The Oklahoma Department of Environmental Quality (DEQ) is pleased to present the City of Miami with the Final Remediation Report for the former Miami Armory.

DEED NOTICE

A Notice of Remediation has been filed in the county courthouse and is included in this report. It summarizes remediation performed at the former Miami Armory and describes continuing operation and maintenance and land use restrictions. This completes the DEQ cleanup of the property. For more detail on the activities described below, see enclosed reports.

ASBESTOS REMEDIATION

DEQ and its contractors completed the following activities:

- Asbestos inspection, including:
  - Asbestos containing floor tile mastic
- Asbestos abatement, including:
  - Removal of floor tile mastic
  - Removal of asbestos-containing pipe wrap

TARGETED BROWNFIELD ASSESSMENT

In March 2010, DEQ provided a Phase I Targeted Brownfield Assessment to the City of Miami. A copy of this report is available at http://www.deq.state.ok.us/lpdnew/scapIndex.htm

LEAD REMEDIATION

DEQ and its contractors completed the following activities:

- Lead-based paint (LBP) inspection
- Lead dust wipe sampling
- Soil sampling outside of armory
- LBP abatement, including:
  - Scraping and sealing beams and soffits under entrance overhang, walls containing LBP, window sills, floors, overhead doors, frames, and guards
  - Removal and replacement of windows and doors containing LBP
- Lead dust cleanup, including:
  - High efficiency particulate air (HEPA) vacuuming and wet washing floors of the entire building
- Proper disposal of associated waste

Additional copies of this report can be found at http://www.deq.state.ok.us/lpdnew/scapIndex.htm and DEQ Central Records at 707 N Robinson Oklahoma City, Oklahoma 73101.

This publication is issued by the Oklahoma Department of Environmental Quality authorized by Steven A. Thompson, Executive Director. Copies have been prepared at a cost of $0.053 each. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries. cmullins\LPD\Armories_SCAP\ArmoryReports\MiamaArmory. 6/2012.

Former National Guard Armory
Miami, Oklahoma

Remediation Final Report

Prepared by:
Department of Environmental Quality
707 North Robinson
Oklahoma City, Oklahoma 73101

1 Deeds and Legal Documents

Maintenance Plan

3 Inspection Reports

4 Scope of Work

Final Abatement Reports

6 Confirmation Sampling

DEEDS AND LEGAL DOCUMENTS

I-2009-002535 Book0888 Pg: 85
05/14/2009 3:09 pm $13.00
Reba G Sill - Ottawa County Clerk

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS:

THAT THE STATE OF OKLAHOMA, ACTING THROUGH THE OKLAHOMA MILITARY DEPARTMENT, by its Adjutant General, Major General Myles L. Deering, hereinafter referred to as the "Grantor," and in consideration of the sum of Ten and No/100 Dollars ($10.00) and other valuable consideration in hand paid, the receipt of which is hereby acknowledged, does hereby Quitclaim, Grant, Bargain, Sell and Convey unto the **OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY,** hereinafter referred to as the "Grantee," the following described Real Property, together with any and all improvements thereon and appurtenances thereunto belonging situated in Ottawa County, State of Oklahoma.

Block One Hundred Sixty-Seven (167) original plat to the City of Miami, Ottawa County, State of Oklahoma

Grantee to hold said land for the purposes of environmental characterization and remediation thereof as determined to be necessary by the Oklahoma Department of Environmental Quality, and upon the filing of a recordable Notice of Remediation in the land records of Ottawa County, the described real property shall transfer to the City of Miami, together with any and all improvements thereon and appurtenances thereunto belonging.

TO HAVE AND TO HOLD the Real Property unto the Grantee, free, clear and discharged of and from all former grants, charges and other encumbrances of whatsoever nature except for the interest specifically granted to the City of Miami, Ottawa County herein and any easements of record.

EXECUTED AND DELIVERED this 7 day of April, 2009.

STATE OF OKLAHOMA

By: _____
Major General Myles L. Deering
Adjutant General of the State of Oklahoma

This Transaction Is Exempt from Document Stamps, 68 O.S. § 3202(11).

NO DOCUMENTARY STAMPS REQUIRED
1988 O.S. Title 68, Sec. 3202 11

STATE OF OKLAHOMA)
) SS:
COUNTY OF OKLAHOMA)

This instrument was acknowledged before me this 7th day of April, 2009, by Major General Myles L. Deering, as Adjutant General of the State of Oklahoma, on behalf of the State of Oklahoma.

(SEAL)

_____
Notary Public

Commission No. 07000131

My Commission Expires: January 3, 2011

I-2012-001932 Book0947 Pg:755
04/26/2012 12:42 pm $17.00
Reba G Sill - Ottawa County Clerk

NOTICE OF REMEDIATION AND EASEMENT
FORMER MIAMI ARMORY
MIAMI, OKLAHOMA

LEGAL BASIS FOR NOTICE: The Oklahoma Department of Environmental Quality (DEQ) hereby files this Notice of Remediation pursuant to Oklahoma Statutes, 27A § 2-7-123 (C). This Notice does not grant any right to any person not already allowed by law and shall not be construed to authorize or encourage any person or other legal entity to cause or increase pollution, to avoid compliance with state or federal laws and regulations regarding pollution or to escape responsibility for maintaining environmentally sound operations.

The DEQ may take administrative or civil action to recover costs or to compel compliance with the Land Use Restrictions and to prevent damage to or interference with the Engineering Controls and Continuing Operation, Maintenance of said Engineering Controls herein described.

The Land Use Restrictions, Engineering Controls and Continuing Operation, Maintenance of said Engineering Controls shall apply to the Affected Property and to persons who own and/or use the Affected Property until such time as the DEQ files a subsequent Notice of Remediation that changes or removes one or more of them. Activities that cause or could cause damage to the Remedy or the Engineering Controls or recontamination of soil or groundwater are prohibited.

The owner of the Affected Property has the legal authority to create, and does hereby voluntarily create, an easement granted to the DEQ and its employees and agents, for ingress and egress through, across and onto the parking and other outside areas of the Affected Property as they exist from time to time to assure the ongoing protection of the Remedy, Engineering Controls and Land Use Restrictions. This easement touches and concerns the land and runs with the land, is legally binding on all current and future owners and tenants of the Affected Property, and shall only be removed or modified if and when the DEQ modifies or removes the Land Use Restrictions, Engineering Controls and Continuing Operation, Maintenance of said Engineering Controls.

REASON FOR NOTICE: The below described Affected Property was contaminated with materials that required remediation pursuant to state and federal environmental laws and regulations. Sampling performed by DEQ contractors, conducted on Sampling performed by DEQ contractors, conducted on July 7, 2009, indicated that there was asbestos, lead-based paint, and lead dust in the building.

AFFECTED PROPERTY: The Affected Property is the former Miami Armory located at 129 5th Street NW Miami, Ottawa County, Oklahoma 74355

The legal description is as follows:
Block One Hundred Sixty-Seven (167) Original Plat to the City of Miami, Ottawa County, State of Oklahoma.

REMEDY: Remediation activities (Remedy) at the Affected Property included abatement of asbestos, lead-based paint and dust. The remedy was completed on February 29, 2012.

For more detailed information please refer to *Former National Guard Armory Miami, Oklahoma Remediation Final Report.* To obtain a copy of the report, contact:

Oklahoma Department of Environmental Quality
Central Records

Mailing Address
P.O. Box 1677
Oklahoma City, Oklahoma 73101

Physical Address
707 N Robinson
Oklahoma City, OK 73102

Electronic Address
http://www.deq.state.ok.us/lpdnew/scapIndex.htm

DISCLAIMER

(A) **Lead:** DEQ did not test every painted surface inside and outside of the building, therefore there is a potential for lead-based paint at the affected property.

(B) **Asbestos:** DEQ did not test all building materials inside and outside of the building, therefore there is a potential for asbestos at the affected property.

CONTINUING OPERATION, MAINTENANCE AND MONITORING

(A) **Lead-based paint encapsulant:** Lead-based paint encapsulant was applied over lead-based paint on non-friction surfaces. These areas should be periodically inspected and maintained as appropriate.

LAND USE RESTRICTIONS: The land use restrictions at the above-described Affected Property are:

a. No residential use of the property by children age 6 or under. Residential use is defined as having a child present at the Affected Property for more than sixteen (16) hours within one twenty four (24) hour period.

These land use restrictions apply to the entirety of the Affected Property described herein above.

CHANGING LAND USE RESTRICTIONS: Changes to land use restrictions must be approved by the DEQ or its successor agency. The person requesting the change in land use must demonstrate to the DEQ's satisfaction that contamination at the site has reached levels appropriate for the proposed new land uses and that further remediation is not necessary or that additional institutional or engineering controls are adequate to achieve levels protective of human health and the environment for the proposed uses.

The DEQ may require oversight costs, work plans, sampling, reports, and public participation as part of its review of the new information to support the requested change in land use restrictions. The person requesting the change will be required to follow agency procedures effective at the time of the request.

I-2012-001932 Book0947 Pg:757
04/26/2012 12:42 pm $17.00
Reba G Sill - Ottawa County Clerk

The DEQ at its discretion may determine, based on the new information submitted, that contaminants are present at the Site at levels that will not pose a risk to human health or the environment if the new land use restrictions being requested are allowed. Upon making this determination, the DEQ will file a recordable notice of remediation pursuant to state law in the land records in the in the office of the county clerk where the Site is located designating the new land use restrictions.

This Notice of Remediation and the restrictions and requirements contained herein run with the land and no change of ownership of the Affected Property will change the Land Use Restrictions.

Steven A. Thompson, Executive Director
Oklahoma Department of Environmental Quality

4-3-12
Date

ACKNOWLEDGMENT

STATE OF OKLAHOMA
COUNTY OF OKLAHOMA

Before me, a Notary Public, in and for said County and State, on this 3 day of April, 2012, personally appeared Steven A. Thompson to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that executed the same as free and voluntary act and deed for the uses and purposed therein set forth.

In Testimony Whereof, I have hereunto set my hand and official seal the day and year above written.

My Commission expires:

02/17/13, 2013.

Linda Yarber
Notary Public

LINDA YARBER NOTARY # 08001328 EXP 02/17/13 PUBLIC STATE OF OKLAHOMA

MAINTENANCE PLAN

MAINTENANCE PLAN
FORMER MIAMI ARMORY
MIAMI, OKLAHOMA

The Armory located at 830 D Street Southeast, Miami, Oklahoma was contaminated with materials that required remediation pursuant to State and Federal environmental laws and regulations. Please refer to Attachment 1 for land use restrictions. Sampling performed by DEQ contractors, conducted on July 07, 2009, indicated that there was asbestos, lead-based paint, and lead dust in the building. Remediation activities at the Affected Property included abatement of asbestos, lead-based paint, and lead dust. The remedy was completed on February 29, 2012. The following maintenance plan is to be completed by the owner of the Affected Property. DEQ recommends inspection of remediated areas every 5 years. During site inspections the owner should note any signs of disrepair or improper maintenance. Continuing operation, maintenance and monitoring should include:

1. All window lintels, window sills, overhead door frames, and overhead door guards were scrapped and encapsulated with lead-based paint encapsulant. These surfaces need to be re-encapsulated if lead-based paint encapsulant shows signs of deterioration, damage, or flaking.

2. The beams and soffit under entrance overhang, a concrete wall in Drill Floor, two overhead doors, and the fire door frame were scrapped and encapsulated with lead-based paint encapsulant. These surfaces need to be re-encapsulated if lead-based paint encapsulant shows signs of deterioration, damage, or flaking. See Attachment 2 for Miami Armory Floor Plan Map with these locations marked.

Note – A list of DEQ approved acrylic sealant and elastomeric encapsulants is attached (Attachment 3). DEQ did not test every painted surface and all building materials inside and outside of the building, therefore there is a potential for lead-based paint and asbestos at the affected property.

If you have any questions or concerns feel free to contact me at (405) 702-5115.

Sincerely,

Dustin Davidson

Dustin Davidson
Environmental Programs Specialist
DEQ Land Protection Division
Site Cleanup Assistance Program

ATTACHMENT 1

Land use Restrictions

LAND USE RESTRICTIONS: The land use restrictions at the above-described Affected Property are:

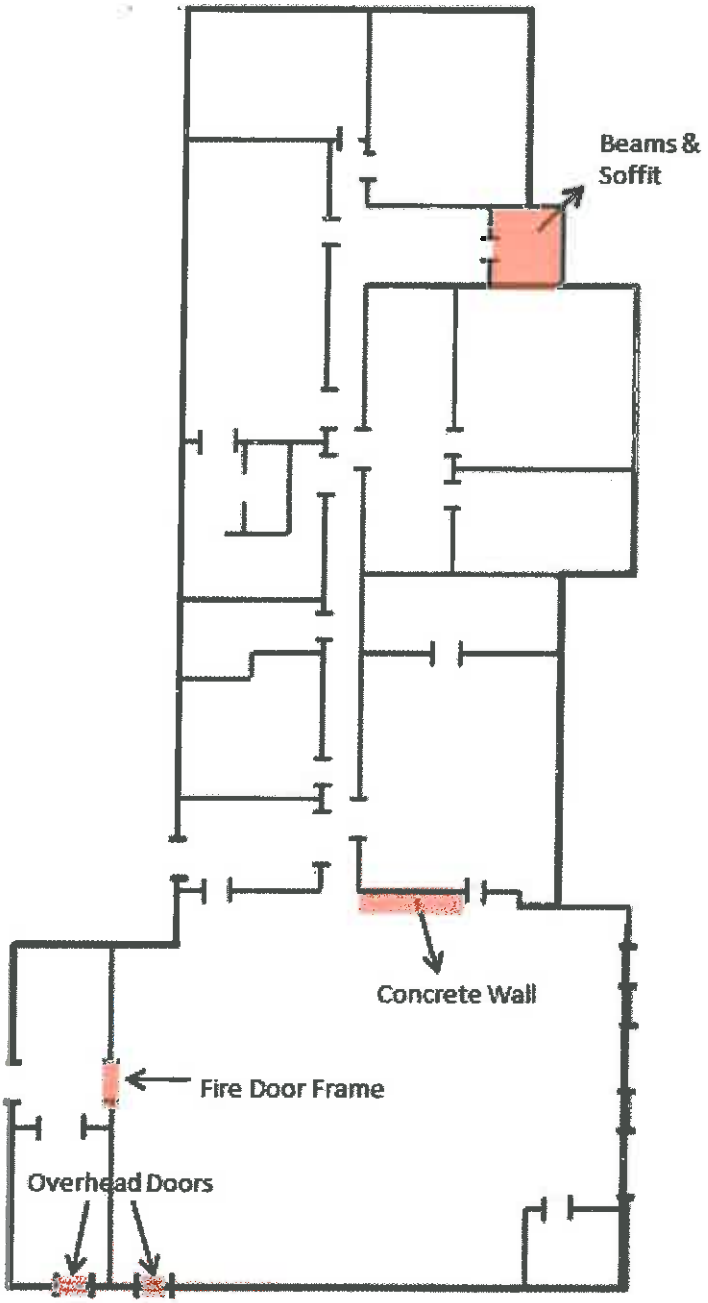
a. No residential use of the property by children age 6 or under. Residential use is defined as having a child present at the Affected Property for more than sixteen (16) hours within one twenty four (24) hour period.

These land use restrictions apply to the entirety of the Affected Property described herein above.

ATTACHMENT 2

Floor Plan Map

Labeled areas represent locations with encapsulant.



ATTACHMENT 3

DEQ Approved Sealants and Encapsulants List

Acrylic Sealant approved by DEQ

KM-669 Acrylic

Lead-Based Paint Encapsulants approved by DEQ

Encapsulant Manufacturer	Encapsulant Product(s)
Coronado Paint Company	LEAD BLOCK™
Dumond Chemicals	LEAD STOP™
Dynacraft Industries, Inc.	Back to Nature Protect-A-Coat
Encap Systems Corporation	EncapSeal™ I
Encap Systems Corporation	EncapSeal™ II
Fiberlock Technologies, Inc.	Child GUARD interior/exterior
Fiberlock Technologies, Inc.	L-B-C® Type III
Global Encasement, Inc.	LeadLock™
Grace Construction Products	Lead Seal®
Grace Construction Products	Barrier Coat® II
Insl-x Products Corporation	INSL-CAP™
SAFE Encasement Systems	SE-120 Protective Skin
Specification Chemicals, Inc.	NU-WAL® #2500 Coating

INSPECTION REPORTS

24

OCT 26 2009

Lead-Based Paint Inspection
And
Settled Dust Sampling

Miami Armory
830 D Street Southeast
Miami, Oklahoma 74354

July 7, 2009

DCS Contract NO.: ID009139-4

PROVIDED FOR
Oklahoma Department of Environmental Quality
Land Protection Division
707 North Robinson
Oklahoma City, OK 73102

PROVIDED BY
Marshall Environmental Management, Inc.
1601 Southwest 89th Street, Suite 100-A
Oklahoma City, OK 73159

OCT 26 2009

Lead-Based Paint Inspection
And
Settled Dust Sampling

Miami Armory
830 D Street Southeast
Miami, Oklahoma 74354

July 7, 2009

DCS Contract NO.: ID009139-4

PROVIDED FOR
Oklahoma Department of Environmental Quality
Land Protection Division
707 North Robinson
Oklahoma City, OK 73102

PROVIDED BY
Marshall Environmental Management, Inc.
1601 Southwest 89th Street, Suite 100-A
Oklahoma City, OK 73159

Table of Contents

CERTIFICATION

This is to certify, that Marshall Environmental Management, Inc. was contracted by the State of Oklahoma, Department of Central Services to conduct a Lead-Based Paint Inspection and Settled Dust Sampling within the Miami Armory, for the State of Oklahoma Department of Environmental Quality, Land Protection Division. The Miami Armory Lead-Based Paint Inspection and Settled Dust Sampling was performed by an Oklahoma Department of Environmental Quality Certified, Lead-Based Paint Inspector/Risk Assessor, Jamie Marshall of Marshall Environmental Management, Inc., under the direction of Dr. Charles L. Marshall, C.I.H., President of Marshall Environmental Management, Inc. The analytical results associated with this Lead-Based Paint Inspection and Settled Dust Sampling are believed to accurately reflect the locations and concentrations of paint and dust containing lead.

Current Owner Information

State of Oklahoma

Certified Lead Based Paint Risk Assessor/Inspector

10/21/09

Jamie Marshall, B.S., Industrial Hygiene Associate — Date

Oklahoma Department of Environmental Quality Certification Number: OKRASR13418

Certified Lead-Based Paint Firm

Marshall Environmental Management, Inc.
1601 SW 89th Street, Suite A-100
Oklahoma City, OK 73159
(405) 616-0401

Oklahoma Department of Environmental Quality Certification Number: OKFIRM11160

XRF Information

Niton XLp Spectrum Analyzer
Model #XLp 300A
Serial #12585
Source: 40 mCi

Information Reviewed & Approved By:

10/21/09

Dr. Charles L. Marshall, C.I.H., C.S.P. — Date

EXECUTIVE SUMMARY

Marshall Environmental Management, Inc. conducted a Lead-Based Paint Inspection and collected samples of settled of dust within the Miami Armory on July 7, 2009, in order to evaluate the locations, condition and content of suspected lead-based paint and lead-laden dust, which may be present.

The Miami Armory is located at 830 D Street Southeast in Miami, Oklahoma. The Armory is a single story structure, with a brick façade that was constructed in 1957. The Armory was constructed on a traditional concrete slab foundation with a partial pitched and flat roof.

The analytical results associated with this Lead-Based Paint Inspection did identify lead-based paint on various windows and window ledges, doors, doorjambs and door rollers and several wall and cabinet surfaces throughout the Miami Armory. Additionally, various floor surface areas within the Armory were positive for lead-laden dust.

The remainder of this Report includes the Sampling Methodology, the Findings, the Disclosure Statement and Owners Legal Obligation and information regarding lead-based paint. Specific sampling locations and the analytical data correlating with this Inspection and Sampling Event are included in the Appendix of this Report.

SAMPLING METHODOLOGY

Various painted and floor surfaces within the Armory were sampled and analyzed for lead content. Sample collection and analysis was performed in accordance with the United States Department of Housing and Urban Development (HUD) guidelines, "*HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*"; and the United States Environmental Protection Agency (EPA) proposed regulations, 40 Code of Federal Regulations (CFR) part 745.

Lead-Based Paint

Lead concentrations were sampled and analyzed on all applicable painted surfaces by utilizing an x-ray fluorescence (XRF), direct reading, data logging instrument. Lead concentrations identified as greater than or equal to 1-milligram per square centimeter (mg/cm^2) are characterized as "Lead-Based Paint." per the HUD guidelines and the EPA proposed regulations.

The east side of the Armory was labeled Side A and going in a clockwise direction, the remaining sides were categorized as Side B, Side C and Side D, respectively. Each door and window within the Armory was given a sequential number that corresponds with the floor plan included with the Appendix of this Report.

Lead-Laden Dust

Various floor surface areas throughout the Armory were sampled and analyzed for lead-laden dust. Analytical results with lead concentrations equal to or greater than 40-micrograms per

square foot ($\mu g/ft^2$) represent lead contamination per the HUD guidelines and the EPA proposed regulations.

The collection of settled dust was accomplished by wiping a selected surface area of a known dimension in a specified pattern in accordance with the HUD guidelines and the EPA proposes regulations. Each sample was given a sample number, which corresponds with the respective room number. All sample locations were labeled in sequential number order and plotted on the floor plan included with the Appendix of this Report.

FINDINGS

The analytical results associated with this Lead-Based Paint Inspection and Settled Dust Sampling did discover lead-based paint and lead-laden dust on various surfaces throughout the Miami Armory. The following tables list and categorize the surfaces, which were identified as "Positive" for lead-based paint and/or lead-laden dust.

Table I: Painted Windows

Window Number	Result	Dimensions
1	**Positive**	34½" x 45"
2	**Positive**	34½" x 45"
3	**Positive**	34½" x 45"
4	**Positive**	34½" x 45"
5	**Positive**	34½" x 45"
6	**Positive**	34½" x 45"
7	**Positive**	34½" x 45"
8	**Positive**	34½" x 45"
9	**Positive**	34½" x 45"
10	**Positive**	32" x 44"
11	**Positive**	32" x 44"
12	**Positive**	32" x 44"
13	**Positive**	32" x 44"
14	**Positive**	32" x 44"
15	**Positive**	32" x 44"
16	**Positive**	33" x 49"
17	**Positive**	33" x 33"
18	**Positive**	33" x 41"
19	**Positive**	33" x 41"
20	**Positive**	33" x 41"
21	**Positive**	33" x 41"
22	**Positive**	33" x 41"
23	**Positive**	33" x 41"
24	**Positive**	48" x 41"
25	**Positive**	48" x 41"
26	**Positive**	48" x 41"

Window Number	Result	Dimensions
27	**Positive**	48" x 41"
28	**Positive**	48" x 41"
29	**Positive**	48" x 41"
30	**Positive**	48" x 41"
31	**Positive**	48" x 41"
32	**Positive**	48" x 41"
33	**Positive**	65" x 57"
34	**Positive**	65" x 57"
35	**Positive**	33" x 44½"
36	**Positive**	33" x 44½"
37	**Positive**	33" x 44½"

Table II: Painted Doors & Doorjambs

Door Number	Door Result	Doorjamb Result	Dimensions
1	Negative	Negative	
2	No Door	Negative	
3	Negative	Negative	
4	Negative	Negative	
5	Negative	Negative	
6	Negative	Negative	
7	Negative	Negative	
8	Negative	Negative	
9	Negative	Negative	
10	Negative	Negative	
11	Negative	Negative	
12	**Positive**	Negative	83" x 36"
13	Negative	Negative	
14	Negative	Negative	
15	Negative	Negative	
16	Negative	Negative	
17	Negative	Negative	
18	Negative	Negative	
19	**Positive**	**Positive**	84" x 36"
20	No Door	No Paint	
21	**Positive**	**Positive**	Fire Door
22	**Positive**	**Positive**	84" x 71½"
23	Negative	No Paint	
24	Negative	No Paint	

Table III: Miscellaneous Surfaces Positive for Lead-Based Paint

Room Number/Name	Location	Description
Exterior	Side A1	White Soffit under Entrance Overhang
Exterior	Side A1	White Beam under Entrance Overhang
Room 6	Side A	Brown Wood Cabinet
Room 6	Side A	Brown Wood Cabinet
Room 12	Side B	White Wood Window Ledge
Room 13	Side D	Black Concrete Wall
Room 13	Side B	White Overhead Door
Room 13	Side B	White Overhead Doorjamb
Exterior	Side B	White Corner Piece Overhead Door Protectors
Room 13	Side A	White Overhead Door
Room 13	Side A	White Overhead Doorjamb
Exterior	Side A2	White Corner Piece Overhead Door Protectors
Room 13	Side A	Blue Overhead Door Rollers
Room 13	Side A	Blue Overhead Door Roller Track
Room 13	Side C	White Door Slide
Room 13	Side C	White Doorjamb

Table IV: Floor Surfaces

Sample Number	Sample Location	Concentration ($\mu g/ft^2$)	Clearance Level ($\mu g/ft^2$)
1	Room 1	27.05	40
2	Room 2	**129.48**	40
3	Room3	**86.62**	40
4	Room 4	**73.55**	40
5	Room 5	**51.01**	40
6	Room 6	**126.15**	40
7	Room 7	**281.24**	40
8	Room 8	**79.17**	40
9	Room 9	**134.89**	40
10	Room 10	**163.37**	40
11	Room 11	**231.93**	40
12	Room 12	**99.21**	40
13	Room 13	**3301.20**	200
14	Room 13 West	**2203.50**	200
15	Room 13 Center	**407.30**	200
16	Room 13 East	**4003.50**	200
17	Room 14	**2391.98**	40
18	Room 15	**3341.15**	40
19	Room 16	**753.21**	40

Please note that the following surfaces were not analyzed for lead content at the time this Lead-Based Paint Inspection was performed:

- Non-fixed Items on the property
- Factory Painted Substrates

DISCLOSURE STATEMENT AND OWNERS LEGAL OBLIGATION

Federal law requires, to the extent this facility would be covered by HUD and EPA guidelines, that the analytical results associated with lead-based paint inspections and/or risk assessments be disclosed to prospective renters, lessees and/or tenants entering into or renewing a lease and to prospective purchasers, prior to obligation under a sales contract, if lead-based paint is found. If the inspection finds that lead-based paint is not present in certain multifamily dwelling units, which are to be leased, the dwelling unit(s) is exempt from disclosure requirements. However, for dwelling units, which are being sold, not leased, the owner still has certain legal responsibilities to fulfill under Federal law **even if no lead-based paint is identified.** Property owners and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that information is provided in order to protect children from lead-based paint hazards.

Information regarding the legal obligation to disclose results associated with lead-based paint inspections and/or risk assessments to tenants and/or purchasers can be obtained from the National Lead Information Center Clearinghouse (1-800-424-LEAD). This information is specified in 24 CFR, part 35 and 40 CFR, part 745 (published in the *Federal Register*, Volume 61, Number 45, April 6, 1996, beginning on p. 9064).

LEAD-BASED PAINT INFORMATION

You may contact the National Lead Information Center Clearinghouse (1-800-424-LEAD) to obtain HUD and EPA brochures, question and answer booklets, the regulations mentioned in this report and other information regarding lead-based paint disclosure.

APPENDIX

Surface Wipes
Chain of Custody
Analytical Data

XRF Data

Certificates

Labeled Floor Plans
Windows
Doors and Doorjambs
Miscellaneous Surfaces

160[illegible] 9th St. Ste. 100-A
Oklahoma City, OK 73159

Chain of [illegible]stody
Marshall Environmental Management, Inc.

Phone: (405) 610-[illegible]
Fax: (405) 681-6753
marshenv@swbell.net

174459

PROJECT				INVOICE TO				REPORT TO			
Project Number	0083-LBP-070709 JM			Client/ Company				Client/ Company			
Project Name	Miami			Attention				Attention			
Project Address				Address				Address			
Phone Number		Site Contact		Phone Number		Email		Phone Number		Email	

Sample Date	Sample Number	Room Number/Designation	Sample Location	Sample Composition	Matrix	Media	Time		Calibration		Volume/ Area	Analysis/ Parameters
7/7	1	Room 1					On		Pre		96ft²	Total Pb
							Off		Post			
	2	Room 2					On		Pre			
							Off		Post			
	3	Room 3					On		Pre			
							Off		Post			
	4	Room 4					On		Pre			
							Off		Post			
	5	Room 5					On		Pre			
							Off		Post			
	6	Room 6					On		Pre			
							Off		Post			
	7	Room 7					On		Pre			
							Off		Post			
	8	Room 8					On		Pre			
							Off		Post			
	9	Room 9					On		Pre			
							Off		Post			
	10	Room 10					On		Pre			
							Off		Post			

Collected By	Jacob Jones (print)	Date	7/7/09	Relinquished By	Jacob Jones (print)	Date	7/29/09	Sample			
	(signature)	Time	3:30		(signature)	Time	5:40 pm	Notes			
Received By	(print)	Date		Relinquished By	S. Patrick (print)	Date	7/29/09	Method of			
	(signature)	Time			(signature)	Time	5:40	Shipment			
Received By	(print)	Date		Relinquished By	(print)	Date		Condition			
	(signature)	Time			(signature)	Time		Upon Receipt			

Page __ of __

Standard TAT

160[illegible]9th St. Ste. 100-A
Oklahoma City, OK 73159

Chain of Custody
Marshall Environmental Management, Inc.

Phone: (405) 616-[illegible]
Fax: (405) 681-6753
marshenv@swbell.net

174459

PROJECT		INVOICE TO		REPORT TO	
Project Number	0083-LBP-070709-JM	Client/ Company		Client/ Company	
Project Name	Miami	Attention		Attention	
Project Address		Address		Address	
Phone Number	Site Contact	Phone Number	Email	Phone Number	Email

Sample Date	Sample Number	Room Number/Designation	Sample Location	Sample Composition	Matrix	Media	Time	Calibration	Volume/ Area	Analysis/ Parameters
7/7	11	Room 11				Wipe	On / Off	Pre / Post	96 in²	Total Pb
	12	Room 12					On / Off	Pre / Post		
	13	Room 13					On / Off	Pre / Post		
14	13W	Room 13 West					On / Off	Pre / Post	144 in²	
15	13C	Room 13 Center					On / Off	Pre / Post		
16	13E	Room 13 East					On / Off	Pre / Post		
17	~~14~~ 15	Room 14					On / Off	Pre / Post	96 in²	
18	15	Room 15					On / Off	Pre / Post		
9	16	Room 16					On / Off	Pre / Post		
							On / Off	Pre / Post		

Collected By	(print)	Date		Relinquished By	(print)	Date		Sample Notes	
	(signature)	Time			(signature)	Time			
Received By	(print)	Date		Relinquished By	(print)	Date		Method of Shipment	
	(signature)	Time			(signature)	Time			
Received By	(print)	Date		Relinquished By	(print)	Date		Condition Upon Receipt	
	(signature)	Time			(signature)	Time			

Page ___ of ___

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 174459
Date Received: 07/30/09
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: EC
Date of Report: 8/4/2009

AIHA ID: 101352

Client: Marshall Environmental Management, Inc.
1601 SW 89th Street, Ste. A-100
Oklahoma City, OK 73159

Acct. No.: A331

Project: Miami
Location: N/A
Project No.: 0083-LBP-070709 JM

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	27.05	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
002	2	Wipe	Lead	129.48	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
003	3	Wipe	Lead	86.62	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
004	4	Wipe	Lead	73.55	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
005	5	Wipe	Lead	51.01	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
006	6	Wipe	Lead	126.15	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
007	7	Wipe	Lead	281.24	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
008	8	Wipe	Lead	79.17	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
009	9	Wipe	Lead	134.89	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
010	10	Wipe	Lead	163.37	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
011	11	Wipe	Lead	231.93	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100

Note: Sample results have not been corrected for blank values.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

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Project: Miami
Location: N/A
Project No.: 0083-LBP-070709 JM

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
012	12	Wipe	Lead	99.21	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
013	13	Wipe	Lead	3301.20	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
014	13W	Wipe	Lead	2203.50	16.00	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
015	13C	Wipe	Lead	407.30	16.00	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
016	13E	Wipe	Lead	4003.50	16.00	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
017	14	Wipe	Lead	2391.98	23.99	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
018	15	Wipe	Lead	3341.15	23.99	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
019	16	Wipe	Lead	753.21	23.99	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100

Authorized Signature: _____
Eric Caves, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

Note : corner piece = Overhead door guard.

Marshall Environmental Management Inc.
1601 SW 89th Street, Suite A100
Oklahoma City, OK 73159

Index	Time	Units	Sequence	Component	Substrate	Side	Color	Results	PbC	PbL	PbK
4	2009-07-07 11:15	mg / cm ^2	Final			CALIBRATE		Positive	1.10 ± 0.10	1.10 ± 0.10	1.00 ± 0.50
5	2009-07-07 11:18	mg / cm ^2	Final			CALIBRATE		Positive	1.10 ± 0.10	1.10 ± 0.10	1.00 ± 0.30
6	2009-07-07 11:19	mg / cm ^2	Final			CALIBRATE		Positive	1.20 ± 0.20	1.20 ± 0.20	1.00 ± 0.60
7	2009-07-07 11:22	mg / cm ^2	Final	WINDOW	METAL	ROOM 13 D	BROWN	Positive	< LOD : 12.45	< LOD : 12.45	< LOD : 24.00
8	2009-07-07 11:23	mg / cm ^2	Final	WINDOW	METAL	ROOM 13 D	BROWN	Positive	< LOD : 12.60	< LOD : 12.60	< LOD : 22.50
9	2009-07-07 11:25	mg / cm ^2	Final	LEDGE	METAL	ROOM 13 D	BROWN	Negative	< LOD : 0.08	LOD : 0.08	LOD : 2.29
10	2009-07-07 11:26	mg / cm ^2	Final	RISER	METAL	ROOM 13 D	BROWN	Negative	< LOD : 0.19	LOD : 0.19	LOD : 2.69
11	2009-07-07 11:27	mg / cm ^2	Final	WINDOW	METAL	ROOM 13 D	BROWN	Positive	6.40 ± 4.10	6.40 ± 4.10	< LOD : 21.30
12	2009-07-07 11:32	mg / cm ^2	Final	WINDOW	METAL	OUTSIDE SIDE B!	WHITE	Positive	< LOD : 8.85	< LOD : 8.85	< LOD : 12.00
14	2009-07-07 11:38	mg / cm ^2	Final	OVERHEAD DOOR	METAL	OUTSIDE SIDE B!	WHITE	Positive	< LOD : 4.95	< LOD : 3.60	< LOD : 4.95
15	2009-07-07 11:39	mg / cm ^2	Final	OVERHEAD DOOR	DOOR JAM	OUTSIDE SIDE B!	WHITE	Positive	< LOD : 9.90	< LOD : 21.60	< LOD : 9.90
16	2009-07-07 11:41	mg / cm ^2	Final	CORNER PIECE	METAL	OUTSIDE SIDE B!	WHITE	Positive	< LOD : 8.70	< LOD : 9.15	< LOD : 8.70
17	2009-07-07 11:42	mg / cm ^2	Final	WINDOW	METAL	C1	WHITE	Positive	< LOD : 4.80	< LOD : 4.80	< LOD : 9.75
18	2009-07-07 11:44	mg / cm ^2	Final	DOOR	METAL	C1 #22	WHITE	Positive	< LOD : 8.25	< LOD : 7.35	< LOD : 8.25
19	2009-07-07 11:45	mg / cm ^2	Final	DOOR jam	METAL	C1 #22	WHITE	Positive	4.80 ± 2.80	4.80 ± 2.80	< LOD : 4.95
20	2009-07-07 11:48	mg / cm ^2	Final	WINDOW	METAL	D1	WHITE	Positive	< LOD : 5.55	< LOD : 5.55	< LOD : 10.80
23	2009-07-07 11:53	mg / cm ^2	Final	DOOR jam #22	METAL	C2 #22	WHITE	Negative	0.70 ± 0.20	0.70 ± 0.20	LOD : 1.0-
24	2009-07-07 11:55	mg / cm ^2	Final	window guard	METAL	c2	WHITE	Negative	< LOD : 0.08	LOD : 0.08	LOD : 4.36
25	2009-07-07 11:56	mg / cm ^2	Final	WINDOW	METAL	c2	WHITE	Positive	1.30 ± 0.30	1.30 ± 0.30	2.00 ± 1.00
26	2009-07-07 11:57	mg / cm ^2	Final	WINDOW	METAL	c2	WHITE	Positive	1.60 ± 0.60	1.60 ± 0.60	< LOD : 2.55
27	2009-07-07 11:59	mg / cm ^2	Final	WINDOW	METAL	D2	WHITE	Negative	< LOD : 0.06	LOD : 0.06	LOD : 1.65
28	2009-07-07 11:59	mg / cm ^2	Final	WINDOW	METAL	D2	WHITE	Positive	2.10 ± 1.10	2.10 ± 1.10	< LOD : 4.35
31	2009-07-07 12:02	mg / cm ^2	Final	WINDOW frame	METAL	D2	WHITE	Positive	1.30 ± 0.20	1.30 ± 0.20	1.50 ± 0.50
32	2009-07-07 12:04	mg / cm ^2	Final	DOOR jam	METAL	A	WHITE	Negative	< LOD : 0.75	< LOD : 0.75	LOD : 2.39
33	2009-07-07 12:07	mg / cm ^2	Final	soffit	METAL	A	WHITE	Positive	1.70 ± 0.70	1.70 ± 0.70	< LOD : 2.80
34	2009-07-07 12:08	mg / cm ^2	Final	BEAM	METAL	A	WHITE	Positive	2.20 ± 1.06	2.20 ± 1.00	< LOD : 2.85
35	2009-07-07 12:09	mg / cm ^2	Final	door#19	METAL	A2	WHITE	Positive	< LOD : 14.10	< LOD : 15.00	< LOD : 14.10
36	2009-07-07 12:11	mg / cm ^2	Final	door jam-#19	METAL	A2	WHITE	Positive	< LOD : 4.50	< LOD : 1.80	< LOD : 4.50
37	2009-07-07 12:12	mg / cm ^2	Final	overhead door	METAL	A2	WHITE	Positive	5.20 ± 3.40	< LOD : 2.40	5.20 ± 3.40
38	2009-07-07 12:13	mg / cm ^2	Final	overhead door jam	METAL	A2	WHITE	Positive	< LOD : 8.55	< LOD : 5.10	< LOD : 8.55
39	2009-07-07 12:15	mg / cm ^2	Final	corner piece	METAL	A2	WHITE	Positive	2.30 ± 1.00	0.70 ± 0.40	2.30 ± 1.00
40	2009-07-07 12:18	mg / cm ^2	Final	door#19	METAL	A2	WHITE	Positive	< LOD : 9.30	< LOD : 6.60	< LOD : 9.30
41	2009-07-07 12:19	mg / cm ^2	Final	door jam 19	METAL	A2	WHITE	Positive	3.20 ± 1.90	3.20 ± 1.90	< LOD : 4.95
42	2009-07-07 12:23	mg / cm ^2	Final	corner board	WOOD	B room14	gray	Negative	< LOD : 0.12	< LOD : 0.12	LOD : 1.83
43	2009-07-07 12:25	mg / cm ^2	Final	WALL	WOOD	d room 14	WHITE	Negative	< LOD : 0.37	LOD : 0.37	LOD : 2.49
44	2009-07-07 12:27	mg / cm ^2	Final	WALL	WOOD	c room 14	BLUE	Negative	< LOD : 0.05	< LOD : 0.05	LOD : 2.50
45	2009-07-07 12:29	mg / cm ^2	Final	overhead door rollers	WOOD	a room 13	BLUE	Positive	< LOD : 9.75	< LOD : 9.75	< LOD : 15.60
46	2009-07-07 12:33	mg / cm ^2	Final	overhead door inside	WOOD	a room 13	BLUE	Positive	< LOD : 4.95	< LOD : 4.95	< LOD : 10.80
47	2009-07-07 12:36	mg / cm ^2	Final	fire extinguisher spot	CONCRETE	b room 13	gray	Negative	< LOD : 0.05	LOD : 0.05	LOD : 1.90
48	2009-07-07 12:37	mg / cm ^2	Final	fire extinguisher spot	CONCRETE	b room 13	RED	Negative	< LOD : 0.09	LOD : 0.09	LOD : 2.29

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Index	Time	Units	Sequence	Component	Substrate	Side	Color	Results	PbC	PbL	PbK
49	2009-07-07 12:40	mg / cm ^2	Final	WALL	WOOD	a room 16	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.65
50	2009-07-07 12:42	mg / cm ^2	Final	WALL	WOOD	B room13 side room	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.53
51	2009-07-07 12:44	mg / cm ^2	Final	WALL	CONCRETE	C room 13	WHITE	Negative	LOD : 0.26	LOD : 0.26	LOD : 1.81
52	2009-07-07 12:45	mg / cm ^2	Final	WALL	DRYWALL	A room 15	WHITE	Negative	LOD : 0.13	LOD : 0.13	LOD : 1.65
55	2009-07-07 12:49	mg / cm ^2	Final	WALL	CONCRETE	D rm 12	BEIGE	Negative	< LOD : 0.60	LOD : 0.60	LOD : 0.66
56	2009-07-07 12:54	mg / cm ^2	Final	WALL	CONCRETE	B rm 12	BEIGE	Negative	LOD : 0.03	LOD : 0.03	LOD : 1.08
57	2009-07-07 12:56	mg / cm ^2	Final	WINDOW	METAL	C rm12	gray	Negative	< LOD : 0.32	LOD : 0.32	LOD : 4.50
60	2009-07-07 12:57	mg / cm ^2	Final	WALL	CONCRETE	C rm12	BEIGE	Negative	< LOD : 0.08	LOD : 0.08	LOD : 2.02
61	2009-07-07 12:59	mg / cm ^2	Final	WALL	CONCRETE	a rm 12	BEIGE	Negative	< LOD : 0.75	LOD : 0.03	LOD : 0.75
62	2009-07-07 13:00	mg / cm ^2	Final	CEILING	WOOD	rm 12	BEIGE	Negative	< LOD : 0.15	LOD : 0.15	LOD : 1.95
63	2009-07-07 13:02	mg / cm ^2	Final	beam	WOOD	rm 12 side b	BEIGE	Negative	< LOD : 0.16	LOD : 0.16	LOD : 2.40
65	2009-07-07 13:05	mg / cm ^2	Final	WALL	CONCRETE	B room 11	lt blue	Negative	< LOD : 0.04	LOD : 0.04	LOD : 1.68
66	2009-07-07 13:06	mg / cm ^2	Final	WALL	CONCRETE	B room 11	BLUE	Negative	LOD : 0.06	LOD : 0.06	LOD : 1.80
67	2009-07-07 13:08	mg / cm ^2	Final	coat hanger	WOOD	B room 11	white	Negative	< LOD : 0.03	LOD : 0.03	LOD : 2.19
68	2009-07-07 13:09	mg / cm ^2	Final	PIPE	METAL	B room 11	BLUE	Negative	< LOD : 0.10	LOD : 0.10	LOD : 1.82
69	2009-07-07 13:11	mg / cm ^2	Final	WALL	CONCRETE	C RM 11	WHITE	Negative	< LOD : 1.04	LOD : 0.06	LOD : 1.03
70	2009-07-07 13:13	mg / cm ^2	Final	WALL	CONCRETE	C RM 11	lt blue	Negative	< LOD : 0.05	LOD : 0.05	LOD : 2.50
71	2009-07-07 13:14	mg / cm ^2	Final	WALL	CONCRETE	d2 rm11	lt blue	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.06
72	2009-07-07 13:15	mg / cm ^2	Final	WALL	CONCRETE	d2 rm11	dk blue	Negative	LOD : 0.06	< LOD : 0.06	LOD : 1.65
74	2009-07-07 13:17	mg / cm ^2	Final	WALL	CONCRETE	d1 rm 11	lt blue	Negative	LOD : 0.05	LOD : 0.05	LOD : 2.32
75	2009-07-07 13:19	mg / cm ^2	Final	WALL	CONCRETE	d1 rm 11	dk blue	Negative	LOD : 0.05	LOD : 0.05	LOD : 4.95
77	2009-07-07 13:23	mg / cm ^2	Final	WALL	CONCRETE	a rm 11	dk blue	Negative	< LOD : 0.07	LOD : 0.07	LOD : 2.18
78	2009-07-07 13:24	mg / cm ^2	Final	WALL	CONCRETE	a rm 11	lt blue	Negative	< LOD : 0.06	LOD : 0.06	LOD : 1.80
79	2009-07-07 13:25	mg / cm ^2	Final	CEILING	WOOD	rm 11	WHITE	Negative	< LOD : 0.27	< LOD : 0.27	LOD : 2.07
80	2009-07-07 13:25	mg / cm ^2	Final	beam	WOOD	rm 11	WHITE	Negative	< LOD : 0.15	LOD : 0.15	LOD : 2.25
81	2009-07-07 13:27	mg / cm ^2	Final	WALL	CONCRETE	b rm 10	WHITE	Negative	< LOD : 0.04	LOD : 0.04	LOD : 2.45
82	2009-07-07 13:28	mg / cm ^2	Final	WALL	CONCRETE	a rm 10	WHITE	Negative	< LOD : 0.03	LOD : 0.03	LOD : 1.80
83	2009-07-07 13:29	mg / cm ^2	Final	WALL	CONCRETE	b2 rm 10	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.72
84	2009-07-07 13:31	mg / cm ^2	Final	WALL	CONCRETE	c rm 10	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 1.96
85	2009-07-07 13:33	mg / cm ^2	Final	WALL	CONCRETE	D RM 10	WHITE	Negative	< LOD : 0.03	LOD : 0.07	LOD : 2.06
86	2009-07-07 13:34	mg / cm ^2	Final	WALL	CONCRETE	a rm 10	WHITE	Negative	LOD : 0.02	LOD : 0.05	LOD : 1.95
87	2009-07-07 13:35	mg / cm ^2	Final	WALL	CONCRETE	b rm 9	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.16
88	2009-07-07 13:36	mg / cm ^2	Final	WALL	CONCRETE	a rm 9	WHITE	Negative	LOD : 0.03	< LOD : 0.03	< LOD : 2.06
89	2009-07-07 13:37	mg / cm ^2	Final	WALL	CONCRETE	c rm 9	WHITE	Negative	< LOD : 0.10	< LOD : 0.10	LOD : 1.78
90	2009-07-07 13:38	mg / cm ^2	Final	WALL	CONCRETE	c2 rm 9	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.61
91	2009-07-07 13:39	mg / cm ^2	Final	WALL	CONCRETE	d1 rm 9	WHITE	Negative	< LOD : 0.03	< LOD : 0.05	LOD : 2.17
93	2009-07-07 13:40	mg / cm ^2	Final	WALL	CONCRETE	d2 rm 9	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.26
94	2009-07-07 13:41	mg / cm ^2	Final	WALL	CONCRETE	a2 room 9	WHITE	Negative	< LOD : 0.05	< LOD : 0.05	LOD : 2.13
95	2009-07-07 13:42	mg / cm ^2	Final	WALL	CONCRETE	a2 room 9	WHITE	Negative	< LOD : 0.23	< LOD : 0.23	LOD : 2.47
96	2009-07-07 13:43	mg / cm ^2	Final	WALL	CONCRETE	d3 rm 9	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.70

