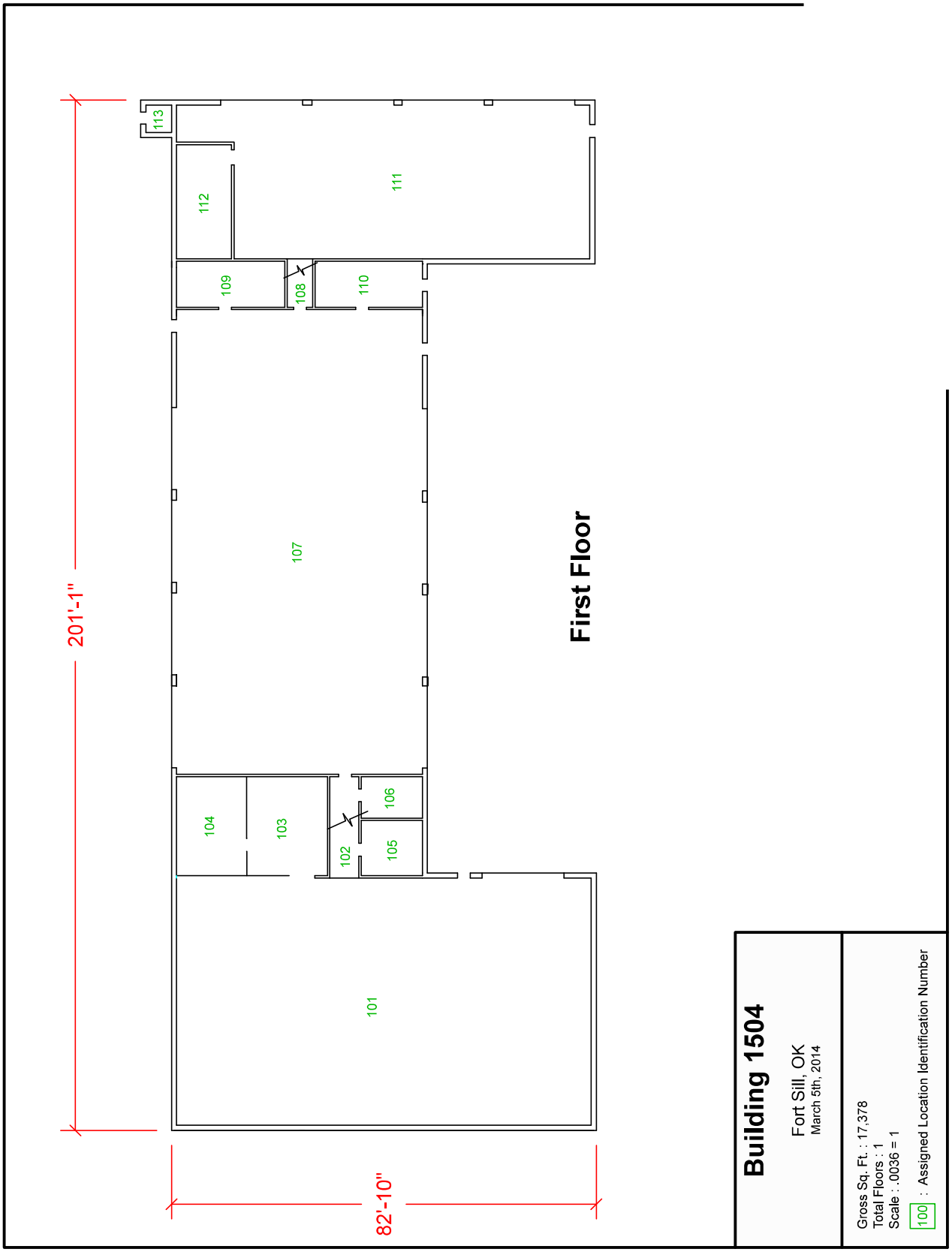
12.0 LABORATORY ACCREDITATIONS

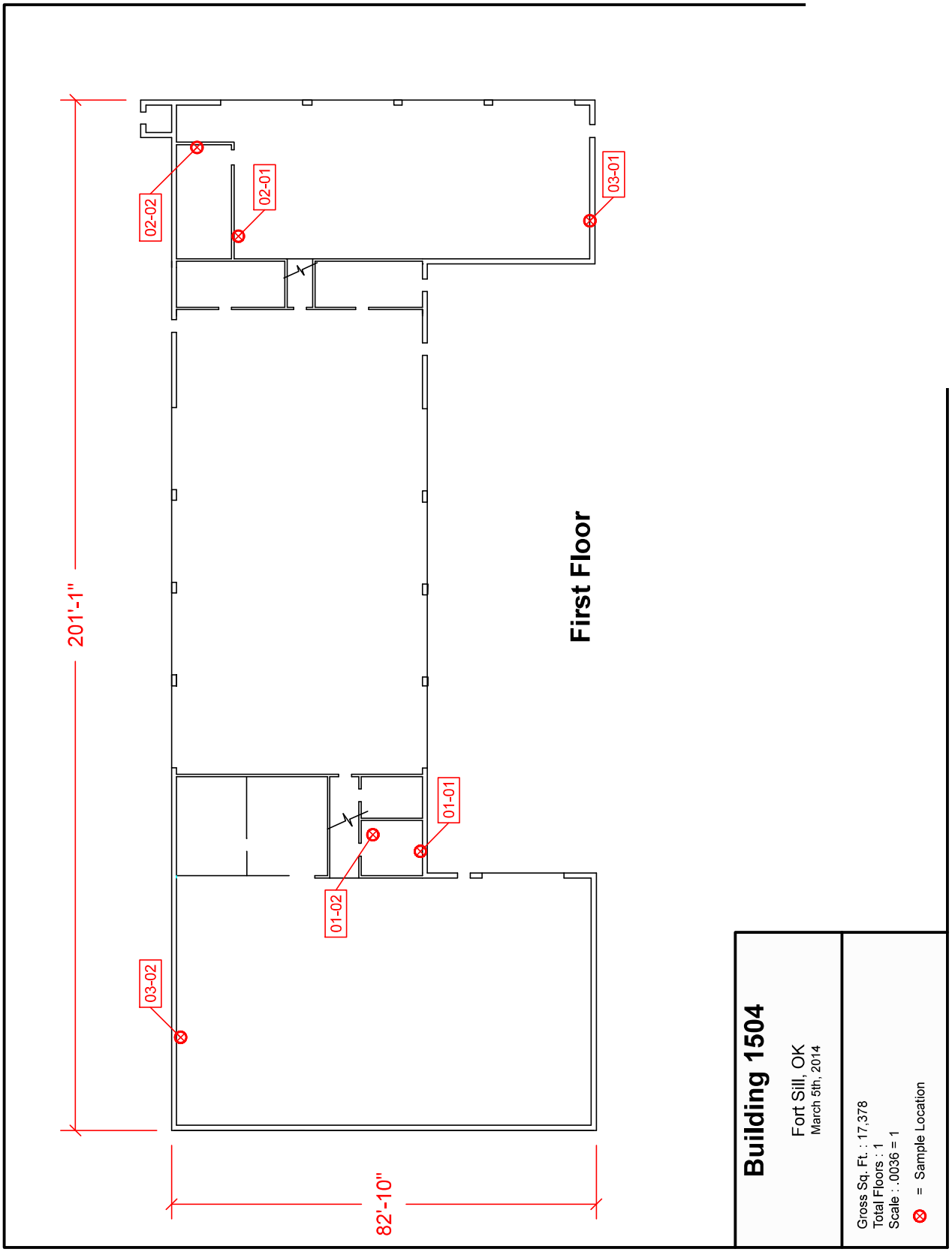


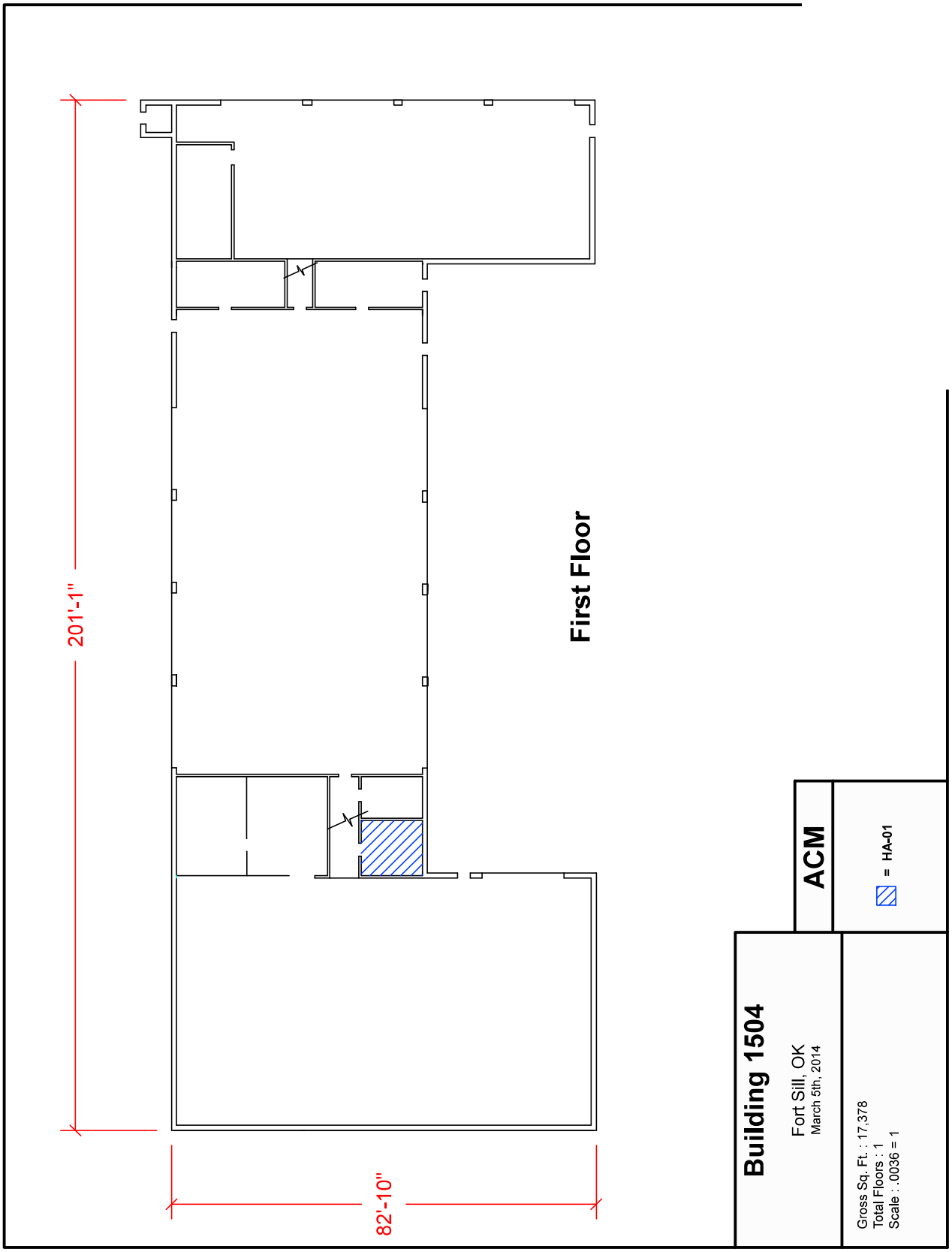
Appendix E

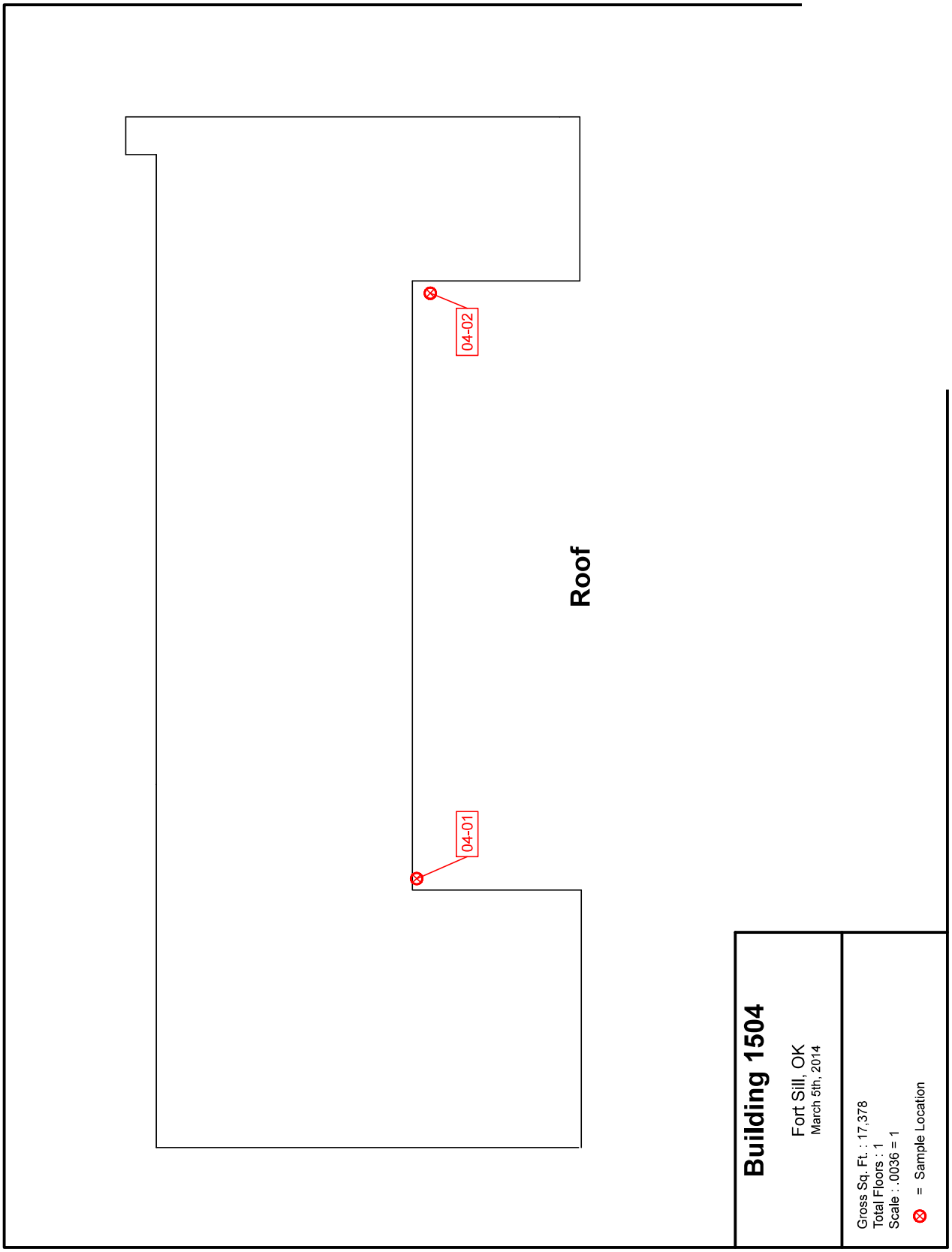
13.0
ACM LOCATION
DRAWINGS & PICTURES


Basement
Crawlspace
B-04
B-03
B-02
B-01
82'-10"
50'-2 5/8"
Building 1504
Fort Sill, OK
March 5th, 2014
Gross Sq. Ft. : 17,378
Total Floors : 1
Scale : .0057 = 1
B-00: Assigned Location Identification Number


