

RENKER EICH PARKS ARCHITECTS

ADDENDUM #02 (TWO)

Date Issued: **JUNE 17TH, 2026**

Issued By: **Renker Eich Parks Architects Inc.**
1609 Dr. Martin Luther King Street North
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Project: **PALMETTO ESP RENOVATION**
CFMO NO: **224004**
REPA NO: **1910.09**

Owner: **Department of Military Affairs**
Construction & Facility Management Office
Post Office Box 1008
St. Augustine, FL – 32085

This addendum forms a part of the Contract Documents dated: **March 30TH, 2026.**

This Addendum serves to clarify, revise, and supersede information in the Contract Manual and Technical Specifications, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

All of these items are hereby incorporated into the project and made a part of the project just as though they were included in the Contract Manual and Technical Specifications, and Drawings.

The Contract Manual and Technical Specifications, and Drawings, for this project are amended as follows:

Request for Information Received:

RFI QUESTIONS & RESPONSES **No. 1 thru No. 82** ATTACHED IN pdf DOCUMENT.

Bid Clarifications:

1. Each General Contractor is to provide a detailed Bid Breakout per CSI division including all Labor and Material Costs by Division.
2. **PERMIT FEES: Delete Specification Section 01 2100 – Allowances.** Contractor shall obtain all required permits and include that cost in the bid package for this item. Permit Fees will vary depending upon the specific Bid amount. Contractor must include this as a line item within the schedule of values, otherwise, it cannot be paid. It will be the Contractors responsibility to provide all PERMIT Fees required for this project.
3. **SWFWMD PERMIT** IS NOT REQUIRED for this project since there is no new impervious areas for this project.

Request for Substitutions:

1. **SUBSTITUTION REQUEST for RESINOUS FLOORING** – SPEC-0087972 – DATED 6.12.2026 / REPA EXECUTED 06.17.2026

End of Addendum # 02

Attachments: (56)

1. **RFI QUESTIONS AND RESPONSES No. 1 THRU No. 82**
2. Pre-Bid Meeting Agenda (DMA / CFMO)
3. Pre-Bid Meeting Sign-In Sheet
4. Pre-Bid Meeting Minutes (REPA)
5. **STATE FIRE MARSHALL APPROVAL LETTER** SFM26-000223 / DATED 06.04.2026
6. **SUBSTITUTION REQUEST for RESINOUS FLOORING** – SPEC-0087972 – DATED 6.12.2026 / REPA EXECUTED 06.17.2026
7. **2026 AWS CALENDAR**
8. **1993 ROOF CONTRACTORS CERTIFICATE OF SPECIFICATION OF NO ASBESTOS CONTAINING MATERIALS** / DATED 07.28.1993.
9. **1994 ASBESTOS INSPECTION SURVEY** / 05.09.1994.
10. **1995 ASBESTOS ABATEMENT** / APOLLO ENVIRONMENTAL / 10.27.1995.
11. **1995 ASBESTOS INSPECTION** / 06.22.1995.
12. **1995 ASBESTOS ABATEMENT REPORT** / DATED 10.29.1995
13. **1993 ROOF CONTRACTORS CERTIFICATE OF SPECIFICATION OF NO ASBESTOS CONTAINING MATERIALS** / DATED 07.28.1993.
14. **2024 GAF 20 YEAR NDL ROOF GUARANTEE**
15. **2024 CPPI SUB-CONTRACTOR WARRANTY**
16. Specification **Table of Contents** / Revised on 6.17.2026
17. Specification Section **01 1000** – SUMMARY / Revised on 6.17.2026
18. Specification Section **01 2300** – ALTERNATE BID ITEMS / Revised on 6.17.2026

MAIN ARMORY CONTRACT DRAWING REVISIONS

19. Drawing : **C1.1** (CIVIL COVER) - Dated 07.10.2025 / Revised on 6.17.2026
20. Drawing : **C2.1** - Dated 07.10.2025 / Revised on 6.17.2026
21. Drawing : **C3.1** - Dated 07.10.2025 / Revised on 6.17.2026
22. Drawing : **C4.1** - Dated 07.10.2025 / Revised on 6.17.2026
23. Drawing : **C5.1** - Dated 07.10.2025 / Revised on 6.17.2026
24. Drawing : **C6.1** - Dated 07.10.2025 / Revised on 6.17.2026
25. Drawing : **COVER** (MAIN ARMORY) - Dated 03.30.2026 / Revised on 6.17.2026
26. Drawing : **GA1.0** - Dated 03.30.2026 / Revised on 6.17.2026
27. Drawing : **SA1.1** - Dated 03.30.2026 / Revised on 6.17.2026
28. Drawing : **DSA1.1** - Dated 03.30.2026 / Revised on 6.17.2026
29. Drawing : **DA1.1** - Dated 03.30.2026 / Revised on 6.17.2026
30. Drawing : **DA1.2** - Dated 03.30.2026 / Revised on 6.17.2026
31. Drawing : **DA4.1** - Dated 03.30.2026 / Revised on 6.17.2026
32. Drawing : **DA7.1** - Dated 03.30.2026 / Revised on 6.17.2026
33. Drawing : **A1.1** - Dated 03.30.2026 / Revised on 6.17.2026
34. Drawing : **A1.2** - Dated 03.30.2026 / Revised on 6.17.2026
35. Drawing : **A3.1** - Dated 03.30.2026 / Revised on 6.17.2026

36. Drawing : **A3.2** - Dated 03.30.2026 / Revised on 6.17.2026
37. Drawing : **A4.1** - Dated 03.30.2026 / Revised on 6.17.2026

38. Drawing : **A6.2** - Dated 03.30.2026 / Revised on 6.17.2026
39. Drawing : **A7.1** - Dated 03.30.2026 / Revised on 6.17.2026
40. Drawing : **M0.1** - Dated 03.30.2026 / Revised on 6.17.2026
41. Drawing : **M0.2** - Dated 03.30.2026 / Revised on 6.17.2026
42. Drawing : **M1.1** - Dated 03.30.2026 / Revised on 6.17.2026
43. Drawing : **M1.2** - Dated 03.30.2026 / Revised on 6.17.2026
44. Drawing : **M2.1** - Dated 03.30.2026 / Revised on 6.17.2026
45. Drawing : **M2.2** - Dated 03.30.2026 / Revised on 6.17.2026
46. Drawing : **E0.2** - Dated 03.30.2026 / Revised on 6.17.2026
47. Drawing : **E2.3** - Dated 03.30.2026 / Revised on 6.17.2026
48. Drawing : **E4.1** - Dated 03.30.2026 / Revised on 6.17.2026
49. Drawing : **E4.2** - Dated 03.30.2026 / Revised on 6.17.2026
50. Drawing : **P0.1** - Dated 03.30.2026 / Revised on 6.17.2026

HIGH BAY CONTRACT DRAWING REVISIONS

51. Drawing : **COVER** (HIGH BAY)-Dated 03.30.2026 / Revised on 6.17.2026
52. Drawing : **GA1.1** - Dated 03.30.2026 / Revised on 6.17.2026
53. Drawing : **SA1.2** - Dated 03.30.2026 / Revised on 6.17.2026
54. Drawing : **DSA1.2** - Dated 03.30.2026 / Revised on 6.17.2026
55. Drawing : **DA1.4** - Dated 03.30.2026 / Revised on 6.17.2026
56. Drawing : **DA1.4** - Dated 03.30.2026 / Revised on 6.17.2026

Distribution:	DMA/CFMO	Mr. Edward ADAMS, NFG NG FLARNG (USA)
	DMA/CFMO	Mrs. Michelle HULL, NFG NG FLARNG (USA)
	ARMORY MGR	SSG PETERS
	REPA	Mrs. Monica LACAYO
	HAMILTON	Mr. Lucas CARLO, PE
	BGA	Mr. Bryant LYLE, PE
	BGA	Mr. Adam GORECKI
	MPS	Mr. Ed Wolanin, PE

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224004 - FDMA Palmetto Renovation

Architect - Renker Eich Parks Architects Inc.

UPDATED

LAST DAY FOR QUESTIONS IS JUNE 10TH, 2026 (5:00PM)

UPDATED

Revised Final Addendum Date: June 17, 2026(12:00 pm)

AS OF

6.17.2026

	Sheet/Detail	Trade	Question	Discipline	Response	Attachments	Date Submitted	RFI Batch #	RCS Author	Sub Contractor	Date Responded	Status/Procure
1	Multiple	Demolition	Per sheets DSA1.1 & DA1.1, General Site Notes letter "C" states to reference the "Environmental Report" for Asbestos and Lead in the Armory Building. Secondly, sheets DA1.2, DA4.1 & DA7.1, General Site Notes letter "C" states to reference the "Greenfiled Environmental Report 1560-1208" for Asbestos and Lead in the Armory Building; however the Report was not provided. Please advise.	Architect	DMA/CFMO HAS PROVIDED ALL ENVIRONMENTAL REPORTS IN THEIR ARCHIVE FOR YOUR REFERENCE WITHIN THE ADDENDUM # 02 ATTACHMENTS. KEEP IN MIND THIS FACILITY HAS BEEN THROUGH AN EXTENSIVE FARP RENOVATION IN 2009 AND A COMPLETE ROOF REPLACEMENT PROJECT IN 2024.	DSA1.1, SA1.1, DA1.1, DA1.2, DA1.4, DA7.1, A3.1, A3.2, A4.1, & A7.1 REVISED - SEE ATTACHED. DSA1.2, SA1.2, DA1.4, & A1.4 REVISED AND REMOVED THE ENVIROMENTAL REPORT NOTE (IT DOES NOT APPLY TO THIS BUILDING)	5/19/2026	1.01	Christopher Lee			
2	Exhibit 4-5 in RFP, Cover Sheet Main Armory & Maintenance Shelter Building	General	According to Exhibit 4-5 Proposal and Subcontractors List, there are three ABI's listed on the form for the Armory Building only; however, the Cover Sheet for the Armory Building list a total of eight (8) & the Maintenance Shelter lists a total of three (3). Please advise.	FDMA	THIS PROJECT HAS 8 ALTERNATE BID ITEMS - PORTIONS OF ABI # 2 & # 3 INDICATE HIGH BAY SCOPE OF WORK WITH REGARD TO LIGHTING AND PAINTING	ABI#1 HAS BEEN REMOVED FROM HIGH BAY MAINTENANCES SHELTER BUILDING COVER SHEET- SEE ATTACHED.	5/19/2026	1.02	Christopher Lee			
3		General Contractor	Is there any Supplementary Terms and Conditions to show the Liquated Damages, Substantial Completion and any Davis Bacon requiremenets? Please advise.	FDMA	YES, AS IDENTIFIED IN THE FRONT END SPECIFICATION OF PAGE 70 OF THE ARCHITECTURAL SPECIFICATIONS PDF = SUPPLEMENTARY TERMS AND CONDITIONS. LIQUIDATED DAMAGES ARE SHOW AS \$310.44 PER DAY / 210 DAYS TO SUBSTANTIAL COMPLETION FROM CONTRACTORS NTP.	SEE EXISTING SPECIFICATION FRONT END SPECIFICATION SECTIONS.	5/19/2026	1.03	Christopher Lee			
4	A1.1 / SP Note #17 & #24, & DA1.1	Painting	According to Specific Note Number 17 and 24 on sheet A1.1 states we are to keep / protect the existing Mural Logo and Plaque. The finish schedule shown on sheet DA1.1 clearly identifies that the Drill Hall shall receive new paint on all Walls. If we are to protect the Mural, what materials will be applicable so the Mural will not be damaged / peel and how do we risk the potential paint flashing. Please advise.	FDMA	"ALL EXISTING WALL MURALS / LOGOS TO REMAIN. PROTECT AND FULLY MASK W/ CRAFT PAPER & MASKING TAPE AT THE PERIMETER EDGES AS REQUIRED FOR COMPLETE PROTECTION. MEANS AND METHODS	A1.1 SPECIFIC NOTES # 17 & 24 REVISION & DA1.1 SPECIFIC NOTES # 17 & 24 REVISION.	5/19/2026	1.04	Christopher Lee			
5		General Contractor	Are there any Non-Technical General Terms and Conditions available?	FDMA	YES AS PUBLISHED IN THE SPECIFICATIONS FRONT END SECTION	SEE SPECIFICATIONS	5/19/2026	1.05	Christopher Lee			
6	Cover Sheet of Armory Building	HVAC	According to the Cover Sheet in the Mechanical Section, there is drawing M1.3; however, when we received the drawing link, there was not a M1.3 drawing. Please advise.	Architect / Mechanical	M1.3 WAS NOT USED AND HAS BEEN REMOVED FROM THE INDEX COVER PAGE ON THE CONTRACT SET OF DRAWINGS.	MAIN ARMORY COVER - SEE REVISED INDEX	5/19/2026	1.06	Christopher Lee			
7	A8.4	Fencing	All of the text / wording on the sheet is very light when reviewed on the Computer Screen. Could we receive revised sheet to sharpen the wording?	Architect	WE WILL TRY TO MAKE DARKER AND RE-ISSUE I / SEE ATTACHED	EXISTING A 8.3 PDF IS LEGIBLE - SEE DIGITAL VERSION	5/19/2026	1.07	Christopher Lee			
8	2 NEW AHU	Electrical	During our Pre-Bid Site Visit, there was HVAC Work that consisted of (2) AHU's being installed on the LB Electrical Panel in the extra spaces; however, we are suppose to utilize those extra spaces in "LB" Panel to feed the new Electrical Panel "LBA". Please advise.	Electrical	NEW PANEL LBA SHALL BE FED BY NEW FEEDER FROM PANEL DP		5/22/2026	1.08 NEW	Christopher Lee			
9	2 NEW AHU	Electrical	I noticed that today in the panel LB they were installing 2 new AHU in the spaces that were supposed to feed the new panel LBA, which leave us without any space to install the breaker that supply this new panel. The existing panel LB is full with these 2 additions. Please advise.	Electrical	NEW PANEL LBA SHALL BE FED BY NEW FEEDER FROM PANEL DP		5/20/2026	2	Lester Rivera	Bright Future Electric		
10	ABI CLARIFICATION	Architectural / Electrical	The drawing set with the Architectural drawings and electrical drawings E.1 and E3.3, totaling 8 sheets including the cover sheet time stamped 12:07:12 notes 3 alternates. Are these alternates No. 1, 2, and 3 intended to be added to the Alternates 1, 2, and 3 of the 8 alternates noted on the main Arch plan set time stamped 12:12:22 ?	Architectural / Electrical	THIS PROJECT HAS 8 ALTERNATE BID ITEMS - PORTIONS OF ABI # 2 & # 3 INDICATE HIGH BAY SCOPE OF WORK WITH REGARD TO LIGHTING AND PAINTING	ABI#1 HAS BEEN REMOVED FROM HIGH BAY MAINTENANCES SHELTER BUILDING COVER SHEET- SEE ATTACHED.	5/21/2026	3	John Ryan			
11	Contract Days / Permitting	Architectural	The project is to be substantially completed in 210 days from the notice to proceed. Please confirm this does not include the time for permit submittal review and approval by the City.	Architect	CORRECT THIS DOES NOT INCLUDE THE TIME TO PERMIT THE PROJECT THRU THE CITY OF PALMETTO		5/21/2026		John Ryan			
12			It was said in the Pre-Bid meeting that there were additional days for final completion after substantial completion. Was it 30 days or 35 days calendar days?	Architect	30 CALENDAR DAYS		5/21/2026		John Ryan			
13	ABI # 6 CLARIFICATION	Architectural / Electrical / CIVIL	Alternate # 6. The Alternate notes for the 20' gate to be manual. Sheet A8.4 and A8.7 show a gate operator. Please confirm the operator is not required. Is additional asphalt paving & base required to be included with this alternate # 6 to connect the parking area with the asphalt beyond the fence if the gate is to be installed.	Architectural / Electrical / CIVIL	A8.4 & A8.7 SHOW TYPICAL DMA FENCE DETAILS. THE SPECIFIED GATES IN THIS PROJECT ARE MANUAL GATES NO OPERATOR REQUIRED FOR THIS PROJECT. Operator is shown on the typical detail but is not required for this project. Maual Operation Only.	THE STANDARD DETAILS ARE INSTALLATION OPTIONS / IN THIS CASE WE HAVE NO OPERATORS SPECIFIED. THAT OPTION WAS NOT REQUIRED BY THE OWNER IN THIS CASE.	5/21/2026		John Ryan			
14	Existing Warranty /	Architectural	In the Arch drawing, Note B on DA1.1 indicates there is an approved roof contractor that is required to be used for any roof work to not void the warranty. Are there any other required contractors that a GC is required to use for the project.	Architect	APPROVED ROOF CONTRACTOR FOR CURRENT ROOF WARRANTY WORK IS RF LUSA & SONS SHEET METAL INC. GUARANTEE NUMBER G2024-0001391-001-001 / 25 YEAR NDL ROOF GUARANTEE / GUARANTEE EXPIRATION DATE : 4.15.2049 / ROOF SPECIFICATION I0325HGPFRR	DSA1.1, SA1.1, DA1.1, DA1.2, DA1.4, DA7.1, A3.1.A3.2, A4.1, & A7.1 REVISED - SEE ATTACHED. DSA1.2, SA1.2, DA1.4, & A1.4 REVISED AND REMOVED THE ROOFING NOTE (IT DOES NOT APPLY TO THIS BUILDING)	5/21/2026		John Ryan			
15	Environmental / ACM REPORT	Architectural	Sheet DA.1.1 Note C references an Environmental Report. Has that report been provided? Was asbestos and lead found on-site?	Architect	ALL OF THE KNOW ASBESTOS THRU THE LAST FARP RENOVATION IN 2009 AND THE RECENT ROOF REPLACEMENT HAVE REMOVED THE ACM THAT WAS IN CONTACT WITH THE COMPLETE BUILDING RENOVATIONS AT THAT TIME. WE WILL P[ROVIDE THE LATEST REPORTS AS PART OF THE ADDENDUM.	DSA1.1, SA1.1, DA1.1, DA1.2, DA1.4, DA7.1, A3.1, A3.2, A4.1, & A7.1 REVISED - SEE ATTACHED. DSA1.2, SA1.2, DA1.4, & A1.4 REVISED AND REMOVED THE ENVIROMENTAL REPORT NOTE (IT DOES NOT APPLY TO THIS BUILDING)	5/21/2026		John Ryan			
16	Contract Conditions	Architectural	Section C -3 of Contract Conditions, page 6 item 4, Builder Risk Insurance. (PDF Page # 22 of Arch Specs) Please confirm Builder's Risk Insurance is not a requirement of the Contractor for this project.	FDMA	YES, BUILDERS RISK <u>IS</u> A REQUIREMENT FOR THIS PROJECT.		5/21/2026		John Ryan			
17	Contract Conditions	Architectural	The ITB, Exhibit 1, Dated May 4, 2026. Page 2 Building Permits It is noted that the Contractor is to obtain and pay for the Permits. It was talked about in the Pre-bid meeting that the contractor is to include the cost of the permits in their proposal. In the Arch Specs. Section 01 2100 – Allowances. It notes to include \$40,000 for Permits. I didn't hear this mentioned in the Pre-Bid meeting. Are we to include this \$40,000 Allowance in our proposal price?	Architect	ALLOWANCE FOR THE CITY PERMIT WILL BE \$40,000 / THIS IS A FORMULA RATE BASED ON A PROJECT BUDGET OF \$2,000,000 / SHOULD BE ADJUSTED ACCORDINGLY BASED ON YOUR INDIVIDUAL BID		5/21/2026		John Ryan			
18	FURNITURE / EQUIPMENT	Architectural	In the Arch Specs. Section 02 4119 – 4. 3.3 Preparation note B. 4 Cover and Protect furniture, furnishings, and equipment that have not been removed. Who is responsible for moving furniture, furnishings, and equipment for rooms that will receive new flooring and paint? Vault, supply, equipment, table, Vestibule Vending, Gym, and Mail room? Who is responsible for moving furniture, furnishings, and equipment for rooms that will receive tile/grout cleaning and sealing? Kitchen? Who is responsible for moving furniture, furnishings, and equipment for rooms that will receive new paint?	Architect	CONTRACTOR WILL BE RESPONSIBLE FOR MOVING ALL EXISTING FURNITURE, FURNISHINGS AND EQUIPMENT - PER GA1.0 & GA1.1 / GENERAL PROJECT NOTE G.		5/21/2026		John Ryan			
19	KITCHEN HOOD	MECHANICAL	Is any equipment changing under the hood (by others) that will affect the recertification of the Ansul System on the Kitchen Hood. Note 7 on M2.1	MECHANICAL	NO KITCHEN EQUIPMENT IS CHANGING UNDER THE HOOD		5/21/2026		John Ryan			
20	MECHANICAL MINI-SPLITS ROOM 109 / 127	ARCHITECTURAL / MECHANICAL	Sheet A1.1 Note 2 notes new mini split unit for the comm. room 127. Is this the Commander Office 127. Or the Mech/Elect/Communication room # 109? The Mechanical plans only indicate a new Mini split unit for room 109, not room 127. Please clarify.	Architect / Mechanical	Mini-split is for the Mechanical, Elect. Communications room #109. There is no intent to add a mini-split to Room #127.	SEE REVISED DRAWING A1.1 & DA1.1 NOTE #2 "NOT IN USE". & REMOVED FROM THE SCOPE OF WORK-BASE BID LIST ON GA1.0 SHEET. DATED 6.17.2026.	5/21/2026		John Ryan			

	Sheet/Detail	Trade	Question	Discipline	Response	Attachments	Date Submitted	RFI Batch #	RCS Author	Sub Contractor	Date Responded	Status/Procure
21		Demolition / Plumbing	Note 6 on DA1.1 indicates Demo All valves and faucets at existing plumbing fixtures. On P0.1 the "Scope of Work" box with 4 items listed, notes remove and reinstall the lavs, water closets, and urinals. The notes on P1.1 and P2.1 indicate the lavs, water closets, and urinals are to remain. Only remove and replace trim/fixtures. Are we to remove the fixtures and reinstall them? Are we to leave the fixtures in place and only install new faucets/valves/trim/toilet seats/accessories as noted? During the Pre-bid walk thru it appeared a few water closets were out of order. Are any fixtures noted to be re-used required to be replaced? Please clarify the scope of work.	Plumbing	<i>Scope of work has been modified on revised drawings to clarify work represented on floor plan drawings.</i>	SEE REVISED DRAWINGS P1.1 & P1.2 DATED 6.17.2027	5/21/2026	7.01	John Ryan			
22		Mechanical	Sheet M0.1 "Scope of Work" Box notes Remove AHU-1, AHU-2, AHU-3, AHU-4, AHU-5, AHU-6, AHU-8 and associated condensing units. Install AHU-1, AHU-3, AHU-4, AHU-5, AHU-6, AHU-7 Install CU-1A/1B, CU-3, CU-4, CU-5, CU-6, CU-7 Sheet M0.2, M1.1, and M2.1 notes AHU-1 (E) is existing and is to remain. CU-1 (E) AHU-2 (E) CU-2A (E) CU-2B (E) AHU-3 (N) New CU-3 (N) AHU-4 (N) CU-4 (N) AHU-5 (E) CU-5 (E) AHU-6 (N) CU-6 (N) AHU-7 (E) CU-7 (E) In the Pre-Bid Meeting it was mentioned an AHU was being replaced. Please clarify which units are to remain and which need to be installed by the Contractor.	Mechanical	<i>Scope of work has been modified on Addendum #1 drawings to clarify work represented on floor plan drawings.</i>	SEE REVISED DRAWING M0.1 DATED 6.17.2027	5.22.2026	7.02	John Ryan			
23		Mechanical	Are we to install the 6" I-beams noted on sheet M0.4, Existing Condensing Unit Tie Down Detail on all CU units noted on the plans? Does the Ground Mounted Condensing Unit Tie Down Detail on M0.3 apply to any of the CU units?	Mechanical	<i>This scope has been removed on Addendum #1 Drawings</i>	SEE REVISED DRAWING M0.4 DATED 6.17.2027	5.22.2026	7.03	John Ryan			
24		Mechanical / Electrical	I received this question from an Electrician who was at the Pre-Bid meeting yesterday. I noticed yesterday, that in the electrical panel LB they were installing 2 new AHU in the spaces that were supposed to feed the new panel LBA, which leave us without any space to install the breaker that supply this new panel. Please advise.	Mechanical / Electrical	<i>NEW PANEL LBA SHALL BE FED BY NEW FEEDER FROM PANEL DP</i>		5.22.2026	7.04	John Ryan			
25		Electrical	Sheets E2.1 and E2.2. Note 1 indicates remove existing light fixtures. Wiring is to remain. Alternate 2. It is my understanding that this alternate includes all the LED light fixtures on the lighting schedule including interior lights, outside building lights, light pole lights, flag lights, sign lights, and maintenance bay lights. All new light fixtures are an alternate. Please clarify the base bid lighting scope of work. Is the cost to remove the lighting noted on the electrical drawings and install nothing part of the base bid? Reinstall the existing fixtures? If the ceiling grid stays, would it be necessary to remove the lights? Removing the fixtures would only be required in at a hard lid ceiling for painting. Is the cost of the removal/disposal of all the light fixtures, note 1 on E2.1 and E2.2, to be included as part of the alternate 2? Please clarify the alternate 2 scope of work.	Electrical	REMOVAL OF THE EXISTING LIGHTS IS ONLY REQUIRED IF ABI #2 IS SELECTED. THE COST OF DISPOSAL OF THE EXISTING LIGHT FIXTURES ONCE REMOVED SHOULD BE INCLUDED WITH ABI #2.		5.22.2026	7.05	John Ryan			
26		Architectural / Civil	Note 1 on C3.1, notes Alternate 7, mill and overlay is for the East Parking and North 7 parking stalls. Note 5 on C3.1 notes remove asphalt and install new asphalt for the North and West Pavement drive isle areas. Should this be Alternate 1? The Cover Page on the Arch drawings under Alternates A, Alternate No. 1 notes Asphalt Milling, Resurface and Restripe. Sheet SA1.1 Specific Note 1 notes Alternate 1 and New Asphalt. Sheet SA1.1 Specific Note 2 notes Alternate 1, resurface and re-striping POV parking lot with Reinforced Concrete as indicated on Civil drawings. (Is there Reinforced Concrete noted anywhere?) Should this be Alternate 7? Sheet SA1.1 Specific Note 15 notes, Alternate 7, and notes the same area as Note 2. Same Notes on DSA1.1 as SA1.1 Please confirm Alternate No. 1 is remove asphalt and install new pavement with no striping. Please confirm Alternate No. 7 is mill and overlay with striping. Or please clarify.	Architectural / Civil	<i>Note 1 and 3 has been revised on Sheet C3.1</i>	SEE REVISED DRAWINGS C3.1 DATED 6.17.2027 SEE REVISED GA1.0 SHEET. INCLUDED THE RESEAL AND RESTRIPE OF THE PARKING AREAS AS PART OF THE BASE BID SCOPE OF WORK..	5.22.2026	7.06	John Ryan			
27		Civil	Sheet C4.1 and C5.1 does not show a new asphalt in front of the High Maintenance Bay. An asphalt ramp is existing. Sheet C3.1 does not show the removal of the ramp at the High Maintenance Bay. Sheet SA1.2 shows hash marks on the ramp into the High Maintenance Bay but does not indicate the removal of the ramp. Sheet C5.1 shows the drain line cutting through the ramp. Please clarify the scope of work in front of the High Maintenance Bay and if the asphalt ramp is to be removed replaced.	Civil	<i>The asphalt in front of Maintenance Bay is now shown to be removed and replaced on Sheet C3.1, C4.1 and C5.1.</i>	SEE REVISED DRAWINGS C3.1, C4.1, & C5.1 DATED 6.17.2027 REMOVAL OF THE RAMP AND ALL OTHER WORK RELATED TO ABI#1 HAVE BEEN REMOVED FROM DSA1.2 & SA1.2 SINCE THIS IS NOT PART OF THE HIGH MAINTENANCE BAY SCOPE OF WORK. SEE REVISED DRAWINGS DSA1.2 & SA1.2.	5.22.2026	7.07	John Ryan			
28		Civil	Sheet C6.1 notes 12" compacted Subgrade for the areas of new pavement. Are we to remove the existing subgrade and install new subgrade in all areas of new asphalt? Are we able to use the existing subgrade material in areas of disturbance?	Civil	<i>IT CAN BE REUSED AND RE-COMPACTED PER THE SPECIFICATION</i>	SEE REVISED C6.1 DATED 6.17.2026	5.22.2026	7.08	John Ryan			
29		Civil	Sheet C4.1, General Note. Are we to include any asphalt patching of the existing asphalt in areas of the parking lot and entrance prior to sealing where the asphalt is spalled or exposed gravel? Is the any sealing of asphalt required outside the main gate to the road?	Civil	<i>ASPHALT PATCHING IS REQUIRED AS SHOWN</i>	SEE REVISED C4.1 DATED 6.17.2026	5.22.2026	7.09	John Ryan			
30		Civil	Sheet C2.1, General Construction Note 7, Erosion control & Water Quality Management notes 2 and 8, and Paving and Drainage Note 6. Please provide sod type and any top soil requirements. Is there an existing sprinkler system?	Civil	<i>BAHIA SOD WILL BE REQUIRED AS SHOWN ON REVISED DOCUMENTS. NO NEW SPRINKLER SYSTEM REQUIRED AS PART OF THIS SCOPE OF WORK.</i>	SEE REVISED C2.1 DATED 6.17.2026	5.22.2026	7.10	John Ryan			
31		Civil	Sheet C4.1 The new concrete sidewalk in the legend is noted Concrete Walk/Pavement. Is the sidewalk required to be 6" thick with 12" subgrade as noted in the bottom right detail on C6.1?	Civil	<i>NOTE # 1 HAS BEEN REVISED ON c4.1 TO BE 4" THICK</i>	SEE REVISED C4.1 DATED 6.17.2026	5.22.2026	7.11	John Ryan			
32		Architectural	Are the 8 bollards at the propane tank and 8 bollards at the front and back of the adjacent building required to be painted?	Architect	<i>NO BOLLARDS TO BE PAINTED @ CHP BUILDING. ONLY PAINT EXISTING BOLLARDS SHOWN IN CURRENT SCOPE OF WORK.</i>		5.26.2026	8.01	John Ryan			
33		Architectural	The Architectural Cover sheet notes Alternate No. 6 is for the 20' K-8 Force Gate. SA1.1 note 14 references Alt. 6 and the 20' gate. SA1.1 note 16 notes a new 6'w x 4'h single swing gate as part of Alternate No. 6. Sheet DAS1.1 refers to a 4' swing gate as part of Alt No. 6. C4.1 notes the gate to be 4' wide and 6' high with no reference to the alternate. Please clarify the gate size and if the swing gate is part of Alternate No. 6.	Architect	<i>WE WILL REVISE DRAWING SA1.1 NOTE 16 TO STATE THAT THE NEW GATE IS 4'-0" WIDE X 6'-0" HIGH</i>	SEE REVISED DRAWING SA1.1 DATED 6.17.2027	5.26.2026	8.02	John Ryan			
34		Architectural	Note 1 and 3 on Sheet DA1.2 Tinting is required if Alternate # 4 is Not selected. Is Tinting of the clearstory windows required if Alternate # 4 is selected?	Architect	<i>NO TINTING IS NOT REQUIRED IF ABI # 4 IS SELECTED AS THE EXISTING GLAZING WILL BE REPLACED WITH NEW GLAZING WITH SOLAR FILM INEER LAYER.</i>		5.26.2026	8.03	John Ryan			

	Sheet/Detail	Trade	Question	Discipline	Response	Attachments	Date Submitted	RFI Batch #	RCS Author	Sub Contractor	Date Responded	Status/Procure
35		Architectural	At the Demo RCP Legend On DA7.1, Existing 2x2 APC System to be removed and & Disposed Of. This note refers to the Drill Hall. Sheet A7.1 note 4 notes the grid to remain at the Drill Hall. Please confirm the grid in the Drill Hall is to remain.	Architect	DA7.1 - DEMO LEGEND FOR 2X2 GRID TO BE ADJUSTED TO REFLECT DEMO OF 2X2 APC TILE ONLY / GRID TO REMAIN.	SEE REVISED DA7.1 DATED 6.17.2026	5.26.2026	8.04	John Ryan			
36		Architectural	At the Demo RCP Legend On DA7.1, it notes Exist. Hard Ceiling Systems, At Bathroom and & Showers to be Removed & Disposed of. @ Other Location ETR & Protect. The hashing of the dotted legend notation in the hard lid ceiling areas is not shown on the Demo RCP plan. Sheet A7.1 RCP Legend notes New Hard Ceiling System at Bathrooms & Shower. Is the Restroom/Shower Ceiling intended to be removed and replaced? Please clarify.	Architect	DEMO LEGEND TO BE REVISED REVISED TO REFLECT ALL HARD CEILING SYSTEMS TO REMAIN / PROTECT.	SEE REVISED DA7.1 / A7.1 DATED 6.17.2026 - HATCH LEGENDS REVISED ACCORDINGLY.	5.26.2026	8.05	John Ryan			
37		Architectural	Architectural Specs section 01 1000 – 02. This Scope of Work Sheet - Base Bid This Sheet notes Drill Hall Room 131 "New PA System" I have been unable to find any information on the requirements for the PA system. Please clarify requirements. Please also note that this sheet notes "Base Bid" A lot of the scope of work items are listed as alternates.	Architect	PA SYSTEM WAS REMOVED FROM THIS PROJECT	SEE REVISED SPECIFICATION 01 1000 – 02 SCOPE OF WORK / ALSO SEE REVISED SCOPE OF WORK-BASE BID LIST ON GA1.0 SHEET	5.26.2026	8.06	John Ryan			
38		Architectural	Architectural Specs section 01 1000 – 02. This Scope of Work Sheet - Base Bid Under Architectural, Vault Room 110/111 notes replace humidifier and new Mini-Split. The mechanical plans do not indicate the replacement of humidifier, just new as an alternate. Is a mini split required for the vault room? Please clarify the scope of work.	Architect Mechanical	dehumidifier / mini-split @ vault?? Scope was changed by DMA to only provide the dehumidifier and condition the vault from the AHU as part of AB#8 - SEE REVISED DRAWINGS	SEE REVISED SPECIFICATION 01 1000 – 02 SCOPE OF WORK. / ALSO SEE REVISED DA1.1 & A1.1 NOTE #1. & SEE REVISED SCOPE OF WORK-BASE BID LIST ON GA1.0 SHEET.	5.26.2026	8.07	John Ryan			
39		MECHANICAL SCOPE OF WORK M23000	We are seeing a disagreement in the docs the below scope of work indicates all units to be replaced but, on the schedule, and plans the only units scheduled for replacement are AHU 3, 4, 6, on the plans Ahu 7 has a note to be replaced See attached snip for reference Please, clarify.	Mechanical	Scope of work has been modified on Addendum #1 drawings to clarify work represented on floor plan drawings.		5.27.2026	9.01	Vamsi Vuggaraju			
			M23000 SCOPE OF WORK 1. REMOVE EXISTING DX SPLIT SYSTEM AHU-1, AHU-2, AHU-3, AHU-4, AHU-5, AHU-6, AHU-8 AND ASSOCIATED CONDENSING UNITS. 2. REMOVE EXISTING EXHAUST FANS. 3. CLEAN SUPPLY RETURN AND OUTSIDE AIR DUCTWORK TO REMAIN. 4. INSTALL NEW AHU-1, AHU-3, AHU-4, AHU-5, AHU-6, & AHU-7 AIR HANDLERS WITH HOT GAS REHEAT FOR HUMIDITY CONTROL. 5. INSTALL NEW CONDENSING UNITS CU-1A/1B, CU-3, CU-4, CU-5, CU-6, & CU-7 PROPERLY SECURED TO CONCRETE HOUSEKEEPING PADS.	Mechanical								
40		FDMA	Who is the "owner" of this project. Need to know who to make the Bid Bond payable to?	FDMA	The owner of this project is "The Department of Military Affairs (DMA), 2305 State Road 207, St Augustine, FL 32086"		5.27.2026	10.01	John Ryan			
41		CIVIL	Alternate No. 1 Sheet C5.1 Is the new storm system structures, new storm system piping, removal of the asphalt, and installation of new asphalt intended to be in the base bid or part of the Alternate No. 1? Is the connection of the Armory Building roof downspouts and AC condensate lines to the "base bid new storm system" intended to be the scope of Alternate No. 1?	CIVIL		SEE C5.1	5.27.2026	10.02	John Ryan			
42			Sheet A1.2 notes the floor finish in the Mechanical Room 116 is Resinous Epoxy Flooring. During the walk thru it was noticed this room is filled with existing mechanical equipment, refrigerate lines, ducting, and electrical that takes up majority of the space in this room including the floor space. Please confirm that is it not the intention to remove all items to install Resinous Epoxy Flooring throughout the room. Please provide direction.	Architect	FINISH SCHEDULE WILL BE REVISED TO REFLECT SEALED CONCRETE FINISH IN MECHANICAL ROOM 116.	SEE REVISED A1.1 & A1.2 REFLECTING NEW SEALED CONCRETE FINISH FOR ROOM 116 & MODIFIED IN THE SCOPE OF WORK-BASE BID LIST ON GA1.0 SHEET. DATED 6.17.2026.	5.27.2026	10.03	John Ryan			
43	GA1.0 / E0.2	Electrical	According to General Project Notes letter "J", states "Any utility outage that exceeds 2 hours, contractor is to provide full provisions to maintain operations at all times." Are we allowed to utilize the Generator Docking Station to connect Temporary Power while the outage is occurring per sheet E0.2.	Architect / ELECTRICAL	THERE IS NO RESTRICTION ON THE USE OF THE DOCKING STATION. WE DO NOT SEE A SITUATION WHERE THE CONTRACTOR WOULD NEED TO TIE INTO THE TEMP DOCKING STATION FOR TEMPORARY POWER FOR THIS SPECIFIC SCOPE OF WORK.		5/22/2026	11.01	Christopher Lee			
44	E0.2	Electrical	What are the power requirements for the Generator Docking Station per sheet E0.2	ELECTRICAL	DOCKING STATION IS EXISTING TO REMAIN WITH NO SCOPE OF WORK		5/22/2026	11.02	Christopher Lee			
45	Cover Sheet of Armory Building	HVAC	According to the Cover Sheet in the Mechanical Section, there is drawing M1.3; however, when we received the drawing link, there was not a M2.3 drawing. Please advise.	Architect	NO M1.3 OR M 2.3 - ARCHITECTURAL INDEX WILL BE REVISED TO REFLECT THIOS	ARCHITECTURAL COVER MAIN ARMORY	5/27/2026	11.03	Christopher Lee			
46		General Contractor	Once FDMA has published the informing the awarded General Contractor, will the Design Team omit the ABI's not selected from the Construction Documents as a revision submission to City of Palmetto to avoid any confusion with the Inspectors. Please advise.	FDMA / Architect	THE DESIGN TEAM WILL REVISED THE ABI LIST BASED ON THE SELECTED ALTERNATE BID ITEMS PRIOR TO THE CITY PERMIT SUBMISSION.		5/27/2026	11.04	Christopher Lee			
47	DA1.1 / SP Note #3, E2.3 & E4.1	Demolition / Electrical	According to Demo Specific Note Number 3 on sheet DA1.1, typically we are to repair non working interior electrical outlets and replace broken faceplates at outlets in the existing Drill Hall. However, sheet E2.3 & E4.1 does not indicate these outlets in the Drill Hall. What caused these outlets to not work and do we need to pull remove the existing conduit/wiring and replace with new conduit/wiring to existing electrical panel? Please advise.	Architect / ELECTRICAL	EXPECT UP TO 10 DEVICES TO BE CONSIDERED PHYSICALLY BROKEN AND NEED THE WIRING DEVICE ONLY TO BE REPLACED. ALL FACE PLATES TO BE REPLACED.		5/27/2026	11.05	Christopher Lee			
48	A6.2 / SP Note 3 & 7	General Contractor	According to Specific Note Number 3 & 7 shown on sheet A6.2, the existing unit sign and stone system is to remain and be protected. During the walk-through on 5/20/26, the unit sign stone appears to have green spots in certain locations based on the attached picture. Does the Owner want the Unit Sign to be pressure washed? Please advise.	FDMA / Architect	NOTE ADDED TO PRESSURE WASH & SEAL EXISTING STONE FACES. Pretreatment: Pressure Clean, fungicide & rinse clean (minimum 2500 PSI) Pretreatment: Scuff Sand and Solvent Wipe with Denatured Alcohol First Coat: Sherwin Williams Loxon® 40% Silane Water Repellent, LX31T0840 Clear. If a second coat is required to uniform the application, this product MUST be applied weton-wet. SEE REVISED A6.2 SHEET NOTES #3 & 7		5/27/2026	11.06	Christopher Lee			
49	A6.2 / SP Note 1 & 5	Demolition / Sitework	According to Specific Note Number 1 & 5 shown on sheet A6.2, we are to install a new 6" thick 5' Radius Concrete Slab which will be part of the Base Bid since the Light Fixtures are part of ABI #2 only. During the walk-through on 05/20/26, there are existing shrubs in front of the building that will impede the new concrete slab which are not called out on the drawings. Please provide the width of existing shrubs to be removed based on the attached picture.	Architect	DSA1.1 NOTE 13 & DA1.1 NOTE 20 WILL BE REVISED TO INCLUDE THE REMOVAL OF ALL LANDSCAPING UP AGAINST THE MAIN ARMORY BUILDING ON THE NORTH & EAST FACADESS OF THE EXISTING BUILDING.		5/27/2026	11.07	Christopher Lee			
50	A6.2	General Contractor	During the walk-through on 05/20/26, there is an existing plaque next to the flagpole. When the new concrete radius slab is completed under the Base Bid Pricing, the existing plaque could receive damage. Could the existing plaque be shifted towards the north a couple of feet based on the attached picture?	FDMA	PLEASE PROCEED TO PROTECT THE EXISTING PLAQUE AS INDICATED ON DRAWING A6.2 / IT IS CLOSE BUT WITH THE RIGHT PROTECTION WE FEEL THIS WILL NOT BE A PROBLEM. SEE NEW NOTE 10 SHEET A6.2 EXISTING PLAQUE TO REMAIN / PROTECT.		5/27/2026	11.08	Christopher Lee			
51	A6.2 / SP Note 3 & 7	General Contractor	According to Specific Note Number 3 & 7 shown on sheet A6.2, the existing unit sign and stone system is to remain and be protected. During the walk-through on 5/20/26, the unit sign appears to had some dirt erosion. Are we required to bring this area up to grade before installing the Landscape fabric & #57 Gravel inside the Concrete/Masonry Border based on the attached picture? Please advise.	FDMA	YES ,WE WILL ADD A NOTE TO PROVIDE ADDITONAL GRADE TO PROVIDE A LEVEL BASE FOR THE NEW LANDSCAPE FABRIC AND #57 GRAVEL. SEE NOTE 8 SHEET A6.2		5/27/2026	11.09	Christopher Lee			
52	GA1.0 / DA7.1	Acoustical Ceiling	According to the Scope of Work Base Bid Notes shown on GA1.0 & Note 3 on sheet DA7.1, we are to remove all ACT tile in the existing Drill Hall and replace soiled tile throughout building. Approximately how many square feet of Drill Hall ceiling tile will be utilized? Please advise.	Architect	BASED ON THE SCOPE OF THE PROJECT AND THE EXISTING CONDITION S DURING THE CONSTRUCTION PHASE / THE EXISTING DRILL HALL TILE IS TO BE USED TO REPLACE ANY DAMAGED OR EXISTING SOILED TILE IN THE MAIN ARMORY - FIRST FLOOR LEVEL. QUANTITIES ARE NOT KNOWN UNTIL THE CONTRACTION PHASE IS COMPLETE.		5/27/2026	11.10	Christopher Lee			
53	DA7.1 / A1.1 / A7.1	Demolition	During the walk-through on 05/20/26, there are (2) Model Planes hanging from the Drill Hall Ceiling near the Mural Logo based on the attached picture; however the designated sheets of DA7.1, A1.1 & A7.1 do not address these planes. Will Owner be responsible for removing planes prior to demolition of existing ceiling tile at Drill Hall? Please advise.	FDMA / Architect	YES THE UNIT WILL REMOVE AND STORE THESE PLANES DURING THE CONSTRUCTION PHASE. SGT PETERS.		5/27/2026	11.11	Christopher Lee			