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98	2009-07-07 13:46	mg / cm^2	Final	CEILING	WOOD	rm 9	BEIGE	Negative	< LOD : 0.29	< LOD : 0.29	LOD : 1.98
99	2009-07-07 13:46	mg / cm^2	Final	beam	WOOD	rm 9	BEIGE	Negative	LOD : 0.39	< LOD : 0.39	LOD : 2.43
100	2009-07-07 13:46	mg / cm^2	Final	beam	WOOD	rm 9	BEIGE	Negative	< LOD : 0.21	LOD : 0.21	LOD : 2.74
101	2009-07-07 13:49	mg / cm^2	Final	WALL	CONCRETE	b rm 8	BEIGE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.14
102	2009-07-07 13:49	mg / cm^2	Final	WALL	CONCRETE	a rm 8	BEIGE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.52
103	2009-07-07 13:50	mg / cm^2	Final	WALL	CONCRETE	d rm 8	BEIGE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.16
104	2009-07-07 13:50	mg / cm^2	Final	WALL	CONCRETE	d rm 8	lt blue	Negative	< LOD : 0.03	LOD : 0.03	LOD : 1.92
105	2009-07-07 13:51	mg / cm^2	Final	WALL	CONCRETE	c rm 8	BEIGE	Negative	< LOD : 0.03	LOD : 0.03	LOD : 2.74
107	2009-07-07 13:54	mg / cm^2	Final	WALL	CONCRETE	a1 rm 1	BEIGE	Negative	LOD : 0.60	< LOD : 0.03	LOD : 0.60
108	2009-07-07 13:56	mg / cm^2	Final	WALL	CONCRETE	a2 rm 1	BEIGE	Negative	LOD : 0.05	< LOD : 0.05	LOD : 1.95
109	2009-07-07 13:57	mg / cm^2	Final	WALL	CONCRETE	d rm 1	BEIGE	Negative	< LOD : 0.05	< LOD : 0.05	LOD : 1.80
110	2009-07-07 13:59	mg / cm^2	Final	WALL	CONCRETE	c1 rm 1	BEIGE	Negative	< LOD : 0.75	LOD : 0.03	LOD : 0.75
111	2009-07-07 14:00	mg / cm^2	Final	window ledge	CONCRETE	c1 rm 1	BEIGE	Negative	LOD : 0.05	LOD : 0.05	LOD : 1.05
112	2009-07-07 14:03	mg / cm^2	Final	WALL	CONCRETE	b1 rm 1	BEIGE	Negative	< LOD : 0.20	< LOD : 0.20	LOD : 2.23
113	2009-07-07 14:03	mg / cm^2	Final	WALL	CONCRETE	b2 rm 1	BEIGE	Negative	< LOD : 0.14	< LOD : 0.14	LOD : 2.49
114	2009-07-07 14:04	mg / cm^2	Final	WALL	CONCRETE	b3 rm 1	BEIGE	Negative	< LOD : 0.10	< LOD : 0.10	LOD : 2.12
115	2009-07-07 14:06	mg / cm^2	Final	WALL	CONCRETE	rm 2 c	WHITE	Negative	LOD : 0.22	< LOD : 0.32	LOD : 3.08
116	2009-07-07 14:07	mg / cm^2	Final	WALL	CONCRETE	rm 2 c	red	Negative	< LOD : 0.04	< LOD : 0.04	LOD : 2.86
117	2009-07-07 14:08	mg / cm^2	Final	WALL	CONCRETE	rm 2 c	RED	Negative	< LOD : 0.12	LOD : 0.12	LOD : 1.80
118	2009-07-07 14:09	mg / cm^2	Final	WALL	CONCRETE	rm 2 a	RED	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.09
120	2009-07-07 14:11	mg / cm^2	Final	WALL	CONCRETE	rm 2 b	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 2.11
121	2009-07-07 14:12	mg / cm^2	Final	WALL	CONCRETE	rm 3 b	WHITE	Negative	< LOD : 0.05	LOD : 0.05	LOD : 1.05
122	2009-07-07 14:13	mg / cm^2	Final	WALL	CONCRETE	rm 3 c	WHITE	Negative	< LOD : 0.13	LOD : 0.13	LOD : 1.98
125	2009-07-07 14:15	mg / cm^2	Final	WALL	CONCRETE	rm 3 d	WHITE	Negative	< LOD : 0.05	LOD : 0.05	LOD : 0.99
127	2009-07-07 14:16	mg / cm^2	Final	WALL	CONCRETE	rm 3 e	WHITE	Negative	LOD : 0.75	LOD : 0.03	LOD : 0.75
128	2009-07-07 14:17	mg / cm^2	Final	WALL	CONCRETE	rm 4 a	BEIGE	Negative	< LOD : 0.04	< LOD : 0.04	LOD : 2.01
129	2009-07-07 14:18	mg / cm^2	Final	WALL	CONCRETE	rm 4 b	WHITE	Negative	< LOD : 0.19	LOD : 0.40	LOD : 4.25
130	2009-07-07 14:19	mg / cm^2	Final	WALL	CONCRETE	rm 4 c	WHITE	Negative	< LOD : 0.09	< LOD : 0.09	LOD : 1.80
131	2009-07-07 14:19	mg / cm^2	Final	WALL	CONCRETE	rm 4 d	WHITE	Negative	< LOD : 0.11	LOD : 0.11	LOD : 2.27
132	2009-07-07 14:20	mg / cm^2	Final	WALL	CONCRETE	rm 5 a	BEIGE	Negative	< LOD : 0.13	LOD : 0.13	LOD : 2.56
133	2009-07-07 14:21	mg / cm^2	Final	WALL	CONCRETE	rm 5 b	BEIGE	Negative	LOD : 0.24	LOD : 0.24	LOD : 2.09
134	2009-07-07 14:22	mg / cm^2	Final	WALL	CONCRETE	rm 5 c	lt blue	Negative	< LOD : 0.05	< LOD : 0.05	LOD : 2.08
135	2009-07-07 14:24	mg / cm^2	Final	WALL	CONCRETE	rm 6 a	WHITE	Negative	< LOD : 0.03	LOD : 0.03	LOD : 2.13
136	2009-07-07 14:25	mg / cm^2	Final	WALL	CONCRETE	rm 6 d	WHITE	Negative	LOD : 0.03	LOD : 0.03	LOD : 2.06
137	2009-07-07 14:25	mg / cm^2	Final	WALL	CONCRETE	rm 6 c	WHITE	Negative	< LOD : 0.03	LOD : 0.03	LOD : 2.59
140	2009-07-07 14:27	mg / cm^2	Final	CEILING	CONCRETE	rm 6	WHITE	Negative	< LOD : 0.03	< LOD : 0.03	LOD : 1.05
142	2009-07-07 14:28	mg / cm^2	Final	WALL	CONCRETE	rm 6 b	WHITE	Negative	< LOD : 0.03	LOD : 0.03	LOD : 2.01
143	2009-07-07 14:30	mg / cm^2	Final	WALL	CONCRETE	rm 6 d	lt blue	Negative	< LOD : 0.05	< LOD : 0.05	LOD : 3.03
144	2009-07-07 14:30	mg / cm^2	Final	WALL	CONCRETE	rm 6 a	lt blue	Negative	LOD : 0.05	LOD : 0.05	LOD : 1.87
145	2009-07-07 14:31	mg / cm^2	Final	WALL	CONCRETE	rm 7 c	lt blue	Negative	LOD : 0.03	LOD : 0.03	LOD : 2.03

Marshall Environmental Management Inc.
1601 SW 89th Street, Suite A100
Oklahoma City, OK 73159

Index	Time	Units	Sequence	Component	Substrate	Side	Color	Results	PbC	PbL	PbK
146	2009-07-07 14:32	mg / cm ^2	Final	WALL	CONCRETE	rm 7 d	lt blue	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.37
147	**2009-07-07 14:33**	**mg / cm ^2**	**Final**	**CABINET**	**WOOD**	**rm 6**	**BROWN**	**Positive**	**< LOD : 3.45**	**< LOD : 3.45**	**< LOD : 13.05**
149	**2009-07-07 14:34**	**mg / cm ^2**	**Final**	**CABINET**	**WOOD**	**rm 6**	**BROWN**	**Positive**	**1.50 ± 6.50**	**0.50 ± 0.10**	**1.50 ± 0.50**
150	2009-07-07 14:35	mg / cm ^2	Final	CABINET	WOOD	rm 7 c	BROWN	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 1.80
151	2009-07-07 14:36	mg / cm ^2	Final	WALL	CONCRETE	rm 7 b	BEIGE	Negative	< LOD : 0.17	< LOD : 0.17	< LOD : 1.80
152	2009-07-07 14:37	mg / cm ^2	Final	WALL	CONCRETE	rm 7 b	BEIGE	Negative	< LOD : 0.22	< LOD : 0.22	< LOD : 2.40
153	2009-07-07 14:39	mg / cm ^2	Final	FLOOR	CONCRETE	rm 15	BEIGE	Negative	0.36 ± 0.11	0.36 ± 0.11	< LOD : 1.35
154	2009-07-07 14:43	mg / cm ^2	Final	storage room window	CONCRETE	rm 13 d	WHITE	Negative	0.70 ± 0.20	0.70 ± 0.20	< LOD : 0.75
155	2009-07-07 14:44	mg / cm ^2	Final	storage room window	WOOD	rm 12 b	WHITE	Negative	< LOD : 0.60	< LOD : 0.60	< LOD : 3.00
156	**2009-07-07 14:44**	**mg / cm ^2**	**Final**	**storage room window ledge**	**WOOD**	**rm 12 b**	**WHITE**	**Positive**	**2.10 ± 0.90**	**2.10 ± 0.90**	**< LOD : 2.85**
157	2009-07-07 14:46	mg / cm ^2	Final	storage room window frame	WOOD	rm 12 b	BEIGE	Negative	0.80 ± 0.10	0.80 ± 0.10	< LOD : 0.50
158	2009-07-07 14:48	mg / cm ^2	Final	FLOOR markings	CONCRETE	rm 13	YELLOW	Negative	< LOD : 0.14	< LOD : 0.14	< LOD : 1.95
159	2009-07-07 14:52	mg / cm ^2	Final	DOOR 16	CONCRETE	16	YELLOW	Negative	< LOD : 0.04	< LOD : 0.04	< LOD : 5.17
160	2009-07-07 14:52	mg / cm ^2	Final	DOOR 16	CONCRETE	16	YELLOW	Negative	< LOD : 0.06	< LOD : 0.06	< LOD : 4.91
161	2009-07-07 14:56	mg / cm ^2	Final	DOOR 1	METAL		BLUE	Negative	< LOD : 0.35	< LOD : 0.35	< LOD : 4.88
162	2009-07-07 14:57	mg / cm ^2	Final	DOOR jam 1	METAL		BLUE	Negative	< LOD : 0.25	< LOD : 0.25	< LOD : 4.98
163	2009-07-07 14:59	mg / cm ^2	Final	DOOR jam 2	METAL		BLUE	Negative	< LOD : 0.35	< LOD : 0.35	< LOD : 4.71
164	2009-07-07 15:00	mg / cm ^2	Final	DOOR 4	METAL		BLUE	Negative	< LOD : 0.21	< LOD : 0.21	< LOD : 4.83
165	2009-07-07 15:01	mg / cm ^2	Final	DOOR jam 4	METAL		BLUE	Negative	< LOD : 0.44	< LOD : 0.44	< LOD : 4.83
166	2009-07-07 15:03	mg / cm ^2	Final	DOOR jam 3	METAL		BLUE	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 4.85
167	2009-07-07 15:03	mg / cm ^2	Final	DOOR 3	METAL		BLUE	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.16
168	2009-07-07 15:05	mg / cm ^2	Final	DOOR 5	METAL		BLUE	Negative	< LOD : 0.45	< LOD : 0.45	< LOD : 4.84
169	2009-07-07 15:05	mg / cm ^2	Final	DOOR jam 5	METAL		BLUE	Negative	< LOD : 0.18	< LOD : 0.18	< LOD : 4.20
170	2009-07-07 15:07	mg / cm ^2	Final	DOOR jam 6	METAL		BROWN	Negative	< LOD : 0.18	< LOD : 0.18	< LOD : 4.46
171	2009-07-07 15:08	mg / cm ^2	Final	DOOR 6	METAL		BROWN	Negative	< LOD : 0.23	< LOD : 0.23	< LOD : 4.66
172	2009-07-07 15:09	mg / cm ^2	Final	DOOR 7	METAL		BLUE	Negative	< LOD : 0.27	< LOD : 0.27	< LOD : 4.57
173	2009-07-07 15:10	mg / cm ^2	Final	DOOR JAM 7	METAL		BLUE	Negative	< LOD : 0.22	< LOD : 0.22	< LOD : 5.30
175	2009-07-07 15:12	mg / cm ^2	Final	valve piece	METAL	rm 2 c	BLUE	Negative	< LOD : 0.32	< LOD : 0.32	< LOD : 4.65
176	2009-07-07 15:13	mg / cm ^2	Final	door 8	METAL		BLUE	Negative	< LOD : 0.41	< LOD : 0.41	< LOD : 4.39
177	2009-07-07 15:15	mg / cm ^2	Final	door jam 8	METAL		WHITE	Negative	< LOD : 0.36	< LOD : 0.36	< LOD : 5.16
178	2009-07-07 15:15	mg / cm ^2	Final	door jam 9	METAL		BLUE	Negative	< LOD : 0.33	< LOD : 0.33	< LOD : 4.56
179	2009-07-07 15:16	mg / cm ^2	Final	door jam 10	METAL		BLUE	Negative	< LOD : 0.24	< LOD : 0.24	< LOD : 4.65
180	2009-07-07 15:17	mg / cm ^2	Final	door 10	METAL		BLUE	Negative	< LOD : 0.41	< LOD : 0.41	< LOD : 4.96
181	2009-07-07 15:18	mg / cm ^2	Final	door 11	METAL		BLUE	Negative	< LOD : 0.27	< LOD : 0.27	< LOD : 4.95
182	2009-07-07 15:19	mg / cm ^2	Final	door 11	METAL		lt blue	Negative	< LOD : 0.20	< LOD : 0.20	< LOD : 3.77
183	2009-07-07 15:20	mg / cm ^2	Final	door jam 11	METAL		BEIGE	Negative	< LOD : 0.29	< LOD : 0.29	< LOD : 4.90
184	2009-07-07 15:22	mg / cm ^2	Final	door jam 13	METAL		BLUE	Negative	< LOD : 0.62	< LOD : 0.62	< LOD : 4.65
185	2009-07-07 15:23	mg / cm ^2	Final	door 13	METAL		BLUE	Negative	< LOD : 0.60	< LOD : 0.60	< LOD : 4.93
186	2009-07-07 15:27	mg / cm ^2	Final	door 13	METAL		BLUE	Negative	< LOD : 0.32	< LOD : 0.32	< LOD : 4.22
187	2009-07-07 15:28	mg / cm ^2	Final	door 14	METAL		WHITE	Negative	< LOD : 0.28	< LOD : 0.28	< LOD : 5.0

Index	Time	Units	Sequence	Component	Substrate	Side	Color	Results	PbC	PbL	PbK
188	2009-07-07 15:28	mg / cm ^2	Final	door jam 34	METAL		WHITE	Negative	< LOD : 0.40	< LOD : 0.40	< LOD : 4.88
189	2009-07-07 15:29	mg / cm ^2	Final	door jam 14	METAL		WHITE	Negative	< LOD : 0.63	< LOD : 0.63	< LOD : 4.83
190	2009-07-07 15:30	mg / cm ^2	Final	door jam 15	METAL		ltblue	Negative	< LOD : 0.31	< LOD : 0.31	< LOD : 4.80
191	2009-07-07 15:31	mg / cm ^2	Final	door 15	METAL		ltblue	Negative	< LOD : 0.32	< LOD : 0.32	< LOD : 4.36
192	2009-07-07 15:33	mg / cm ^2	Final	door 17	METAL		BLUE	Negative	< LOD : 0.49	< LOD : 0.49	< LOD : 3.71
193	2009-07-07 15:33	mg / cm ^2	Final	door jam 17	METAL		BLUE	Negative	< LOD : 0.54	< LOD : 0.54	< LOD : 4.48
194	2009-07-07 15:34	mg / cm ^2	Final	door jam 18	METAL		BLUE	Negative	< LOD : 0.20	< LOD : 0.20	< LOD : 4.17
195	2009-07-07 15:35	mg / cm ^2	Final	door 18	METAL		BLUE	Negative	< LOD : 0.14	< LOD : 0.14	< LOD : 3.68
196	2009-07-07 15:40	mg / cm ^2	Final	door slide 21	METAL		WHITE	Positive	< LOD : 9.60	< LOD : 9.60	< LOD : 14.10
197	2009-07-07 15:42	mg / cm ^2	Final	door jam 21	METAL		WHITE	Positive	< LOD : 14.10	< LOD : 10.95	< LOD : 14.10
199	2009-07-07 15:43	mg / cm ^2	Final	door jam 21	CONCRETE		WHITE	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 1.26
201	2009-07-07 15:46	mg / cm ^2	Final	door 21	CONCRETE		WHITE	Positive	< LOD : 4.65	< LOD : 4.65	< LOD : 12.00
202	2009-07-07 15:48	mg / cm ^2	Final	door 23	WOOD		WHITE	Negative	< LOD : 0.05	< LOD : 0.03	< LOD : 1.93
203	2009-07-07 15:49	mg / cm ^2	Final	door 22	METAL		lt blue	Positive	< LOD : 11.10	< LOD : 12.30	< LOD : 11.10
204	2009-07-07 15:51	mg / cm ^2	Final	door jam 22	METAL		lt blue	Positive	< LOD : 8.55	< LOD : 8.55	< LOD : 9.45
205	2009-07-07 15:53	mg / cm ^2	Final	door 18	METAL	rm 13 side	lt blue	Negative	< LOD : 0.35	< LOD : 0.35	< LOD : 4.50
206	2009-07-07 15:57	mg / cm ^2	Final	window frame rm 3	METAL	a	gray	Negative	< LOD : 0.41	< LOD : 0.41	< LOD : 2.44
207	2009-07-07 15:58	mg / cm ^2	Final	window frame rm 4	METAL	C	BEIGE	Negative	< LOD : 0.73	< LOD : 0.75	< LOD : 2.76
209	2009-07-07 16:00	mg / cm ^2	Final	window frame rm 3	METAL	A	GREEN	Negative	< LOD : 0.29	< LOD : 0.29	< LOD : 2.25
210	2009-07-07 16:00	mg / cm ^2	Final	window frame rm 3	METAL	A	BLUE	Negative	< LOD : 0.47	< LOD : 0.47	< LOD : 2.37
211	2009-07-07 16:02	mg / cm ^2	Final	window frame rm 5	METAL	C	lt blue	Negative	< LOD : 0.42	< LOD : 0.42	< LOD : 2.57
212	2009-07-07 16:06	mg / cm ^2	Final	WALL	CONCRETE	D	black	Positive	1.40 ± 0.40	1.40 ± 0.40	< LOD : 3.60
213	2009-07-07 16:06	mg / cm ^2	Final	WALL	CONCRETE	D	black	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 2.45
215	2009-07-07 16:07	mg / cm ^2	Final	WALL	CONCRETE	D	black	Negative	0.50 ± 0.10	0.50 ± 0.10	< LOD : 1.20
216	2009-07-07 16:10	mg / cm ^2	Final	DOOR 24	METAL		BLUE	Negative	< LOD : 0.28	< LOD : 0.28	< LOD : 3.80
217	2009-07-07 16:12	mg / cm ^2	Final	DOOR jam 24	METAL		BLUE	Negative	< LOD : 0.23	< LOD : 0.23	< LOD : 4.95
219	2009-07-07 16:13	mg / cm ^2	Final	DOOR frame	METAL		WHITE	Negative	< LOD : 0.77	< LOD : 0.77	< LOD : 4.54
221	2009-07-07 16:16	mg / cm ^2	Final	WALL	CONCRETE	rm 11 d	GREEN	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 1.65
222	2009-07-07 16:17	mg / cm ^2	Final	WALL	CONCRETE	rm 11 d	gold	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 0.96
225	2009-07-07 16:19	mg / cm ^2	Final	WALL	CONCRETE	rm 11 d	silver	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 1.65
226	2009-07-07 16:21	mg / cm ^2	Final	bathroom stall	METAL	rm 10	WHITE	Negative	< LOD : 0.13	< LOD : 0.03	< LOD : 3.87
227	2009-07-07 16:22	mg / cm ^2	Final	mirror frame	WOOD	rm 10	gray	Negative	0.60 ± 0.30	0.60 ± [illegible]	< LOD : 1.80
228	2009-07-07 16:25	mg / cm ^2	Final	mirror shelf	WOOD	rm 9	WHITE	Negative	< LOD : 0.03	< LOD : [illegible]	< LOD : [illegible]
229	2009-07-07 16:26	mg / cm ^2	Final	shower bench	WOOD	rm 9	gray	Negative	< LOD : 0.27	< LOD : 0.27	< LOD : 2.25
230	2009-07-07 16:27	mg / cm ^2	Final	showertile	CONCRETE	rm 9	BEIGE	Negative	< LOD : 0.18	< LOD : [illegible]	< LOD : [illegible]
232	2009-07-07 16:33	mg / cm ^2	Final	WINDOW	METAL	A	WHITE	Negative	< LOD : 0.60	< LOD : 0.60	< LOD : 1.50
233	2009-07-07 16:35	mg / cm ^2	Final	WINDOW	METAL	A window 4	WHITE	Positive	1.70 ± 0.66	1.20 ± 0.20	1.70 ± 0.66
235	2009-07-07 16:36	mg / cm ^2	Final	WINDOW	METAL	A window 5	WHITE	Positive	2.30 ± 1.20	2.30 ± 1.20	< LOD : 3.66
236	2009-07-07 16:37	mg / cm ^2	Final	WINDOW	METAL	b1	WHITE	Negative	0.80 ± 0.20	0.80 ± 0.20	< LOD : 1.20
237	2009-07-07 16:38	mg / cm ^2	Final	WINDOW	METAL	b1	WHITE	Positive	1.60 ± 0.60	1.60 ± 0.60	< LOD : 2.55

Marshall Environmental Management Inc
1601 SW 89th Street, Suite A100
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Index	Time	Units	Sequence	Component	Substrate	Side	Color	Results	PbC	PbL	PbK
238	2009-07-07 16:40	mg / cm ^2	Final			CALIBRATE		Positive	1.80 ± 0.80	1.00 ± 0.10	1.80 ± 0.80
240	2009-07-07 16:41	mg / cm ^2	Final			CALIBRATE		Positive	1.70 ± 0.70	0.90 ± 0.10	1.70 ± 0.70
242	2009-07-07 16:42	mg / cm ^2	Final			CALIBRATE		Positive	1.90 ± 0.90	1.20 ± 0.20	1.90 ± 0.90
243	2009-07-07 16:44	mg / cm ^2	Final			CALIBRATE		Positive	1.90 ± 0.10	1.00 ± 0.10	0.70 ± 0.20
244	2009-07-07 16:45	mg / cm ^2	Final			CALIBRATE		Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.60
245	2009-07-07 16:46	mg / cm ^2	Final			CALIBRATE		Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.60

Department of Environmental Quality

This is to Certify That

CHARLES MARSHALL

has met the specifications of the Oklahoma Lead-Based Paint Management Act and is certified as a Lead-Based Paint

INSPECTOR/RISK ASSESSOR

Certification # OKRASR13418

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: 4/1/2009 Expires on 3/31/2010

Division Director
Air Quality Division

Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

MARSHALL ENVIRONMENTAL MANAGEMENT

has met the specifications of the Oklahoma Lead-Based Paint Management Act and is certified as a Lead-Based Paint

FIRM

Certification # OKFIRM11160

This certificate is valid from the date of issuance and expires as prescribed by law.

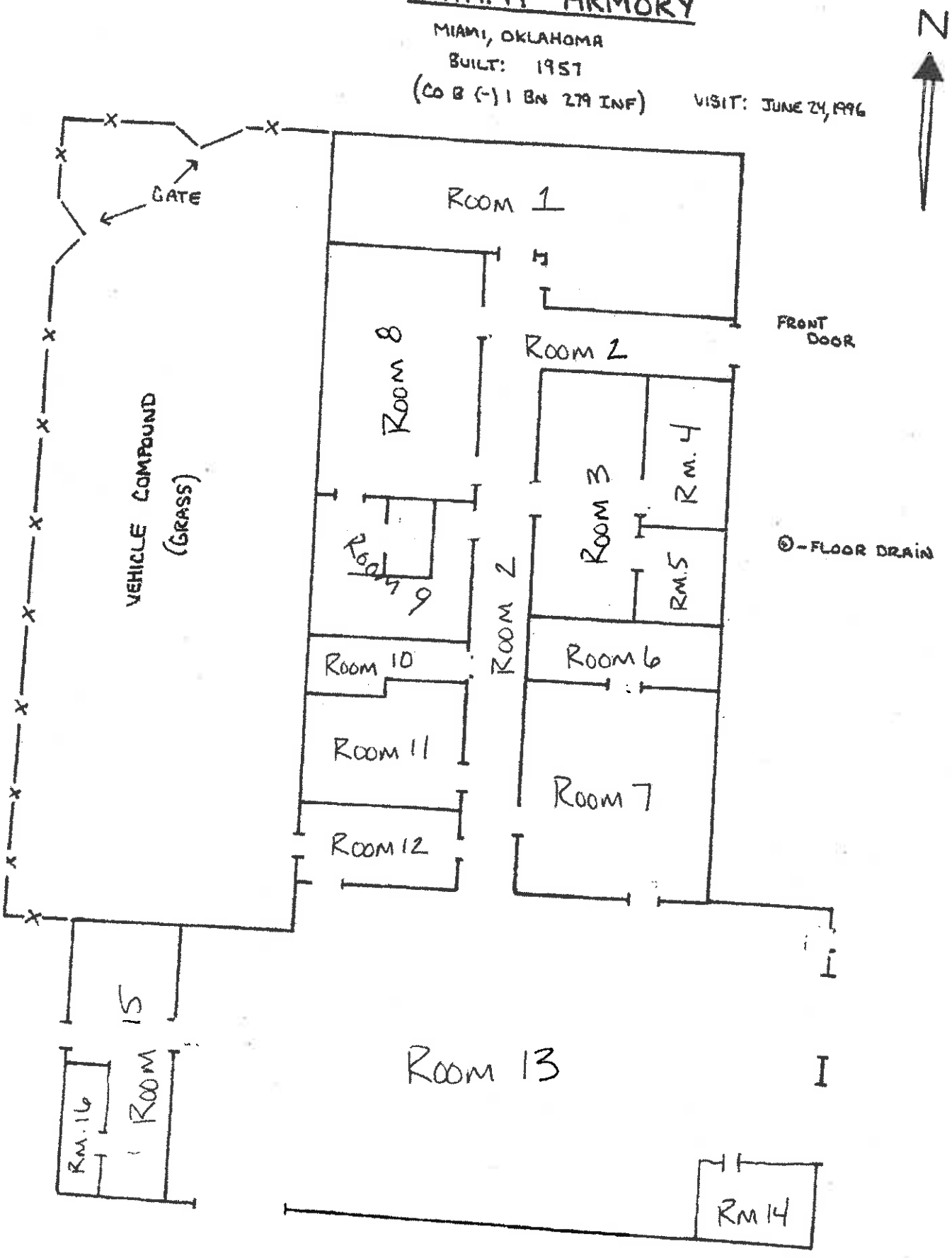
Issued on: 4/1/2009 Expires on 3/31/2010

Division Director
Air Quality Division

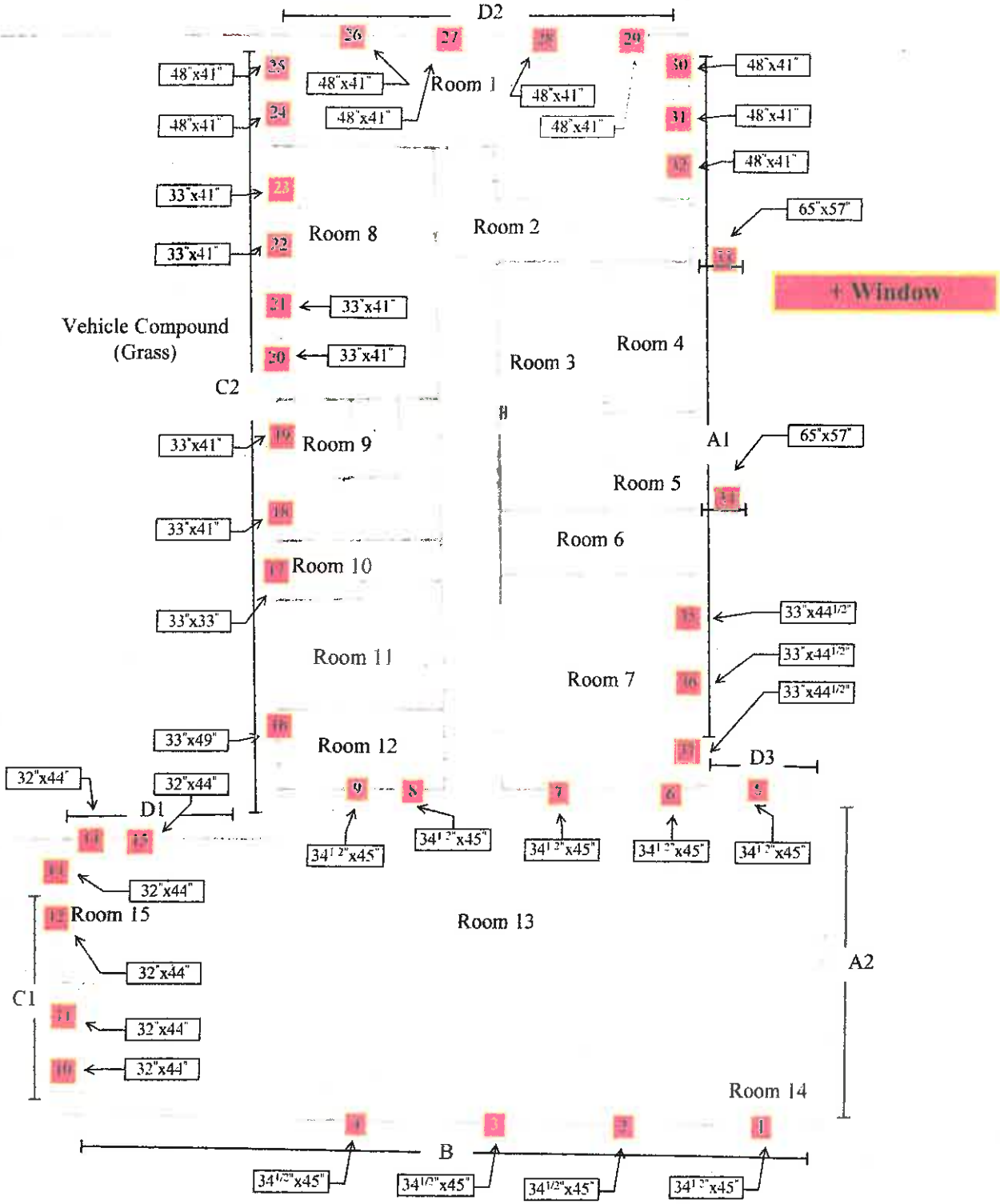
Environmental Programs Manager
Air Quality Division

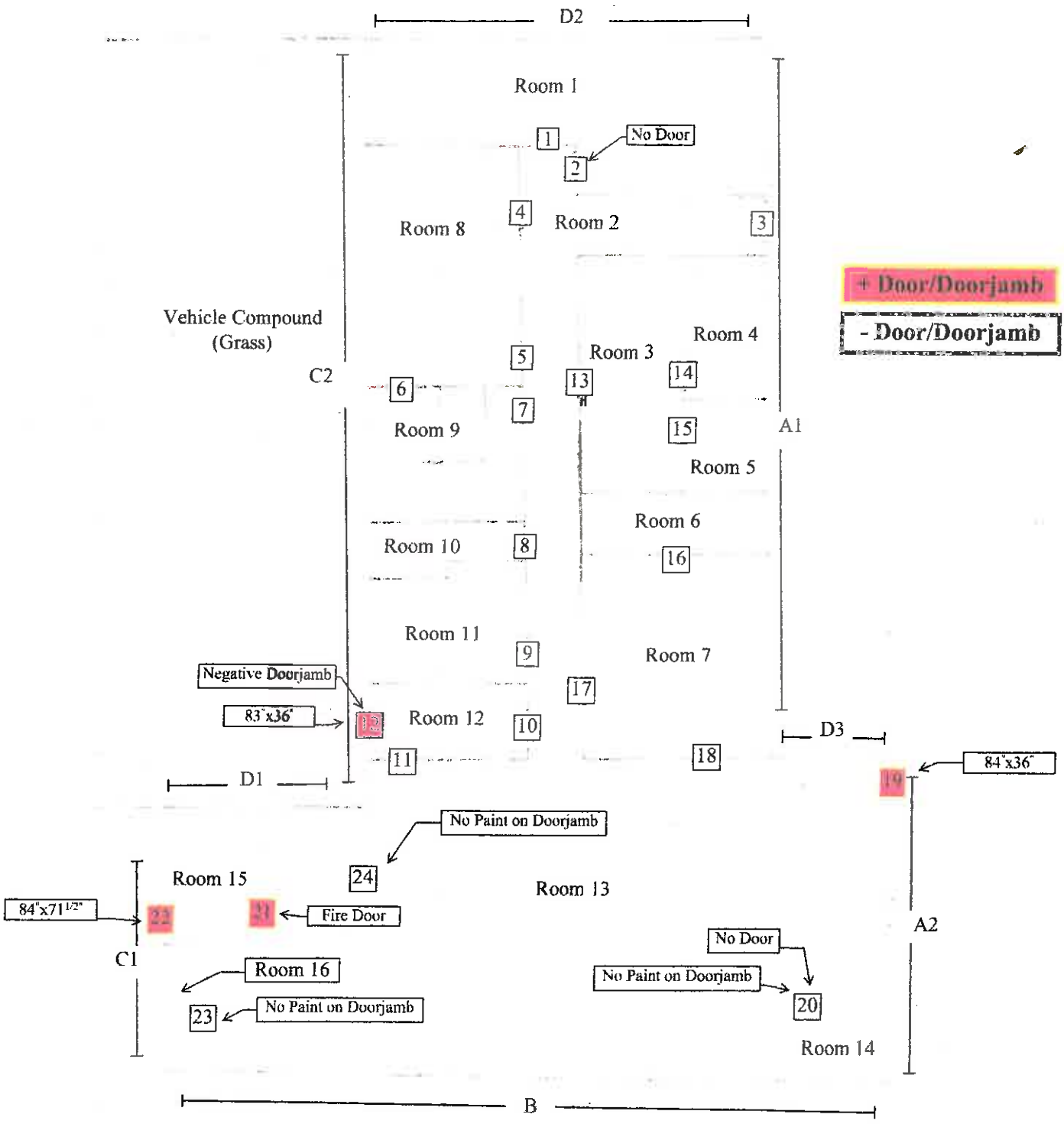
MIAMI ARMORY

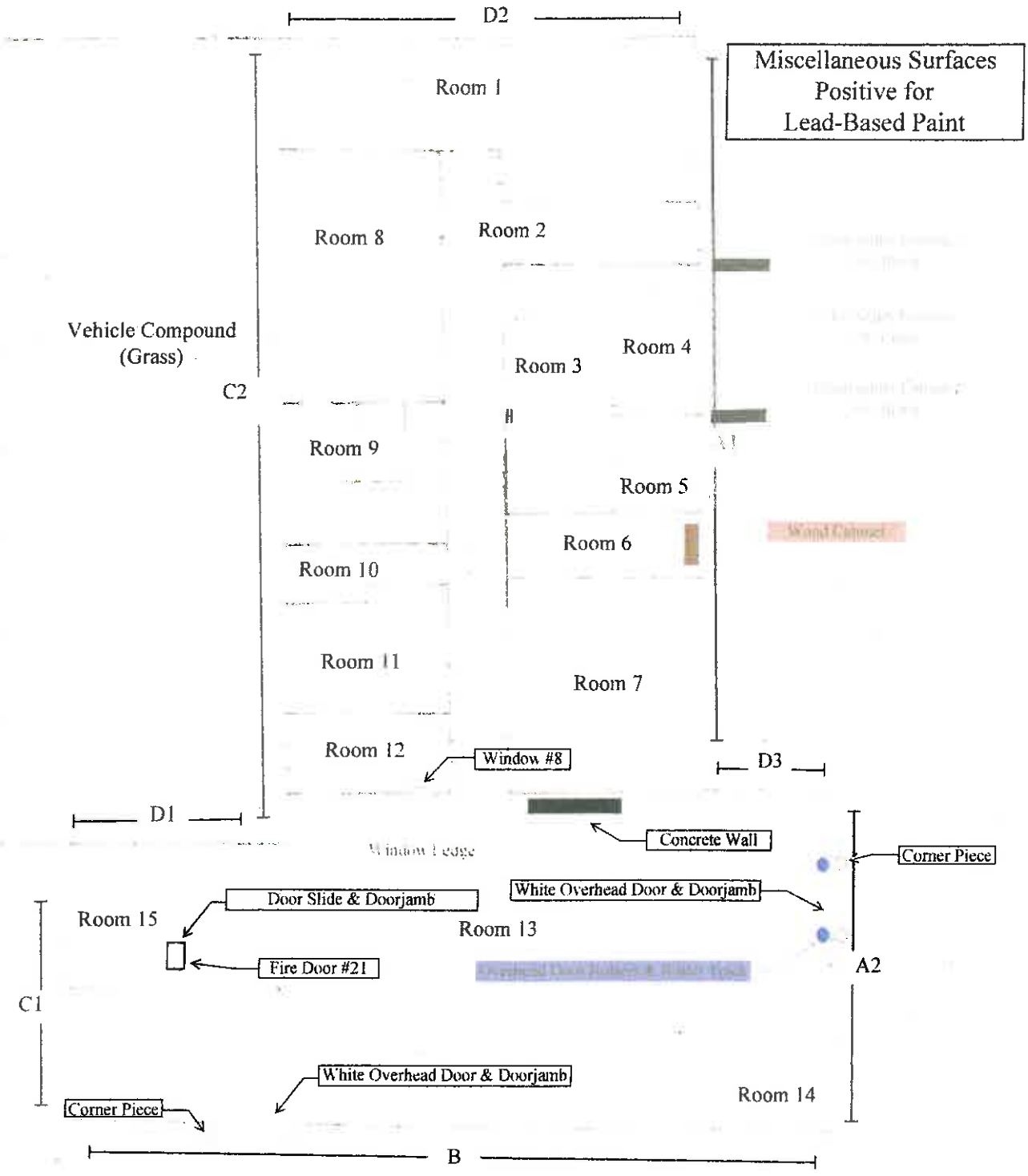
MIAMI, OKLAHOMA
BUILT: 1957
(CO B (-) 1 BN 279 INF) VISIT: JUNE 24, 1996



SURFACE WIPES


D2
48"x41"
48"x41"
48"x41"
Room 1
48"x41"
48"x41"
48"x41"
48"x41"
48"x41"
33"x41"
33"x41"
Room 8
Room 2
65"x57"
+ Window
Vehicle Compound
(Grass)
33"x41"
33"x41"
Room 3
Room 4
C2
33"x41"
Room 9
A1
65"x57"
Room 5
33"x41"
Room 6
Room 10
33"x33"
33"x44 1/2"
Room 11
33"x44 1/2"
Room 7
33"x44 1/2"
33"x49"
Room 12
D3
32"x44"
32"x44"
D1
34 1/2"x45"
34 1/2"x45"
34 1/2"x45"
34 1/2"x45"
34 1/2"x45"
32"x44"
Room 15
Room 13
A2
32"x44"
C1
32"x44"
32"x44"
Room 14
B
34 1/2"x45"
34 1/2"x45"
34 1/2"x45"
34 1/2"x45"


D2
Room 1
1
No Door
2
4
Room 8
Room 2
3
+ Door/Doorjamb
- Door/Doorjamb
Vehicle Compound
(Grass)
Room 4
5
Room 3
C2
6
13
14
7
Room 9
15
A1
Room 5
Room 6
Room 10
8
16
Room 11
9
Room 7
Negative Doorjamb
17
83"x36"
12
Room 12
10
D3
11
18
84"x36"
D1
19
No Paint on Doorjamb
Room 15
24
Room 13
84"x71 1/2"
22
21
Fire Door
A2
C1
No Door
Room 16
No Paint on Doorjamb
20
23
No Paint on Doorjamb
Room 14
B


D2
Miscellaneous Surfaces Positive for Lead-Based Paint
Room 1
Room 8
Room 2
Vehicle Compound (Grass)
Room 4
Room 3
C2
Room 9
Room 5
Room 6
Room 10
Room 11
Room 7
Room 12
Window #8
D3
D1
Concrete Wall
Corner Piece
White Overhead Door & Doorjamb
Door Slide & Doorjamb
Room 15
Room 13
Fire Door #21
A2
C1
White Overhead Door & Doorjamb
Corner Piece
Room 14
B

Asbestos Inspection

Miami Armory
830 D Street Southeast
Miami, Oklahoma 74354

Date of Inspection
July 7, 2009

DCS Contract No.: ID009139-4

PREPARED FOR:
Oklahoma Department of Environmental Quality
Land Protection Division
707 North Robinson
Oklahoma City, OK 73102

PREPARED BY:
Marshall Environmental Management, Inc.
1601 Southwest 89th Street, Suite A-100
Oklahoma City, Oklahoma 73159

OCT 2 6 2009

Asbestos Inspection

Miami Armory
830 D Street Southeast
Miami, Oklahoma 74354

Date of Inspection
July 7, 2009

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Table of Contents

EXECUTIVE SUMMARY

Marshall Environmental Management, Inc. (MEM) performed an Asbestos Inspection on July 7, 2009, of the Miami Armory, located at 830 D Street Southeast in Miami, Oklahoma, so that a strategy may be prepared for remediation activities, as required by the Environmental Protection Agency (EPA) for pre-1980 construction. The Miami Armory was constructed in 1957.

The analytical results associated with this Asbestos Inspection identified the presence of asbestos containing pipe insulation, floor tile and mastic, tar and window caulk. The pipe insulation collected from various straight runs and elbows in rooms 8, 10, and 12, contained greater than one percent (>1%) asbestos. Additionally, the floor tile and mastics located in rooms 3, 4 and 5 and the tar on the furnace flu in room 1, also contained >1% asbestos. Lastly, the caulk collected from the exterior windows contained a trace amount of asbestos, less than one percent (<1%).

Recommendations will include that all "Regulated" Asbestos Containing Materials (ACM) that were detected in concentrations >1% be abated. The removal and disposal of the ACM should be treated as a regulated response action covered by the EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations. Due to the quantities, a project Design is required for the abatement of the "Regulated" ACM. If the ACM are in good condition and are to remain in place and be maintained and undisturbed, a Management Plan should be developed.

The remainder of this Asbestos Inspection Report includes the Sampling Strategy, the Findings and Conclusions, the Recommendations and Response Actions, the Limitations of the Survey and the Regulatory Review.

SAMPLING STRATEGY

Each accessible area throughout the Miami Armory was systematically inspected in order to collect samples of building materials suspected of containing asbestos. The sample collection process includes, identifying the type of material suspected of containing asbestos, the location of the material, the condition and the quantity. These procedures are thoroughly documented for the purpose of assisting, if necessary, with the development of appropriate response actions.

The following are examples of the types of building materials that were visually inspected and sampled during this Asbestos Inspection.

Surfacing Materials

- Examples include blown on or trowled substrates materials typically observed on ceilings, structural steel, concrete ceilings or metal pan decks.

Thermal System Insulation

- Examples include piping, hot and cold water lines, Heating Ventilation and Air Conditioning (HVAC) equipment components, boilers, steam lines or heated thermal processes.

Miscellaneous Materials

- Examples include floor tiles, mastics, ceiling tiles, sheet vinyl flooring, wallboard, bedding tapes or joint compounds.

Each sample collected was submitted for analysis in accordance with the EPA authorized Method: 600 49 Code of Federal Regulations (CFR) Part 61 Subpart M, Asbestos NESHAP Rules. "Asbestos Containing Materials" are any materials, which consist of greater than 1 percent (>1%) asbestos, as defined by the EPA Approved Analytical Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, referred to as:

"Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.

FINDINGS AND CONCLUSIONS

The analytical results associated with this Asbestos Inspection identified the presence of asbestos containing pipe insulation, floor tile and mastic, tar and window caulk. The pipe insulation collected from various straight runs and elbows in rooms 8, 10, and 12, contained greater than one percent (>1%) asbestos. Additionally, the floor tile and mastics located in rooms 3, 4 and 5 and the tar on the furnace flu in room 1, also contained >1% asbestos. Lastly, the caulk collected from the exterior windows contained a trace amount of asbestos, less than one percent (<1%).

Any material to consist of >1% asbestos, as defined by the EPA approved analytical method, referenced in the Sampling Strategy portion of this Report, is considered an "Asbestos Containing Material." This analytical method is not proficient in quantifying a trace amount of asbestos. When asbestos is detected in separable layers of building materials in quantities <10%, the EPA NESHAP regulations require the material to be treated as an ACM.

The Findings listed in the table below correspond with the analytical data provided in the Appendix of this Report. Recommendations and Response Actions, chain of custody forms, specific sampling locations, labeled homogenous floor plans and associated analytical results are provided in subsequent portions of this Report.

Table I: Asbestos Containing Materials

Sample Id.	Location	Description	Result	Material	Total Quantities (including homogenous areas)
PLM-01	Room 8	Straight Run	40% Chrysotile	TSI	203 linear ft.
PLM-02	Room 8	Elbow	40% Chrysotile	TSI	
PLM-03	Room 8	Straight Run	40% Chrysotile	TSI	
PLM-04	Room 8	Elbow	40% Chrysotile	TSI	
PLM-15	Room 12	Straight Run	40% Chrysotile	TSI	
PLM-20	Room 10	Elbow	40% Chrysotile	TSI	
PLM-11	Room 4	9"x9" Floor Tile	5% Chrysotile	Misc.	130 in.^{2}
PLM-12	Rm. 3, 4 & 5	Mastic	8% Chrysotile	Misc.	596 in.^{2}
PLM-24	Ext. Windows	Window Caulk	<1% Chrysotile	Misc.	37 windows
PLM-10	Room 1	Tar on Flu	2% Chrysotile	Misc.	1 glove-bag

Historical Overview of Asbestos Activities

Historical records were not provided for review nor was there evidence or information that would suggest that a prior asbestos inspection occurred.

RECOMMENDATIONS AND RESPONSE ACTIONS

The following recommendations are based on the results of this Asbestos Inspection Report.

1. All Regulated ACM that were detected in concentrations >1% are recommended to be abated.

2. The removal and disposal of ACM should be treated as a regulated response action covered by the EPA NESHAP regulations.

3. A project Design would be required for building materials that measure greater than 160-square feet, 260-linear feet or 35-cubic feet.

4. If the ACM are in good condition and are to remain in place and be maintained and undisturbed, a Management Plan should be developed.

5. Activities that would disturb the ACM should only be performed by an ODOL Licensed Asbestos Contractor.

LIMITATIONS OF SURVEY

This Asbestos Inspection was limited to certain aspects of the building construction; these limitations may have restricted or prevented the complete inspection of hidden or inaccessible building materials and substrates. Inaccessible building materials and/or substrates were not inspected. Locations presenting a hazard to bystanders or the Inspector were not assessed.

The findings within this Report are valid as of the date this Asbestos Inspection was performed; however, changes in the conditions of a property may certainly occur with the passage of time, whether due to natural processes or the works of man. Furthermore, changes in applicable or appropriate standards may also occur, possibly resulting from legislation or the expansion of knowledge.

Our Investigation was performed using the degree of care and skill ordinarily exercised under similar circumstances by professional consultants practicing in this or similar localities. Professional services have been performed; results associated with this Asbestos Inspection were obtained and reported in accordance with generally accepted principles and practices. No other representations either expressed or implied are made; thus, Marshall Environmental Management, Inc. is not responsible for independent conclusions, opinions, or recommendations made by others. It should also be noted that as-built plans were not available for review or use in the planning of this asbestos inspection.

REGULATORY REVIEW

Prior to 1980 asbestos was commonly found in various building materials and utilized during construction. In 1994, OSHA required employers to identify ACM in pre-1980 construction as part of its Standard for Occupational Exposure to Asbestos in Construction (29 CFR 1926.1101). This OSHA standard covers maintenance, repair and removal functions involving ACM or Presumed ACM (PACM). Without Asbestos Inspections, owners and/or operators must treat suspected ACM as asbestos. The ODOL defines ACM as 1% or greater of asbestos content, whereas the EPA definition is greater than 1% of asbestos content.

The ODOL regulates the Hazard Communication requirements for public employees as part of the ODOL Public Employees Occupational Safety and Health (PEOSH) Program. The State of Oklahoma Hazard Communication Standard (HAZCOM), revised as of August 2006, is provided in the Oklahoma Asbestos Control Act (OAC) 380 Chapter 45.
http://www.ok.gov/odol/documents/Asbestos_law_rules.pdf

Specific provisions of the Standard (OAC: 45-15-1) address an Asbestos Notice and Labeling requirement. The Labeling requirements specify that pipe insulation and various equipment insulation containing asbestos, as well as, room locations where asbestos is present be provided with an Asbestos Warning Label. These labels are to be readily visible and include the following warning:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID BREATHING DUST
CANCER AND LUNG DISEASE HAZARD

Section 380:45-15-2 requires a Notice to Employees when ACM are used in acoustical materials on ceilings and walls. This type of ACM is referred to as Surfacing Material.

The U.S. Environmental Protection Agency (EPA) requires inspections in school buildings in grades K through 12, as part of the Asbestos Hazard Emergency Response Act (AHERA), which is authorized in 40 CFR 763.6. These AHERA requirements would only be applicable to the Miami Armory in an instance where the future intentions for the structure would include school activities grades K through 12. The structure would then necessitate an Asbestos Management Plan, required by the Local Educational Authority (LEA). The AHERA inspection protocol requires a thorough sampling of all forms of friable and non-friable asbestos. The types of ACM to be assessed as part of an AHERA Inspection include:

Surfacing Materials
- Examples include blown on or trowled substrates materials typically observed on ceilings, structural steel, concrete ceilings or metal pan decks.

Thermal System Insulation
- Examples include piping, hot and cold water lines, Heating Ventilation and Air Conditioning (HVAC) equipment components, boilers, steam lines or heated thermal processes.

Miscellaneous Materials
- Examples include floor tiles, mastics, ceiling tiles, sheet vinyl flooring, wallboard bedding tapes or joint compounds.

The AHERA sampling protocol addresses the systematic sampling of each type of ACM and the identification of both friable , that which can be rendered to a powder by hand pressure, Category I non-friable ACM, such as floor tiles and mastic, and Category II non-friable ACM, such as cement asbestos tiles. The AHERA Inspection must also evaluate the condition and potential for the disturbance of the ACM. The condition of the ACM, good, damaged or significantly damaged, must also be determined.