113
112
111
109
108
110
107
104
103
102
106
105
101
First Floor
201'-1"
82'-10"
Building 1504
Fort Sill, OK
March 5th, 2014
Gross Sq. Ft. : 17,378
Total Floors : 1
Scale : .0036 = 1
100 : Assigned Location Identification Number


02-02
02-01
03-01
First Floor
201'-1"
01-01
01-02
03-02
82'-10"
Building 1504
Fort Sill, OK
March 5th, 2014
Gross Sq. Ft. : 17,378
Total Floors : 1
Scale : .0036 = 1
= Sample Location


201'-1"
First Floor
82'-10"
ACM
= HA-01
Building 1504
Fort Sill, OK
March 5th, 2014
Gross Sq. Ft. : 17,378
Total Floors : 1
Scale : .0036 = 1


Roof
04-02
04-01
Building 1504
Fort Sill, OK
March 5th, 2014
Gross Sq. Ft. : 17,378
Total Floors : 1
Scale : .0036 = 1
= Sample Location

(HA-01)
Asbestos Detected

(HA-02)
No Asbestos Detected

(HA-03)
≤1% Asbestos Detected

(HA-04)
No Asbestos Detected

(HA-05)
Fiberglass

(HA-06)
Fiberglass

(HA-07)
Fiberglass

(HA-08)
Fiberglass

ASBESTOS INSPECTION REPORT

Conducted at:

Building #1903

Fort, Sill, OK 73503

Conducted for:

Prepared By:

TABLE OF CONTENTS

SECTION **PAGE**

APPENDICES

1.0 BACKGROUND:

1.1 has conducted an AHERA asbestos survey for the presence of Asbestos-Containing Materials (ACM) at the following building:

SITE:	Building #1903 (constructed 07/01/1940)
COUNTY:	Comanche
ADDRESS:	Ft. Sill Military Reservation
INVESTIGATOR/INSPECTOR:	
SITE VISIT DATE(s):	11-21-2014
REPORT DATE:	12-02-2014
REVISION DATE:	N/A

1.2 Field Procedures and Analysis Methodology:

Guidelines used for the inspection were established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos-Containing Materials in Buildings, Office of the Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA), OSHA, Sampling Methods, Fort Sill, AR 200-1, ODOL, DEQ.

Field information was organized as per the AHERA concept of Homogeneous Area (HA). A HA is defined as a suspect material of similar age, appearance, function and texture. Each material was grouped together as a specific HA, sampled and then assessed for condition.

Laboratory asbestos identification was conducted under EPA Method 600/R-93/116. Laboratory accreditation was certified through the National Voluntary Laboratory Accreditation Program (NVLAP).

2.0 SCOPE OF WORK:

Entire building, including interior and exterior, was inspected using guidance from 40 CFR Part 763 (AHERA), EPA and OSHA Standards for ACM inspection. The inspection was characterized by a close visual inspection of all accessible areas. Suspect materials were sampled and inventoried for quantity, condition and friability, areas, location, type, condition, potential for disturbance and rate potential.

2.1 Materials examined included:

Surfacing:	Wall / Ceiling Texturing
Thermal System Insulation:	No TSI materials were observed
Miscellaneous:	Floor Tile, Gyp Wall System, Window Glaze, Roofing Material, and Mastics

3.0 SUMMARY OF FILE SEARCH:

The following is a listing of our findings:

3.1 Use of past survey records, if any: N/A
3.2 Past abatement records, if any: N/A

4.0 SUMMARY OF INSPECTION RESULTS:

The initial asbestos inspection was conducted on 11-21-2014, which involved a thorough visual examination of all accessible areas and sampling of suspect material.

4.1 Building components, which have been determined to contain an asbestos presence greater than 1% by either analysis from or by PACM classification, are listed as the following:

HA-01 – 9x9" Floor Tile (Beige)
HA-02 – Gyp Wall System (Joint Compound)
HA-06 – Texturing (Rolled-On)

4.2 Analyses from determined the samples collected from the following materials to contain less than or equal to one percent (≤1%) asbestos:

NONE

5.0 ASBESTOS QUANTITY SCHEDULE:

Approximate asbestos quantity schedules are presented on the following table:

HOMOGENEOUS AREA ID#	DESCRIPTION	% ASBESTOS	FRIABLE F / NF	CONDITION (GOOD, DAMAGED, SIGNIFICANTLY DAMAGED)	EXPOSURE POTENTIAL (LOW, MED, HIGH)	QUANTITY	LOCATION # (Functional Spaces)
HA-01	9x9" Floor Tile	3% Chrysotile	NF	Good	Low	120 ft^2	105
HA-02	Gyp Wall System	3% Chrysotile	F	Good	Low	1,200 ft^2	104
HA-06	Texturing	3% Chrysotile	F	Good	Low		

6.0 CONCLUSIONS AND RECOMMENDATIONS:

6.1 Recommendations:

It is recommended that all ACBM be maintained in place.

6.2 Hazards and Response Actions:

HOMOGENEOUS AREA ID#	MATERIAL	FUNCTIONAL SPACE ID #	RESPONSE ACTION (SSSD, ABATE, NONE)	COST ESTIMATE (RESPONSE ACTION)
NONE	N/A	N/A	N/A	N/A

6.3 Summarizing samples and assessment results:

Six (6) homogeneous areas were observed. Representative samples were extracted from six (6) homogeneous areas. Analytical results identified asbestos within the matrix. Assessment concluded with a low potential for exposure at this time. Friable ACM must be removed under OSHA 29CFR 1926.1101 Class I asbestos work prior to renovation or demolition procedures. ACM floor must be removed under OSHA 29CFR 1926.1101 Class II asbestos work prior to renovation procedures but may be left in place during demolition procedures except for areas where ACM floor tiles exist on the concrete pad and the pad is to be recycled. Periodic Surveillances should be conducted on a regularly scheduled basis to determine change in condition and/or response action.

6.4 Cost estimates for abatement and O&M activities:

Gyp Wall System & Texturing - $7,000.00
Floor Tile - $1,500.00
O&M Activities - $1,500 per day as needed to maintain building.

7.0 AREAS NOT ACCESSIBLE:

Inaccessible areas may require further inspection of ACBM when become accessible.

NONE

8.0 REPORT CERTIFICATIONS:

Air & Earth, Inc. certifies that the information contained herein is based on the physical and visual inspections conducted by Air & Earth, Inc. and data collected during the inspection survey and file review.