	Sheet/Detail	Trade	Question	Discipline	Response	Attachments	Date Submitted	RFI Batch #	RCS Author	Sub Contractor	Date Responded	Status/Procure
54	Sheet M2.2, note 5.		Sheet M2.2, note 5. Is this stating new ductwork is required from the existing clearstory ductwork down to the mechanical room? Access from the mechanical room is extremely limited. Going through the drill room side of the wall would destroy the logo on the wall. See note 17, on DA1.1 Please clarify the requirements on note 5 on M2.2	Mechanical	Scope of work has been modified on Addendum #1 drawings to clarify work represented on floor plan drawings.	SEE REVISED DRAWING M2.2 DATED 6.17.2026	5.28.2026	12.01	John Ryan			
55			Is cleaning the kitchen hood and stainless steel wall panel required as part of the scope of work for the recertification of the Ansul System on the kitchen hood?	Mechanical	No		5.28.2026	12.02	John Ryan			
56			Please provide a window tinting specification.	Architect	08 8713 SAFETY AND SECURITY FILM SPECIFICATION WILL BE ISSUED	SEE PREVIOUSLY PROVIDED 08 8713 SAFETY AND SECURITY FILM SPECIFICATION	5.28.2026	12.03	John Ryan			
57	Note 27 on A1.1		Note 27 on A1.1 Are we to remove 8' of bottom wall track, install new track, and remove 6 vertical metal studs up to the height of 5' then splice in new studs and not damage the tile in the shower and changing area in the men's restroom? Please confirm this is correct.	Architect	BOTTOM TRACK WILL BE REPLACED EXISTING INSULATION IS TO REMAIN IN THE PLUMBING WALL BEYOND. METAL CORRODED BOTTOM TRACK AND STUDS FULL HEIGHT WILL BE REPLACED 10'-0" wide x 10'-0" high	DEMO NOTE # 27 AND CONSTRUCTION NOTE # 27 SEE REVISED DA1.1 & A 1.1, & ADDED TO SCOPE OF WORK-BASE BID LIST ON GA1.0 SHEET. REVISED ON 6.17.26	5.28.2026	12.04	John Ryan			
58	ALT # 3 CLARIFICATION		Would the exterior HM doors and frames be painted with alternate # 3? Both inside of the exterior door and frame and outside door and frame? Would the exterior HM doors and frames be painted in the base bid? Both inside of the exterior door and frame and outside door and frame? Or a combination of base bid and alternate 3? Inside of Door? Outside of Door? Inside Frame? Outside of Frame? Please clarify.	Architect	YES,ABI NOTE # 3 WILL BE MODIFIED TO INCLUDE THE PAINTING OF ALL EXTERIOR HM DOORS AND FRAMES IINCLUDING ALL INSIDE AND OUTSIDE FACES.	SEE REVISED MAIN ARMORY COVER, SHEETS SA1.1 NOTE 13 ,A1.1 NOTE 20, A3.1, & A3.2 NOTE 3 - DATED 6.17.2025 SEE REVISED ABI SPECIFICATION FOR ABI # 3 DESCRIPTION.	5.28.2026	12.05	John Ryan			
59	Arch Specs section 2.5 of 07 9200-4		Arch Specs section 2.5 of 07 9200-4 Is acoustical joint sealant at perimeter angle required on existing acoustical ceiling perimeter angle? Or just new?	Architect	NO ACOUSTICAL PERIMETER SELANT IS NOT REQUIRED ON EXISTING CEILING GRID. ONLY ON NEW INSTALLED CEILING GRID.		5.29.2026	13.01	John Ryan			
60	A1.1 / SP Note #27	Demolition / Drywall	According to Specific Note Number 27 shown on sheet A1.1 calls for us to remove the damaged sections of metal framing in Room 108 due to Water Damage. During the walk-through on 05/20/26, it appears that the batt insulation was compromised and see mold / rust stains at the metal bottom track based on the attached picture. Are we to replace the insulation as well. Please advise.	FDMA / Architect	BOTTOM TRACK WILL BE REPLACED EXISTING INSULATION IS TO REMAIN IN THE PLUMBING WALL BEYOND. METAL CORRODED BOTTOM TRACK AND STUDS FULL HEIGHT WILL BE REPLACED 10'-0" wide x 10'-0" high	DEMO NOTE # 27 AND COPNSTRUCTION NOTE # 27 SEE REVISED DA1.1 & A 1.1, & ADDED TO SCOPE OF WORK-BASE BID LIST ON GA1.0 SHEET. REVISED ON 6.17.26	5/28/2026	14.01	Christopher Lee			
61	A6.1 / Detail 2 & P0.1	Demolition / Plumbing	According to the Plumbing Fixture Schedule shown on sheet P0.1, we are not removing any of the existing Water Closets; however, during our walk-through on 05/20/26, we noticed that the men's handicap water closet was out of service based on the attached picture. Are we responsible to replace this water closet? Please advise.	FDMA / Architect	NO , WE ARE NOT REPLACING FIXTURES WE ARE ONLY REFRESHING THE FAUCETS, FLUSH VALVES AND PLUMBING CONNECTIONS INCLUDING TRAPS / WAX RINGS ETC AS SPECIFIED.		5/28/2026	14.02	Christopher Lee			
62	C3.1 / Note #5 & 14 & Cover Sheet of Armory Building	Sitework / Demolition	According to Demolition Notes Number #5 & #14, we are to demo existing asphalt, existing shrubs and re-grade areas for new roof drain lines and storm water line. Please confirm if this work falls under ABI #1 as shown on the Architectural Cover Sheet.	Architect	YES THIS SCOPE OF WORK WOULD FALL UNDER ABI 01 - AS IT ALL RELATES TO CIVIL STORM SCOPE OF WORK.		5/28/2026	14.03	Christopher Lee			
63	E1.1 Note 5, E2.1 Note 1, E2.2 Note 1, E3.1 Note 1 & E3.2 Note 1 Armory Building & DA1.4 & E3.3 of Maintenance Building	Electrical	As per the notes on the respected Sheets E1.1 Note 3 & 5, E2.1 & E2.2, they depict to remove the existing light fixtures in armory building and light pole fixtures and to install new LED light fixtures shown on sheets E1.1, E3.1 & E3.2 of the armory building which can be classified as the Base Bid; however, you have to refer to sheet E0.1 and the Cover Sheet that indicates this work as ABI #2. Please confirm that the demolition cost for these light fixtures will be captured in ABI #2.	ELECTRICAL	ALL ITEMS NOT DEFINED AS ALTERNATES WILL BE BASE BID / CONFIRMED DEMOLITION COST FOR LIGHT FIXTURES IS TO BE CAPTURED IN ABI # 2.		5/28/2026	14.04	Christopher Lee			
64	Specification Section 01 1000 / Cover Sheet	All Trades	On page 2 of Specification Section 01 10 00, there is a scope of work excel table labeled "Base Bid" which lists all the disciplines (i.e., Civil, Mechanical, Architectural, etc.). Some of these items listed in this excel table are called to be Base Bid; however, there are labeled ABI's per the Cover Sheet (i.e., the Stormwater Collection including Downspouts, Upgrading the Interior / Exterior Light Fixtures to LED & Providing the Vault Dehumidifer, etc). Please advise and update specification Section 01 10 00 what is included in the Base Bid Scope of Work.	Architect	SEE REVISED SCOPE OF WORK DOCUMENT On page 2 of Specification Section 01 10 00 / BASE BID ITEMS ARE ALL WORK NOT LISTED IN ALTERNATE BID ITEMS / CLARIFICATIONS HAVE BEEN MADE	SEE REVISED DRAWING GA1.1 Dated 6.17.2026	5/29/2026	15.01	Christopher Lee			
65	Alternate # 6		The 20' opening sliding gate will have a 10' counter-balance tail. The overall length of the gate will be 30'. There is only a 23' and 19' line of fence on each side of the 20' opening. A cantilever slide gate will not fully retract as there is not enough clearance. The only option with this configuration to go with a double leaf swing gate as they have at the main entry. Please advise.	Architect	WE WILL CHANGE THE SLIDING GATE TO A 20'-0" WIDE DOUBLE SWING GATE AS PER A1 / UFC 712 REFERENCED ON DRAWING A8.10 ALTERNATE BID ITEM NO. 6: PROVIDE NEW 20'-0" WIDE (K-8 FORCE PROTECTION) FENCE SYSTEM) DOUBLE SWING GATE WITH MANUAL FUNCTION TO SOUTH SIDE OF POV PARKING. EXISTING DEAD MAN ANCHOR LAYOUT TO BE RE-CONFIGURED FOR NEW GATE. COMPLETE FUNCTIONAL INSTALLATION REQUIRED.	SEE MAIN ARMORY COVER SHEET, & SA1.1 REVISED NOTE 14	6/10/2026	16.01	John Ryan			
66	A3.1 & A3.2 Note #3	Stucco / Painting	According to Note #3, we are to refinish and repaint the exterior brick / stucco facade as ABI #3. Per our site visit on 5/20/26, the exterior brick appears to be in fine condition; however the stucco appears to have some minimal cracks. Are we to pressure wash, caulk and repaint exterior facade. Please clarify.	Architect	SEE REVISED NOTE # 3 ON A3.1 & A3.2 I F ABI #03 IS SELECTED: PRESSURE WASH AND PREPARE ALL EXTERIOR SURFACES FOR COMPLETE EXTERIOR PAINT SCOPE OF WORK INCLUDING ALL EXTERIOR STUCCO AND BRICK FACADES. REPLACE ALL SOFT JOINTS WITH NEW BACKER ROD AND SEALANT. REFINISH AND REPAINT COMPLETE EXTERIOR STUCCO FACADE INCLUDING BRICK FACADE, AND THE PAINTING OF ALL EXTERIOR HM DOORS AND FRAMES IINCLUDING ALL INSIDE AND OUTSIDE FACES. ETC. / 4 COLOR SCHEME MAX.□	SEE REVISED NOTE # 3 ON A3.1 & A3.2 DATED 6.17.26	6/10/2026	17.01	RC Stevens - Christopher Lee			
67	C5.1 Note 2	Sitework	We have to repleace the existing transition couplings at the existing roof drain connections on the Storage Building; however, there are no drawings or specifications. Please advise.	Civil	SEE EXISTING DETAIL ON DRAWING C6.1		6/10/2026	17.02	RC Stevens - Christopher Lee			
68	C4.1 Note 12 & A6.2	Multiple Trades	According to the Cover Sheet ABI #2 states we are to provide new LED Light Fixtures at Flagpole and unit sign. Please confirm that the work at the Concrete / Demo Work at the existing Flagpole and Unit Sign will be part of Base Bid per note 12 on sheet C4.1 & sheet A6.2	Architect / Civil	YES THIS SCOPE OF WORK IS PART OF THE BASE BID.		6/10/2026	17.03	RC Stevens - Christopher Lee			
69	C3.1 & C4.1	Sitework	There is a General Note shown on sheets C3.1 & C4.1 stating if ABI #7 if not selected, POV Parking Lot shall sealed and striped. Will this note apply to ABI #1 as well? Please Advise.	Civil / Architect	RESEAL AND STRIPE IS BASE BID / DRAWINGS HAVE BEEN UPDATED ACCORDINGLY.		6/10/2026	17.04	RC Stevens - Christopher Lee			
70	C3.1 & C4.1	Sitework / Demolition	All of the notes shown on sheets C3.1 & C4.1 indicate the work to be priced as Base Bid (i.e., MOV Paving, 12" Curbing, Concrete Sidewalk, New Man Fence Gate Opening, Wheel Stops, Relocating HC parking stall with Signage / Striping and removal of crosswalk, etc.) with the exception of ABI #7 clearly defined. Please define which notes fall under Base Bid and/or the Alternates for clarity.	Civil	ALL ITEMS NOT DEFINED IN ALTERNATES ARE BASE BID.		6/10/2026	17.05	RC Stevens - Christopher Lee			
71		General	Are we required to have Temporary Fencing with Windscreen to hold our Jobsite Connex Trailer, Construction Materials/Laydown Area, Portable Toilets and Storage Containers. Please advise.	FDMA	NO TEMPORARY FENCING IS NOT REQUIRED.		6/10/2026	17.06	RC Stevens - Christopher Lee			
72			Are there any badging requirements? If so, what is the cost for the badge per employee and how long does it take to obtain?	FDMA	NO BADGING REQUIREMENTS FOR THIS PROJECT IS REQUIRED BY THE OWNER.		6/10/2026	18.01	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
73			Are there any noise restrictions or specific sound level requirements we need to follow on this job site?		THE ONLY REQUIREMENTS WOULD BE WHAT IS REQUIRED BY LOCAL ORDINANCE, PROJECT SITE IS IN A RESIDENTIAL NEIGHBORHOOD.		6/10/2026	18.02	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
74			If Builder's Risk is required, please provide building value.	FDMA	YES, BUILDERS RISK IS A REQUIREMENT FOR THIS PROJECT. contractor should use their bid proposal amount to determine Builder's Risk insurance premiums. ESTIMATED construction cost amount is \$ 2,173,045.00 We would also suggest they each Contractor speak to their insurance agent to determine the amount to use in their own proposal.		6/10/2026	18.03	Juliana SANCHEZ - MVH CONSTRUCTION INC.			

	Sheet/Detail	Trade	Question	Discipline	Response	Attachments	Date Submitted	RFI Batch #	RCS Author	Sub Contractor	Date Responded	Status/Procure
75			Confirm the permitted work hours for this project. Are there specific days and times when activities are allowed, and are there restrictions on weekends or holidays?		WORK HOURS PER THE PRE-BID AGENDA ARE 7:00AM TO 04:30PM. FOR WEEKEND HOLIDAYS AND ALTERNATE WORK DAYS SEE THE CURRENT AWS CALENDAR ATTACHED TO THIS ADDENDUM	AWS CALENDAR 2026	6/10/2026	18.04	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
76	C5.1		Could you provide detail for the connection between ST-01 and the 8" Roof Drain per plan C5.1?		USE A STANDARD "WYE" FITTING		6/10/2026	18.05	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
77	SA1.1		Please provide the Environmental Report for survey of asbestos at the Main Building, as described on General Site Notes C. page SA1.1		DMA/CFMO HAS PROVIDED ALL ENVIRONMENTAL REPORTS IN THEIR ARCHIVE FOR YOUR REFERENCE WITHIN THE ADDENDUM # 02 ATTACHMENTS. KEEP IN MIND THIS FACILITY HAS BEEN THROUGH AN EXTENSIVE FARP RENOVATION IN 2009 AND A COMPLETE ROOF REPLACEMENT PROJECT IN 2024.	DSA1.1, SA1.1, DA1.1, DA1.2, DA1.4, DA7.1, A3.1, A3.2, A4.1, & A7.1 REVISED - SEE ATTACHED. DSA1.2, SA1.2, DA1.4, & A1.4 REVISED AND REMOVED THE ENVIROMENTAL REPORT NOTE (IT DOES NOT APPLY TO THIS BUILDING)	6/10/2026	18.06	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
78			Is it possible to get pictures of the existing electrical panels and the data cabinet to be replaced?		THE PRE-BID SITE VISIT WAS THE REASON FOR THIS DUE DILIGENCE PORTION OF THE BID.		6/10/2026	18.07	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
79			Are there any Landscaping & Irrigation drawings for this project?		NO THERE ARE NO SPECIFIC LANDSCAPE OR IRRIGATION DRAWINGS FOR THIS PROJECT.		6/10/2026	18.08	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
80			Excel file labeled as "Palmetto ESP Renovation.xlsx has a different project name on the Exhibit A & Exhibit C and extra items in the proposal that are not shown in the drawings. Please confirm that this document is not part of the bid package for submission.		THIS PROJECT IS THE PALMETTO REVAMP PROJECT ON THE VENDOR INFORMATION PORTAL THERE IS ANOTHER CALLED PALMETTO ESP PROJECT. THIS PROJECT IS PALMETTO REVAMP # 224004.		6/10/2026	18.09	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
81			Could you please confirm whether there is a designated area on-site for placing the dumpster and temporary utilities during construction? If so, please provide the location or any related site requirements.		THE SUCCESSFUL CONTRACTOR IS TO RESOLVE THIS WITH THE ONSITE UNIT MANAGER, TYPICALLY THEY ARE LOCATED IN THE BACK AREA OF THE ARMORY.		6/10/2026	18.10	Juliana SANCHEZ - MVH CONSTRUCTION INC.			
82			The "Estimates" folder in the bid package includes pricing from several companies. Could you confirm whether these firms are part of your preferred vendors?		NO THEY ARE NOT PREFERRED VENDORS. JUST AN EXAMPLE OF WHERE TO LOG THE VENDORS NAME.		6/10/2026	18.11	Juliana SANCHEZ - MVH CONSTRUCTION INC.			



Florida Army National Guard
Construction & Facility Management Office
PRE-BID SITE VISIT MEETING AGENDA



Date and Time	Wednesday May 20, 2026 (10:00 AM)
Project Number and Name	224004 Palmetto Revamp
Project Location	Palmetto Armory, Palmetto, Florida
Last Day for Questions	Thursday May 28, 2026 (5:00 PM) Wednesday June 10th, 2026 (5:00PM)
Date for Final Addendum	Tuesday June 02, 2026 (12:00 PM) Wednesday June 17th, 2026 (12:00PM)
Bid Opening Date	Wednesday June 10, 2026 (2:00 PM) Bid Opening at DMA CFMO Contracting, St. Augustine, Florida

~~Thursday July 2nd, 2026 (2:00 PM)~~

1. SIGN IN OF ATTENDEES.
2. INTRODUCTIONS.
3. GENERAL PROJECT DESCRIPTION (see bid documents for complete details).
4. SITE CONDITIONS. Prospective bidders shall examine the site for conditions under which the work is to be done before submitting their bid package. No allowance will be made for extra expenses incurred due to noncompliance with this section.

The Facility Representative has requested that all contractors provide portable restrooms for their employees use while on the job site. Please include this cost when you submit your bid estimate

5. Work Schedule. Monday through Friday from 7:00 AM to 4:30 PM. A spare key can be provided to the contractor PM to move freely outside the building beyond these hours. However, there will be no access inside the building except during the hours indicated above. All after-hours work (including weekend and/or holidays) or schedule changes must be coordinated with and approved by the Project Manager.

The Florida National Guard works on an alternate work schedule (AWS) where every other Monday is a scheduled day off. The contractor will **not** be allowed work on AWS Mondays.

6. BID BOND. For bids in excess of \$100,000.00, including base bid and alternate bid items, the bidder MUST provide a good faith deposit in the amount of 5% of the bid by way of a bid bond from a surety insurer authorized to do business in the state of Florida, a certified check, or cashier's check with their bid package.

7. PERMITS. The contractor shall obtain all required permits necessary for completion of this project from all authorities having jurisdiction; and shall include the cost of all such permits in their bid package.
8. QUESTIONS FROM BIDDERS. All questions and requests for clarifications related to this solicitation must be submitted in writing to the CFMO at nq.fl.flarnq.list.cfmo-contracting@army.mil in accordance with the timeframe shown above. All questions will be answered in an addendum and posted in the same manner as the ITB.
9. REQUIRED BID PACKAGE DOCUMENTS (in this order).
 - Bid Proposal Form (include acknowledgement of Addenda)
 - Subcontractor List (indicate if “N/A”)
 - Bid Bond (if applicable)
 - Letter of confirmation from bonding company (if applicable)
 - Contractor agreement to perform at least 15% of project work
 - Florida State contractor license (if applicable)
10. BID SUBMISSION AND BID OPENING. Envelopes containing bid submission must be clearly marked:

“SEALED BID – 224004 Palmetto Revamp, Palmetto, FL”
ATTN: CFMO Contract Management Branch”

and submitted to:

Robert F. Ensslin, Jr. Armory
2305 State Road 207
Saint Augustine, FL 32086
Attention: CFMO Contracting

In order to be considered, bids must:

- be submitted on DMA forms
- not be submitted electronically
- not be received after the exact time specified for receipt
- not be received at any location other than specified in the ITB

Bids must be submitted in full accordance with the requirements of this solicitation. Please contact the CFMO Contract Management Office at 904-823-0255 or 904-823-0256 to confirm receipt of bid.

Federal or State picture ID is required for entry into the Robert F. Ensslin, Jr. National Guard Armory. Bids will be accepted until the time of the Bid Opening.

11. GENERAL TERMS & CONDITIONS. The General Terms & Conditions included with the ITB are incorporated into the forthcoming contract by reference.
12. BONDS AND INSURANCE. Performance and Labor and Material Bonds are required from any persons or parties entering into a formal contract with the State of Florida for contracts in total excess of \$100,000.00 for construction, additions, renovations, repairs, or demolition of any public building pursuant to Florida Statute 255.05(1). The price for these bonds and their recording fees must be included with each bid package.
- The contractor will provide the owner with proof of insurance within 10 days of contract award; the price of all required insurance policies must be included in each bid package. Refer to the General Terms & Conditions for insurance requirements. All insurance policies shall be with insurers qualified and doing business in Florida through an authorized license Florida Resident Agent.
13. DAVIS BACON ACT. Davis Bacon Act does not apply to this solicitation.
14. DAMAGES. Damages will be assessed in accordance with the General Terms & Conditions.
15. CONTRACT AWARD. Per Florida Administrative Code 60D-5.004, the project will be awarded to the responsive and responsible bidder that has submitted the lowest price for the base bid or base bid plus alternate bid item.
- NOTE: Award of this contract is contingent upon funding from the State of Florida.
16. MY FLORIDA MARKETPLACE VENDOR INFORMATION PORTAL "VIP". The MFMP VIP is the primary source of information relating to this solicitation. Any solicitation information obtained from sources other than the Vendor Information Portal should not be relied on by prospective bidders. Bid solicitations received from other sources should be validated with the official solicitation on the Vendor Information Portal.
17. UNAUTHORIZED ALIENS. The Department shall consider the employment by any contractor of unauthorized aliens a violation of Act 274A of the Immigration and Naturalization Act. Such violation shall be cause for unilateral cancellation of this contract.
18. CFMO PROJECT MANAGER COMMENTS.
19. UNIT REPRESENTATIVE COMMENTS.
20. A & E COMMENTS. **Mr. Headland has applied for the State Fire Marshall Permit**
SEE ATTACHED APPROVAL LETTER IN ADDENDUM # 2
21. CONTRACTOR QUESTIONS / CONCERNS.

22. SITE VISIT.

23. BUY AMERICAN PREFERENCE: See General Terms and Conditions D-4 for information regarding Buy America Preference (Build America, Buy America Act) that was included in your ITB.

NO VERBAL STATEMENTS MADE BY ANY STATE OF FLORIDA EMPLOYEE OR AGENCY REPRESENTATIVE WILL SUPERSEDE INFORMATION PUBLISHED IN THE SOLICITATION. ONLY WRITTEN ADDENDA ISSUED BY THE DEPARTMENT OF MILITARY AFFAIRS CONSTRUCTION AND FACILITY MANAGEMENT OFFICE WILL AMEND THIS SOLICITATION.



Florida Army National Guard
Construction & Facility Management Office

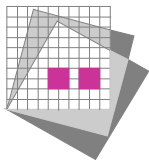


SIGN IN SHEET

Meeting Subject Pre-Bid Meeting
Project Number and Name 224004 Palmetto Revamp
Date and Time May 20, 2026 (10:00 AM)

Name	Firm / Directorate	Email Address	Phone
✓ DIXIE TODD	LEGO CONSTRUCTION	DTE LEGO CC. COM	321 436-1711
✓ Dan Kustka	Creative Convenience	DKustka@CreativeConvenience.com	781-822-7645
David Placan	DAI RENAY SERVICES	daw!o@dairesay.com	813 625-6963
TONY ROCHA	KIMMINS	ARROCHA@KIMMINS.CO	813-785-3111
Doug Musselwhite	Legends site Development	DMusselwhite@Legendssite.com	407-509-5360
Stephen Hicks	Gayler Elete	shicks@gaylar.com	941 725-2195
✓ Christopher Lee	R.C. Stevens	clce@rcstevens.com	321-281-5329
Lee Coleman	SAS	lcoleman@sasoncall.com	863 640-5A1
Lester Rivera	Bright Future Elec	lester.rivera@brightfutureelec.com	813 585 0389
✓ Jerry DeLaPota	E.B. Morris G.C	gdpc@ebmorriscg.com	407 947 4994

✓ John Ryan	Stellar Development	john.ryan@stellargc.com	941-907-9577
Brandon Gault	Bates Electric	brandongault@bateselectric.com	813-394-2379
✓ Jordan Owens	The CAO Group	myles.stewart@thecaogroup.com	813-530-6145
✓ Richard Headlam	REP Arch	rheadlam@reparch.com	727-212-8730
Adam Gorecki	BAL ENA	ADAM_GORECKI@BALENAENGINEERING.COM	(813) 892-3989
Alex Wartas	AC Integral Construction	alex@iconstructionfl.com	561-332-6509
Dwaine Jones	Hamilton Engineering	Dwainj@hamiltonengineering.us	813-244-1684
✓ Nick Randazzo	CPPI	Nick.Randazzo@CPPI.COM	352-316-2036
Joe Stinson	CSI	jstinson@controlsystems.net	941 929 3526
Edgardo Vargas	IC Mechanical	edgardo.vargas@icmech.com	787-248-3310
J. GREENE	SALTY SCREENS	JAYO SALTSCREENS.COM	941-344-5264



RENKER EICH PARKS ARCHITECTS

PRE-BID SITE VISIT (NON-MANDATORY) MEETING SUMMARY REPORT

RE: PRE-BID SITE VISIT MEETING
PALMETTO ARMORY REVAMP PROJECT
Date: Wednesday May 20th, 2026
Location: 1107 – 14th AVENUE WEST, PALMETTO, FLORIDA.
Time: **1000hrs – 1130hrs**
CFMO # **224004 (Armory Revamp)**
REPA P#: **1910.09**

Prepared By: **Renker Eich Parks Architects Inc.**
Richard M. HEADLAND, AIA, NCARB

Attendance: See attached Attendance sign in sheet.

SUMMARY:

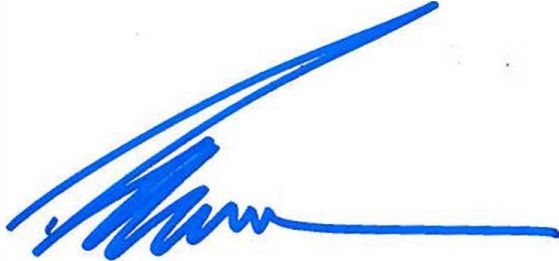
1. **Mrs. Kimberly SPAIN DMA/CFMO** via TEAMS opened the meeting, made introductions, and outlined each agenda item.
2. **DMA/CFMO Pre-Bid Site Visit Meeting Agenda, Dated May 20th, 2026** was distributed to all. (See attached for your reference and information.)
3. **Mr. Edward ADAMS, DMA/CFMO** generally discussed the parameters of this project including the UTILITY Company Coordination, PERMIT, IMPACT Fee conditions, and the clarification that will be provided by Addendum.
4. Unit Representative – **SGT PETERS**, noted that the Armory unit will work with the successful contractor to coordinate all construction activity, lay down areas, including construction deliveries with representatives from the successful contractor. Core work schedule times were noted as Monday thru Friday 0700hrs – 1630hrs.
AWS Calendar is attached for Reference. ALL WORK will take place on an occupied campus ALL WORK is to be fully coordinated with the local unit.
5. Mr. Richard Headland, AIA generally discussed the general building scope of work for this project and generally the scope of work on the Project by reference to the Contract Documents consisting of Contract Manual and Specifications and Drawings. Noted that the State Fire Marshall Submittal was approved with minor comments / Approval letter attached in Addendum # 2. SFM APP. # PRA26-000220 / SFM PERMIT # SFM26-000223. Local Permitting authority was confirmed to be the City of PALMETTO.
SWFWMD Permitting is not required as we are adding no additional impervious areas to the site.
6. Contractor shall obtain all required permits and include cost in the bid package for them. Contractor must include as a line item within the schedule of values, otherwise, it cannot be paid. It will be the Contractors responsibility to provide all PERMIT Fees required for this project.
7. Construction Document Requirements
 - A. Contractor to review the specifications and drawings.
 - B. Contractor's unfamiliarity with requirements in the construction documents should not disrupt construction process or project meetings.
 - C. Contractor's unfamiliarity with requirements in the construction documents is not considered an unforeseen condition.
8. Construction Phase Expectations for **Submittals** –
 - A. Submit them in a timely manner.
 - B. Submit products as specified in the construction documents. The architect shall notify the owner of excessive and repeated submittal of incorrect products.
 - C. Provide shop drawings for any equipment or system that requires the architect's or engineer's review prior to installation of such equipment or system. The architect shall notify the owner of non-compliance.
9. Construction Phase Expectations for **Substitutions** –
 - A. A substitution request does not equal approval, bid phase is to cover the specified systems and materials.
 - B. If a substitution request is not accepted, contractor is to provide system, product, or material as specified. Continuous requests of a previously declined item will not be considered.

10. Construction Phase Expectations for **Change Orders** –
A. Please submit pricing for proposed change orders in a timely manner. If contractor takes excessive time to submit pricing it does not equal additional time to the contract.
11. Construction Phase Expectations for **As-Built Drawings** –
A. Per Section C, Conditions of the Contract, C-17 As-Built Drawings: Contractor is to provide prints, AutoCAD, and PDF files of the as-built drawings.
12. We discussed BID BONDS are required for any bid amount over \$100,000 for this project..
13. Construction Period was Noted as **210 Days** to substantial completion from the official **NTP**, then **30 days** to **Final Completion.**
14. All attendees walked the project area and reviewed the scope of work as outlined in the contract documents.
15. Project Budget was noted as per the non-technical specification section to be +/- **\$2,500,000.**
16. **LAST DAY FOR QUESTIONS : MAY 28TH, 2026 (12:00PM) / JUNE 10th, 2026**
17. **DATE FOR FINAL ADDENDUM : JUNE 2ND, 2026 (10:00AM +/-) / JUNE 17th, 2026**
18. **BID OPENING DATE : JUNE 10TH, 2026 (2:00PM) in ST. AUGUSTINE / JULY 2nd, 2026**

This summary report represents this writers' observations at the Wednesday May 20th, 2026 meeting, any corrections or additions should be forwarded to Renker Eich Parks Architects within 10 days of receipt of this summary.

Sincerely,

Renker Eich Parks Architects Inc.



Richard Headland AIA, NCARB
Architect

Attachments: **(3)**

DMA/CFMO / Site VISIT Meeting Agenda Dated May 20th, 2026

DMA/CFMO / Pre-Bid Conference Sign-In Sheet

2026 Alternate Work Schedule for State Employees

xc: all in attendance (distributed via e-mail)

G:\2019\1910 DMA CFMO Continuing Contract\1910.09 DMA CFMO PALMETTO ESP RENOVATIONS\B&N\224004 PRE BID MEETING MINUTES for MAY 20TH, 2026 Meeting.doc

Blaise Ingoglia
CHIEF FINANCIAL OFFICER

JoAnne Rice
DIVISION DIRECTOR



Catherine Thrasher
BUREAU CHIEF

Morgan White
PLANS REVIEW CHIEF

FLORIDA DEPARTMENT OF FINANCIAL SERVICES
DIVISION OF STATE FIRE MARSHAL
200 EAST GAINES STREET - Tallahassee, Florida 32399-0342
Tel. 850-413-3171

June 04, 2026

RICHARD HEADLAND
RENKER EICH PARKS ARCHITECTS
1609 MARTIN LUTHER KING JR ST N
ST. PETERSBURG, FL 33704-4203

Permit #: SFM26-000223
Region:
County: Manatee
Agency: Department of Military Affairs / Construction and Facility Manag
File #: S-15-0025-0001

Subject: State Fire Marshal Plans Review Status

Project Description: PALMETTO ESP RENOVATION - MECHANICAL IN-KIND REPLACEMENT OF EXISTING SYSTEMS. NEW FIRE ALARM WITH MASS NOTIFICATION. NEW FINISHES, NEW PAINT. NEW CIVIL STORMWATER BUILDING AND PARKING LOT MITIGATION. NEW SECURITY FENCE GATES NEW ELECTRICAL LED LIGHTING. REPLACE LATRINE TRENCH DRAINS / REFRESH ALL EXISTING PLUMBING FIXTURES.

Site Name:	PALMETTO NATIONAL GUARD ARMORY	Building:	MAIN BUILDING - ARMORY
		Building #:	15005
		Project #:	224004
Address:	1107- 14TH AVENUE WEST PALMETTO, FL 33561	Review Type:	Formal Plan Review

Dear Sir / Madam:

Pursuant to Florida Statute 633, the referenced project documents were reviewed for compliance with the Florida Fire Prevention Code and the Uniform Fire Safety Standards. The project documents as submitted were:

Approved with Comments on: 06/04/2026

Inspections Required:	Underground	System	Intermediate	Final
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Please respond in writing to the attached plan review comments. These comments may also include instructions to resubmit additional information and/or corrected project documents. Any resubmittals shall be in duplicate and should reference the Permit # found in the upper right reference block.

The State Fire Marshal's "Approved" stamped set of project documents are required to be on the construction site at all times until the project is complete.