In addition to AHERA, the EPA regulates asbestos removal during renovation and demolition. Land disposal requirements are also regulated by the EPA through State Landfill Permits. These efforts are now administered by the Oklahoma Department of Environmental Quality (DEQ) Air Quality and Land Protection regulations. The DEQ requires the filing of advance notices of any demolition or renovation activities. These notices are referred to as a NESHAP Notice. Both historical and future asbestos abatement response actions track asbestos removal to a DEQ approved landfill on a project-by-project basis as part of this NESHAP notification process.

A NESHAP Notice is required for Renovation whenever the quantities of ACM are greater than 160 square feet, 260 linear feet or 35 cubic feet. All required NESHAP Notifications must be submitted to the DEQ ten working days prior to any demolition or renovation work where asbestos is present. Instruction of how to file and comply with DEQ and NESPHAP Notification Requirements are provided on the DEQ web site at:
http://www.deq.state.ok.us/aqdnew/asbestos/index.htm

The ODOL regulates Asbestos Abatement. The ODOL Asbestos Division implements the ODOL Rules governing the abatement for friable asbestos. Under the ODOL asbestos rule, OAC 380:50, only Licensed Contractors can perform asbestos abatement, develop management plans and project designs. All abatement supervisors, abatement workers and asbestos inspectors must also be licensed by the ODOL. It should be noted that the ODOL Asbestos Rules are currently undergoing a review for pending rule change. The ODOL Rules are available at the ODOL web site at: http://www.ok.gov/odol/

APPENDIX

Bulk Asbestos
Chain of Custody
Analytical Results

Floor Plan
Labeled with Homogenous Areas

Licenses

Digital Photographs

Marshall Environmental Management, Inc.
Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Number	0082-AB-070709-JM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept of Environmental Quality Land Protection Division
Project Name	Miami Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	830 D Street Southeast Miami, OK 74354	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Jeff Alls	Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #	918-530-7122	Cell #		Cell #	
email		email	cindy_melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		40% Asbestos Detected			
0105-070709-CJM-PLM-01	July 7, 2009	Room 8	Color	Gray	40%	Chrysotile	20%	Calcareous Material
		Straight Run	Condition	Good			40%	Cellulose
			Type	Thermal System Insulation				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		40% Asbestos Detected			
0105-070709-CJM-PLM-02	July 7, 2009	Room 8	Color	White	40%	Chrysotile	55%	Calcareous Material
		Elbow	Condition	Good			5%	Cellulose
			Type	Thermal System Insulation				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		40% Asbestos Detected			
0105-070709-CJM-PLM-03	July 7, 2009	Room 8	Color	Gray	40%	Chrysotile	20%	Calcareous Material
		Straight Run	Condition	Good			40%	Cellulose
			Type	Thermal System Insulation				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		40% Asbestos Detected			
0105-070709-CJM-PLM-04	July 7, 2009	Room 8	Color	White	40%	Chrysotile	55%	Calcareous Material
		Elbow	Condition	Good			5%	Cellulose
			Type	Thermal System Insulation				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-05	July 7, 2009	Room 8	Color	Yellow/Pink			100%	Fibrous Glass
		Flex Duct	Condition	Good				
			Type	Thermal System Insulation				
			Note					

Jamie Marshall	Jamie Marshall, B.S., Industrial Hygiene Associate	July 21, 2009
Analyst Name (Print)	Analyst Signature	Date Analyzed

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334

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Marshall Environmental Management, Inc.
Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Number	0082-AB-070709-JM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name	Miami Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	830 D Street Southeast Miami, OK 74354	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Jeff Alls	Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #	918-530-7122	Cell #		Cell #	
email		email	cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected		
0105-070709-CJM-PLM-06	July 7 2009	Room 12	Color	Yellow		100%	Fibrous Glass
			Condition	Good			
			Type	Thermal System Insulation			
			Note				

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected		
0105-070709-CJM-PLM-07A	July 7 2009	Room 2	Color	Brown		100%	Rubber
		Cove Base	Condition	Good			
			Type	Miscellaneous			
			Note				

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected		
0105-070709-CJM-PLM-07B	July 7, 2009	Room 2	Color	Yellow		100%	Adhesive
		Cove Base Mastic	Condition	Good			
			Type	Miscellaneous			
			Note				

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected		
0105-070709-CJM-PLM-08	July 7, 2009	Room 1	Color	White		100%	Foam
		Ceiling Tile	Condition	Good			
			Type	Miscellaneous			
			Note				

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected		
0105-070709-CJM-PLM-09	July 7, 2009	Room 1	Color	Yellow		100%	Fibrous Glass
		Furnace Insulation	Condition	Good			
			Type	Thermal System Insulation			
			Note				

Jamie Marshall	Jamie Marshall, B.S., Industrial Hygiene Associate	July 21, 2009
Analyst Name (Print)	Analyst Signature	Date Analyzed

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.

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Project Location		Invoice To		Report To	
Project Number	0082-AB-070709-JM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name	Miami Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	830 D Street Southeast Miami, OK 74354	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Jeff Alls	Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #	918-530-7122	Cell #		Cell #	
email		email	cindy_melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		2% Asbestos Detected			
0105-070709-CJM-PLM-10	July 7, 2009	Room 1	Color	Black	2%	Chrysotile	98%	Tar
		Tar on Furnace Flu	Condition	Good				
			Type	Thermal System Insulation				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		5% Asbestos Detected			
0105-070709-CJM-PLM-11	July 7, 2009	Room 4	Color	Gray	5%	Chrysotile	95%	Vinyl Aggregate
		9"x9" Floor Tile	Condition	Good				
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		8% Asbestos Detected			
0105-070709-CJM-PLM-12	July 7, 2009	Room 3,4 & 5	Color	Black	8%	Chrysotile	92%	Tar
		Mastic	Condition	Good				
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-13	July 7, 2009	Room 13	Color	White Gray			2%	Cellulose
		Drill Floor	Condition	Good			98%	Cementous Material
		Ceiling	Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-14A	July 7, 2009	Room 15	Color	Beige			100%	Vinyl Aggregate
		12"x12" Tile	Condition	Good				
			Type	Miscellaneous				
			Note					

Jamie Marshall	Jamie Marshall, B.S., Industrial Hygiene Associate	July 21, 2009
Analyst Name (Print)	Analyst Signature	Date Analyzed

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982

Lab Accreditation:
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Marshall Environmental Management, Inc.
Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Number	0082-AB-070709-JM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name	Miami Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	830 D Street Southeast Miami, OK 74354	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Jeff Ails	Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #	918-530-7122	Cell #		Cell #	
email		email	cindy_melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-14B	July 7, 2009	Room 15	Color	Yellow			100%	Adhesive
		Mastic	Condition	Good				
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		40% Asbestos Detected			
0105-070709-CJM-PLM-15	July 7, 2009	Room 12	Color	Gray	40%	Chrysotile	20%	Calcareous Material
		Straight Run	Condition	Good			40%	Cellulose
			Type	Thermal System Insulation				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-16A	July 7, 2009	Room 2	Color	Beige			100%	Vinyl Aggregate
		12"x12" Tile	Condition	Good				
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-16B	July 7, 2009	Room 2	Color	Yellow			100%	Adhesive
		Mastic	Condition	Good				
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-17A	July 7, 2009	Room 7	Color	Beige			100%	Vinyl Aggregate
		12"x12" Tile	Condition	Good				
			Type	Miscellaneous				
			Note					

Jamie Marshall	Jamie Marshall, B.S., Industrial Hygiene Associate	July 31, 2009
Analyst Name (Print)	Analyst Signature	Date Analyzed

Test Method. 40 CFR Chapter I. Part 763, Subpart F, Appendix A. "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM). US EPA 600/M4-82-020 1982.

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Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Number	0082-AB-070709-JM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name	Miami Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	830 D Street Southeast Miami, OK 74354	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Jeff Alls	Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #	918-530-7122	Cell #		Cell #	
email		email	cindy_melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-17B	July 7, 2009	Room 7	Color	Yellow			100%	Adhesive
		Mastic	Condition	Good				
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-18	July 7, 2009	Room 14	Color	White			90%	Calcareous Material
		Drywall	Condition	Good			10%	Cellulose
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-19	July 7, 2009	Room 15	Color	White			90%	Calcareous Material
		Drywall	Condition	Good			10%	Cellulose
			Type	Miscellaneous				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		40% Asbestos Detected			
0105-070709-CJM-PLM-20	July 7, 2009	Room 10	Color	White	40%	Chrysotile	55%	Calcareous Material
		Elbow	Condition	Significantly Damaged			5%	Cellulose
			Type	Thermal System Insulation				
			Note					

Lab Log Number	Date of Sampling	Sample Location	Sample Description		No Asbestos Detected			
0105-070709-CJM-PLM-21	July 7, 2009	Room 16	Color	Brown			80%	Cellulose
		Ceiling Tile	Condition	Good			20%	Glass Beads
			Type	Miscellaneous				
			Note					

Jamie Marshall	Jamie Marshall, B.S., Industrial Hygiene Associate	July 21, 2009
Analyst Name (Print)	Analyst Signature	Date Analyzed

Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.

Lab Accreditation:
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Marshall Environmental Management, Inc.
Polarized Light Microscopy Asbestos Analysis

Project Location		Invoice To		Report To	
Project Number	0082-AB-070709-JM	Client	State of Oklahoma Department of Central Services	Client	Oklahoma Dept. of Environmental Quality Land Protection Division
Project Name	Miami Armory Asbestos Inspection	Attention	Cindy Melton Administrative Programs Officer	Attention	Dustin Davidson
Project Address	830 D Street Southeast Miami, OK 74354	Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Jeff Alls	Phone #	405-522-4805	Phone #	405-702-5115
Phone #		Fax #	405-522-0051	Fax #	
Cell #	918-530-7122	Cell #		Cell #	
email		email	cindy_melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

Lab Log Number	Date of Sampling	Sample Location	Sample Description		Result			
0105-070709-CJM-PLM-22	July 7, 2009	Room 3 Cove Base Mastic	Color	Black	No Asbestos Detected		<1%	Cellulose
			Condition	Good			99%	Cementous Material
			Type	Miscellaneous				
			Note					
0105-070709-CJM-PLM-23	July 7, 2009	Door 16 Door Between Rooms 6 & 7 Fire Proofing Insulation	Color	White	No Asbestos Detected		85%	Cementous Material
			Condition	Good			15%	Mica
			Type	Thermal System Insulation				
			Note					
0105-070709-CJM-PLM-24	July 7, 2009	Exterior Window Caulk	Color	Gray	Trace Asbestos Detected			
					<1%	Chrysotile	99%	Cementous Material
			Condition	Good				
			Type	Miscellaneous				
			Note					

Jamie Marshall	Jamie Marshall, B.S., Industrial Hygiene Associate	July 21, 2009
Analyst Name (Print)	Analyst Signature	Date Analyzed

Test Method	Lab Accreditation
Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600 M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334

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Phone (405) 616-0401 Fax (405) 681-6757
cmarshem@swbell.net

0105-070709-CJM-PLM

1601 SW 89th St. Ste. 100-A
Oklahoma City, OK 73159

Chain of Custody
Marshall Environmental Management, Inc.

Phone: (405) 616-0401
Fax: (405) 681-6753
marshenv@swbell.net

PROJECT	INVOICE TO	REPORT TO
0082-AB-070709-JM Miami Armory AB Inspec	OK Dept. of Central Servi	

7/7/09	AB-1	Rm 8	Straight Run	TSI	N/A	N/A	On	N/A	Pre	N/A	N/A	AB PLM
							Off		Post			
	AB-2	Rm 8	elbow	TSI			On		Pre			
							Off		Post			
	AB-3	Rm 8	Straight Run	TSI			On		Pre			
							Off		Post			
	AB-4	Rm 8	elbow	TSI			On		Pre			
							Off		Post			
	AB-5	Rm 8	Flex duct	TSI			On		Pre			
							Off		Post			
	AB-6	Rm 12		TSI			On		Pre			
							Off		Post			
	AB-7	Rm 2	Coverbase yellow mastic	Miscillaneous			On		Pre			
							Off		Post			
	AB-8	Rm 1	Ceiling tile	Misc.			On		Pre			
							Off		Post			
	AB-9	Rm 1	Furnace Insulation	TSI			On		Pre			
							Off		Post			
	AB-10	RM 1	Tar on Furnace Flu	~~Misc.~~ TSI			On		Pre			
							Off		Post			

Relinquished By	Date	Received By	Date	
Jamie Marshall (print)	7/7/09 4:00pm	N/A (print)		IN FOLDER
(signature)		(signature)		
(print)		(print)		T. MARSHALL HAND DELIVERED
(signature)		(signature)		
(print)		(print)		ACCEPTED
(signature)		(signature)		

0105-070709-CJM-PLM

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Oklahoma City, OK 73159

Chain of Custody
Marshall Environmental Management, Inc.

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0082-AB-070709-JM Miami Armory AB Inspec	OK Dept. of Central Servi

7/7/09	AB-11	Rm 4	9x9 Floor tile	misc.	N/A	N/A	On	N/A	Pre	N/A	N/A	AB PLM		
	AB-12	Rm 3,4,5	Black mastic	Misc.			Off		Post					
	AB-13	Rm 13	Drill Floor Ceiling	misc.			On		Pre					
	AB-14	Rm 15	12x12 yellow mastic	Misc.			Off		Post					
	AB-15	Rm 12	~~T5~~ 5 straight Rows	TSI			On		Pre					
	AB-16	Rm 2	12x12 tile yellow mastic	Misc.			Off		Post					
	AB-17	Rm 7	12x12 tile yellow mastic	Misc.			On		Pre					
	AB-18	Rm 14	Drywall	Misc.			Off		Post					
	AB-19	Rm 15	Drywall	Misc.			On		Pre					
	AB-20	Rm 16	elbow (Sig. damaged)	TSI			Off		Post					

Jamie Marshall (print)	7/7/09 4:00pm	(print)					SAME
(signature)		(signature)					
(print)		(print)					
(signature)		(signature)					
(print)		(print)					
(signature)		(signature)					

1601 SW 89th St. Ste. 100-A
Oklahoma City, OK 73159

0105-070709-CJM-PLM

Chain of Custody
Marshall Environmental Management, Inc.

Phone: (405) 616-0401
Fax: (405) 681-6753
marshenv@swbell.net

PROJECT				INVOICE TO				REPORT TO			
Project Number	OD82-AB-070709-JM			Client/ Company	OK Dept Central Svcs			Client/ Company			
Project Name	Miami Armory AB/Inspect			Attention				Attention			
Project Address				Address				Address			
Phone Number		Site Contact		Phone Number		Email		Phone Number		Email	

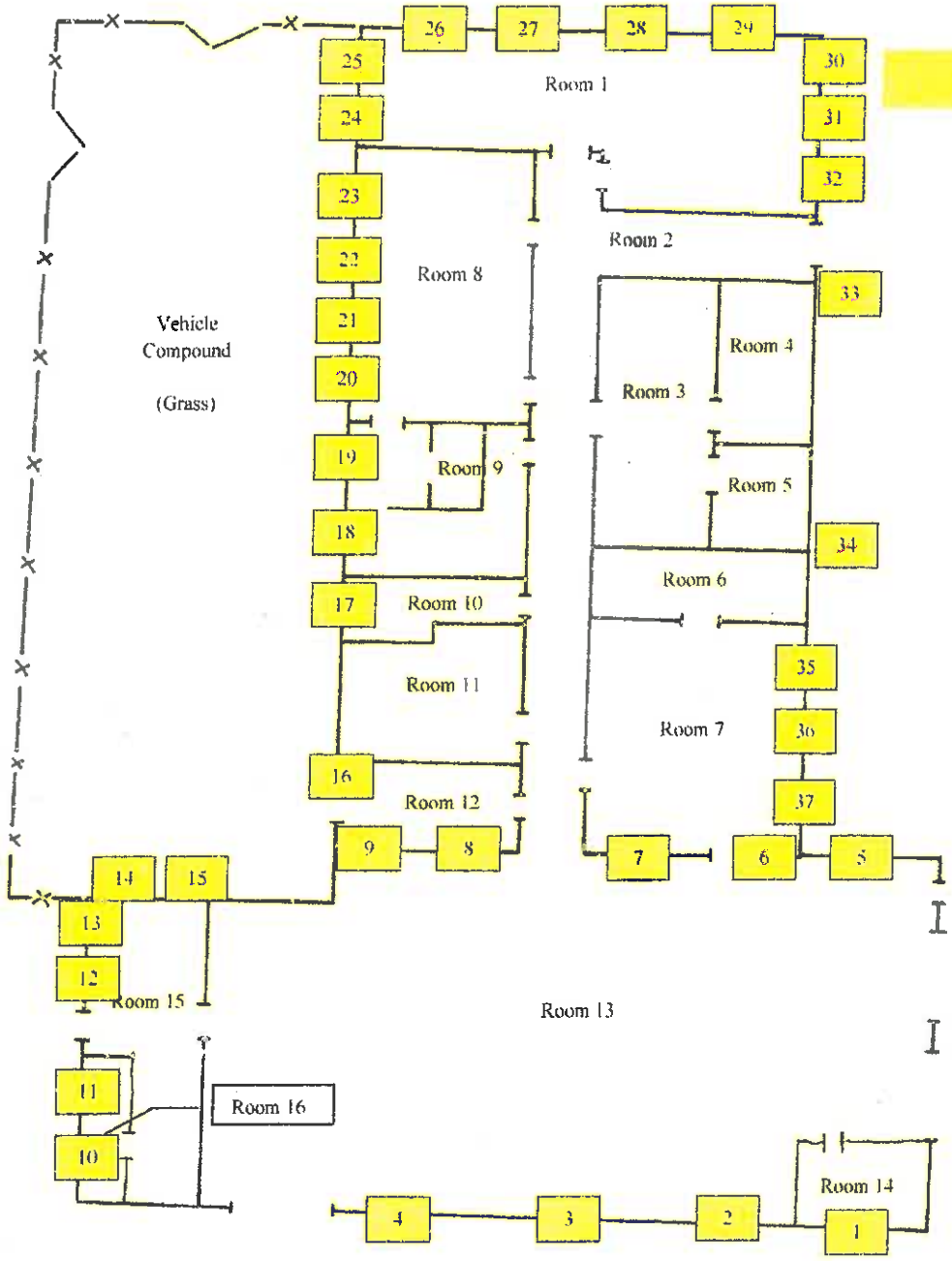
Sample Date	Sample Number	Room Number/Designation	Sample Location	Sample Composition	Matrix	Media	Time		Calibration		Volume/ Area	Analysis/ Parameters
7/7/09	AB-21	Rm 16	ceiling	ceiling tile	N/A	N/A	On	N/A	Pre	N/A	N/A	AB PLM
	AB-22	Rm 3	coveBase mastic	mastic			Off		Post			
	AB-23	R Door 16	Door 16	Fire Proofing insulation			On		Pre			
	AB-24	Exterior	~~wing~~ window	caulk			Off		Post			
							On		Pre			
							Off		Post			
							On		Pre			
							Off		Post			
							On		Pre			
							Off		Post			
							On		Pre			
							Off		Post			
							On		Pre			
							Off		Post			

Collected By	(print)		Date		Relinquished By	(print)	Date		Sample Notes	SAME
	(signature)		Time			(signature)	Time			
Received By	(print)		Date		Relinquished By	(print)	Date		Method of Shipment	
	(signature)		Time			(signature)	Time			
Received By	(print)		Date		Relinquished By	(print)	Date		Condition Upon Receipt	
	(signature)		Time			(signature)	Time			

Page 1 of 1

Homogenous Areas

Homogenous Areas



FEE: $500.00

Oklahoma Department of Labor

Charles Marshall

has filed in the office of the Commissioner of Labor of the State of Oklahoma
an application for a Limited Asbestos Contractor's license for

AHERA MANAGEMENT PLANNER

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of
the power vested in him by law hereby issues to the
applicant license **No. OK-MP130246.**

Lloyd L Fields

LLOYD L. FIELDS
Commissioner of Labor

July 17, 2008

Date of Issuance

EXPIRES: July 02, 2009

FEE: $25.00

Oklahoma Department of Labor

Jamie Marshall

has filed in the office of the Commissioner of Labor of the State of Oklahoma
an application for a Limited Asbestos Contractor's license for

AHERA INSPECTOR

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of
the power vested in him by law hereby issues to the
applicant license **No. OK158090.**

Lloyd L Fields

LLOYD L. FIELDS
Commissioner of Labor

June 05, 2008

Date of Issuance

EXPIRES: June 04, 2009

Miami Armory

Significantly Damaged
TSI in Room 10

Significantly Damaged
TSI in Room 10

9x9 Floor Tile and
Mastic in Room 4

12x12 Flor Tile and
Black Mastic Room 3

TSI Room 1

SCOPES OF WORK

STATEMENT OF WORK
For
Remediation of Lead Contamination at Miami Armory

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from qualified bidders for remediation services at a former National Guard armory located in Miami, Oklahoma. This statement of work (SOW) describes the cleanup of lead contamination associated with the indoor firing range (IFR), and lead contaminated dust on the floors of the building. This work must be performed to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms, or office space. Sample results are attached for review **(Attachment 1)**.

The Marlow Armory building is located at **830 D Street Southeast, Miami, OK 74354**. The building **does not** have available electricity or water to use during remediation.

The building is approximately **9,880 Square Feet**.

Bids are due by close of business **(4:30 PM) on Friday, November 4th, 2011**. There will not be a pre-bid meeting.

SPECIAL PROVISIONS:

1. Work Schedule: The Contractor shall schedule all work to be complete within thirty (30) calendar days after date of the written "Notice to Proceed".
    a. A pre-construction meeting shall be held at the site after the Notice to Proceed date to review Scope of Work and answer any questions the contractor may have.
    b. All on-site work shall be completed by the Contractor five (5) days prior to the scheduled contract completion date, with the remaining five (5) days utilized for final inspection and correction of all deficiencies.
2. Conditions of Work: The following conditions of work will apply in accomplishment of this contract:
    a. All work shall be performed in accordance with all applicable State and Federal regulations.
    b. The contractor shall perform this work in such a manner as to cause a minimum of interruption to normal work being performed in the contract area.
    c. Coordination of work areas shall be scheduled with DEQ.
    d. Disposal of Removed Materials: All materials removed by the Contractor under this contract shall be disposed of in accordance with State and Federal regulations. DEQ will sign as generator, if necessary.

CONTRACTOR SHALL:

- Possess a current lead-based paint firm license and have a certified lead-based paint supervisor on staff in order to perform lead-based paint abatement.
- Follow OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for indoor firing range remediation and lead dust remediation.

Submit With Bid:

- Copy of lead-based paint firm license.
- Copy of lead-based paint supervisor license.
- Three references with name, type of project, phone number, and location of similar work in the last three years.

Submit After Contract Award:

- A Work Plan with planned activities and schedule to DEQ for approval.

LEAD REMEDIATION INSTRUCTIONS

1. Building Floors

Lead Dust Remediation (See Attachment 1)

- Surfaces above the floors such as walls, shelves, etc. may have accumulated dust that has settled. This accumulation shall be removed prior to the cleaning of the floors. This shall be done to prevent recontamination of the floors after they are cleaned.

- Floors of the entire building shall require lead dust remediation;
  - Remove dust from all equipment, shelving, trash, etc, and remove these items from room before remediation begins;
    - The floors of Room 1 shall be cleaned first. Once clean, all equipment, shelving trash, etc in the building shall be moved to room 1.
    - The moving of these items shall take two men approximately two hours.
  - HEPA vacuum and wet wash floors of entire building;
    - Lead levels on the floor are high in many areas of the building and lead contaminated dust may be ground into the pores and cracks of the concrete. It may be necessary to clean floors several times or use alternate cleaning methods after HEPA vacuuming and wet washing to remove the lead dust from the concrete and get the lead levels down to 40 micrograms per square foot (ug/SF).
  - Contact Enercon Services, Inc. to perform independent third-party post remediation wipe sampling to confirm that room floors with lead contamination have been appropriately remediated to 40 micrograms per square foot (ug/SF). See Section C (Confirmation and Clearance Sampling) for additional information;
  - Areas above 40 ug/SF shall be re-cleaned and re-tested until results are at or below 40 ug/SF;
  - Lead dust and appropriate cleaning materials shall be disposed as appropriate.
  - Wash Water Disposal
    - All wash water from the building shall be filtered through a 1 micron filter and stored on site in containers;
    - The wash water will be sampled for total lead and total phosphorus; Total lead shall be run by ICP and total phosphorus shall be run by EPA Method 365.3;
    - Sample results shall be submitted to DEQ to determine if wash water can be disposed at the local Waste Water Treatment Facility;
    - Wash water shall be disposed appropriately.

2. Disposal of Materials

Hazardous Waste

- Lead contaminated dust from the cleaning of the building floors shall be disposed as hazardous waste;
- Wash water filters shall be disposed as hazardous waste;
- Mop heads, towels, brushes, wipes, and other cleaning supplies shall be disposed as hazardous waste;

Other

- Poly Sheeting shall be disposed as appropriate. If contractor plans to dispose as non-hazardous waste, best management practices such as vacuuming, washing, wiping down, or cleaning poly sheeting prior to disposal shall be implemented.
- Personal protective equipment (gloves, tyvec, face masks, etc.) shall be disposed as appropriate.

3. Confirmation and Clearance Sampling

- Contractor may use his own lab to check progress of remediation, however all DEQ decisions shall be based on analytical data from ESI.
- Enercon Services, Inc. (ESI) will be responsible for taking all post remediation samples.
- ESI shall be notified five (5) days prior to each sampling event.
- Contact Information:

  Enercon Services, Inc.
  6525 North Meridian, Suite 400
  Oklahoma City, Oklahoma 73116
  Contact: Bill Muenker
  Phone: (405) 722-7693

- <u>The third-party sampling shall not be included in the contractors base bid;</u>
- All post remediation sampling will be performed after all initial abatement, remediation, and cleaning is complete.

4. FINAL REPORT

- Write final report and submit to DEQ;
- Final report shall include:
  - A detailed summary of work including any warranties and data;
  - copy of post remediation sampling report;
  - waste manifests (if any); and
  - photo documentation of work;
    - Photo documentation of work will have color digital photos with captions describing photo;
- Final report will be submitted in hard copy and electronically on disc.

OWNER REPRESTATIVE

Owner's Representative:

Dustin Davidson
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson
Oklahoma City, OK 73102

Phone Numbers:
(405) 702-5115 (Office)
(405) 702-5101 (Fax)
E-Mail: Dustin.Davidson@deq.ok.gov

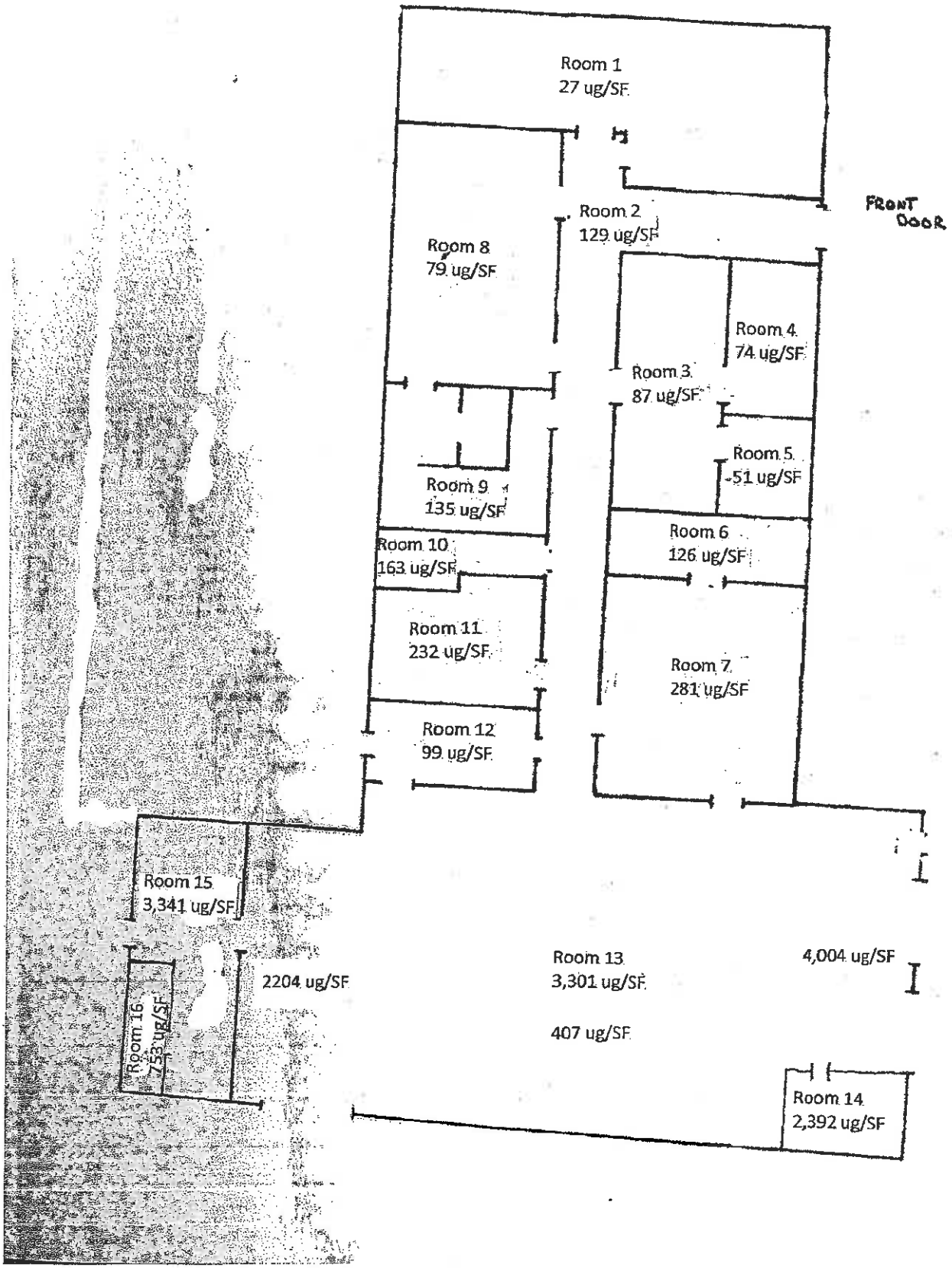
ATTACHMENT 1

Sample Results and Floor Plan

MIAMI ARMORY

MIAMI, OKLAHOMA

BUILT: 1957



QUANTEM LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 174459
Date Received: 07/30/09
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: EC
Date of Report: 8/4/2009

AIHA ID: 101352

Client: Marshall Environmental Management, Inc.
1601 SW 89th Street, Ste. A-100
Oklahoma City, OK 73159

Acct. No.: A331

Project: Miami
Location: N/A
Project No.: 0083-LBP-070709 JM

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
012	12	Wipe	Lead	99.21	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
013	13	Wipe	Lead	3301.20	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
014	13W	Wipe	Lead	2203.50	16.00	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
015	13C	Wipe	Lead	407.30	16.00	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
016	13E	Wipe	Lead	4003.50	16.00	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
017	14	Wipe	Lead	2391.98	23.99	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
018	15	Wipe	Lead	3341.15	23.99	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100
019	16	Wipe	Lead	753.21	23.99	ug/sq. Ft.	08/04/09 9:25	EPA 3051 / NIOSH 9100

Authorized Signature: _____
Eric Caves, Analyst

Note: Sample results have not been corrected for blank values.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

QUANTEM LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 174459
Date Received: 07/30/09
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: EC
Date of Report: 8/4/2009

AIHA ID: 101352

Client: Marshall Environmental Management, Inc.
1601 SW 89th Street, Ste. A-100
Oklahoma City, OK 73159

Acct. No.: A331

Project: Miami
Location: N/A
Project No.: 0083-LBP-070709 JM

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	27.05	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
002	2	Wipe	Lead	129.48	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
003	3	Wipe	Lead	86.62	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
004	4	Wipe	Lead	73.55	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
005	5	Wipe	Lead	51.01	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
006	6	Wipe	Lead	126.15	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
007	7	Wipe	Lead	281.24	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
008	8	Wipe	Lead	79.17	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
009	9	Wipe	Lead	134.89	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
010	10	Wipe	Lead	163.37	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100
011	11	Wipe	Lead	231.93	23.99	ug/sq. Ft.	08/03/09 14:20	EPA 3051 / NIOSH 9100

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.*

ATTACHMENT 2

Health & Safety Aspects to Consider

Health & Safety Aspects to Consider

Project Goal: To ensure that former National Guard Armories are free of lead dust. Specifically, indoor firing ranges (IFR's) and other areas that contain lead contamination.

Please Note: the following information is from the Departments of the Army and the Air Force, National Guard Bureau, Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges **(Attachment 4)**.

Health and Medical Aspects

Health Effects

29 Code of Federal Regulations (CFR) 1910.1025, Appendix A, identifies lead as a highly toxic metal. Elemental lead is indestructible and common in the environment. Lead can enter the body by inhalation (breathing) or ingestion (eating). In addition, lead is a cumulative poison. It accumulates in the blood, bones, and organs, including the kidneys, brain and liver. Effects include nervous and reproductive system disorders, delays in neurological and physical development, cognitive and behavioral changes, and hypertension. Symptoms include loss of appetite, difficulty sleeping, irritability, fatigue, headache, and inability to concentrate. It can stay in the bones for decades. Worker awareness and training are important to ensure that employees can recognize the symptoms of exposure and get prompt medical attention.

Medical Surveillance for occupational Exposure to Lead

a. 29 CFR 1910.1025(j)(i-ii), Medical Surveillance - General: "The employer shall institute a medical surveillance program for all employees who are or may be exposed above the action level for more than 30 days per year. The employer shall assure all medical examinations and procedures are performed by or under the supervision of a licensed physician."

b. The DOD 6055.5-M, Occupational Medical Surveillance Manual - Table 2-I lists medical surveillance criteria for employees "who are or may be exposed above the action level for 30 days/year."

Personal Protective Equipment

29 CFR 1910.1025(f)(2),for housekeeping and rehabilitation the employer shall select respirators from among those approved for protection against dust, fume, and mist by the National Institute for Occupational Safety and Health (NIOSH), under the provision of 42 CFR part 84. The employer shall institute a respiratory protection program in accordance with 29 CFR 1910.134(b), (d), (e), and (f). As a minimum, personnel conducting the decontamination of the range shall be provided with the following personal protective equipment.

a. Under 29 CFR 1910.1025 (g). For employees engaged in range rehabilitation and/or range conversion, the employer shall provide at no cost to the employee, and ensure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

(1) Protective coveralls with hood and shoe covers or disposable Tyvek ™ full body suit.

(2) Disposable rubber gloves; and disposable shoe coverlets (If necessary).

(3) Full-face air purifying respirator with P-100 cartridges.

b. The employer shall provide the clothing required in a clean and dry condition at least daily to employees engaged in the conversion of IFRs.

c. The employer shall provide for the cleaning, laundering, or disposal of used or contaminated protective clothing and equipment.

d. The employer shall assure that all protective clothing is removed at the completion of a work shift only in areas designated for that purpose (Change Areas or Change Rooms).

e. The employer shall ensure that contaminated protective clothing that is to be cleaned, laundered, or disposed of, is placed in a closed container in the change area that seals sufficiently enough to prevent dispersion of lead dust.

f. The employer shall further inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead.

g. The employer shall ensure that the containers of contaminated protective clothing and equipment are labeled as follows: CAUTION: *CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.*

Education, Maintenance, Cleaning and Conversion

Worker Education

a. 29 CFR 1910.1025, Appendix 13, requires an information and training program for **all employees exposed** to lead above the action level **or** who may suffer skin or eye irritation from lead. The program must inform the employees of the specific hazards associated with their work environment, protective measures which can be taken, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. In addition you must make readily available to all employees, including those exposed below the action level, a copy of this standard and its appendices. This training program shall be repeated annually for personnel in range cleanup operations.

b. The supervisor shall ensure that each individual employee is informed of the following:

(1) The content of the standard and its appendices.

(2) The specific nature of operations that could result in exposure to lead above the action level.

(3) The purpose, proper selection, fitting, use, and limitations of respirators.

(4) The purpose and a description of medical surveillance program.

(5) Eating and drinking are prohibited in lead contaminated areas.

(6) Smoking and smoking materials shall not be permitted in contaminated areas.

(7) Employees must wash their hands and other exposed skin whenever they leave the work area.

(8) The engineering controls and work practices associated with the individual's job assignment.

(9) The contents of any compliance plan in effect.

(10) Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.

REFERENCES

Section 1 Required Publications

There are no entries in this section

Section II Related Publications

ASTM E1792-03
Standard Specification for Wipe Sampling Materials for Lead in Surface Dust

AR 11-34
The Respiratory Protection Program

AR 40-5
Preventive Medicine

DODI 6055.5
Industrial Hygiene and Occupational Health

DOD 6055.5-M
Occupational Medical Surveillance Manual

29 CFR, Part 1910
Occupational Safety and Health Administration, Department of Labor

National Institute for Occupational Safety and Health (NIOSH) 76-130
Lead Exposure and Design Considerations for Indoor Firing Ranges, Department of Health, Education and Welfare

NGR 385-15
Policy and Responsibilities for Inspection, Evaluation and Operation Army National Guard National Guard Indoor Firing Ranges (IFRs).

NGR 415-5
Army National Guard Military Construction Program Development and Execution

NGR 420-10
Construction and Facilities Management Office Operations

Technical Manual, 5th Edition
Occupational Safety and Health Administration, Department of Labor Section III

STATEMENT OF WORK
For
Remediation of Lead-Based Paint Contamination at Miami Armory

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from qualified bidders for remediation services at a former National Guard armory located in Miami, Oklahoma. This statement of work (SOW) describes the cleanup of lead-based paint located on surfaces throughout the building. This work must be performed to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms, or office space. A mandatory site visit and walk through will be held to give a better understanding of the site. A floor plan map of the Miami Armory is attached for review (**Attachment 1**).

The building is located at **830 D Street Southeast, Miami, OK 74354**. The building **does not** have available electricity and **does not** have available water to use during remediation.

SPECIAL PROVISIONS:

1. Work Schedule: The Contractor shall schedule all work to be complete within one hundred and twenty days (120) calendar days after date of the written "Notice to Proceed".
    a. A pre-construction meeting shall be held at the site after the Notice to Proceed date to review Scope of Work and answer and questions the contractor may have.
    b. All on-site work shall be completed by the Contractor five (5) days prior to the scheduled contract completion date, with the remaining five (5) days utilized for final inspection and correction of all deficiencies.
2. Conditions of Work: The following conditions of work will apply in accomplishment of this contract:
    a. All work shall be performed in accordance with all applicable State and Federal regulations.
    b. The contractor shall perform this work in such a manner as to cause a minimum of interruption to normal work being performed in the contract area.
    c. Coordination of work areas shall be scheduled with DEQ.
    d. Disposal of Removed Materials: All materials removed by the Contractor under this contract shall be disposed of in accordance with State and Federal regulations. DEQ will sign as generator, if necessary.

CONTRACTOR SHALL:

- Attend mandatory pre-bid meeting and site walk through;
- Posses a current lead-based paint firm license and have a certified lead-based paint supervisor in order to perform lead-based paint abatement;
- Follow OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for lead-based paint abatement, indoor firing range remediation, and lead dust remediation;

Submit With Bid:

- Copy of lead-based paint firm license;
- Copy of lead-based paint supervisor license;
- Three references with name, type of project, phone number, and location of similar work in the last three years;

Submit After Contract Award:

- A Work Plan with planned activities and schedule to DEQ for approval;

LEAD-BASED PAINT ABATEMENT INSTRUCTIONS

1. LEAD-BASED PAINT ABATEMENT

Non-Friction and Non-Impact Surfaces

- The beams under entrance overhang, soffit under entrance overhang, black concrete wall in drill floor (Room #13), window lintels, overhead doors, overhead door frames and door guards with lead-based paint shall be wet scraped, painted with a neutral colored primer, and encapsulated with DEQ approved elastomeric encapsulant. A list of DEQ approved elastomeric encapsulants is attached (**Attachment 3**). Encapsulant shall be a minimum of 20 mils thick. Floor plan map is attached (**Attachment 1**);
- Wood cabinets from vault (Room#6), pass through window ledge in Room #12, and drill floor (Room #13) fire door and track shall be removed, wrapped in 6 mil poly sheeting, and properly disposed.
- The fire door frame in the drill floor (Room # 13) shall be wet scraped and sealed with DEQ approved elastomeric encapsulant.
- Deteriorated paint removed from building surface shall be properly disposed.

Friction and Impact Surfaces

Windows

- A Window-Scope of Work with map, window measurements, specifications for window replacement, and specific details on abatement requirements for each window is attached (**Attachment 4**);
- Windows installed must meet all attached specifications;
- Window installation and oversight of window removal shall be performed by a third party professional window installation company that is certified and recommended by the window manufacturer of the windows being installed;
  - Window installer shall have no less than five (5) years installation experience;
- Window installer shall have experience with removal of steel casement windows;
- All interior and exterior window sills shall be HEPA vacuumed and wet washed after windows have been removed and replaced;
  - Once window sills have been cleaned, contractor shall encapsulate with DEQ approved lead-based paint encapsulant.

Overhead Doors and Tracks

- The two overhead doors and tracks on the east side of the Drill Floor shall be removed, wrapped in 6 mil poly sheeting, and properly disposed. A floor plan map showing locations of the two overhead doors is attached (**Attachment 5**);
- Contractor is responsible for taking field measurements of the overhead doors;
- The two overhead doors shall be replaced with 24 gauge steel CHI Model 3240 section overhead doors or equivalent;
- A third party professional overhead door installer shall remove existing overhead doors and tracks and install new overhead doors and tracks;
- Contractor shall be responsible for wrapping removed doors and tracks in poly sheeting and properly disposing of items;

Doors and Frames

- A Door-Scope of Work with map, door measurements, and specific details on abatement requirements for each door is attached (**Attachment 5**);
- Doors will be replaced with pre-hung Steelcraft Commercial Replacement Door Units (Specifications Attached) or equivalent;
- Doors will be replaced with UL listed 90 minute standard metal doors;
- Doors will be replaced with Steelcraft L18 and L16 – Series Honeycomb Doors (Specifications Attached) or equivalent;
- Contractor must submit product data for approval if different from doors or door frames in bid package;
- Replacement doors and frames must meet all compliance and fire rating requirements in the attached specifications;

Exterior Doors

- Exterior doors will be replaced with galvannealed, 16 gage, honeycomb core insulated doors;
- Hinges: As manufactured by Hagar or approved equal – Plain Bearing - Standard Weight 1279 NRP, 4 ½ X 4 ½ (Specifications Attached);
- Threshold: As manufactured by National Guard Products or approved equal – 426E (Specifications Attached);
- Weather Strip: As manufactured by National Guard Products or approved equal – 160VA (Specifications Attached);
- Lever: As manufactured by Schlage or approved equal – D Series "Rhodes", 626 finish, function ND60PD (Specification Attached);
- Keying: All doors to be keyed alike;
- Provide sealant per 07920 specification attached.

Interior Doors

- Interior doors will be replaced with non-galvannealed, 18 gage, honeycomb core insulated doors;
- Hinges: As manufactured by Hagar or approved equal – Plain Bearing – Standard Weight 1279, 4 ½ X 4 ½ (Specification Attached);
- Knob: As manufactured by Schlage or approved equal – A Series "Orbit", 626 finish, function A10S (Specification Attached);
- Provide sealant (caulking) per 07920 specification attached.

Clearance Inspection

- Once lead-based paint has been removed from surfaces, DEQ will perform a visual inspection to confirm lead-based paint has been removed appropriately before surfaces are painted or sealed.
- Once lead-based paint abatement is complete, contractor shall HEPA vacuum and wet wash surrounding areas where abatement has been performed. DEQ will perform a visual inspection to make sure abatement area has been cleaned appropriately.

Sampling and Disposal

- DEQ assumes that all lead-based paint chips removed from surfaces are considered hazardous waste. Lead-based paint removed from surfaces shall be disposed as hazardous waste.
  - If Contractor uses a paint stripper that exhibits a characteristic of hazardous waste, or contains hazardous waste constituents, it is the Contractor's responsibility to characterize this waste under 40 CFR 262.11 and if they are determined to be hazardous waste, disposing of them as such. The Final Report shall contain all relevant information regarding the waste determination.
  - A completed and signed waste manifest, Land Disposal Notification Form, and Certificate of Disposal demonstrating that the paint chips were properly disposed at a hazardous waste facility must be included in the Final Report.

2. FINAL REPORT

- Write final report and submit to DEQ;
- Final report shall include:
  - A detailed summary of work including any warranties and data;
  - sample results;
  - waste manifests; and
  - photo documentation of work;
    - Photo documentation of work will have color digital photos with captions describing photo;
    - Photos will show before and after photos of work completed.
- Final report will be submitted in hard copy and electronically on disc.

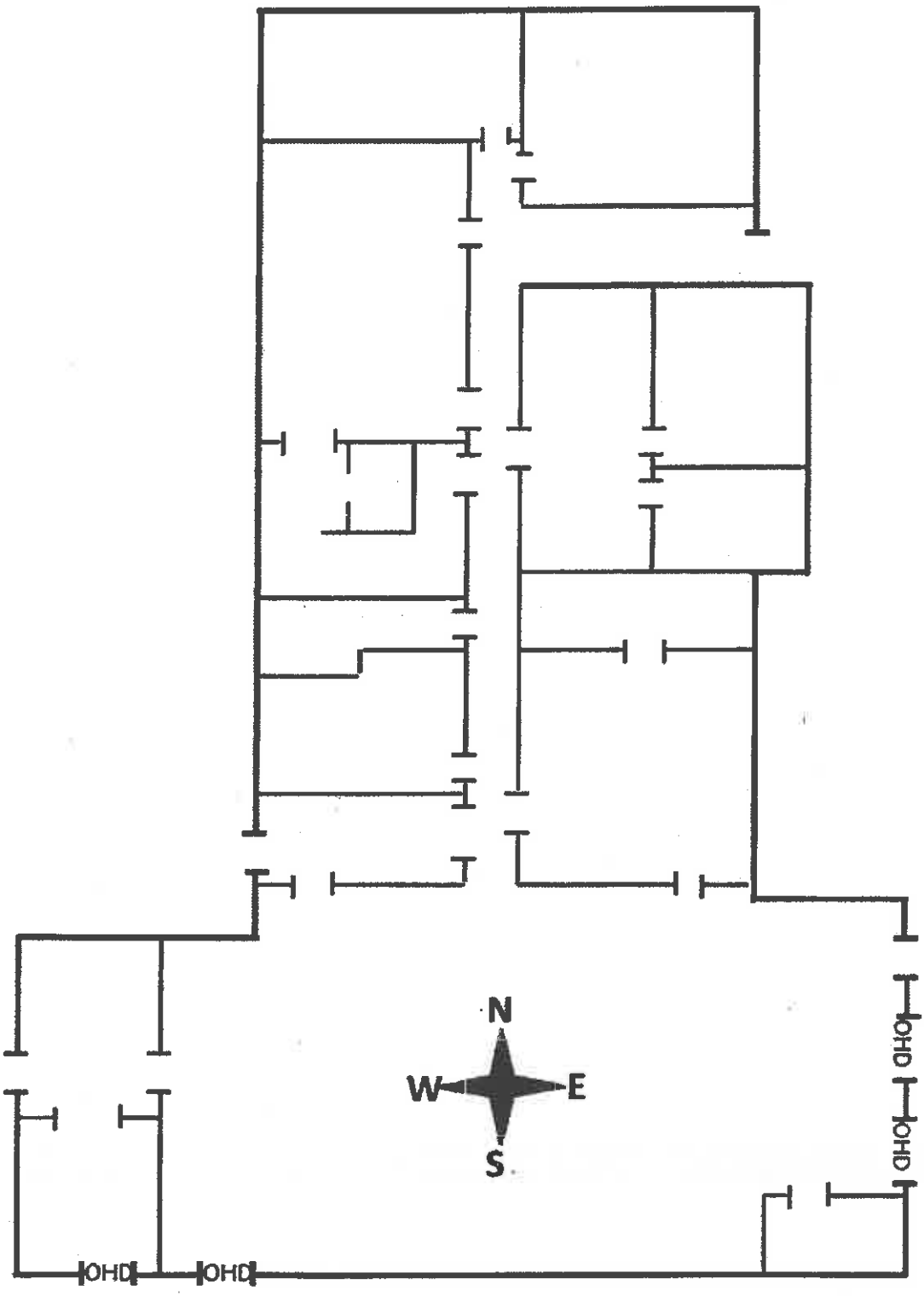
OWNER REPRESTATIVE

Owner's Representative: Dustin Davidson
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson
Oklahoma City, OK 73102
(405) 702-5115 (Office)
(405) 702-5101 (Fax)
E-Mail: Dustin.Davidson@deq.state.ok.us

ATTACHMENT 1

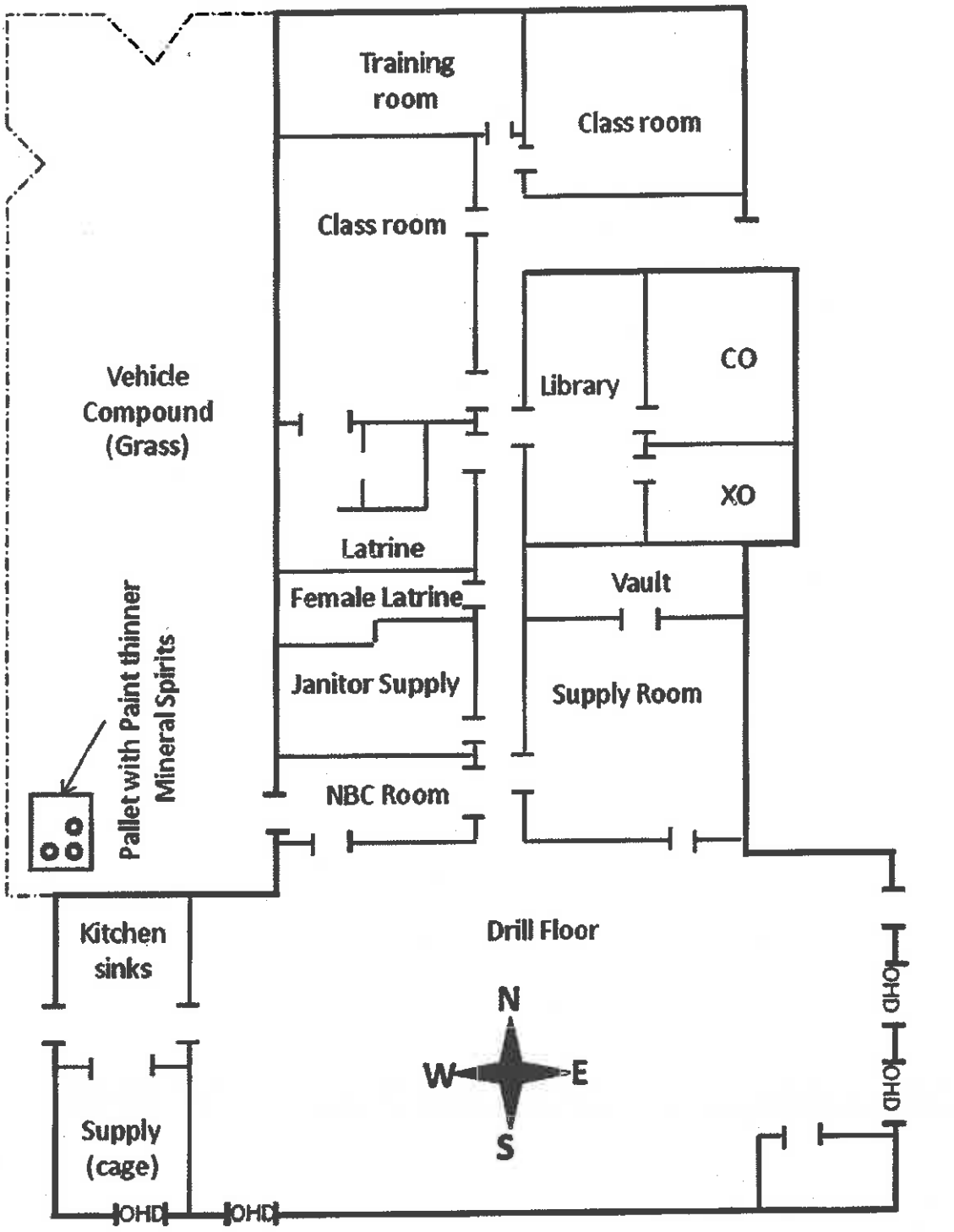
Floor Plan Map

Miami Armory



Not to scale
Floor plan approximate

Miami Armory
Built 1957



Not to scale
Floor plan approximate

ATTACHMENT 2

Health & Safety Aspects to Consider

Health & Safety Aspects to Consider

Project Goal: To ensure that former National Guard Armories are free of lead dust. Specifically, indoor firing ranges (IFR's) and other areas that contain lead contamination.