12-02-2014
Date

Appendix A

9.0 ANALYTICAL RESULTS AND CHAINS OF CUSTODY

244211

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building #1903

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
1	01-01	Bulk-Misc.	PLM - Asbestos	9"x9" Floor Tile-Beige
2	01-02	" "	" "	" " " "
3	02-01	" "	" "	Gyp Wall System
4	02-02	" "	" "	" " "
5	03-01	" "	" "	Window Glaze
6	03-02	" "	" "	" "
7	04-01	" "	" "	Roofing Material-Asphalt Shingle
8	04-02	" "	" "	" " "
9	05-01	" "	" "	" "
10	05-02	" "	" "	Felt Paper
11	06-01	Bulk-Surfacing	" "	Texture-Rolled On
12	06-02	" "	" "	" " "
13	06-03	" "	" "	" " "
14	06-04	" "	" "	" " "
15	06-05	" "	" "	" " "

Delivered By:
Date: Time:
Received By:
Date: Time:

Delivered By:
Date: Time:
Received By:
Date: Time:

Sampled By: _____ _____ Date Sampled: 11-21-14

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1903
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Layered	Gray Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
001a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
002	01-02	Layered	** Floor Tile	**	Not Analyzed	
Positive Stop						
002a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
003	02-01	Layered	White Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
003a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 20	Gypsum
004	02-02	Layered	** Joint Compound	**	Not Analyzed	
Positive Stop						

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

ort relates only to the specific items tested. NVLAP accreditation applies only to Analysis performed utilizing EPA/600/R-93/116 Methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 1 of 3

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1903
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
004a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	20	Gypsum
005	03-01	Homogeneous	Tan Window Glazing	Asbestos Not Present	NA		CaCO3
006	03-02	Homogeneous	Gray Window Glazing	Asbestos Not Present	NA		CaCO3
007	04-01	Homogeneous	Black Shingle	Asbestos Not Present	Glass Fiber	20	Quartz Tar
008	04-02	Homogeneous	Black Shingle	Asbestos Not Present	Glass Fiber	20	Quartz Tar
009	05-01	Homogeneous	Black Tar Paper	Asbestos Not Present	Glass Fiber	35	Tar
010	05-02	Homogeneous	Black Tar Paper	Asbestos Not Present	Glass Fiber	35	Tar

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill - Building #1903
Project Location: Fort Sill, OK
Project Number: N/A

	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
011	06-01	Homogeneous	White Texture	Asbestos Present Chrysotile 3	NA	CaCO3 Paint
012	06-02	Homogeneous	** Texture	**	Not Analyzed	
Positive Stop						
013	06-03	Homogeneous	** Texture	**	Not Analyzed	
Positive Stop						
014	06-04	Homogeneous	** Texture	**	Not Analyzed	
Positive Stop						
015	06-05	Homogeneous	** Texture	**	Not Analyzed	
Positive Stop						

12/2/2014
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 3 of 3

Appendix B

10.0
FILE SEARCH DATA

(NONE)

Appendix C

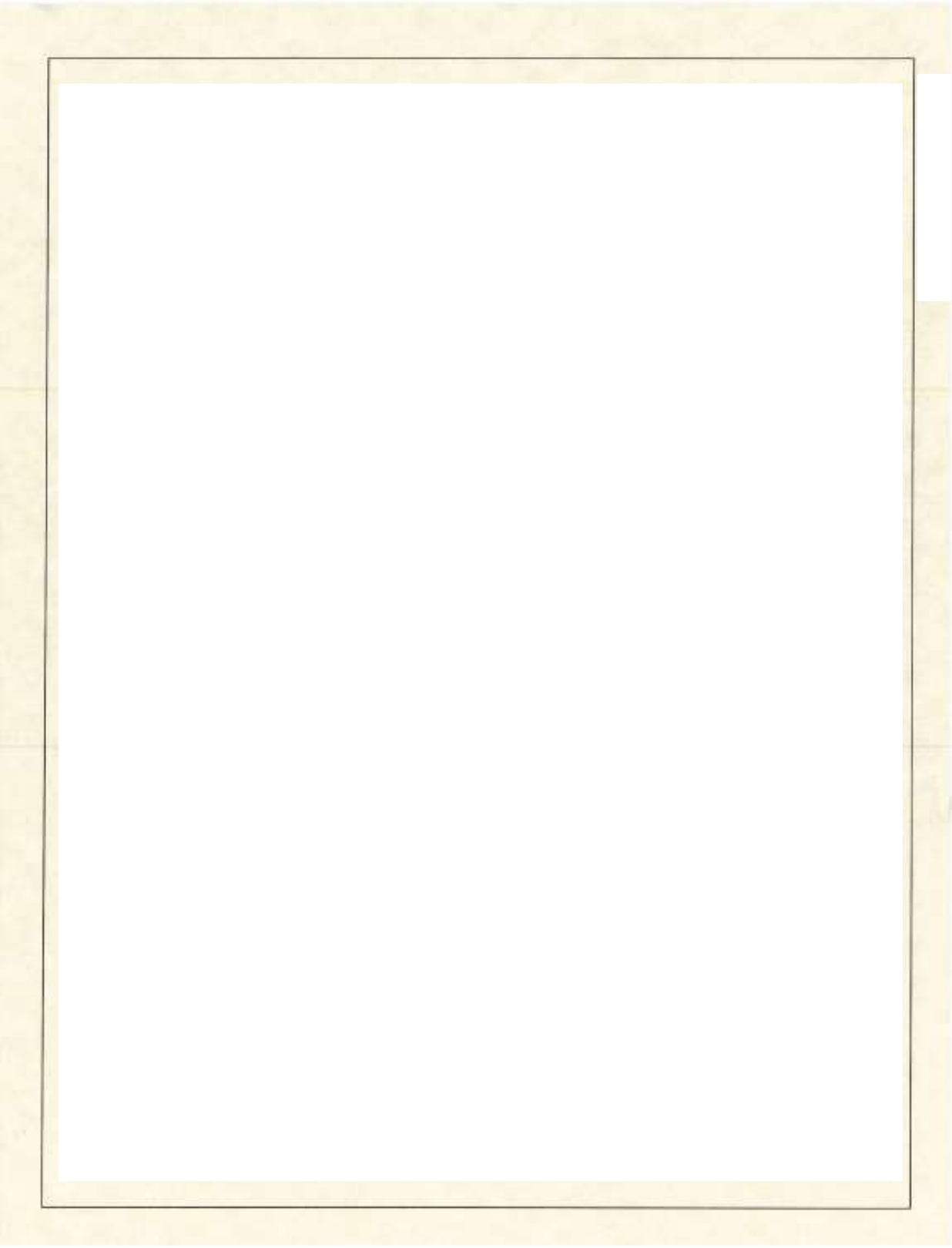
11.0
PERSONNEL LICENSES

Oklahoma Department of Labor certifies that:

Oklahoma Department of Labor certifies that:

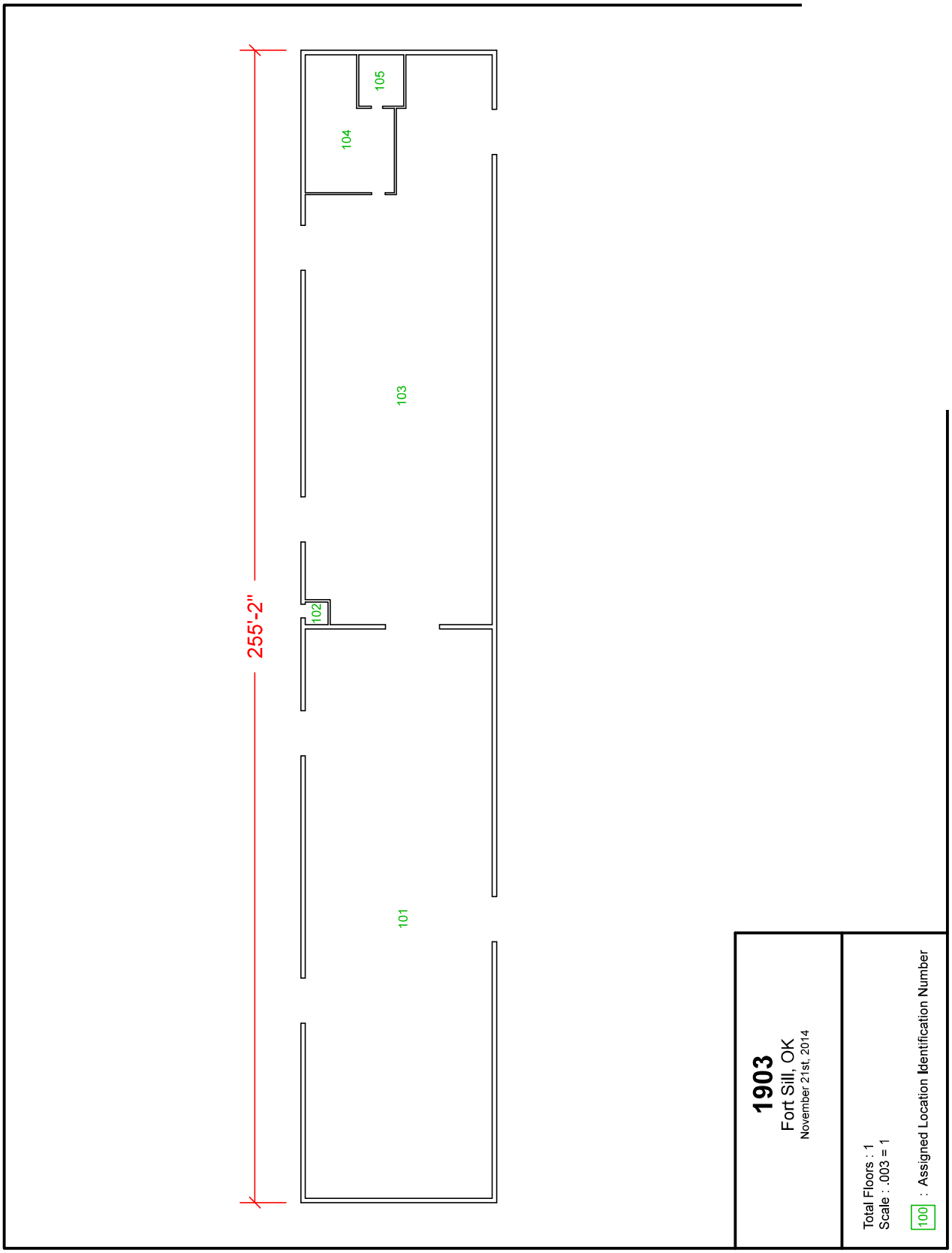
Appendix D

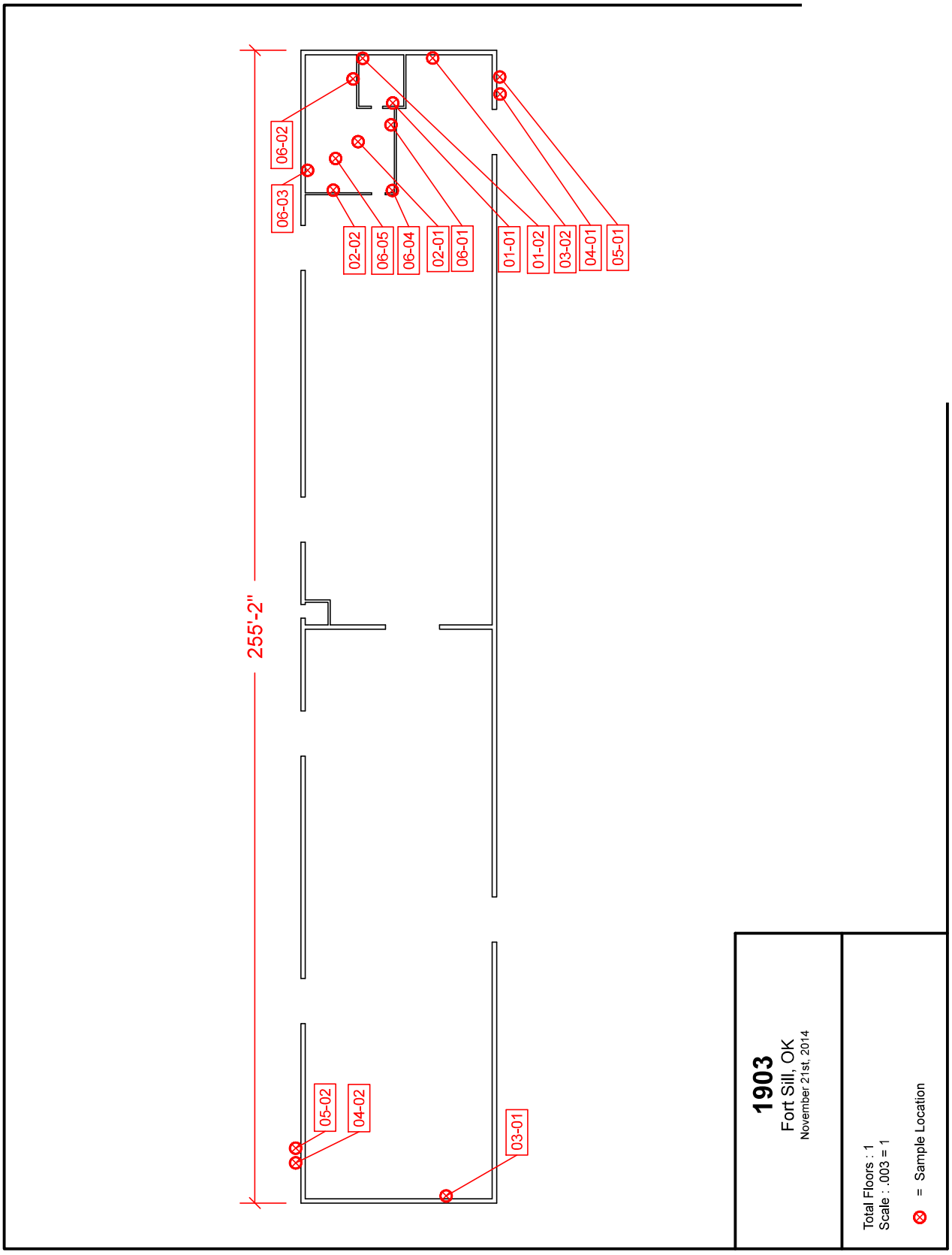
12.0 LABORATORY ACCREDITATIONS

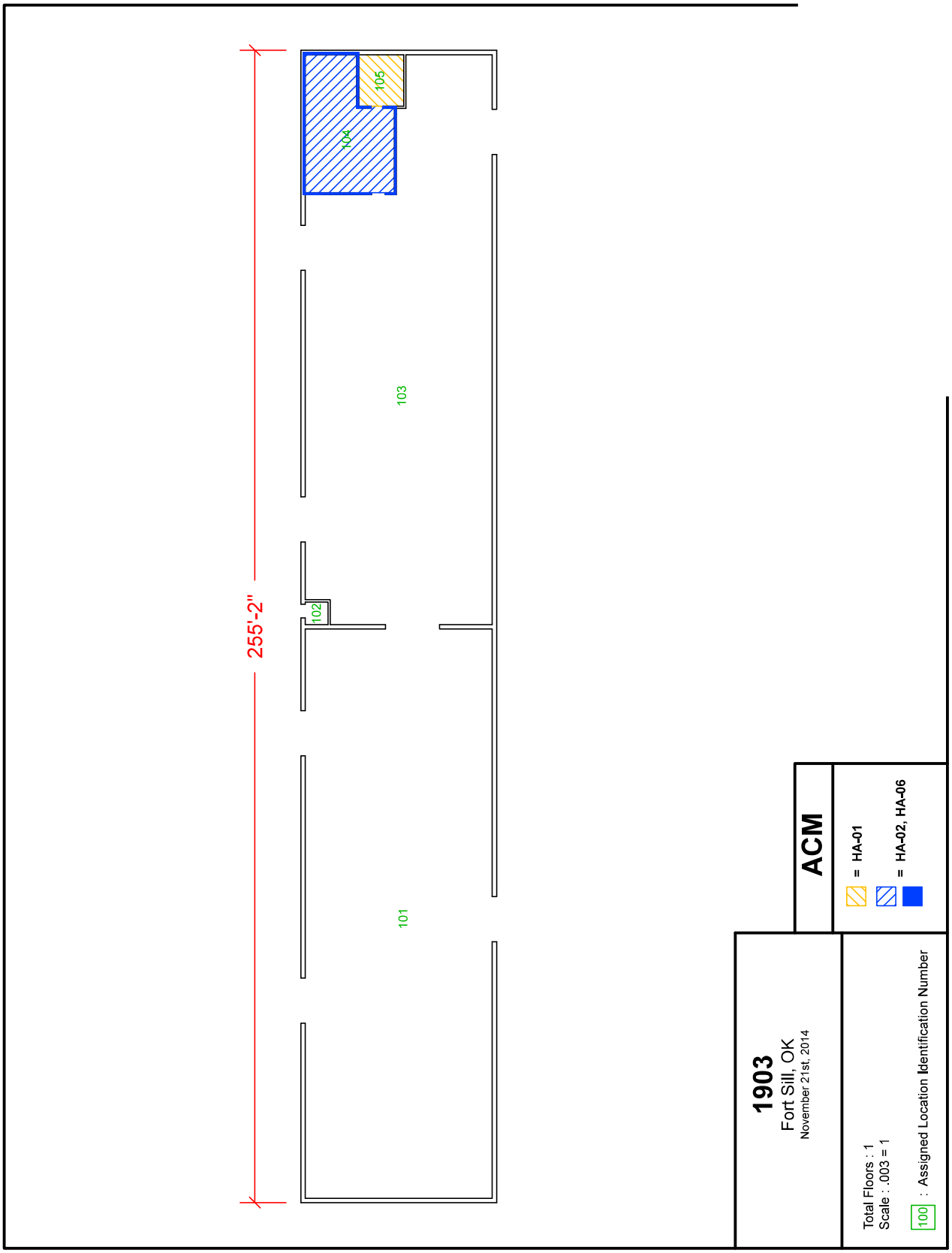


Appendix E

13.0
ACM LOCATION DRAWINGS & PICTURES


105
104
103
102
101
255'-2"
1903
Fort Sill, OK
November 21st, 2014
Total Floors : 1
Scale : .003 = 1
100 : Assigned Location Identification Number


06-02
06-03
02-02
06-05
06-04
02-01
06-01
01-01
01-02
03-02
04-01
05-01
255'-2"
05-02
04-02
03-01
1903
Fort Sill, OK
November 21st, 2014
Total Floors : 1
Scale : .003 = 1
= Sample Location


255'-2"
105
104
103
102
101
ACM
= HA-01
= HA-02, HA-06
1903
Fort Sill, OK
November 21st. 2014
Total Floors : 1
Scale : .003 = 1
100 : Assigned Location Identification Number

(HA-01)
Asbestos Detected

(HA-02)
Asbestos Detected

(HA-03)
No Asbestos Detected

(HA-04)
No Asbestos Detected

(HA-05)
No Asbestos Detected

(HA-06)
Asbestos Detected

ASBESTOS INSPECTION REPORT

Conducted at:

Building #1711

Fort Sill, OK 73503

Conducted for:

Prepared By:

TABLE OF CONTENTS

SECTION **PAGE**

APPENDICES

1.0 BACKGROUND:

1.1 has conducted an AHERA asbestos survey for the presence of Asbestos-Containing Materials (ACM) at the following building:

SITE:	Building #1711 (constructed 07/01/1911)
COUNTY:	Comanche
ADDRESS:	Ft. Sill Military Reservation
INVESTIGATOR/INSPECTOR:	
SITE VISIT DATE(s):	04-25-2016
REPORT DATE:	06-15-2016
REVISION DATE:	N/A

1.2 Field Procedures and Analysis Methodology:

Guidelines used for the inspection were established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos-Containing Materials in Buildings, Office of the Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA), OSHA, Sampling Methods, Fort Sill, AR 200-1, ODOL, DEQ.

Field information was organized as per the AHERA concept of Homogeneous Area (HA). A HA is defined as a suspect material of similar age, appearance, function and texture. Each material was grouped together as a specific HA, sampled and then assessed for condition.

Laboratory asbestos identification was conducted under EPA Method 600/R-93/116. Laboratory accreditation was certified through the National Voluntary Laboratory Accreditation Program (NVLAP).

2.0 SCOPE OF WORK:

Entire building, including interior and exterior, was inspected using guidance from 40 CFR Part 763 (AHERA), EPA and OSHA Standards for ACM inspection. The inspection was characterized by a close visual inspection of all accessible areas. Suspect materials were sampled and inventoried for quantity, condition and friability, areas, location, type, condition, potential for disturbance and rate potential.