If you have any questions contact the reviewing engineer below, or write to:

Division of State Fire Marshal
Plans Review Section
200 East Gaines Street
Tallahassee, FL 32399-0342
Fax: (850) 414-6119

Sincerely,

Cody Kelly
Reviewing Engineer
Phone: 850-413-3740

Permit#: SFM26-000223

Date Approved: 06/04/2026

The following items were noted:

1. Response Required: Submit fire alarm shop drawings that are in substantial technical agreement with the fire alarm design by the design professional of record; the fire alarm contractor shall be licensed for the scope of work and shall provide two copies each of: (a) Plan depicting locations of all panels, devices (with device specific information) and other components as applicable. (b) Device, component and panel specifications (c) A riser diagram showing all components. (d) Wiring notes or schedule. (e) Power calculations with standby power values. (f) If this is a new system or substantially modified, provide a complete sequence of operation to include method of communication. Shop drawings shall conform to the minimum required items listed in NFPA 72 (2019) 7.2.1. Shop drawings shall be approved by SFM plans review before installation of system. Submit a copy of contractor's current licensure with shop drawings.

SUBSTITUTION REQUEST

(During the Bidding/Negotiating Stage)

Project: <u>Florida National Guard Armory / Cocoa</u>	Substitution Request Number: <u>Spec-0087972</u>
<u>Cocoa, FL</u>	From: <u>Gary Heffers, ICP Building Solutions Group</u>
To: <u>Richard Headland, Renker Eich Parks Architects</u>	Date: <u>06/12/2026</u>
<u>rheadland@reparch.com, 7278212986</u>	A/E Project Number: _____
Re: <u>Resinous Flooring</u>	Contract For: <u>Florida Department of Military Affairs</u>

Specification Title: <u>Resinous Flooring</u>	Description: <u>Sikafloor 24 NA Purcem</u>
Section: <u>096723</u> Page: <u>359</u>	Article/Paragraph: <u>356_363</u>

Proposed Substitution: Castorcrete SLB

Manufacturer: <u>ICP Building Solutions Group</u>	Address: <u>150 Dascomb RD. Andover, MA 01810</u>	Phone: <u>(800) 225-1141</u>
Trade Name: <u>Castorcrete SLB</u>	Model No. : <u>N/A</u>	

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.

Submitted by: Gary Heffers

Signed by: Gary Heffers

Firm: ICP Building Solutions Group

Address: _____
_____, NY

Telephone: , gheffers@icpgroup.com

A/E' s REVIEW AND ACTION

- ☐ Substitution approved - Make submittals in accordance with Specification Substitution Procedures.
- ☐ Substitution approved as noted - Make submittals in accordance with Specification Substitution Procedures.
- ☒ Substitution rejected - Use specified materials.
- ☐ Substitution Request received too late - Use specified materials.

06.17.2026

Signed by: _____ Date: _____

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

ARCHITECT REVIEW NOTES :

Manufacturer would need to provide more details on the structure of the system they are proposing.

The original project specifications are calling for an urethane cement slurry base coat similar to the castorcrete; however, we proposed adding 2 coats of high solids epoxy as a grout coat, and a topcoat of a high solids, low odor aliphatic urethane topcoat.

Richard HEADLAND, AIA, NCARB

REP ARCHITECTS INC.

06.17.2026



SUBMITTAL PACKET

CASTORCRETE® SL-B

A product by: APF

CSI: 09 6723, Urethane Mortar



CastorCrete[®]

FLOORING ENGINEERED TO WITHSTAND
THE TOUGHEST ENVIRONMENTS.

CASTORCRETE®

URETHANE CEMENT MORTAR FLOORING SYSTEMS

CastorCrete polyurethane cementitious mortar systems are engineered to perform under the harshest environmental conditions providing monolithic solutions that are durable, easy to clean with high-grip features.



EASY-TO-CLEAN

CastorCrete mortars are industrial grade, poured in place polyurethane cement mortar systems that are monolithic and non-absorbent thus eliminating seams and cracking which allows for more effective cleaning and sanitation, consistent with FDA, USDA and HACCP inspected facilities. Additional anti-microbial additive available upon request.*

*Resists mold growth on the dry coating surface.



DURABILITY

CastorCrete mortars are resistant to heavy load traffic, thermal shock and thermal cycling. These products are tolerant to moisture inherent in the substrate, provide excellent impact resistance and by composition, are resistant to salts, fats, organic acids, sanitizers and other harsh chemicals.



SAFETY

CastorCrete Systems offer high-grip and texture features in both wet and dry exposures ensuring safe work conditions for employees, customer and visitors in any facility or space.



DESIGN FLEXIBILITY

CastorCrete Systems can be designed to various thicknesses depending on work load and budget. These systems offer over 50 different finish and color selections utilizing our vast line of coatings options, colored vinyl flakes and decorative quartz broadcasts. Mortars cure rapidly eliminating downtime and making for faster installations.

TYPICAL INSTALLATIONS

LIGHT & MEDIUM DUTY SYSTEMS

- Cafeterias & break rooms
- Restrooms & locker areas
- Laboratory spaces
- Corridors
- Commercial kitchens
- Educational facilities
- Veterinary clinics
- Animal holding
- Vivariums
- Pharmaceutical facilities

HEAVY DUTY SYSTEMS

- Food & beverage production facilities
- Chemical processing facilities
- Heavy manufacturing
- Water treatment plants
- Vehicle & aircraft maintenance facilities
- Loading docks

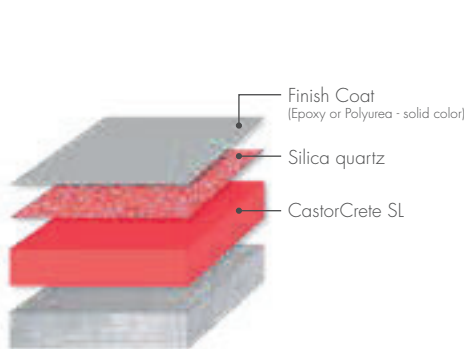


CASTORCRETE®

CASTORCRETE SYSTEM SELECTIONS

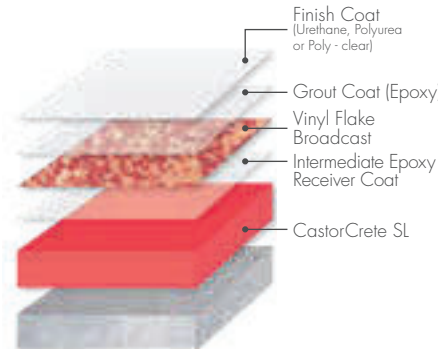
Three base mortar options provide the cornerstone of proper system design and selection.

LIGHT TO HEAVY LOAD SYSTEMS



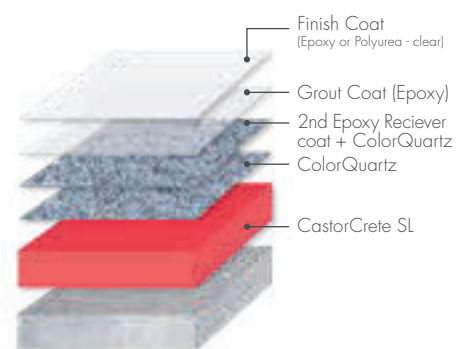
CastorCrete SL-B

Slurry broadcast system offered in solid color quartz texture and sealed with an solid colored epoxy or polyurethane topcoat, installed between $\frac{1}{8}$ " to $\frac{1}{4}$ " thicknesses.



CastorCrete Bio-Floor

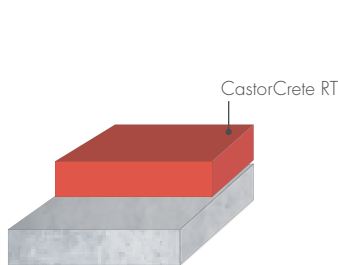
Slurry mortar with a decorative flake or decorative quartz finish, typically sealed with a grout coat of epoxy and topcoat of polyurethane clear or single topcoat of polyaspartic clear and installed between $\frac{1}{8}$ " to $\frac{1}{4}$ " thicknesses.



CastorCrete SL-CQ

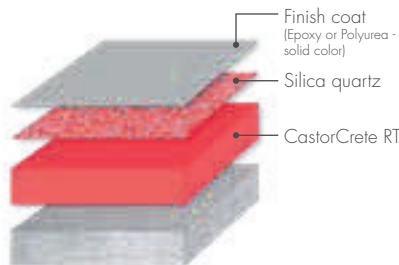
Slurry broadcast system using decorative colored quartz in a double broadcast application ensuring even color, texture and increased durability, sealed with a clear epoxy or polyurethane topcoat, installed at $\frac{3}{16}$ " to $\frac{3}{8}$ " thickness.

MEDIUM TO HEAVY LOAD SYSTEMS



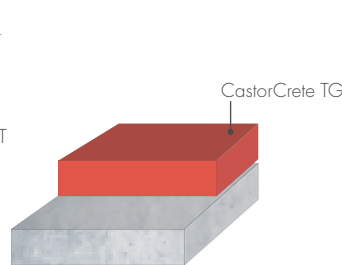
CastorCrete RT

Gauge rake applied mortar system used as a resurfacer with smooth finish, for exposures up to 300°F, installed at between $\frac{3}{16}$ " to $\frac{3}{8}$ " thickness.



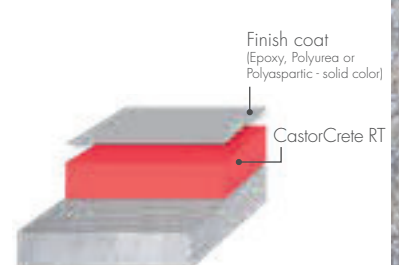
CastorCrete RT-B

Gauge rake applied mortar system used as a resurfacer offered in a solid color quartz broadcast texture, sealed with a solid colored epoxy or polyurethane topcoat, installed between $\frac{3}{16}$ " to $\frac{3}{8}$ " thickness.



CastorCrete TG

Trowel applied, heavy load resurfacer with an inherent consistent texture for exposures up to 300°F, installed between $\frac{3}{16}$ " and 1" thicknesses.



CastorCrete TC UV

CastorCrete TC UV is an aliphatic polyurethane cementitious topcoat for loaded with aluminum oxide for excellent durability and slip resistance.

CastorCrete TC UV

CastorCrete TC UV is an ultraviolet light resistant top coat used over CastorCrete polyurethane cementitious mortar systems. CastorCrete TC UV is an aliphatic polyurethane cementitious top coat that is inherently UV resistant and it is loaded with aluminum oxide for slip-resistance and durability. CastorCrete mortar products without a protective top coat will undergo ultraviolet light induced discoloration, but they will not degrade.

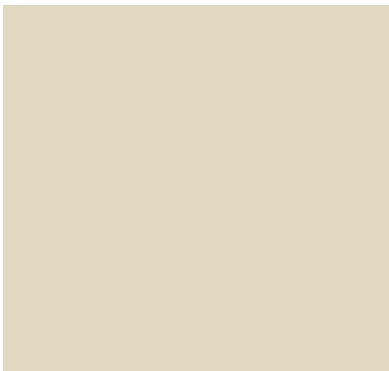




CASTORCRETE[®]

TOUGH. CLEAN. RELIABLE.

APF CastorCrete offers five attractive color options, allowing facilities to customize their flooring to meet both functional and aesthetic needs. These versatile shades combine with the system's superior durability and chemical resistance to deliver a uniform, high-performance finish.



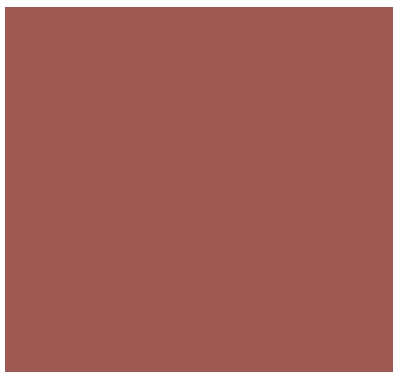
307 Natural



013 Light Gray



141 Dark Gray



306 Dark Red



268 Evergreen



URETHANE MORTAR COATING SYSTEMS

CastorCrete systems are designed for the most demanding environments, providing long-lasting protection and exceptional performance in food and beverage, industrial, and commercial settings.

Common Applications:

LIGHT & MEDIUM DUTY SYSTEMS

- Cafeterias & break rooms
- Restrooms & locker areas
- Laboratory spaces
- Corridors
- Commercial kitchens
- Educational facilities
- Veterinary clinics
- Animal holding
- Vivariums
- Pharmaceutical facilities

HEAVY DUTY SYSTEMS

- Food & beverage production facilities
- Chemical processing facilities
- Heavy manufacturing
- Water treatment plants
- Vehicle & aircraft maintenance facilities
- Loading docks



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For more information,
please visit us at apfepoxy.com

A00019 - 9.25

PRODUCT INFORMATION SHEETS

PRODUCT DESCRIPTION

APF EPOXY 300 FLEX PASTE is a 100% solids, medium viscosity, flexible epoxy system. It has excellent elongation, hardness, and impact resistance. The material forms a tenacious bond to concrete. A Fast Cure version is available where cold weather cure down to 40°F or accelerated room temperature cure is required.

APF EPOXY 300 FLEX PASTE was developed for industrial joint and crack repair. Its combination of resilience and physical strength allows it to absorb the impact of heavy loads and steel wheeled traffic. When used as part of a APF EPOXY 300 FLEX floor coating system, it is especially well suited for applications where surface movement, vibrations, or thermal cycling may defeat the protection of a rigid material.

USES

- Manufacturing
- Pharmaceutical
- Mechanical Rooms
- Warehouse
- Retail
- Health Care & Institutional
- Correctional Facilities
- Veterinary/Animal Care

ADVANTAGES

- Flexible thixotropic filler for stable, non-dynamic joints and cracks

COLORS

Clear & 12 standard color pigment packs. Safety colors are available only in pigment packs.

PACKAGING

Supplied in complete units, A+B 0.75 gallon (2.84 L), 1.5 gallon (5.68 L). Mix ratio **2A : 1B**.

CONCRETE MOISTURE

It is the applicators responsibility to test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve system in accordance with the published system data sheet. Consult APF Technical Service for further information.

TECHNICAL DATA

Mixing Ratio by Volume	2A : 1B
VOC Clear & Fast Cure Clear	<50 g/l
VOC Pigmented & Fast Cure Pigmented	<50 g/l
Solids Content, by Volume	100%
Hardness, Shore D (ASTM D-2240)	78
Tensile Strength psi (ASTM D-638)	1,745
Elongation, % (ASTM D-638)	76%
Bond Strength to Concrete (ASTM D-4541)	>350 psi, concrete fails
Cure Time (77°F)	
Standard Cure, Pot Life (ASTM D2471)	20 Minutes
Standard Cure, Dry to Touch	~12 Hours
Standard Cure, Light Traffic	~16 Hours
Standard Cure, Full Cure	~7 Days
Fast Cure, Pot Life (ASTM D2471)	20 Minutes
Fast Cure, Dry to Touch	~6 Hours
Fast Cure, Light Traffic	~12 Hours
Higher temperature and lower humidity will shorten cure time. Lower temperatures and higher humidity will increase cure time.	

COVERAGE

154 linear ft/gal (based on 1/4" wide by 1/2" deep crack)

SURFACE PREPARATION

Concrete must be cured for at least 30 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 2-3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

MIXING

Mix in full units only. Do not attempt to mix partial kits. Proper portioning and homogenization are critical for success.

Clear:

Pour entire contents of Part B into the Part A Container. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

Pigmented with Pigment Packs:

Pour color in its entirety into the A component and blend thoroughly until complete mix is achieved, approximately 2-4 minutes. Combine part B and mix for 2-3 minutes using a slow-speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

APPLICATION

Use material immediately after mixing. Spread the product with a flat trowel, margin tool, or broad putty/plaster knife. Gunning is not recommended for this material.

Apply to fill joint completely. Apply additional material if product settles into joint below the concrete surface. Cured product must be level with concrete surface. Allow to cure before final coat.

LIMITATIONS

- Before applying, measure and ensure that the ambient temperature is at least 5°F (-15°C) above the dew point.
- High humidity/low temperature will prolong cure time
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A Clear: 24 months at 50-85°F { 10-30°C }

Part B: 12 months at 50-85°F { 10-30°C }

*When kept at recommended storage conditions and in original unopened containers. DO NOT ALLOW TO FREEZE. Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). DO NOT FREEZE. Frozen material is unusable and must be properly disposed of.

APF Epoxy 300 FlexPaste_PDS_10.28.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.

PRODUCT DESCRIPTION

APF EPOXY 100 is a two-component water-based epoxy that features ease of application, low VOC, and excellent overall coating performance. This material cures over a wide range of temperatures and adheres tenaciously to a variety of properly prepared substrates.

USES

- Warehouse
- Factory Floors
- Automotive Repair Facilities
- Residential Garage Floors
- Commercial and Industrial Maintenance Applications

ADVANTAGES

- Used as a primer for all systems
- Easy to use

COLORS

Clear and 7 Standard Colors (White, Black, Stalet, Concrete Gray, Delta Fog, Sterling and Wheat).

PACKAGING

APF EPOXY 100 is supplied in complete A+B 1.25 Gallon (4.73 L) & 5.0 Gallon (18.93 L) total volume mixed units. Mix ratio 4A:1B:1 part water.

COVERAGE

200 sqft/gallon (8 mils WFT)

CONCRETE MOISTURE

It the applicators responsibility to test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve system in accordance with the published system data sheet. Consult APF Technical Service for further information.

SURFACE PREPARATION

Concrete must be cured for at least 30 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 2-3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

TECHNICAL DATA

Gloss 60°	ASTM D523	85 - 90
Taber Abrasion 1000 g load/1000 cycles/CS17		60 -65 mg loss
Adhesion to Damp Concrete ASTM D7234		Concrete Failure
Mixing Ratio by Volume		4 : 1
Solids Content by Volume		43.5%
VOC Clear		<50 g/l
VOC Pigmented		<50 g/l
Working Time		30 minutes
Cure Times (77°F/25°C)		
	Dry to Touch	~3 - 4 Hours
	Recoat	~12 - 24 Hours
	Light Traffic	~18 - 24 Hours
	Full Cure	~7 Days

Higher temperature and lower humidity will shorten cure time. Lower temperatures and higher humidity will increase cure time.

If 24 hour recoat window exceeded, substrate recoat preparation required.

MIXING

Premix Part A before blending with Part B. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand.

Add clean potable water must be added to achieve a low application viscosity. Common mixing ratio is 4A:1B:1 part water. Mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

APPLICATION

Apply material onto surface immediately after mixing with a squeegee, back roll using a quality solvent resistant 3/8-inch nap roller cover, at 200 sqft per gallon { 8 mils WFT}. A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set.

LIMITATIONS

- Exterior applications will exhibit chalking, discoloration and fading.
- Clear product is not recommended for exterior applications
- Do not apply in excess of recommended application thickness. Uneven curing may result.
- Not recommended for application over acid based concrete stains.
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A: 12 months at 50-85°F { 10-30°C}

Part B: 24 months at 50-85°F { 10-30°C}

*When kept at recommended storage conditions and in original unopened containers. **DO NOT ALLOW TO FREEZE.** Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). **DO NOT FREEZE.** Frozen material is unusable and must be properly disposed of.

APF Epoxy 100_PDS_07.02.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.

PRODUCT DESCRIPTION

APF CastorCrete Self-Leveling (SL) is a gauge rake and trowel-applied cementitious polyurethane slurry, installed at 1/8-inch (3.18 mm) to 1/4-inch (6.35 mm) to protect concrete from extreme physical and chemical abuse. It is resistant to impact and abrasion and stands up to steel wheeled cart traffic. It is unaffected by hot cooking oils, animal fats, and common solvents. APF CastorCrete SL has been formulated to compensate for the difference in the coefficient of thermal expansion of concrete. APF CastorCrete SL can endure regular cleaning and water temperatures reaching up to 212°F (100°C).

APF CastorCrete SL contains low VOCs, and is made with a natural, sustainable raw material.

APF CastorCrete SL may be applied to green concrete (7 - 10 days @ 70°F) and concrete substrates indicating 100% relative humidity (ASTM F2170).

APF CastorCrete SL is a rapid turnaround flooring solution to minimize downtime. APF CastorCrete SL is installed as a one-step system without a primer and returned to service quickly after installation. APF CastorCrete SL may be top coated with APF CastorCrete TC or TC Aliphatic, a cementitious polyurethane top coat to create uniformity of performance and appearance. APF CastorCrete SL may also be top coated with APF POLYASPARTIC 7500, POLYUREA 5100, EPOXY 600 or 900 for enhanced chemical, abrasion, and UV resistance.

USES

- Food & Beverage Manufacturing
- Meat, Poultry, Fish Processing
- Commercial Kitchens
- Pharmaceutical

ADVANTAGES

- Resistant to sanitizing chemicals, hot water, steam
- Capable of resisting extreme thermal cycling
- Very low odor, easy to clean, sanitary

COLORS

Available in Natural and 4 standard colors.

TECHNICAL DATA

Compressive Strength ASTM C579	8,500 psi
Tensile Strength ASTM C307	1,400 psi
Flexural Strength ASTM C580	2,700 psi
Shore D Hardness ASTM D2240	75 - 80
Tabor Abrasion (1000 gm. load 1000 cycles, CS 17 wheel)	32 mg Loss
Thermal Compatibility with Concrete ASTM C884	Passes
Coefficient of Thermal Expansion ASTM C513	1.1 x 10 ⁻⁵ in/in/°F minimum
VOC	<50 g/l
Flammability when Bonded to Concrete ASTM D635	Self-Extinguishing
Cure Time	Working Time ~15 - 20 Minutes
	Dry to Touch ~3 - 4 Hours
	Return to Service ~24 - 36 Hours
Higher temperature and lower humidity will shorten cure time. Lower temperatures and higher humidity will increase cure time.	

PACKAGING

Supplied in complete kits:
Natural is comprised of 3 components, A+B+D (aggregate). Standard Color kits are comprised of 4 components, A+B+C (color pack) +D (aggregate).
Use only as complete kits, do not break down into partial kits.

COVERAGE

Floor Thickness	Coverage Per 42 lbs. (19.5 kg) Kit
1/8-inch (3.2mm)	32 sq. ft (3.0 sq. m.)
3/16-inch (4.8mm)	24 sq. ft (2.2 sq. m.)
1/4-inch (6.3mm)	16 sq. ft. (1.5 sq. m.)

SURFACE PREPARATION

Concrete must be cured for at least 7-10 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

MIXING

Pour entire contents of components A,B, and C (color pack) into mixing container and mix for 30-60 seconds. While mixing, slowly add component D (aggregate). After all of the components are fully incorporated, mix for an additional 30-60seconds using a mixer designed to mix heavy mortars.

Multiple mixing containers are recommended to ensure an adequate supply of fresh material. DO NOT thin product, addition of thinners will void Manufacturer's warranty.

APPLICATION

Pour material onto the surface immediately after mixing is finished. Do not apply to previously coated surfaces; apply directly to concrete except when priming is necessary. Key-ways must be cut 1/4 inch (6.3mm) deep by 3/16-inch (4.8mm) wide, 6-inch (15.2 cm) from all perimeter walls, machinery pedestals, and both sides of all control joints, and at regular intervals spaced 10 feet (3 m) to 12 feet (3.7 m) apart throughout the flooring system. All floor drains, penetrations, transitions and termination points must have a 1/4-inch (6.35 mm) deep by 1/4-inch (6.35 mm) wide key-way. Never feather the edge of APF CastorCrete SL, always turn it into a key-way.

In typical applications, APF CastorCrete SL is applied directly to the concrete without a primer. For small areas, APF CastorCrete SL can be spread and finished with a steel trowel. Rake the material with a cam-gauge rake to the desired thickness, use a finishing trowel to compact and smooth out the rake marks. As soon as the mortar is relatively closed, immediately roll the surface with a looped or a spiked roller to remove trowel marks and bring the resin to the top. When placing the cementitious polyurethane mortar, keep a wet edge between mixes.

APPLICATION (Cont.)

Apply each batch within the working time of the prior batch. Failure to do this could result in a visible tie-in line. Excessive troweling or rolling can bring more resin to the top and reduce slip resistance.

LIMITATIONS

- Will yellow and fade from UV exposure.
- Do not apply in direct sunlight.
- Do not apply below 45°F (7.2°C) or above 90°F (32°C).
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A: 12 months at 50-85°F { 10-30°C }

Part B: 12 months at 50-85°F { 10-30°C }

Part C: 36 months at 50-85°F { 10-30°C }

Part D: 36 months at 50-85°F { 10-30°C }

*When kept at recommended storage conditions and in original unopened containers. DO NOT ALLOW TO FREEZE. Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). DO NOT FREEZE. Frozen material is unusable and must be properly disposed of.

APF Castorcrete SL_PDS _10.28.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.

PRODUCT DESCRIPTION

APF EPOXY 400 is a low viscosity, 100% solids resin system used in a variety of flooring applications including high build coatings, aggregate-filled flooring, and decorative vinyl mosaic flake, color quartz, and epoxy pebble applications. APF EPOXY 400 provides an outstanding balance of physical strength and ease of application. APF EPOXY 400 has excellent clarity for use with color quartz aggregate and decorative architectural concrete. The pigmented material features high pigment loading for excellent substrate hide and color consistency when roller applied.

APF EPOXY 400 is a low-viscosity product for improved flow and handling at lower temperatures and excellent application qualities. The lower viscosity allows for the addition of fine silica fillers for easy application of "slurry" type floors. A Fast Cure version is available when cold weather cures down to 40°F (4.5°C) or accelerated room temperature cure is required. A UVR version is available for applications that require UV resistance. The versatility of APF EPOXY 400 makes it ideal as a primer, finish coat or aggregate binder in a wide variety of flooring applications.

APF EPOXY 400 is not recommended for food, beverage, harsh chemical, or routine hot water wash-down applications. Consult APF Technical Service for more information.

USES

- Manufacturing
- Pharmaceutical
- Warehouse
- Retail
- Health Care & Institutional
- Correctional Facilities
- Veterinary/Animal Care

ADVANTAGES

- May be used as a primer, finish coat, or aggregate binder
- UV version provided excellent UV resistance

COLORS

Clear, 12 standard colors, Safety Red, Safety Yellow, and Safety Blue.

TECHNICAL DATA

Mixing Ratio by Volume	2A : 1B
Clear & Fast Cure	<50 g/l
Pigmented & Fast Cure	<50 g/l
Solids Content, by Volume	100%
Hardness, Shore D ASTM D-2240	78
Tensile Strength (ASTM D-638)	6,230
Ultimate Elongation, (ASTM D-638)	11 %
Compressive Strength, (ASTM D-695)	19,501 psi
Flexural Strength, psi (ASTM D-790)	9,680 psi
Bond Strength to Concrete (ASTM D-4541)	>400 psi, concrete fails
Cure Time (77°F)	
Pot Life (ASTM D-2471)	20 Minutes
Dry to Touch	~12 Hours
Recoat	~12 - 24 Hours
Full Cure	~7 Days
Fast Cure, Dry to Touch	~3 Hours
Fast Cure, Recoat	~7 - 24 Hours
Full Cure	~7 Days

Higher temperature and lower humidity will shorten cure time. Lower temperatures and higher humidity will increase cure time.

If 24 hour recoat window exceeded, substrate recoat preparation required.

PACKAGING

Supplied in complete A+B 1.5 gallon (5.68 L), 15 gallon (56.8 L) or 165 gallon (625 L) total volume mixed units. Mix ratio 2A : 1B.

CONCRETE MOISTURE

It is the applicators responsibility to test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve system in accordance with the published system data sheet. Consult APF Technical Service for further information.

COVERAGE

80-200 sqft/gallon (8-20 mils WFT)

SURFACE PREPARATION

Concrete must be cured for at least 30 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 2-3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

MIXING

Clear: Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

Pre-pigmented: Thoroughly pre-mix part A before adding the part B. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

Pigment pack: Pour color in its entirety into the A component and blend thoroughly until complete mix is achieved, approximately 2-4 minutes. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

APPLICATION

As a Primer: Apply material onto surface immediately after mixing with a squeegee, back roll using a quality solvent resistant 3/8-inch nap roller cover. Apply at a rate of 200 sqft/gallon at 8 mils WFT. A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. **The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}**

APPLICATION (Cont.)

Recoat within 24 hours; if the recoat window is missed, the surface must be sanded with 80-100 grit to a smooth, gloss-free, and dust-free texture before recoating.

As a Coating: Apply material onto surface immediately after mixing with a squeegee, back roll with using a quality solvent resistant 3/8-inch nap roller cover. Apply at a rate of 80-200 sqft/gallon (8-20 mils WFT). A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. The material must be thoroughly rolled twice to achieve optimal substrate wetting (using North-South, East-West Method). Apply a second coat, if necessary, within 24 hour recoat window. If the recoat window is exceeded, the surface must be abraded with 80-100 grit to a uniform gloss free and dust free texture prior to recoat.

LIMITATIONS

- Before applying, measure and ensure that the ambient temperature is at least 5°F above the dew point.
- High humidity/low temperature will prolong cure time
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A:

Clear: 24 months at 50-85°F { 10-30°C }

Pigmented: 12 months at 50-85°F { 10-30°C }

Part B: 12 months at 50-85°F { 10-30°C }

*When kept at recommended storage conditions and in original unopened containers. DO NOT ALLOW TO FREEZE. Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). DO NOT FREEZE. Frozen material is unusable and must be properly disposed of.

APF Epoxy 400_PDS_07.14.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.

PRODUCT DESCRIPTION

APF EPOXY 600 is a low viscosity, 100% solids, high-performance material designed to give improved chemical resistance over general purpose epoxy materials while rapidly curing after materials, even in low temp applications. Epoxy 600's modified material provides improved cross linking and excellent resistance to corrosive food acids, most solvents, 50% sulfuric acid, and 15% acetic acid.

Formulated for use as an aggregate binder or top coat where service conditions are too severe for general purpose epoxies, but the performance of novolac materials is not required.

USES

- Manufacturing
- Pharmaceutical
- Warehouse
- Retail
- Health Care & Institutional
- Correctional Facilities
- Veterinary/Animal Care
- Food & Beverage

ADVANTAGES

- May be used as a primer, finish coat or aggregate binder
- Superior chemical resistance
- Enhanced workability as a trowel binder

COLORS

Clear, 10 Standard Colors, along with Sand, Wheat, Mocha, Off White, Safety Red, Safety Yellow, and Safety Blue, are available in pigment packs only.

PACKAGING

Supplied in complete A+B 1.5 gallon (5.7 L) and 15 gallon (56.8 L) total volume mixed units.

Mix ratio 2A : 1B.

CONCRETE MOISTURE

It is the applicators responsibility to test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve system in accordance with the published system data sheet. Consult APF Technical Service for further information.

TECHNICAL DATA

Mixing Ratio by Volume	2A : 1B
VOC Clear	<50 g/l
VOC Pigmented	<50 g/l
Hardness, Shore D ASTM D-2240	82
Tensile Strength psi (ASTM D-638)	8,590
Elongation, % (ASTM D-638)	7%
Compressive Strength, psi (ASTM D-695)	19,480
Yield Strength, psi (ASTM D-695)	13,790
Flexural Strength, psi (ASTM D-790)	13,945
Bond Strength to Concrete (ASTM D-4541)	>350 psi, concrete fails
Cure Time (77°F)	
Pot Life (ASTM D2471)	20 Minutes
Dry to Touch	~3 Hours
Recoat	~12 - 24 Hours
Full Cure	~7 Days
Cure Time (50°F)	
Dry to Touch	~18 Hours
Light Traffic	~30 Hours
Recoat	~18 - 24 Hours
Full Cure	~14 Days

Higher temperature and lower humidity will shorten cure time.
Lower temperatures and higher humidity will increase cure time.

If 24 hour recoat window exceeded, substrate recoat preparation required.

SURFACE PREPARATION

Concrete must be cured for at least 30 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 2-3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

COVERAGE

80-200 sqft/gallon (8-20 mils WFT)

MIXING

Clear: Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

Pre-pigmented: Thoroughly pre-mix Part A before adding the Part B. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

Pigment pack: Pour color in its entirety into the A component and blend thoroughly until complete mix is achieved, approximately 2-4 minutes. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

APPLICATION

Primer: Apply material onto surface immediately after mixing with a squeegee, back roll using a quality solvent resistant 3/8-inch nap roller cover. Apply in a thin layer at 200 sqft/gallon (8 mils WFT). A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set.

Coating: Apply material onto surface immediately after mixing with a squeegee, back roll with using a quality solvent resistant 3/8-inch nap roller cover. Apply at 80-200 sqft/gallon (8-20 mils WFT). A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}

Apply a second coat, if necessary, within 24 hour recoat window. If the recoat window is exceeded, the surface must be abraded with 80-100 grit to a uniform gloss free and dust free texture prior to recoat.

LIMITATIONS

- Before applying, measure and ensure that the ambient temperature is at least 5°F (-15°C) above the dew point.
- High humidity/low temperature will prolong cure time
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A:

Clear: 24 months at 50-85°F { 10-30°C }

Pigmented: 12 months at 50-85°F { 10-30°C }

Part B: 12 months at 50-85°F { 10-30°C }

*When kept at recommended storage conditions and in original unopened containers. DO NOT ALLOW TO FREEZE. Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). DO NOT FREEZE. Frozen material is unusable and must be properly disposed of.

APF Epoxy 600_PDS _10.31.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.

PRODUCT DESCRIPTION

APF CastorCrete Top Coat (TC) is a squeegee-applied cementitious polyurethane topcoat installed at 10 mils (0.25 mm) to 20 mils (0.5 mm). It is resistant to impact and abrasion, and stands up to steel wheeled cart traffic. It resists hot cooking oils, animal fats, and many solvents. APF CastorCrete TC has been formulated to compensate for the difference in the coefficient of thermal expansion of concrete. APF CastorCrete TC can withstand regular cleaning and water temperatures of up to 180°F (82°C).

APF CastorCrete TC is a rapid turnaround flooring solution to minimize downtime. APF CastorCrete TC is installed as a one-step system urethane cement top coat to create uniformity of performance and appearance in heavy duty CastorCrete mortar systems.

APF CastorCrete TC contains low VOCs, and is made with a natural, sustainable raw material.

USES

- Food & Beverage Manufacturing
- Meat, Poultry, Fish Processing
- Commercial Kitchens
- Pharmaceutical

ADVANTAGES

- Resistant to sanitizing chemicals, hot water, steam
- Capable of resisting extreme thermal cycling
- Easy to clean, sanitary

COLORS

Available in Natural and 4 Standard Colors.

PACKAGING

Supplied in complete kits:

Natural is comprised of 3 components, A+B+D (aggregate).

Standard Color kits are comprised of 4 components, A+B+C (color pack) +D (aggregate).

Use only as complete kits, do not break down into partial kits.

COVERAGE

Floor Thickness	Coverage Per 19 lb Kit
10 mils (0.25 mm)	280 sq ft (26.0 sq. m.)
16 mils (0.41 mm)	175 sq ft (16.25 sq. m.)
20 mils (0.5 mm)	140 sq ft (13.0 sq. m.)

TECHNICAL DATA

Compressive Strength ASTM C579	8,500 psi
Tensile Strength ASTM C307	1,550 psi
Flexural Strength ASTM C580	2,700 psi
Shore D Hardness ASTM D2240	75 - 80
Tabor Abrasion (1000 gm. load 1000 cycles, CS 17 wheel)	32 mg Loss
Thermal Compatibility with Concrete ASTM C884	Passes
Coefficient of Thermal Expansion ASTM C513	1.1×10^{-5} in/in/°F minimum
VOC	<50 g/l
Flammability when Bonded to Concrete ASTM D635	Self-Extinguishing
Cure Time	Working Time ~10 - 15 Minutes
	Dry to touch ~3 - 4 Hours
	Return to Full Service ~24 - 36 Hours

Higher temperature and lower humidity will shorten cure time. Lower temperatures and higher humidity will increase cure time.

MIXING

Pour entire contents of components A,B, and C (color pack) into mixing container and mix for 30-60 seconds. While mixing, slowly add component D (aggregate). After all of the components are fully incorporated, mix for an additional 30-60seconds using a mixer designed to mix heavy mortars.

Multiple mixing containers are recommended to ensure an adequate supply of fresh material. DO NOT thin product, addition of thinners will void Manufacturer's warranty.

APPLICATION

Pour material onto the surface immediately after mixing is finished. APF CastorCrete TC can be spread with a notched squeegee and backrolled using a quality solvent resistant 3/8-inch nap roller cover to achieve the desired coverage rate. When placing the cementitious polyurethane top coat, keep a wet edge between mixes. Place each batch within the working time of the prior one. Failure to do this could result in a visible tie-in line.

LIMITATIONS

- Will yellow and fade from UV exposure.
- Do not apply in direct sunlight.
- Do not apply below 45°F (7.2°C) or above 90°F (32°C).
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A: 12 months at 50-85°F { 10-30°C }

Part B: 12 months at 50-85°F { 10-30°C }

Part C: 36 months at 50-85°F { 10-30°C }

Part D: 36 months at 50-85°F { 10-30°C }

*When kept at recommended storage conditions and in original unopened containers. DO NOT ALLOW TO FREEZE. Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). DO NOT FREEZE. Frozen material is unusable and must be properly disposed of.

APF Castorcrete TC_PDS _07.22.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.

PRODUCT DESCRIPTION

APF Polyurea 5100 is a two-component, high-solids, aliphatic Polyurea/Polyaspartic hybrid that provides the desirable properties of polyester-polyurethane materials with a shorter cure time and reduced film thickness limitations. Available in both regular cure and fast cure versions.

APF Polyurea 5100 is a low viscosity, easy to apply product that results in a very high gloss finish that is both hard and abrasion-resistant. This material is easy to clean and has excellent resistance to a broad range of chemicals. Unlike conventional polyurea materials, APF Polyurea 5100 has adequate working time to be applied by brush and roller. APF Polyurea 5100 is a very rapid curing product able to be returned to full service in 24 hours. APF Polyurea 5100 is UV stable to ensure long-term gloss retention and resistance to yellowing. Developed as a high-performance coating for various protective and seamless flooring applications, APF Polyurea 5100 is ideally suited for use as a finish coat in decorative flake and color quartz flooring systems and various types of decorative architectural concrete applications. This product should be applied when the surface and ambient temperatures are between 50°F-85°F (10°C-30°C).

USES

- Decorative quartz and flake flooring systems
- Clean rooms, hospital & healthcare
- Restaurants-grocery-food service
- Automotive
- Aviation
- Pharmaceutical

ADVANTAGES

- Excellent resistance to elevated temperatures (<175°F/80°C)
- Will cure down to 40°F (4.5°C)

COLORS

Available in Clear and White, Slate, Delta Fog, and Sterling

PACKAGING

Supplied in complete A+B 1.0 gallon (3.78 L) and 10 gallon (37.8 L) kits. Mix ratio 1A : 1B.