Please Note: the following information is from the Departments of the Army and the Air Force, National Guard Bureau, Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges (**Attachment 4**).

Health and Medical Aspects

Health Effects

29 Code of Federal Regulations (CFR) 1910.1025, Appendix A, identifies lead as a highly toxic metal. Elemental lead is indestructible and common in the environment. Lead can enter the body by inhalation (breathing) or ingestion (eating). In addition, lead is a cumulative poison. It accumulates in the blood, bones, and organs, including the kidneys, brain and liver. Effects include nervous and reproductive system disorders, delays in neurological and physical development, cognitive and behavioral changes, and hypertension. Symptoms include loss of appetite, difficulty sleeping, irritability, fatigue, headache, and inability to concentrate. It can stay in the bones for decades. Worker awareness and training are important to ensure that employees can recognize the symptoms of exposure and get prompt medical attention.

Medical Surveillance for occupational Exposure to Lead

a. 29 CFR 1910.1025(j)(i-ii), Medical Surveillance - General: "The employer shall institute a medical surveillance program for all employees who are or may be exposed above the action level for more than 30 days per year. The employer shall assure all medical examinations and procedures are performed by or under the supervision of a licensed physician."

b. The DOD 6055.5-M, Occupational Medical Surveillance Manual - Table 2-I lists medical surveillance criteria for employees "who are or may be exposed above the action level for 30 days/year."

Personal Protective Equipment

29 CFR 1910.1025(f)(2),for housekeeping and rehabilitation the employer shall select respirators from among those approved for protection against dust, fume, and mist by the National Institute for Occupational Safety and Health (NIOSH), under the provision of 42 CFR part 84. The employer shall institute a respiratory protection program in accordance with 29 CFR 1910.134(b), (d), (e), and (f). As a minimum, personnel conducting the decontamination of the range shall be provided with the following personal protective equipment.

a. Under 29 CFR 1910.1025 (g). For employees engaged in range rehabilitation and/or range conversion, the employer shall provide at no cost to the employee, and ensure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

(1) Protective coveralls with hood and shoe covers or disposable Tyvek ™ full body suit.

(2) Disposable rubber gloves; and disposable shoe coverlets (If necessary).

(3) Full-face air purifying respirator with P-100 cartridges.

b. The employer shall provide the clothing required in a clean and dry condition at least daily to employees engaged in the conversion of IFRs.

c. The employer shall provide for the cleaning, laundering, or disposal of used or contaminated protective clothing and equipment.

d. The employer shall assure that all protective clothing is removed at the completion of a work shift only in areas designated for that purpose (Change Areas or Change Rooms).

e. The employer shall ensure that contaminated protective clothing that is to be cleaned, laundered, or disposed of, is placed in a closed container in the change area that seals sufficiently enough to prevent dispersion of lead dust.

f. The employer shall further inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead.

g. The employer shall ensure that the containers of contaminated protective clothing and equipment are labeled as follows: CAUTION: *CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.*

Worker Education

a. 29 CFR 1910.1025, Appendix 13, requires an information and training program for **all employees exposed** to lead above the action level **or** who may suffer skin or eye irritation from lead. The program must inform the employees of the specific hazards associated with their work environment, protective measures which can be taken, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. In addition you must make readily available to all employees, including those exposed below the action level, a copy of this standard and its appendices. This training program shall be repeated annually for personnel in range cleanup operations.

b. The supervisor shall ensure that each individual employee is informed of the following:

(1) The content of the standard and its appendices.

(2) The specific nature of operations that could result in exposure to lead above the action level.

(3) The purpose, proper selection, fitting, use, and limitations of respirators.

(4) The purpose and a description of medical surveillance program.

(5) Eating and drinking are prohibited in lead contaminated areas.

(6) Smoking and smoking materials shall not be permitted in contaminated areas.

(7) Employees must wash their hands and other exposed skin whenever they leave the work area.

(8) The engineering controls and work practices associated with the individual's job assignment.

(9) The contents of any compliance plan in effect.

(10) Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.

REFERENCES

Section 1 Required Publications

There are no entries in this section

Section II Related Publications

ASTM E1792-03
Standard Specification for Wipe Sampling Materials for Lead in Surface Dust

AR 11-34
The Respiratory Protection Program

AR 40-5
Preventive Medicine

DODI 6055.5
Industrial Hygiene and Occupational Health

DOD 6055.5-M
Occupational Medical Surveillance Manual

29 CFR, Part 1910
Occupational Safety and Health Administration, Department of Labor

National Institute for Occupational Safety and Health (NIOSH) 76-130
Lead Exposure and Design Considerations for Indoor Firing Ranges, Department of Health, Education and Welfare

NGR 385-15
Policy and Responsibilities for Inspection, Evaluation and Operation Army National Guard National Guard Indoor Firing Ranges (IFRs).

NGR 415-5
Army National Guard Military Construction Program Development and Execution

NGR 420-10
Construction and Facilities Management Office Operations

Technical Manual, 5th Edition
Occupational Safety and Health Administration, Department of Labor Section III

ATTACHMENT 3

DEQ Approved Lead-Based Paint Encapsulants List

KM-669 Acrylic Sealant Specifications

Lead-Based Paint Encapsulants approved by DEQ

Encapsulant Manufacturer	Encapsulant Product(s)
Coronado Paint Company	LEAD BLOCK™
Dumond Chemicals	LEAD STOP™
Dynacraft Industries, Inc.	Back to Nature Protect-A-Coat
Encap Systems Corporation	EncapSeal™ I
Encap Systems Corporation	EncapSeal™ II
Fiberlock Technologies, Inc.	Child GUARD interior/exterior
Fiberlock Technologies, Inc.	L-B-C® Type III
Global Encasement, Inc.	LeadLock™
Grace Construction Products	Lead Seal®
Grace Construction Products	Barrier Coat® II
Insl-x Products Corporation	INSL-CAP™
SAFE Encasement Systems	SE-120 Protective Skin
Specification Chemicals, Inc.	NU-WAL® #2500 Coating

KELLY-MOORE PAINTS

INDUSTRIAL COATINGS

HIGH PERFORMANCE SYSTEMS

KM-669

Acrylic Sealer

THIS PRODUCT MAY NOT BE AVAILABLE IN SOME AREAS DUE TO VOC REGULATIONS
Contact your Kelly-Moore representative for more information

Product Description
A one component, solvent borne, high gloss, clear acrylic sealer designed for use on concrete, masonry, and brick. Dustproofs concrete by penetrating surface pores leaving a tough, durable film.

Performance Features

- Non-Yellowing
- Excellent Adhesion to Concrete
- Good Water & Salt Chemical Resistance
- Good Abrasion Resistance
- Can be Sprayed, Padded or Rolled

Product Specifications

Resin Type	Acrylic
Color Range	Clear
Finish	High Gloss
Drying Time	8 hours to recoat
Practical Coverage	250-450 Sq. Ft. / Gallon
Recommended Dry Film Thickness	1.2 - 2.2 mils per coat
Solids By Volume	35%
Sizes	Five gallon pails
V.O.C.	560 Grams per liter
Clean Up	KM-S-74 or KM-SA-50

Surface Preparation

WARNING! If you scrape, sand or remove old paint from any surface, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD (5323) or log on to www.epa.gov/lead.

Surface Preparation:
Remove all dirt, grease, oil, soil, chemical contaminants, and other matter. Allow surface to dry.

Application Procedure:
When mixing, use an EXPLOSION PROOF SLOW SPEED DRILL WITH A JIFFY MIXER. Apply a uniform wet film, do not puddle material. Do not cover more area than can be worked in 10 minutes due to fast dry time. When spraying, use a low pressure machine. Two coats may be necessary depending on porosity or type of service.

For safety and product curing, proper ventilation is necessary throughout application and cure.

Dry Times: 8 hours

See Precautions and Limited Warranty next page

Precautions
KM-669 is Flammable. KM-669 contains flammable solvents. Keep away from all sources of ignition during mixing, application, and cure. In confined areas, provide adequate forced air ventilation. The use of goggles, fresh air masks or NIOSH approved respirators, protective skin cream and protective clothing is a recommended standard practice when spraying coatings

Proper Disposal
For proper disposal of excess material, please contact your local city or county waste management agency.

Limited Warranty: The statements made on this bulletin, product labels or by any of our agents concerning this material are given for information only. They are believed to be true and accurate and are intended to provide a guide to approved construction practices and materials. As workmanship, weather, construction equipment, quality of other materials and other variables affecting results are all beyond our control, Kelly-Moore Paint Company, Inc., does not make nor does it authorize any agent or representative to make any warranty of MERCHANTABILITY OR FITNESS for any purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material except that it conforms to Kelly-Moore's quality control standards. Any liability whatsoever of Kelly-Moore Paint Company, Inc. to the buyer or user of this product is limited to the purchaser's cost of the product itself.

SEE MATERIAL SAFETY DATA SHEETS FOR FULL SAFETY PRECAUTIONS.

KM-669 IS FOR PROFESSIONAL USE ONLY

KM-669 IS FOR INDUSTRIAL USE ONLY

KEEP AWAY FROM CHILDREN

ATTACHMENT 4

Window Scope of Work Including Measurements and Specifications

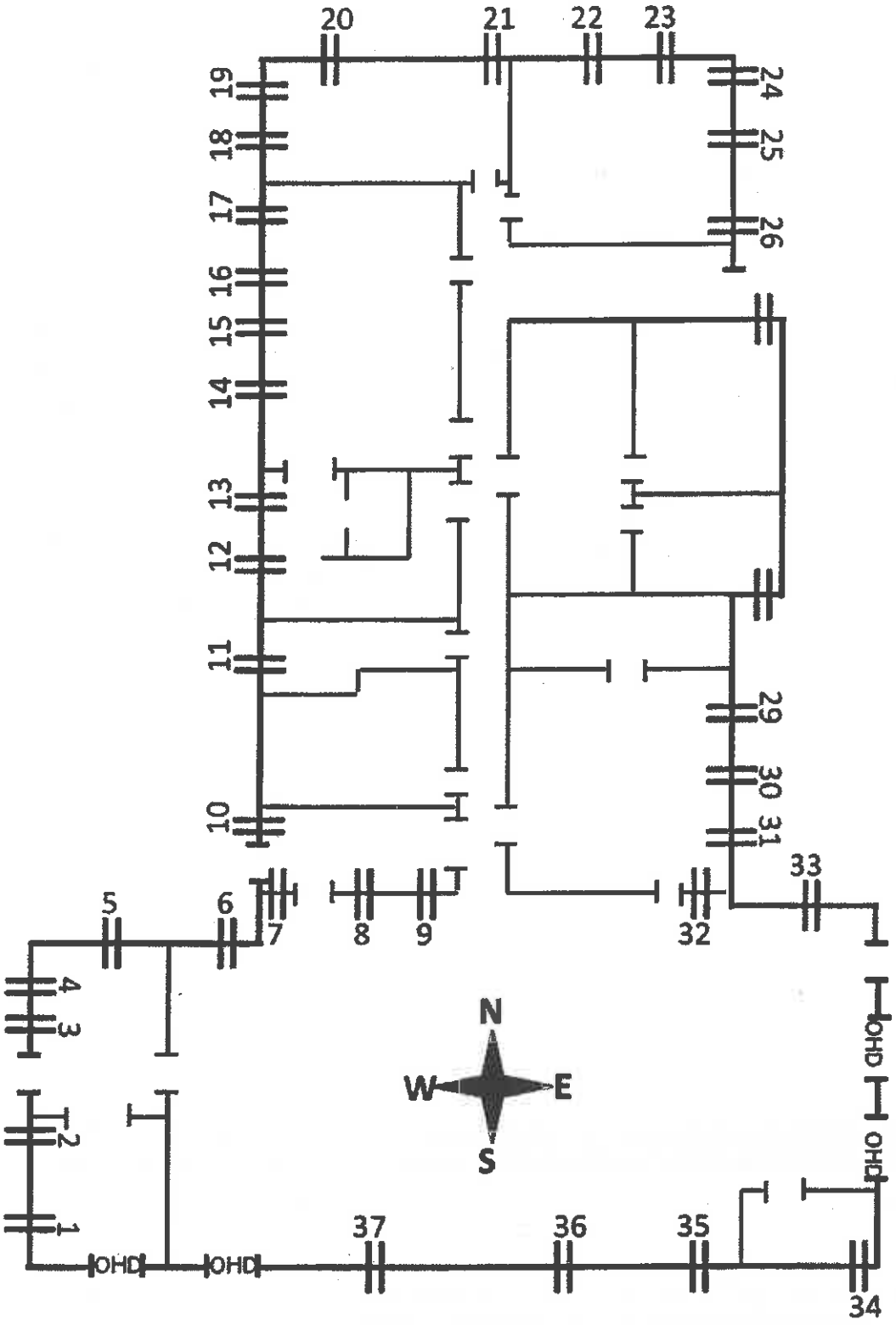
Miami Armory Windows Measurements
And
Scope of Work

- **Window measurements are listed as approximate Width X Height; Contractor to field verify.**
- **All window bars shall be removed and properly disposed.**
- **Caulking shall be removed from outside edges of window and properly disposed prior to window removal.**
- **All removed windows shall be properly disposed.**
- **Window lintels and any remaining metal with lead-based paint shall be wet scraped and sealed with a DEQ approved encapsulant (See Attachment 3).**
- **Interior and Exterior window sills shall be HEPA vacuumed and wet washed to remove remaining lead dust. Once loose paint and lead dust is removed, window sills shall be sealed with a DEQ approved encapsulant (See Attachment 3).**
- **Attached is a Miami Armory Floor Plan with designated window numbers that correspond with the numbers on this Scope of Work.**
- **Specifications for replacement windows are attached.**
- **All windows are to be single hung opening windows within one frame unit.**

1. 44 ½" x 32 ½"
2. 44 ½ " x 32 ½ "
3. 44 ½ " x 32 ½ "
4. 45 ½ " x 32 ½ "
5. 45 ½ " x 32 ½ "
6. 45 ½ " x 32 ½ "
7. 45 ¼ " x 33 ¼ "
8. 45 ¼ " x 33 ¼ "
9. 45 ¼ " x 33 ¼ "
10. 43 ½ " x 49"
11. 33" x 33"
12. 41" x 33"
13. 41" x 33"
14. 41" x 33"
15. 41" x 32 ¼ "
16. 41" x 32 ½ "
17. 41 ½ " x 32 ¾ "
18. 41" x 48 ¾ "
19. 41" x 48 ½ "
20. 41" x 49"
21. 41" x 49 ¼ "

22. 41" x 49 ¼ "
23. 41" x 49 ¼ "
24. 41" x 49 ½ "
25. 41" x 48 ½ "
26. 41" x 48 ½ "
27. 56 ¾ " x 65"
28. 56 ¼ " x 64 ½ "
29. 44 ½ " x 33 ¼ "
30. 44 ½ " x 33"
31. 44 ¾ " x 33"
32. 45 ¼ " x 33 ¼ "
33. 45 ¼ " x 33 ¼ "
34. 45 ¼ " x 33 ¼ "
35. 45 ¼ " x 33 ¼ "
36. 45 ¼ " x 33 ¼ "
37. 45 ¼ " x 33 ¼ "

Miami Armory: Windows



Not to scale
Floor plan approximate

SECTION 08520 – ALUMINUM WINDOWS

PART 1 – GENERAL

1.1 SECTION REQUIRMENTS

A. Submit Product Data and Shop Drawings.
B. Product Substitution: Substitutions include products differing from those required by this specification.
   1. Submit two (2) copies of each request for product substitution. Identify product to be replaced and provide complete documentation showing compliance of proposed substitution with applicable requirements. Include a full comparison with the specified product, and a list of changes to other Work required to accommodate the substitution.
   2. Submit requests for product substitution in accordance with the time allotted to do so by the Scope of Work included within the Bid Solicitation.
   3. State of Oklahoma, Department of Environmental Quality will review the proposed substitution and notify bidder of its acceptance or rejection within the time allotted to do so by the Scope of Work included within the Bid Solicitation.
C. Structural Performance: Provide systems, including anchorage, capable of withstanding loads indicated for project location.
   1. Main Frame-Member Deflection: Limited to 1/175 of clear span for spans up to 13 feet 6 inches and to 1/240 of clear span plus ¼ inch for spans greater than 13 feet 6 inches or an amount that restricts edge deflection of individual glazing lites to ¾ inch, whichever is less.
   2. Structural-Testing: Systems tested according to ASTM E 330 at 150 percent of inward and outward wind-load design pressures do not evidence material failures, structural distress, deflection failures, or permanent deformation of main framing members exceeding 0.2 percent of clear span.
D. Air Infiltration: Limited to 0.06 cfm/sq. ft. (0.3 L/s per sq. m) of system surface area when tested according to ASTM E 283 at a static-air-pressure difference of 6.24 ibf./sq. ft.
E. Water Penetration: Systems do not evidence water leakage when tested according to ASTM E 331 at minimum differential pressure of 20 percent of inward acting wind load design pressure but not less than 10 ibf./sq/ ft.
F. Condensation Resistance Factor (CRF): The unit(s) shall be tested in accordance with AAMA 1502 and shall have a condensation resistance factor of no less than 48.
G. Average U-Value: Not more than 0.69 btu./sq. ft. x h x degree F when tested according to AAMA 1503.
H. Sound Transmission: Provide aluminum-framed systems with fixed glazing and framing areas having minimum STC 32 according to ATM E 413 and an OTIC 26 according to ASTM E 1332, as determined by testing according to ASTM E 90.
I. Installer Qualifications: Installer must be a third party professional window installation company that is certified and recommended by the window manufacturer of the windows being installed.
   a) Installer must have no less than five (5) years of installation experience.
   b) Installer must have experience with the removal of steel casement windows.
J. Warranty Requirements: Submit written warranties from window manufacturer for the following:
   1. Windows: Warrant against malfunctions due to defects in thermal breaks, hardware, materials and workmanship for a period of (10) ten years.
   2. Glazing: Glass shall be warranted as follows:
      a) Insulating glass units to remain sealed for (10) ten years,
      b) Laminated glass units to remain laminated for (5) five years,
      c) Polycarbonate to remain clear and ultraviolet light stabilized for (5) five years,
      d) Insulating plastic to not have more than (6) six percent decrease in light transmission and be ultraviolet light stabilized for (10) years.
   3. Finish: Warrant against chipping, peeling, cracking, and blistering for (10) ten years.
   4. Spandrel Panels: Warrant against malfunctions due to defect in finish, materials and workmanship for a period of (5) years.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that are considered acceptable and may be incorporated into the Work included, but not limited to, the following:
   1. Peerless
   2. Quaker
   3. Wojan
   4. Thermal Windows, Inc.

2.2 ALUMINUM WINDOWS

A. Single hung: Series 4000-4 Model 4140/4158 or approved equal.
   1. Thermal brake
   2. Screen cloth insect screens
   3. Color: Dark Bronze
B. Fixed: Series 4000-4 model 4170, or approved equal.
   1. Thermal brake
   2. Screen cloth insect screens
   3. Color: Dark Bronze
C. Glazing:
   1. All glass I.G. units shall be constructed to an overall minimum thickness of 1" with two lites of 3/16" glass specified. Exterior lite AFG 3/16" TI-AC 40 on #2 surface 5/8" Air Space / Interior lite 3/16" clear.
   2. All insulated glass units shall be tested, certified and carry the respective CBA level certification on the glass spacer.

2.3 SPANDREL PANELS

A. Spandrel Panel shall be Mapes 1" insulated panel of 5-ply, 2ld density polystyrene core.
   1. Finish: Polyester baked enamel on embossed aluminum, both sides.
   2. Color: Dark Bronze.

2.4 FINISH

A. Organic coating tested and certified by window manufacturer to comply with the AAMA 2605. Application must be by the window manufacturer.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Provide all hardware, operators, anchors, clips, limit devices, and other components necessary for a complete and weather tight installation per window manufacturer's specification and recommendations for installation.
B. Clean all surfaces with manufacturer approved cleaner. Remove any glazing or sealant compounds, dirt and other substances.

ATTACHMENT 5

Door Scope of Work Including Measurements and Specifications

Floor Plan with Overhead Door Locations

Miami Armory Door Measurements
And
Scope of Work

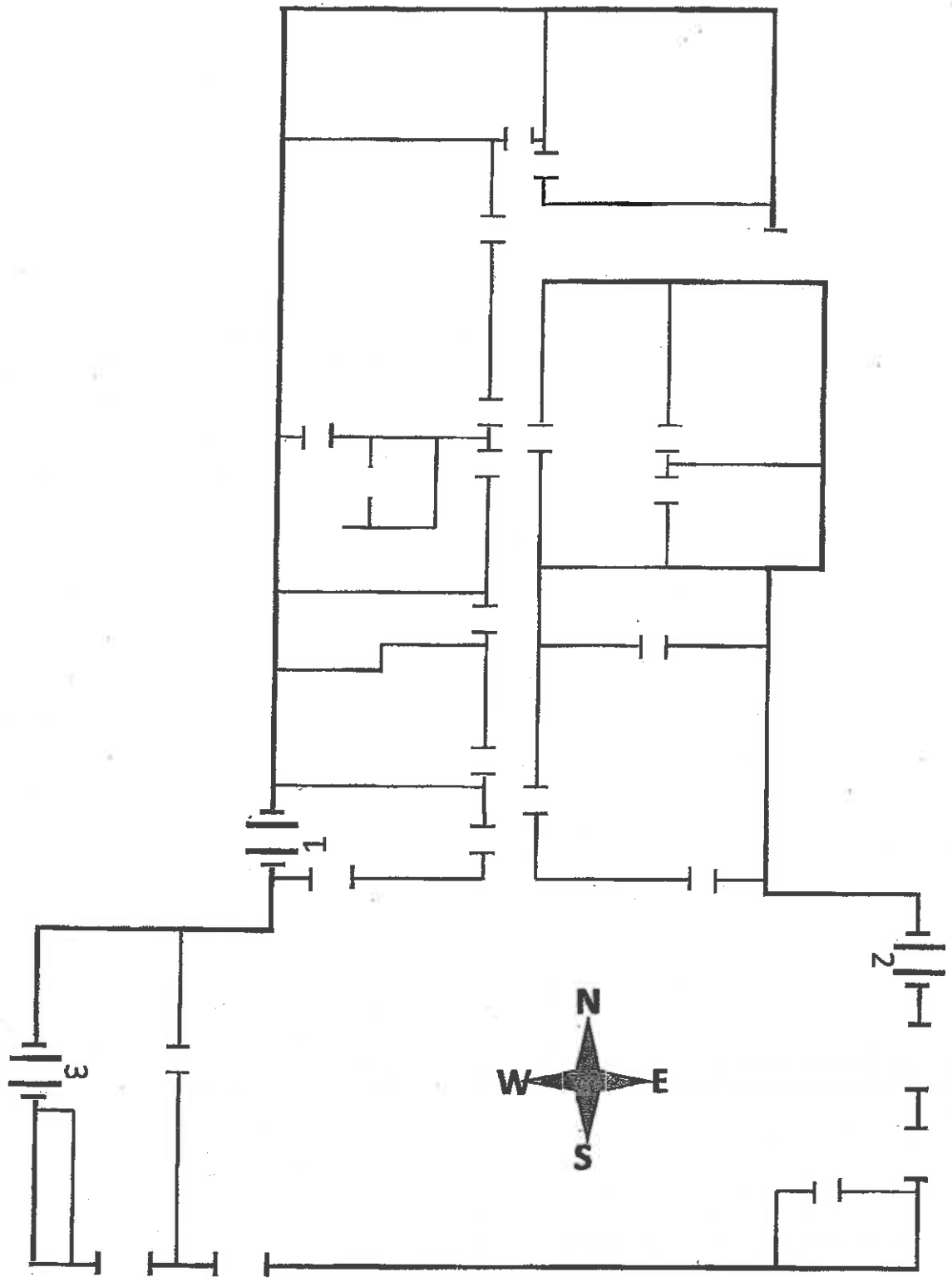
- **Door measurements are listed as approximate Width X Height; Contractor to field verify.**
- **All removed doors will be properly disposed.**
- **All removed lead-based paint will be properly disposed.**
- **Attached is a Miami Armory Floor Plan with designated door numbers that correspond with the numbers on this Scope of Work.**
- **Specifications for replacement doors are attached.**

1. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.
   Door Measurements – 35 ½" X 83"

2. Remove door. Remove all paint from door frame. Replace door with pre-hung door unit. Original frame will be painted with a neutral colored primer.
   Door Measurements – 41" X 88 ½"

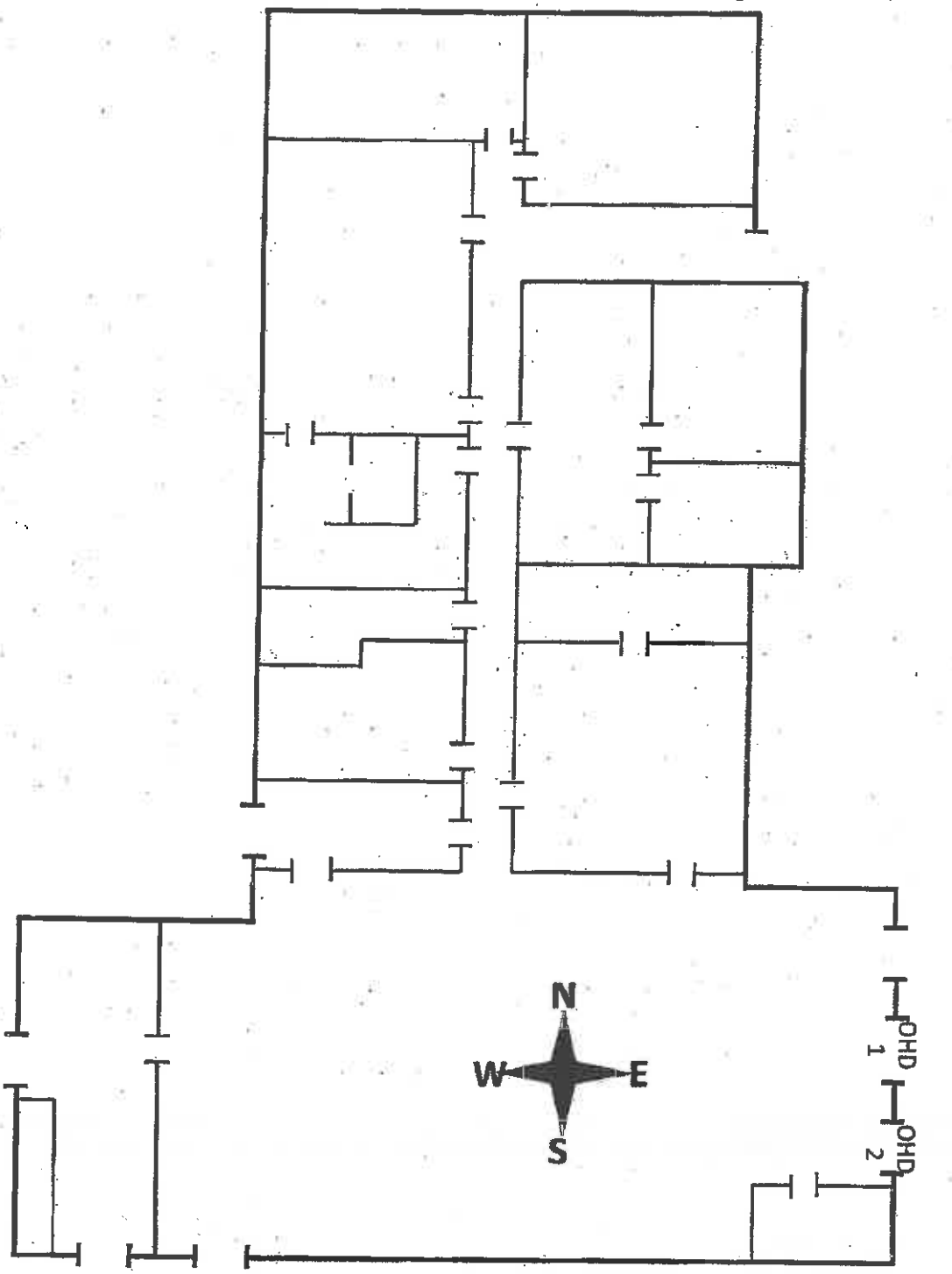
3. Remove double doors. Remove all paint from door frame. Replace double doors with pre-hung door unit. Original frame will be painted with a neutral colored primer.
   Double Door Measurements – 72" X 83"

Miami Armory: Doors



Not to scale
Floor plan approximate

Miami Armory: Overhead Doors



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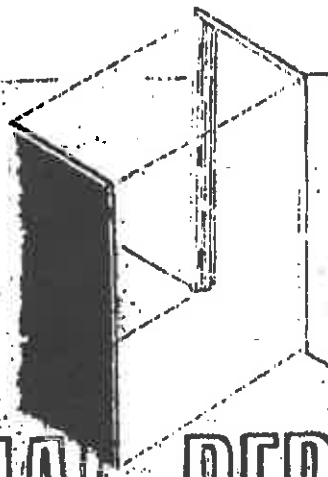
Floor plan approximate

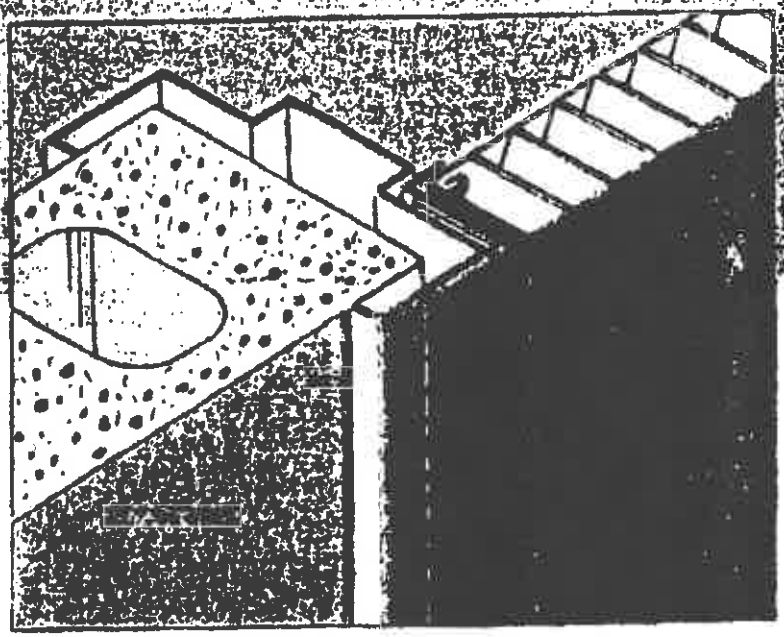


UL LISTED
1½ HR (B) LABEL
can be used in existing non-listed or listed steel frame.

Install a pre-hung

Steelcraft®

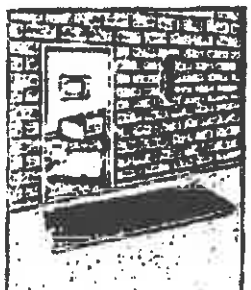
COMMERCIAL REPLACEMENT DOOR UNIT



New beauty and security for worn out doors.

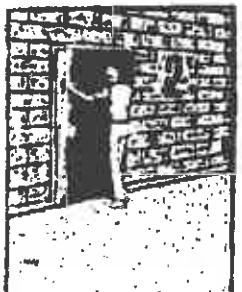
The Steelcraft Commercial Replacement Unit is the only product of its kind specifically designed for the rehab market. Fits these nominal sizes: 2868, 3068, 3868, 3868, 4068, 2870, 3070, 3370, 3870, 4070 single, and 5468, 6068, 5470 and 6070 double doors.

- Does not require removal of existing frame.
- Fits an "out-of-square" opening.
- Works with grouted or non-grouted frames.
- Installs quickly and easily.
- Includes rugged steel adapter frame.
- Permits door swing to be changed without major rework.
- Fills opening without re-mortising and filling hardware cutouts.
- Can be installed in existing steel or wood frame.
- Provides additional security.



QUICK

1. Remove old door, hardware, sill and any other item(s) projecting into opening.



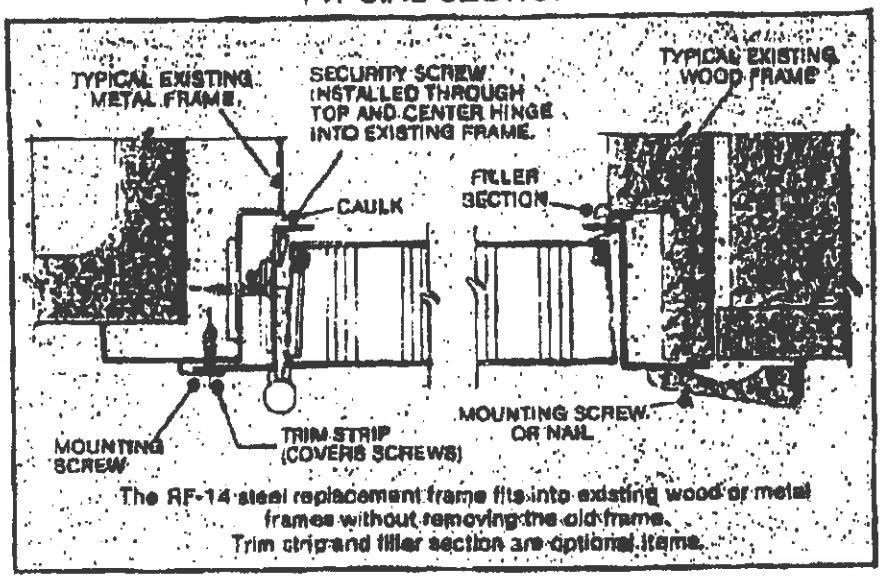
'N EASY

2. Set pre-hung unit into frame opening. Install mounting screws through face, cut banding and install security screws.

INSTALLATION

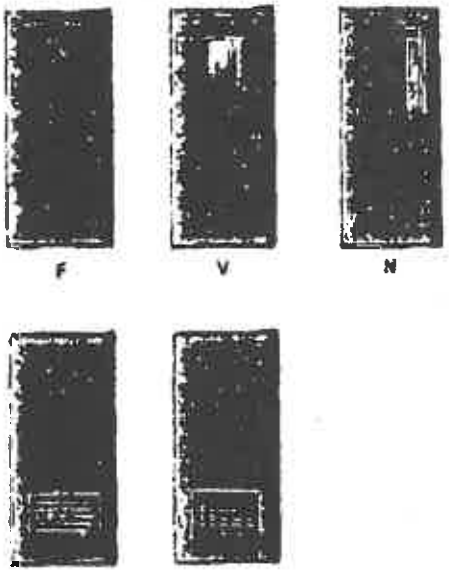
3. Mount hardware as required. Paint.

TYPCIAL SECTION

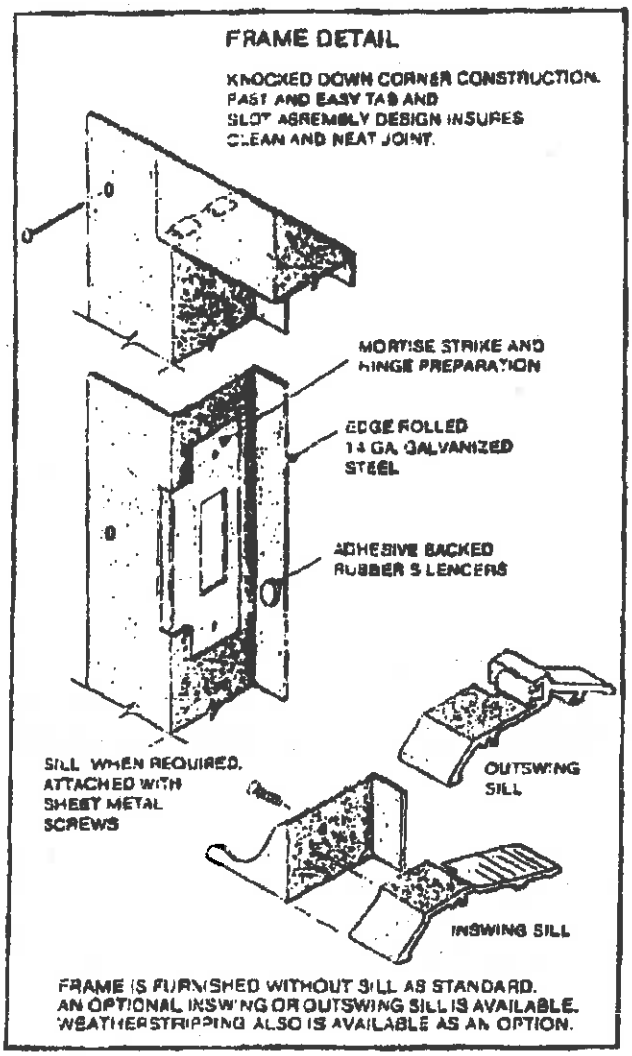


The RF-14 steel replacement frame fits into existing wood or metal frames without removing the old frame.
Trim strip and filler section are optional items.

DESIGNS AND FINISHES AVA



FRAME DETAIL



FRAME IS FURNISHED WITHOUT SILL AS STANDARD.
AN OPTIONAL INSWING OR OUTSWING SILL IS AVAILABLE.
WEATHERSTRIPPING ALSO IS AVAILABLE AS AN OPTION.

SPECIFICATIONS

Commercial Replacement Unit shall be supplied as a complete unit, consisting of 18 ga. door (RL-18) and 14 ga. frame (RF-14).

* Single openings shall be pre-hung, ready for quick and easy installation. Double openings shall be supplied as separate units (frame and two door leaves) not pre-hung.

Doors shall conform to the following:

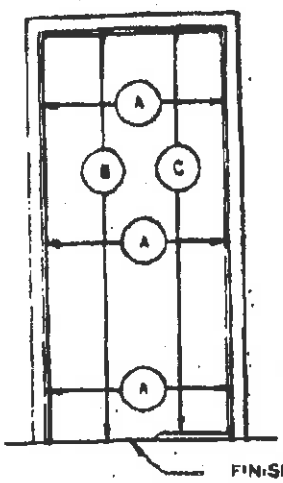
- Doors shall be as manufactured by Steelcraft, Cincinnati, Ohio, and designated as RL-18 (1¾" 18 ga. steel).
- Doors shall be fabricated from cold rolled steel.
- Doors shall have ⅛" bevel in 2" on hinge and lock edges.
- Doors shall have vertical mechanical interlocking seams on hinge and lock edges with visible edge seam.
- Doors shall be provided with top and bottom inverted steel channels spotwelded within the door.
- Doors shall be reinforced, stiffened and sound deadened with impregnated kraft honeycomb core completely filling the inside of the door and laminated to the inside faces of panels.
- Doors shall be mortised and adequately reinforced for all hardware.
- Doors shall be phosphatized and receive one coat of baked-on prime paint.

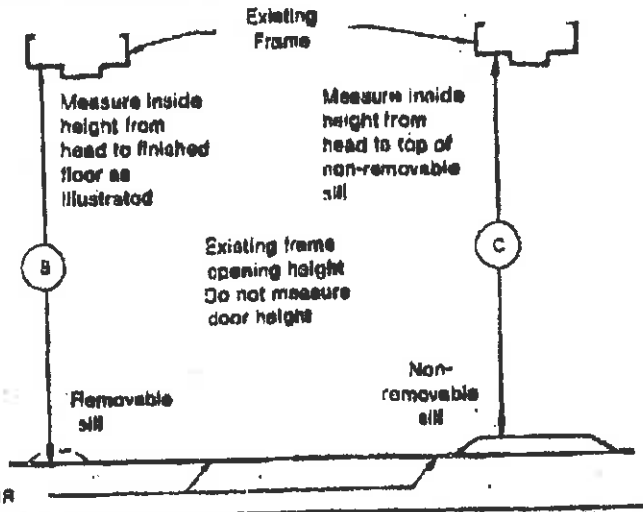
Frames shall conform to the following:

- Frames shall be as manufactured by Steelcraft, Cincinnati, Ohio, and designated as RF-14 (14 ga.).
- Frames shall be accurately formed from galvanized steel.
- Frames shall be furnished knocked down (KD). Corners shall have tabs for secure and easy interlocking of jambs to head at each corner.
- Frames shall be adequately reinforced for all hardware.
- Frames shall be supplied with adhesive backed rubber bumpers; three per strike jamb, two per double door frame head.
- Frames shall be phosphatized and receive one coat of baked-on prime paint.

*Single openings are designed to be pre-hung and installed. Units are supplied KD for pre-hanging at job site or by distributor.

HOW TO DETERMINE SIZE OF EXISTING FRAME





FRAME WIDTH

Measure in 3 places. Use narrowest dimension for ordering

NOTE: ORDER UNITS BY NOMINAL SIZES. DO NOT ORDER BY ACTUAL DIMENSIONS.

SIZE (Nominal)	FITS THESE EXISTING OPENINGS			
	A WIDTHS		B C HEIGHTS	
	MIN.	MAX.	MIN.	MAX.
2'8" x 6'8"	31⅛"	32⅜"	79⅛"	80⅛"
3'0" x 6'8"	35⅛"	36⅜"	79⅛"	80⅛"
3'6" x 6'8"	41⅛"	42⅜"	79⅛"	80⅛"
3'8" x 6'8"	43⅛"	44⅜"	79⅛"	80⅛"
4'0" x 6'8"	47⅛"	48⅜"	79⅛"	80⅛"
2'8" x 7'0"	31⅛"	32⅜"	83⅛"	84⅛"
3'0" x 7'0"	35⅛"	36⅜"	83⅛"	84⅛"
3'6" x 7'0"	41⅛"	42⅜"	83⅛"	84⅛"
3'8" x 7'0"	43⅛"	44⅜"	83⅛"	84⅛"
4'0" x 7'0"	47⅛"	48⅜"	83⅛"	84⅛"
5'4" x 6'8"	63⅛"	64⅜"	79⅛"	80⅛"
6'0" x 6'8"	71⅛"	72⅜"	79⅛"	80⅛"
5'4" x 7'0"	63⅛"	64⅜"	83⅛"	84⅛"
6'0" x 7'0"	71⅛"	72⅜"	83⅛"	84⅛"

*MAX. OPENING HEIGHT MAY BE EXCEEDED BY BLOCKING DOWN EXISTING OPENING.

TO HAND A DOOR — FACE IT FROM THE OUTSIDE OR KEYSIDE

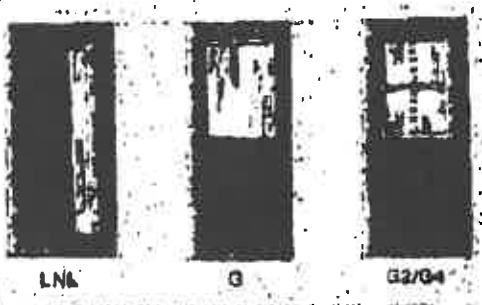
LEFT HAND Hinges on Left Opens Inward	RIGHT HAND Hinges on Right Opens Inward	LEFT HAND REVERSE Hinges on Left Opens Outward	RIGHT HAND REVERSE Hinges on Right Opens Outward
LEFT HAND Hinges on Left Opens Inward	RIGHT HAND Hinges on Right Opens Inward	LEFT HAND REVERSE Hinges on Left Opens Outward	RIGHT HAND REVERSE Hinges on Right Opens Outward

Steelcraft®
8017 Blue Ash Road Cincinnati, Ohio 45242 513/745-8400

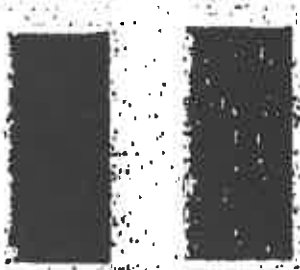
Printed in U.S.A.

Cat No. 618 Rev. 6/98

E



LNA G G2/G4



FINISH PAINTED AND WOOD GRAIN FINISHES

HARDWARE

Replacement Units shall be prepared for the following hardware:

Hinges:
1-1/2 pair of 4-1/2 x 4-1/2 x .134 template hinges

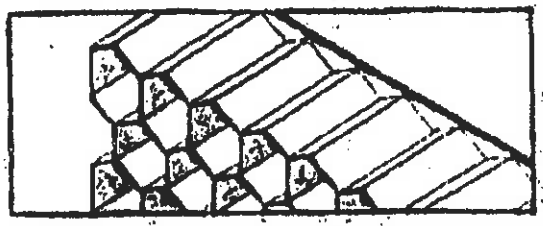
Lock and Strike:
Government 161 (ANSI-A115.2) cylindrical or Government 86 (ANSI-A115.1) mortise lock with an ANSI-A115.1 or .2 strike.

Consult distributor for other hardware preparations.

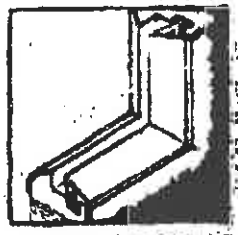
	NOMINAL SIZE	FRAME SIZE (FINISHED OPENING) WIDTH	FRAME SIZE (FINISHED OPENING) HEIGHT	NET DOOR SIZE* WIDTH	NET DOOR SIZE* HEIGHT
SINGLE	2868	31"	79¼"	30-13/16"	79¼"
	3068	33"		34-13/16"	
	3568	41"		40-13/16"	
	3868	43"		42-13/16"	
	4068	47"		46-13/16"	
	2870	31"	83¼"	30-13/16"	82¼"
	3070	33"		34-13/16"	
	3570	41"		40-13/16"	
	3870	43"		42-13/16"	
	4070	47"		46-13/16"	
PAIR	5468	63"	79¼"	30-13/16" & 31-13/16"	78¼"
	6068	71"		34-13/16" & 35-13/16"	
	5470	63"	83¼"	30-13/16" & 31-13/16"	82¼"
	6070	71"		34-13/16" & 35-13/16"	

*FOR PAIRS OF DOORS INACTIVE LEAF IS 1" WIDER THAN ACTIVE LEAF CONSULT DISTRIBUTOR FOR OTHER SIZES.