2.1 Materials examined included:

Surfacing:	None Observed
Thermal System Insulation:	None Observed
Miscellaneous:	Floor Tile, Plaster Wall System, Sheetrock, Window Glaze and Mastics

3.0 SUMMARY OF FILE SEARCH:

The following is a listing of our findings:

3.1 Use of past survey records, if any: N/A
3.2 Past abatement records, if any: N/A

4.0 SUMMARY OF INSPECTION RESULTS:

The initial asbestos inspection was conducted on 04-25-2016, which involved a thorough visual examination of all accessible areas and sampling of suspect material.

4.1 Building components, which have been determined to contain an asbestos presence greater than 1% by either analysis from QuanTEM Laboratories or by PACM classification, are listed as the following:

HA-01 – 12x12” Floor Tile (Beige)
HA-02 – 12x12” Floor Tile (Off-White) & Black Mastic

4.2 Analyses from QuanTEM Laboratories determined the samples collected from the following materials to contain less than or equal to one percent (≤1%) asbestos:

NONE

5.0 ASBESTOS QUANTITY SCHEDULE:

Approximate asbestos quantity schedules are presented on the following table:

HOMOGENEOUS AREA ID#	DESCRIPTION	% ASBESTOS	FRIABLE F / NF	CONDITION (GOOD, DAMAGED, SIGNIFICANTLY DAMAGED)	EXPOSURE POTENTIAL (LOW, MED, HIGH)	QUANTITY	LOCATION # (Functional Spaces)
HA-01	Floor Tile	3% Chrysotile	NF	Good	Low	440 ft^2	10,104
HA-02	Floor Tile	3% Chrysotile	NF	Good	Low	440 ft^2	105,106
HA-02b	Mastic	8% Chrysotile	NF	Good	Low		

6.0 CONCLUSIONS AND RECOMMENDATIONS:

6.1 Recommendations:

It is recommended that the ACM floor tiles and mastics be maintained in place.

6.2 Hazards and Response Actions:

HOMOGENEOUS AREA ID#	MATERIAL	FUNCTIONAL SPACE ID #	RESPONSE ACTION (SSSD, ABATE, NONE)	COST ESTIMATE (RESPONSE ACTION)
NONE	N/A	N/A	N/A	N/A

6.3 Summarizing samples and assessment results:

Five (5) homogeneous areas were observed. Representative samples were extracted from five (5) homogeneous areas. Analytical results identified asbestos within the matrix. Assessment concluded with a low potential for exposure at this time. ACM floor tiles and mastics must be removed under OSHA 29CFR 1926.1101 Class II asbestos work prior to renovation procedures but may be left in place during demolition procedures except for areas where ACM floor tile and mastic exist on the concrete pad and the pad is to be recycled. Periodic Surveillances should be conducted on a regularly scheduled basis to determine change in condition and/or response action.

6.4 Cost estimates for abatement and O&M activities:

Floor Tile & Mastic - $2,200.00
O&M Activities - $1,500 per day as needed to maintain building.