COVERAGE

Coverage Rate: 250-300 sqft/gallon (5-6 mils WFT)

TECHNICAL DATA

Mixing Ratio by Volume	1A : 1B	
VOC	<50 g/l	
Solids Content, by Volume	90%	
Hardness, Pendulum	172	
Gloss (60°)	95	
Bond Strength to Concrete (ASTM D-4541)	>350 psi, concrete fails	
Cure Time (77°F)	Regular Cure	Fast Cure
Pot Life/Working Time	~ 20-30 Minutes	~ 15-20 Minutes
Dry to Touch	~3Hour	~2Hour
Recoat	<24 Hours	<24 Hours
Light Traffic	~12 Hours	~8 Hours
Vehicle Traffic	~5 Days	~3 Days
Full Cure	~7 Days	~7 Days

Higher temperature and lower humidity will shorten cure time.

Lower temperatures and higher humidity will increase cure time.

If 24 hour recoat window exceeded, substrate recoat preparation required.

CONCRETE MOISTURE

It is the applicators responsibility to test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve® system in accordance with the published system data sheet. Consult APF Technical Service for further information.

SURFACE PREPARATION

Concrete must be cured for at least 30 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 2-3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

MIXING

Clear: Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

Pre-pigmented: Thoroughly pre-mix part A before adding to part B. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

APPLICATION

Apply material onto surface immediately after mixing with a brush or roller, back roll with using a quality solvent resistant 3/8-inch nap roller cover, at a rate of 250-300 sq. ft./gallon (5-6 mils WFT).. DO NOT allow puddling or accumulation in joint areas. A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. **The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}**

Apply a second coat, if necessary, within 24 hour recoat window. If the recoat window is exceeded, the surface must be abraded with 100 grit to a uniform gloss free and dust free texture prior to recoat. Product applied at excessive thicknesses will result in surface defects.

LIMITATIONS

- **Use only on primed substrates. Do not apply directly to concrete.** (Contact Technical Service for alternative products if direct to concrete application is desired.)
- Not suitable for constant temperature exposure over 175°F (80°C)
- Before applying, measure and ensure that the ambient temperature is at least 5°F above the dew point.
- Do not exceed 10 mils wet film thickness. Surface defects will occur.
- Work life is considerably shortened over 90°F.
- Do not apply material if the humidity is over 80% and/or poor ventilation/limited air changes. Improper cure will result.
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A: 12 months at 50-85°F { 10-30°C }

Part B: 12 months at 50-85°F { 10-30°C }

*When kept at recommended storage conditions and in original unopened containers. DO NOT ALLOW TO FREEZE. Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). DO NOT FREEZE. Frozen material is unusable and must be properly disposed of.

APF Polyurea_5100_PDS_07.18.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.



SYSTEM DATA SHEET
&
APPLICATION INSTRUCTIONS

SYSTEM DESCRIPTION

CastorCrete SL-B is a easily gauge rake trowel applied cementitious polyurethane mortar that is designed to protect and/or resurface concrete. It can withstand aggressive physical exposure to heavy duty abrasion and impact, thermal shock and thermal cycling, chemical resistance and medium traffic forklift traffic. CastorCrete SL-B features a colored quartz broadcast finish in a single solid color or preblended colors of aggregate and is grout coated and top coated with a variety of products depending on the end use environment. Typical installation thicknesses between 1/8 inch (3.17 mm) to 1/4 inch (6.35 mm).

USES

- Commercial kitchens
- Food and beverage processing and manufacturing
- Pharmaceutical
- Healthcare and research facilities
- Vivarium and animal holding
- Other wet and dry processing areas

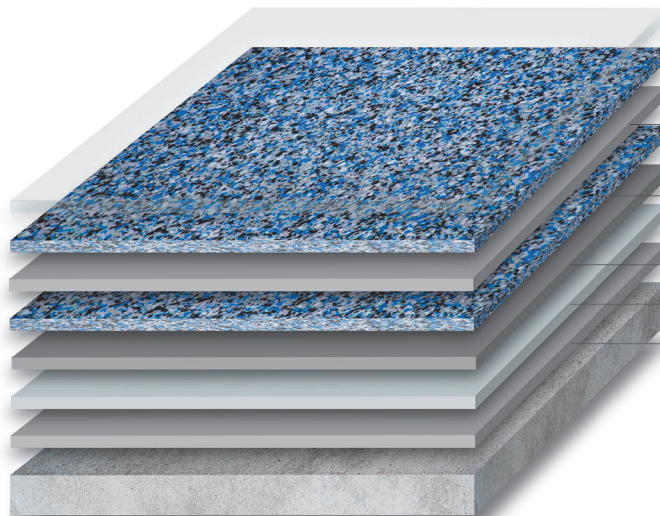
ADVANTAGES

- Aesthetically Pleasing
- Low VOC Urethane Cement Slurry Mortar
- 100% Solids Epoxy Receiving and Grout Coat, Low VOC Polyurethane Top Coat
- Fast Installation
- Moisture Tolerant
- Thermal Shock Resistant
- Impact and Abrasion Resistant
- Chemical Resistant to Organic and Inorganic Acids, Salts, Alkalies and Amines
- UV Resistant Topcoats
- Superior Life Cycle Advantages

COLORS

Available in 5 standard colors and natural.

TYPICAL SYSTEM BUILD



- **TopCoat:** CastorCrete TC, Epoxy 600 or Polyurea 5100
- **Optional 2nd Broadcast:** Silica Sand, Aluminum Oxide, Color Quartz
- **Optional 2nd Broadcast Coat:** Epoxy 400
- **Broadcast:** Silica Sand, Aluminum Oxide, Color Quartz
- **Mortar Coat:** CastorCrete SL
- **Primer:** Epoxy 100 (as needed)
- **Patching & Filling:** Epoxy 300 Flex Paste

Note: Diagram not to scale

TECHNICAL DATA

Compressive Strength (ASTM C-579)	8,500 psi
Tensile Strength (ASTM C-307)	1,400 psi
Flexural Strength (ASTM C-580)	2,700 psi
Hardness, Shore D (ASTM D-2240)	85-90
Impact Resistance (ASTM D-2794)	160
Concrete Thermal Compatibility (ASTM C-884)	Passes
Coefficient of Thermal Expansion (ASTM C-531)	1.1X10 ⁻⁵
Flammability (ASTM D-635)	Self Extinguishing
Abrasion Resistance (ASTM C-501) (CS-17, 1,000 gr., 1,000 cycles)	0.32gm loss
Coefficient of Friction Wet Surface (ANSI/NFSI B101.1 Static & B101.3 Dynamic)	Incline >0.45 Level >0.42
Water Absorption (ASTM C-413)	<0.10
Bond Strength (ASTM D-7234) (concrete failure)	400 psi
Relative Humidity Test (ASTM F-2170)	85%

Refer to product data sheet of individual system component for more information.

TYPICAL SYSTEM BUILD

COAT	PRODUCT	THICKNESS/COVERAGE
Patching & Filling	APF Epoxy 300 Flex Paste	As required
Primer	APF Epoxy 100 (as needed)	200 sq. ft./gallon (8 mils WFT)
Mortar Coat	APF CastorCrete SL	1/8" - 32 sq. ft., 1/4" - 16 sq. ft.
Broadcast	Silica Sand, Aluminum Oxide, Color Quartz	0.5 - 0.75 lbs./sq. ft.
Optional 2nd Broadcast Coat	APF Epoxy 400	100 sq. ft./gallon (16 mils WFT)
Optional 2nd Broadcast	Silica Sand, Aluminum Oxide, Color Quartz	0.5 lb./sq. ft.
Topcoat Option 1	APF CastorCrete TC	280 sq. ft./19lb. kit (10 mils)*
Topcoat Option 2	APF Epoxy 600	100 sq. ft./gallon (16 mils WFT)*
Topcoat Option 3	APF Polyurea 5100	200 sq. ft./gallon (8 mils WFT)*

*Topcoat coverage determines final texture.

APPLICATION INSTRUCTIONS

1.0 Concrete Moisture

It is the applicator's responsibility to test and record concrete moisture levels according to ASTM F270-19. Contact APF technical service if the relative humidity exceeds 99%.

2.0 Surface Preparation

Concrete must be cured for at least 7-10 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

3.0 Crack Repair

After the initial preparation has been completed, inspect the surface for indentations and holes. These must be filled prior to application using Epoxy 300 Flex Paste. After mixing Epoxy 300 Flex Paste according to the product data sheet, use the Epoxy 300 Flex Paste immediately. Spread the product with a flat trowel, margin tool, or broad putty/plaster knife. Epoxy 300 Flex Paste will cover 154 linear ft/gal (1/4" wide by 1/2" deep crack).

Gunning is not recommended for this material. Apply to fill joint completely. Apply additional material if product settles into joint below the concrete surface. Cured product must be level with concrete surface. Allow to cure completely prior to applying primer.

4.0 Application of Primer Coat

Under normal circumstances, CastorCrete SL is applied directly to the concrete without a primer. However, if the concrete is badly damaged or excessively porous, the use of APF Epoxy 100 as a primer can reduce outgassing, pinholes or blisters.

A test area is recommended to determine if a primer should be used. After any patchwork/crack repair has cured, if primer is required, apply one coat of Epoxy 100 after mixing according to the product data sheet. Apply material onto surface immediately after mixing with a squeegee, back roll using a quality solvent resistant 3/8-inch nap roller cover.

Apply at a rate of 200 sqft/gallon at 8 mils WFT. A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. **The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}**

5.0 Application of Mortar Coat with Broadcast

Do not apply to previously coated surfaces; apply directly to concrete except for when priming is necessary. Cut Key-ways according to product data sheet. For small areas, CastorCrete SL can be spread and finished with a steel trowel. Once the mortar is raked with a cam-gauge rake to the desired thickness, use a finishing trowel to compact and smooth out the rake marks. As soon as the mortar is relatively closed,

APPLICATION INSTRUCTIONS

immediately roll the surface with a looped roller or spike roller to remove trowel marks and bring the resin to the top.

When placing the cementitious polyurethane mortar it is very important to keep a wet edge between mixes, therefore each batch must be placed within working time of the prior one. Failure to do this could result in a visible tie-in line. Excessive troweling or rolling can bring more resin to the top and reduce slip resistance.

CastorCrete SL-B requires a double broadcasting of 40-60 mesh silica sand, aluminum oxide, or color quartz that is uniform in size, washed, dried and bagged. The broadcast of silica sand, aluminum oxide, or color quartz is recommended at 0.5 to 0.75 pound (0.23 kg to 0.34 kg) per square foot (0.092 square meters). It is very important to broadcast the silica sand, aluminum oxide, or color quartz be applied within 5 - 10 minutes of the final rolling of the CastorCrete SL. If the material exceeds its open time to receive the broadcast aggregate the result will be a non-uniform absorption of the aggregate. After the CastorCrete SL and broadcast cures remove the excess (non-bonded) broadcast aggregate with a broom and use oil free compressed air blow the surface free of remaining broadcast aggregate.

6.0 Application of Optional 2nd Broadcast

Once all the loose quartz has been removed and the floor is vacuumed, mix the Epoxy 400 according to the product data sheet. Apply Epoxy 400 onto surface immediately after mixing with a squeegee, back roll with using a quality solvent resistant 3/8-inch nap roller cover. Apply at a rate of 100 sqft/gallon at 16 mils WFT. A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. **The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}**

Allow the Epoxy 400 to level for 10-15 minutes, then broadcast silica sand, aluminum oxide, or color quartz until refusal at a rate of ~0.5 pounds per square foot. Allow Epoxy 400 and Broadcast layer to cure for ~6-12 hours prior to removing the excess quartz.

7.0 Application of Topcoat (Choose 1)

Once all the loose quartz has been removed and the floor is vacuumed, proceed with application of one of the below options.

CastorCrete TC: After mixing the CastorCrete TC according to the product data sheet, apply CastorCrete TC onto surface immediately after mixing with a squeegee, back roll with using a quality solvent resistant 3/8-inch nap roller cover. CastorCrete TC should be applied

at 280 sqft/mixed kit (10 mils). When placing the cementitious polyurethane top coat, keep a "wet edge" between mixes. Place each batch within the working time of the prior batch. Failure to do this could result in a visible tie-in line.

Epoxy 600: As soon as the mortar can be walked on or after the overnight cure of the optional 2nd Broadcast Coat and excess broadcast is removed with a broom and use oil free compressed air blow the surface free of remaining color quartz, apply the Epoxy 600 Clear after mixing in accordance with the product data sheet. Epoxy 600 Clear should be applied at 100 sqft/gal (16 mil WFT).

Polyurea 5100: As soon as the mortar can be walked on or after the overnight cure of the optional 2nd Broadcast Coat and excess broadcast is removed with a broom and use oil free compressed air blow the surface free of remaining color quartz, apply the Polyurea 5100 after mixing in accordance with the product data sheet. Polyurea 5100 should be applied at 200 sqft/gal (8 mils WFT).

LIMITATIONS

- Prior to application, measure and confirm that ambient temperature and substrate temperature are at least 5 degrees above the dew point.
- High humidity/low temperature will prolong cure time.
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

HANDLING & SAFETY

Use only with adequate ventilation. Appropriate cartridge-type respirator must be used during application in confined areas. Avoid contact with skin; wear protective gloves. User must read and understand Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.

APF_CastorCrete_SL-B_System_Data_11.10.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.

MANUFACTURER SPECIFICATIONS

DIVISION 9 – FINISHES
SECTION 09 6700 RESINOUS FLOORING
CASTORCRETE SL-B

1.0 GENERAL REQUIREMENTS

1.01 WORK INCLUDED

- A. Provide labor, equipment, and materials to complete a resinous flooring application and installation suitable and compliant for the specific use indicated in the contract documents on horizontal concrete. The objective of this specification is achieved with the installation of a system of resinous flooring with multiple components consisting of the following, applied directly to a concrete substrate:

1. Patching and filling {as needed} with APF Epoxy 300 Flex Paste
2. Primer: APF Epoxy 100 (as needed)
3. Slurry: APF CastorCrete SL with Silica Sand, Aluminum Oxide or APF Blended Color Quarts
4. Cove: APF CastorCrete CM (as required)
5. Optional 2nd Broadcast: APF Epoxy 600 with Silica Sand, Aluminum Oxide or APF Blended Color Quartz
6. Topcoats (apply one of the following):
 - a. APF CastorCrete TC
 - b. APF Epoxy 600
 - c. APF Polyurea 5100

1.02 RELATED SECTIONS

- A. Specified elsewhere:
1. Section 03 30 00 Cast in Place Concrete
 2. Section 09 00 00 Finishes
- B. References:
1. ASTM C-579 Compressive Strength
 2. ASTM C-307 Tensile Strength
 3. ASTM C-580 Flexural Strength
 4. ASTM D-2240 Hardness, Shore D
 5. ASTM D-2794 Impact Resistance
 6. ASTM C-531 Coefficient of Thermal Expansion
 7. ASTM C-884 Concrete Thermal Compatibility

8. ASTM C-501 Abrasion Resistance
 9. ASTM E-648 Flammability
 10. ANSI/NFSI B101.1 Static & B101.3 Dynamic Coefficient of friction
 11. ASTM C-413 Water Absorption
 12. ASTM D-7234 Adhesion
- C. Notes to Users of this Document {e.g., Architects Engineers, Designers, and Consulting Professionals:
1. This specification is supplied in an exhaustive format with the intent of achieving as comprehensive an inclusion of project factors as possible.
 2. The specifier is NOT obligated to utilize this specification in its entirety but instead is encouraged to adopt/adapt/apply those provisions which apply to specific projects.
 3. All construction projects are unique. Ultimately, it is the responsibility of the involved parties (e.g., Installer/Applicator, Remediator/Restorer, General Contractor, Owner, Client, Enforcement Authority, Architect, Engineer or Consultant) to verify on a case-by-case basis that applications of this specification are appropriate.
 4. Deviation: Certain projects will involve unavoidable circumstances that prevent project execution in full accord with industry professional standards of care, and the tenets of this specification. A separate and specific specification should be developed in consultation with all parties, including product manufacturers, when deviation is the only option for achieving the property owner's objectives.
 5. Where contradicted by federal, state, or local laws and regulations, any of the preceding supplants the information in this document.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Acceptable Manufacturer: ICP Construction, Arizona Polymer Flooring {APF}; 150 Dascomb Rd., Andover, MA 01810
- B. Single Source Responsibility: Obtain all product system components from a single manufacturer with not less than 20 years of successful experience in manufacturing and specifying the installation of the principal materials described in this specification. Provide secondary/supplementary materials only of the type and from a source recommended by the manufacturer of the primary material(s).
- C. Contractor/Applicator Experience: The installer shall be a firm or individual experienced with the objectives of this specification.

1. The installer must have a minimum of 3 years' experience in installing the polymeric flooring system(s) specified and be approved by the manufacturer.
- D. Sampling of Materials: When directed by Architect/Engineer, obtain test samples from material stored at the project site or source of supply (distributor or manufacturer.
- E. Mock-Up: Upon request (By Owner, Client, Enforcement Authority, Assessor, Architect or Engineer), it may be determined necessary to provide a mock-up for evaluation of surface preparation techniques, validation of performance expectations, and anticipated application workmanship.
 1. The applicator shall make and submit a sample of the proposed finish to the architect and/or owner for approval.
 2. Do not proceed with remaining work until pertinent project authority (By Owner, Client, Enforcement Authority, Assessor, Architect or Engineer), approves the mock-up.

1.04 SUBMITTALS (as directed to Owner, Client, Enforcement Authority, Assessor, Architect, Engineer or Consultant)

- A. Submit under the provisions of Section 013300.
- B. Submit the Manufacturer's product data sheets for each product and system data sheets for the applicable system to be used.
- C. Submit electronically Manufacturer's Safety Data Sheets (SDS). Content of VOCs shall not exceed pertinent regulations regarding VOCs.
- D. Submit the Manufacturer's maintenance instructions/guidelines.

NOTES:

1. Bidders are encouraged to submit materials that meet the Basis of Design. To have material accepted as approved for the work outlined herein, the alternate or substitute proposed must be received by the architect for evaluation and approval no less than 21 days before the original published bid date. Approved alternate products will be by Addendum only. Submittals circumventing this process will not be approved and will not be acceptable for inclusion in this project.
2. Substitutions will only be considered for products manufactured by companies of primarily U.S. ownership.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and product number.

B. Storage of Materials:

1. Store only acceptable project materials on site.
2. Store in a suitable and secure location convenient to progress work.
3. Comply with health and fire regulations. No products listed in the Basis of Design are flammable or combustible.
4. Storage temperatures shall be between 50° F (10 °C) and 85° F (30 °C), or such other ambient temperature conditions as may be specifically recommended by the product manufacturer.
5. Products shall not be permitted to freeze on site, and delivery should be refused if freezing during transit is probable.
6. Avoid storage directly in hot sun exposures or excessive temperatures.
7. Keep containers tightly closed when not in use.
8. Store securely closed and upright in the original container. Lids or caps can leak if containers are placed on their sides.
9. Keep out of reach of children.

C. Handling:

1. Dispose of materials in accordance with the requirements of local authorities having jurisdiction.
2. Verify that products are within acceptable shelf life, and do not utilize any product that is older than the maximum shelf life stated by the manufacturer.

D. Extra Materials:

1. Furnish extra coating materials in the quantities agreed in advance. Package with protective covering for storage and label with descriptions of contents. Deliver extra materials to the Owner. OR,
2. Furnish Owner with sufficient additional coating to address an additional one percent overall surface area, but not less than 1 gal. (3.8 l), 5 gal. pail (19 l), or 1 case, as appropriate and collectively agreed upon in advance of substantial completion.

1.06 JOB SITE CONDITIONS**A. Environmental requirements:**

1. Comply with manufacturers' recommendations as to environmental conditions under which all chemicals and coatings can be applied.

- a. Temperature: Do not apply products at temperatures beyond the limits stated in the manufacturer's technical data sheet unless given written permission by the manufacturer.
- 2. Surface/Substrate Moisture:
 - a. Moisture more than 99% contact Arizona Polymer Flooring.
 - b. Consult manufacturer regarding whether topical dampness (latent moisture tangible by touch) after wet cleaning or recent precipitation is acceptable at the time of application of coatings, or if a completely dry (absence of above-normal topical and subsurface moisture) surface is required. Applicators are expected to account for slow-drying surface elements (such as shaded areas, hairline cracks, nail holes).
 - c. Before applying, measure and ensure that the ambient temperature is at least 5°F above the dew point.
- B. Surface Protection/Prevention of Cross-Contamination:
 - 1. Cover or otherwise protect adjacent areas. Identify adjacent areas that could be cross-contaminated by construction activity.
 - 2. Careful attention should be paid to any occupied areas in the vicinity of the work area.
 - 3. Utilize adequate engineering controls to ensure worker and occupant safety and health and prevent cross-contamination. Engineering controls may include, but are not limited to, source containment, isolation barriers, pressure differentials, dust suppression, and high-efficiency particulate air (HEPA) vacuuming and filtration.
- C. Provide adequate illumination and ventilation.
- D. The applicator shall have access to electrical power, clean potable water, and a clean work area at the location where the materials are to be applied/installed.

2.0 PRODUCTS

2.01 SYSTEM SUMMARY

- A. CastorCrete SL-B is a trowel-applied polyurethane cement mortar installed at 1/4 inch (6.35 mm) 3/8 inch (9.52 mm) to protect concrete from extreme physical and chemical abuse. It is very resistant to impact and abrasion and stands up to steel wheeled cart traffic. It is unaffected by hot cooking oils, animal fats and most solvents. CastorCrete SL-B has been formulated to compensate for the difference in the coefficient of thermal expansion of concrete. It can be used at constant service temperatures up to 212°F (100°C).

2.02 MATERIALS {Basis of Design}

- A. ICP Construction/Arizona Polymer Flooring {APF} or its authorized distributors shall supply all products.
- B. Substitutions or additions of other materials will void the warranty.
- C. Components:
 - 1. APF CastorCrete SL: gauge rake and trowel-applied cementitious polyurethane slurry.
 - 2. APF Blended Color Quartz: decorative aggregate.
 - 3. Silica Sand: aggregate.
 - 4. Aluminum Oxide: aggregate
 - 5. APF CastorCrete CM: trowel-applied cementitious polyurethane mortar.
 - 6. APF CastorCrete TC: trowel-applied cementitious polyurethane topcoat.
 - 7. APF Epoxy 600: 2-component, low viscosity, 100% solid epoxy.
 - 8. APF Polyurea 5100: 2-component, high-solids, aliphatic polyurea/polyaspartic hybrid.
- D. Accessories:
 - 1. APF Epoxy 300 Flex Paste {if needed}: 2-component 100% solids, medium viscosity, flexible epoxy product.
 - 2. APF Epoxy 100 (if needed): 2-component water-based epoxy

2.03 COLORS

- A. Reference the Arizona Polymer Flooring {APF} Color Charts for available standard colors. If a custom color is required, contact Arizona Polymer Flooring {APF} Technical Services for additional information.

2.04 MIXING

- A. Mix all products in accordance with the manufacturer's instructions on individual product data sheets.

3.0 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions:
 - 1. Inspect surfaces to receive the floor system.
 - 2. Conduct a concrete moisture test in accordance with ASTM F2170-19, consult Arizona Polymer Flooring Technical Service before proceeding if results indicate moisture to be more than 99%.
 - 3. Before starting work, report in writing to the Architect about any unsatisfactory conditions.

4. The application of any material shall signify that surfaces have been inspected and are satisfactory to receive the specified flooring system.

3.02 PREPARATION OF WORKSITE, SURFACES

- A. Concrete must be cured for at least 7-10 days, be clean, structurally sound, and free of wax, loose coatings, or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 3. Refer to ICRI technical guidelines 310-330, Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void the manufacturer's warranty.

3.03 GENERAL SURFACE PREPARATION INSTRUCTIONS FOR ALL SUBSTRATES

- A. Crack Repair: After the initial preparation has been completed, inspect the surface for indentations and holes. These must be filled before application using Epoxy 300 Flex Paste. Refer to APF Epoxy 300 Flex Paste Product Data Sheet, or CastorCrete SL-B System Data Sheet and Application Instructions Section 3.0 Crack Repair for instructions.

3.04 APPLICATION

- A. Allow sufficient time for the installation of the flooring system. At no time shall the speed of project completion be allowed to affect the application detrimentally.
- B. Provide sufficient light, power, heat and working conditions to permit proper application of the materials. The ambient air and surface temperature shall be a minimum of 50°F (10°C) and a maximum of 85°F (30°C) and shall remain so for at least 24 hours.
- C. Primer
 1. Under normal circumstances, CastorCrete SL is applied directly to the concrete without a primer. However, if the concrete is badly damaged or excessively porous, the use of APF Epoxy 100 as a primer can reduce outgassing, pinholes or blistering.
 2. Apply at a rate of 200 sqft/gallon (8 mils WFT) using a squeegee and backroll with a solvent resistant 3/8 nap inch roller cover.
- D. Slurry:
 1. After any patchwork/crack repair has cured, pour AP CastorCrete SL onto the surface immediately after mixing is finished. Key-ways must be cut 1/4 inch (6.3mm) deep by 3/16-inch (4.8mm) wide, 6-inch (15.2 cm) from all perimeter walls, machinery pedestals, and both sides of all control joints, and at regular intervals spaced 10 feet (3 m) to 12 feet (3.7 m) apart throughout the flooring

system. All floor drains, penetrations, transitions and termination points must have a 1/4-inch (6.35 mm) deep by 1/4-inch (6.35 mm) wide key-way. NEVER feather the edge of APF CastorCrete SL, always turn it into a key-way.

2. In typical applications, APF CastorCrete SL is applied directly to the concrete without a primer. For small areas, APF CastorCrete SL can be spread and finished with a steel trowel. Rake the material with a cam-gauge rake to the desired thickness, use a finishing trowel to compact and smooth out the rake marks. As soon as the mortar is relatively closed, immediately roll the surface with a looped or a spiked roller to remove trowel marks and bring the resin to the top. When placing the cementitious polyurethane mortar, keep a wet edge between mixes.
3. Apply each batch within the working time of the prior batch. Failure to do this could result in a visible tie-in line. Excessive troweling or rolling can bring more resin to the top and reduce slip resistance.
4. Broadcast: Silica Sand (40-60 mesh), Aluminum Oxide or APF Blended Color Quartz at a rate of 0.5-0.75 lbs/sqft, contact APF Technical Support Team for additional information.

E. Application of Cove (as required):

1. Under normal conditions, CastorCrete CM is applied directly to the concrete without the need for a primer. However, if the concrete is badly damaged or excessively porous, the use of APF Epoxy 100 as a primer can reduce outgassing, pinholes, or blisters. A test area is recommended to determine if a primer should be used. CastorCrete CM must be applied while the primer is still tacky. If the primer dries before the mortar is placed, the primer must be reapplied.
2. After thoroughly mixing CastorCrete CM, trowel in place using a steel concrete trowel. If a radius is desired, a 3/4-inch radius coving trowel can be used to finish the mortar. As soon as the troweling is complete, lightly brush or roll the CastorCrete CM to bring the resin to the top removing any minor imperfections.

F. Optional Application of 2nd Broadcast:

1. After mixing Epoxy 600 according to the product data sheet, apply Epoxy 600 onto the surface immediately after mixing with a squeegee, back roll using a quality solvent-resistant 3/8-inch nap roller cover. Apply at a rate of 100 sq. ft./gallon at 16 mils WFT.

2. A “wet edge” is recommended when applying the product; do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent-resistant 3/8-inch nap roller cover to distribute the material uniformly. The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}.
3. Apply a second coat, if necessary, within 24 hour recoat window. If the recoat window is exceeded, the surface must be abraded with 80-100 grit to a uniform gloss free and dust free texture prior to recoat.
4. Broadcast: Silica Sand (40-60 mesh), Aluminum Oxide or APF Blended Color Quartz at a rate of 0.5 lbs/sqft. Contact APF Technical Support Team for additional information.

G. Application of Topcoats (apply one of the following):

1. After mixing the CastorCrete TC according to the product data sheet, apply it immediately to the surface with a squeegee, then back roll using a quality solvent-resistant 3/8-inch nap roller at a rate of 140-280 sqft/19lb kit (10-20 mils).
2. Epoxy 600: apply at a rate of 100 sqft/gallon (16 mils WFT)
3. Polyurea 5100: apply at a rate of 200 sqft/gallon (8 mils WFT)

H. Field Quality Control:

1. The installer shall monitor the thickness of the system as the work progresses. Areas found not to meet the required thickness shall be addressed accordingly to meet the required system thickness.

I. Protection:

1. Installation areas must be kept free from traffic and other trades during the application procedure and cure time.
2. Prohibit traffic on the floor for 48 hours after installation. Avoid heavy abrasion and chemical exposure for 7 days after installation. Allow 72 hours minimum for vehicular traffic.

3.05 CLEANING

- A. Remove the remaining debris promptly from the work area and dispose of it properly.
- B. Remove spilled, splashed, or splattered coating materials from all surfaces.
- C. Do not mar the surface finish of items being cleaned.
- D. Clean up tools and other equipment with warm, soapy water before coating dries.
- E. Review product labels for proper disposal of unused products and empty containers.

3.06 MAINTENANCE

- A. The contractor shall provide maintenance and cleaning instructions for the floor system upon completion to the owner or party designated by the owner. The owner is responsible for maintaining and cleaning the surface as required by the warranty.
- B. Contact Arizona Polymer Flooring (APF) Technical Services for additional information regarding proper cleaning and maintenance procedures based on the specified system installed.
- C. Refer to the APF Cleaning & Maintenance for New Floor Systems guide at www.apfepoxy.com.

3.07 SLIP AND FALL PRECAUTIONS

- A. OSHA, American Disabilities Act (ADA), and the Federal Housing Act (FHA) have now set enforceable standards for slip-resistance on pedestrian surfaces. ICP Construction/Arizona Polymer Flooring {APF} recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily/greasy, or otherwise potentially slippery conditions. It is the end user's responsibility to provide a flooring system that meets current safety standards. ICP Construction/Arizona Polymer Flooring {APF} or its sales agents will not be responsible for injury incurred in a slip and fall accident. Please consult local building codes for the current coefficient of friction requirement.

3.08 WARRANTY

- A. The manufacturer shall guarantee that this material shall be free from defects and comply with published specifications.
 - 1. Extent of warranty shall be limited to the repair or replacement of defective surfaces at no cost to the Owner, and for any damage directly resulting from such defects during the warranty period of one (1) year. The warranty shall not include any remedy for repair labor, or for defects caused by abuse, improper maintenance or operation, or by normal wear, tear and usage. Contact the manufacturer for the entire warranty. This section is informative only and does not constitute a warranty.
- B. Installer shall provide the Owner, through Assessor, Architect/Engineer, with an acceptable form of warranty against defects in workmanship for one (1) year from the date of substantial completion.

DEPARTMENTS OF THE ARMY AND THE AIR FORCE, FLORIDA NATIONAL GUARD
2026 Alternate Work Schedule (AWS) Every Other Monday Off (FLNG Standard Schedule)

 Designated Federal Holidays

 End of Federal Civil Service Pay Period

JANUARY						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
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FEBRUARY						
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MARCH						
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31						

JUNE						
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28	29	30				

JULY						
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30	31					

SEPTEMBER						
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20	21	22	23	24	25	26
27	28	29	30			

OCTOBER						
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25	26	27	28	29	30	31

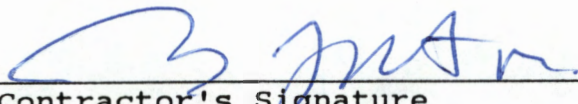
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29	30					

DECEMBER						
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

CONTRACTORS
CERTIFICATE OF SPECIFICATION
OF NO ASBESTOS-CONTAINING MATERIALS

I certify that no materials containing asbestos were specified for use in the construction of the REROOFING OF NATIONAL GUARD ARMORIES

project located in PLANT CITY/PALMETTO/TAMPA/CLEARWATER/WINTER HAVEN
Florida, DMS Project No. MA-91025010.


Contractor's Signature

7-28-93
Date

George J. Peterson, President
Contractor's Name (Typed)

Firm Name Southern Roofing Co., Inc.

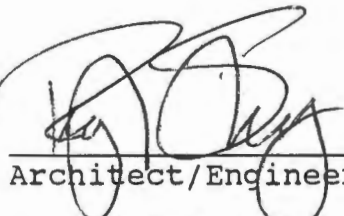
Address 900 Hawkins Street

Clearwater, Florida 34616

ARCHITECT/ENGINEER
CERTIFICATE OF SPECIFICATION
OF NO ASBESTOS-CONTAINING MATERIALS

I certify that no materials containing asbestos were specified for
use in the construction of the PEROOFING OF NATIONAL GUARD
ARMORIES.

project located in PLANT CITY / PALMETTO / TAMPA / CLEARWATER / WINTER HAVEN
Florida, DMS Project No. MA - 91025010.



Architect/Engineer's Signature

Ralph Salgado Jr.

Architect/Engineer's Name (Typed)

Firm Name ARKITEX 2

Address 1000 N. Ashley Drive, Suite 602

Tampa, Florida 33602

7/30/93
Date

**STATE OF FLORIDA
DEPARTMENT OF MILITARY AFFAIRS**

**Asbestos Survey of the
National Guard Armory
Battery C 3BN ADA
Palmetto, Florida**

Asbestos Inspection Survey performed on June 22, 1995

Patricia Mitchell

Date 6/24/95

Patricia Mitchell
Licensed Asbestos Consultant

#AX 000 0005

ASBESTOS SURVEY AND ASSESSMENT - FORM 2
 Consultant: Patricia Mitchell, Apollo Environmental, Inc.
 Agency: State of Florida, Department of Military Affairs
 Bldg Contact Person: Sgt. Jeff Cook

Building Name and No. 100, Admin/Gym
 Survey Date: June 22, 1995
 Contract No.:

Room #	Sample #	Material	Ht #	Func Space	Sal Area	Quantity	Friable (y/n)	Asb. Type	Cond	Dang Pot	Haz Assmnt	Resp Pri	Airs			Recom mend
													Reep \$	Air \$	Repl \$	
/01B	1	9" tan floor tile	1	office		1,200 sf	n	8% chry-tile, 10% chry-mastic	good	low	1	7	2	1	N/A	O&M
/01A	2		1	office				"					inc	inc		
101	3	Orange sheet vinyl over tan tile	2	Hall		180 sf	n	75% chry in backing	good	low	1	7	inc	inc		O&M
101	4	"	2	Hall				"								
101	5		2	Hall				"								
/01C	6	2x4 drop CT, pattern 3	3	office		192 sf	y	ND	good							
/01C	7		3	office												
/01C	8		3	office												
/01D	9(QC)		3	office												
/01D	10	2x2 drop CT	4	office		192	y	ND	fair							
/01D	11		4	office												
/01D	12		4	office												
111	13	12 black floor tile	5	Kitchen		432	n	ND	good							
111	14		5	Kitchen												
111	15		5	Kitchen												
111B	16	ceiling surfacing	6	Kitchen foyer		36 sf	y	6% chry	good	low	2	6	inc	inc		O&M

ASBESTOS SURVEY AND ASSESSMENT - FORM 2
 Consultant: Patricia Mitchell, Apollo Environmental, Inc.
 Agency: State of Florida, Department of Military Affairs
 Bldg Contact Person: Sgt. Jeff Cook

Building Name and No. 100, Admin/Gym
 Survey Date: June 22, 1995
 Contract No.:

Room #	Sample #	Material	Ha #	Func Space	Sal Area	Quantity	Friable (y/n)	Asb. Type	Cond	Dmg Pot	Hez Asmt	Resp Pri	Airs	COST \$ (in thousands)			Recom mend
														Reep \$	Air \$	Repl \$	
111B	17		6	Kitchen foyer		36 sf	y	6% chrys	good	low	2	6		inc	inc		O&M
111B	18		6	Kitchen foyer													
108	19	*Popcorn coating	7	classroom		704 sf	y	ND	good					inc	inc		O&M
108	20		7	classroom													
108	21	**Wall stucco	8	classroom		880 sf	n	ND	good								
109	22	9 tan floor tile	1	storage		1,200 sf	n	8% Chry in tile, 10% Chry in mastic	fair	mod	3	5		inc	inc		O&M
108	23	**Wall stucco	8	classroom		880 sf	n	ND	good								
100	24	Gym 2 x 4 drop ceiling tile, pattern 2	9	gym		4,940 sf	y	ND	excel								
100	25		9	gym													
100	26		9	gym													
100	27(QC)		9	gym													
106A	28	mudded pipe elbows	10	closet		50 joints	y	ND	fair								
106A	29		10	closet													

ASBESTOS SURVEY AND ASSESSMENT - FORM 2
 Consultant: Patricia Mitchell, Apollo Environmental, Inc.
 Agency: State of Florida, Department of Military Affairs
 Bldg Contact Person: Sgt. Jeff Cook

Building Name and No. 100, Admin/Gym
 Survey Date: June 22, 1995
 Contract No.:

Room #	Sample #	Material	Ha #	Func Space	Sal Area	Quantity	Friable (y/n)	Asb. Type	Cond	Dang Pot	Haz Ass mt	Reep Ph	Aire	COST \$ (in thousands)			Recom mend
														Reep \$	Air \$	Repl \$	
106A	30		10	closet		50 fittings		ND	good								
104	31	9 white floor tile	11	Hall		45 sf	n	2% chry - tile, 6% chry-mastic	good	low	1	7		inc	inc		O&M
104	32		11	Hall													
104	33		11	Hall													
104A	34	ceiling plaster	12	bathroom		980 sf	n	ND	good								
104A	35																
104A	36																
104B	37	Wall board, not painted	13	locker room	40 sf	3,000 sf	n	2% Chry in joint compound, <1% overall	good	low	1	7		inc	inc		O&M
101	38	Wallboard, painted	13	Hall		3,000 sf			good								
101	39	Wallboard, painted	13	Hall		3,000 sf											
101	40	Exterior window putty	14	Exterior window		200 sf	y	ND	fair								
101	41(QC)		14	Exterior window			n										
101C	42		14	Exterior window													
101C	43		14	Exterior window													
Roof	---	Built-up roof	15	Roof		11,700 sf	n	Assumed	fair	low	1	7		inc	inc		O&M

Consultant: Patricia Mitchell, Apollo Environmental, Inc.
Agency: State of Florida, Department of Military Affairs
Bldg Contact Person: Sgt. Jeff Cook

The recommended response action is O & M. Note, normal occupancy is only 4 persons. The popcorn in the classroom previously sampled and no asbestos detected. The classroom stucco previously sampled and no asbestos detected. The main foyer surfacing was removed and replaced with cellulose drop ceiling tiles.