DOOR DETAILS



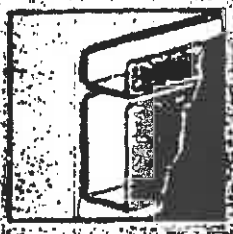
Full honeycomb core of phenolic resin-impregnated kraft paper reinforces the door every 1 inch, providing superlative resistance to impact and assuring a flat surface.



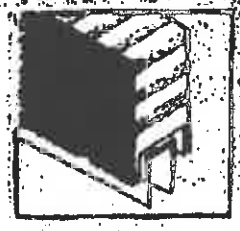
Aluminum glass trim (snap-in).

8-gage thick hinge reinforcement.

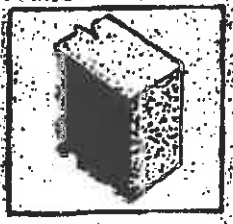
Snap-in metal top caps for exterior openings.



Steel top and bottom reinforcing channels (14-gage closer reinforcement when required).



Door bottom with double sweep when required.



Insulated doors: one pound polystyrene core, 1½ pound polyurethane core when required.

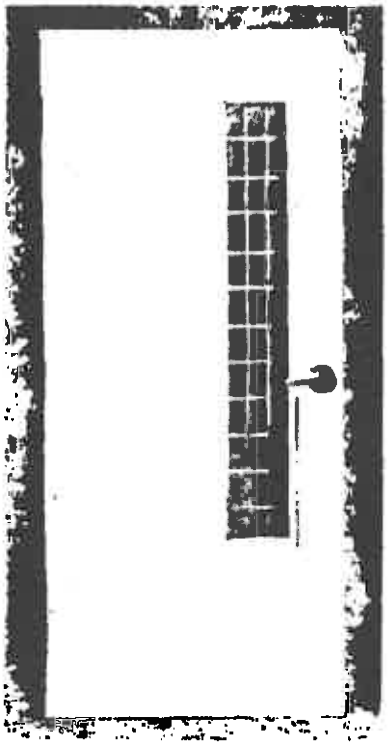
PAIRS OF DOORS

Designs shown may be combined for pairs of doors.

Pairs of doors consist of two leaves and a 16 ga. steel "Z" astragal field mounted to inactive leaf of pair. Inactive leaf may be secured with flush bolts or surface bolts.

Note: For pairs of doors, right hand will be active, unless specifically ordered.

L18 AND L16-SERIES HONEYCOMB DOORS



FEATURES AND BENEFITS:

Steelcraft's L-Series Doors offer the following standard unique features, which enhance long term performance and durability.

1. **Honeycomb core system** enhances the structural integrity of the door, while significantly reducing the weight.
2. **Full height, epoxy filled mechanical interlock edges** provide structural support and stability the full height of the door edges.
3. **Patented universal hinge preparations** allow for easy field conversion from standard weight (.134) hinges to heavy weight (.180) hinges.
4. **14 gage top and bottom channels** provide stability and protection for the top and bottom edges from abuse.
5. **Beveled hinge and lock edges** allow for tighter installation tolerances, ensure easier operation, and eliminate binding and sticking.
6. **Recessed Dezigner™ glass trim** provide a clean, neat, and flush finish with the door surface.
7. **Factory applied baked on rust inhibiting primer** in accordance with ANSI A250.10.

ABOUT THE PRODUCT:

The L18 and L16-Series Flush Doors are designed to meet the architectural requirements for full flush doors. This premium door construction combines the strength and dimensional stability of steel with the structural integrity of the honeycomb core. The continuous bonding of core to metal provides an attractive flat door, free of face welding marks. Tests have proven that the L-Series door has integral high resistance to impact damage, low thermal conductivity, and high STC ratings.

To meet application, specification and performance requirements, the L-Series doors offer a wide range of specifiable options including sizes, glass lite designs, hardware (mechanical, pneumatic, electrical) preparations and edge constructions.

SPECIFICATION COMPLIANCE:

1. Door construction for the Steelcraft L18 and L16-Series Full Flush Doors meet the requirements of ANSI A250.8-1998 (commonly referred to as SDI-100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-1997. Locations are in accordance with ANSI/DHI A115.

FIRE RATINGS:

The L-Series doors meet the broadest fire rating requirements. They are listed for installations requiring compliance to both negative pressure testing (ASTM E152 and UL-10B) and positive pressure standards (UBC 7-2 and UL-10C).

Steel Thickness	Opening	Usage Frequency[1]	Frame Applications
16 gage (1.3mm)	Interior & Exterior	Extra-heavy duty	• 16 & 14 gage steel frames
18 gage (1mm)	Interior & Exterior	Heavy duty	• 16 gage steel frames
Steel Type	**Opening**	**Building Applications**	
Non Galvannealed[3]	Mainly Interior	• Typical building conditions	
Galvannealed[2]	Mainly Exterior	• Used in locations with high humidity and/or weather exposure	

MATERIAL:

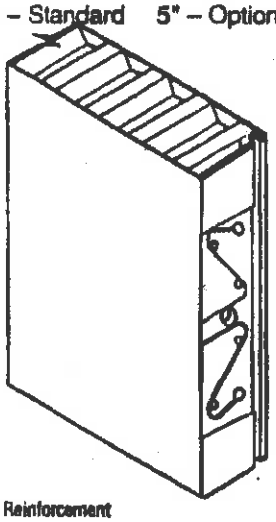
Depending on environmental conditions, exterior doors are generally galvannealed and interior doors non galvanneal. All doors are supplied with a factory applied baked on primer for field applied finish paints.

[1] Usage frequency is based on ANSI A250.8-1998
[2] Reinforcements for galvannealed doors are also galvannealed
[3] Commercial quality carbon steel

Ingersoll Rand Security & Safety

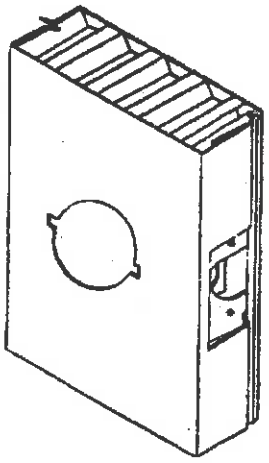
Details are subject to change without prior notice.

Universal Mortise Hinge Prep
4½" – Standard 5" – Optional



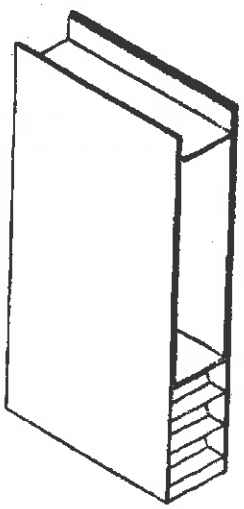
7 Gage Hinge Reinforcement

Lock Prep

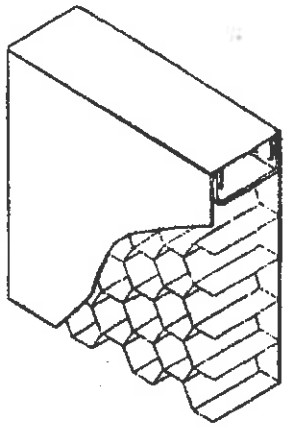


161 Cylindrical Lock shown

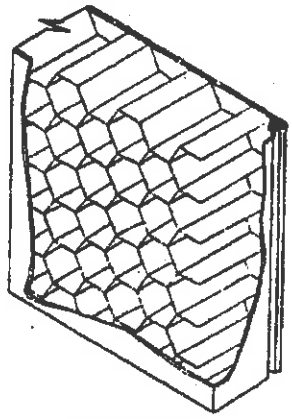
Optional 14 Gage Closer Reinforcement



Optional Snap-In Top Cap

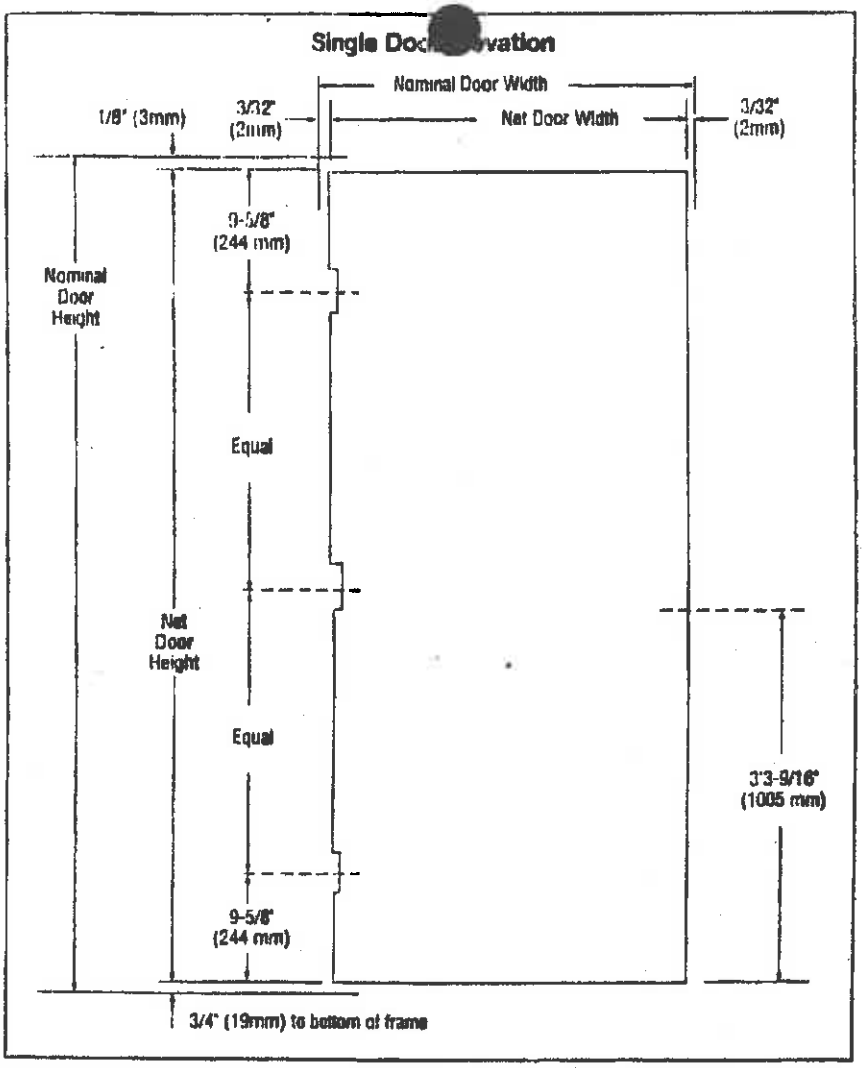


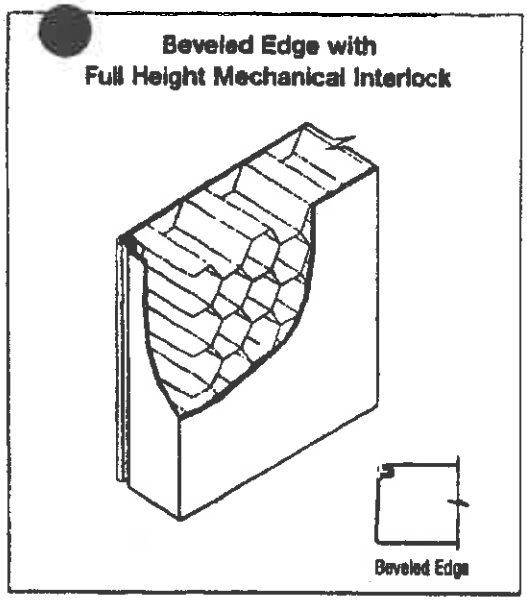
Rigid Honeycomb Core

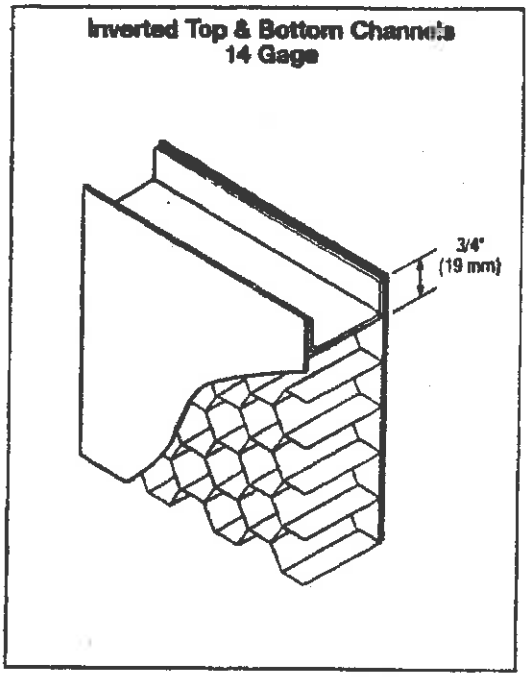


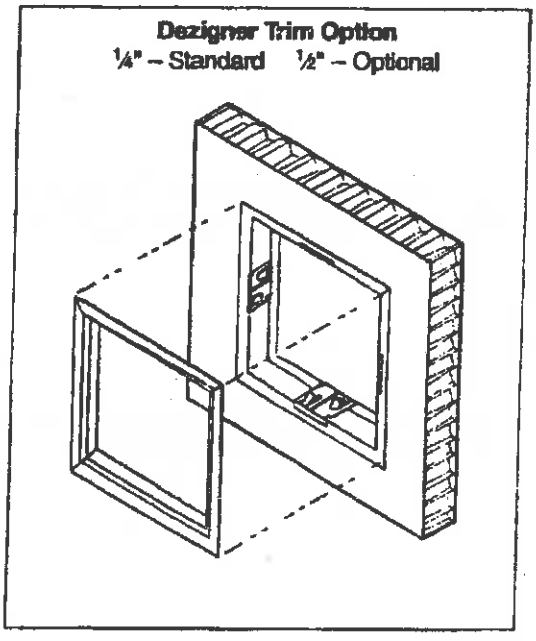
GENERAL NOTES:

1. **Edge construction:**
   - Vertical edges (both hinge and lock) are beveled with a visible seam.
   - Top and bottom edges are closed with inverted 14 gage welded channels. Exterior applications require the additi of snap-in top caps to protect against the weather.
2. **Optional edge seams** available in the L-Series door construction are as follows:
   - **LF** – The mechanical edge seam is filled and finished pri to applying the factory primer.
   - **LW** – The mechanical edge seam is welded and finishec prior to applying the factory primer.
3. **Optional cores** available in the L-Series door constructior
   - **Polystyrene** for exterior applications in extreme weather conditions.
   - **Polyurethane** for exterior applications in arctic weather conditions. Not Fire Rated.
4. **Standard hardware preparations:** standard mortised and reinforced for:
   - **Universal hinge preps** – 4½"(114mm) patented preparation which allows easy and quick field conversion from standard to heavy weight hinges.
   - **Locks** – A multitude of standard lock preps are available. The most commonly used with a 4⅞" (124mm) strike are 161, 61L and 86.









CONSTRUCTION NOTES:

1. **Doors** are 1¾" (45mm) thick.
2. **Door opening size maximum:**
   Single door opening size 4'0" x 10'0" (1219mm x 3048mm)
   Double door opening size 8'0" x 10'0" (2438mm x 3048mm)
3. **Standard operating clearances** *(installed in frame)*:
   Head = ⅛" (3mm) to bottom of head or transom panel
   Hinge and lock side = 3/32" (2mm) to rabbet on jamb
4. **Standard core system:**
   1" (25mm) cell Kraft honeycomb core is laminated to both face sheets with contact adhesive. The honeycomb is phenolic resin impregnated and sanded to insure ultimate lamination and performance. To further enhance the structural stability of the door the honeycomb core material is subjected to several unique operations prior to assembly. If any of these operations are eliminated, the strength and durability of the door is compromised.
5. **Hardware preparations:** to meet specifications, doors can be prepared for all commercial mortised hardware, and can be factory reinforced for surface applied hardware applications.
   - **Lock preps** – details and dimensions shown are for cylindrical (ANSI 115.2) type locks. For mortise (ANSI A115.1) locks, the centerline of the lock is located ⅜" (9mm) lower.
6. **Glass lites with Designer® trim and louvers:** doors with glazed cutouts and doors with louvers are available (see *Lites and Louvers* section of *Spec Manual*).

INSTALLATION:

1. Installation shall conform to the published Steelcraft installation instructions, SDI 105 *Recommended Installation Instructions for Steel Frames*, and ANSI/DHI A115-IG *Installation Guide for Doors and Hardware*.
2. Fire Rated Assemblies must be in accordance with NFPA Pamphlet 80. The *Authority Having Jurisdiction* is the final authority in issues related to the installation and use of installed Fire Rated Doors.

DOOR EDGE APPLICATIONS:

The L-Series Doors are used in virtually all buildings and construction applications. The application and functionality dictate the door edge construction specified.

Edge	Usage	Application
L	Heavy & Extra-heavy duty	High traffic in all commercial applications
LF	Heavy & Extra-heavy duty	High traffic, in sanitation conditions
LW	Heavy & Extra-heavy duty	High traffic, in sanitation and high abuse conditions

CONVERSION CHART

ANSI A250.8 (SDI 100) *Recommended Specification for Standard Steel Doors and Frames.*

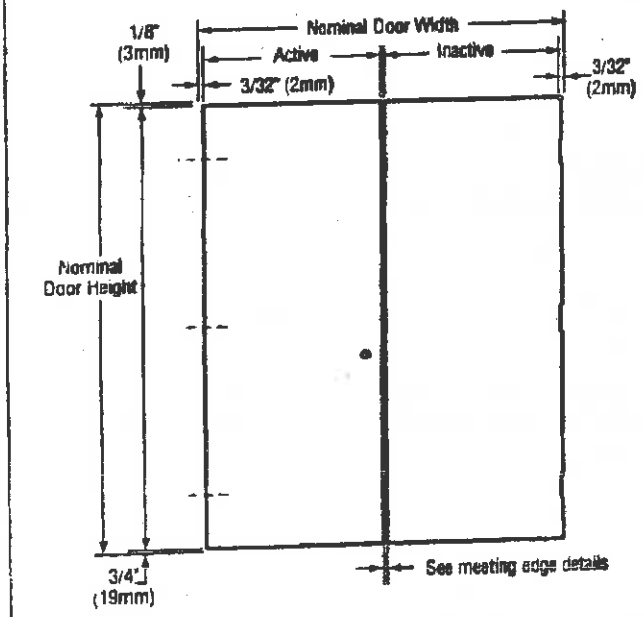
Series	Level	Model	Description	Edge Construction
L18	2	1	Full Flush	Full height, visible mechanical interlocked edge
LF18	2	2	Seamless	L-Series with epoxy filled edge seams
LW18	2	2	Seamless	L-Series with welded edge seams
L16	3	1	Full Flush	Full height, visible mechanical interlocked edge
LF16	3	2	Seamless	L-Series with epoxy filled edge seams
LW16	3	2	Seamless	L-Series with welded edge seams

DOUBLE DOOR APPLICATIONS:

L-Series doors are available in double door elevations, with active and inactive leaves and an overlapping astragal.

- **Standard operating clearances** *(installed in frame)*:
  - Head = 1/8" (3mm) to bottom of head or transom panel
  - Hinge side = 3/32" (2mm) to rabbet on jamb
  - Meeting edges = 3/32" (2mm) with or without astragal. For openings without an astragal, a wide inactive leaf is used.
  - Bottom = 3/4" (19mm) to bottom of frame

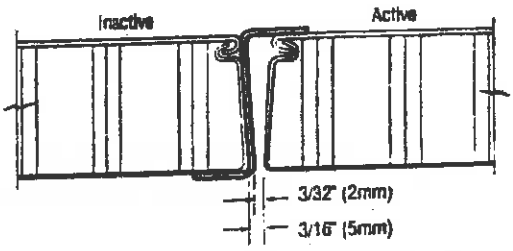
Double Door Elevation



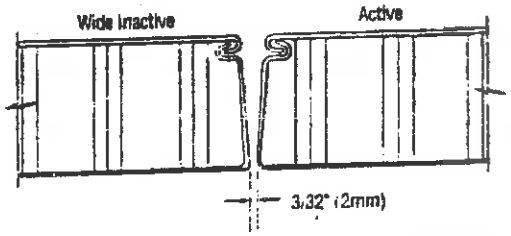
- **Meeting edges:**
  - 14 Gage astragal is furnished loose for installation in the field by others.
  - Overlapping astragal kits are available to convert an active leaf to an inactive leaf.
  - When an astragal is not used, the width of the inactive leaf is increased 3/32" (2mm).
- **Hardware preparations:** the inactive leaf can be prepared for hardware as specified.

MEETING EDGE DETAILS:

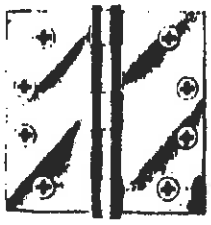
Typical Astragal 14 Gage



Pairs without Astragal



Five Knuckle



Plain Bearing - Standard Weight

For use on medium weight doors or doors requiring low frequency service

1191 Brass with Stainless Steel pin - ANSI A2133
Stainless Steel with Stainless Steel pin - ANSI A5133

1279 Steel with Steel pin - ANSI A8133

- Non-rising removable pin with button tip and plug
- With door closer use ball bearing hinge

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
2 x 2	51 x 51	0.083	4	-	3/4 x 8
2 1/2 x 2 1/2	64 x 64	0.089	6	-	3/4 x 8
3 x 3	76 x 76	0.097	6	-	1 x 9
3 1/2 x 3 1/2	89 x 89	0.119	6	1/2 x 10-24	1 x 9
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 4 1/2	114 x 114	0.134	8	1/2 x 12-24	1 1/4 x 12
5 x 4	127 x 102	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 4 1/2	127 x 114	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 5	127 x 127	0.145	8	1/2 x 12-24	1 1/4 x 12
6 x 4 1/2	152 x 114	0.160	10	1/2 x 1/4-20	1 1/2 x 14
6 x 5	152 x 127	0.160	10	1/2 x 1/4-20	1 1/2 x 14
6 x 6	152 x 152	0.160	10	1/2 x 1/4-20	1 1/2 x 14

Five Knuckle

Plain Bearing - Standard Weight - Wide Throw

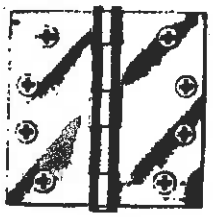
For use on medium weight doors or doors requiring low frequency service

1191 Wide Throw
Brass with Stainless Steel pin - ANSI A2133
Stainless Steel with Stainless Steel pin - ANSI A5133

1279 Wide Throw
Steel with Steel pin - ANSI A8133

- Non-rising removable pin with button tip and plug
- With door closer use ball bearing hinge

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3 1/2 x 5	89 x 127	0.119	6	1/2 x 10-24	1 x 9
3 1/2 x 6	89 x 152	0.119	6	1/2 x 10-24	1 x 9
4 x 5	102 x 127	0.129	8	1/2 x 12-24	1 1/4 x 12
4 x 6	102 x 152	0.129	8	1/2 x 12-24	1 1/4 x 12
4 x 7	102 x 178	0.129	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 5	114 x 127	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 6	114 x 152	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 7	114 x 178	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 8	114 x 203	0.134	8	1/2 x 12-24	1 1/4 x 12
5 x 6	127 x 152	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 7	127 x 178	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 8	127 x 203	0.145	8	1/2 x 12-24	1 1/4 x 12



Concealed Bearing - Standard Weight

For use on medium weight doors or doors requiring medium frequency service

CB1191 Stainless Steel with Stainless Steel pin - ANSI A5112

- Non-rising removable pin with button tip and plug
- Only available with SecureCoat® Lifetime finish (US3SC)
- Specify machine screws

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3 1/2 x 3 1/2	89 x 89	0.119	8	-	1 x 9
4 x 4	102 x 102	0.129	8	-	1 1/4 x 12
4 1/2 x 4	114 x 102	0.134	8	-	1 1/4 x 12
4 1/2 x 4 1/2	114 x 114	0.134	8	-	1 1/4 x 12
5 x 4	127 x 102	0.145	8	-	1 1/4 x 12
5 x 4 1/2	127 x 114	0.145	8	-	1 1/4 x 12
5 x 5	127 x 127	0.145	8	-	1 1/4 x 12
6 x 4 1/2	152 x 114	0.160	10	-	1 1/2 x 14
6 x 5	152 x 127	0.160	10	-	1 1/2 x 14
6 x 6	152 x 152	0.160	10	-	1 1/2 x 14

Saddle Thresholds

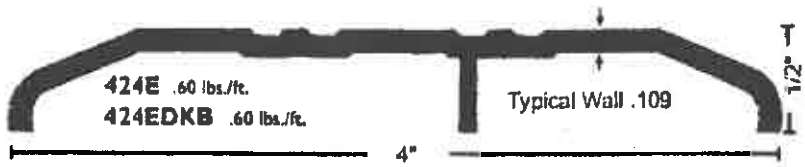
All thresholds this page

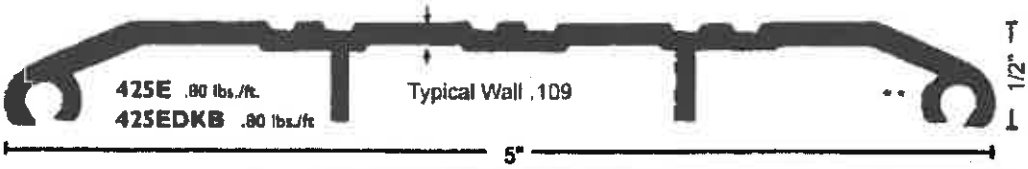
MATERIALS & FINISHES

- Aluminum mill finish
- DKB - Aluminum dark bronze finish

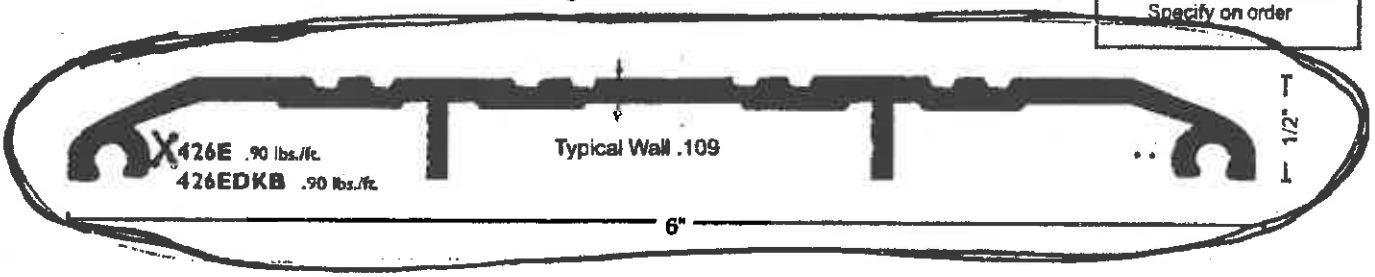
Slip Resistant SIA Finish

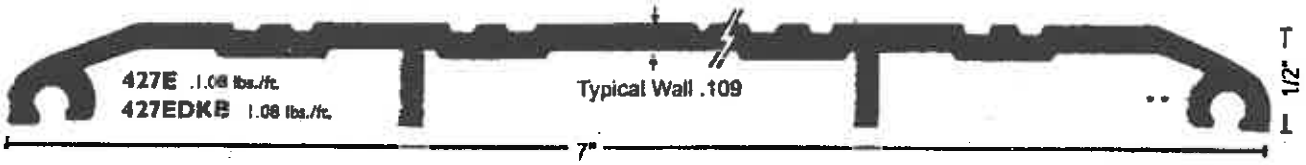
All thresholds are available with our slip resistant, non-skid finish for better traction. Suffix "SIA".

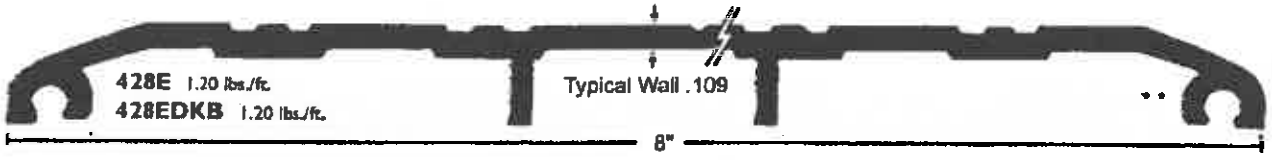


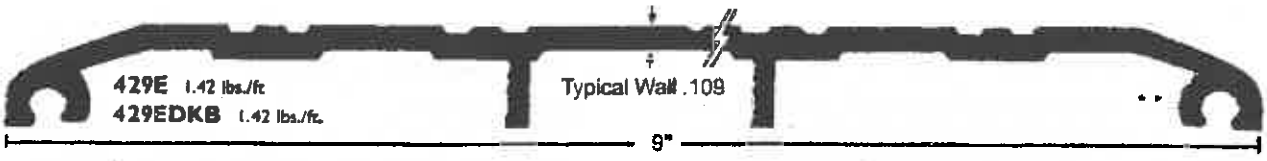


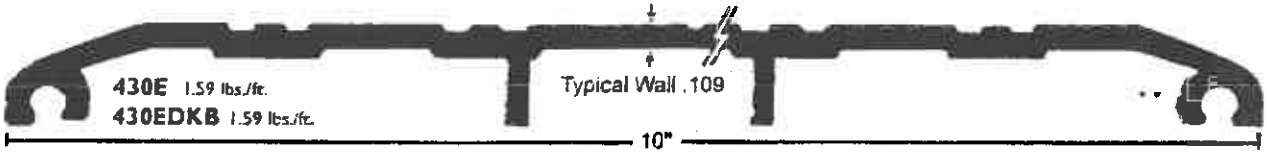
****** VINYL FOOT SEAL
used instead of caulking to increase the weather resistance of the threshold. Specify on order











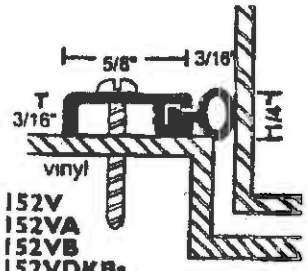
Vinyl Seals

Properties:
- Synthetic polymer: Polyvinyl Chloride
- Economical
- Flame resistant
- Moisture resistant
- Temperature range 0F to 140F
- Plasticizers evaporate with age and exposure to UV, Cold, Heat causing hardening, loss of memory, loss of resilience, cracking and crazing

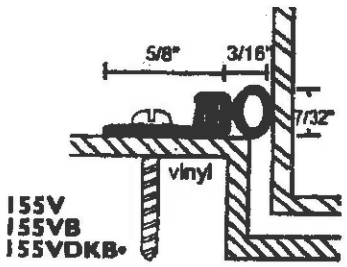
#6 x 3/4" Stainless Steel Sheet Metal Screws furnished
Screw holes slotted for adjustment

All vinyl seals this section

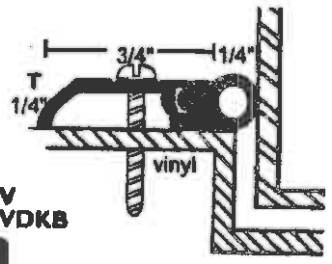
A - clear
B - gold
DKB - dark bronze
no suffix - mill
Vinyl is gray
(exception: •vinyl is black)



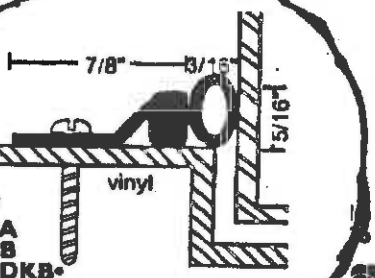
152V
152VA
152VB
152VDKB•



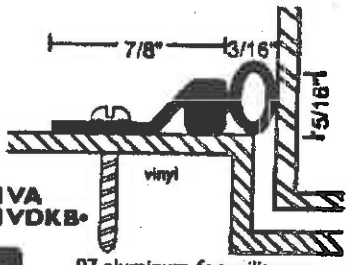
155V
155VB
155VDKB•



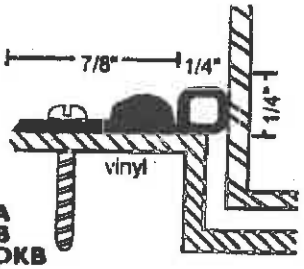
156V
156VDKB



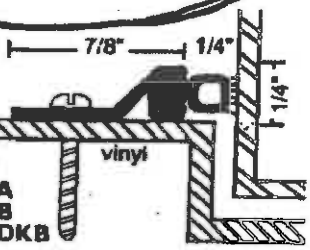
160V
160VA
160VB
160VDKB•



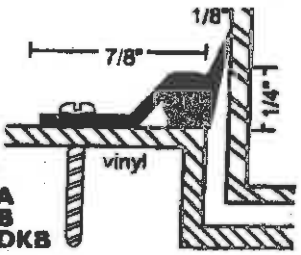
161VA
161VDKB•
.07 aluminum for military specs



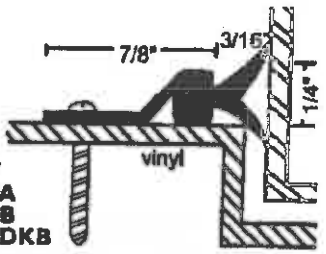
162V
162VA
162VB
162VDKB



164V
164VA
164VB
164VDKB

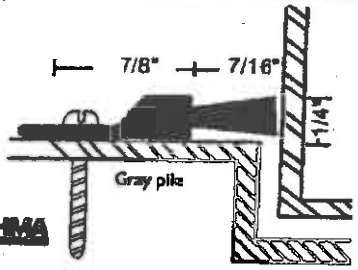


188V
188VA
188VB
188VDKB

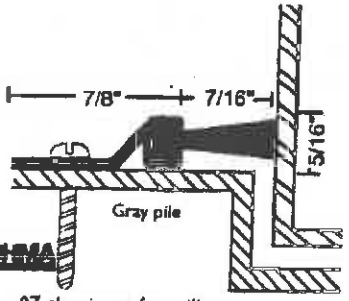


190V
190VA
190VB
190VDKB

Pile Seals



185P
185PA
185PB
185PDKB
FIRMA



161PA
161PDKB
FIRMA
.07 aluminum for military specs

Specifications

Handing:
All D-Series lever locksets are non-handed.

Door Thickness:
1⅜" to 2⅛" (41mm–54mm) standard including Vandlgard® functions.
See accessories (Page 12) for spacers required for 1⅜" doors.

Backsets
2¾" (70 mm) standard. 2⅜", 3¾" and 5" (60 mm, 95 mm, 127 mm) optional.

Faceplates
Brass, bronze or stainless steel. 1⅛" x 2¼" (29 mm x 57mm) square corner, beveled.

Lock Chassis
Zinc plated for corrosion resistance.

Latch Bolts
Steel, ½" (12mm) throw, deadlocking on keyed and exterior functions. ¾" (19 mm) throw anti-friction latch available for pairs of fire doors.

Exposed Trims
Levers: Pressure cast zinc, plated to match finish symbols.
Roses: Solid brass.

Strikes
ANSI curved lip strike 1¼" x 4⅞" x 1³⁄₁₆" lip to center standard. Optional strikes, lip lengths and ANSI strike box available. See page 11.

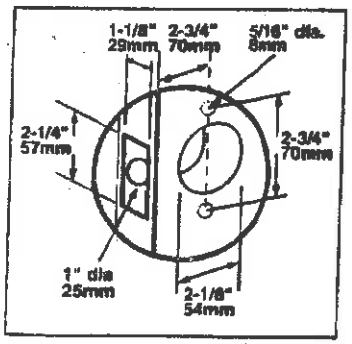
Cylinder & Keys:
6-pin Everest C123 keyway standard with two patented nickel silver keys per lock.

Keying Options:
Interchangeable core and Primus® high security cylinders. Master keying, grand master keying and construction keying.

Warranty:
Seven-year limited for all functions including Vandlgard®.

Door Preparation

Lever Designs



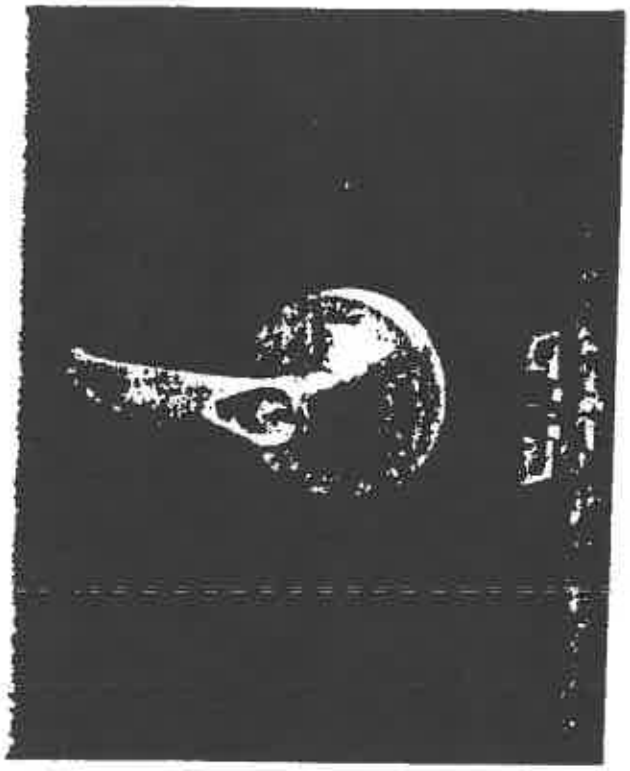
Certifications

ANSI
Meets or exceeds A156.2 Series 4000, Grade 1 strength and operational requirements. Meets A117.1 Accessibility Code.

Federal
Meets FF-H-106C Series 161.

California State Reference Code
(Formerly Title 19, California State Fire Marshal Standard)
All levers with returns comply; levers return to within ½" of door face.

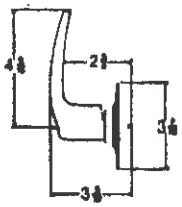
UL / cUL:
All locks listed for A label single doors, 4' x 8'.
Letter F and UL symbol on latch front indicate listing.
Electrified functions are UL19X Listed for single point locking applications.
UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.



Lever Designs & Finishes

ATHENS

Symbol: ATH
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626



608

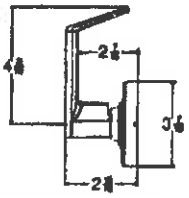
SPARTA

Symbol: SPA (17)
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626

626

RHODES

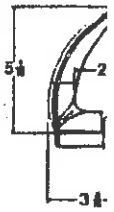
Symbol: RHO (06)
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626



612

OMEGA

Symbol: OME
Material: Pressure cast zinc lever; wrought brass rose
Finishes:
605, 606, 612, 613, 619, 625, 626



619

605
Bright Brass

606
Satin Brass

612
Satin Bronze

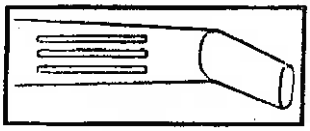
613
Oil Rubbed Bronze

619
Satin Nickel

625
Bright Chromium Plated

626
Satin Chromium Plated

Keyed functions available with interchangeable core options. Levers are available for full size and small format interchangeable cores.



TACTILE WARNING (KNURLING)

Change symbol designation as follows:
8AT for Athens
8RO for Rhodes
8SP for Sparta

Only outside lever is knurled unless otherwise specified.

Not available with Omega trim

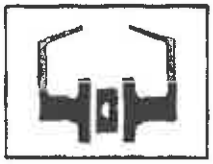
Finishes
605 Bright Brass
606 Satin Brass
612 Satin Bronze
613 Oil Rubbed Bronze
619 Satin Nickel
625 Bright Chromium Plated
626 Satin Chromium Plated

Functions

Non-Keyed Locks

SCHLAGE ANSI

ND10S F75

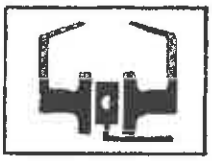


Passage Latch
Both levers always unlocked.

ND12D F89

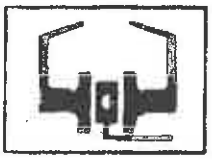
Exit Lock
Outside lever always fixed. Inside lever always unlocked.

ND12DEL



Electrically Locked (Fail Safe)
Outside lever continuously locked electrically. Unlocked by switch or power failure. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for immediate exit.

ND12DEU

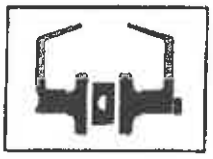


Electrically Unlocked (Fail Secure)
Outside lever continuously locked until unlocked by electric current. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for immediate exit.

ND25D

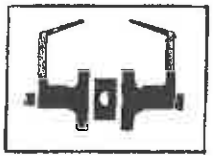
Exit Lock
Blank plate outside. Inside lever always unlocked.

ND40S F76



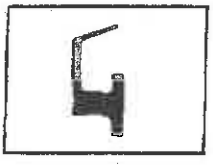
Bath/Bedroom Privacy Lock
Push-button locking. Can be opened from outside with small screwdriver. Turning inside lever or closing door releases button.

ND44S



Hospital Privacy Lock
Push-button locking. Unlocked from outside by turning emergency turn-button. Turning inside lever or closing door releases button.

ND170

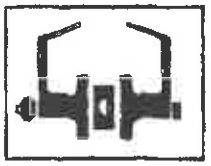


Single Dummy Trim
Dummy trim for one side of door. Used for door pull or as matching inactive trim.

Keyed Locks

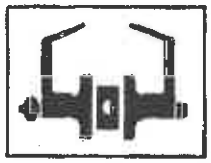
SCHLAGE ANSI

ND50PD F82



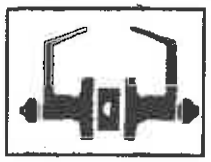
Entrance/Office Lock*
Push-button locking. Push-button locks outside lever until unlocked with key or by turning inside lever.

ND53PD F109



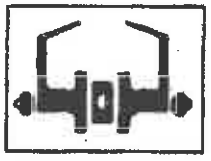
Entrance Lock*
Turn/push-button locking; pushing and turning button locks outside lever, requi use of key until button is manually unlo Push-button locking; pushing button lock outside lever until unlocked by key or by turning inside lever.

ND60PD F88



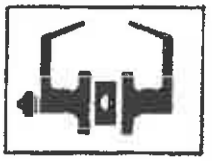
Vestibule/Classroom Security Lock*
Latch retracted by key from outside wh outside lever is locked by key in inside le Inside lever is always unlocked.

ND66PD F91



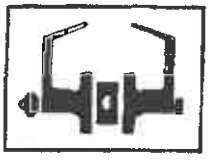
Store Lock*†
Key in either lever locks or unlocks both levers.

ND70PD F84



Classroom Lock*
Outside lever locked and unlocked by ke Inside lever always unlocked.

ND73PD F90



Corridor Lock*
Outside lever locked by key outside or push-button inside. Push-button released by rotating inside lever or closing door. When outside lever is locked by key, key must be used to unlock it. Inside lever is always unlocked.

* *Available functions for small format interchangeable core.*

† *Caution: Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.*

Specifications

Handing:
Keyed functions are reversible. Non-keyed functions are not handed.

Door Thickness:
1⅜" to 1⅞" (35 mm to 48 mm) standard.
2" (51 mm) to 2½" (64 mm) optional extended inside.

Backset:
2⅜" (60 mm) standard. 2¾" (70 mm), 3¾" (95 mm) and 5" (127 mm) optional.

Front:
Steel. 1⅛" x 2¼" square corner, beveled, for 2¾" backset standard. Optional 1" square corner, 1" radius corner, and non-UL drive-in / round face. For availability with specific backsets, see page 6.

Lock Chassis:
Steel, zinc dichromate plated for corrosion resistance.

Latch Bolt:
Brass, chrome plated, ½" throw, deadlocking on keyed and exterior functions.

Exposed Trim:
Wrought brass, bronze or stainless steel. Levers are pressure cast zinc, plated to match finish symbols.

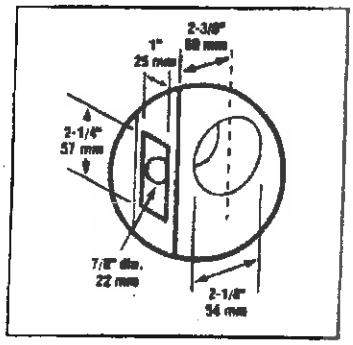
Strike:
T-strike 1⅛" x 2¾" (29 mm x 70 mm) x 1⅛" (29 mm) lip to center with box standard. Optional strikes, lip lengths and ANSI strike box available. See page 7.

Cylinder & Keys:
Commercial: 6-pin patented Everest C123 keyway standard with two nickel silver keys per lock.
Residential: 6-pin C keyway, keyed 5-pin.

Keying Options:
Interchangeable core and Primus® high security cylinders. Master keying, grand master keying, and construction keying.

Warranty:
Commercial: three-year limited.
Residential: Full mechanical lifetime.

Door Preparation



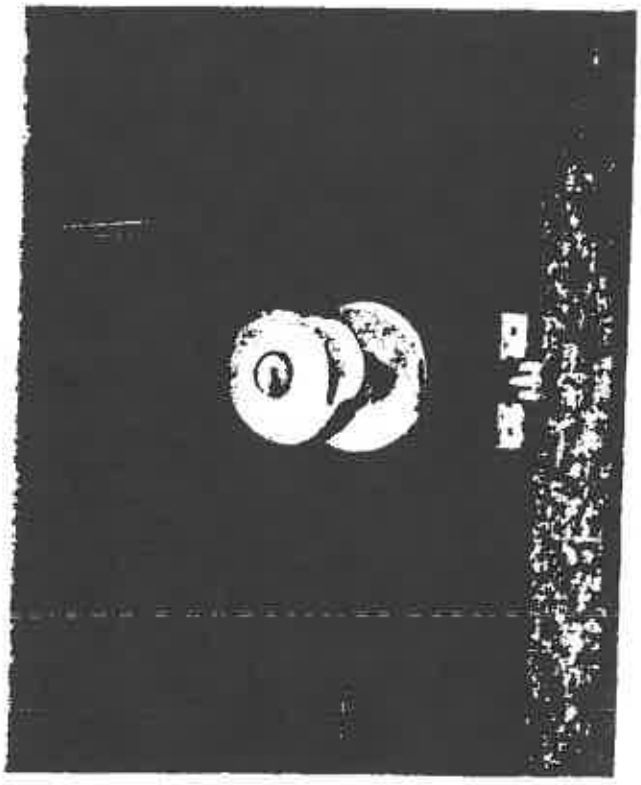
Certifications

ANSI
Meets or exceeds A156.2 Series 4000, Grade 2 strength and operational requirements.

Federal
Meets FF-H-106C.

California State Reference Code
(Formerly Title 19, California State Fire Marshal Standard)
All levers with returns comply; levers return to within ½" of door face.

UL / ULC:
All locks listed for A label single doors, 4' x 8'.
Letter F and UL symbol on latch front indicate listing.
UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.



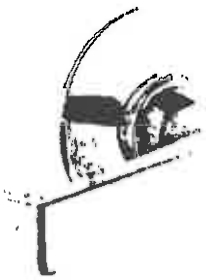
GEORGIAN

Symbol: GEO
Material: Wrought brass
Finishes: 605, 606, 609, 610, 625, 626

609

LEVON

Symbol: LEV
Material: Pressure cast zinc lever; wrought brass or bronze rose
Finishes: 605, 612, 613, 626

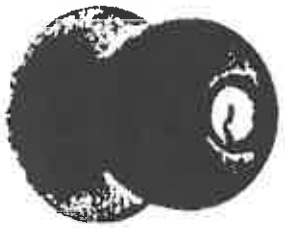


605

Note: Levon available as inside trim only on deadlatch functions. Specify complete trim application and door handing when ordering with deadlatch functions.

ORBIT

Symbol: ORB
Material: Wrought brass or bronze
Finishes: 605, 606, 609, 610, 611, 612, 613, 616, 625, 626



613

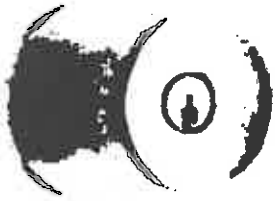
PLYMOUTH

Symbol: PLY
Material: Wrought brass, bronze, or stainless steel
Finishes: 605, 606, 609, 610, 611, 612, 613, 616, 625, 626, 629, 630

605

TULIP

Symbol: TUL
Material: Wrought brass
Finishes: 605, 606, 609, 610, 625, 626



626

Finishes

605 Bright Brass
606 Satin Brass
609 Antique Brass
610 Bright Brass, Blackened
611 Bright Bronze
612 Satin Bronze
613 Oil Rubbed Bronze
616 Antique Bronze
625 Bright Chromium Plated
626 Satin Chromium Plated
629 Bright Stainless Steel
630 Satin Stainless Steel

Keyed functions available with full size interchangeable core option for Orbit design.