7.0 AREAS NOT ACCESSIBLE:

Inaccessible areas may require further inspection of ACBM when become accessible.

- Wet walls behind sinks, toilets, etc.

8.0 REPORT CERTIFICATIONS:

certifies that the information contained herein is based on the physical and visual inspections conducted by and data collected during the inspection survey and file review.

06-15-2016
Date

Appendix A

9.0 ANALYTICAL RESULTS AND CHAINS OF CUSTODY

262831

CHAIN OF CUSTODY

Project Name and Number: Fort Sill - Building # 1711

Project Location: Fort Sill, OK

Preservation Requirements: (5-Day TAT) - (Positive Stop on All Samples) - 400 pt Count <2%

	Sample Number	Sample Media	Analysis Requested	Descriptions & Commentary
1	01-01	Bulk - Misc.	PLM - Asbestos	12"x12" Floor Tile - Beige w/ Dark Streaks
2	01-02	" "	" "	" " " " " "
3	02-01	" "	" "	" " " " Off White w/ Light & Dark Streaks
4	02-02	" "	" "	" " " " " "
5	03-01	" "	" "	Unfinished Sheetrock
6	03-02	" "	" "	" "
7	04-01	" "	" "	Plaster
8	04-02	" "	" "	"
9	05-01	" "	" "	Window Glaze - Exterior
10	05-02	" "	" "	" " "

Delivered By:
Date: Time:
Received By:
Date: Time:

Delivered By:
Date: Time:
Received By:
Date: Time:

Sampled By: _____ _____

Date Sampled: 4-25-16

7

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill
Project Location: Fort Sill, OK
Project Number: Building # 1711

Sample ID	Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Layered	Beige Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl
001a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
002	01-02	Layered	** Floor Tile	**	Not Analyzed	
Positive Stop						
002a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
003	02-01	Layered	Beige Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl
003a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
004	02-02	Layered	** Floor Tile	**	Not Analyzed	

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

his report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 1 of 3

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill
Project Location: Fort Sill, OK
Project Number: Building # 1711

Sample ID	Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
Positive Stop						
004a		Layered	** Mastic	**	Not Analyzed	
Positive Stop						
005	03-01	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
006	03-02	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
007	04-01	Layered	White Texture	Asbestos Not Present	NA	CaCO3
007a		Layered	Gray Plaster	Asbestos Not Present	NA	CaCO3 Sand
008	04-02	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Gypsum

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 2 of 3

Polarized Light Microscopy Asbestos Analysis Report

Project: Fort Sill
Project Location: Fort Sill, OK
Project Number: Building # 1711

Sample ID	Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
008a		Layered	Gray Plaster	Asbestos Not Present	NA	CaCO3 Sand
009	05-01	Homogeneous	White Window Glazing	Asbestos Not Present	NA	CaCO3 Binder
010	05-02	Homogeneous	White Window Glazing	Asbestos Not Present	NA	CaCO3 Binder

5/2/2016
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Page 3 of 3

Appendix B

10.0
FILE SEARCH DATA

(NONE)

Appendix C

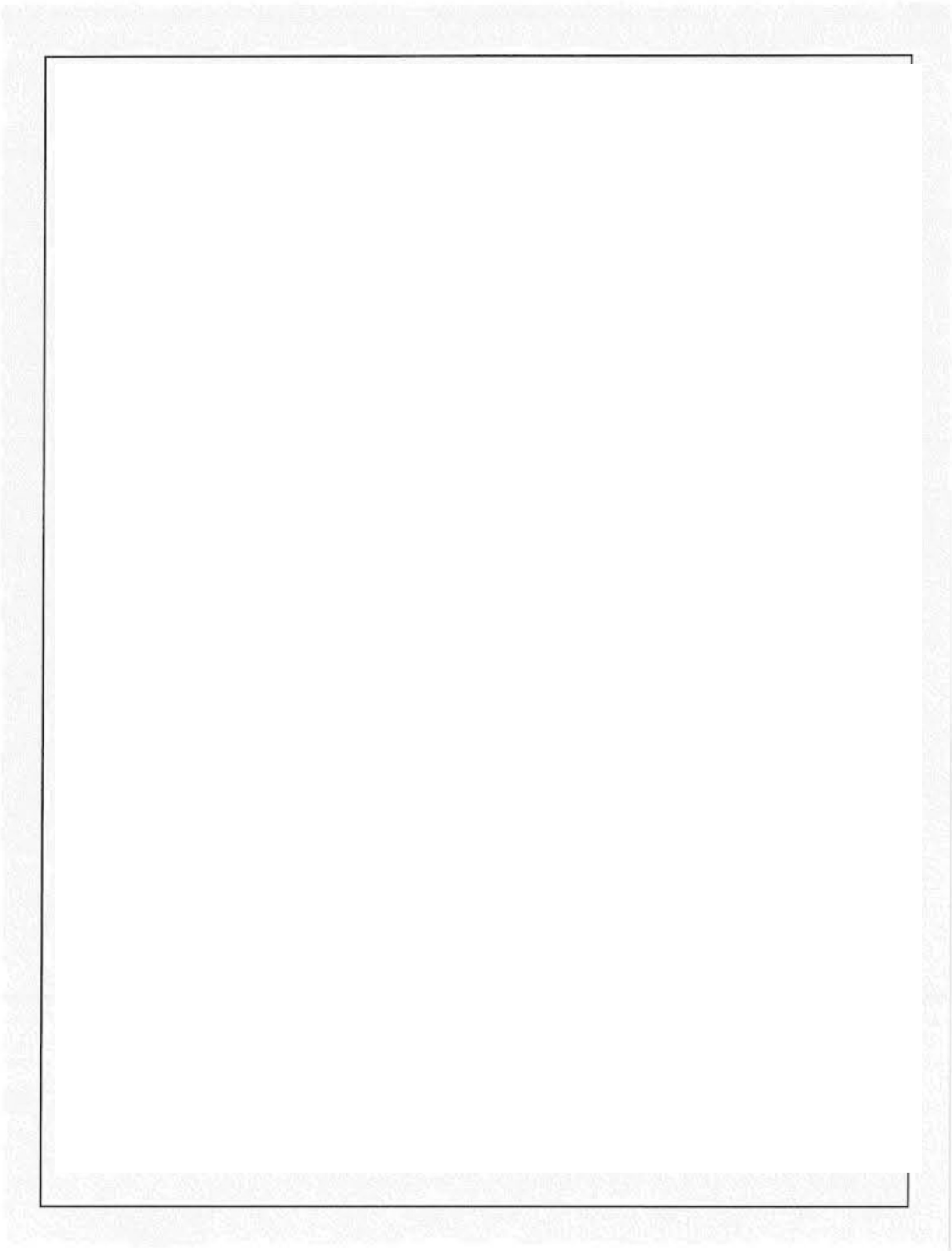
11.0
PERSONNEL LICENSES

Oklahoma Department of Labor certifies that:

Oklahoma Department of Labor certifies that:

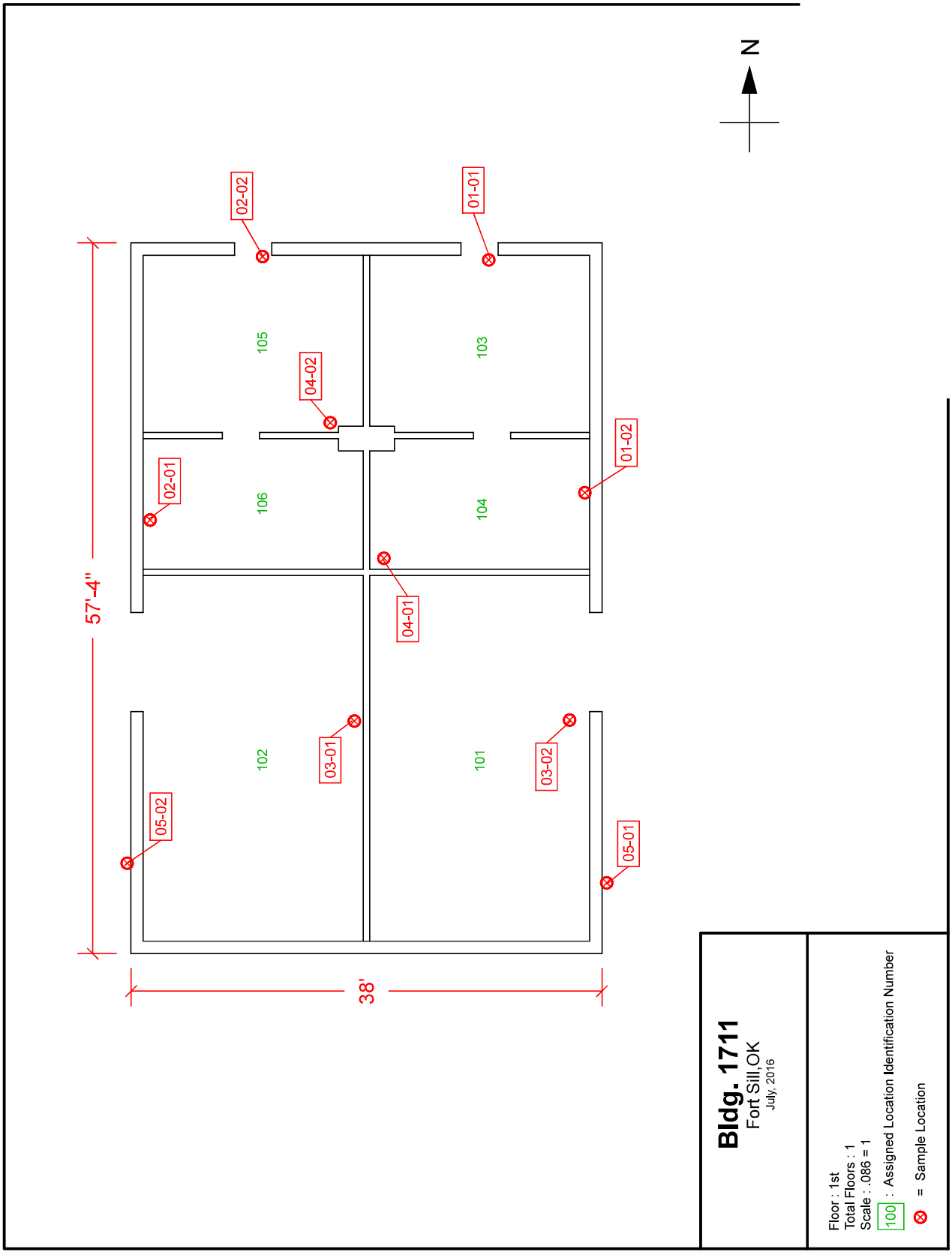
Appendix D

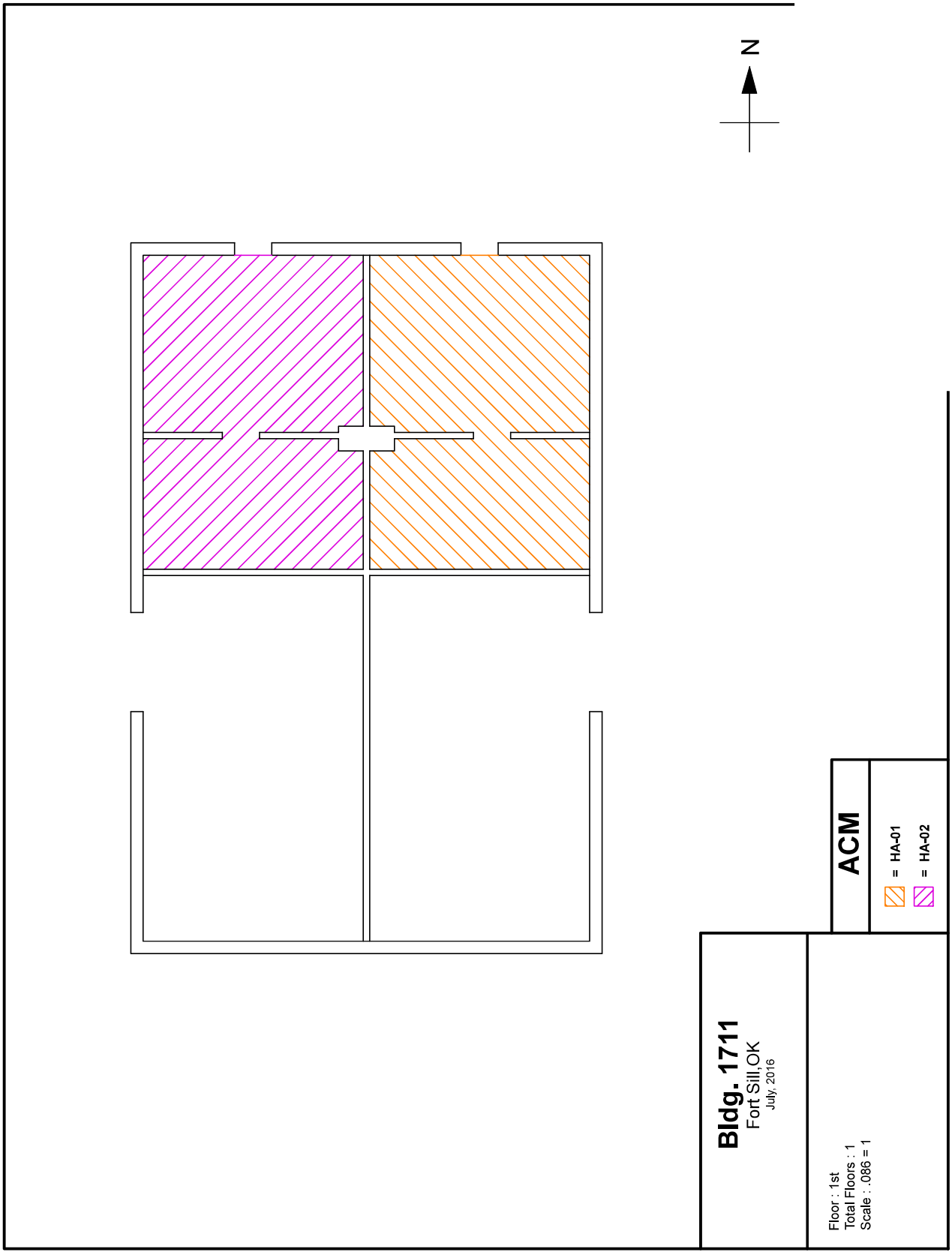
12.0 LABORATORY ACCREDITATIONS



Appendix E

13.0
ACM LOCATION
DRAWINGS & PICTURES


N
02-02
01-01
105
103
04-02
01-02
02-01
106
104
04-01
57'-4"
102
03-01
101
03-02
05-02
05-01
38'
Bldg. 1711
Fort Sill,OK
July, 2016
Floor : 1st
Total Floors : 1
Scale : .086 = 1
100 : Assigned Location Identification Number
= Sample Location


N
ACM
= HA-01
= HA-02
Bldg. 1711
Fort Sill,OK
July, 2016
Floor : 1st
Total Floors : 1
Scale : .086 = 1

(HA-01)
Asbestos Detected

(HA-02)
Asbestos Detected

(HA-03)
No Asbestos Detected

(HA-04)
No Asbestos Detected

(HA-05)
No Asbestos Detected