Page 4 of 4

HOMOGENEOUS AREA DATA							SAMPLE RESULTS			
HOMOG. AREA #	MATERIAL	SALIENT	SAL. SPACE	HAZ. RANK	PRIORITY RANK	RECOMMENDED RESPONSE	DELINEATION	SAMPLE NUMBER	ASBESTOS TYPE	TOTAL % ASBESTOS
1	FLOOR TILE	N	--	1	7	O&M	--	1,2,22	CHRY	18%
2	SHEET VINYL SURFACING	N	--	1	7	O&M	--	3,4,5	CHRY	75%
6	FLOOR TILE	N	--	2	6	O&M	--	16,17,18	CHRY	6%
11	FLOOR TILE	N	--	1	7	O&M	--	31,32,33	CHRY	8%
13	WALLBOARD	Y	40sf	1	7	O&M	--	37,38,39	CHRY	<1%
15	BUILT-UP ROOF	N	--	7	1	O&M	--	--	--	ASSUMED
16	ROOF SHINGLES	N	--	1	7	O&M	--	--	--	ASSUMED

NOTES & LEGEND		
SAMPLE LOCATIONS		
67 - SAMPLE NUMBERS		
SCALE		
NONE		

STATE OF FLORIDA - DEPARTMENT OF MILITARY AFFAIRS
ST. AUGUSTINE, FLORIDA
ASBESTOS SURVEY AND ASSESSMENT DATA
NATIONAL GUARD ARMORY - BUILDING 100
PALMETTO, FLORIDA

FIGURE NO.

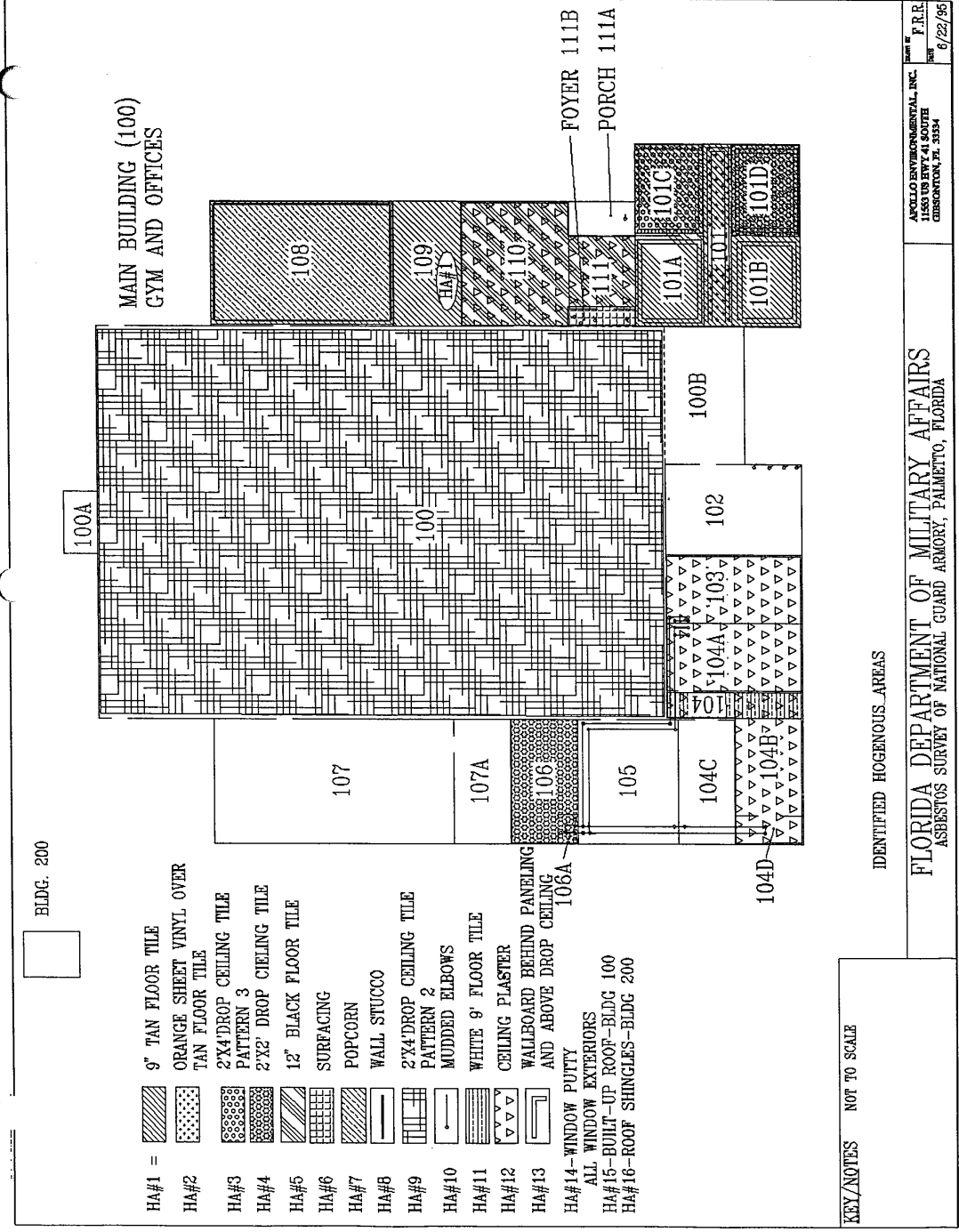
APOLLO ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
11553 U.S. HIGHWAY 41 SOUTH
GIBSONTON, FLORIDA 33534-0239
(813) 671-5989 FAX: (815) 677-3422

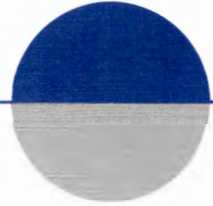
PROJECT NUMBER:	DRAWN BY:	DATE:
kh	kh	6/29/95

SHT 3 OF 4

HOMOGENEOUS AREA DATA								SAMPLE RESULTS		
HOMOG. AREA #	MATERIAL	SALIENT	SAL. SPACE	HAZ. RANK	PRIORITY RANK	RECOMMENDED RESPONSE	DELINEATION	SAMPLE NUMBER	ASBESTOS TYPE	TOTAL % ASBESTOS
1	FLOOR TILE	N	--	1	7	O&M	--	1,2,22	CHRY	18%
2	SHEET VINYL	N	--	1	7	O&M	--	3,4,5	CHRY	75%
6	SURFACING	N	--	2	6	O&M	--	16,17,18	CHRY	6%
11	FLOOR TILE	N	--	1	7	O&M	--	31,32,33	CHRY	8%
13	WALLBOARD	Y	40sf	1	7	O&M	--	37,38,39	CHRY	<1%
15	BUILT-UP ROOF	N	--	7	1	O&M	--	--	--	ASSUMED
16	ROOF SHINGLES	N	--	1	7	O&M	--	--	--	ASSUMED

NOTES & LEGEND	
ASBESTOS CONTAINING HOMOGENOUS AREAS	
HA#1 = 9" TAN FLOOR TILE HA#2 = ORANGE SHEET VINYL OVER TAN FLOOR TILE HA#6 = SURFACING HA#11 = WHITE 9" FLOOR TILE HA#13 = WALLBOARD BEHIND PANELING AND ABOVE DROP CEILING HA#15-BUILT-UP ROOF-BLDG 100 HA#16-ROOF SHINGLES-BLDG 200	
SCALE	
NONE	





October 27, 1995

Captain Jim Wood
Department of Military Affairs
2305 State Road 207
St. Augustine, Florida 32085

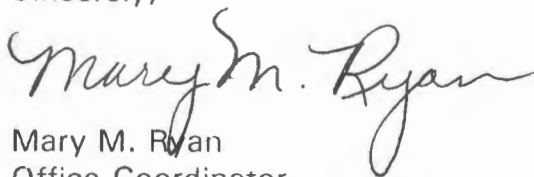
Re: Asbestos Abatement at National Guard Armory, Palmetto, FL

Dear Capt. Wood:

Enclosed please find two (2) copies of the report regarding the asbestos abatement project at the Palmetto National Guard Armory. One copy is for your files and the other should be forwarded to the Palmetto National Guard Armory for them to keep on site.

If you have any questions, please contact our office.

Sincerely,



Mary M. Ryan
Office Coordinator

Enc.

RECEIVED
OCT 3 0 1995
FACILITY MGT. OFFICE
15 AUGUSTINE, FLORIDA 32084

Department of Military Affairs

**National Guard Armory, Palmetto
Asbestos Removal**

October 20-24, 1995

Patricia Mitchell

Date 10/27/95

Patricia Mitchell,
LAC # AX 0000005

APOLLO ENVIRONMENTAL, INC.
P. O. BOX 239
GIBSONTOWN, FLORIDA 33534

TEL: 813-671-3999

FAX 813-6773422

Re
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Table of Contents

Executive Summary	3
1.0 Scope of Services	3
2.0 Inspection, Sample Collection and Analysis Protocol	3
3.0 Work Summary	4

Appendix 1: Sample Analysis Sheets

Appendix 2: Daily Inspection and Narrative Logs

Appendix 3: Certifications: LAC, CIH, Supervisor, 582E

Abatement Summary Table			
Date	Location	Material	Quantity
10/20-24/95	Rooms 101, 101A-D, 104, 109	Floor tile and Mastic	1,500 SF
	Room 111B	Surfacing	36 SF

Executive Summary

At the request of Capt. James Wood, Florida Department of Military Affairs, Apollo Environmental, Inc., provided abatement specifications, bidding coordination, project administration and PCM/TEM air monitoring services during the removal of floor tile and surfacing materials. Abatement was provided by Bradco, Inc., October 20-24, 1995 at the Palmetto Armory.

The asbestos containing materials were removed according to the project asbestos abatement specifications titled Technical Specifications for Department of Military Affairs for the Asbestos Abatement of the Palmetto National Guard Armory, 1107 Fourteenth Avenue West, Palmetto, Florida, dated September 5, 1995.

Personal air monitoring levels did not exceed the OSHA 8 hour TWA of 0.1 f/cc or the OSHA 30 minute excursion level of 1.0 f/cc.

1.0 Scope of Services

The scope of work was to provide technical specifications, bidding assistance, submittal review, and an IH technician for project administration and on-site PCM air monitoring during the removal of the above asbestos containing materials.. Final clearance was by PCM/TEM air monitoring and by visual inspection.

2.0 Inspection, Sample Collection and Analysis Protocol

The general inspections for work practices and removal process are performed according to general industry guidelines including ASTM, EPA and OSHA and the technical specification for this project. Final visual inspection is performed according to State of Florida/ASTM. The work of the Consultant and/or IH technician in no way relieves the abatement contractor from his responsibility to perform his work in accordance with purchase orders, contract documents, regulations and provide for the safety of his employees.

PCM sample collection and analysis is in accordance with OSHA Reference Method, OSHA 1926.1101 and/or NIOSH 7400, as revised and State of Florida.

Project supervision will consist of two major activities: (1) air monitoring and (2) compliance monitoring (i.e., contractor adherence to project specifications). Air monitoring is performed to ensure minimal fiber release in both the asbestos abatement work areas and in surrounding spaces. In general, air monitoring will be conducted prior to the initiation of abatement activities to establish background levels (prevalent sampling); continuously during the abatement; and after abatement (clearance). Clearance monitoring is per State of Florida/ASTM.

The IH technician maintains a daily inspection log and narrative. The log contains information on the person sampled, areas sampled, staging in progress, inspections, work phases, personal protective equipment and events.

Apollo industrial hygiene technicians performing project monitoring have successfully completed a State of Florida approved "Supervision of Asbestos Abatement Projects" and NIOSH 582 or equivalent course. On site phase contrast microscopy readings are provided by American Board of Industrial Hygienist Asbestos Analytical Registry (AAR) participants. The technicians participate in Apollo's extensive medical monitoring program and wear personal protective equipment appropriate to the task.

3.0 Work Summary

The floor tile and mastic, and the surfacing material were abated in accordance with the specifications which included full containment and three stage decontamination unit.

Bradco, Inc., was the abatement contractor and Mr. David Pendelton the abatement contractor supervisor. Total crew was approximately 3 men and the supervisor. Containment and work practices were in accordance with the project specifications. Personal protective equipment included ½ mask negative pressure respirator and coveralls. GFI, first aid equipment, fire extinguishers and adequate lighting was in use or available.

The PCM personal air monitoring did not exceed the OSHA 8 hour TWA of 0.1 f/cc or the OSHA 30 minute excursion level of 1.0 f/cc. Area monitoring yielded less than 0.01 f/cc.

Approximately 50 bags of waste were removed. Bayside of Marion is the scheduled waste disposal site. Waste manifests will be provided with the close-out submittals by the abatement contractor.

Appendix 1

Sample Analysis Sheets

Westmont, NJ
609-858-4800

Placataway, NJ
908-981-0550

Carle Place, NY
516-997-7251

Smyrna, GA
404-333-6066

Melbourne, FL
407-725-5223

Ann Arbor, MI
313-668-6810

San Mateo, CA
415-570-5401

EMSL

Apollo Environmental, Inc.
11553 U.S. Highway 41 South
Gibsonton, FL 33534

Tuesday, October 24, 1995

Ref Number: GA952485

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM), Selective Area Electron Diffraction (SAED), and Energy Dispersive X-Ray Microanalysis (EDX) - Performed by EPA Level II Method.

Project: #AD-14675/National Guard Armory, Palmetto, FL

Basic TEM Summary Report

SAMPLE	VOLUME (liters)	ASBESTOS TYPE(S)	# STRUCTURES		CONCENTRATION OF ASBESTOS STRUCTURES		DETECTION LIMIT
			ASB	NONASB	AFP/cc	AFP/mm ²	
#1	1620.00	None Detected	0	0	<0.0037	<15.7000	0.0037
#4	1620.00	None Detected	0	0	<0.0037	<15.7000	0.0037

Comments: AFP - Asbestos Fibrous Particulates.

Number under AFP/cc are detection limits for "None Detected" samples.

AFP/cc - Concentration of Asbestos in AFP/cc; for blank sample, AFP/cc represents number of AFP in millions of Fibers/Fiber.

* NVLAP PLM/TEM Accredited #1048-01

Peter Frasca, Ph.D.
Director

R. White
Laboratory
Supervisor

Other Approved
Signatory

AIR SAMPLE ANALYSIS

Client:	<i>Dept. of Military Affairs</i>		11553 U.S. Highway 41 South Gibsonton, Florida 33534-9720 Telephone (813) 671-3999 FAX: 677-3422
Project:	<i>Palmetto National Guard Armory</i>		
Test Method: ☒ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method. ☐ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy.			
Lab ID: AD-	<i>14673</i>	Date:	<i>10-20-95</i>
Collected by:	<i>AET</i>	Date Collected:	<i>10-20-95</i>
Analyst:	<i>Mike With</i>	NIOSH Lab ID:	33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (l)	Fiber Count	Field Count	Conc (t/cc)
-	<i>First Day Removal of floor tile and sheet vinyl</i>	—	—	—	—	—	—
A	<i>field Blank</i>	—	—	—	100	0	—
B	<i>field Blank</i>	—	—	—	100	0	—
1	<i>Inside of Bldg High Volume Background</i>	120	9.9	1188	100	4	0.003
2	<i>High Volume Decon 101</i>	120	9.9	1188	100	5	0.003
3	<i>High Volume Air Exhaust</i>	120	9.9	1188	100	0	0.003
4	<i>Personnel ^{RM} 101 - Robert Martin</i>	180	2.0	360	100	11	0.015
5	<i>Personnel ^{RM} 109 - Jerry Bradley</i>	60	2.0	120	100	3	0.033
6							

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (print name)
<i>J. Mike With</i>	<i>David Pendleton</i>	DAVID PENDLETON

Comments:

M.F.A. = 0.00785

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1270

$X^m + X^n - 1 = 0$

[Faint, illegible handwritten text]

AIR SAMPLE ANALYSIS

Client: <i>Dept of Military Affairs</i>	11553 U.S. Highway 41 South Gibsonton, Florida 33534-9720 Telephone (813) 671-3999 FAX: 677-3422
Project: <i>N.S.R. Palmetto</i>	
Test Method: ☒ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method. ☐ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy.	
Lab ID: AD- <i>14674</i>	Date: <i>10-21-95</i>
Collected by: <i>AEI</i>	Date Collected: <i>10-21-95</i>
Analyst: <i>Mike With</i>	NIOSH Lab ID: 33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (l)	Fiber Count	Field Count	Conc (f/cc)
<i>A</i>	<i>field Blank</i>				$\emptyset$	<i>100</i>	
<i>B</i>	<i>field Blank</i>				$\emptyset$	<i>100</i>	
<i>1</i>	<i>Area one High Volume- Exhaust</i>	<i>120</i>	<i>9.9</i>	<i>1188</i>	$\emptyset$	<i>100</i>	<i>< 0.003</i>
<i>2</i>	<i>High Volume- Area Background</i>	<i>120</i>	<i>9.9</i>	<i>1188</i>	<i>4</i>	<i>100</i>	<i>< 0.003</i>
<i>3</i>	<i>High Volume- Exhaust III B</i>	<i>120</i>	<i>9.9</i>	<i>1188</i>	$\emptyset$	<i>100</i>	<i>< 0.003</i>
<i>4</i>	<i>High Volume- Decon III B</i>	<i>120</i>	<i>9.9</i>	<i>1188</i>	<i>5</i>	<i>100</i>	<i>< 0.003</i>
<i>5</i>	<i>265-61 7918 POM-Jerry Bradley III B</i>	<i>30</i>	<i>2.0</i>	<i>60</i>	<i>7</i>	<i>100</i>	<i>< 0.065</i>

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (print name)
<i>F. Mike With</i>	<i>David Pendeton</i>	<i>DAVID PENDETON</i>

Comments: *ABOTEMENT*

M.F.A. = *0.00785*

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AIR SAMPLE ANALYSIS

Project: *Mobile*
Location: *Mobile, Alabama*

DATE: *10-1-82*

TIME: *10:00*

ANALYST: *W. J. ...*

LABORATORY: *Mobile*

ANALYST: *W. J. ...*

CONC. (PPM)	TIME (MIN)	DATE	TIME (MIN)	DATE	TIME (MIN)
1.0	10	10-1-82	10	10-1-82	10
1.0	10	10-1-82	10	10-1-82	10
1.0	10	10-1-82	10	10-1-82	10
1.0	10	10-1-82	10	10-1-82	10
1.0	10	10-1-82	10	10-1-82	10
1.0	10	10-1-82	10	10-1-82	10

APOLLO ENVIRONMENTAL INC.

APOLLO ENVIRONMENTAL INC.
10-1-82

AIR SAMPLE ANALYSIS

Client: <i>Dept of Military affairs</i>	11553 U.S. Highway 41 South Gibsonton, Florida 33534-9720 Telephone (813) 671-3999 FAX: 677-3422
Project: <i>Palmetto N.G.A.</i>	
Test Method: ☒ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method. ☐ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy.	
Lab ID: AD- <i>14674</i>	Date: <i>10-21-95</i>
Collected by: <i>DEI</i>	Date Collected: <i>10-21-95</i>
Analyst: <i>Mike With</i>	NIOSH Lab ID: 33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (l)	Fiber Count	Field Count	Conc (f/cc)
-	<i>PCM FINAL AIRS</i>						
A	<i>field Blank</i>				ϕ	100	
1	<i>High Volume 104</i>	120	9.9	1188	ϕ	100	< 0.003
2	<i>High Volume 104</i>	120	9.9	1188	ϕ	100	< 0.003
3	<i>High Volume 104</i>	120	9.9	1188	1	100	< 0.003
4	<i>High Volume 109</i>	120	9.9	1188	1	100	< 0.003
5	<i>High Volume 109</i>	120	9.9	1188	3	100	< 0.003
6	<i>High Volume 109</i>	120	9.9	1188	ϕ	100	< 0.003

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (print name)
<i>F. Mike With</i>		<i>DAVID PENNETON</i>

Comments:

M.F.A. = 0.00785

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ANIMIMOTIVE DITTOA

FOR JAMA LITTE P. 241

It is a very fine and
 interesting book, and
 one of the best of the
 kind.

Handwritten notes and signatures in the right margin.

It is a very fine and interesting book, and one of the best of the kind.

It is a very fine and interesting book, and one of the best of the kind.

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Handwritten notes and signatures in the right margin.

AIR SAMPLE ANALYSIS

Client: <i>Dept of Military Affairs</i>	11553 U.S. Highway 41 South Gibsonton, Florida 33534-9720 Telephone (813) 671-3999 FAX: 677-3422
Project: <i>National Guard Armory Palmetto</i>	
Test Method: ☐ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method. ☒ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy.	
Lab ID: AD- <i>14675</i>	Date: <i>X</i>
Collected by: <i>AEI</i>	Date Collected: <i>10-21-95</i>
Analyst: <i>X</i>	NIOSH Lab ID: 33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (l)	Fiber Count	Field Count	Conc (f/cc)
	<i>Area One - RM 101-101A-101B-101C</i> <i>TEM FINAL AIRS Bld one</i>	—	—	—	—	—	—
	<i>Area Two - RM 111B Foyer</i> <i>TEM FINAL AIRS Bld one</i>	—	—	—	—	—	—
1	<i>High Volume RM 101 area one</i>	180	9.0	1620	—	—	—
2	<i>High Volume RM 101 A area one</i>	180	9.0	1620	—	—	—
3	<i>High Volume RM 101 D area one</i>	180	9.0	1620	—	—	—
4	<i>High Volume RM 111B area two</i>	180	9.0	1620	—	—	—
5	<i>field Blank NOT OPENED</i>	—	—	—	—	—	—

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (print name)
<i>F. Mike With</i>		DAVID PENDLETON

Comments:

M.F.A. = *X*

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Appendix 2

Daily Inspection and Narrative Logs

Day: <i>Friday</i>	Date: <i>10-20-95</i>
Arrived: <i>730 AM</i>	Left: <i>500 PM</i>

DAILY INSPECTION LOG

Site	<i>Palmetto National Guard Armory</i>	
Client	<i>Dept. of Military Affairs</i>	
Contractor	<i>Bradco Inc.</i>	
Ctr Supervisor	<i>David Pendleton</i>	
Apollo Rep	<i>Mike With</i>	Signature: <i>M. Mike With</i>

WORKERS ONSITE (indicate proper training/release documentation with ✓)

<i>3 workers</i>					
<i>1 Supt</i>					

STAGING IN PROGRESS	✓	NA	WORK PHASES IN PROGRESS	✓	NA
full containment w/decon	✓		demolition		
mini-enclosure		✓	pre-clean	✓	
negative air (#units-)	<i>3</i>		job prep	✓	
smoke test		✓	build decon	✓	
manometer in use (H2O)	✓		gross removal	✓	
area samples (#)	<i>3</i>		glovebagging		
personnel samples (#)	<i>2</i>		bagging out	✓	
final airs PCM (#)		✓	final clean		
final airs TEM (#)		✓	clearance		
agressive clearance sampling		✓			
INSPECTIONS	✓	NA	INSPECTIONS	✓	NA
first aid equipment	✓		adequate negative pressure	✓	
emergency lights	✓		wet methods used properly	✓	
fire extinguisher	✓		water on floor	✓	
walkie-talkies		✓	ACM kept off floor	✓	
fire sprinklers		✓	ACM bagged properly	✓	
floor drains sealed	✓		amended H2O in use	✓	
HVAC deactivated	✓		respirators used properly	✓	
extension cords removed	✓		coveralls, suits used	✓	
adequate lighting	✓		adequate equipment overall	✓	
visible emissions out of area	✓		warning signs placed	✓	
water leakage out of area	✓		GFI in use	✓	
decon clean, shower clean	✓		scaffolding used properly	✓	
soap/shampoo	✓		all air filters clean	✓	
hot/cold water	✓				
poly secure	✓				
critical barriers secure	✓				

Attach additional pages with typed daily narrative log.
Turn in once weekly and upon completion with project data sheet.

Day: <u>Saturday</u>	Date: <u>10-21-95</u>
Arrived: <u>700 PM</u>	Left: <u>500 PM</u>

DAILY INSPECTION LOG

see Air Port & Fat Time

Site	<u>Palmetto National Guard Armory</u>		
Client	<u>Dept. of Military Affairs</u>		
Contractor	<u>Bradco Inc.</u>		
Ctr Supervisor	<u>David Pendleton</u>		
Apollo Rep	<u>Mike With</u>	Signature:	<u>M. Mike With</u>

WORKERS ONSITE (indicate proper training/release documentation with ✓)

<u>3 workers</u>					
<u>1 Supt</u>					

STAGING IN PROGRESS	✓	NA	WORK PHASES IN PROGRESS	✓	NA
full containment widecon	✓		demolition	✓	
mini-enclosure	✓		pre-clean	✓	
negative air (#units-)	<u>3</u>		job prep	✓	
smoke test		✓	build decon	✓	
manometer in use "H2O"	✓		gross removal	✓	
area samples (#)	<u>4</u>		glovebagging		
personnel samples (#)	<u>1</u>		bagging out	✓	
final airs PCM (#)	<u>6</u>		final clean	✓	
final airs TEM (#)	<u>5</u>		clearance	✓	
agressive clearance sampling	✓				
INSPECTIONS	✓	NA	INSPECTIONS	✓	NA
first aid equipment	✓		adequate negative pressure	✓	
emergency lights	✓		wet methods used properly	✓	
fire extinguisher	✓		water on floor	✓	
walkie-talkies		✓	ACM kept off floor	✓	
fire sprinklers		✓	ACM bagged properly	✓	
floor drains sealed	✓		amended H2O in use	✓	
HVAC deactivated	✓		respirators used properly	✓	
extension cords removed	✓		coveralls, suits used	✓	
adequate lighting	✓		adequate equipment overall	✓	
visible emissions out of area	✓		warning signs placed	✓	
water leakage out of area	✓		GFI in use	✓	
decon clean, shower clean	✓		scaffolding used properly	✓	
soap/shampoo	✓		all air filters clean	✓	
hot/cold water	✓				
poly secure	✓				
critical barriers secure	✓				

Attach additional pages with typed daily narrative log.
Turn in once weekly and upon completion with project data sheet.

Day: <i>Tuesday</i>	Date: <i>10-24-95</i>
Arrived: <i>9:35 AM</i>	Left: <i>10:35 AM</i>

DAILY INSPECTION LOG

Site	<i>Palmto National Guard Armory</i>	
Client	<i>Dept. of Military Affairs</i>	
Contractor	<i>Bradco</i>	
Ctr Supervisor	<i>David Penelton</i>	
Apollo Rep	<i>With</i>	Signature: <i>Mike With</i>

WORKERS ONSITE (indicate proper training/release documentation with ✓)

<i>3 worker</i>					
<i>1 Supt</i>					

Post abatement clean up only

STAGING IN PROGRESS	✓	NA	WORK PHASES IN PROGRESS	✓	NA
full containment widecon			demolition		
mini-enclosure			pre-clean		
negative air (#units-)			job prep		
smoke test			build decon		
manometer in use ("H2O)			gross removal		
area samples (#)			glovebagging		
personnel samples (#)			bagging out	✓	
final airs PCM (#)			final clean		
final airs TEM (#)			clearance		
agressive clearance sampling					
INSPECTIONS	✓	NA	INSPECTIONS	✓	NA
first aid equipment			adequate negative pressure		
emergency lights			wet methods used properly		
fire extinguisher			water on floor		
walkie-talkies			ACM kept off floor		
fire sprinklers			ACM bagged properly		
floor drains sealed			amended H2O in use		
HVAC deactivated			respirators used properly		
extension cords removed			coveralls, suits used		
adequate lighting			adequate equipment overall		
visible emissions out of area			warning signs placed		
water leakage out of area			GFI in use		
decon clean, shower clean			scaffolding used properly		
soap/shampoo			all air filters clean		
hot/cold water					
poly secure					
critical barriers secure					

Attach additional pages with typed daily narrative log.
Turn in once weekly and upon completion with project data sheet.

AD 14673

Apollo Environmental Inc.
EC Mike Witt
Client Dept. of Military Affairs
Cont. Bardco Inc.
Job National Guard Armory (PALMETTO)
1107 Fourteenth Avenue West

Date Friday 10-20-95

7:30 am EC arrives on the job site.
BRADCO INC. on the job site.
Supt. David W. Pendleton
work crew: Berald Lane 590 34 3777
Robert Martin 261 69 5889
Jerry Bradley 265 61 7918

This is an ASBESTOS ABATEMENT PROJECT.
Bradco will be abating approx. 1405 sf of floortile and
sheetvinyl and mastic glue.
(rooms 101,101A,101B,101C,101D and 104.)
Crew will be removing popcorn ceiling material room 111B FOYER.
(36 sf).
All abatement will be conducted under full poly containment,
negative air,3 stage Decon,wet removal and splash guards.
Crew will wear Hepa respirators and disposable coveralls.
Crew will shower out each time when leaving work area.
ACM DANGER SIGNS and barrier tape will be posted.
Five micron shower filter will be used.

Crew begins preclean and poly prep of first work area.
Work area one is rooms 101,101A,101B,101C 101D all under
one common containment and common negative air.

8:00 am Start air sample one at cal 9.9 lpm High Volume pump
Pre Background Gym area

10:00 am Stop air sample one at cal 9.9 lpm
EC mounts and reads air sample.

11:50 am Crew breaks for 30 minute lunch.

12:30 pm Crew suits up and begins abatement of Area One, after EC
inspected poly prep.

12:45 pm Start air sample 2 at cal 9.9 lpm High Volume pump-Decon area one
Start air sample 3 at cal 9.9 lpm High Volume pump-Air Exhaust
Start air sample 4 at cal 2.0 lpm Personnel pump area one
Crew prewetting work area and material .
There are no visible emissions.

2:45 pm Stop air sample two at cal 9.9 lpm
Stop air sample 3 at cal 9.9 lpm
Stop air sample 4 at cal 2.0 lpm
Crew bagging up as they finish each room.

AD 14673

Apollo Environmental Inc.

EC	Mike Witt
Client	Dept. of Military Affairs
Job	N.G.A. PALMETTO
Date	Friday 10-20-95

Jerry Bradley doing preclean and poly prep of (area two)
area two is room 109 floortile and mastic.
This area is less than 160 sf.

3:30 am Jerry begins abatement of room 109 after EC inspected poly
and Jerry donned Hepa respirator.

Jerry pre wets material.

3:30 pm Start air sample five at cal 2.0 lpm Personnel pump
on Jerry Bradley room 109

There are no visible emissions.

4:30 pm Stop air sample five at cal 2.0 lpm

5:00 pm Crew has secured work areas and showered out.
Bradco leaves the job site for the day.

5:00 pm EC leaves the job site for the lab.....

NOTE: National Guard personnel are locking up building
at this time.

AD 14674 PCM
14675 TEM

Apollo Environmental Inc.
EC Mike Witt
Client Dept. of Military Affairs
Cont. Bardco Inc.
Job N.G.A. PALMETTO
DATE Saturday 10-21-95

7:00 am EC arrives on the job site.
Bradco arrives on the job site. David Pendleton supt.
Crew of 3 workers.
work areas: area one (101A,101B,101C,101D) remove mastic.
Foyer 111B abate ceiling.
109 remove mastic.
104 remove mastic.
All critical barriers in tact. Negative air machines running.
Crew suits up in paper suits and Hepa respirators.
Crew removing mastic from area one, and abating 111B.

7:30 am Start air sample one at cal 9.9 lpm Air Exhaust
Start air sample two at cal 9.9 lpm area sample
Start air sample at cal 9.9 lpm Decon 111B
Start air sample at cal 9.9 lpm Exhaust 111B
Start air sample 5 at cal 2.0 lpm Jerry Bradley room 111B

8:00 am Stop air sample 5 at cal 2.0 lpm
Kitty litter being used to soak up liquid mastic.

10:00 am Stop air sample 1-2-3-4 at cal 9.9 lpm

NOTE: Capt. Wood on the job site. There are no problems to report.
Ec inspected area one-111B-109 and 104 .
Crew encapsulated these areas.

12:30 pm Bradco leaves the job site. Will return 10:00 am Tuesday.

1:30 pm EC set up PCM pumps in 104 Final Airs
Start sample 1-2-3 at cal 9.9 lpm
EC set up PCM pumps in 109 Final Airs
EC set up TEM pumps in area one and 111B for FINAL AIRS

2:00 pm Start air sample 1 at cal 9.0 lpm rm 101
Start air sample 2 at cal 9.0 lpm rm 101A
Start air sample 3 at cal 9.0 lpm rm 101D
Start air sample 4 at cal 9.0 lpm rm 111B

3:30 pm Stop PCM Final Airs
Stop sample 1-2-3 at cal 9.9 lpm

AD 14674 PCM
AD 14675 TEM

Apollo Environmental Inc.
EC Mike Witt
National Guard Armory Palmetto
Saturday 10-21-95

2:30 pm Start PCM Final air pumps in room 109
Start sample 4-5-6 at cal 9.9 lpm

3:30 pm Stop pcm final air samples 1-2-3 rm 104 at cal 9.9 lpm

5:00 pm Stop TEM FINAL AIR samples 1-2-3-4 at cal 9.0 lpm

5:00 pm Stop PCM Final Air samples 4-5-6 at cal 9.9 lpm rm 109.

Ec secures area and leaves the job site for the Airport.

EC going to Apollo Lab to mount and read PCM samples.
Mount and read time 1.5 hours.

AD none

Apollo Environmental Inc.
EC Mike Witt
Client Dept. of Military Affairs
Job Palmetto N.G.A.
Date Tuesday 10-24-95

Today's work is post abatement cleanup and removal of poly.
Bradco scheduled to be on site at 10:00 am.

9:35 am EC arrives on the job site. EC phoned Apollo.
Bradco has completed post abatement cleanup
and on site Guard personnel have no complaints.

EC inspects all areas.
Carpets begin laying carpeting.

1:35 am EC leaves the job site for the lab.....

Air Monitoring Technician Call-In Form		Mike Witt	10-20-95
Site	Palmetto National Guard Armory		
Work Areas	Foyer Rm 109, 104, 111B, 101, 101A, 101B, 101C, 101D		
Type of Material Being Abated	Floor Tile / Sheet Vinyl / Popcorn Ceiling		
Quantity of Material Being Abated	 1,405 SF  36 SF		
Number of Waste Bags Removed	20 Bags		
Contractor	BRADCO		
Contractor's Supervisor's Name	David Pendellton		
Number of crew in addition to supervisor	3		
Name of Landfill	WYBURN Bayside of Marion		
Any Construction activities in adjacent areas	None		

Respiratory Protection - 1/2 mask - Floor Tile

Saturday 10-21-95

Air Monitoring Technician Call-In Form	
Site	<i>National Guard Armory Palmetto</i>
Work Areas	<i>104-109-111B-101A-101B-101C-101D</i>
Type of Material Being Abated	<i>floor tile - Mastic ceiling popcorn</i>
Quantity of Material Being Abated	<i>1405 SF 36 SF</i>
Number of Waste Bags Removed	<i>20</i>
Contractor	<i>BRADCO</i>
Contractor's Supervisor's Name	<i>David Pendleton</i>
Number of crew in addition to supervisor	<i>3</i>
Name of Landfill	<i>Marion</i>
Any Construction activities in adjacent areas	<i>No</i>

Tuesday 10-24-95

Air Monitoring Technician Call-In Form	
Site	Palmetto N.Y.S.
Work Areas	107-109-14B Fayer 101A -101B-101C-101D
Type of Material Being Abated	none - post abatement clean up
Quantity of Material Being Abated	none -
Number of Waste Bags Removed	10 - poly only
Contractor	Bradco
Contractor's Supervisor's Name	David Pendleton
Number of crew in addition to supervisor	3
Name of Landfill	Marion
Any Construction activities in adjacent areas	NO

Appendix 3

Certifications: LAC, Supervisors, 582E

AC# 3316370

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS

DATE	LICENSE NO.	BATCH NO.
03/29/95	AX 0000005	94024673

THE ASBESTOS CONSULTANT
NAMED BELOW IS LICENSED

UNDER THE PROVISIONS OF CHAPTER 469
EXPIRING NOV 30, 1996

F.S., FOR THE YEAR

MITCHELL, PATRICIA CRAIG
1013 BAL HARBOUR DR.
APOLLO BEACH FL 33572


LAWTON CHILES
GOVERNOR

DISPLAY IN A CONSPICUOUS PLACE

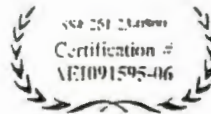

GEORGE STUART, JR.
SECRETARY, D.B.P.R.

Apollo Environmental Incorporated

Hereby certifies that
F. MICHAEL WITT
has successfully completed
the course of instruction:

Refresher: Supervision of Asbestos Abatement Projects

September 15, 1995



Patricia Mitchell

Patricia Mitchell

Licensed Asbestos Consultant # AX 000005

Apollo Environmental, Inc. • 11550 E. 11th Ave. • Suite 100 • Denver, CO 80231 • 303.751.1000

Mayhew Environmental Training Associates

Certificate Number
TME027489009N

This is to Certify that

Michael F. Witt

has successfully completed

Sampling and Analysis of Airborne Asbestos Dust: NIOSH 5825

and passed the associated examination

February 20 - 24, 1989 in Ruston, Florida

Course Grade: 79

Instructor:

Robert

Conducted by

M-E-T-A

Mayhew Environmental Training Associates, Inc.

11550 E. 11th Ave. • Suite 100 • Denver, CO 80231

P.O. Box 191 • Ruston, Florida 32450

31-300-111 META

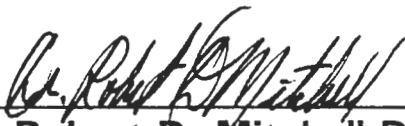
J. B. Williams

TECHNICAL SPECIFICATIONS
FOR
DEPARTMENT OF MILITARY AFFAIRS

FOR THE
ASBESTOS ABATEMENT
OF THE

*Palmetto National Guard Armory
1107 Fourteenth Avenue West
Palmetto, Florida*

September 5, 1995
AD# - 14604



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TABLE OF CONTENTS

1.0	<u>GENERAL CONDITIONS</u>	3
1.1	GENERAL REQUIREMENTS	4
2.0	<u>SCOPE OF PROJECT</u>	7
2.1	AIR MONITORING, GENERAL	8
2.2	SPECIFIC AIR MONITORING LOCATIONS	8
2.3	PRE-ABATEMENT	9
2.4	ABATEMENT	12
2.5	WORK AREA CLEAN-UP AND FINAL CLEARANCE	14
2.6	BREAKDOWN AND EXIT OF WORK AREA	14
2.7	WASTE DISPOSAL	15
2.8	DECONTAMINATION	16
2.9	GLOVEBAGGING	18
3.0	<u>ASBESTOS CONTRACTOR QUALIFICATIONS</u>	19
3.1	CONTRACTOR	19
3.2	CONTRACTOR PERSONNEL QUALIFICATIONS	19
3.3	PERSONNEL PROTECTION	20
4.0	<u>SUBMITTALS</u>	23
4.1	GENERAL INFORMATION	23
4.2	BID SUBMITTALS	24
4.3	PRE-ABATEMENT SUBMITTALS	25
4.4	POST ABATEMENT SUBMITTALS	26
5.0	<u>REGULATIONS</u>	28
6.0	<u>DEFINITIONS</u>	31
7.0	<u>FORMS</u>	36
8.0	<u>ACTION/WORK SCHEDULE</u>	47
7.0	<u>DRAWINGS</u>	48

ASBESTOS FLOOR TILE & CEILING SURFACING ABATEMENT

1.0 GENERAL CONDITIONS

Since the OWNER is subject to penalty and fine if the ASBESTOS-removal work is not performed in full compliance with federal law as well as Florida Law and Statutes, the intent of these Contract Documents is to remove the designated ASBESTOS-containing materials in full compliance with such laws and statutes. Since the ASBESTOS CONTRACTOR has contracted to do this work in accordance with such intent of the Contract Documents, he hereby assumes cost of any penalties the OWNER bears which shall be the fault of the ASBESTOS CONTRACTOR. The ASBESTOS CONTRACTOR's Surety shall bear all such costs in event of his failure to do so should a Performance and Material and Labor Payment Bond be a requirement of this contract.