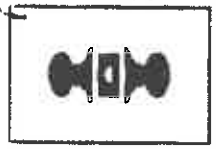
Functions

ANSI A156.2 Series 4000 Grade 2

Non-Keyed Functions

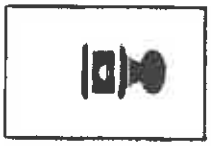
SCHLAGE ANSI

A10S F75 — **Passage Latch**



Both knobs always unlocked.

A25D — **Exit Lock**



Blank plate outside. Inside knob always unlocked. Specify door thickness, 1⅜" or 1¾".

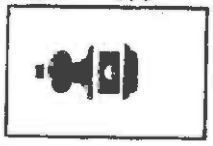
A30D F77 — **Patio Lock**

Push-button locking. Turning inside knob or closing door releases button, preventing lock-out.

A40S F76 — **Bath/Bedroom Privacy Lock**

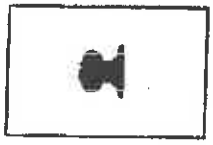
Push-button locking. Can be opened from outside with small screwdriver. Turning inside knob or closing door releases button.

A43D F79 — **Communicating Lock**



Turn-button in outer knob locks and unlocks knob and inside thumbturn.

A170 — **Single Dummy Trim**

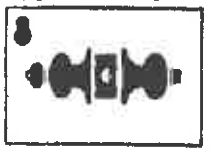


Dummy trim for one side of door. Used for door pull or as matching inactive trim.

Keyed Functions

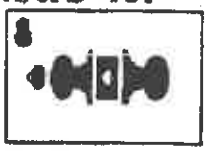
SCHLAGE ANSI

A53PD F109 — **Entrance Lock**



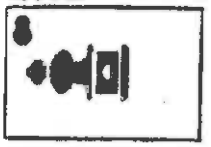
Turn/push-button locking: pushing and turning button locks outside knob requ use of key until button is manually unl Push-button locking: pushing button l outside knob until unlocked by key or by turning inside knob.

A70PD F84 — **Classroom Lock**



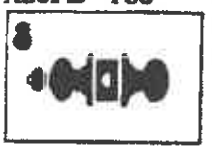
Outside knob locked and unlocked by Inside knob always unlocked.

A79PD — **Communicating Lock**



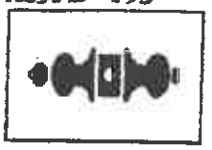
Locked or unlocked by key from outsid Blank plate inside.

A80PD F86 — **Storeroom Lock**



Outside knob fixed. Entrance by key on Inside knob always unlocked.

A85PD F93 — **Hotel/Motel Lock**



Outside knob fixed. Entrance by key onl Push-button in inside knob activates visual occupancy indicator, allowing only emergency masterkey to operate. Rotatio of inside spanner-button provides lock-o feature by keeping indicator thrown.

Keyed functions available with full size interchangeable core option for Orbit design.

SECTION 07920 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data.

B. Warranty: Warranty materials and workmanship of sealing against leaks, adhesion, and cohesive failure for a period of two years from the date of substantial completion.

C. References:

1. American Society for Testing and Materials
   a) ASTM C790 – Recommended practices for use of latex sealing compounds.
   b) ASTM C920 – Elastomer Joint Sealants.
2. Federal Specifications
   a) FS TT-S-00230C (2), Sealing Compound, Elastomeric Type, Single Component (for caulking, sealing and glazing in buildings and other structures).
   b) FS TT-S-00227E (3), Sealing Compound, Elastomeric Type, Multi-component (for caulking, sealing and glazing in buildings and other structures).

PART 2 - PRODUCTS

2.1 JOINT SEALANTS

A. Compatibility: Provide joint sealants, joint fillers, and other related materials that have been tested and found compatible with one another and with joint substrates under service and application conditions.

B. Interior Sealant: Provide ASTM C 834. If no color is specified, use Gray. Location(s) of sealant for the following:
1. Small voids between walls or partitions and adjacent door frames, and similar items.
2. Perimeter of frames at doors, windows, and access panels which adjoin exposed interior concrete and masonry surfaces.

C. Exterior Sealant: Provide ASTM C 920, polyurethane or polysulfide, Type M, Grade NS, Class 25, Shore A hardness of 20-40. If no color is specified, use Gray. Location(s) of sealant for the following:
1. Joints and recesses formed where frames and vents adjoin masonry, concrete, or metal frames. Use sealant at both exterior and interior surfaces of exterior wall penetrations. Color to match adjacent surface.

2.2 ACCESSORIES

A. Primers: Provide a nonstaining, quick-drying type and consistency recommended by the sealant manufacturer for the particular application.

B. Bond Breakers: Provide the type and consistency recommended by the sealant manufacturer to prevent adhesion of the sealant to backing or to bottom of the joint.

C. Cleaning Solvents: Provide type(s) recommended by the sealant manufacturer, except for aluminum and bronze surfaces that will be in contact with sealant.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean surfaces from dirt frost, moisture, grease, oil, wax, lacquer, paint, or other foreign matter that would tend to destroy or impair adhesion. Remove oil and grease with solvent. Surfaces must be wiped dry with clean cloths. When resealing an existing joint, remove existing calk or sealant prior to applying new sealant. For surface types not listed below, contact sealant manufacturer for specific recommendations.
1. Steel Surfaces: Remove loose mill scale by sandblasting or, if sandblasting is impractical or would damage finish work, scraping and wire brushing. Remove protective coatings by sandblasting or using a residue-free solvent.
2. Aluminum or Bronze Surfaces: Remove temporary protective coatings from surfaces that will be in contact with sealant. When masking tape is used as a protective coating, remove tape and any residual adhesive just prior to sealant application. For removing protective coatings and final cleaning, use nonstaining solvents recommended by the manufacturer of the item(s) containing aluminum or bronze surfaces.
3. Concrete and Masonry Surfaces: Where surfaces have been treated with curing compounds, oil, or other such materials, remove materials by sandblasting or wire brushing. Laitance, remove efflorescence and loose mortar from the joint cavity.

4. Wood Surfaces: Keep wood surfaces to be in contact with sealants free of splinters and sawdust or other loose particles.

B. Do not add liquids, solvents, or powders to the sealant. Mix multi-component elastomeric sealants in accordance with manufacturer's instructions.

3.2 INSTALLATION

A. Joint Width-to-Depth Ratios: Install per manufacturer's recommendation or as described below, whichever is more stringent.

1. Acceptable Ratios:

		Minimum	Maximum
a)	For metal, glass, or other nonporous surfaces:		
(1)	1/4 inch (6 mm) (minimum)	1/4 inch (6 mm)	1/4 inch (6 mm)
(2)	Over 1/4 inch (6 mm)	1/2 of width	Equal to width
b)	For wood, concrete, masonry, or stone:		
(1)	1/4 inch (6 mm) (minimum)	1/4 inch (6 mm)	1/4 inch (6 mm)
(2)	Over 1/4 inch(6 mm) to 1/2 inch (13 mm)	1/4 inch (6 mm)	Equal to width
(3)	Over 1/2 inch (13 mm) to 2 inch (50 mm)	1/2 inch (50 mm)	5/8 inch (16 mm)
(4)	Over 2 inch (50 mm)	(As recommended by sealant mfr.)	

2. Unacceptable Ratios: Where joints of acceptable width-to-depth ratios have not been provided, clean out joints to acceptable depths and grind or cut to acceptable widths without damage to the adjoining work. Grinding is not required on metal surfaces.

B. Masking Tape: Place masking tape on the finish surface on one or both sides of a joint cavity to protect adjacent finish surfaces from primer or sealant smears. Remove masking tape within 10 minutes after joint has been filled and tooled.

C. Immediately prime prior to application of the sealant, clean out loose particles from joints. Where recommended by sealant manufacturer, apply primer to joints in concrete masonry units, wood, and other porous surfaces in accordance with sealant manufacturer's instructions. Do not apply primer to exposed finish surfaces.

D. Provide bond breakers to the back or bottom of joint cavities, as recommended by the sealant manufacturer for each type of joint and sealant used, to prevent sealant from adhering to these surfaces. Carefully apply the bond breaker to avoid contamination of adjoining surfaces or breaking bond with surfaces other than those covered by the bond breaker.

E. Provide a sealant compatible with the material(s) to which it is applied. Do not use a sealant that has exceeded shelf life or has jelled and can not be discharged in a continuous flow from the gun. Apply the sealant in accordance with the manufacturer's printed instructions with a gun having a nozzle that fits the joint width. Force sealant into joints to fill the joints solidly without air pockets. Tool sealant after application to ensure adhesion. Make sealant uniformly smooth and free of wrinkles. Upon completion of sealant application, roughen partially filled or unfilled joints, apply sealant, and tool smooth as specified. Apply sealer over the sealant when and as specified by the sealant manufacturer.

F. Thresholds: Place double band of sealant under and along all sides of all exterior thresholds.

END OF SECTION 07920

ATTACHMENT 6

Lead-Based Paint Inspection Report
For
Miami Armory

Scope of Work
For
Abatement of Non-Friable and/or Non-Regulated Asbestos at The Former Perry, Pawhuska and Miami National Guard Armories

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from licensed asbestos abatement contractors for asbestos remediation services at the former Perry, Pawhuska and Miami National Guard Armories. Qualified bidders shall follow all appropriate OSHA requirements. This scope of work (SOW) describes the non-friable and/or non-regulated asbestos containing materials (ACM) that will either be removed or left in place. The ACM to be removed shall be included in your bid.

- Friable and regulated ACM shall be removed as described in the attached project designs.
- Non-friable and / or non-regulated ACM shall be removed or left in place as described below.
- For more information on asbestos locations and quantities of asbestos to be removed, see the attached asbestos inspection reports and project designs for each armory.

Marshall Environmental will be performing oversight on this project. Once asbestos has been removed, contractor shall contact Marshall Environmental to perform the final inspection. The phone number for Marshall Environmental is (405) – 616-0401. Marshall Environmental will determine if all asbestos has been appropriately removed or if additional work needs to be performed.

The Perry Armory is located at 309 North 14th Street, Perry, Oklahoma 73077. The building **does** have available electricity but **does not** have available water to use during remediation.

The Pawhuska Armory is located at 836 East 8th Street, Pawhuska, Oklahoma 74056. The building **does not** have available electricity and **does not** have available water to use during remediation.

The Miami Armory is located at 830 D Street Southeast, Miami, Oklahoma 74354. The building **does not** have available electricity and **does not** have available water to use during remediation.

Pawhuska Armory

- **Remove** sheetrock from wall in Room Number 10.

Perry Armory

- **Remove** floor tile and mastic from Room Numbers 16, 17, 18, 19, and 34;
- **Remove** all sheetrock as described in the attached Perry Armory Project Design.

Miami Armory

- **Remove** floor tile and mastic from Room Numbers 3, 4, and 5.
- **Remove** mastic on flu in Room Number 1.
- **Do Not Remove** caulking from around all windows.
- **Remove** all TSI as described in the attached Miami Armory Project Design.

Project Design Review Form

RECEIVED
APR 13
LAND PROTECTION DIVISION

Oklahoma Department of Labor
Asbestos Division
4001 N. Lincoln Blvd., Oklahoma City, OK 73105
Phone - (405) 528-1500 Fax - (405) 524-6793

Approved [X]
Disapproved [ ]

Project Name: MIAMI ARMORY
Project No.: 2010-6166 Date: 03/26/2010
Project Designer: CHARLES MARSHALL

ITEM NO.	ITEM	ACCEPT-ABLE	NOT ACCEPT-ABLE	COMMENTS
1.	A statement that DOL Abatement of Friable Asbestos Materials Rules apply.	X		GENERAL REQUIREMENTS B. 5 & 6
2.	Sequencing and phasing of work.	X		ONE PHASE - GLOVEBAG OPERATIONS
3.	Identification of means of egress and a fire protection plan.	X		ALL EXITS WILL BE CLEARLY MARKED WITH A SIGN AND RED ARROWS. EMERGENCY LIGHTS WILL BE IN PLACE. MINIMUM OF 3 - 10ABC FURE EXTINGUISHERS
4.	The quantity, type, and location of asbestos materials to be abated.	X		208 LINEAR FEET OF AIR CELL TSI THAT CONTAINS 40% CHRYSOTILE LOCATED ON THE PLUMBING LINES THROUGHOUT THE ARMORY
5.	Abatement methods, and techniques, and numbers of glovebags or mini-containment.	X		GLOVEBAG OPERATIONS
6.	Numbers of area air monitoring pumps.	X		3 BACKGROUNDS, 25% OR MINIMUM OF 2 PERSONALS DURING PREP & 100% DURING REMOVAL, 1 INSIDE AREA 1 OUTSIDE AREA ADJACENT TO WORK AREA AND DRILL FLOOR AREA, CLEAN ROOM AND LOADOUT. CLEARANCE-1 PER ROOM FOR 6 HOURS AND 3000 LITERS 1 ON NEG AIR
7.	Numbers, capacities, location, and discharge points, if any, of negative air machines.	X		ONE NEGATIVE AIR MACHINE WILL BE REQUIRED ON THE DIRTY ROOM OF THE CENTRALIZED DECON VENTED TO THE OUTSIDE
8.	Details of the project containment(s).	X		CONSTRUCT CENTRALIZED DECON, ISOLATE ADJACENT AREAS AND INSTALL CRITICAL BARRIERS, ESTABLISH GFCI'S, HANG GLOVEBAGS
9.	Details of the decontamination system(s).	X		CENTRALIZED DECON CONSTRUCTED IN ACCORDANCE WITH 380:50-15-12
10.	The extent to which asbestos-contaminated soils, if any, must be removed, and the sampling methods of determining the efficacy of such removal.	N/A		
11.	Special materials or methods required to protect objects in the work area should be detailed, (e.g., plywood over carpeting or hardwood floors to prevent damage from scaffolds and falling	N/A		
12.	Any variances from the Abatement of Friable Asbestos Materials Rules.		X	VARIANCE NOT REQUIRED. SUBCHAPTER 13 GLOVEBAG OPERATIONS ALLOW GLOVEBAG WORK TO BE CONDUCTED IN FFAPR

The Department of Labor reserves the right to require additional engineering or environmental controls consistent with the Abatement of Friable Asbestos Materials Rules which may be necessary because of discrepancies between this project design and field conditions, or from unanticipated changes in field conditions.

REVIEWED BY: Bernita Hunt DATE: 3/26/10 REVIEWED BY: _____ DATE: _____

ASBESTOS PROJECT DESIGN

AND

SCOPE OF WORK

RELATED TO THE

ASBESTOS ABATEMENT

AT THE

DEQ OKLAHOMA ARMORY RESTORATION PROJECTS

DCS Project # _____
(DCS Bid Packet Project #)

ODOL Project # _____

Miami Armory

February 10, 2010
(Version 1.0)

Services Provide For:
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson Ave.
Oklahoma City, OK 73102

Asbestos Inspection Services Provided By:
Marshall Environmental Management, Inc.
1601 SW 89th Street Suite A-100
Oklahoma City, Oklahoma 73159
(405) 616-0401

TABLE OF CONTENTS

I. SCOPE OF WORK

This Project Design has been prepared to allow for the safe and economical removal of friable Asbestos Containing Material (ACM) as part of the Oklahoma Department of Environmental Quality (DEQ), Land Protection Division's (LPD), Oklahoma Armory Restoration Projects. This Asbestos Abatement Project will receive a Project Number that is to be assigned by the Oklahoma Department of Labor (ODOL).

This Project Design will be used to address the removal of friable ACM from the Armory. The scheduled for abatement will be determined by the DEQ LPD. The Project Design includes the Scope of Work for the Abatement of Friable Asbestos and the approximate locations and quantities of friable ACM to be abated at the Armory. Once hired, an ODOL Licensed Asbestos Abatement Contractor will file the individual notifications required by ODOL and DEQ (NESHAP). The information on the Armory floor plan and the estimated quantities and types of ACM is provided in the Appendix.

The work to be conducted for the asbestos abatement work at this Armory involves the removal of friable asbestos. Therefore, the ODOL rules that govern the removal of friable asbestos containing materials shall apply to this Project.

The identified friable ACM present in this Armory consists of Thermal System Insulation (TSI) on plumbing lines. The approximate locations and approximate quantities are identified in the Table provided in the Appendix of this Project Design.

The Licensed Asbestos Contactor will also be authorized by the DEQ LPD to conduct the removal of non-friable asbestos floor tile and mastic, Tar on Flue and potentially cement asbestos (transite) exhaust flues. The removal of non-friable ACM is not to be considered a part of the Project Design for ODOL notification purposes. The estimated quantities of non-friable ACM to be removed are identified in the Table provided in the Appendix of this Project Design. The Licensed Asbestos Contactor shall indicate the quantity of non-friable ACM to be abated on the Project's NESHAP Notice. The abatement of non-friable floor tile and mastic shall be consistent with the requirements of the Occupational Safety and Health Administration regulations 29 CFR 1910.1101 and the recommendations of the Resilient Floor Tile Institute.

The methods used for work area preparation, cleaning, and abatement of the friable ACM shall be consistent with the requirements of the Oklahoma Rules for Abatement of Friable Asbestos Materials, OAC 380:50 (ODOL Rules).

Upon completion of the asbestos removal work, the Asbestos Contractor shall complete any required re-insulation work for TSI (plumbing pipe re-insulation) as specified in the Oklahoma State Department of Central Services (DCS) Bid Packet.

II. II. RESPONSIBLE PARTIES AND CONSULTANTS

Licensed Contractor:

An ODOL Licensed Asbestos Contractor is to be selected based on a successfully bid submittal. The Oklahoma Department of Central Services (DCS) Construction and Properties Division will oversee the bidding and the Award of the Contract. The DEQ LPD will be the Project's Contracting Officer.

Licensed Project Designer:

Marshall Environmental Management, Inc.
1601 SW 89th Street Suite A-100
Oklahoma City, Oklahoma 73159
(405) 616-0401 (Office)
(405) 820-1656 (Mobile)
(405) 681-6753 (Fax)
marshenv@swbell.net

Charles L. Marshall, Ph.D., C.I.H., OKPD-140028

Owner's Representative:

Dustin Davidson, Environmental Programs Specialist
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson
Oklahoma City, OK 73102
(405) 702-5115 (Office)
(405) 702-5101 (Fax)
dustin.davidson@deq.ok.gov

Department of Central Services:

DCS Project Manager
To be identified by DCS in the Bid Packet.

III. LOCATION, TYPES OF ACM AND ESTIMATED QUANTITIES

The Appendix to the Project Design contains the documentation on the location and estimated quantities for the type of ACM identified in the Armory.

The types of the response actions to be taken, methods for removal, quantities, dates and responsible parties performing the abatement, air monitoring and waste disposal landfill locations shall be indicated on the Licensed Asbestos Contractor's NESHAPS Notice and Notification of Asbestos Abatement that are to be filed with DEQ and ODOL, respectively.

The ODOL Asbestos Division will assign this Armory Project. The ODOL will utilize the approved Project Design, and any subsequent Project Design Amendments, as a basis to assess the Project's required scope of work, sequence of events, abatement procedures, air monitoring, clearance sampling and any other related requirements of ODOL Rules.

The asbestos abatement will include removal of all asbestos containing TSI on plumbing lines throughout the Armory. All TSI on plumbing lines is to be abated by the Licensed Asbestos Contractor. The quantity of plumbing lines containing TSI, consisting of "air-cell" and associated mud on seams, joints and elbows, is approximately 208 linear feet. The ACM can contain 40% Chrysotile. These quantities are only estimates and the actual quantity that the Contractor must verify may vary. Regardless of variations in quantity, all of the TSI shall to be abated by the Licensed Asbestos Contractor.

The Asbestos Abatement Contractor shall remove all non-friable asbestos containing floor tiles and mastics, Non-friable asbestos containing tar on the flue and any of the non-friable cement asbestos exhaust flues identified for removal by the DEQ. These response actions are not governed by the ODOL rules but will require a negative exposure assessment and clearance monitoring to be evaluated by the DEQ and the Project Designers Representative.

The amounts and types of ACM are provided as an Appendix to this Project Design. Questions regarding the Scope of Work shall be addressed in writing to the DCS Constructions and Properties Division (DCS) Representative.

IV. SEQUENCE OF EVENTS, PROJECTED DATES AND DURATION

The Abatement Contractor will follow the following sequence of events.

1. The Licensed Asbestos Contractor shall file required ODOL and NESHAP Notification NESHAPS notifications. **Note:** Copies of the notifications are to be provided to DEQ LPD and the Licensed Project Designer.
2. Licensed Asbestos Contractor will mobilize to begin prep work based upon DEQ LPD approval after coordination is confirmed with any appropriate authorities (e.g. armory occupants) for work dates and times of work approved by the DEQ LPD at the specific Armory.
3. The Air Monitoring Firm shall conduct background air monitoring prior to prep inspection.
4. As part of the preparation for abatement, the Licensed Asbestos Contractor shall isolate adjacent areas and install critical barriers.
5. Establish GFI circuits and a Decon for use throughout prep.
6. Establish a Centralized Decon for use during prep work and abatement
7. Place abatement supplies in the Armory rooms.
8. Surround regulated work areas with asbestos hazard warning tape.
9. Prep the floors with 6-mil polyethylene sheeting.
10. Seal all openings with critical barriers.
11. Remove the ceiling tiles to access the TSI on plumbing lines
12. Perform any pre-cleaning of loose ACM, if necessary, to complete the Prep.
13. Hang all required negative pressure glovebags per ODOL Rules.
14. Provide adequate negative pressure HEPA Filter exhaust machines to establish a negative pressure to the central Decon facility and/or attached decon and loadout facilities to any modified containment work area.
15. Schedule an ODOL Prep Inspection.
16. Perform asbestos abatement and loadout all wastes.
17. Schedule any interim ODOL visual inspections per ODOL Inspector requirements.
18. Upon completion of final cleaning call, for ODOL visual inspection.
19. Conduct clearance sampling and schedule final inspection with ODOL
20. Schedule any final ODOL inspection that may be required.
21. Schedule the non-friable ACM with the Owners Representative.
22. Conduct a final inspection to verify the completion of the Scope of Work with the Project Designer's representative.
23. Tear down prep work and critical barriers and demobilize after approval by the ODOL and Owner's Representative (DEQ LPD).
24. File final project documents with ODOL and provide a copy to the DEQ LPD Representative.

The Licensed Asbestos Contractor shall file the notification of the intended start date based upon the schedule to be determined by the DEQ LPD Representative. This Project is anticipated to start, once a Licensed Contactor is selected as a successful bidder and a Notice to Proceed is issued by the DEQ LPD and DCS.

The Project duration is estimated to take less than less than five days to complete friable ACM abatement. Clearance testing will be conducted per ODOL rules or as specified in the approved Project Design or any subsequent Project Specific Project Design Amendments.

V. GENERAL REQUIREMENTS

A. Asbestos Contractor

The DCS Bid Packet will be used to select an ODOL Licensed Asbestos Abatement Contractor for use by the DEQ on this Oklahoma Armory Remediation Project. The ODOL Licensed Asbestos Contractor shall perform the asbestos abatement work in accordance with the ODOL Rules, this Project Design, any Site Specific Project Design Amendments and all applicable rule and regulations issued by those authorities' having jurisdiction.

B. Codes and Regulations

The Asbestos Abatement Contractor (herein and hereafter referred to as the Contractor) shall abide by this Project Design and the requirements, which govern asbestos removal in OAC 380:50 and transportation of asbestos waste materials to include, but not limited to, the following:

1. 29 CFR 1910, OSHA General Industry Standards.
2. 29 CFR 1926, OSHA Construction Industry Standard.
3. 29 CFR 1926, 1101 OSHA Asbestos Construction Standard
3. 40 CFR 61, Subpart M (NESHAPS) enforced by ODEQ.
4. ANSI Z88.2 latest edition (Respiratory Protection).
5. Oklahoma Asbestos Control Act Title 40 Sections 450-456.
6. OAC 380:50 (All-inclusive), Oklahoma Rules for Abatement of Friable Asbestos Materials.
7. 49 CFR (USDOT) Hazardous Material Transportation Regulations.
8. All Applicable State Statutes, County and City Codes/Ordinances
9. OAC 252:100-40, Air Pollution Control Rules, Control of Emission of Friable Asbestos during Demolition and Renovation Operations (replaces OAC 252:100-41-16).
10. OAC 252:515-19, Management of Solid Wastes (DEQ Asbestos Land Protection Division Asbestos Disposal Requirements).
11. Resilient Floor Covering Institute (RFCI) Recommended Work Practices for Removal of Resilient Floor Covering. http://www.rfci.com/files/pdf/RFCIRecommended9-04.pdf

Wherever conflicts arise in any of this Project Design's General Requirements or Procedures and/or among the applicable Rules and Regulations, the most stringent rules shall apply, subject to approval by ODOL or other authorities' having jurisdiction (e.g. DEQ). Wherever allowed by the authority that has jurisdiction, a request for a variance can be submitted, provided it is acceptable to the Owner's Representative (DEQ) and its representatives in advance of consideration by the authority having jurisdiction.

C. Notifications

The Asbestos Abatement Contractor, prior to any abatement work, shall be required to file a Notifications of Asbestos Removal with both the ODOL Asbestos Division and the DEQ NESHAP Division (per Subchapter 9 ODOL Rules). These processes require ten days, unless the Agency waves the waiting period due to an emergency. The Contractor shall also be responsible for submitting any request for variances within this period of notification.

Note: A NESHAP notification shall be filed by the Licensed Asbestos Contractor with the DEQ Air Quality Division. A copy is to be provided to the ODOL, Project Designer and DEQ LPD representative. All quantities and disposition of waste shall conform to the notification. Changes in the amounts of asbestos waste materials (greater or less than 20% of the notified amounts) shall require that the Licensed Asbestos Contractor files a revised NESHAP Notice with the DEQ AQD at the time the waste is prepared for disposal. The DEQ LPD representative shall approve the landfill indicated on the NESHAP form prior to the Contractor filing the notification.

A copy of the required NESHAP Notice can be obtained at the following DEQ website: http://www.deq.state.ok.us/aqdnew/asbestos/NESHAPfm.pdf

A copy of the ODOL Asbestos Project Check list can be obtained from the following ODOL web site:
http://www.ok.gov/odol/documents/AsbestosProjectChecklist.pdf

D. Waste Disposal

The Licensed Asbestos Contractor is responsible for all fees for wastes, storage, transportation and disposal. Unless properly insured, in accordance with the Oklahoma Asbestos Control Act, the Licensed Asbestos Contractor shall hire a Licensed and Insured Asbestos Disposal Contractor that is also a Licensed Asbestos Contractor, for the transportation and disposal of all asbestos wastes as specified in the Project Design and in accordance with the NESHAP notification and Subchapter 40 of the Oklahoma Clean Air Act.

The Contractor or Licensed Transporter shall be responsible to provide onsite storage and licensed transportation of all asbestos wastes to the DEQ Permitted Asbestos Landfill where the ACM will be disposed of at the end of the job. The Project's NESHAP notification shall list the disposal site to be used for the Project.

During periods of time when the asbestos waste is to be stored onsite, the Asbestos Abatement Contractor shall maintain an enclosed and properly placarded waste storage unit and/or waste disposal trailer or roll-off bin, which is to be located in a secure area on the Armory campus at a location determined by the Owner's Representative (DEQ LPD).

The storage area, trailer or roll-off bin shall be prepared with 6-mil polyethylene and placarded in accordance with OSHA and DOT requirements. When not in use, the enclosed storage area, trailer or roll-off bin will be kept locked, wherever possible (e.g. trailer), or sealed tightly (e.g. roll-off bin) to control access to any stored waste. The trailer or storage unit shall be available for inspection to representatives of the ODOL during all site visits, no later than the initial prep inspection.

A uniform style industrial waste manifest or asbestos disposal record shall accompany each load transport to the landfill as specified in the NESHAP regulation. All 6 mil double wrapped wastes, 6-mil double bagged asbestos waste, manifests, landfill disposal records and NESHAP notices shall designate the DEQ and the specific Armory Name (with its address) as the generator of each specific project (e.g. DEQ – Miami Armory – Address).

The list of DEQ Approved Landfills that can accept Asbestos Waste can be found on the DEQ Land Protection web site at the following web site link: http://www.deq.state.ok.us/lpdnew/SW/MSWLFsAcceptingAsbestos.htm

E. Insurance

The Asbestos Abatement Contractor performing the asbestos abatement and any related contract services (e.g. re-insulation), shall provide the DCS and the DEQ LPD with copies of current Certificates of Insurance. Use of any sub-contracts shall require written approval by the DCS Construction and Properties Division. The Contractor's General Liability Insurance, Worker Compensation, Hired and Non-Owned Auto Insurance shall meet the requirements of the DCS as specified in the Bid Packet and this Project Design, as well as applicable State Statutes and meet the requirements of Section 452 of Title 40, Oklahoma Asbestos Control Act.

F. Documentation

The Asbestos Abatement Contractor shall complete all documentation as required by the authorities having jurisdiction and those specified in this Project Design. Air monitoring data shall be generated by the Project's Air Monitoring Firm and supplied to the Licensed Asbestos Abatement Contractor for any required submittals upon completion of the clearance sampling.

Upon completion of the job, the Licensed Asbestos Abatement Contractor shall provide the Owner's Representative with copies of ODOL inspections, copy of:

1. Asbestos supervisor's daily reports
2. List the names of all Licensed Asbestos Personnel and other site workers, visitors and/or other employees with their valid ODOL License Numbers and valid State ID or valid Driver License Numbers.
3. Any electrical engineers safety instructions (if required)
4. All air monitoring results.
5. Final clearance testing results.
6. Copies of negative pressure recording devices (if required) tapes.
7. All signed asbestos disposal manifests.
8. Copies of All ODOL Inspector Forms and Approval for the Project.

G. Site Security, Electrical Safety and Employee Hazard Communication

All entrances and exits to the regulated work areas within the Armory (i.e. areas marked by asbestos warning signs) and entrance to the central decon shall have an asbestos hazard warning sign attached. During off shift hours, all entryways into the Armory shall be kept locked to restrain unauthorized personnel from entry into the Armory until such time as all the ACM has been removed and clearance sampling has conducted and the final visual inspection has been approved by the ODOL.

A daily log must be maintained by the Licensed Asbestos Abatement Contractor, which includes the names of all Licensed Asbestos Personnel and other site workers, visitors and/or other employees with their valid ODOL License Numbers and valid State ID or valid Driver License Numbers.

The Owner's Representative shall be responsible to see that all required lockout-tagout of electrical lines are preformed in accordance with the OSHA Standards 29 CFR 1910.147 and 29 CFR 1926.417 and applicable Armory Policy. The Licensed Asbestos Contractor will perform lockout-tagout to de-energize all electrical circuits necessary to ensure worker safety. If an electrical engineers statement is required to work around live electrical

circuits, it will be the responsibility of the Licensed Asbestos Contractor to obtain one in accordance with ODOL Rules. Based on the pre-abatement inspection, no live electricity is anticipated to be left on in the abatement work areas located within the Armory.

The Owner's Representative will be responsible for any required hazard communication notifications of all applicable Armory personnel. Access to the abatement work areas, "the regulated work area", is to be kept to licensed personnel. Access to other areas of the Armory is to be authorized DEQ LPD personnel.

VI. PREP FOR ABATEMENT

A. Available Utilities

Special Condition: Some Armories do not have utilities. This may include the supply of potable water for the use in abatement methods, decontamination facility, and wastewater disposal. Also, some armories do not have an active electrical supply hook-up with the local electric utility authority. Those Armories that do not have utilities for electricity, potable water and sewer connections will be identified by the Owner's Representative at the pre-bid site visit or Project walk-through by the DEQ Representative. The Asbestos Contractor will be responsible to provide all utility services in connection with their services for any location that does not have these services. Any fees or cost for the connection and disconnection of these services shall be paid by the Asbestos Contractor as a part of the SOW and are to be included in the cost for the services for these projects.

B. Isolate adjacent areas and install critical barriers.

The Licensed Asbestos Contractor shall prepare the work area(s) for abatement in accordance with the requirements of ODOL regulations OAC 380:50-17-4 with the following modifications.

1. Establish required asbestos warning signs and regulated work area boundaries using asbestos warning tape at the entrances to the rooms and hallways undergoing the removal of the friable ACM.
2. Isolate adjacent areas and install critical barriers to seal off adjacent doorways, windows, heating and air conditioning duct openings and any other openings from the work area.
3. Establish GFI circuits for use throughout prep and abatement.
4. Establish a centralized decon for use during prep work and abatement
5. Place abatement supplies in the Armory rooms.
6. Surround regulated work area with asbestos hazard warning tape.
7. When required, remove the ceiling tiles to access the TSI on plumbing.

8. Perform any pre-cleaning of loose ACM, if necessary, to complete the prep.
9. Hang all required negative pressure glovebags per ODOL Rules.
10. Prepare any rooms requiring abatement with negative pressure glovebags per ODOL Rules 380:50-17-4, except that the decon and load out shall not be attached, as a Central Decon will be used, and negative air machines shall be provided as specified in this Project Design.
11. Provide adequate negative pressure HEPA Filter exhaust machines to establish a negative pressure to any central Decon facility and/or attached decon and loadout facilities.
12. When prep is completed, schedule an ODOL Prep Inspection.

VII. ABATEMENT PROCEDURES

Phasing: The phasing of asbestos removal for glovebag work shall be indicated on Contractor's initial ODOL notification for scheduling purposes. The Friable Asbestos Removal for this Project is to be conducted in one phase.

Notice: The quantity for the containment work exceeds 160 square feet. The Contractor must file a NESHAPS notice with DEQ Air Quality Division, which requires a 10-day notice prior to the start of asbestos removal activities.

During all phases of the work, the building's re-circulating heat and air system will be turned off, and the critical barriers are to be placed over all HVAC supply and return air grilles. These shall be routinely inspected and maintained in a sealed condition by the Licensed Abatement Contractor.

A. Glove Bag Removal

Note: (See Quantities in the Appendix)

Prior to beginning any removal of TSI from the plumbing lines, the Asbestos Abatement Contractor shall have drained the water from all water lines for the associated plumbing and turned off and locked out the water supply valves to the associated plumbing to prevent flooding.

Prior to beginning any removal of TSI from the plumbing lines, the Asbestos Abatement Contractor shall have hung as many negative pressure glovebags as possible for ODOL inspection at the scheduled prep inspection.

The negative pressure glovebag procedure shall conform to the Licensed Asbestos Contractor's written Operation and Maintenance (O&M) Program on file with the ODOL.

As a standard operating procedure, the exposed plumbing line inside each glovebag will be treated with an EPA approved post abatement sealant/ lockdown agent prior to removing the glovebag. The sealant shall be pigmented so as to identify piping treated with the lockdown once the ACM is removed.

The Asbestos Supervisor shall keep a written log of the number of glovebag operations performed at the Armory each day that work is performed.

Once the scheduled glovebag removal is completed, the Licensed Asbestos Contractor shall call for a visual inspection by the ODOL Inspector.

VIII. ENGINEERING CONTROLS

A. Glove Bag Operations

The primary engineering control will consist of the use of wet methods and HEPA vacuums to wet the ACM and maintain a negative pressure within the glovebag.

IX. WORKER PROTECTION

A. Respiratory Protection

Full Face (FF-APR's) – are to be worn by all personnel in the regulated areas during all prep work that has a potential to disturb ACM and during each work shift for the asbestos removal activities until final clearance levels have been met provided the fiber counts remain <0.5 f/cc UCL .

Full Face PAPR's - Full Face PAPR's may be provided to employees who request them or who need to wear one on the basis of a physician's recommendation provided the fiber counts remain <0.5 f/cc UCL.

B. Work Clothing and Associated PPE.

Additional PPE will consist of disposable asbestos worker clothing, protective gloves, hard hats, steel toe rubber boots and disposable work gloves.

All disposable PPE not limited to respirator cartridges, asbestos work clothing, gloves and other disposable items will be disposed of as asbestos waste throughout all phases of work.
Re-use items will be decontaminated using wet methods and HEPA vacuums at the central decontamination unit before they are brought out of the work area (e.g. rubber boots, respirator face piece).

The Abatement Contractor shall have sufficient work clothing and associated PPE on-site so as to supply these items to the Project Designer's Representative and Air Monitoring Firm Representative as needed to assist them in their work.

Workers may need to use a "double suit" protocol whenever they egress from a work area room after conducting abatement work in order to walk to the central decon or loadout through an adjacent hallway.

X. DECONTAMINATION AND WASTE LOAD-OUT

A. Decon and Loadout.

Workers will be provided a three-chamber centralized decontamination facility (Decon).

During glovebag removal, a popup change room is to set up at the perimeter of the egress point for the regulated work area. Workers who exit the work area from the glovebag operations will put on an additional asbestos suit inside the popup change room before exiting the work area to walk to the central decon. Worker Decontamination procedures shall comply with OAC 380:50-15-8.

The central decon will be connected to a HEPA filtered negative pressure device, such as a large HEPA vacuum or low speed negative air machine attached to the dirty side of the central decon. The set-up will allow for the flow of clean air into the clean room and then allow for the air to exhaust through the HEPA filter device attached to the dirty side of the Decon.

This will allow the central decon to have a flow of clean air that is drawn into the clean room and exhausts out through the central decon's dirty room per ODOL requirements OAC 380:50-15-12 (7).

Due to limitations in space, the Licensed Asbestos Contractor shall have some flexibility in the placement of the decontamination facility and loadout.

A containment diagram is provided in the Appendix to the Project Design that give the approximate location for the decon, loadout and negative pressure exhaust equipment.

The Clean Room shall conform to the requirements of OAC 380:50-15-7. When space is limited, the Contractor may request a variance from the ODOL rule for the size and configuration of the centralized or attached decontamination facility.

XI. AIR MONITORING AND CLEARANCE TESTING

Sampling Requirements

A. Background Samples

At least three background air samples will be collected in the Armory asbestos abatement work area prior to the start of any asbestos abatement.

B. Personal Monitoring

1. During Preparation for Abatement

A minimum of 25% of the workers will be monitored during preparation of the containment work area and/or hanging of glovebags if any prep work has the potential to disturb asbestos. Examples of tasks requiring air monitoring during prep work include such tasks as pre-cleaning contaminated fixed and non-fixed items, cleanup of loose ACM on floors or ceiling tiles, and putting up of any critical barriers within arms reach of exposed friable ACM (e.g. TSI where lagging is significantly damaged or missing).

2. During Negative Pressure Glove Bag Removal

100% of the workers will be monitored during the abatement activities for all negative pressure glovebag work. Personal monitoring is required during these phases to assure adequate respirator protection factors are applied in respirator selection.

3. Excursion (30-minute sampling)

One or more 30-minute excursion sample will be collected during the removal of the asbestos for representative work conducted for each work activity that may generate a potential for worker exposure in excess of the OSHA PEL for the 30 minute Excursion Limit or 1.0 f/cc as specified in 29 CFR 1926.1101.

The Contractor may use prior air monitoring for compliance with the requirement to collect an excursion sample whenever the representative sampling was conducted for work conducted in the previous 12 months as specified in 29 CFR 1926.1101(f)(2)(iii)(B). ODOL has no excursion limit requirement, therefore it the Contractor responsibility to see that appropriate excursion sampling is conducted by the Third Party Air Monitoring firm.

C. Area Monitoring

The following area samples shall be collected inside the Armory during each work shift when asbestos removal activities are being conducted.

One inside work area sample will be placed in a representative work area during each day of the glovebag removal work.

.One outside area sample shall be collected adjacent to the work area in the entrance to the Armory's abatement work area (e.g. hallway) and at the Building's Drill Floor Area.

One outside area sample will be collected outside the Clean Room for the Decon Facility for each shift that the Decon is in use.

One area sample will be collected outside the Loadout during the loading out of wastes.

D. Action Level

Fiber counts for outside area samples collected in adjacent spaces which exceed an actual fiber concentration of >0.01 fibers/cc, shall be cause to stop work and evaluate the need to change procedures and perform necessary cleanup. A representative set of such samples will be re-analyzed by the NIOSH 7402 TEM method to establish a confirmed level of asbestos fibers. If it is determined that a representative number of samples tested using the NIOSH 7402 procedure exceed the 0.01 fibers per cc then all the work will stop and ODOL will be notified before any work is allowed to continue. Those samples, which are B.D.L., due to insufficient sample volume or sampling time, will not be considered as exceeding this action level.

E. Clearance Testing

Clearance testing containments or modified containments will consist of PCM samples collected for a minimum of 6 hours and 3000 liters. A minimum of one clearance sample shall be collected inside each room or

Hallway of the Armory where asbestos removal activities have taken place.

The sampling duration can be proportionally reduced to 3 hours by doubling the number of pumps used as stated in DOL rules.

The Clearance Testing can be scheduled once a visual inspection has been approved by ODOL.

The Clearance Criteria will be 0.01-fibers/cc UCL. NIOSH 7402 TEM Analysis will be used to confirm asbestos levels if the PCM clearances exceed 0.01-fibers/cc UCL. If they exceed the criteria, the Licensed Asbestos Contractor will contact ODOL, reclean the work areas and schedule a re-test for clearance. This process will be repeated until the clearance criteria are met or as approved by ODOL.

Whenever the Armory is governed by an AHERA Asbestos Management Plan of a Local Educational Authority (LEA) for school activities grades K-12, the Asbestos Abatement Contractor's Third Party Air Monitoring Firm shall conduct the Clearance Testing using an AHERA protocol with Transmission Electron Microscopy (TEM) analysis by allowing for the collection of a total of 5 PCM samples per each response action location/phase of work for a minimum volume of 1200 liters (i.e. AHERA requirements).

F. Laboratory Requirements

PCM Asbestos Fiber Analysis - Marshall Environmental Management, Inc.

All routine and periodic asbestos air monitoring, performed during this response action, will be performed by the Third Party Air Monitoring Firm hired by the Licensed Asbestos Abatement Contractor. The Third Party Air Monitoring Firm shall be identified on the ODOL and NESHAPS Notification Forms.

Notice: It is the Contractors Responsibility to include all costs for Third Party Air Monitoring in the DCS Bid Amount. The DEQ LPD is not responsible for providing any Third Party or other Air Monitoring as a part of any of the Scope of Work for the Project Awarded.

Air monitoring personnel will have an ODOL Asbestos Worker category and/or Asbestos Inspector Licenses where applicable. Air monitoring staff and lab analysts will have completed the NIOSH 582 equivalency course for sampling and analysis of airborne asbestos. The Lab or air monitoring firm shall be a participant in the AIHA Proficiency Analytical Testing Program (PAT) in accordance with ODOL requirements.

PLM – Bulk Asbestos Analysis - Marshall Environmental Management, Inc.

Bulk Asbestos samples will be analyzed in accordance with EPA methods. Bulk Asbestos analysis labs shall be a participant in the AIHA/RTI Bulk Asbestos Proficiency Analytical Testing Program (PAT) or NVLAP Lab.

TEM – Transmission Electron Microscopy Analysis – QUANTEM LABS, OKC

Transmission Electron Microscope (TEM) analysis of asbestos air samples, when PCM results exceed 0.01 f/cc UCL, or when AHERA Protocol Clearance sampling is conducted will be performed by Quantem Labs of Oklahoma City.

XII. LOAD-OUT AND DISPOSAL

Double-bagged asbestos waste will be brought to an exit location at the Armory. Waste generator labels will be placed on each bag. Then each bag will be transported by the workers to the prepared storage unit, waste trailer or roll-off bin. Work personal air monitoring and an area air sample, in the vicinity of the loadout, shall be performed during each loadout activity.

Waste manifests will be used to track the quantity of waste to the disposal site on the NESHAPS Notice.

XIII. SAFETY ISSUES, ELECTRICAL, FIRE AND EMERGENCY EGRESS

No work will be at performed without adequate lighting. The work area will be clearly illuminated by droplights, light stands, or equivalent lighting, if the ambient room light does not properly illuminate the work area through the polyethylene sheeting used for critical barriers over the windows.

All work will be performed using a buddy system.

All power to the area is to be supplied by the GFI power source.

All exit routes from the Armory building work areas will be clearly marked with a sign and red arrow designating the exit path. Emergency lights will be in place, where necessary, in all areas that are not properly illuminated so as to assist in the identification of the exit locations.

A minimum of three fire extinguishers will be on site during all phases of work. The fire extinguishers shall be a #10 A:B:C rated.

A minimum of one fire extinguisher will be in the glovebag work area.

A minimum of one fire extinguisher shall be place the in the clean room of the Decon facility.

XIV. REQUESTS FOR VARIANCES

Request for variances must be submitted to both the Licensed Project Designer and ODOL Inspector.

A variance from starting the glovebag work in Type "C" supplied air is requested. The Contractor may start the initial shift of work in Powered Air Purifying Respirators (PAFP) and then down grade to full face APR's once a full shift of air monitoring shows asbestos fiber counts are below <0.50 fibers/cc UCL. Alternatively, the Asbestos Abatement Contractor may submit to ODOL a request to start the glovebag and/or containment work in full face APR's based on air monitoring records from previous projects where similar work practices maintained the fiber count exposure level below <0.50 fiber/cc UCL.

No other variances were anticipated at the Pre-abatement Bid Conference.
Removal of Asbestos in Soil
This Project does not require the removal of any soils contaminated with ACM.

XV. SPECIAL MATERIALS OR METHODS

The Armory location selected for this asbestos abatement project is to be unoccupied during the asbestos removal work. No special materials or methods for accomplishing the removal are anticipated. Requests for the use of any special materials or methods shall be coordinated with the Licensed Project Designer and submitted as a Project Design Amendment for consideration by the ODOL.