Asbestos containing hazardous material will be abated by the ASBESTOS CONTRACTOR in a manner which conforms to the intent of all Environmental, Health and Safety Laws and Regulations; recognizes and takes all responsible precautions against the dangers of airborne Asbestos fibers; causes no contamination outside the isolated area during abatement; endangers none of the workers performing this task; creates no threat to health of persons in or around the premises, now or in the future; and leaves the building documentable safe for human occupancy.

The work shall be performed at the following location:

Palmetto National Guard Armory
1107 Fourteenth Avenue West
Palmetto, Florida
County: Manatee

Building Contact Person - Lt. James Wood - (904) 823-0287

The CONTRACTOR shall not perform any work on this project unless the CONSULTANT is on site.

Air Monitoring, supervision and inspection for the asbestos abatement project shall be conducted by hygienists under the direction of APOLLO ENVIRONMENTAL, INC. Monitoring includes, but is not limited to, Background, Personnel, Filtrate, Area by PCM and/or TEM and Final Clearance sampling.

The CONSULTANT shall decide (his decision being binding and final), in his absolute discretion, as to the meaning and applicability of any part of the general conditions, special conditions, or technical specifications.

1.1 GENERAL REQUIREMENTS

- 1.1.1** The Owner, Department of Military Affairs (DMA), shall clear the work area of all building personnel, wall hangings, curtains, furnishings and moveable objects and be responsible for returning moved objects unless otherwise noted. The Owner, DMA, shall be responsible for replacement material, unless otherwise noted.
- 1.1.2** The CONTRACTOR shall be responsible for obtaining permits as necessary for trailer field offices, parking, dumpster and equipment storage facilities.
- 1.1.3** The Owner, DMA, shall provide the CONSULTANT with access for each of the work areas, including access to electrical, water, lab space, restrooms and sanitary sewers. The Owner, DMA, shall identify the electrical, water and HVAC services for each of the work areas. The CONTRACTOR shall isolate each of the services as identified by the Owner, DMA. The CONTRACTOR shall confirm the lines have been shut down prior to work commencement.
- 1.1.4** Public areas such as concourse, hallways, stairs, sidewalks, fire lanes and toilets must be kept free from accumulation of waste, rubbish or construction debris. The ASBESTOS CONTRACTOR and his SUBCONTRACTORS may use the designated rest rooms only. The CONTRACTOR shall furnish rest room supplies, clean the rest rooms daily, and maintain them in a properly clean manner. No nuisance will be permitted.
- 1.1.5** The CONTRACTOR shall use only designated routes for ingress and egress. CONTRACTOR's workers will be presentably clothed (including shoes, shirts and pants) at all times they are not in the work space. CONTRACTOR and his employees shall not wear clothing labeled "ASBESTOS" (or any form or depiction of the word).
- 1.1.6** The CONTRACTOR's personnel shall be restricted to work areas with designated routes and at no time be permitted outside work areas while wearing special protective clothing. The CONTRACTOR shall be required to wet mop their traffic routes at the completion of each shift, if applicable.
- 1.1.7** The CONTRACTOR shall enforce the use of all required Safety Equipment, Hard Hats, Safety Shoes and Supplies by all of his employees and SUBCONTRACTORS.
- 1.1.8** All measurements and quantities are approximations. If the CONTRACTOR or CONSULTANT uncovers additional ACM during abatement, CONTRACTOR shall remove it, within the scope of this project, without the need for change orders or addenda.

- 1.1.9 The CONTRACTOR shall post warning signs on the access to the work area to discourage unauthorized personnel from entering and use warning labels as required by OSHA 29 CFR 1910.1001 and 1910.1200(f) and 29 CFR 1926.58 in official languages.
- 1.1.10 The CONTRACTOR shall provide Material Safety Data Sheets (MSDS) OSHA OMB-1218-0072, or approved equivalent, in accordance with 29 CFR 1910.1200 for all materials proposed for use on this project.
- 1.1.11 The CONTRACTOR shall not use damaged, deteriorating or previously used materials (such material shall be removed from the work site and disposed of properly).
- 1.1.12 The CONTRACTOR shall deliver all materials in the original labeled packages, containers or bundles bearing the name of the manufacturer and identification.
- 1.1.13 The CONTRACTOR shall not bring contaminated equipment on-site (all holding chambers, equipment and tools shall be decontaminated prior to arrival on-site).
- 1.1.14 The CONTRACTOR shall provide smoke tubes (Non-carcinogenic) with aspirator bulbs (missing tubes will be replaced by CONSULTANT, as necessary, at CONTRACTOR's expense).
- 1.1.15 Each work crew must carry at least one (1) independent (battery operated), waterproof lantern for use if normal electric power fails. CONTRACTOR shall supply adequate independent lighting suspended above the floor and capable of supplying enough illumination for satisfactory abatement and monitoring.
- 1.1.16 The CONTRACTOR shall maintain a sign-in/out log used by each person entering and leaving the work area.
- 1.1.17 The CONTRACTOR shall maintain a daily Project Log for the duration of the project from first on-site activity consisting of one bound Notebook having consecutively numbered pages and one separate three-ring binder. The bound notebook shall be used each day of the project to record the following information:

Name of project Superintendent with actual time physically on-site;

Brief description of daily work accomplishments, including manometer readings;

Listing of any and all infractions noted by DMA, Inspector, CONSULTANT or any other authority and steps taken to correct and prevent reoccurrence;

Listing and full explanation of any emergencies;

Listing of any and all stop work orders with detailed explanation; and

Description of any significant events.

The three-ring binder shall be used daily to secure copies of routine inspection reports, results of air sampling and analysis, disposal documentary and other routine documents.

This Project Log must be made available to authorized personnel for review.

- 1.1.18 CONTRACTOR shall have a repair kit available for any pipe breakage, punctures or splits.
- 1.1.19 The CONTRACTOR shall immediately notify the on site CONSULTANT representative of any damage caused by the CONTRACTOR during the execution of their work or any noted deterioration of the equipment and/or pipes uncovered during the abatement.
- 1.1.20 The CONTRACTOR shall provide new, unused, 1 hp leaf blowers and 24" rotating fans for each set of TEM final clearance testing.
- 1.1.21 The CONTRACTOR shall acquire from the OWNER and maintain a copy of the building survey on site at all times during the abatement.
- 1.1.22 All CONTRACTOR and CONSULTANT personnel shall have photo identification while on site.
- 1.1.23 The Contractor shall coordinate the following with the Regional Asbestos Program Manager (RAPMAN): (All notifications are to reference the Project, Building Name and Number)
 - A. The RAPMAN shall be notified by FAX the day before the Work is to commence.
 - B. The RAPMAN shall be notified by FAX of the time of the schedule visual inspection by the Owner's Representative prior to substrate encapsulation. Notification shall be made as far in advance as practical.
 - C. The RAPMAN shall be notified by FAX of the results of the Work Area Clearance Monitoring.
 - D. The Contractor shall submit a copy of the above notifications with the Post-Job submittals.

2.0 SCOPE OF PROJECT

Building No. 100 - Administration/Gymnasium

The building is a single and two story structure. The scope of work in summary is to remove asbestos containing floor tile and ceiling surfacing materials in their entirety. This building will be unoccupied during the asbestos removal.

1. Remove and dispose as ACM all floor tile, sheet vinyl and mastic (approximately 1,405 square feet) from rooms 101, 101A, 101B, 101C, 101D & 104. Any carpeting over the tile may be disposed as ACM along with the tile or it may be disposed as general construction debris provided it is removed without disturbing the tile. Containment must be established prior to any carpet removal. The mastic may be removed using chemical removers. Preapproved chemical removers are 747 and Re-Entry. Other removers will not be allowed unless preapproved by the Consultant. Where partition walls have been built on top of the floor tile, the tile shall be cut flush with the wall and sealed.
2. Remove and dispose as ACM approximately 36 square feet of friable ceiling surfacing material from room 111B, the kitchen foyer. The friable surfacing shall be scraped from the substrate.

Containments

Containment for the floor tile only areas shall include critical barriers (2 independent layers of 6-mil poly), 4 foot high poly splash guards, negative pressure (-0.03 inches H₂O) and a full three stage wet decontamination unit (per OSHA).

Containment for room 111B at a minimum shall include critical barriers (2 independent layers of 6-mil poly), 2 layers of 6-mil poly on all walls, floor & nonmovable objects, negative pressure (-0.03 inches H₂O), a full three stage wet decontamination unit (per OSHA) and a poly drop cloth below active abatement.

Final Clearances shall be by TEM with less than 0.005 structures per cubic centimeter (<.005 struct./cc) per EPA level II for areas containing friable materials or over 160 square feet and PCM with less than 0.005 fibers per cubic centimeter (<.005 f/cc) for non-friable areas less than 160 square feet.

Replacement

Replacement materials and labor shall be the responsibility of the Owner, DMA.

2.1 AIR MONITORING, GENERAL

- 2.1.1 Air monitoring for the Owner, DMA, will be provided by the CONSULTANT.**
- 2.1.2 The CONSULTANT's role in health and safety matters does not eliminate the CONTRACTOR's obligation to comply with all applicable health and safety regulations promulgated by local, State or Federal Governments.**
- 2.1.3 Throughout the removal and cleaning operations, air monitoring shall be conducted to ensure that the CONTRACTOR is complying with all codes, regulations, ordinances and DMA conditions. CONSULTANT is the site representative authorized by the DMA to oversee all work, interpret procedures, enforce all provisions of the contract, and shall:**
- 2.1.4 Represent the DMA in all matters pertaining to work performed in accordance with these DOCUMENTS;**
- 2.1.5 Act with the authority of the DMA, and is authorized to stop work if there is a substantial non-conformance with the contract documents and/or a situation presenting a health hazard to workers, government personnel, or others,**
- 2.1.6 Perform all air monitoring during the abatement project. CONTRACTOR shall cooperate fully with the CONSULTANT and ensure the cooperation of his workers during collection of all air samples.**
- 2.1.7 Air monitoring shall be done prior to the start of work, throughout the life of the project, after removal is completed but before isolation barriers are removed and after barrier removal. A twenty-four (24) hour turn-around time is required for samples analyzed by PCM. If at any time the air samples outside the designated work area rises above the higher of either 0.01 f/cc or ambient background concentrations, the work will stop immediately and decontamination procedures will be implemented at once.**

2.2 SPECIFIC AIR MONITORING LOCATIONS

- 2.2.1 Initial background levels shall be determined in the Removal areas, Adjacent areas and Outside the building.**
- 2.2.2 Personnel monitoring shall be conducted on twenty-five per cent (25%) of the work force, in the work area on the first day, to establish an eight-hour (8 hour), time-weighted average (TWA) for compliance with OSHA Regulation 29 CFR 1926.58; thereafter, to determine excursion limits (EL) and at the discretion of the CONSULTANT. CONSULTANT shall provide copies of all personnel air sample analyses to the CONTRACTOR within forty-eight (48) hours of sample collection.**

- 2.2.3 Work Areas shall be monitored during removal, encapsulation and clean-up as necessary to determine ceiling concentration levels.
- 2.2.4 Adjacent areas outside work areas shall be monitored daily.
- 2.2.5 AFD exhaust shall be monitored daily and at the CONSULTANT's discretion.
- 2.2.6 Final air conditions shall be monitored using TEM or PCM as per Scope of Work and the discretion of the CONSULTANT.
- 2.2.7 All plastic coverings shall be free of visible ASBESTOS containing material and/or dust on any surface within the work area.
- 2.2.8 Sample collection will be conducted according to OSHA CFR Title 29 Section 1926.58 and NIOSH 7400, 7402, 7404 as applicable, under the direction of a licensed Asbestos Consultant. Each Microscopist will have successfully completed a NIOSH 582, or equivalent, be a participant in a Proficiency Analytical Testing Program and possess a proficient rating. On-site PCM analysis is required, time being of the essence, except for final clearance testing.
- 2.2.9 Results of daily air sampling will be provided to the CONTRACTOR who shall sign and retain copies of all air sampling reports in the project log. One copy of the daily air sampling reports shall be delivered directly to the DMA agent.
- 2.2.10 Retesting and sample analysis fees, due to exceeded prescribed limits of final airborne fiber concentrations shall be at the expense of the CONTRACTOR.

2.3 PRE-ABATEMENT

- 2.3.1 The CONTRACTOR shall secure all access to the work area. Additionally, construction warning tape shall be erected 4' from the perimeter of all external decons, equipment holding areas and dumpsters at a height of 3'. Proper Danger signs shall be placed at all entrances/exits to the containment.
- 2.3.2 Construct work area isolation (critical) barriers of such appropriate design and materials as to prevent accidental breach of the work area boundary by persons and/or equipment outside the work area under normal conditions. A minimum of 2 independent layers of 6 mil poly is required.
- 2.3.3 Provide Abatement Technologies H2000C, or approved equivalent, HEPA Air Filtration Systems, fitted with wire reinforced intake and discharge hoses, bearing UL 586 labels, successfully tested with 0.3 micron Dioctylphthalate (DOP) particulate in accordance with MILSTD 282 and U.S. Army Instruction Manual 136-300-175A.

- 2.3.4 All air flow in the immediate work area shall be restricted. All HVAC systems for the work area(s) shall be shut down and isolated from the work area with critical barriers. Air shall be HEPA filtered from start of decontamination process through Final Air Clearance tests. Air Filtration Devices (AFD) shall be externally vented. Sufficient AFD units, with additional backup units, shall be installed to maintain an air pressure differential of at least -0.03 IN WG and provide minimally 4 air changes per hour of the volume of the work area. The CONTRACTOR shall provide a continuous monitoring manometer with strip chart recorder, or equivalent, or record readings manually at a hourly minimum during working hours on all work areas.

NOTE: Use of ASBESTOS Filtration Devices (AFD) and the method of using work areas under a negative air pressure may be subject to rights under Patent 4,604,111 compliance for which CONTRACTOR shall be solely responsible, whereas DEPARTMENT OF MILITARY AFFAIRS and the CONSULTANT will have no responsibility for infringements.

- 2.3.5 The CONTRACTOR shall ensure that all crew members are wearing the proper respiratory protection from the start of demolition to project completion.
- 2.3.6 A structurally SOUND, WEATHERPROOF, SECURE and LOCKABLE Decon Unit shall be constructed of 3/8 inch (minimum thickness) plywood walls and roof with 2 inch X 4 inch studs on 24 inch centers outside the work area at the entrance to each work area. A Portable Decon Unit may be used. The decon entrance doorway shall be of appropriate design to allow sufficient make up air flow. The decon clean room AND the equipment room shall each contain a minimum of one fire extinguisher meeting the National Fire Protection Association Standard 701.
- 2.3.7 All fire protection equipment, including sprinklers and alarms, shall be operational, accessible and protected from damage. CONTRACTOR shall cover individual Sprinkler Heads and Escutcheons with small Poly Bags secured by Rubber Bands. CONTRACTOR shall have tools and equipment readily available to repair any leakage and/or damage to the fire sprinkler system. Fire Lanes shall be kept clear at all times. Also, there shall be no interruption of Alarm Systems, Intercoms, Emergency & Exit Lighting, Automatic Operation of Fire & Smoke Compartmenting Doors, or the blockage of access to any Exit Way except with prior approval by the OWNER's Representative.
- 2.3.8 The CONTRACTOR shall supply an independent power source equipped with individual ground fault interrupters (GFI) to be connected to the Space Distribution Panel. A competent electrical tradesman shall perform all electrical work until such time that all service from the main distribution panel is disconnected. GFI board shall be equipped with a minimum of a single light that indicates when the board is live and a main disconnect.

- 2.3.9 The CONTRACTOR shall disconnect power to the work area. All electrical circuits within the work area(s) shall be shut down and tagged out. The CONTRACTOR shall ensure power is not interrupted to freezers, ovens, computer terminals or other external equipment unless authorization from DMA and CONSULTANT is provided in writing.
- 2.3.10 The electrical source distribution GFI panel shall be protected with Poly flaps to prevent water penetration during the abatement project. Temporary wiring for the Work under this Contract shall be provided by the ASBESTOS CONTRACTOR and shall meet all safety requirements of the National Electric Code, Florida Department of Commerce, Bureau of Workmen's Compensation and Local Requirements. In addition, all such wire shall be so sized that it is not overloaded according to the National Electric Code, and any wire used shall be protected by fuse or circuit breaker and, if used to provide electric power for tools shall be protected by ground fault interrupter (GFI) devices, to adequately protect workmen according to the Code and in compliance with manufacturer's recommendations. All devices and outlets shall be properly grounded.
- 2.3.11 The CONTRACTOR shall seal all wall gaps, beam spaces, open pipe ends and wall openings with Poly and spray foam to maximize containment of fibers and water. All large openings shall be sealed with wood or wall board and caulked then sealed with two independent layers of Poly. All floor drains in the work area shall be stuffed with poly, sealed with spray foam and sealed with 2 independent layers of 6 mil poly. Roof vents and openings shall be sealed as applicable.
- 2.3.12 Use Polyethylene sheeting 6 mils (0.006 inch) thick as necessary, reinforced as specified, in sizes to minimize frequency of joints. All sheeting shall conform to National Fire Protection Standard 701 entitled "Small Scale Fire Test for Flame Resistant Textiles and Films" where operating Fire Sprinkler systems are not installed in the work area. Secure Poly sheet to supporting walls and ceilings at least every six (6) linear feet in horizontal and vertical directions. Floor seams shall be joined poly to poly not poly to floor in areas not requiring floor tile removal. Ceiling poly shall be one (1) layer of 6 mil poly in areas requiring full containment and ceilings not being abated.
- 2.3.13 Use high quality Duct Tape to seal joints of Polyethylene sheeting and to attach sheeting to other surfaces or dissimilar materials under both wet and dry conditions (no tape or glue residue shall remain on surfaces when sheeting is removed);
- 2.3.14 Use Abatement Technologies AS-100 Spray Adhesive, or approved equivalent, for joining and sealing Poly sheeting; CONTRACTOR shall provide proper ventilation, personnel respiratory protection, storage temperatures below 100

degrees F., and an ignition free environment all as recommended by the manufacturer; Spray Adhesives with Methylene Chloride are prohibited.

- 2.3.15 All electrical extension cords and lighting will be properly supported in a manner to ensure they will remain, at a minimum, three (3) feet above floor level.
- 2.3.16 All holes and cuts in Poly shall be repaired immediately. All water must be contained within the work area until disposal as ACM or filtered per regulations and disposed in a sanitary sewer.
- 2.3.17 Provide scaffolding/ladders, as required, to accomplish specified work. They shall meet all applicable safety regulations; particularly Title 29 Chapter XVII Subpart L Sections 1926.450 and 1926.451 of the OSHA Safety and Health Standards (29 CFR 1926/1910 as revised 1987). Scaffolding shall be inspected for contamination from previous usage prior to delivering on site. Additionally the following procedures shall be observed:
- Scaffolds shall be inspected daily prior to use paying particular attention to guard rails, connectors, fastenings, footings, tie-ins and bracing.
 - Platforms shall be closely boarded, fenced and securely fastened.
 - Platforms and areas around scaffold shall be kept cleared of debris, unneeded equipment, materials and other hazards that will cause a fall and/or trip.
 - Materials shall never be stockpiled on the platform; all tools and materials shall be removed at the end of each work shift.
 - Scaffolds shall never be overloaded; weight shall be evenly distributed.
 - Scaffolds shall be protected at all times.
- 2.3.18 The CONTRACTOR shall install viewing windows as identified at the pre-construction meeting to allow for continuous observation of the work areas.
- 2.3.19 The CONTRACTOR shall score the interior side of a barrier wall, per work area to provide a "Break Out" Emergency Exit that is six (6) LF high from floor at a width of twenty (20) IN. The Critical barrier of Poly covering the scored area shall be outlined with Red Duct Tape or painted with red paint to indicate Emergency Exit area.
- 2.3.20 All non moveable objects, walls, floors and ceilings, not being abated, shall be precleaned. Non moveable objects shall be protected from contamination and wrapped and sealed with two independent layers of 6 mil poly, within the work

area.

2.4 ABATEMENT

- 2.4.1** The CONTRACTOR shall remove and dispose as ACM the materials as identified in the scope of work and in accordance with these contract specifications.
- 2.4.2** Maintain effectively sealed and taped Barriers and Poly Enclosures for the duration of ASBESTOS removal and subsequent cleaning. Repair damaged barriers immediately upon discovery. Visually inspect enclosures at the beginning of each work period.
- 2.4.3** Use Surfactants that are non-toxic, non-irritating and non-carcinogenic.
- 2.4.4** Provide Grainger #7Z609 commercial type Airless Water Sprayer, or approved equivalent, to apply amended water and encapsulants. The Spray Gun shall be fitted with a nozzle sized to spray encapsulant uniformly in an eight inch (8 IN) diameter pattern when positioned twelve inches (12 IN) from a flat vertical surface. Materials and project areas shall be misted with amended water from start of decontamination through final cleaning.
- 2.4.5** Use extreme care when using water in connection with ASBESTOS removal. CONTRACTOR shall be solely and completely, financially and otherwise, responsible for all water damage in adjacent work areas and throughout the remainder of the building which occurs as a result of performing the work in this project.
- 2.4.6** All surfaces within the work area shall be encapsulated following successful visual inspection, dust wipe sampling containing less than 1% asbestos and PCM air monitoring of less than 0.01 fibers per cubic centimeter. Apply American Coatings 22P Encapsulant, or approved equivalent, as described in ASTM guidance document E06.21.06E on Encapsulation of Building Material and as specified by the manufacturer;
- 2.4.7** Conduct, after encapsulation but prior to final work area decontamination, a visual inspection for proper application procedure, extent of coverage and bonding effectiveness.
- 2.4.8** Use approved impermeable containers suitable to receive and retain ACM until disposal at an approved site (air and water-tight and labeled in accordance with OSHA, DOT and EPA Regulations)--two types may be used -

6 mil Polyethylene bags properly labeled, or

Metal or fiber drums (With tightly fitting lids) properly labeled;

- 2.4.9 Provide transportation as required and in conformance with 49 CFR 173.1090, suitable for loading, temporary storage, transit and unloading of contaminated waste without exposure to persons or property (contaminated waste shall not be transported in open bed vehicles, temporary storage facilities shall remain locked at all times except during loading and unloading operations);

2.5 WORK AREA CLEAN-UP AND FINAL CLEARANCE

- 2.5.1 CONTRACTOR shall remove all bagged ACM and debris daily. ASBESTOS containing waste shall be handled in such manner that it can not be considered an attractive nuisance to children, vagrants or curious persons.
- 2.5.2 Areas that do not comply with final clean-up and clearance standards shall be recleaned at the CONTRACTOR's expense, including Laboratory costs, and retested at the CONTRACTOR's expense until specifications are met.
- 2.5.3 The CONSULTANT with the CONTRACTOR and the Area RAPMAN, at his/her discretion, will inspect the complete work area for visible contamination after all Poly is removed with the exception of critical barriers. All surfaces shall be wet wiped, HEPA vacuumed and all equipment removed before Final Inspection and Final Clearance Air Monitoring. The CONTRACTOR shall notify the Area RAPMAN 72 hours prior to the Final Inspection.
- 2.5.4 After the Final Inspection but prior to the final clearance air monitoring, all surfaces within the work area shall be encapsulated with an approved lock back encapsulant. A drying period as determined by the CONSULTANT shall be required before final clearance monitoring is performed. Samples will be collected in each work area using aggressive sampling techniques, and analyzed by Phase Contrast Microscopy (PCM) and/or Transmission Electron Microscopy (TEM) as per EPA level II.

2.6 BREAKDOWN AND EXIT OF WORK AREA

- 2.6.1 CONTRACTOR shall remove all remaining plastic barriers including any tape and spray adhesive markings or residue remaining on the wall or floors. All plastic shall be disposed as ACM.
- 2.6.2 CONTRACTOR shall remove all equipment remaining in the work area and shall:
- 2.6.3 Wet wipe all surfaces;
- 2.6.4 Upon completion of work under this Contract and prior to substantial completion, the ASBESTOS CONTRACTOR shall thoroughly clean and repair any damage to all valves, meters, gauges, windows, glass, aluminum/steel or other metal, floors,

walls, ceilings, furniture, equipment, furnishings, fixtures and all other surfaces and render such surfaces (and interiors) clean and free of all dirt and/or dust. All stains and discolorations due to the performance of work under this Contract shall be removed and surface restored. Special cleaning requirements necessary for successful results by instrument monitoring of the air, as set forth in the Contract Documents and as required by law, shall be done by the ASBESTOS CONTRACTOR.

2.6.5 DMA, or his Representative, CONSULTANT, RAPMAN and any other designated representative shall conduct a final visual inspection after final clean up to check for visible dust, dirt, debris and areas of damage. The CONTRACTOR shall be in attendance on the visual inspection.

2.6.6 If, in the opinion of the DMA, based upon the final visual inspection, previous clean-up operations were inadequate, the CONTRACTOR shall perform additional cleaning at no additional expense to the DMA.

2.7 WASTE DISPOSAL

2.7.1 As the ACM and contaminated waste accumulates it must be kept wet and promptly placed into either of the following disposal containers:

Two (2) 6 mil Polyethylene bags where excess air is pressed out of the full bag, the top is twisted, taped, folded upon itself, again taped to prevent water leakage (goose necking) and then placed into the second bag and sealed with the same procedure; or One (1) 6 mil Polyethylene bag sealed as above placed inside an air and watertight drum that is lined with another large six (6) mil Poly bag sealed as above when full.

2.7.2 When contaminated materials contain sharp objects capable of puncturing the disposal bags, CONTRACTOR shall double bag all such waste and place in air- and water-tight transport drums or pre-box and then double bag. Upon pre-approval by the CONSULTANT, the CONTRACTOR may use burlap bags to contain sharp objects prior to double bagging

2.7.3 Upon arrival at the landfill and if the drums are to be recycled, the bags should be placed inside another six (6) mil bag along with all spilled contents. All work at the landfill site involving asbestos wastes shall be done by personnel wearing proper protective equipment and proper respirators.

2.7.4 All Polyethylene film, tape, cleaning material, clothing, respirator and AFD filters, and all other disposable material or items used in the work area shall be treated as ASBESTOS contaminated waste.

2.7.5 As disposal containers are filled they shall be sealed while still inside the

designated work area. The CONTRACTOR shall remove waste materials from the enclosed work area on a regular basis of at least once per shift. All waste containers shall be thoroughly decontaminated before leaving the enclosed work area. CONTRACTOR shall not allow disposal containers to accumulate and obstruct work progress or building exits.

- 2.7.6 All holding and transport facilities shall have two (2) layers of six (6) mil poly continuously sealed on all surfaces.
- 2.7.7 When loading filled disposal containers into the transport vehicle, adequate care shall be taken to protect against rupture or other accidental opening of sealed containers.
- 2.7.8 Unless preprinted, warning labels having waterproof print and permanent adhesive shall be affixed to the sides of the disposal containers. They shall be conspicuous, legible and in accordance with all regulations (i.e., DOT 49 CFR 173.1090).
- 2.7.9 It is the responsibility of the CONTRACTOR to determine current waste handling transportation and disposal regulations for the work site and for each waste disposal landfill. He must comply fully with these regulations and DOT, OSHA, and EPA requirements.

2.8 DECONTAMINATION

- 2.8.1 CONTRACTOR shall set up and staff decontamination facilities as follows:

EQUIPMENT ROOM of sufficient volume to accommodate at least three (3) persons (allowing enough room to remove protective clothing), with a six (6) mil disposal bag and container and also any equipment or accessories that the CONTRACTOR wishes to store when not in use.

SHOWER ROOM with at least one complete shower (hot and cold water) and triple flap opaque six (6) mil Polyethylene curtained access doorways to work and the uncontaminated areas. All waste water shall be collected and filtered through a system capable of removing particles of at least five (5.0) microns in diameter or length. Effluent shall be sampled and analyzed by CONSULTANT for efficiency of filtration system. Filtrate shall be disposed of through a sanitary sewer. No leakage shall be permitted. CONTRACTOR shall maintain a continuous supply of soap and disposable towels at all times.

CLEAN ROOM of sufficient volume to accommodate at least three (3) persons with storage for street clothing. It shall be isolated from any contaminated area by at least two (2) airlocks. Air flow shall be from the Clean Room through the Shower Room, then through the Equipment Room and finally to the work area.

BAG OUT ROOM (if required) of sufficient volume to accommodate a high pressure/low volume sprayer used for decontamination of disposal containers and equipment. It shall be located nearest to the building exit and constructed of two (2) layers of 4 mil Polyethylene film on walls and ceilings, and three (3) layers of six (6) mil Polyethylene film on floors. Doors, located on either side of the room, shall be fabricated of triple flap opaque six (6) mil Polyethylene film. This room shall be independent of the personnel decontamination unit and lockable from the outside. PRE-FABRICATED OR PORTABLE TYPE DECONTAMINATION SYSTEMS may be used if they provide necessary requirements without compromising the integrity of the work area enclosure. CONTRACTOR shall obtain written permission from the DMA to use equipment other than that originally specified.

- 2.8.2 CONTRACTOR shall provide at least one (1) full-time Decon Unit Attendant stationed nearby who will ensure that:

Each person entering the work area shall be identified, properly logged in and out, have properly filed medical records, and be fit tested with the appropriate, clean and disinfected respirator;

Decon Unit shall be maintained in a clean and orderly manner replenished with consumable supplies; and

Each person exiting the work area shall follow the proper Decontamination procedure described in previous sections.

- 2.8.3 When using facilities described above, each worker or authorized visitor shall use the following procedures:

When leaving the work area - Remove gross contamination from clothing before leaving the work area, proceed to the Equipment Room and remove all clothing except respirator, proceed naked to the Shower Room while still wearing the respirator, clean the outside of the respirator with soap and water while showering, remove filters and wet them, dispose of filters in the container provided for this purpose, wash and rinse the inside of the respirator, dry off and proceed directly to the Clean Room, dress in street clothes at the end of each day's work, or in clean coveralls before eating, smoking, drinking, or re-entering the work area. Workers or authorized visitors shall not eat, drink, smoke, use tobacco, or chew while in the work area.

When re-entering the work area from the clean room, each worker or authorized visitor shall put on a clean respirator (with new filters) and shall dress in clean protective clothing. Contaminated work footwear shall be stored in the Equipment Room when not in use in the work area. Upon completion of ASBESTOS abatement, dispose of footwear as contaminated waste or clean thoroughly inside and out, using soap and water, before removing from work area or from equipment

and access area. Store contaminated equipment in the Equipment Room for reuse or place in receptacles for disposal with other ASBESTOS contaminated materials.

Workers removing waste containers from the equipment decontamination enclosure shall enter the clean storage area wearing a respirator and dressed in clean coveralls. No worker shall use this system as a means to leave or enter the work area.

2.9 GLOVEBAGGING

- 2.9.1 Only an approved glovebag shall be used. No modifications to glovebag shall be made unless approved by the Consultant.
- 2.9.2 Only one fitting shall be abated per glovebag.
- 2.9.3 The Contractor shall provide two personnel for each glovebag operation.
- 2.9.4 The Contractor personnel shall be in full personal protection with disposable clothes and half mask respiration.
- 2.9.5 The glovebag shall be installed with all tools necessary to remove, clean, decontaminate and encapsulate. The glovebag will not be allowed to be opened/removed until the end of the procedure and approved by the Consultant.
- 2.9.6 The Contractor shall request the Consultant to make an installation inspection prior to gross removal, a final clean inspection prior to encapsulation and a pre-removal inspection prior to glovebag removal.
- 2.9.7 All gross removal shall be performed under negative pressure.
- 2.9.8 Minimally, a 10 foot radius surrounding the work area shall be isolated using barrier (warning) tape and proper warning signs. When feasible the entire room should be isolated.
- 2.9.9 A remote decontamination unit shall be erected. If decontamination units for other nearby abatement work areas are erected and in full function, they may be utilized as the remote decon.
- 2.9.10 The glovebag shall be installed over the fitting to allow for removal of 3 inches of the adjoining non asbestos containing TSI.

3.0 ASBESTOS CONTRACTOR QUALIFICATIONS

3.1 CONTRACTOR

- 3.1.1** The ASBESTOS CONTRACTOR shall be an Asbestos Removal Contractor in good standing, licensed to practice his trade in the State of Florida and shall:
- 3.1.2** Have applicable working experience in the ASBESTOS abatement field for the three (3) years prior to project start date. Documentation showing successful experience in ASBESTOS removal, encapsulation and related work similar in scope and magnitude to this project shall be attested to in the Bid as a list of references. In addition, he shall submit a list of his five (5) most recently completed projects, specifying the original contract price and the total dollar amount of Change Orders issued until completion for each project.
- 3.1.3** Have a place of business for contact by the DMA during normal working hours;
- 3.1.4** Have Insurance coverage as detailed in these specifications, and shall submit such documentation in the Bid package;
- 3.1.5** Not use other SUBCONTRACTORS unless authorized in writing by DMA and CONSULTANT; and
- 3.1.6** Acknowledged the DMA's right to request information regarding qualifications, and the sole right of the DMA and CONSULTANT to evaluate the qualifications of the Bidder.
- 3.1.7** Not defaulted on a project. CONTRACTOR shall submit affidavit of no default with his bid.
- 3.1.8** Not been cited for violation of Regulations or a party to litigation for abatement work during the past three years. CONTRACTOR shall submit affidavit with Bid.
- 3.1.9** Sufficient number of trained, experienced workers to complete each project on time. The Contractor shall sign an affidavit to be submitted with the pre-abatement submittals that his employees have been pre-screened and to the best of his knowledge there are no outstanding warrants on any of his employees.

3.2 CONTRACTOR PERSONNEL QUALIFICATIONS

- 3.2.1** CONTRACTOR shall provide one (1) competent Superintendent with a satisfactory recorded medical history; having not less than two (2) years full-time experience in responsible charge of ASBESTOS removal operations, similar in size and scope to this Project, within the three-year period preceding the start of this Project. He must have satisfactorily completed at least two (2) accredited courses on

ASBESTOS Abatement with refresher training: one (1) on Management and Supervision of ASBESTOS Abatement; and one (1) on Respiratory Protection. Superintendent and Foreman must be approved by the CONSULTANT. A minimum of one (1) Superintendent is required who shall remain on-site in the work area, or immediately adjacent to the work area, at all times work is in progress. Documentation of Superintendent's experience and qualifications to be submitted with Pre-Abatement Submittals.

3.2.2 The Foreman shall have a minimum of one (1) year successful experience in ASBESTOS removal operations similar in scope and magnitude to this Project, possess a satisfactory recorded medical history, have completed at least two (2) accredited courses with refresher training in ASBESTOS abatement: one (1) on Worker in ASBESTOS Abatement; and one (1) on Respiratory Protection. Qualification documentation for each Foreman to be submitted with Pre-Abatement Submittals. A minimum of one foreman to a maximum of seven crewmen is required.

3.2.3 Seventy percent (70%) of the workers shall have at least five months ASBESTOS Abatement experience working with licensed ASBESTOS Abatement CONTRACTORS in projects similar in size and scope to this project. All workers shall possess satisfactory recorded medical histories, have completed and possess current certification on training in ASBESTOS Abatement and on Respiratory Protection. Documentation of each Worker's training and experience to be submitted with Pre-Abatement Submittals.

3.2.4 The CONSULTANT and/or OWNER may reject any CONTRACTOR and/or Subcontractor personnel on the work site at any time, for misconduct including but not limited to: Smoking in non designated areas, ingress/egress during non authorized times, non compliance with the approved written schedule, disregard for contract specifications and disorderly conduct.

3.3 PERSONNEL PROTECTION

3.3.1 Prior to commencement of work, all workers shall be instructed, and shall be knowledgeable, in the appropriate procedures for personnel protection and ASBESTOS removal.

3.3.2 CONTRACTOR acknowledges and agrees that he is solely responsible for enforcing protection requirements at least equal to those specified in this section and shall:

3.3.3 Provide workers with personally issued and marked respiratory equipment, approved by NIOSH and accepted by OSHA, suitable for the ASBESTOS exposure level in the work areas (per OSHA 29 CFR 1910.1001, or as more stringently specified in the Contract Documents);

- 3.3.4 Where required by workers, provide sufficient replacement filters for respirators;
- 3.3.5 Provide respiratory protection from the time the first operation involved in the project requires contact with ACM (including construction of air-tight barriers/barricades), until acceptance of final air test results by the CONSULTANT;
- 3.3.6 During work area preparation, provide at least Half-Mask purifying Respirators with HEPA Filters;
- 3.3.7 Provide at least Full-Face Respirators with powered air from HEPA cartridge filters from the start of abatement through the final clean stage and when the fiber concentration in the work area exceeds 0.01 f/cc but is less than 1.0 f/cc;
- 3.3.8 If fiber concentration levels exceed 1.0 f/cc, provide Class C Pressure Demand Air Respirators operating from certified Grade D Air purified by indicating purifiers (Del-Monox or equivalent) when beginning and during abatement;
- 3.3.9 Provide proper respiratory protection during encapsulation and final clean-up as defined by fiber concentration levels and Encapsulate Manufacturer's specifications;
- 3.3.10 Provide clean, disinfected masks on a daily basis;
- 3.3.11 Permit no visitors in the work areas after commencement of ASBESTOS abatement, except for Government Inspectors having jurisdiction or those specifically authorized by the DMA or CONSULTANT (CONTRACTOR shall provide such visitors with suitable respirators as specified herein);
- 3.3.12 Provide workers with sufficient sets of protective disposable clothing consisting of full-body coveralls, head covers, protective gloves (when necessary) and properly sized foot covers;
- 3.3.13 Provide eye protection and hard hats as required for job conditions under applicable safety regulations;
- 3.3.14 Provide authorized visitors with a set of suitable protective disposable clothing, unused appropriate respiratory protection, headgear, eye protection, and footwear of sizes to properly fit whenever they are required to enter the work area;
- 3.3.15 Provide, in addition to respirators and protective clothing provided for authorized visitors, protective clothing and one complete unused PAPR with HEPA filter for use by CONSULTANT's representative only;
- 3.3.16 In a predetermined area, provide additional suits and respirators for Rescue

Squad use should accidents occur in the work area;

- 3.3.17 Maintain the regulated work area in a clean, orderly state at all times; and
- 3.3.18 Train the workers for emergency situations such as Barrier breakage, ruptured plumbing, personnel injury, fire, etc.

4.0 SUBMITTALS

4.1 GENERAL INFORMATION

- 4.1.1 Where the words "Equivalent", "Approved Equivalent", "Other Approval" or words with similar meaning appear in this report or on the drawings, it will be the responsibility of the CONSULTANT to decide as to the equivalency of or approval of the item(s) under consideration.**
- 4.1.2 Wherever a particular item is listed by Manufacturer's Name, Model number or other identifying information, it shall be interpreted to include equivalent products of other manufacturers whether "Approved Equivalent", etc., is stated or not.**
- 4.1.3 Whenever a manufacturer's product is specified to the exclusion of all other products, it shall be so identified and declared.**
- 4.1.4 Where contents of submitted literature from manufacturers include data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review.**
- 4.1.5 Partial or incomplete submittals may be rejected as not complying with the provisions of the contract.**
- 4.1.6 CONTRACTOR will be held responsible for delays due to incomplete submittal packages.**
- 4.1.7 Review by the CONSULTANT does not relieve the CONTRACTOR from responsibility for errors which may exist in the submitted data.**
- 4.1.8 Revisions, if required, by the CONSULTANT must be resubmitted for approval.**
- 4.1.9 All other submittals required in the DMA's Addendum and Contract agreement shall be submitted in a timely manner.**
- 4.1.10 CONTRACTOR shall submit two (2) independent, complete, bound sets of the pre-abatement and post abatement submittal packages, to the CONSULTANT for review, approval and distribution. Requests for final payment will not be approved until the submittal packages have been reviewed and approved by the DMA and CONSULTANT.**
- 4.1.11 Individual submittals shall be identified and labeled by name and individual consecutive number. All personnel, MSDS and equipment submittals shall be in alphabetical order per category.**
- 4.1.12 Each package shall contain a Letter of Transmittal and a detailed Table of**

Contents.

- 4.1.13 CONTRACTOR shall certify, by affixing his signature to the corner of each submittal package, that each item conforms with the specifications.
- 4.2 BID SUBMITTALS
 - 4.2.1 CONTRACTOR shall attend a mandatory Pre-Bid Conference scheduled by the DMA, become informed on all determinable existing conditions and limitations of the site and shall provide:
 - 4.2.2 Copy of Florida ASBESTOS CONTRACTOR's License, in the name of the CONTRACTOR, to perform work in the State of Florida, including any required ASBESTOS addenda legislated at the time of Bid submittal;
 - 4.2.3 List of ASBESTOS Abatement Projects within the last three (3) years, similar in size and scope to the work of this project, that have been undertaken by the CONTRACTOR or SUBCONTRACTOR(s) engaged to perform any portion of the work complete with names and telephone numbers of references and project managers, type of abatement, final clearance level, original contract price, dollar amount of change orders until completion, and date completed;
 - 4.2.4 List of all proposed SUBCONTRACTORS to be used on project;
 - 4.2.5 List of any ASBESTOS Abatement Citations, Judgments, Warnings or Penalties issued by any Regulatory Agency or Court of Law in the last three (3) years; List any litigation and outcome concerning asbestos abatement.
 - 4.2.6 List of any Notice of contract terminations;
 - 4.2.7 A proposed progress schedule/chart for ASBESTOS Abatement and related repair (specifying crew size, phasing, tasks, hours, days and modifications);
 - 4.2.8 Copy of CONTRACTOR's Certificate of Insurance from Insurers properly qualified and licensed to conduct business in Florida;
 - 4.2.9 Listing of proposed Superintendent's and Foremen's, experience qualifications;
 - 4.2.10 Listing of proposed Worker's qualifications, experience;
 - 4.2.11 Hold Harmless Agreement
 - 4.2.12 Any other documentation, bonding or information required by the bidding documents.

4.3 PRE-ABATEMENT SUBMITTALS

Prior to work commencement, **CONTRACTOR** shall submit at least two (2) copies, of the following for review and approval by the **CONSULTANT** and **DMA**:

After the work is complete the **CONTRACTOR** shall include one (1) set of the following submittals along with a set of the Post-Job Submittals being submitted to the **RAPMAN**.

4.3.1 Written Notice by Certified Mail of Impending Commencement of ASBESTOS removal work must be sent to the following -

- 1. Bureau of Air Quality Management, State of Florida
Department of Environmental Regulations
2600 Blair Stone Road
Tallahassee, Florida 32301
Attention: Mr. E.F. Palagyi
ASBESTOS Coordinator
Telephone (904) 488-1344**
- 2. Mr. Dennis Milak
Regional Asbestos Program Manager
DLES - Division of Safety
9215 N. Florida Ave., Suite #105
Tampa, FL 33612-7905
Telephone: (813) 930-7265 FAX: (813) 930-7649**
- 3. The local fire department;**

4.3.2 All required permits complete with arrangements for transport and disposal of ASBESTOS containing or contaminated materials, supplies, etc.;

4.3.3 Copy of CONTRACTOR's Certificate of Insurance and Bonding from an Insurer properly qualified and licensed to conduct business in Florida and certifying that coverage is indeed equal to or in excess of those defined in specifications;

4.3.4 Signed affidavit that the CONTRACTOR, CONTRACTOR's representative and designated on-site superintendent has read, understood and agrees to comply with the contract documents and accepted written schedule.

4.3.5 Proposed methodology describing preparation, abatement, decontamination and final cleaning techniques, # of AFD and placement, # of Decons and placement, location of emergency exits; The Contractor shall submit three complete marked set of drawings indicating the AFD, Decon, emergency exit and containment barrier placements in addition to the text description.

- 4.3.6 Update of Bid Detailed daily progress schedule for ASBESTOS abatement and related repair that includes crew sizes, names superintendent and foreman and lists proposed working hours;
- 4.3.7 Individually signed Worker's release forms deeming each and every worker to be utilized on the project capable of performing the work while wearing full personnel protection including negative pressure respiration and to be current on all required training, including Affidavits of Training, Worker's Acknowledgement, Respirator Fit Testing and OSHA Medical Examination for Asbestos Removal Work;
- 4.3.8 Specimen copies of daily sign-in/out sheet and log form;
- 4.3.9 OSHA OMB #1218-0072 MSDS Sheets or approved equivalent, and Manufacturer's product data sheets for each applicable product;
- 4.3.10 Signed statement from leasing/rental agent stating that equipment/vehicles may be used in ASBESTOS work areas or for the transport of ASBESTOS containing materials, or copy of vehicle titles if owned by CONTRACTOR;
- 4.3.11 Authorization from landfill or copy of letter requesting landfill authorization, with mail receipt, to receive ASBESTOS waste from this project;
- 4.3.12 Documentation to support Bid listings of Superintendent, Supervisor and Foreman qualifications.
- 4.3.13 Signed affidavit of no employees with outstanding warrants.
- 4.3.14 Copy of the company's Hazard Communications Program per OSHA. This shall be maintained on site throughout the project.
- 4.3.15 A copy of the site specific Fire Safety Program. This shall be maintained on site throughout the project.
- 4.3.16 Any other documents required by the Contract Documents.

4.4 POST ABATEMENT SUBMITTALS

CONTRACTOR shall submit the following for review and approval by the CONSULTANT upon completion of work:

- 4.4.1 Receipt(s) from landfill operator acknowledging the CONTRACTOR's delivery(s) of waste material:
 - 4.4.1.1 Receipt(s) to include date, quantity of material delivered and signature of

authorized representative of landfill operation

- 4.4.1.2 Signed statement from landfill operator that the waste material has been covered in accordance with USEPA (NESHAPS) 40CFR 61, Subpart M.
- 4.4.2 Copy of the daily sign-in/out log showing the following: date, daily start and stop time, Company or Agency represented with reason for being in work area;
- 4.4.3 Original daily log containing daily work details including, but not limited to, names of all personnel on-site, work progress, equipment on-site, inspections, pertinent events, accidents and volume of material removed;
- 4.4.4 Copies of any site OSHA Form Number 200 Log and Summary or OSHA Form Number 101 Supplementary Record; and
- 4.4.5 CONTRACTOR's statement of Warranty.
- 4.4.6 Affidavit of Inspection.
- 4.4.7 All project submittals not included in the pre-bid package shall be included as part of the final submittal package properly organized, labeled, bound and in appropriate number of copies. No loose pages will be accepted.
- 4.4.7 The CONTRACTOR shall furnish TWO complete, independent, final submittal packages.

5.0 REGULATIONS

5.1 GENERAL

Applicable standards listed in these specifications include, but are not limited to, the listed regulations, publications, guidelines, standards and laws. The CONTRACTOR and all SUBCONTRACTORS as applicable, shall comply with the current requirements and recommendations of the following regulations and publications governing Asbestos stripping, removal, encapsulation, decontamination and disposal:

- 5.1.1 U.S. Environmental Protection Agency (EPA) Regulations for Asbestos (Code of Federal Regulations Title 40 CFR, Part 61, Subparts A and M) Issued April 5, 1984;
- 5.1.2 U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Asbestos Regulations (Code of Federal Regulations Title 29 CFR, Part 1910 et al, Occupation Exposure in Asbestos, Final Rule August 10, 1994);
- 5.1.3 U.S. E.P.A. Office of Pesticides and Toxic Substances publication "Guidance for Controlling Friable Asbestos-Containing Materials in School Buildings" Parts 1 & 2;
- 5.1.4 U.S. E.P.A. Office of Pesticides and Toxic Substances publication "Guidance for Controlling Friable Asbestos-Containing Materials in Buildings (EPA 560/5-85-024, June 1985);
- 5.1.5 National Institute for Occupational Safety and Health (NIOSH) publications, "Respiratory Protection... An Employer's Manual" and "Respiratory Protection... A Guide for the Employee;"
- 5.1.6 U.S. Department of Transportation (DOT) Hazardous Materials Regulations, Code of Federal Regulations, Title 49, CFR Parts 172.101 and 173.1090;
- 5.1.7 U.S. Department of Labor Occupational Safety and Health Administration (OSHA) General Industry Protection Title 29 CFR 1910.134;
- 5.1.8 U.S. Department of Labor OSHA Construction Industry Safety and Health Standards Title 29 CFR 1926.1-.1051;
- 5.1.9 U.S. Department of Education, Office of Elementary and Secondary Education (Code of Federal Regulations Title 34, Parts 230 and 321), Federal Register Vol 46, No. 11, January 16, 1981;
- 5.1.10 U.S. EPA Regional National Emissions Standards for Hazardous Air Pollutants (NESHAPS);

- 5.1.11 U.S. Department of Labor OSHA Hazard Communications Regulations Title 29 CFR 1926.59; and 1910.1200 General Industry.
- 5.1.12 Asbestos Hazard Emergency Response, Act of 1986 Environmental protection 15 USC 2601, Public Law 99-519, 100 Stat. 2970 - 100 Stat. 2991;
- 5.1.13 U.S. Department of Labor OSHA Safety and Health Standards 29 CFR 1926/1910. Revised 1987, OSHA 2207; Electrical hazards, 1926.400-417, hand tools 1926.302, servicing machines 1910.147, fire safety plans 1926.24, ladder safety 1926.450, 1910.25, scaffolds 1926.451, slips, trips and falls, 1910, Subpart D., and "General Duty" Clause section 5(a)(1).
- 5.1.14 Florida State, Senate Bill 986, enrolled 310-1915-87, Signed 7-14-87 Chapter 87-394 Laws of Florida;
- 5.1.15 Florida Asbestos Committee, Asbestos Identification and Remediation Plan, January 1, 1987;
- 5.1.16 Florida Department of Business and Professional Regulation, Chapter 469 of the Florida Statutes, Chapters 61E1, sections 2.006 & 3.006 of the Florida Administrative Codes;
- 5.1.17 U.S. Environmental Protection Agency (EPA) Regulations for Asbestos-Containing Materials in Schools (Code of Federal Regulations Title 40 CFR part 7631 issued October 30, 1987).
- 5.1.18 U.S. Environmental Protection Agency (EPA) Regulations for Asbestos Model Accreditation Plan (Code of Federal Regulations Title 40 CFR part 763, Interim Final Rule)
- 5.1.19 U.S. Environmental Protection Agency (EPA) Regulations for disposal requirements of Polychlorinated Biphenyls (PCB's) [40 CFR 761.60].
- 5.1.20 American National Standards Institute (ANSI) 1430 Broadway, N.Y., N. Y. 10018, ANSI 14.1 and 14.2.
- 5.1.21 All State and Local Ordinances, regulations or rules pertaining to Asbestos including its storage, transportation and disposal, construction safety, health and hazard communications, (Worker's Right To Know).

5.2 DOCUMENTS

- 5.2.1 CONTRACTOR shall have at all times in his own possession and/or at his principle business or office, one copy of each of the above documents.**
- 5.2.2 CONTRACTOR has the responsibility of staying fully informed on the details and satisfying completely the requirements of these regulations.**
- 5.2.3 The current issue of each document shall govern. Where conflict among requirements or with the contract documents exists, the more stringent requirements shall apply.**
- 5.2.4 CONTRACTOR shall post all applicable regulations in a conspicuous place at the job site and shall ensure that they are not altered, defaced or covered by other material. These shall include State Workers' Compensation, Federal Workers' Compensation, OSHA and Wage/Hour Regulations.**

6.0 DEFINITIONS

The following words, terms and abbreviations shall be defined as shown unless the context clearly indicates otherwise:

ABATEMENT:

Procedures used to decrease or eliminate fiber release from ASBESTOS containing materials (ACM) that includes, removal, repair, encapsulation, enclosure and encapsulation.

AEROSOL:

A substance consisting of particles, solid or liquid, suspended in air.

AIR CELL:

Thermal insulation used on pipe and ducting composed of corrugated board, and often ASBESTOS, with cellulose or refractory binders.

AIR FILTRATION DEVICE (AFD):

Filtered exhaust ventilation equipment used for drawing air from inside enclosed work areas. Such equipment shall have at least three filter stages, two pre-filters and a final High Efficiency Particulate Absolute (HEPA) filter rated at 99.97% efficient in capturing Dioctylphthalate (DOP) particulate in having diameters of 0.3 micrometers. Electrostatic precipitator AFD's are permitted only if the exhaust is HEPA filter.

AIRLOCK:

System for permitting ingress or egress without permitting air movement between a contaminated area and uncontaminated area, typically consisting of two curtained doorways at least three feet apart. Each curtained doorway shall consist of three alternatively hung weighted flaps.

AIR-MONITORING:

Process of measuring the fibers of a specified size range in a specific volume of air, during a stated period of time.

AMENDED WATER:

Water to which a wetting agent is added. The wetting agent is a combination of chemicals that aids water penetration of material and increases fiber wetting.

ASBESTOS:

General term used to describe a group of naturally occurring hydrated silicates. Including, but not limited to, the asbestiform varieties Chrysotile (Serpentine); Crocidolite, Amosite, Anthophyllite, Tremolite, and Actinolite (Amphiboles).

ASBESTOS-CONTAINING MATERIAL (ACM):

Any material containing more than one percent by dry weight, of Asbestos.

ASBESTOS-CONTAMINATED MATERIAL(ACM):

Any materials, objects, or substances containing or coated (even lightly) with Asbestos fibers.

BARRIER:

Polyethylene sheeting which completely seals off the work area to prevent distribution of fibers to surrounding areas.

BREATHING ZONE:

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

CEILING CONCENTRATION:

Maximum allowable level of an airborne toxic substance that can be present at any given time.

CLEAN ROOM:

An uncontaminated area or room which is part of the worker decontamination enclosure system with provisions for storage of worker's street clothing and protective equipment. Also referred to as the Change Room.

CRITICAL BARRIER:

Specified layers of polyethylene sheeting that completely seal off work areas preventing the distribution of fibers to the surrounding areas.

CURTAINED DOORWAY:

A device to allow ingress or egress from one room to another while minimizing air movement between them. Typically constructed by attaching three (3) overlapping flexible plastic sheets to a door frame with the top horizontal edges of all to the top horizontal member of the frame and one (1) side vertical edge of each sheet attached alternately to a side vertical frame member.

DECONTAMINATION ENCLOSURE SYSTEM:

A series of connected rooms, with curtained doorways between adjacent rooms, used for decontaminating workers, materials and equipment. A system always contains an airlock. (DECON)

DISPOSAL:

All herein specified procedures necessary to transport and deposit the ACM waste stripped and/or removed from the building in an approved waste disposal site in compliance with EPA, OSHA, and DOT Regulations.

ENCAPSULANT (SEALANT):

A liquid material applied to control the possible release of Asbestos fibers from material by creating a membrane over the surface (bridging encapsulant) or by binding its components together (penetrating encapsulant).

ENCAPSULATION:

Methods used to coat ACM with an encapsulant and thereby control the possible release of Asbestos fibers into ambient air. All specified procedures necessary to render inaccessible ACM non-friable and incapable of releasing Asbestos fibers into ambient air by using a penetrating or bridging encapsulant.

ENCLOSED WORK AREA:

An isolated area of the facility where abatement activities are performed.

ENCLOSURE:

An impermeable barrier placed around ACM.

EQUIPMENT ROOM:

A contaminated area of room inside the work area insulation structure with provisions for storage of contaminated clothing and equipment.

EXCURSION LIMIT (EL):

Permissible short-term occupational exposure limit (STEL) to Asbestiform materials established by OSHA 29 CFR Parts 1910.1001 and 1926.1101 on September 14, 1989 equal to one (1) fiber per cubic centimeter of air sampled over a thirty (30) minute exposure period.

FRIABLE:

Material which can be crumbled, pulverized or reduced to powder by hand pressure when dry.

GLOVE BAG:

A sack of six (6) mil poly, may be heat resistant or reinforced, with two inward projecting long-sleeved gloves designed to enclose an object from which ACM is to be removed.

HEPA FILTER:

High Efficiency Particulate Air Filter.

HEPA VACUUM EQUIPMENT:

Vacuum cleaner or similar equipment equipped with HEPA filter.

HVAC:

Heating, ventilation and air conditioning systems, including all duct work ventilators, coils, fans, and damper assemblies.

LABELS:

Warning labels containing the following words in Black, White and Red colors shall be attached to or printed on any product containing ASBESTOS and to all ACM waste containers;

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

DOT requires the following additional labeling of containers containing more than one (1) pound of ACM to depict between white asbestos (chrysotile, actinolite, anthophyllite & tremolite) as UN2590 or blue and brown asbestos (crocidolite or amosite & myosrite, respectively) as UN2212.

LAGGING:

Insulation used to prevent heat loss from pipes boilers and similar mechanical equipment.

MSDS:

Material Safety Data Sheet.

NEGATIVE PRESSURE:

When air pressure inside the work area is lower than the air pressure in the outside surrounding areas generally caused by exhausting air from a sealed space (Work area).

NIOSH:

National Institute of Occupational Safety and Health.

PLASTIC SHEETING:

Polyethylene sheet material of the thickness indicated.

PROTECTION FACTOR (PF):

The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator in the breathing zone of the wearer.

REMOVAL:

Act of taking ACM from the work area to a suitable disposal site.

SEALANT:

A liquid used as a binding agent on dried exposed surfaces from which ACM has been removed. The color of the sealant shall be separate and distinct from the underlying surfaces.

SHOWER ROOM:

A room constituting an air lock, between the clean room and the equipment room in the decontamination enclosure system.

SURFACTANT:

A chemical wetting agent added to water to improve the penetration into ACM.

TIME WEIGHTED AVERAGE(TWA):

The average concentration of a contaminant the air during a specific time period.

VISIBLE EMISSIONS:

Any emissions containing particulate Asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

WARNING SIGNS:

Posted in accordance with OSHA Regulations to demarcate the regulated area shall bear the following information:

**DANGER, ASBESTOS,
CANCER AND LUNG DISEASE HAZARD,
AUTHORIZED PERSONNEL ONLY,
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA.**

WET CLEANING:

Process of eliminating Asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with amended water and afterward disposed of as ACM waste.

WORK AREA:

An area or areas where Asbestos related work or removal operations are performed which is defined and/or isolated to prevent the spread of Asbestos dust, fibers or debris and entry by unauthorized personnel. The work area is a Regulated area as defined by 29 CFR 1926.1101.

7.0 FORMS

**Schedule of Contacts
Certificate of Visual Inspection
Affidavit of Specification Review and Compliance
Affidavit of Warranty
Asbestos Disposal Form
DER Asbestos Notification
Respirator Training Certificate
Worker Training Certificate
Hold Harmless Agreement
Conflict of Interest Affidavit
Plans
Action Schedule**

SCHEDULE of CONTACTS

Owner's Representatives (Building Contact Person(s)):

**Lt. James Wood
Engineer
National Guard Armory
P.O. Box 1008
St. Augustine, Florida 32083
(904) 823-0287**

Consultant:

**Dr. Robert Mitchell, PE
Apollo Environmental, Inc.
11553 US 41 South
PO Box 239
Gibsonton, Florida 33534
(813) 671-3999, FAX 677-3422
After Hours: 645-8310 Apollo Beach**

RAPMAN:

**Mr. Dennis Milak
Regional Asbestos Program Manager
DLES - Division of Safety
9215 N. Florida Ave., Suite #105
Tampa, FL 33612-7905
Telephone: (813) 930-7265 FAX: (813) 930-7649**

CERTIFICATION OF VISUAL INSPECTION

In accordance with specifications, final clean procedures, the Abatement Contractor hereby certifies that he has visually inspected the work area including but not limited to all surfaces, scaffolding, equipment, pipes beams, ledges, walls, ceiling, floor, decontamination unit, and protective sheeting and has found no dust, debris or residue.

Attached is a listing of any damage repaired or existing, caused by the CONTRACTOR. Circle One: List attached. Not Applicable.

By: _____ Date: _____
Abatement Contractor Competent Person

Printed Name

Printed Title

The Consultant hereby certifies that he has accompanied the Contractor's competent person in his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Contractor's certification of the work area is a true and honest one.

By: _____ Date: _____
Signature

Printed Name

Printed Title

The OWNER hereby certifies that he has accompanied the Contractor's competent person and CONSULTANT in his inspection and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Contractor's certification of the work area is a true and honest one.

By: _____ Date: _____
Owner's Signature

Printed Name

Printed Title

CERTIFICATION OF SPECIFICATION REVIEW AND COMPLIANCE

I attest that I have read and understood the specifications for asbestos removal at the Clearwater National Guard Armory;

I will perform fully and in compliance with these specifications.

Contractor Representative:

_____ Typed name	_____ Signature
_____ Date	

Abatement Contractor Representative:

_____ Typed name	_____ Signature
_____ Date	

Abatement Contractor Superintendent:

_____ Typed name	_____ Signature
_____ Date	

Abatement Contractor Foreman:

_____ Typed name	_____ Signature
_____ Date	

AFFIDAVIT OF WARRANTY

I attest that the materials used were free from defect and applied in accordance with Manufacturers Specifications. This warranty is in effect for a period of one year and is independent and separate of any manufacturers' warranty.

I attest that the work required by the Contract Documents is in compliance with the Contract Documents and has been completed free from defects.

Contractor Representative:

Typed name

Signature

Date

Abatement Contractor Representative:

Typed name

Signature

Date

Abatement Contractor Superintendent:

Typed name

Signature

Date

**ASBESTOS DISPOSAL FORM
"WASTE SHIPMENT RECORD"**

	1. Work site name and mailing address	Owner's name	Owner's phone no.
	2. Operator's name and address		Operator's phone no.
	3. Waste disposal site (WDS) name, mailing address and physical site location		WDS phone no.
	4. Name and address of responsible agency		
	5. Description of materials	6. Containers No. Type	7. Total Quantity m ³ (yd ³)
	8. Special handling instructions and additional information		
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable international and government regulations. Printed/typed name and title Signature Date		
	10. Transporter (Acknowledgment of receipt of materials)		
	Print/typed name and title Address and phone no.	Signature	Month Day Year
	11. Discrepancy indication space		
	12. Waste disposal site owner and operator Certification of receipt of asbestos materials covered by this manifest except as noted in item 12./		
	Printed/typed name and title	Signature	Month Day Year

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Notice of Asbestos Abatement Project

Type of Notice ☐ Original ☐ Revised

Facility Description _____ Age _____
Facility Address _____ City _____ County _____
Site Location _____ No. of Floors _____
Present Use _____ Prior Use _____

Receipt to Address Below

Contractor Information

Phone _____
Address _____
City _____ Zip _____

Contractor Name _____ License No. _____
Facility Owner: Name _____ Phone No. _____
Address _____ City _____ State _____

DEMOLITION _____ REMOVAL _____ COMBINE _____ DEMOLITION NO ASBESTOS _____
Prepping Date _____ Removal Start _____ Finish Date _____
Demolition Dates _____ Start _____ Finish Date _____

METHODS & PROCEDURES TO BE USED

☐ Strip & Removal ☐ Wet Method ☐ Glove Bag
☐ Removal ☐ Dry Method ☐ HEPA Vacuum
☐ Encapsulation ☐ Burn Down ☐ HEPA Exhaust
☐ Enclosure ☐ Bulldoze ☐ Explode
* "Dry Method" removal requires prior EPA approval.

Waste Disposal Site _____ Class _____
Address _____ City _____ State _____

Calculation & Type of RACM

Friable
(circle yes or no)

_____	Square feet of surfacing material	Y .. N
_____	Linear feet of pipe insulation	Y .. N
_____	Square feet of cementitious material	Y .. N
_____	Square feet of resilient flooring	Y .. N
_____	Square feet of asphalt roofing	Y .. N
_____	Other _____	Y .. N
_____	Total square feet + linear feet	Y .. N

I certify that the above information is correct.

(Signature of Owner/Operator)

(Date)

AGENCY USE ONLY

Postmark _____

Received _____

NESHAP Y..N APIS No. _____

Date _____ Received _____

RESPIRATOR TRAINING CERTIFICATION

I hereby certify that I have been trained in the use of each type of respiratory protection equipment required for use on this Project. The training included the following:

1. Explanation of dangers related to misuse.
2. Instruction on putting on, fitting, testing, and wearing the respirator.
3. Instruction on inspection, cleaning, and maintaining respirator.
4. Instruction on emergency situations.

I further certify that I understand the use, care, and inspection of the respirator and have tested worn and the unit.

Employee Signature _____

Printed Name _____

Date _____

Notary _____
(Signature)

My Commission Expires:

(		)
(		)
(		)
(	Seal	)
(		)
(		)
(		)

(submit one copy for each employee prior to start of work)

CERTIFICATE OF WORKER'S ACKNOWLEDGEMENT

Date: _____

PROJECT NAME _____
PROJECT ADDRESS _____
CONTRACTOR'S NAME _____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION:

I have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. I have a copy of the written respiratory protection manual issued by my employer. I have been equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE:

I have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course included the following:

Physical characteristics of asbestos, Health hazards associated with asbestos, Respiratory protection, Use of protective equipment, Pressure Differential Systems, Work practices including hands on or on-job training, Personal decontamination procedures, Air monitoring, personal and area

MEDICAL EXAMINATION:

I have had a medical examination within the past 12 months at no cost to myself. This examination included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray.

By signing this document you are acknowledging only that the Owner of the building you are about to work in has advised you of your rights to training and protection relative to your employer, the Contractor.

Printed Name _____ Social Security No. _____

Signature _____

Witness _____

Notary _____ My Commission Expires _____

HOLD HARMLESS AGREEMENT

Date:

Owner:

Attention:

Ref:

Pursuant to your specifications, we hereby agree to indemnify and hold harmless the Owner and Consultant, their Agents and Employees from and against any and all damage, loss, liability or expense including, but not limited to attorneys' fees and legal costs suffered by same, directly or by reason of any claim, suit or judgment brought by or in favor of any person or persons for damage, loss or expense due to, but not limited to, bodily injury, including death resulting anytime therefrom, and property damage sustained by such person or persons which arises out of, is occasioned by or in any way attributable to the services contracted for herein or otherwise, the acts or omissions of Contractor, its Agents, Employees or Subcontractors. Such damage, loss or expense shall include but not be limited to, any injury or damage to Owner's and Consultant's personnel or premises.

Contractor:

Address:

Official:

Date Signed:

Signed in the presence of Notary Public

Notary Public, State of Florida at Large

My commissions expires:

STATE OF FLORIDA

COUNTY OF _____

CONFLICT OF INTEREST

AFFIDAVIT

I, the undersigned Affiant, having been duly sworn and deposed, hereby swear and affirm that:

1. I am an officer or agent duly authorized to execute contracts for _____, (hereinafter "the Asbestos Contractor") which is an asbestos contractor properly licensed pursuant to Chapter 455, Florida Statutes, and all administrative rules promulgated thereunder.
2. The Asbestos Contractor may enter into a contract (hereinafter "the Contract") with an agency of the State of Florida for the purpose of asbestos abatement in the building or buildings specified in the Contract.
3. Pursuant to Section 255.558, Florida Statutes, the Asbestos contractor has no financial or other interest in _____, who is the asbestos consultant who prepared the building survey report, operation and maintenance plan, or abatement specifications for the building or buildings covered by the Contract.

Further Affiant sayeth naught.

Affiant

Title

Sworn to and subscribed before me this _____ day of _____, 19__.

(Seal)

Notary Public, State of Florida
My Commission Expires:

8.0	ACTION SCHEDULE (Proposed)
Invitation to Bid:	TBA Per Purchasing
Pre-Bid Meeting,	TBA
Bid Due:	TBA
Bid Award:	TBA
Pre-Commencement Submittals:	To consultant within 7 days of fully executed Contract or Purchase Order
DER Notification:	NLT 15 days prior to work start date
Pre-commencement Meeting:	TBA
Start Work	TBA
*Substantial Completion	5 working days after Start
**Final Completion	7 calendar days after Substantial Completion

*Includes all final air monitoring and replacement material.

** Includes all post job submittals to Consultant

NLT - No Later Than

TBA - To Be Announced

All work to be performed 7:30 am to 6:30 pm Weekdays and Saturdays

9.0

DRAWINGS

HOMOGENEOUS AREA DATA

HOMOG. AREA #	MATERIAL	SALIENT	SAL. SPACE	HAZ. RANK	PRIORITY RANK	RECOMMENDED RESPONSE	DELINEATION
1	FLOOR TILE	N	--	1	7	O&M	---
2	SHEET VINYL	N	--	1	7	O&M	---
6	SURFACING	N	--	2	6	O&M	---
11	FLOOR TILE	N	--	1	7	O&M	---
13	WALLBOARD	Y	40sf	1	7	O&M	---
15	BUILT-UP ROOF	N	--	7	1	O&M	---
16	ROOF SHINGLES	N	--	1	7	O&M	---

SAMPLE RESULTS

SAMPLE NUMBER	ASBESTOS TYPE	TOTAL % ASBESTOS
1,2,22	CHRY	18%
3,4,5	CHRY	75%
16,17,18	CHRY	6%
31,32,33	CHRY	8%
37,38,39	CHRY	<1%
--	--	ASSUMED
--	--	ASSUMED

NOTES & LEGEND

ASBESTOS CONTAINING HOMOGENOUS AREAS

- HA/1 =  9" TAN FLOOR TILE
- HA/2 =  ORANGE SHEET VINYL OVER TAN FLOOR TILE
- HA/6 =  SURFACING
- HA/11 =  WHITE 9" FLOOR TILE
- HA/13 =  WALLBOARD BEHIND PANELING AND ABOVE DROP CEILING
- HA/15-BUILT-UP ROOF-BLDG 100
- HA/16-ROOF SHINGLES-BLDG 200

SCALE

NONE

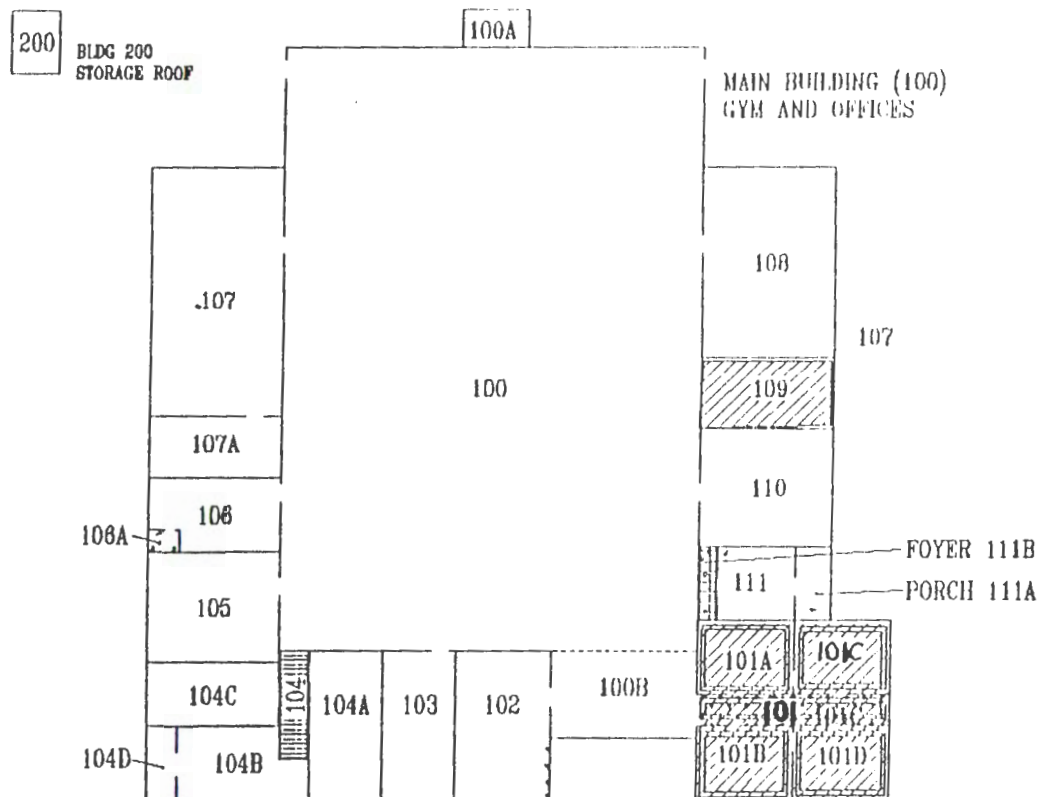


FIGURE NO.

STATE OF FLORIDA - DEPARTMENT OF MILITARY AFFAIRS
ST. AUGUSTINE, FLORIDA
ASBESTOS SURVEY AND ASSESSMENT DATA
NATIONAL GUARD ARMORY - BUILDING 100
PALMETTO, FLORIDA

APOLLO ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
11553 U.S. HIGHWAY 41 SOUTH
GIBSONTOWN, FLORIDA 33534-0239
(813) 671-3989 FAX: (813) 677-3422

PROJECT NUMBER: DRAWN BY: DATE:
kh 6/29/95

**STATE OF FLORIDA
DEPARTMENT OF MILITARY AFFAIRS**

**Asbestos Survey of the
National Guard Armory
Battery C 3BN ADA
Palmetto, Florida**

Asbestos Inspection Survey performed on June 22, 1995

Patricia Mitchell

Date *6/29/95*

Patricia Mitchell
Licensed Asbestos Consultant

#AX 000 0005

Table of Contents

ASBESTOS SURVEY TITLE SHEET

ASBESTOS SURVEY REPORT FORM - FORM 1

ASBESTOS SURVEY AND ASSESSMENT - FORM 2

ASBESTOS SURVEY REPORT - FORM 3

BUILDING SURVEY

APPENDIX 1 - PICTURES OF SAMPLE LOCATIONS

APPENDIX 2 - SAMPLE CUSTODY SHEET

APPENDIX 3 - SAMPLE ANALYSIS SHEET

APPENDIX 4 - DRAWING(S): SAMPLE LOCATIONS AND HOMOGENEOUS AREA

APPENDIX 5 - CERTIFICATES AND LICENSES

1. 设 $f(x) = x^2 + 2x + 1$, 求 $f'(x)$.

解: $f'(x) = 2x + 2$.

2. 设 $f(x) = x^3 - 3x^2 + 2x - 1$, 求 $f'(x)$.

解: $f'(x) = 3x^2 - 6x + 2$.

3. 设 $f(x) = \sin x$, 求 $f'(x)$.

解: $f'(x) = \cos x$.

4. 设 $f(x) = \cos x$, 求 $f'(x)$.

解: $f'(x) = -\sin x$.

5. 设 $f(x) = e^x$, 求 $f'(x)$.

解: $f'(x) = e^x$.

ASBESTOS SURVEY TITLE SHEET

BUILDING NAME: National Guard Armory

ADDRESS: 1107 Fourteenth Avenue West

CITY: Palmetto

OWNER AGENCY: Department of Military Affairs

DATE OF SURVEY: 6-22-95

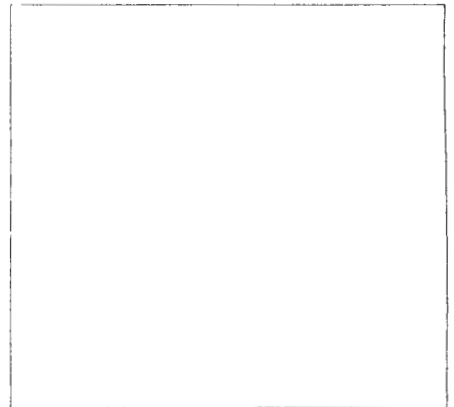
CONSULTANT: **Apollo Environmental, Inc.**

ADDRESS: **11553 U.S. Hwy. 41 South, P.O. Box 239**

CITY: **Gibsonton, FL 33534**

PHONE: **(813) 671-3999**

CONSULTANT'S SIGNATURE AND/OR SEAL: *Palmina Mitchell*



ASBESTOS SURVEY REPORT - FORM 1

BUILDING IDENTIFICATION

County: Manatee
Agency: Department of Military Affairs
Building Name: National Guard Armory - Administration/Gymnasium
Building No.: 100
Address and/or Geographic Location: 1107 Fourteenth Avenue West, Palmetto, FL

Building Asbestos Contact Person: Sgt. Jeff Cook
Telephone Number: (813) 741-3008
Agency Contact: Lt. James Wood Tel. No.: (904) 823-0287

SURVEY IDENTIFICATION

Date of Survey: June 22, 1995
Contract No.:
Consultant's Name: Patricia Mitchell
Name of Firm: Apollo Environmental, Inc.
Address: 11553 U.S. Highway 41 South, P. O. Box 239, Gibsonton, FL 33534
Telephone Number: (813) 671-3999

BUILDING INFORMATION

Year of Construction: Approximately 1965
Renovation Dates: Gymnasium new drop ceiling: May, 1995, ACM Removal 11/94
Type of Occupancy: Military Personnel
Typical Number of Occupants: 4

Building Documents/Drawings Available/Consulted:

Types: Plans Specifications
☐ Yes ☒ No Location: None

Asbestos Documents ☒ Yes ☐ No Location: Other: ACM Limited Asbestos Survey of Foyer and Classroom, copy of report on file with Apollo Environmental, Inc.