APPENDIX

Armory Floor Plan Diagrams

Armory Containment Area Diagram

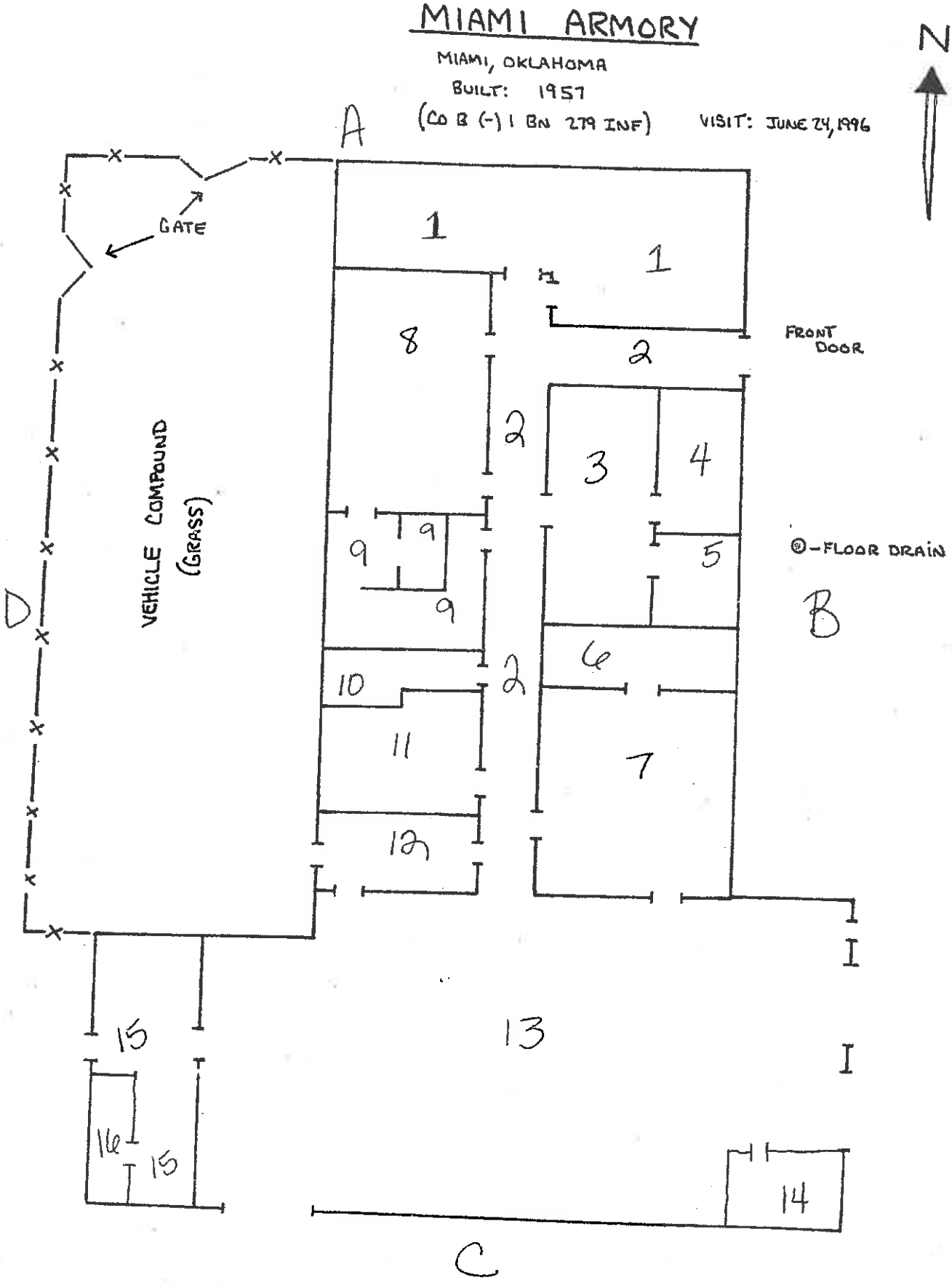
Armory Estimated Quantities of ACM

Asbestos Inspection Report and Bulk Asbestos Test Results

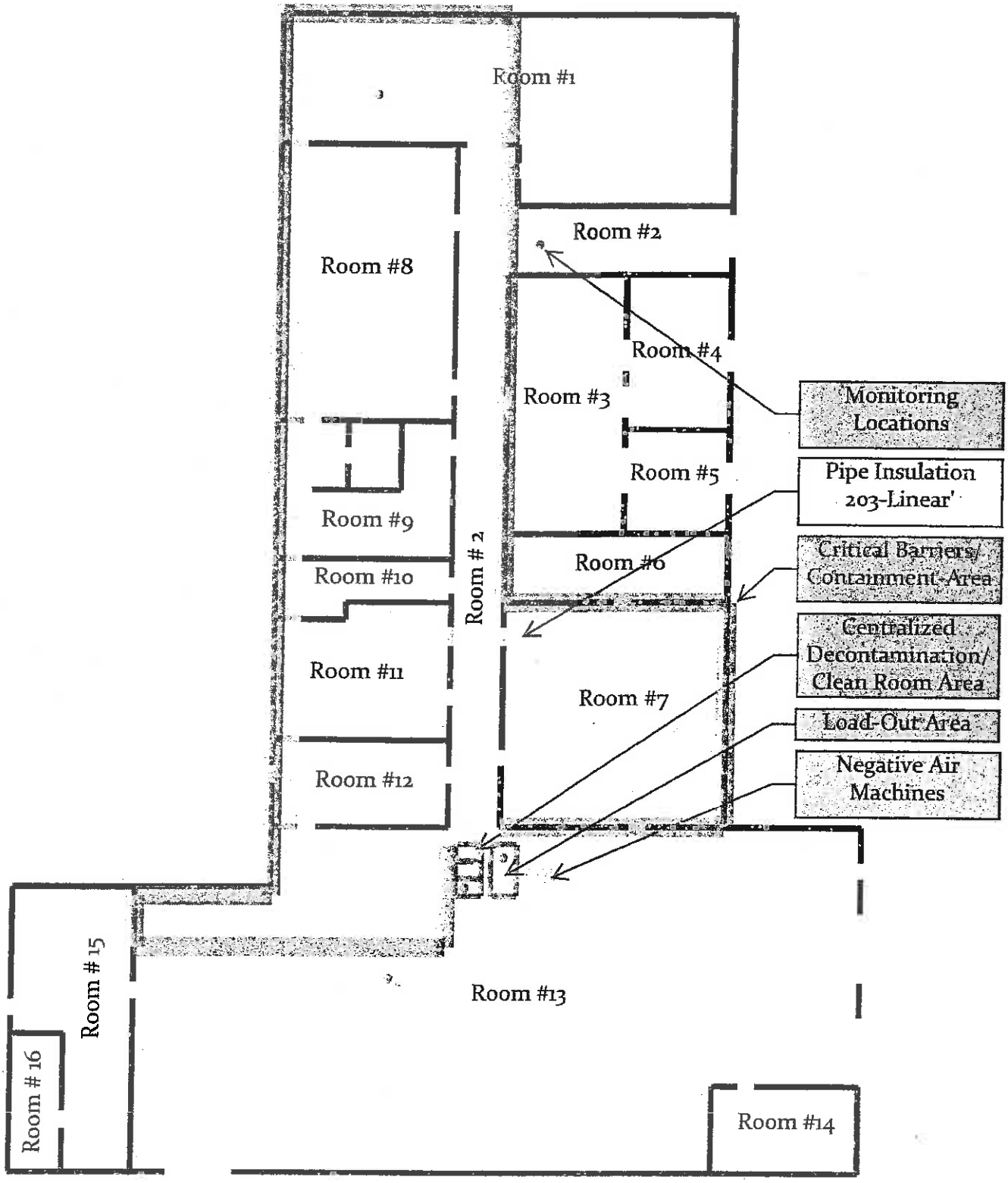
Project Designer License

MIAMI ARMORY

MIAMI, OKLAHOMA
BUILT: 1957
(CO B (-) 1 BN 279 INF)
VISIT: JUNE 24, 1996



Miami Armory
Project Design



Oklahoma Department of Environmental Quality
Land Protection Division
Miami ARMORY
Cost Estimate for Abatement

Asbestos Inspection by:
Marshall Environmental Management, Inc.
Summary of Estimated Quantities of ACM
Date of Inspection 07-07-2009

Location	Type of ACM	Category	Estimated Bid Quantities	Units	Unit Price	Abatement Est.	Comments
Contractor's Mobilization Fee			1	N/A	$ 500.00	$ 500.00	
Inside Armory							
TSI on Plumbing							
Room 8	TSI	TSI		Linear Feet			40% Chrysotile
Room 10	TSI	TSI		Linear Feet			40% Chrysotile
Room 12	TSI	TSI		Linear Feet			40% Chrysotile
Total Est. Quantity		TSI	203	Linear Feet			40% Chrysotile
Total TSI Quantities	TSI	All of the Plumbing Lines (Straight Runs and Mud Packs)	208	Total Est. Linear Feet of TSI			
Total TSI Costs:		Glove Bags	75	Glove Bag	$ 65.00	$ 4,875.00	Approximately 75 Glove Bags (Ave. 2-3 LF each) Negative Pressure Glovebag Operation Per ODOL approved Project Design
Floor Tiles & Mastic							
Rooms 3, 4 & 5	Misc.	Floor Tile/Mastic	596	Square Feet	$ 2.05	$ 1,221.80	Asbestos Floor Tile & Asbestos Mastic per Resilient Floor Tile Institute Procedures with Neg. Exposure Assessment
Misc. Materials							
Non-Friable							
Exhaust Flue/Tar							
Room 1	Misc.	Cement Asbestos/Tar	1	Glovebag	$ 65.00	$ 65.00	Glovebag Tar on Flue
Window							
Exterior Caulking	Misc.	Cement Asbestos	37	Windows & Frames	$ 50.00	$ 1,850.00	Remove and Dispose per DEQ LPD Requirements
Waste Disposal Fees	All Wastes		1	1	$ 1,000.00	$ 1,000.00	Includes the disposal of all Asbestos Wastes, both Friable and Non-Friable and All Contractor Wastes
DOL Required Air Monitoring	N/A	Air Monitoring	4	Shifts	$ 442.00	$ 1,768.00	100% Glove Bag Personal Monitoring for Clearances, Negative Exposure Assessment on Floor Tile, One Clearance Sample per Room Recommended by Project Designer.
Contractor's De-Mobilization Fee			1	N/A	$ 500.00	$ 500.00	
Total Abatement Estimate						**$ 11,779.80**	

FINAL ABATEMENT REPORTS

CRYSTAL CREEK
ENVIRONMENTAL SOLUTIONS, INC.

Lead Remediation 11069

Lead Remediation for Miami Armory

830 D Street Southwest
Miami, Oklahoma 74354

Report Date: January 4th, 2012

ENVIRONMENTAL ENGINEERING AND CONSTRUCTION
1401 CORNELL PARKWAY, SUITE 100 • OKLAHOMA CITY, OKLAHOMA 73105
PH: (405) 942-2233 • FAX: (405) 942-2282 • WWW.CRYSTALCREEKINC.COM

SUMMARY:

Crystal Creek Environmental Solutions, Inc. (Crystal Creek) preformed Lead Remediation under contract with the Department of Central Services and with oversight from the Oklahoma Department of Environmental Quality at the Miami National Guard Armory. The purpose for the remediation was to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms or office space. The only change from the scope of work was leaving one non lead-based paint exterior door frame and replacing only the lead-based paint door slab. The door frame has an attached window and removal of door frame without damaging the window was not possible.

All remediation efforts were preformed in accordance with the Guidelines for Rehabilitation and Conversion of Indoor Firing Ranges, November 3, 2006, Department of the Army and Air Force, National Guard Bureau and in accordance with OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for lead based paint abatement, indoor firing range remediation and lead dust remediation.

All work was preformed by skilled, Licensed Lead Based Paint Workers, licensed by the State of Oklahoma.

LOCATIONS:

Location:

830 D Street Southwest, Miami, Oklahoma 74354

Table of Contents

SECTION 1

Contract Documents
And
Change Orders

State of Oklahoma
Department of Central Services
Construction and Properties

NOTICE TO PROCEED / WORK ORDER

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Notice to proceed date: **April 5, 2011**

In accordance with the Agreement or Purchase Order dated: **March 28, 2011**

Between the Vendor's client identified as the Owner: **The State of Oklahoma,**
acting through the Department of Central Services,
Construction and Properties Division on behalf of the
Oklahoma Department of Environmental Quality
707 N. Robinson
Oklahoma City, OK 73102

and the Vendor: **Crystal Creek Environmental Solutions**
1401 Cornell Parkway
Oklahoma City, OK 73108-1811

For the following Project: DCS Project Number: **11069** *(Please, reference on all invoices)*
DCS Purchase Order Number: **PO#2929014103** *(Please, reference on all invoices)*
Project Name: Miami Armory Lead-Based Paint Remediation

1. Authorization is given to proceed with the **Environmental Remediation Services** Project.
2. Work Periods set forth in the agreement or purchase order begin upon receipt of this Notice to Proceed / Work Order.
3. Contract Time: **120 days**
4. Contract Sum: **$79,479.00**
5. Completion Date: **August 4, 2011**

Distribution:

- ☒ Contractor
- ☐ Consultant, If Applicable
- ☒ Using Agency
- ☒ CAP Project Manager
- ☒ CAP Project File

Purchase Order

Dispatch via Print

Purchase Order	Date	Revision	Page
2929014103	03/28/2011		1
Payment Terms	**Freight Terms**		**Ship Via**
0 Days	Free on board at Destination		Common
Buyer	**Phone**		**Currency**
Sheila Killingsworth (58 405/522-0047			USD

Dept of Environmental Quality
OK DEPT OF ENVIRONMENTAL QUALITY
SHIPPING & RECEIVING
707 N ROBINSON
OKLAHOMA CITY OK 73102

Ship To: OK DEPT OF ENVIRONMENTAL QUALITY
SHIPPING & RECEIVING
707 N ROBINSON
OKLAHOMA CITY OK 73102

Vendor: 0000237377
CRYSTAL CREEK ENVIRONMENTAL SOLUTIONS
1401 CORNELL PARKWAY
OKLAHOMA CITY OK 73108-1811

Bill To: OK DEPT OF ENVIRONMENTAL QUALITY
ADMINISTRATIVE SERVICES
PO BOX 1677
OKLAHOMA CITY OK 73101-1677

Tax Exempt? N **Tax Exempt ID:**

Line-Sch	Item Id	Description	Quantity	UOM	PO Price	Extended Amt	Due Date
1- 1	1000002278	ENV REMEDIATION SERVICES:Task XXV Per Diem Unit Cost Rate~Environmental Remediation Services. Furnish All Labor, Materials & Equipment Necessary Task XXV. Per diem unit cost rate	1.0000	SUM	79,479.0000	79,479.00	03/28/2011

FIRST PHASE OF LEAD REMEDIATION FOR THE MIAMI ARMORY WHICH INCLUDES REPLACEMENT OF WINDOWS, LEAD-BASED PAINT REMOVAL ON DOOR FRAMES, REPLACEMENT OF DOORS AND LEAD-BASED PAINT ABATEMENT OF NON-FRICTION SURFACES SUCH AS: OVERHEAD DOORS, OVERHEAD DOOR FRAMES, WALLS, DOOR LINTELS AND WINDOW LINTELS.

PRICE AND VENDOR TO BE DETERMINED AFTER BIDS RECEIVED BY DCS.

Total PO Amount 79,479.00

COMMENTS:

FY 2011

PROJECT: SITE CLEANUP ASSISTANCE PROGRAM - MIAMI ARMORY LEAD-BASED PAINT REMEDIATION BIDDING

JUSTIFICATION: UNDER THE SITE CLEANUP ASSISTANCE PROGRAM THE DEQ WILL HIRE A LICENSED PROFESSIONAL TO ABATE LEAD-BASED PAINT AND REPLACE WINDOWS AND DOORS CONTAINING LEAD-BASED PAINT IN THE MIAMI ARMORY.

(FOR AGENCY USE ONLY)

CONTACT: KAREN RUMSEY/ASD/(405)702-1168
MARY JOHNSON/LPD/(405)702-5100

DEQ IS AN EQUAL OPPORTUNITY EMPLOYER.

FUNDING: 493

REQUISITION #2920003026 - PLEASE RETURN PO TO MARY JOHNSON

9/20/2010

DCS#11069
REBEKAH RICHARDSON-PROJECT MANAGER
405-522-0050

Authorized Signature

State of Oklahoma
Department of Central Services
Construction and Properties Division

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AGREEMENT made as of the 22nd day of February, 2011.

BETWEEN the Owner: State of Oklahoma
Construction and Properties Division
Department of Central Services
Will Rogers Office Building
2401 N. Lincoln, Suite 106
Oklahoma City, OK 73152-3448

On behalf of: **Oklahoma Department of Environmental Quality**
702 N. Robinson
Oklahoma City, OK 73102

And the Contractor: **Crystal Creek Environmental**
1401 Cornell Parkway
Oklahoma City, OK 73108

The Project is: **Miami Armory Lead-Base Paint Remediation**
Miami, OK

The Consultant is: **N/A**

The Owner and the Contractor agree as follows:

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

3.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.

3.2 The Contract Time shall be measured from the date of Work Order.

3.3 The Contractor shall achieve Substantial Completion of the entire Work not later than 120 days from the date of commencement, or as follows: **None**, subject to adjustments of this Contract Time as provided in the Contract Documents.

ARTICLE 4 CONTRACT SUM

4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be **Seventy Nine Thousand, Four Hundred Seventy-Nine Dollars No Cents** $ **79,479.00**, subject to additions and deductions as provided in the Contract Documents.

4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner. **NONE**

4.3 Options. The following options shall remain available for 30 days after the contract date. After the expiration date, the cost of the option may be negotiated by the Owner and Contractor. **NONE**

4.4 Unit prices, if any, are as follows: **NONE**

ARTICLE 5 PAYMENTS

5.1 PROGRESS PAYMENTS

5.1.1 The Contractor shall follow the current Rules and Procedures established by the Construction and Properties Division of the Department of Central Services, State of Oklahoma to ensure compliance with state statutes.

5.1.2 Based upon Applications for Payment submitted to the Consultant by the Contractor and Certificates for Payment issued by the Consultant, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

5.1.3 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month or as follows: (Insert other date)

5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Consultant may require. This schedule, unless objected to by the Consultant, shall be used as a basis for reviewing the Contractor's Application for Payment.

5.1.5 Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

5.1.6 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

.1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedules of values, less retainage of five percent (5%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Subparagraph 7.3.8 of CAP Document A201-General Conditions;

.2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of five percent (5%).

.3 Subtract the aggregate of previous payments made by the Owner; and

.4 Subtract amounts, if any, for which the Consultant has withheld or nullified a Certificate for Payment as provided in Paragraph 9.5 of CAP Document A201-1997.

5.1.7 The progress payment amount determined in accordance with Subparagraph 5.1.6 shall be further modified under the following circumstances:

.1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Consultant and Owner shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and (stat other requirements if any).

.2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Subparagraph 9.10.3 of CAP Document A201-General Conditions.

5.1.8 Reduction or limitation of retainage, if any, shall be as follows:

Refer to CAP Form A201 General Conditions Section 9.3.1.1.

5.2 FINAL PAYMENT

5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

.1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Subparagraph 12.2.2 of CAP Document A201-General Conditions, and to satisfy other requirements, if any, which extend beyond final payment; and

.2 a final Certificate for Payment has been issued by the Consultant and accepted by the Owner.

5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Consultant's final Certificate for Payment.

ARTICLE 6 TERMINATION OR SUSPENSION

6.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of CAP Document A201-General Conditions.

6.2 The Work may be suspended by the Owner as provided in Article 14 of CAP Document A201-General Conditions.

ARTICLE 7 MISCELLANEOUS PROVISIONS

7.1 Where reference is made in this Agreement to a provision of CAP Document A201-General Conditions or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Document.

7.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the legal state rate.

7.3 The Owner's representative is: **John W. Morrison AIA**
State Construction Administrator
Construction and Properties Division
Department of Central Services
P. O. Box 53448
Oklahoma City, OK 73152-3448

7.4 The Contractor's representative is: **Mike Jenkinson.**

7.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other party.

7.6 AUDITS AND RECORDS CLAUSE: As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form. In accepting any contract with the State, the Contractor agrees any pertinent State or Federal agency will have the right to examine and audit all records relevant to execution of the resultant contract. The contractor is required to retain all records relative to this contract for the duration of the contract term and for a period of three years following completion and/or termination of the contract. If an audit, litigation, or other action involving such records are started before the end of the three year period, the records are required to be maintained for three years from the date that all issues arising out of the action are resolved or until the end of the three year retention period, whichever is later.

7.7 The Contractor certifies that it and all proposed subcontractors, whether known or unknown at the time this contract is executed or awarded, are in compliance with 25 O.S. §1313 and participate in the Status Verification System. The Status Verification System is defined in 25 O.S. §1312 and includes but is not limited to the free Employee Verification Program (E-Verify) available at www.dhs.gov/E-Verify.

7.8 Other provisions: **None**

ARTICLE 8 ENUMERATION OF CONTRACT DOCUMENTS

8.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

8.1.1 The Agreement is this executed edition of the Standard Form of Agreement Between Owner and Contractor, CAP Document A101.

8.1.2 The General Conditions are the current edition of the General Conditions of the Contract for Construction, CAP Document A201, as incorporated in the Project Manual.

8.1.3 The Supplementary and other Conditions of the Contract are those contained in the Project Manual dated and are as follows:

Document	Title	Date
As specified		

8.1.4 The Specifications are those contained in the Project Manual dated as in Subparagraph 8.1.3, and are as follows:

Number	Title	Date
As specified		

8.1.5 The Drawings are as follows, and are dated unless a different date is shown below:

Number	Title	Date
As specified		

8.1.6 The Addenda, if any, are as follows:

Number	Date	Pages
(1) One	**December 16, 2010**	**(8) Pages**

8.1.7 Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 8.

8.1.8 Other documents, if any, forming part of the Contract Documents are as follows:

This agreement is entered into as of the day and year first written above and is executed in at least three original copies, of which one is to be delivered to the Contractor, one to the Consultant for use in the administration of the Contract, and the remainder to the Owner.

This Agreement entered into as of the day and year written above.

STATE OF OKLAHOMA
DEPARTMENT OF CENTRAL SERVICES

Owner (Signature)

John W. Morrison AIA
State Construction Administrator
Construction and Properties Division

CRYSTAL CREEK ENVIRONMENTAL
OKLAHOMA CITY, OKLAHOMA

Contractor (Signature)

Michael Jenkinson, President
(Printed name and title) FEI # 73-1462615

The Using Agency certifies that funds are available and dedicated to complete the contract sums stated in this Contract. The Using Agency agrees to pay all project related costs including but not limited to work related to unknown site conditions, remediation of discovered environmental conditions, legal expenses, judgments and any reasonable project related expense.

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Using Agency Authorized Representative (Signature)

WENDY CAPERTON, DIR. ADMIN. SERV. DIV
(Printed name and title)

State of Oklahoma
Department of Central Services
Construction and Properties Division Bond #OKC607432

Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable. This document may not be altered or modified.

CONTRACTOR (Name and Address):
Environmental Solutions Specialists, Inc. &/or
Crystal Creek Environmental Solutions, Inc.
1401 Cornell Parkway, #100
Oklahoma City, OK 73108

SURETY (Name and Principal Place of Business):
American Safety Casualty Insurance Company
100 Galleria Parkway SE, Suite 700
Atlanta GA 30339

OWNER: Construction and Properties Division
Department of Central Services
State of Oklahoma
P.O. Box 53448
Oklahoma City, OK. 73152-3448

CONSTRUCTION CONTRACT

Date: February 22nd, 2011

Amount: $79,479.00

Description (Name and Location): Miami Armory Lead Base Paint Remediation, Miami OK

BOND:

Date (Not earlier than Construction Contract Date): February 24th, 2011

Amount: $79,479.00

CONTRACTOR (Representative):

Signature:

Name and Title: Mike Jenkinson, President

SURETY (Representative):

Signature:

Name and Title: John Gipson, Attorney-in-fact

(FOR INFORMATION ONLY-Name, Address and Telephone)

AGENT or BROKER:
The Insurance Center Agency, Inc.
709 Wall St
Norman, OK 73069

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

State of Oklahoma
Department of Central Services
Construction and Properties Division

Bond #OKC607432

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable. This document may not be altered or modified.

CONTRACTOR (Name and Address):
Environmental Solutions Specialists, Inc. &/or
Crystal Creek Environmental Solutions, Inc.
1401 Cornell Parkway #100
Oklahoma City, OK 73108

SURETY (Name and Principal Place of Business):
American Safety Casualty Insurance Company
100 Galleria Parkway SE, Suite 700
Atlanta GA 30339

OWNER: Construction and Properties Division
Department of Central Services
State of Oklahoma
P.O. Box 53448
Oklahoma City, OK. 73152-3448

CONSTRUCTION CONTRACT

Date: February 22nd, 2011

Amount: $79,479.00

Description (Name and Location): Miami Armory Lead Base Paint Remediation, Miami OK

BOND:

Date (Not earlier than Construction Contract Date): February 24th, 2011

Amount: $79,479.00

CONTRACTOR (Representative):

Signature:

Name and Title: Mike Jenkinson, President

SURETY (Representative):

Signature:

Name and Title: John Gipson, Attorney-in-fact

(FOR INFORMATION ONLY-Name, Address and Telephone)

AGENT or BROKER:
The Insurance Center Agency, Inc.
709 Wall St
Norman, OK 73069

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

State of Oklahoma
Department of Central Services
Construction and Properties Division

Bond #OKC607432

Statutory Defect Bond

61 O.S. 1991, Section 113 (B)(3)

KNOW ALL MEN BY THESE PRESENTS:

That Environmental Solutions Specialists, Inc. &/or Crystal Creek Environmental Solutions, Inc., as Principal

and American Safety Casualty Insurance Company a corporation organized under the laws of the State

of Georgia and authorized to transact business in the State of Oklahoma, as Surety, are held and firmly bound unto the State of Oklahoma in the penal sum of Seventy-Nine Thousand Four Hundred Seventy-Nine and no/cents Dollars ($ 79,479.00) in lawful money of the United States of America, said sum being equal to One Hundred percent (100%) of the Contract price, for the payment of which, well and truly to be made, we bind ourselves and each of us, our heirs, executors, administrators, trustees, successors, and assigns, jointly and severally, firmly by these presents:

The condition of this obligation is such that:

WHEREAS, said Principal entered into a written contract with the State of Oklahoma, dated February 22nd, XX2011 for Miami Armory Lead Base Paint Remediation, Miami OK

DCS Project Number 11069

all in compliance with the plans and specifications therefore, made a part of said contract and on file in the Department of Central Services, Construction and Properties Division, 2401 N. Lincoln Blvd., Suite 106, Oklahoma City, Oklahoma 73105.

NOW, THEREFORE, if said Principal shall pay or cause to be paid to the State of Oklahoma all damage, loss, and expense which may result by reason of defective materials and/or workmanship in connection with said work, occurring within a period of one (1) year from and after the acceptance of said project by the State of Oklahoma; then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is expressly agreed and understood by the parties hereto that no changes or alterations in said Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney- in-fact, duly authorized so to do, the day and year set forth below.

DATED this 24th day of February, 20 11.

ATTEST: _____

Principal: Environmental Solutions Specialists, Inc. &/or Crystal Creek Environmental Solutions, Inc.

By: _____

Mike Jenkinson (Title) President

Surety: American Safety Casualty Insurance Company (Attorney-in-fact)

By: _____

Name: John Gipson

Address: 709 Wall St

City: Norman State: OK

Telephone: (405) 928-7539

AMERICAN SAFETY INSURANCE

NUMBER

OKC607432

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that American Safety Casualty Insurance Company has made, constituted and appointed, and by these presents does make, constitute and appoints

John Cate, Harold Stockstill, Dee Byles, John Gipson, Christy Walck of Norman, OK

its true and lawful attorney-in-fact, for it and its name, place, and stead to execute on behalf of the said Company, as surety, bonds, undertaking and contracts of suretyship to be given to

ALL OBLIGEES

provided that no bond or undertaking or contract of suretyship executed under this authority shall exceed in amount the sum of

*** TWO MILLION*** ($2,000,000.00) DOLLARS***

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company of the 6th day of August, 2009.

RESOLVED, that the President in conjunction with the Secretary or any Assistant Secretary may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the Company, to execute and deliver and affix the seal of the Company to bonds, undertakings, recognizances, and suretyship obligations of all kinds, and said officers may remove any such attorney-in-fact or agent and revoke any power of attorney previously granted to such persons.

RESOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the company when: (i) when signed by the President or any Vice-President and attested and sealed (if a seal is required) by any Secretary or Assistant Secretary or (ii) when signed by the President or any Vice-President or Secretary or Assistant Secretary, and counter-signed and sealed (if a seal is required) by a duly authorized attorney-in-fact or agent; or (iii) when duly executed and sealed (if a seal is required) by one or more attorney-in-fact or agents pursuant to and within the limits of the authority evidenced by the power of attorney issued by the Company to such person or persons.

RESOLVED FURTHER, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company; and such signature and seal when so used shall have the same force and effects as though manually affixed.

IN WITNESS WHEREOF, American Safety Casualty Insurance Company has caused its official seal to be hereunto affixed, and these presents to be signed by its President and attested by its Secretary this 6th day of August, 2009.

Attest:

Ambuj Jain

SEAL 1973

Joseph D. Scollo, Jr.

STATE OF GEORGIA }

COUNTY OF COBB }

On this 6th day of August, 2009, before me personally came Joseph D. Scollo, Jr., to me known, who, being by me duly sworn, did depose and say that he is the President of American Safety Casualty Insurance Company, the corporation described in and which executed the above instrument; that he knows the seal of the said corporation; that the seal affixed to the said instrument is such corporate seal; that is was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.

JAMI BAILEY
Notary Public, Hall Co., GA
My Commission Expires Aug. 13, 2012

Jami Bailey, Notary Public

I, the undersigned, Secretary of American Safety Casualty Insurance Company, an Oklahoma corporation, DO HEREBY CERTIFY, that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney, is now in force.

Signed and sealed in the City of Atlanta, in the State of Georgia. Dated this 24th day of February, 2011.

SEAL 1973

Ambuj Jain

ORIGINALS OF THIS POWER OF ATTORNEY ARE PRINTED WITH RED NUMERICAL NUMBERS
DUPLICATES SHALL HAVE THE SAME FORCE AND EFFECT AS AN ORIGINAL ONLY WHEN ISSUED IN CONJUNCTION WITH THE ORIGINAL

State of Oklahoma
Department of Central Services
Construction and Properties Division

Non-Collusion Affidavit

The statement below must be signed and notarized before this contract will become effective

Michael Jenkinson, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by Contractor to submit the above Contract to the State of Oklahoma.

Affiant further states that contractor has not paid, given, or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma any money or other thing of value, either directly or indirectly, in the procuring of the Contract.

Crystal Creek Env. Sol.
Contractor

Michael D. Jenkinson
(Printed name and title) President

Subscribed and sworn to before me this 11th day of March, 2011.

GINA L. BAKER
Notary Public
State of Oklahoma
Commission # 10007752 Expires 09/17/14

Gina L. Baker
Notarial Officer

Commission Number: 10007752

My Commission Expires: 9/17/14

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/15/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

The Insurance Center Agency, Inc.
709 Wall Street

Norman OK 73069-6303

CONTACT NAME: Dee Lyles CISR
PHONE (A/C, No, Ext): (405) 928-7533 FAX (A/C, No): (405) 928-7534
E-MAIL ADDRESS: dee@ticokc.com
PRODUCER CUSTOMER ID #: 00020287

INSURED

Environmental Solutions Specialists, Inc. and
Crystal Creek Environmental Solutions, Inc.
1401 Cornell Parkway #100
Oklahoma City OK 73108

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: America Safety Indemnity Comp	
INSURER B: CompSource Oklahoma	
INSURER C: Hanover	
INSURER D:	
INSURER E:	
INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X Contractor Pollution GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC			ENV013101-10-05	4/3/2010	4/3/2011	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 50,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DEDUCTIBLE X RETENTION $ 10,000			ENU019014-10-03	4/3/2010	4/3/2011	EACH OCCURRENCE AGGREGATE	$ 4,000,000 $ 4,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		01327788 11 1	3/1/2011	3/1/2012	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	Professional Liability			ENV013101-10-05	4/3/2010	4/3/2011	Limit	$1,000,000
C	Rented/Leased Equipment			IHT2908731-06	03/10/11	03/10/12	Limit	$300,000

RECEIVED
MAR 16 2011
Department of Central Services
Construction & Properties

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Microbiological Decontamination and Microbiological Contamination consulting coverage is on a claims made form with each having a $5,000 per claim SIR. General Liability has a $5,000 deductible per occurrence. Professional liability is on a claims made form and has a $5,000 deductible per claim.

CERTIFICATE HOLDER

sheila.killingsworth@dcs.s

Department of Central Services
Construction & Properties Division
Attn: Sheila Killingsworth
P O Box 53448
Oklahoma City, OK 73152-3448

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

John Gipson/ADM

Commercial Certificate of Insurance

FARMERS

Agency Name & Address
- Monty Moore Agency
- 323 West Gray
- Norman, OK 73069
- 405 321 0153

Issue Date (MM/DD/YY) 03/01/2011

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policies shown below.

St. 08 Dist. 41 Agent 381

Insured Name & Address
- Crystal Creek Enviromental Solutions
- 1401 Cornell Parkway Suite 100
- Oklahoma City, OK 73108

Companies Providing Coverage:

Company Letter A Truck Insurance Exchange
Company Letter B Farmers Insurance Exchange
Company Letter C Mid-Century Insurance Company
Company Letter D

Coverages

This is to certify that the policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. Limits shown may have been reduced by paid claims.

Co. Ltr.	Type of Insurance	Policy Number	Policy Effective Date (MM/DD/YY)	Policy Expiration Date (MM/DD/YY)	Policy Limits	
	General Liability Commercial General Liability - Occurrence Version Contractual - Incidental Only Owners & Contractors Prot.	RECEIVED MAR 01 2011 Department of Central Services Construction & Properties			General Aggregate Products-Comp/OPS Aggregate Personal & Advertising Injury Each Occurrence Fire Damage (Any one fire) Medical Expense (Any one person)	$ $ $ $ $ $
A	Automobile Liability All Owned Commercial Autos Scheduled Autos Hired Autos Non-Owned Autos Garage Liability	60103 37 50	10/19/10	10/19/11	Combined Single Limit Bodily Injury (Per person) Bodily Injury (Per accident) Property Damage Garage Aggregate	$ 1,000,000 $ $ $ $
	Umbrella Liability				Limit	$
	Workers' Compensation and Employers' Liability				Statutory Each Accident Disease - Each Employee Disease - Policy Limit	 $ $ $

Description of Operations/Vehicles/Restrictions/Special Items:

Certificate Holder

Name & Address
- State of Oklahoma, Construction
- & Properties Division
- Department of Central Serv.
- Will Rogers Office Bldg.
- 2401 N Lincoln Blvd #106
- OKC, OK 73152

Cancellation

Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 30 days written notice to the certificate holder named to the left, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives.

Authorized Representative

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/31/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Insurance Center Agency, Inc. 709 Wall Street Norman OK 73069-6303	CONTACT NAME: Dee Lyles CISR PHONE (A/C, No, Ext): (405) 928-7533 FAX (A/C, No): (405) 928-7534 E-MAIL ADDRESS: dee@ticokc.com PRODUCER CUSTOMER ID #: 00020287
INSURED Environmental Solutions Specialists, Inc. and Crystal Creek Environmental Solutions, Inc. 1401 Cornell Parkway #100 Oklahoma City OK 73108	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: America Safety Indemnity Comp INSURER B: CompSource Oklahoma INSURER C: Hanover INSURER D: INSURER E: INSURER F:

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X Contractor Pollution GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC			ENV013101-11-06	4/3/2011	4/3/2012	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 50,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DEDUCTIBLE X RETENTION $ 10,000			ENU019014-11-04	4/3/2011	4/3/2012	EACH OCCURRENCE AGGREGATE	$ 4,000,000 $ 4,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		01327788 11 1	3/1/2011	3/1/2012	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	Professional Liability			ENV013101-11-06	4/3/2011	4/3/2012	Limit	$1,000,000
C	Rented/Leased Equipment			IHT2908731-06	3/10/11	3/10/12	Limit	$300,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

RE: DCS#11069

Microbiological Decontamination and Microbiological Contamination consulting coverage is on a claims made form with each having a $5,000 per claim SIR. General Liability has a $5,000 deductible per occurrence. Professional liability is on a claims made form and has a $5,000 deductible per claim.

CERTIFICATE HOLDER

sheila_killingsworth@dcs.s

State of Oklahoma
Department of Central Services
Attn: Sheila Killingsworth
PO Box 53448
Oklahoma City, OK 73152

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

John Gipson/ADM

SECTION 2

Statement of Work
And
Addendums

SECTION 3

Miami Photos

Miami Armory

Overhead door, door frames and guard posts to be wet scrape and paint.

Lead-based paint door and frame to be replaced.

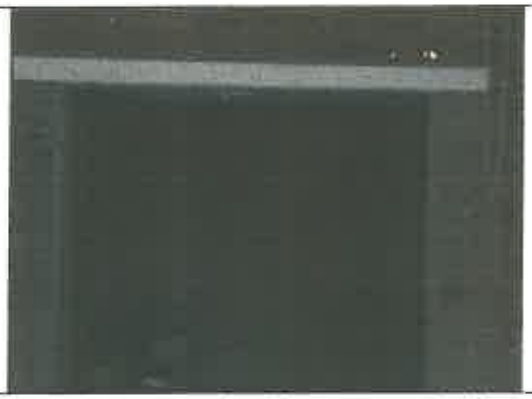
LBP door and windows to be replaced.

Entrance soffit ceiling deteriorated LBP to be wet scrape and encapsulate.

Remove door and encapsulate LBP.

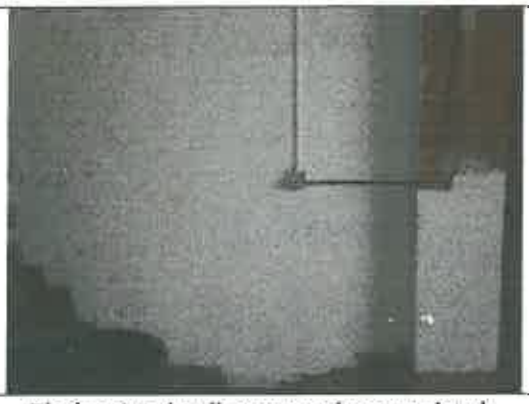
Replace LBP window, OH door, door and frame.

	
Wet scrape and encapsulate black LBP on brick.	Remove and replace LBP door.
	
New OH doors, walk door, LBP on OH door frame and guard post encapsulated.	New door and frame.
	
New windows with encapsulated window sills and lintels.	Encapsulated entrance soffit.



Fire door removed and frame encapsulated.

New walk door and frame.



Black painted wall scrape and encapsulated.

LBP door replaced.

New OH door and track.

New window with encapsulated sill and lintel.

New windows with encapsulated sills and lintels.

New window with encapsulated sill and lintel.

LBP OH doors, frames and guard post wet scraped and encapsulated.

LBP vents encapsulated.

Wet scraped and encapsulated window lintel.

Wet scraped and encapsulated OH door frame.

SECTION 4

Waste Manifest

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	OKP410179710	1	918-583-2021	004356434 FLE

GENERATOR

5. Generator's Name and Mailing Address
Oklahoma Department of Environmental Quality
707 N. Robinson, OKC OK 73102
Generator's Phone: 405-702-5115

Generator's Site Address (if different than mailing address)
930 D street SW
Miami OK 74354

6. Transporter 1 Company Name
FEB, Inc
U.S. EPA ID Number
OKR000003459

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Systech Environmental Corp
1420 S. Cement Rd.
Facility's Phone: 800-778-7778 Fredonia, KS 66736
U.S. EPA ID Number
KSD980633259

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA 3077, Hazardous Waste, Solid NOS (Lead), 9, PG. III	1	DM	50	P	D008 D001 F003 F005
X	2. (RQ 100#) Waste Flammable Liquid NOS 3, UN 1993, PG III, (D001, F003, F005)					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Jenkins — Signature — Month 1 Day 5 Year 12

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike King — Signature — Month 7 Day 5 Year 12

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.

IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION:

NAME Oklahoma Department of Env. Quality

ADDRESS 707 N. Robinson PHONE 702-5115

CITY Oklahoma City STATE OK ZIP 73102

MANIFEST TRACKING NO. 004356734 ACCUMULATION START DATE 1-5-17

EPA ID NO. OKP4101709310 EPA WASTE NO. D008 D001 F003, F005

NA 3077, Hazardous Waste, Solid, NOS (each 2 lbs - III

(RQ 100 lb) Waste Flammable Liquid NOS 3,

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

UN 1993, PG III, (D001, F003, F005)

HANDLE WITH CARE!

STYLE CFW#87

FINAL REPORT

DCS PROJECT NO. 12181

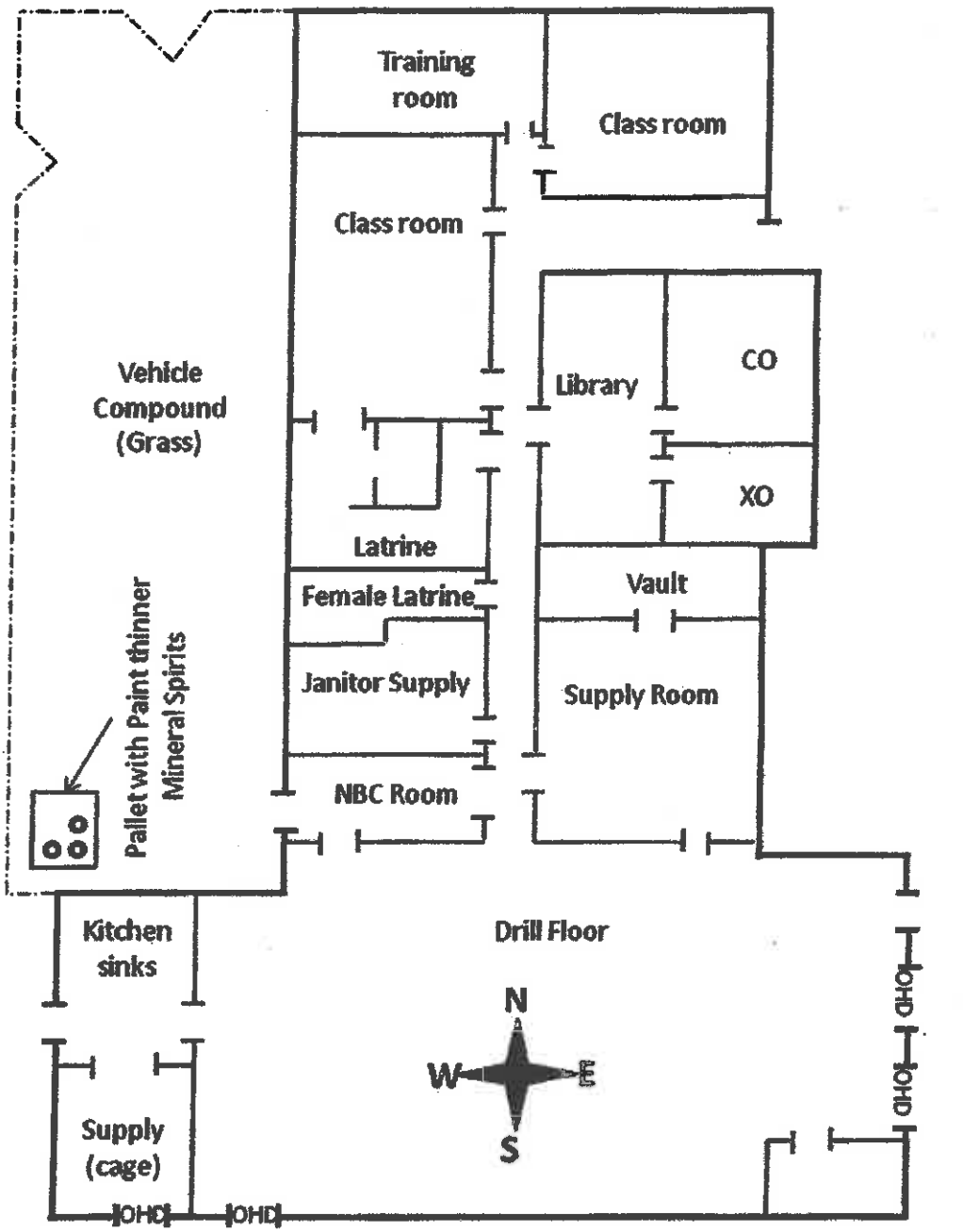
MIAMI ARMORY

INDEX

Summary of work

Beginning with Room 1, all walls and shelving were HEPA vacuumed and wet wiped as necessary to prevent recontamination as floors were cleaned. Equipment and shelving were cleaned and removed from each room so that the floors could be cleaned. Floors were HEPA vacuumed and wet washed in the entire building. (All building contents were stored in Room 1 after cleaning in accordance with the Scope of Work.) Third-party post remediation services were notified for confirmation sampling. Multiple cleanings were required due to apparent cross contamination created by the City's use of the facility during remediation. Final clearance levels were achieved on the fourth attempt after the City personnel were prevented from entering the building per instruction from OK DEQ.

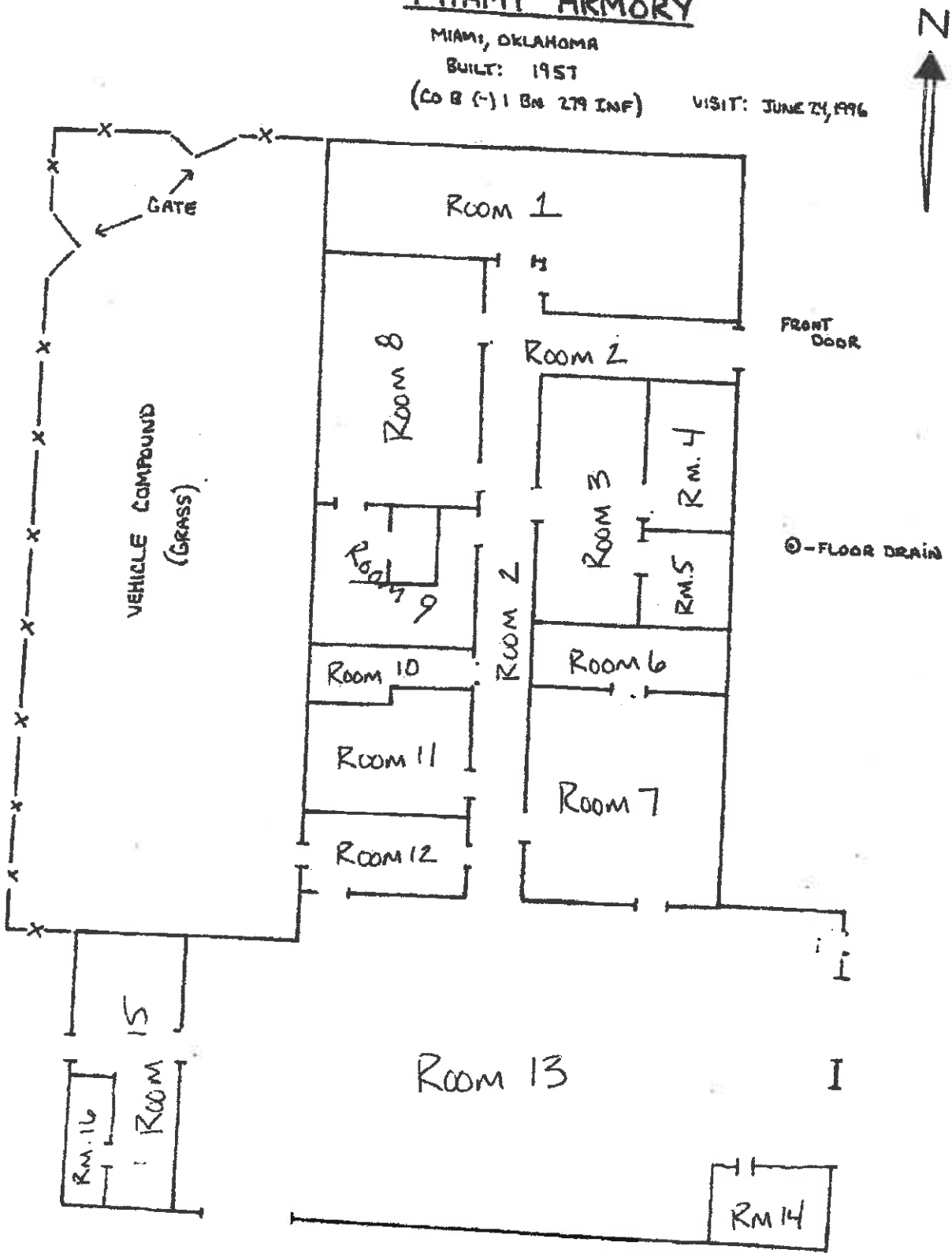
Miami Armory
Built 1957



Not to scale
Floor plan approximate

MIAMI ARMORY

MIAMI, OKLAHOMA
BUILT: 1957
(CO B (-) 1 BN 279 INF) VISIT: JUNE 24, 1996



SURFACE WIPES

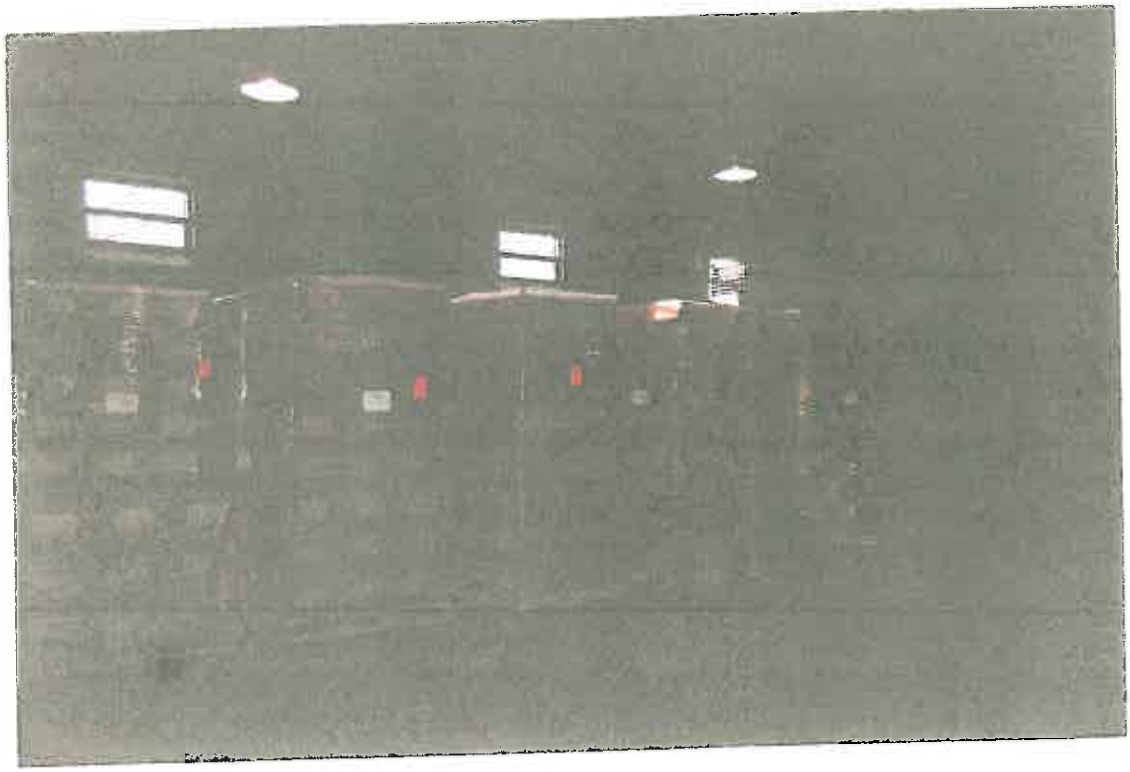
MIAMI ARMORY

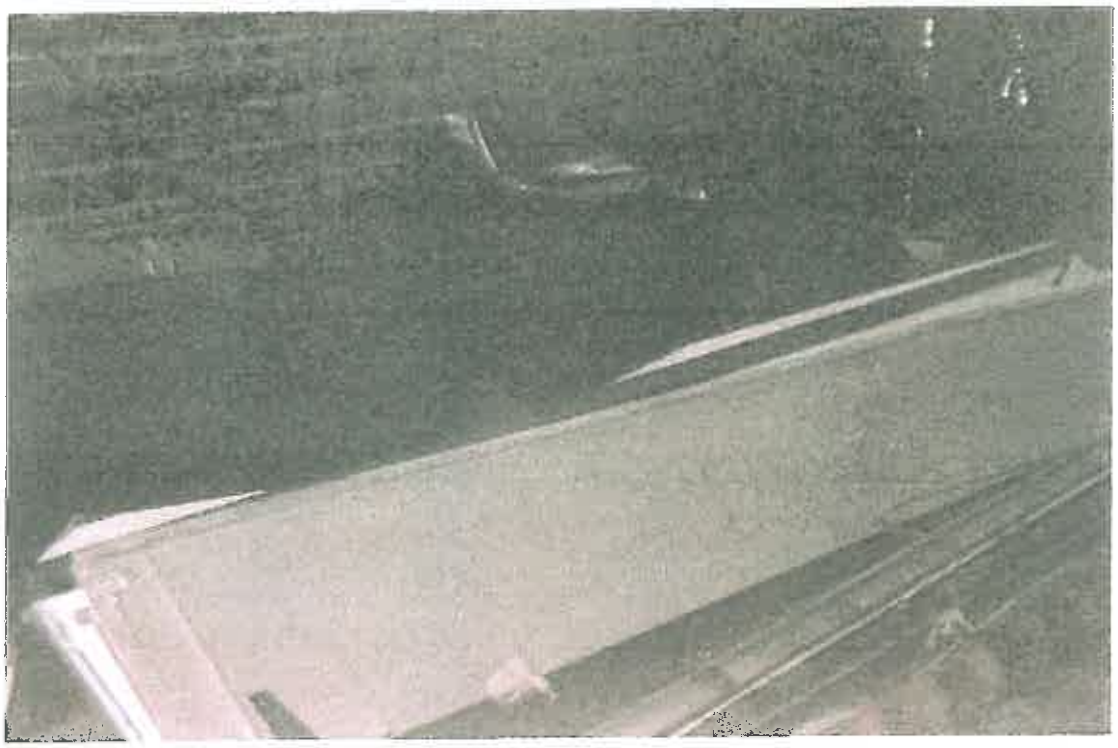
MIAMI ARMORY

MIAMI ARMORY

MIAMI ARMORY

MIAMI ARMORY





MIAMI ARMORY

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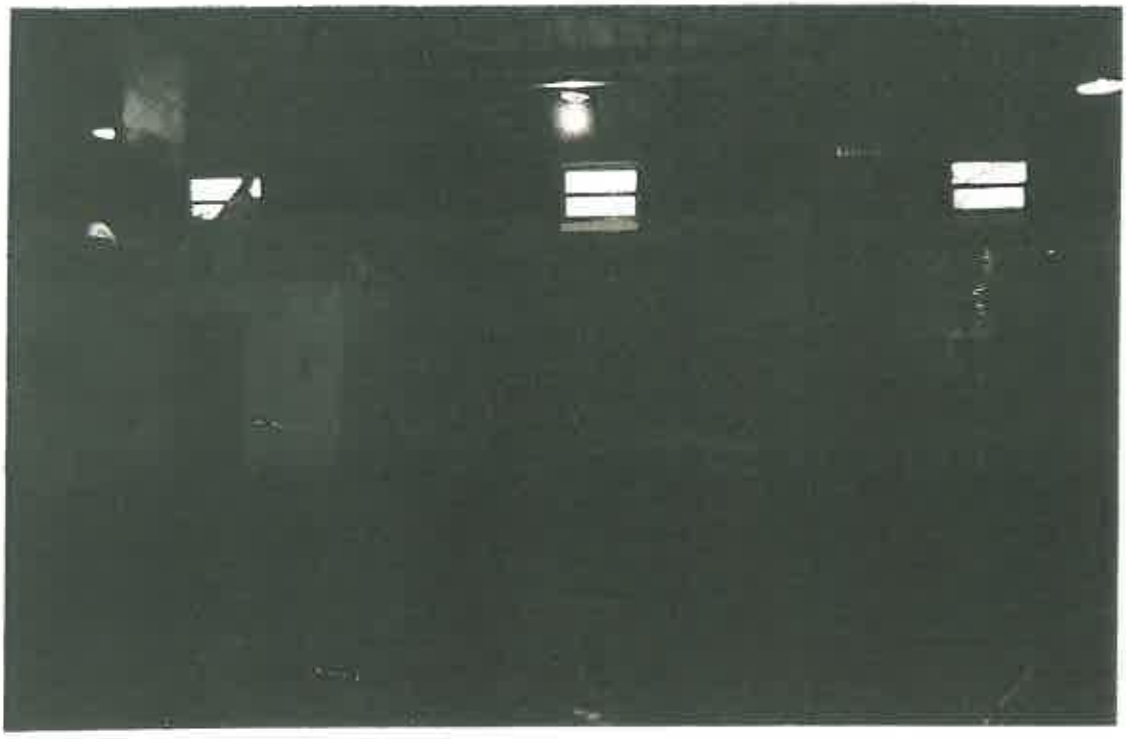
MIAMI ARMORY



MIAMI ARMORY

CONFIRMATION SAMPLING

ARMORY LEAD CONFIRMATION SAMPLING
MIAMI ARMORY
900 C SE
MIAMI, OKLAHOMA

Prepared For:
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson Avenue
Oklahoma City, OK 73102

March 30, 2012

ENERCON
ENERCON SERVICES, INC.
6525 North Meridian, Suite 400
Oklahoma City, Oklahoma 73116
(405) 722-7693 Fax: (405) 722-7694

Prepared by:

Marshall L. Branscum

Marshall L. Branscum
Lead-Based Paint Inspector
OKINSR-13415

Reviewed by:

Emmett W. Muenker, M.E.
Lead-Based Paint Inspector/Risk Assessor
OKRASR-11260

TABLE OF CONTENTS

APPENDICES

1.0 PURPOSE AND SCOPE

This clearance sampling was requested by the Oklahoma Department of Environmental Quality, Land Protection Division, in order to confirm that lead remediation at the Miami Armory, 900 C SE, Miami, Oklahoma, had been satisfactorily completed. Enercon was contracted to conduct confirmation wipe samples following remediation using the sampling protocols described in the Scope of Work provided in Appendix A.

2.0 BACKGROUND

The State of Oklahoma has determined that a number of armories located throughout the State that are no longer needed are to be transferred to local communities. Prior to these transfers, environmental investigations were conducted by the Oklahoma Department of Environmental Quality to determine if there are any environmental issues associated with these armories. As a result, inspections for lead contamination and lead-based paint have been conducted, resulting in contracts for remediation of lead contamination by private contractors. In order to determine if the contamination has been satisfactorily remediated, following remediation confirmation testing is being done by firms licensed by the State to conduct Lead-Based Paint Inspections and Clearance Tests. These firms are independent of the remediation contractor. The remediation contractor for the Miami Armory was Abatement Systems, Inc., 2400 W. College St., Broken Arrow, Oklahoma, 74012.

3.0 CONFIRMATION PROCEDURES

Confirmation of the adequacy of remediation is done by collecting wipe samples on the floors and/or walls of the armory on a room by room basis using the sampling criteria set forth in the Scope of Work (Appendix A). All wipe samples are collected by an Oklahoma-licensed LBP Inspector or Risk Assessor who is employed by an Oklahoma-licensed Lead-Based Paint Firm. Copies of these licenses are provided in Appendix B. The procedure involves using a layout or sketch of the armory to mark all sample locations and collecting samples using a 12" by 12" template and lead wipes to collect the samples. In the office areas of the armories, wipe samples were collected from the floor in areas where lead-based paint abatement had been completed and from a 3x3 gridded area for elevated lead dust levels. Following remediation, confirmation wipe samples were collected. If any sample within a 3x3 grid exceeded 40 $\mu g/ft^2$, the entire 3x3 gridded area was re-cleaned and re-tested. Sample locations were proposed by ODEQ. The Inspector marked the grid intersections and wipe sample locations with duct tape in preparation for sampling. Procedures for individual wipe samples as outlined for EPA/HUD dust wipe sampling were used for this project.

4.0 CONFIRMATION SAMPLING

4.1 Results of Initial (Round 1) Confirmation Sampling in the Office Areas

On December 30, 2011, initial confirmation wipe samples were collected in the Office Areas based upon the recommended locations provided by ODEQ. A total of 35 samples were collected, with 16 exceeding the 40 $\mu g/ft^2$ threshold. A layout sketch showing the location of the wipe samples, the laboratory report and chain of custody are found in Appendix C.

4.2 Results of First Confirmation Re-Sampling (Round 2) in the Office Areas

On January 24, 2012 following additional cleaning in the areas that exceeded the threshold, re-sampling confirmation wipe samples were collected in the Office Areas. A total of 17 samples were collected, with 7 exceeding the 40 $\mu g/ft^2$ threshold. A layout sketch showing the location of the wipe samples, the laboratory report and chain of custody are found in Appendix D.

4.3 Results of Second Confirmation Re-Sampling (Round 3) in the Office Areas

On February 13, 2012 following further additional cleaning in the seven areas that exceeded the threshold, re-sampling confirmation wipe samples were collected in the Office Areas. A total of 8 samples were collected, with 4 exceeding the 40 $\mu g/ft^2$ threshold. A layout sketch showing the location of the wipe samples, the laboratory report and chain of custody are found in Appendix E.

4.4 Results of Confirmation Re-Sampling (Round 4) in the Office Areas

On February 29, 2012 following further additional cleaning in the 4 areas that exceeded the threshold, re-sampling confirmation wipe samples were collected in the Office Areas. A total of 4 samples were collected, with none exceeding the 40 $\mu g/ft^2$ threshold. A layout sketch showing the location of the wipe samples, the laboratory report and chain of custody are found in Appendix F.

5.0 CONCLUSIONS

Based upon the foregoing confirmation sampling in the Office Area that exceeded 40 $\mu g/ft^2$ of lead, it is concluded that the lead hazard associated with the walls, floor and ceiling in the Offices of the Miami Armory has been effectively mitigated.

APPENDIX A

SCOPE OF WORK
For
Armory Lead Confirmation Sampling

The Department of Environmental Quality will soon be hiring contractors to remediate lead-based paint and lead contaminated dust from former National Guard Armories located in Sulphur, Minco, Marlow, Pawhuska, Perry, and Kingfisher, Oklahoma. Once abatement is complete, confirmation wipe samples will need to be taken on floors in areas where lead-based paint abatement was performed and in rooms that previously tested high for lead dust on floors. Attached is the Confirmation Sampling Instructions (Attachment 1). Below is a detailed list of what will be required at each site.

- Perform each sampling event within five (5) days of notice from remediation contractor.
- Provide DEQ with sampling plan for approval prior to each sampling event. There will be up to five (5) sampling events per armory.
- Travel to the each site up to (5) times to take confirmation wipe samples.
- A total of 250 confirmation wipe samples will be taken per armory.
- A total of 1500 confirmation wipe samples will be taken for this project.
- Samples will be run with a 24 hour turnaround time and results with sample location map will be submitted to DEQ for review.
- Once all sampling is complete at an armory, a Confirmation Sampling Report will be submitted to DEQ for approval.
    - A total of six (6) Confirmation Sampling Reports shall be submitted.
    - One report will be submitted for each armory.

APPENDIX B

Department of Environmental Quality

This is to Certify That

ENERCON SVC INC

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

FIRM

Certification #: OKFIRM11152

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: 4/1/2011 Expires on: 3/31/2012

Division Director
Air Quality Division

DEQ OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Randall Z. Ward

Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

MARSHALL BRANSCUM

INSPECTOR

Certification #: OKINSR13415

Issued on: 4/1/2011 Expires on: 3/31/2012

Division Director
Air Quality Division

Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

EMMETT MUENKER

has met the specifications of the Oklahoma Lead Based Paint Management Act
and is certified as a Lead Based Paint

INSPECTOR/RISK ASSESSOR

Certification #: OKRASR11260

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: 4/1/2011 Expires on: 3/31/2012

Division Director
Air Quality Division

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Environmental Programs Manager
Air Quality Division

OKLAHOMA
Lead-Based Paint
Certification

Richard Belcher

OKRASR13549

Inspector/Risk Assessor

Expires March 31, 2012

DEQ

Department of Environmental Quality

This is to Certify That

RICHARD BELCHER

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

INSPECTOR/RISK ASSESSOR

Certification #: OKRASR13549

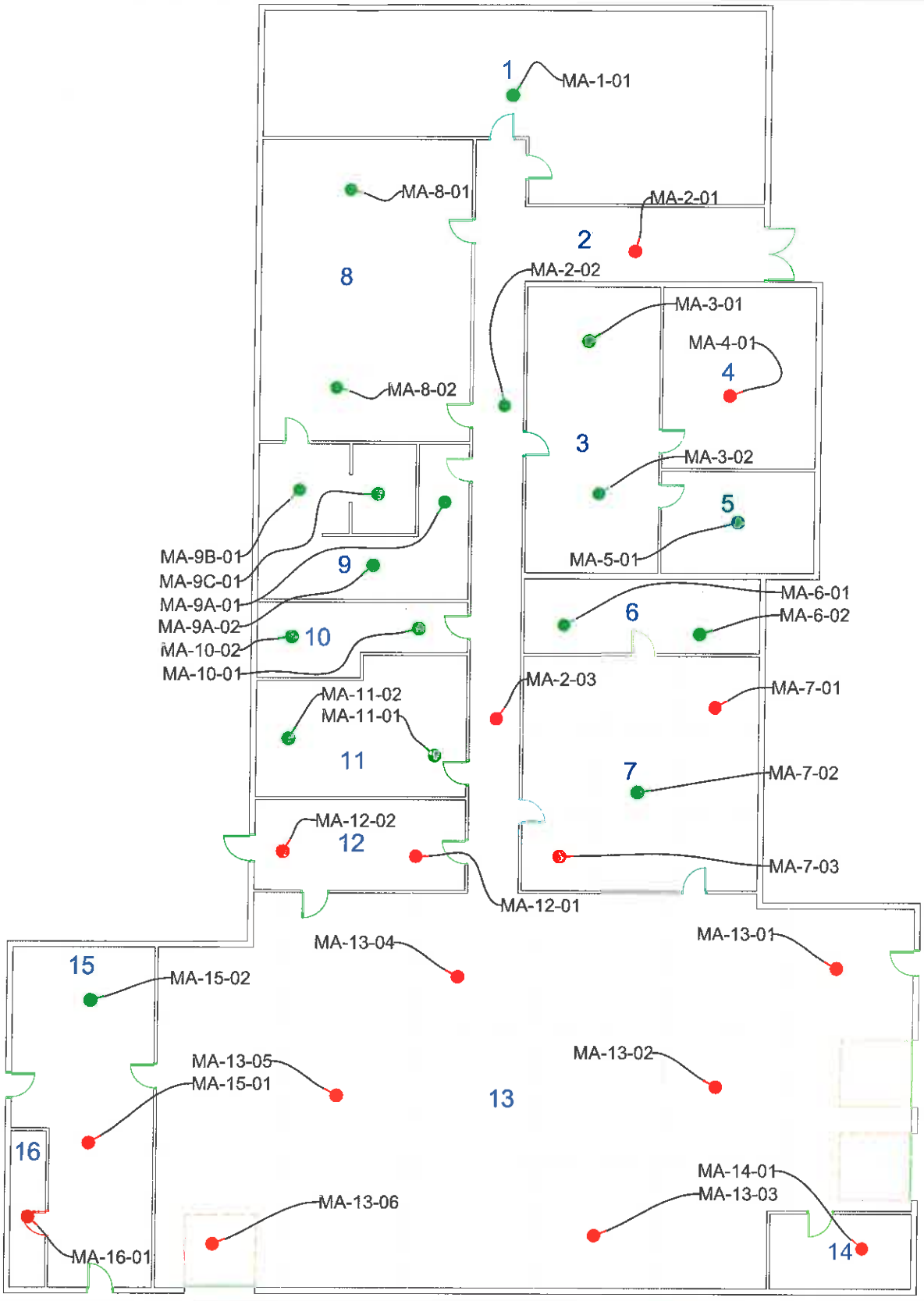
This certificate is valid from the date of issuance and expires as prescribed by law

Issued on: 4/1/2011 Expires on: 3/31/2012

Division Director
Air Quality Division

Environmental Programs Manager
Air Quality Division

APPENDIX C



Oklahoma Department of Environmental Quality
Miami Armory
900 C SE
Miami, Ok.

Legend:

=Dust Wipe Sample Location Positive, > 40 ug / SF
=Dust Wipe Sample Location Negative,< 40 ug / SF

ENERCON

Lead Wipe Sample Locations
Main Floor (Initial) Date:12-30-11

Project Number: ENMISC-2554

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 203012
Date Received: 01/03/12
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 4/12/2012

AIHA ID: 101352

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Miami Armory REVISED
Location: 900 C SE Miami, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	MA-1-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
002	MA-2-01	Wipe	Lead	54.8	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
003	MA-2-02	Wipe	Lead	38.7	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
004	MA-2-03	Wipe	Lead	89.2	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
005	MA-3-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
006	MA-3-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
007	MA-4-01	Wipe	Lead	66.4	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
008	MA-5-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
009	MA-6-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
010	MA-6-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
011	MA-7-01	Wipe	Lead	86.8	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
012	MA-7-02	Wipe	Lead	25.5	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
013	MA-7-03	Wipe	Lead	44.3	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
014	MA-8-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
015	MA-8-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
016	MA-9A-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
017	MA-9A-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 203012
Date Received: 01/03/12
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 4/12/2012

AIHA ID: 101352

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Miami Armory REVISED
Location: 900 C SE Miami, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	MA-9B-01	Wipe	Lead	21.5	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
019	MA-9C-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
020	MA-10-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
021	MA-10-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
022	MA-11-01	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
023	MA-11-02	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
024	MA-12-01	Wipe	Lead	55.4	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
025	MA-12-02	Wipe	Lead	137	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
026	MA-13-01	Wipe	Lead	2,880	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
027	MA-13-02	Wipe	Lead	302	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
028	MA-13-03	Wipe	Lead	61.1	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
029	MA-13-04	Wipe	Lead	94.7	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
030	MA-13-05	Wipe	Lead	99.4	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
031	MA-13-06	Wipe	Lead	271	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
032	MA-14-01	Wipe	Lead	229	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
033	MA-15-01	Wipe	Lead	330	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)
034	MA-15-02	Wipe	Lead	16.8	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)

Note: Sample results have not been corrected for blank values.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 203012
Date Received: 01/03/12
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 4/12/2012

AIHA ID: 101352

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Miami Armory REVISED
Location: 900 C SE Miami, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
035	MA-16-01	Wipe	Lead	78.5	16	ug/sq. Ft.	01/03/12 13:00	W EPA 7420 (1)

Authorized Signature: _____

Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 9506 **Date:** 1/3/2012 **Lab Number:** 203012
Test: Lead **Matrix:** Wipe **Approved By:** Benton Miller
Date Approved: 1/3/2012

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
ICB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.7	5.5
FCV	4.5	5	5.5
ICV	0.8	1.2	1.2
RLVS	0.256	0.343	0.384

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W2	0.000	5.492	4.846	88.2	5.082	92.5	4.7
MS-W1	0.000	5.503	4.896	89.0	4.764	86.6	2.7

Authorized Signature: _____

Benton Miller, Analyst

QUANTEM LABORATORIES

Lead Chain-of-Custody

2033 Heritage Park Drive. Oklahoma City, OK 73120-7502
(800) 822-1650 (405) 755-7272 Fax: (405) 755-2058
www.quantem.com

Page 1 of 3

This Box for Lab Use Only
Lab No. 203012
Accept / Reject

Company Name: Environ Services Inc Acct.#: Project Name: Miami Armory
Project Location: 900 C SE Miami, OK Project Number:

	Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis: Pb	Units Requested
1.	MA-1-01		18x12	C	✓	mg / sq ft
2.	MA-2-01		↕	↕	✓	✓
3.	MA-2-02					
4.	MA-2-03					
5.	MA-3-01					
6.	MA-3-02					
7.	MA-4-01					
8.	MA-5-01					
9.	MA-6-01					
10.	MA-6-02					
11.	MA-7-01					
12.	MA-7-02					
13.	MA-7-03					
14.	MA-8-01					
15.	MA-8-02		↕	↕	✓	✓

Units Requested: PPM, Wt %, mg / kg, mg / l, ug / sq ft, ug / cu M, mg / cm²

Sample Matrix Codes:
- A - Soil
- B - Paint Chips
- C - Surface / Dust Wipes
- D - Bulk Miscellaneous
- E - Air Cassette
- F - Other (SPECIFY)

LEGAL DOCUMENT
Please Print Legibly

TURNAROUND TIME
- [X] Same Day
- [ ] 24 Hour
- [ ] 3-Day
- [ ] 5-day

CONTACT INFORMATION
Name: Rich
Phone: 2099637
Report Results VIA (CHOOSE ONE):
- [ ] FAX:
- [X] QuanTEM WebSite
- [ ] E-Mail

Relinquished by	Date/Time	Via	Received by	Date/Time	Date Sampled	Sampled By
[signature]	1-3-12	H	S. Pittwick [signature]	1/3/12 8:40	12/30/11	RB

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-6517
Mark Package 'HOLD FOR SATURDAY PICKUP'

Revision, May 2008

QUANTEM LABORATORIES

Lead Chain-of-Custody

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(800) 822-1650 (405) 755-7272 Fax: (405) 755-2058
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This Box for Lab Use Only
Lab No. 203012
Accept / Reject

Company Name: Enercon Services Inc. Acct #: ______ Project Name: Miami Armory

Project Location: 900 C SE Miami, OK Project Number: ______

	Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis: Pb	Units Requested
16	MA-9A-01		12x12	C		
	[illegible] NA		↑	↑		
17.	MA-9A-02					
18.	MA-9B-01					
19.	MA-9C-01					
20	MA-10-01					
21.	MA-10-02					
22.	MA-11-01					
23.	MA-11-02					
24.	MA-12-01					
25.	MA-12-02					
26.	MA-13-01					
27.	MA-13-02					
28.	MA-13-03					
29.	MA-13-04		↓	↓		

Units Requested columns: ppm, Wt %, mg / kg, mg / l, ug / sq. ft, ug / cu. M, mg / cm²

Sample Matrix Codes

- A - Soil
- B - Paint Chips
- C - Surface / Dust Wipes
- D - Bulk Miscellaneous
- E - Air Cassette
- F - Other (SPECIFY)

LEGAL DOCUMENT
Please Print Legibly

TURNAROUND TIME

- [X] Same Day
- [ ] 24 Hour
- [ ] 3-Day
- [ ] 5-day

CONTACT INFORMATION

Name: Rich

Phone: 209 9637

Report Results VIA (CHOOSE ONE):

- [ ] FAX:
- [X] QuanTEM WebSite
- [ ] E-Mail:

Relinquished by	Date/Time	VIA	Received by	Date/Time	Date Sampled	Samples By
[signature] 1-3-12		H	S. Rafterick 1/3/12 8:40		12/ /11	RB
Relinquished by	Date/Time	VIA	Received by	Date/Time		

Saturday FedEx Shipping - CALL TO SCHEDULE
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QUANTEM LABORATORIES

Lead Chain-of-Custody

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(800) 822-1650 (405) 755-7272 Fax: (405) 755-2058
www.quantem.com

This Box for Lab Use Only — Lab No. 203012 (Accept) Reject

Company Name: Enercon Services Inc. Acct.#: ____ Project Name: Miami Armory

Project Location: 900 C S.E. Miami, OK Project Number: ____

	Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis: Pb	Units Requested: ug / sq. ft.
30.	MA-13-05		12x12	C	✓	✓
31.	MA-13-06		↕	↕	✓	✓
32.	MA-14-01		↕	↕	✓	✓
33.	MA-15-01		↕	↕	✓	✓
34.	MA-15-02		↕	↕	✓	✓
35.	MA-16-01		↕	↕	✓	✓

Units Requested options: ppm, wt %, mg / kg, mg / l, ug / sq. ft., ug / cu. M., ug / cm²

Sample Matrix Codes
- A - Soil
- B - Paint Chips
- C - Surface / Dust Wipes
- D - Bulk Miscellaneous
- E - Air Cassette
- F - Other (SPECIFY)

LEGAL DOCUMENT
Please Print Legibly

TURNAROUND TIME
- [X] Same Day
- [ ] 24 Hour
- [ ] 3-Day
- [ ] 5-day

CONTACT INFORMATION

Name: [signature]

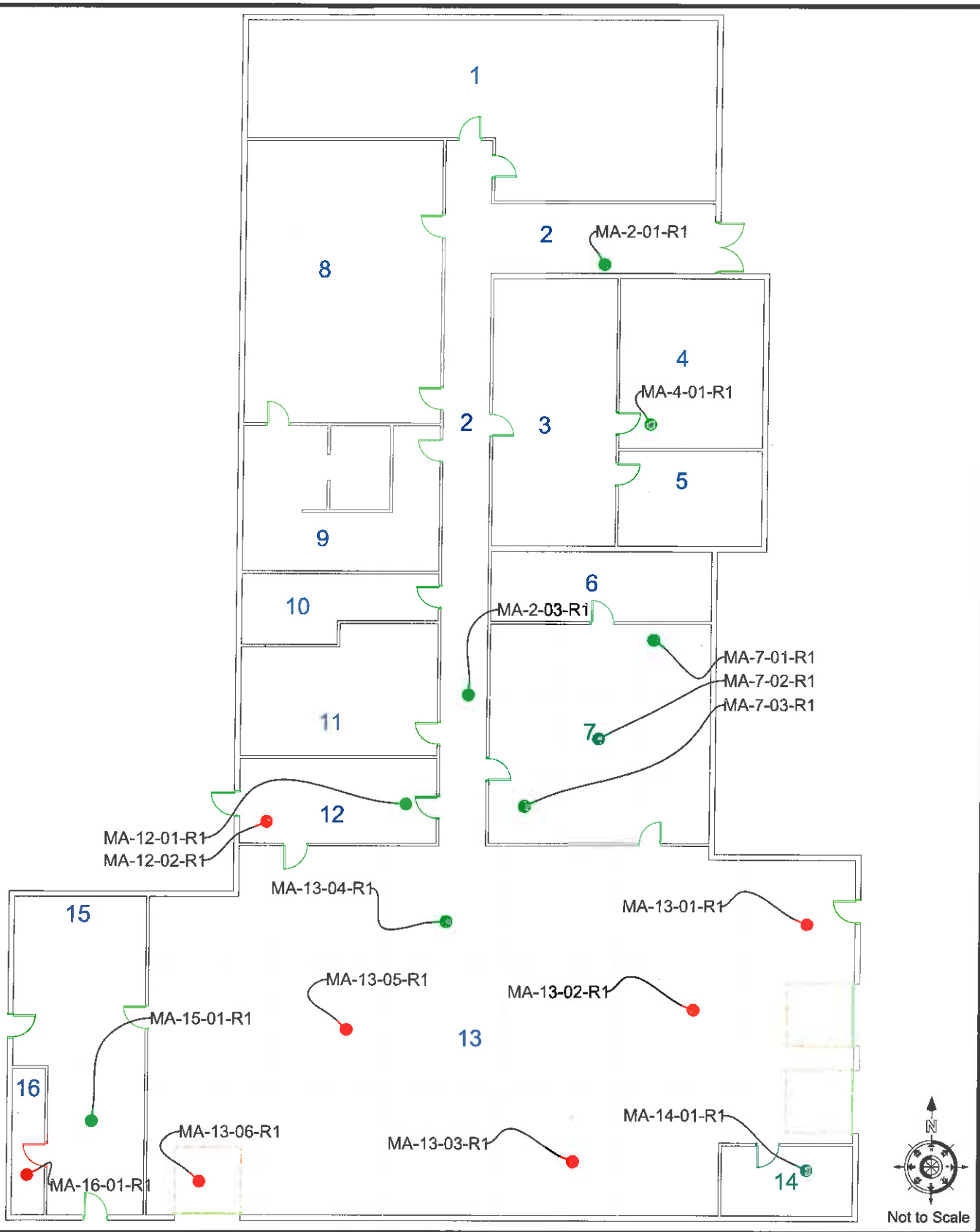
Phone: 209 9437

Report Results VIA (CHOOSE ONE):
- [ ] FAX:
- [X] QuanTEM WebSite
- [ ] E-Mail:

Relinquished by	Date/Time	Via	Received by	Date/Time	Date Collected	Sampled By
[signature]	1-3-12	H	S. Glaftwick	1/3/12 8:40	12/30/11	RB
Relinquished by	Date/Time	Via	Received by	Date/Time		

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-6517
Mark Package 'HOLD FOR SATURDAY PICKUP'

APPENDIX D



Oklahoma Department of Environmental Quality
Miami Armory
900 C SE
Miami, Ok.

Legend:

=Dust Wipe Sample Location Positive, > 40 ug / SF
=Dust Wipe Sample Location Negative,< 40 ug / SF

Note: Samples < 40ug / SF on previous round not shown

ENERCON

Lead Wipe Re-sample Locations
Main Floor (Round 1)Date:1-24-12

Project Number: ENMISC-2554

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 203674
Date Received: 01/24/12
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 5/7/2012

AIHA ID: 101352

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Miami Armory REVISED
Location: 900 C Street
Project No.: ENMISC2536

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	MA-13-01-R1	Wipe	Lead	310	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
002	MA-13-02-R1	Wipe	Lead	41.3	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
003	MA-13-03-R1	Wipe	Lead	491	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
004	MA-13-04-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
005	MA-13-05-R1	Wipe	Lead	64.8	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
006	MA-13-06-R1	Wipe	Lead	245	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
007	MA-14-01-R1	Wipe	Lead	36.1	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
008	MA-15-01-R1	Wipe	Lead	31.6	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
009	MA-16-01-R1	Wipe	Lead	137	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
010	MA-2-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)

Note: Sample results have not been corrected for blank values.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 203674
Date Received: 01/24/12
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 5/7/2012

AIHA ID: 101352

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Miami Armory REVISED
Location: 900 C Street
Project No.: ENMISC2536

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
011	MA-2-03-R1	Wipe	Lead	31.8	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
012	MA-4-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
013	MA-7-01-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
014	MA-7-02-R1	Wipe	Lead	16.1	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
015	MA-7-03-R1	Wipe	Lead	<16.0	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
016	MA-12-01-R1	Wipe	Lead	17.0	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)
017	MA-12-02-R1	Wipe	Lead	44.7	16	ug/sq. Ft.	01/25/12 10:45	W EPA 7420 (1)

Authorized Signature: _____

Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

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Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 9587
Test: Lead
Date: 1/25/2012
Matrix: Wipe
Lab Number: 203674
Approved By: Benton Miller
Date Approved: 1/25/2012

Notes:

Blank Data:

Type of Blank	Blank Value
ICB	0
FCB	0
Matrix Blank	0

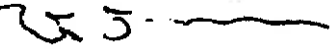
Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.7	5.5
FCV	4.5	4.9	5.5
ICV	0.8	1.2	1.2
RLVS	0.256	0.344	0.384

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W3	0.000	5.416	5.606	103.5	5.567	102.8	0.7
MS-W2	0.000	5.449	5.069	93.0	4.968	91.2	2.0
MS-W1	0.000	5.416	5.380	99.3	5.447	100.6	1.2

Authorized Signature: 

Benton Miller, Analyst

Lead Chain-of-Custody

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Lab No. 203614
Accept Reject

Company Name: ENERCON SERVICES, INC. Acct.#: _____ Project Name: MIAMI ARMORY

Project Location: 900 C STREET Project Number: ENMISC2536

	Sample Number	Sample Description	Volume or Area	Sample Matrix	Analysis: Pb	Units Requested: PPM	Wt %	mg / kg	mg / l	ug / sq ft	ug / cu M	mg / cm²
1	MA-13-01-R1	LEAD DUST WIPE	1 SF	C	/					/		
2	MA-13-02-R1	"	"	C	/					/		
3	MA-13-03-R1	"	"	C	/					/		
4	MA-13-04-R1	"	"	C	/					/		
5	MA-13-05-R1	"	"	C	/					/		
6	MA-13-06-R1	"	"	C	/					/		
7	MA-14-01-R1	"	"	C	/					/		
8	MA-15-01-R1	"	"	C	/					/		
9	MA-16-01-R1	"	"	C	/					/		
10	MA-2-01-R1	"	"	C	/					/		
11	MA-2-03-R1	"	"	C	/					/		
12	MA-4-01-R1	"	"	C	/					/		
13	MA-7-01-R1	"	"	C	/					/		
14	MA-7-02-R1	"	"	C	/					/		
15	MA-7-03-R1	"	"	C	/					/		

Sample Matrix Codes: A - Soil; B - Paint Chips; C - Surface / Dust Wipes; D - Bulk Miscellaneous; E - Air Cassette; F - Other (SPECIFY)

LEGAL DOCUMENT
Please Print Legibly

TURNAROUND TIME
- Same Day
- ~~24 Hour~~
- 3-Day
- 5-day

CONTACT INFORMATION
Name:
Phone:
Report Results VIA (CHOOSE ONE):
- FAX:
- QuanTEM WebSite
- E-Mail:

Transported By	Date/Time	VIA	Received By	Date/Time	Date Sampled	Sampled By
[signature]	1/24/2012 1330	HAND	[signature]	1/24/12 1:40		

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517
Mark Package 'HOLD FOR SATURDAY PICKUP'

Lead Chain-of-Custody

QUANTEM LABORATORIES
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(800) 822-1850 (405) 755-7272 Fax (405) 755-2058
www.quantem.com

This Box for Lab Use Only
Lab No. 20361
Accept Reject

Company Name: ENERCON SERVICES Acct.#: Project Name: MIAMI ARMORY

Project Location: 900 C STREET Project Number: ENMISC2536

	Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis: Pb	Units Requested: PPM	Wt %	mg / kg	mg / l	ug / sq. ft	ug / ml	mg / cm²
16	MA-12-01-R1	LEAD DUST WIPE	1 SF	C	/					/		
17	MA-12-02-R1	"	"	C	/					/		

Sample Matrix Codes:
- A - Soil
- B - Paint Chips
- C - Surface / Dust Wipes
- D - Bulk Miscellaneous
- E - Air Cassette
- F - Other (SPECIFY)

LEGAL DOCUMENT
Please Print Legibly

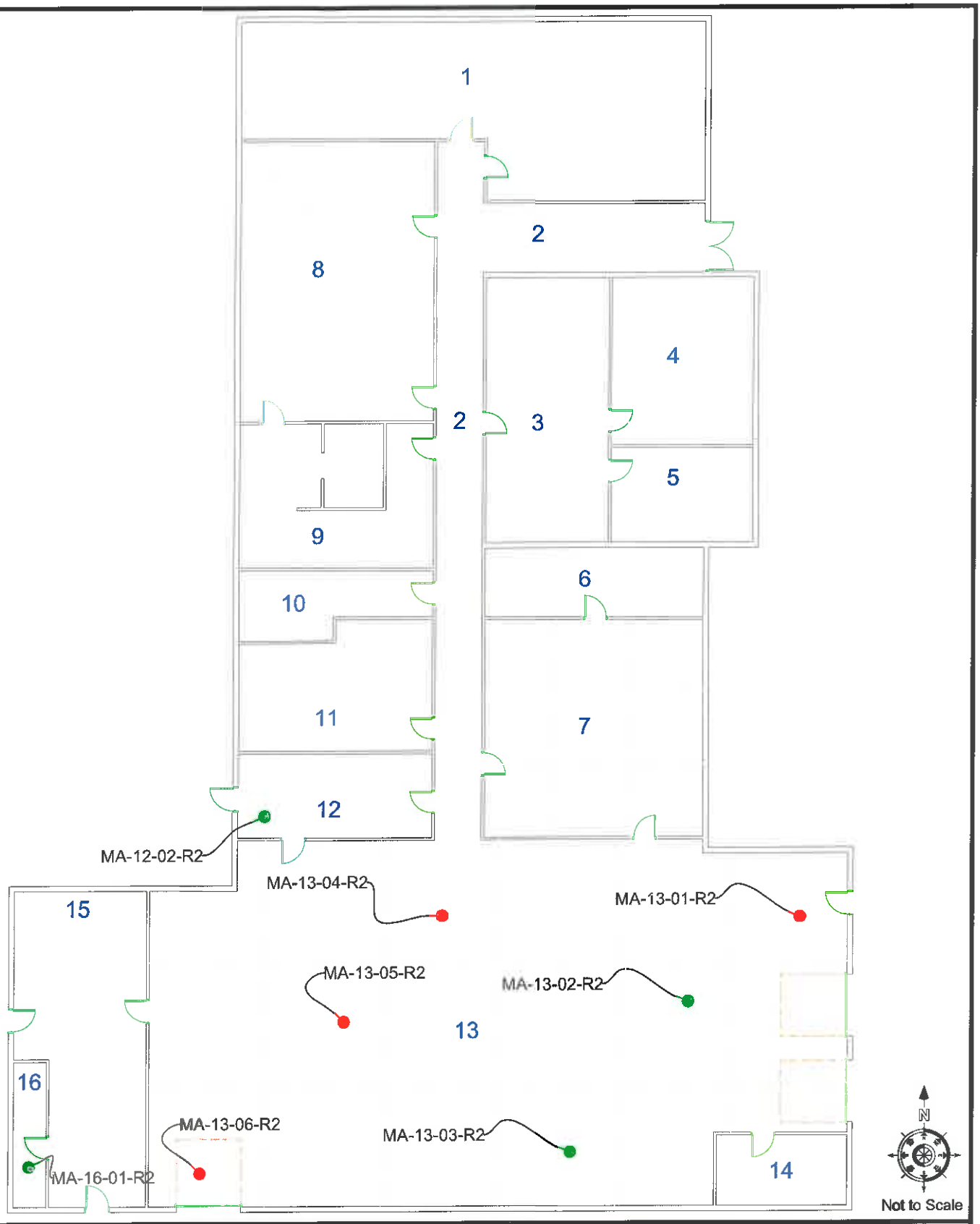
TURNAROUND TIME
- Same Day
- 24 Hour
- 3-Day
- 5-day

CONTACT INFORMATION
Name:
Phone:
Report Results VIA (CHOOSE ONE):
- FAX:
- QuanTEM WebSite
- E-Mail:

Relinquished By	Date/Time	VIA	Received By	Date/Time	Date Sampled	Sampled By
Relinquished By	Date/Time	VIA	Received By	Date/Time		

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517
Mark Package 'HOLD FOR SATURDAY PICKUP'

APPENDIX E



Oklahoma Department of Environmental Quality
Miami Armory
900 C SE
Miami, Ok.

Legend:

=Dust Wipe Sample Location Positive, > 40 ug / SF
=Dust Wipe Sample Location Negative,< 40 ug / SF

Note: Samples < 40ug / SF on previous round not shown

ENERCON

Lead Wipe Re-sample Locations
Main Floor (Round 2) Date:2-13-12

Project Number: ENMISC-2554

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 204502
Date Received: 02/15/12
Received By: Leigh Armstrong
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/16/2012

AIHA ID: 101352

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Miami Armory
Location: Miami, OK
Project No.: N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	MA-12-02-R2	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)
002	MA-13-01-R2	Wipe	Lead	92.8	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)
003	MA-13-02-R2	Wipe	Lead	31.4	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)
004	MA-13-03-R2	Wipe	Lead	<16.0	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)
005	MA-13-04-R2	Wipe	Lead	48.1	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)
006	MA-13-05-R2	Wipe	Lead	87.2	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)
007	MA-13-06-R2	Wipe	Lead	63.4	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)
008	MA-16-01-R2	Wipe	Lead	21.9	16	ug/sq. Ft.	02/16/12 9:45	W EPA 7420 (1)

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID:	204502
Date Received:	02/15/12
Received By:	Leigh Armstrong
Date Sampled:	
Time Sampled:	
Analyst:	BM
Date of Report:	2/16/2012

AIHA ID: 101352

Client:	Enercon Services, Inc. 6525 N. Meridian, Suite 400 Oklahoma City, OK 73116
Acct. No.:	A845
Project:	Miami Armory
Location:	Miami, OK
Project No.:	N/A

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method

Authorized Signature: _____

Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 9683
Test: Lead

Date: 2/16/2012
Matrix: Wipe

Lab Number: 204502
Approved By: Benton Miller
Date Approved: 2/16/2012

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
ICB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.8	5.5
FCV	4.5	4.9	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.32	0.384

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.460	5.690	104.2	5.323	97.5	6.7

Authorized Signature: _____

Benton Miller, Analyst

LEAD CHAIN OF CUSTODY

QUANTEM LABORATORIES
www.QuanTEM.com

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

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Page 1 of 1

For Lab Use Only
Lab No. 204502
Accept / Reject

Report Results (☑ one box)
- ☐ QuanTEM Website
- ☐ Other

Contact Information

Company: ENERCON SERVICES	Phone: (405) 722-7673
Contact: BILL MUENKER	Cell Phone:
Account #:	E-mail: BMUENKER@ENERCON.com

Project Information

Project Name: MIAMI ARMORY	
Project Location: MIAMI OK	
Project ID: [redacted]	

Sampled By: Name: JUSTIN SCOTT Date: 2/13/2012

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
	2/15/2012 11:15	HAND		2/15/12 11:15

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis: Pb	Units (☑ ONE box only): PPM	Wt %	mg / l	µg /ft²	µg / m³	mg / cm²
1	MA-12-02-R2	DUST WIPE 12"x12"		12"x12"	C	✓						
2	MA-13-01-R2	"		"	C	✓						
3	MA-13-02-R2	"		"	C	✓						
4	MA-13-03-R2	"		"	C	✓						
5	MA-13-04-R2	"		"	C	✓						
6	MA-13-05-R2	"		"	C	✓						
7	MA-13-06-R2	"		"	C	✓						
8	MA-16-01-R2	"		"	C	✓						
9												
10												
11												
12												

Sample Matrix Codes

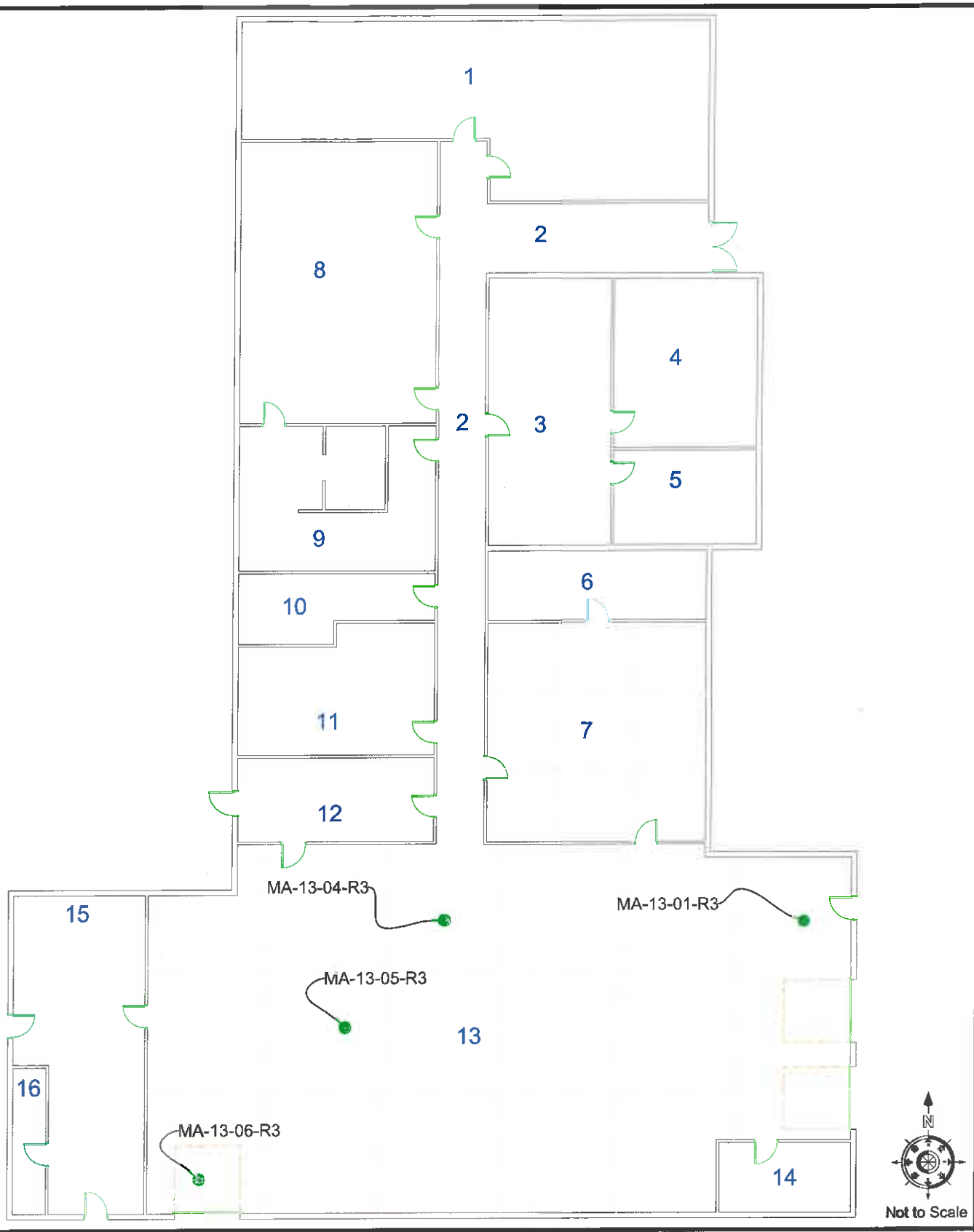
A	Soil
B	Paint Chips
C	Surface / Dust Wipes
D	Bulk Miscellaneous
E	Air Cassette

TURNAROUND TIME

- ☐ Same Day
- ☑ 24 - Hour
- ☐ 3 - Day
- ☐ 5 - Day

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup"

APPENDIX F



Oklahoma Department of Environmental Quality
Miami Armory
900 C SE
Miami, Ok.

Legend:

=Dust Wipe Sample Location Positive, > 40 ug / SF
=Dust Wipe Sample Location Negative,< 40 ug / SF

Note: Samples < 40ug / SF on previous round not shown

ENERCON

Lead Wipe Re-sample Locations
Main Floor (Round 3) Date:2-29-12

Project Number: ENMISC-2554

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

QuanTEM Set ID: 204953
Date Received: 03/01/12
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 3/1/2012

AIHA ID: 101352

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Miami Armory
Location: Miami, OK
Project No.: EMN-MIA

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	MA-13-01-R3	Wipe	Lead	<16.0	16	ug/sq. Ft.	03/01/12 11:30	W EPA 7420 (1)
002	MA-13-04R3	Wipe	Lead	<16.0	16	ug/sq. Ft.	03/01/12 11:30	W EPA 7420 (1)
003	MA-13-05-R3	Wipe	Lead	<16.0	16	ug/sq. Ft.	03/01/12 11:30	W EPA 7420 (1)
004	MA-13-06-R3	Wipe	Lead	<16.0	16	ug/sq. Ft.	03/01/12 11:30	W EPA 7420 (1)

Authorized Signature: _____

Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

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

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7420 (1) = EPA 600/R-93/200 Preperation Modified. EPA 7420 Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preperation Modified. EPA 7082 Analysis Modified

Supplemental Report
QAQC Results

QA ID: 9728
Test: Lead
Date: 3/1/2012
Matrix: Wipe
Lab Number: 204953
Approved By: Benton Miller
Date Approved: 3/1/2012

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
ICB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.8	5.5
FCV	4.5	4.7	5.5
ICV	0.9	1.1	1.1
RLVS	0.256	0.328	0.384

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.438	5.201	95.6	5.051	92.9	2.9
MS-W2	0.000	5.427	5.375	99.0	5.314	97.9	1.2

Authorized Signature: _____

Benton Miller, Analyst

Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 922-1650 (405) 755-7272 Fax: (405) 755-2058
www.quantem.com

This Box for Lab Use Only
Lab No. 204953
Accept / Reject

Company Name: ENVIRONSERVICES INC Acct.#: ARKS Project Name: MIAMI ARMORY

Project Location: MIAMI, OK Project Number: EMM-MIA

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis: Pb	Units Requested: PPM	Wt %	mg / kg	mg / l	ug / sq. ft.	ug / cu. M	mg / cm²
MA-13-01-R3	DUST WIPE	144 ft²	C	X					X		
MA-13-04-R3			C	X					X		
MA-13-05-R3			C	X					X		
MA-13-06-R3			C	X					X		

Sample Matrix Codes:
A - Soil
B - Paint Chips
C - Surface / Dust Wipes
D - Bulk Miscellaneous
E - Air Cassette
F - Other (SPECIFY)

LEGAL DOCUMENT
Please Print Legibly

TURNAROUND TIME
- Same Day
- X 24 Hour
- 3-Day
- 5-day

CONTACT INFORMATION
Name: Bill Muenker
Phone: 264-4500
Report Results VIA (CHOOSE ONE):
- FAX:
- X QuanTEM WebSite
- E-Mail:

Relinquished By	Date/Time	VIA	Received By	Date/Time	Date Sampled	Sampled By
Bill Muenker	2/29/12	hand	[signature]	2/29/12 4:30	2/29/12	Bill Muenker

Saturday FedEx Shipping - CALL TO SCHEDULE
Use this address for **Saturday FedEx only:** 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517
Mark Package 'HOLD FOR SATURDAY PICKUP'