Number of Stories (floors): 1 Area each floor: 11,700 sf
Penthouse Area: n/a Attic Area: n/a
Basement Area: n/a Crawlspace Area: n/a
Number of Elevators: n/a Number of Stops: n/a

STRUCTURAL DATA

Vertical Support: block Horizontal: steel
Roof: built-up
Floors: concrete and vinyl floor covering Ceilings: various drop ceiling panels and plaster
Exterior Walls: concrete block, brick Partition Walls: concrete block, sheetrock
HVAC System: ☒ Yes ☐ No Type: wall units
Air Handlers: ☐ Yes ☒ No Number : Type:
Boilers: ☐ Yes ☒ No Type:
Chillers: ☐ Yes ☒ No Type:

ASBESTOS SURVEY REPORT - FORM 1

BUILDING IDENTIFICATION

County: Manatee
Agency: Department of Military Affairs
Building Name: National Guard Armory - Storage
Building No.: 200
Address and/or Geographic Location: 1107 Fourteenth Avenue West, Palmetto, FL

Building Asbestos Contact Person: Sgt. Jeff Cook
Telephone Number: (813) 741-3008
Agency Contact: Lt. James Wood Tel. No.: (904) 823-0287

SURVEY IDENTIFICATION

Date of Survey: June 22, 1995
Contract No.:
Consultant's Name: Patricia Mitchell
Name of Firm: Apollo Environmental, Inc.
Address: 11553 U.S. Highway 41 South, P. O. Box 239, Gibsonton, FL 33534
Telephone Number: (813) 671-3999

BUILDING INFORMATION

Year of Construction: Approximately 1965
Renovation Dates: None
Type of Occupancy: None
Typical Number of Occupants: 0

Building Documents/Drawings Available/Consulted:

Types: Plans Specifications
☐Yes ☒No Location: None

Asbestos Documents ☐Yes ☒No Location: Other:
Number of Stories (floors): 1 Area each floor: 360 sf
Penthouse Area: n/a Attic Area: n/a
Basement Area: n/a Crawlspace Area: n/a
Number of Elevators: n/a Number of Stops: n/a

STRUCTURAL DATA

Vertical Support: wood		Horizontal: wood
Roof: shingle		
Floors: concrete		Ceilings: wood
Exterior Walls: Plywood		Partition Walls: None
HVAC System:	☒ Yes ☐ No	Type: wall units
Air Handlers:	☐ Yes ☒ No	Number : Type:
Boilers:	☐ Yes ☒ No	Type:
Chillers:	☐ Yes ☒ No	Type:

ASBESTOS SURVEY REPORT - FORM 1

BUILDING IDENTIFICATION

County: Manatee
Agency: Department of Military Affairs
Building Name: National Guard Armory - Flammable Storage
Building No.: 300
Address and/or Geographic Location: 1107 Fourteenth Avenue West, Palmetto, FL

Building Asbestos Contact Person: Sgt. Jeff Cook
Telephone Number: (813) 741-3008
Agency Contact: Lt. James Wood Tel. No.: (904) 823-0287

SURVEY IDENTIFICATION

Date of Survey: June 22, 1995
Contract No.:
Consultant's Name: Patricia Mitchell
Name of Firm: Apollo Environmental, Inc.
Address: 11553 U.S. Highway 41 South, P. O. Box 239, Gibsonton, FL 33534
Telephone Number: (813) 671-3999

BUILDING INFORMATION

Year of Construction: Approximately 1965
Renovation Dates: None
Type of Occupancy: None
Typical Number of Occupants: 0

Building Documents/Drawings Available/Consulted:

Types:	Plans	Specifications	
		☐ Yes ☒ No	Location: None

Asbestos Documents	☐ Yes ☒ No	Location: Other:
Number of Stories (floors): 1		Area each floor: 100 sf
Penthouse Area: n/a		Attic Area: n/a
Basement Area: n/a		Crawlspace Area: n/a
Number of Elevators: n/a		Number of Stops: n/a

STRUCTURAL DATA

Vertical Support: metal		Horizontal: metal
Roof: metal		
Floors: dirt		Ceilings: metal
Exterior Walls: metal		Partition Walls: none
HVAC System:	☐ Yes ☒ No	Type: none
Air Handlers:	☐ Yes ☒ No	Number : Type:
Boilers:	☐ Yes ☒ No	Type:
Chillers:	☐ Yes ☒ No	Type:

ASBESTOS SURVEY REPORT - FORM 1

BUILDING IDENTIFICATION

County: Manatee
Agency: Department of Military Affairs
Building Name: National Guard Armory - Storage, portable
Building No.: 400
Address and/or Geographic Location: 1107 Fourteenth Avenue West, Palmetto, FL

Building Asbestos Contact Person: Sgt. Jeff Cook
Telephone Number: (813) 741-3008
Agency Contact: Lt. James Wood Tel. No.: (904) 823-0287

SURVEY IDENTIFICATION

Date of Survey: June 22, 1995
Contract No.:
Consultant's Name: Patricia Mitchell
Name of Firm: Apollo Environmental, Inc.
Address: 11553 U.S. Highway 41 South, P. O. Box 239, Gibsonton, FL 33534
Telephone Number: (813) 671-3999

BUILDING INFORMATION

Year of Construction: Approximately 1965
Renovation Dates:
Type of Occupancy:
Typical Number of Occupants: 0

Building Documents/Drawings Available/Consulted:

Types:	Plans	Specifications	
		☐ Yes	☒ No
			Location: None

Asbestos Documents	☐ Yes	☒ No	Location:
Number of Stories (floors):	1		
Penthouse Area:	n/a		
Basement Area:	n/a		
Number of Elevators:	n/a		

Area each floor: 120 sf
Attic Area: n/a
Crawlspace Area: n/a
Number of Stops: n/a

STRUCTURAL DATA

Vertical Support: steel
Roof: metal
Floors: metal
Exterior Walls: metal
HVAC System:
Air Handlers:
Boilers:
Chillers:

☐ Yes	☒ No
☐ Yes	☒ No
☐ Yes	☒ No
☐ Yes	☒ No

Horizontal: steel

Ceilings: none
Partition Walls: none
Type: none
Number : Type:
Type:
Type:

ASBESTOS SURVEY REPORT - FORM 1

BUILDING IDENTIFICATION

County: Manatee
Agency: Department of Military Affairs
Building Name: National Guard Armory - Truck Canopy
Building No.: 500
Address and/or Geographic Location: 1107 Fourteenth Avenue West, Palmetto, FL

Building Asbestos Contact Person: Sgt. Jeff Cook
Telephone Number: (813) 741-3008
Agency Contact: Lt. James Wood Tel. No.: (904) 823-0287

SURVEY IDENTIFICATION

Date of Survey: June 22, 1995
Contract No.:
Consultant's Name: Patricia Mitchell
Name of Firm: Apollo Environmental, Inc.
Address: 11553 U.S. Highway 41 South, P. O. Box 239, Gibsonton, FL 33534
Telephone Number: (813) 671-3999

BUILDING INFORMATION

Year of Construction: Approximately 1965
Renovation Dates:
Type of Occupancy:
Typical Number of Occupants: 0

Building Documents/Drawings Available/Consulted:

Types:	Plans	Specifications	
	☐ Yes	☒ No	Location: None

Asbestos Documents ☐ Yes ☒ No Location: .

Number of Stories (floors): 1	Area each floor: 400 sf
Penthouse Area: n/a	Attic Area: n/a
Basement Area: n/a	Crawlspace Area: n/a
Number of Elevators: n/a	Number of Stops: n/a

STRUCTURAL DATA

Vertical Support: wood	Horizontal: wood
Roof: metal	
Floors: concrete	Ceilings: none
Exterior Walls: none	Partition Walls: none
HVAC System:	Type:
Air Handlers:	Number : Type:
Boilers:	Type:
Chillers:	Type:

☐ Yes ☒ No	
☐ Yes ☒ No	
☐ Yes ☒ No	
☐ Yes ☒ No	

ASBESTOS SURVEY AND ASSESSMENT - FORM 2

Building Name and No.100, Admin/Gym
Survey Date: June 22, 1995
Contract No.:

Consultant: Patricia Mitchell, Apollo Environmental, Inc.
Agency: State of Florida, Department of Military Affairs
Bldg Contact Person: Sgt. Jeff Cook

Room #	Sample #	Material	Ha #	Func Space	Sal Area	Quantity	Friable (y/n)	Asb. Type	Cond	Dmg Pot	Haz Assmt	Resp Pri	Airs	COST \$ (in thousands)			Recommend
														Resp \$	Air \$	Repl \$	
/01B	1	9" tan floor tile	1	office		1,200 sf	n	8% chry-tile, 10% chry-mastic	good	low	1	7		2	1	N/A	O&M
/01A	2		1	office				"						inc	inc		
101	3	Orange sheet vinyl over tan tile	2	Hall		160 sf	n	75% chry in backing	good	low	1	7		inc	inc		O&M
101	4	"	2	Hall				"									
101	5		2	Hall				"									
/01C	6	2x4 drop CT, pattern 3	3	office		192 sf	y	ND	good								
/01C	7		3	office													
/01C	8		3	office													
/01D	9(QC)		3	office													
/01D	10	2x2 drop CT	4	office		192	y	ND	fair								
/01D	11		4	office													
/01D	12		4	office													
111	13	12 black floor tile	5	Kitchen		432	n	ND	good								
111	14		5	Kitchen													
111	15		5	Kitchen													
/11B	16	ceiling surfacing	6	Kitchen foyer		36 sf	y	6% chry	good	low	2	6		inc	inc		O&M

ASBESTOS SURVEY AND ASSESSMENT - FORM 2

Building Name and No. 100, Admin/Gym
 Survey Date: June 22, 1995
 Contract No.:

Consultant: Patricia Mitchell, Apollo Environmental, Inc.
 Agency: State of Florida, Department of Military Affairs
 Bldg Contact Person: Sgt. Jeff Cook

Room #	Sample #	Material	Ha #	Func Space	Sal Area	Quantity	Friable (y/n)	Asb. Type	Cond	Damg Pot	Haz Assmt	Resp Pri	Airs	COST \$ (in thousands)			Recommend
														Resp \$	Air \$	Repl \$	
11B	17		6	Kitchen foyer		36 sf	y	6% chrys	good	low	2	6		inc	inc		O&M
11B	18		6	Kitchen foyer													
108	19	*Popcorn coating	7	classroom		704 sf	y	ND	good					inc	inc		O&M
108	20		7	classroom													
108	21	**Wall stucco	8	classroom		880 sf	n	ND	good								
109	22	9 tan Floor tile	1	storage		1,200 sf	n	8% Chry in tile, 10% Chry in mastic	fair	mod	3	5		inc	inc		O&M
108	23	**Wall stucco	8	classroom		880 sf	n	ND	good								
100	24	Gym 2 x 4 drop ceiling tile, pattern 2	9	gym		4,940 sf	y	ND	excel								
100	25		9	gym													
100	26		9	gym													
100	27(QC)		9	gym													
06A	28	mudded pipe elbows	10	closet		50 joints	y	ND	fair								
06A	29		10	closet													

ASBESTOS SURVEY AND ASSESSMENT - FORM 2

Building Name and No.100, Admin/Gym

Survey Date: June 22, 1995

Contract No.:

Consultant: Patricia Mitchell, Apollo Environmental, Inc.

Agency: State of Florida, Department of Military Affairs

Bldg Contact Person: Sgt. Jeff Cook

Room #	Sample #	Material	Ha #	Func Space	Sal Area	Quantity	Friable (y/n)	Asb. Type	Cond	Dmg Pot	Haz Ass mt	Resp Pri	Airs	COST \$ (in thousands)			Recom mend
														Resp \$	Air \$	Repl \$	
106A	30		10	closet		50 fittings		ND	good								
104	31	9 white floor tile	11	Hall		45 sf	n	2% chry - tile, 6%chry-mastic	good	low	1	7		inc	inc		O&M
104	32		11	Hall													
104	33		11	Hall													
104A	34	ceiling plaster	12	bathroom		980 sf	n	ND	good								
104A	35																
104A	36																
104B	37	Wall board, not painted	13	locker room	40 sf	3,000 sf	n	2% Chry in joint compound, < 1% overall	good	low	1	7		inc	inc		O&M
101	38	Wallboard, painted	13	Hall		3,000 sf			good								
101	39	Wallboard, painted	13	Hall		3,000 sf											
101	40	Exterior window putty	14	Exterior window		200 sf	y	ND	fair								
101	41(QC)		14	Exterior window			n										
101C	42		14	Exterior window													
101C	43		14	Exterior window													
Roof	---	Built-up roof	15	Roof		11,700 sf	n	Assumed	fair	low	1	7		inc	inc		O&M

ASBESTOS SURVEY AND ASSESSMENT - FORM 2
Building Name and No 200, Storage and 500 Canopy
Survey Date: June 22, 1995
Contract No.:

Consultant: Patricia Mitchell, Apollo Environmental, Inc.
Agency: State of Florida, Department of Military Affairs
Bldg Contact Person: Sgt. Jeff Cook

Room #	Sample #	Material	Ha #	Func Space	Sal Area	Quantity	Friable (y/n)	Asb. Type	Cond	Damg Pot	Haz Assmt	Resp Pri	Airs	COST \$ (in thousands)			Recom mend	
														Resp \$	Air \$	Repl \$		
Roof		Roof shingles on storage shed 200	16	roof		360 sf	n	Assumed	good	low	1	7		inc	inc		O&M	
The recommended response action is O & M. Note, normal occupancy is only 4 persons. The popcorn is the classroom previously sampled and no asbestos detected. The classroom stucco previously sampled and no asbestos detected. The main foyer surfacing was removed and replaced with cellulose drop ceiling tiles. The price includes the fees for O & M development and air monitoring														Sub Total \$	0	1	0	
														Consultant \$	inc			
														O&M \$	2			
														Total \$	3			

ASBESTOS SURVEY REPORT - FORM 3

BUILDING: National Guard Armory, Palmetto
DATE OF SURVEY: June 22, 1995

<u>NAME AND ADDRESS</u>	<u>TASK PERFORMED</u>	<u>LICENSE OR CERTIFICATION</u>
Patricia Mitchell 11553 U.S. Hwy 41 South P. O. Box 239 Gibson, FL 33534	Licensed Asbestos Consultant	LAC #AX0000005
Frank Recupero 11553 U.S. Hwy 41 South P. O. Box 239 Gibson, FL 33534	Survey helper	AEI090894-09

BUILDING SURVEY

DISCUSSION:

The on-site inspection for the Palmetto National Guard Armory was performed by a certified asbestos surveyor/inspector Patricia Mitchell and Frank Recupero on June 22, 1995. Certifications for the surveyor/inspector, licensed Asbestos Consultant and laboratory accreditation are submitted as Appendix 5.

The survey encompassed all building materials on the interior and exterior of each of the permanent structures. Sampling of the roofing was deferred and the roofing was assumed for this report. The following are descriptions of the building materials used for construction of the buildings. All of the materials were in good condition unless noted otherwise.

A limited asbestos survey and sample collection was previously performed by Apollo to include the classroom popcorn ceiling (no asbestos detected), classroom wall stucco (no asbestos detected) and entrance surfacing materials (6% chrysotile asbestos). The entrance surfacing was removed by a licensed removal contractor.

Building No. 100 - Administration/Gymnasium

Roof: The roof is built-up and two levels. The lower level is the office roofing and the higher level is the gym roof.

Ceilings: Four different ceiling patterns of drop ceiling tiles were noted. Above this drop ceiling were the original plaster ceilings in the office and locker rooms with the original light fixtures remaining in some areas. The entrance (110B) previously had an asbestos surfacing material that was abated. The replacement was made with a 2 x 4 drop tile that is cellulose. This same cellulose tile was found in office 105. Offices 101, 101B, 101A had a non-suspect fibrous glass with a white plastic covering, treated as Pattern # 1.

The 2 x 4 drop panels listed as pattern # 2 is the newly installed gym ceiling tile. This gym tile is listed as HA-9. Pattern # 3, 2 x 4 drop ceiling tile is found in 101C and 106. Pattern #3 is designated HA-3. The 2'x2' drop ceiling panels, sampled as HA-4, are found in room 101D.

A surfacing coating similar to that which had been abated at the main entrance (100B) was found at the kitchen entrance (111B). This material was sampled as HA-6. Rooms 110, 111, 104, 104A, 104D, 107A and 103 have a plaster ceiling sampled as HA-12. Hall 104 has paint spatter on the ceiling plaster.

1990-1991
1990-1991
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1990-1991

1990-1991

Rooms 109, 106A, 100A and 107 do not have ceilings and the roof underdeck is exposed.

The classroom popcorn ceiling was previously sampled as negative. Supplemental samples were collected for this survey and designated as HA-7.

No access was available to rooms 104C or 102. The site representative indicated that the ceilings were hard ceilings or the cellulose type ceiling tile.

Floors: The gym floor (100) is terrazzo. A 9 in tan floor tile covers rooms 101A, 101C, 101, 101B, 101D and 109. The tile is in good condition and covered by vinyl or carpet except for 109 that is in fair condition. The tan tile is identified as HA-1.

12 in black tile is noted in 110, 111 as HA-5. This black tile is reported in the locked room 102. The tile is in good condition. A white 9 in tile is found in the hall 104, listed as HA-11. The locker rooms and rest rooms have ceramic tile. The remaining areas are concrete or carpet over concrete..

Walls: The majority of the walls are painted concrete block. The office areas have a paneling over wallboard. The wallboard was sampled where it is exposed above the drop ceiling in hall 101 as HA-13. The exposed drywall for the most part was painted tan. A roof access hatch was cut though in room 104B and lined with a similar wallboard though it was not painted. This 40 sf of wallboard was included in HA-13 as a salient area.

A stucco coating was previously identified in the classroom (108) and supplemental samples collected for this survey, HA-8.

Attic: There is no attic associated with this building. A plenum exists above the office areas with no suspect material except the pipe fitting insulation.

Crawlspace: There is no crawlspace associated with this building.

HVAC/Plumbing: Two fibrous glass hot water heaters were noted. One is located in the kitchen (111) and the other in the closet 106A. The piping runs are insulated with fibrous glass. The fittings are mudded and sampled as HA-10. No undersink coating was identified.

Building No. 200 - Storage

Roof: The roof is pitched with shingles designated as HA-16. The roof was not sampled but deferred and assumed as ACM.

Ceilings: None

Floors: Concrete slab.

Walls: Wood

Attic: No attic associated with this building.

Crawlspace: No crawlspace associated with this building.

HVAC/Plumbing: Wall unit AC.

Building No. 300 - Flammable Storage

Roof: Metal shed.

Ceilings: None

Floors: The floor is concrete with no suspect coverings.

Walls: All walls are metal.

Attic: No attic associated with this building.

Crawlspace: No crawlspace associated with this building.

HVAC/Plumbing: None

Building No. 400 - Storage

Roof: Metal equipment container.

Ceilings: None

Floors: Metal.

Walls: All walls are metal.

Attic: No attic associated with this building.

Crawlspace: No crawlspace associated with this building.

HVAC/Plumbing: None

Building No. 500 - Truck Canopy

Roof: Metal.

Ceilings: None

Floors: The floor is concrete with no suspect coverings.

Walls: None

Attic: No attic associated with this building.

Crawlspace: No crawlspace associated with this building.

HVAC/Plumbing: None

FINDINGS/RECOMMENDATIONS:

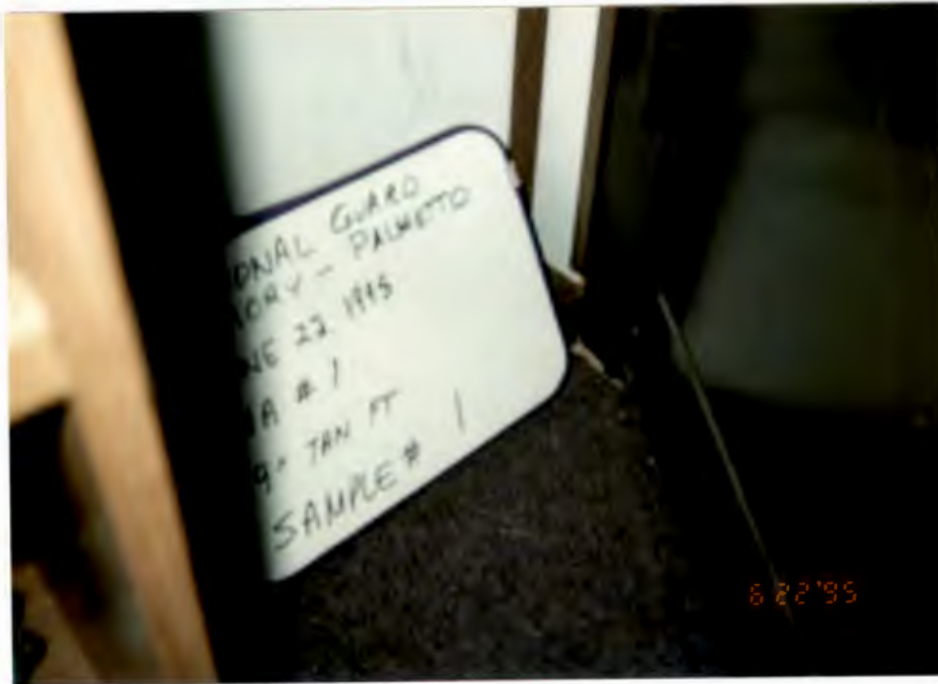
All of the identified asbestos containing materials need to be included in an Operations and Maintenance Program. The adult use and low number of occupants should provided for a low risk of fiber release. The kitchen foyer ceiling surfacing is not likely to be disturbed. The tan and white floor tiles for the most part are under carpet or in a locked storage area. The sheet vinyl is positive in the backing layer only. The wall compound is covered for the most part behind paneling or is above drop ceiling panels. The built-up roofing and shingle of the out building are assumed asbestos but should not present an exposure risk.

Asbestos Containing Homogenous Areas			
HA-1	9 in tan floor tile and mastic	8% Chrysotile in tile, 10% in mastic	1,200 sf
HA-2	Orange sheet vinyl over tan tile	75% Chrysotile in backing, 8% Chrysotile in tile, 10% in mastic	160 sf
HA-6	Kitchen foyer ceiling surfacing	6% Chrysotile	36 sf
HA-13	Joint compound on wallboard	2% Chrysotile is compound, < 1% overall	3,000 sf
HA-15	Main building built-up	Assumed	11,700 sf
HA-16	Supply shed shingle roof	Assumed	360 sf

SAMPLE ANALYSIS METHOD:

Suspect asbestos containing materials are analyzed according to the EPA's Method (EPA/600/R-93/116) by analysts trained in polarized light microscopy methods. Samples may be dissected manually untreated or treated with the use of heat, acids, solvents, or mechanical pulverization, depending on the samples nature during the analytical process. Selected components are then mounted in appropriate refractive index oils to identify components through the use of dispersion staining, and other optical methods.

APPENDIX 1 - PICTURES OF SAMPLE LOCATIONS



Department of Military Affairs

National Guard Armory, Palmetto, FL

9" Tan floor tile, HA-1, Sample 1

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

9" Tan floor tile, HA-1, Sample 2

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Orange sheet vinyl over 9" tan floor tile, HA-2 , Sample 3

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Orange sheet vinyl over 9" tan floor tile, HA-2 , Sample 4

MATERIAL DESCRIPTION

THE UNIVERSITY OF CHICAGO

IN THE DEPARTMENT OF THE HISTORY OF ARTS AND ARCHITECTURE

THE HISTORY OF ARTS AND ARCHITECTURE

THE UNIVERSITY OF CHICAGO

IN THE DEPARTMENT OF THE HISTORY OF ARTS AND ARCHITECTURE

THE HISTORY OF ARTS AND ARCHITECTURE

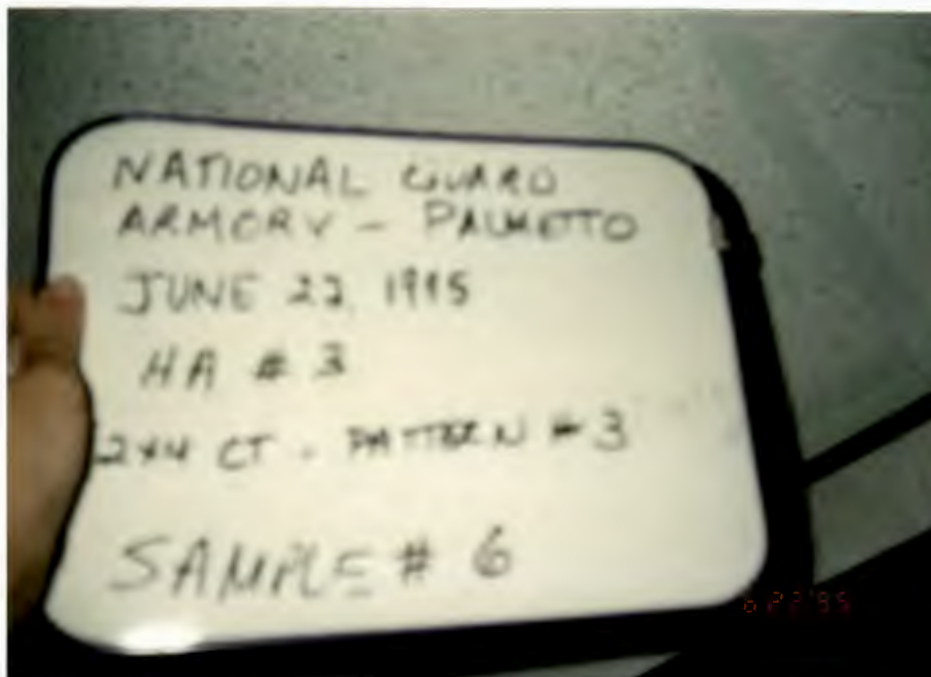


Department of Military Affairs

National Guard Armory, Palmetto, FL

Orange sheet vinyl over 9" tan floor tile, HA-2 , Sample 5

MATERIAL DESCRIPTION

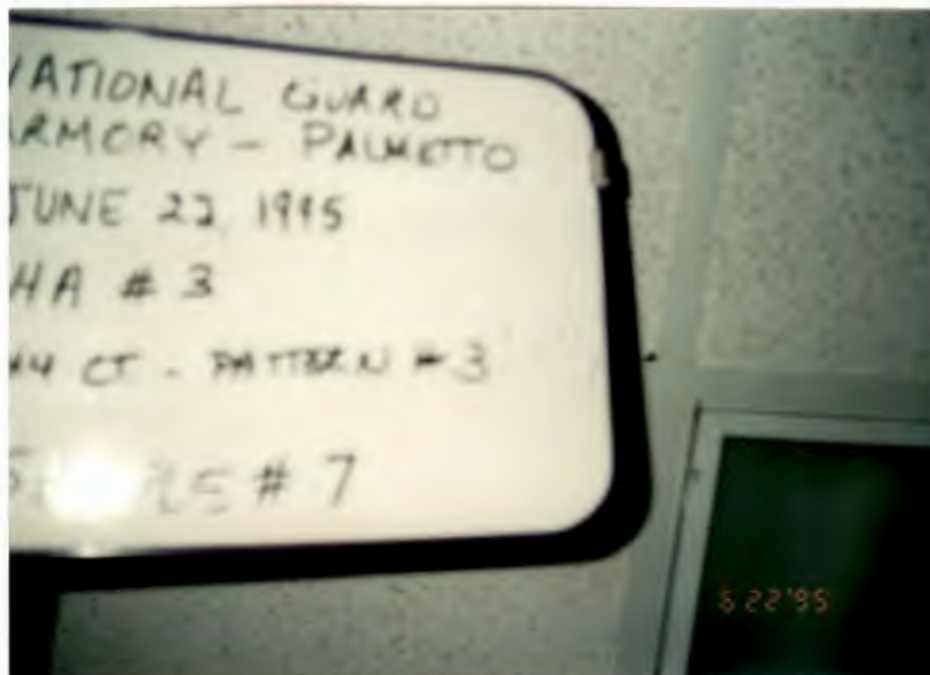


Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 4' drop ceiling panel, Pattern #3, HA-3 Sample 6

MATERIAL DESCRIPTION

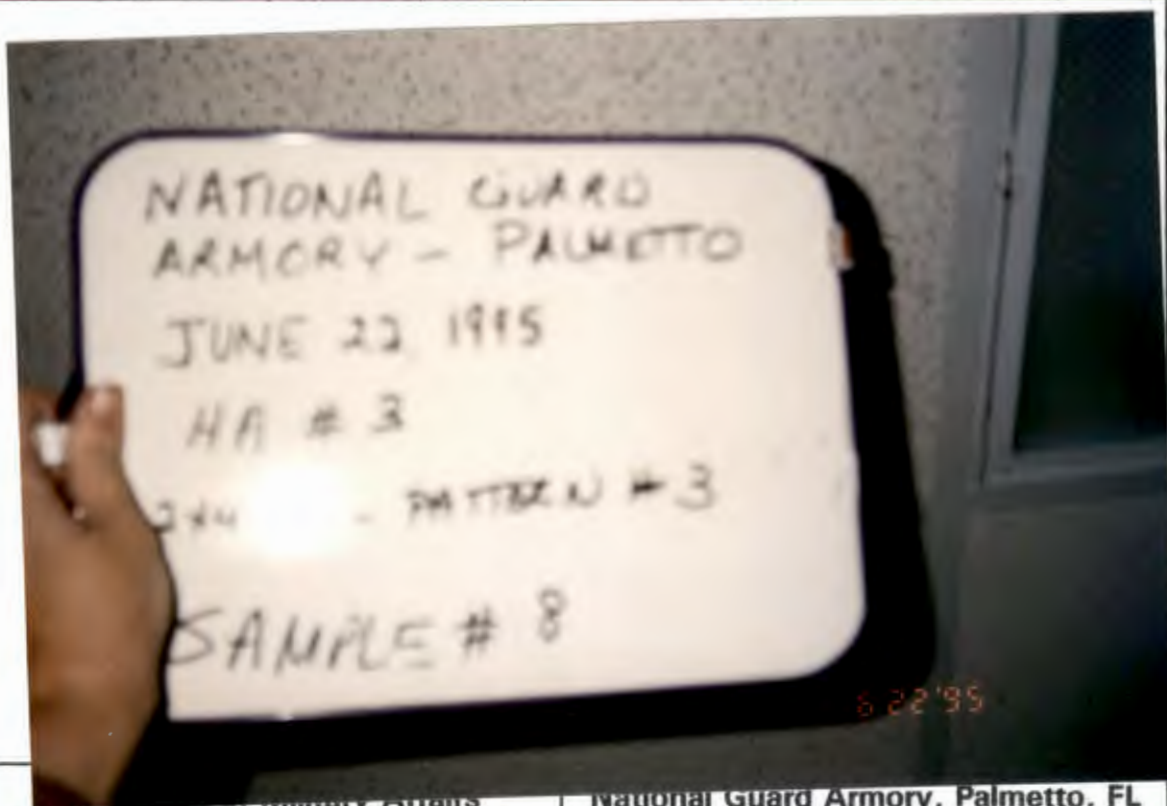


Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 4' drop ceiling panel, Pattern #3, HA-3, Sample 7

MATERIAL DESCRIPTION



Department of Military Affairs

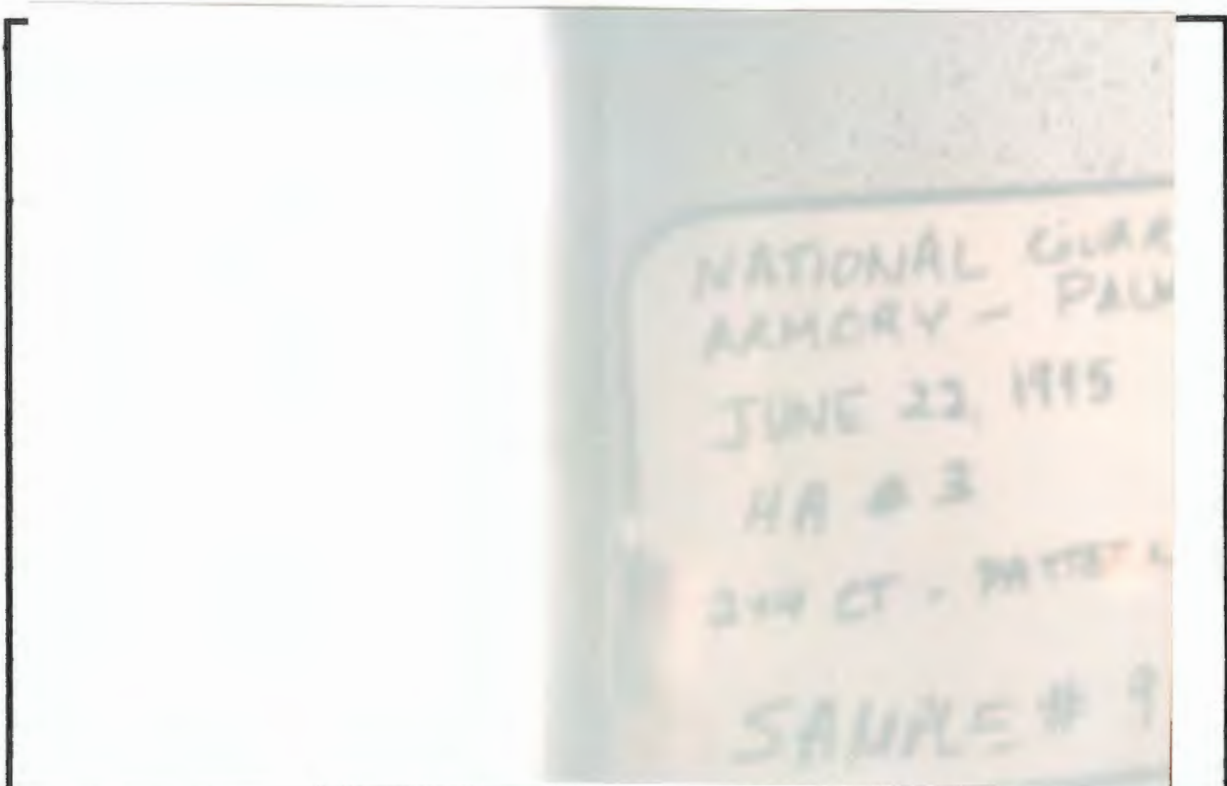
National Guard Armory, Palmetto, FL

2' x 4' drop ceiling panel, Pattern #3, HA-3, Sample 8

MATERIAL DESCRIPTION

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. It is a very important document, as it sets out the President's policy for the new year. The President states that he is pleased to see the Congress assembled, and that he is confident that the country is in a good position to meet the challenges of the future. He also mentions the recent election of Abraham Lincoln as President, and expresses his confidence in the new administration.

2. The second part of the document is a letter from the Secretary of the Treasury to the Congress, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a good position to meet the challenges of the future. He also mentions the recent election of Abraham Lincoln as President, and expresses his confidence in the new administration.

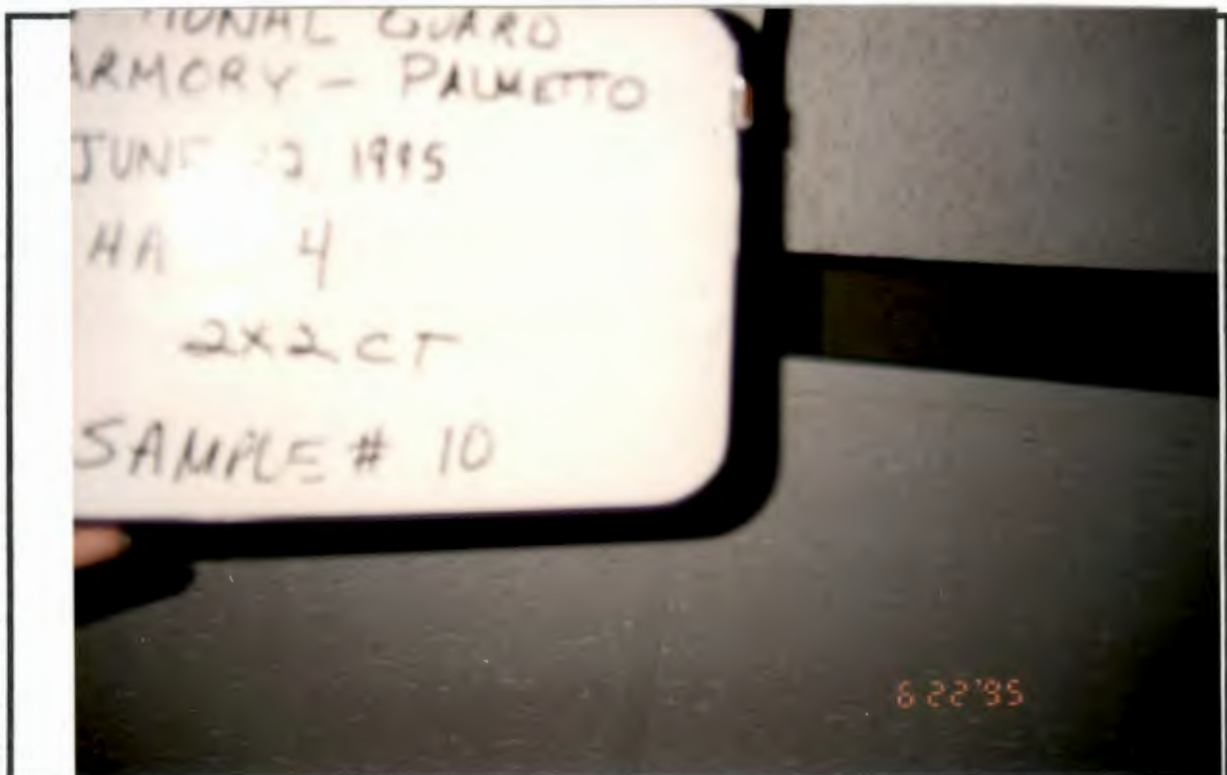


Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 4' drop ceiling panel, Pattern #3, HA-3, Sample 9 QC

MATERIAL DESCRIPTION

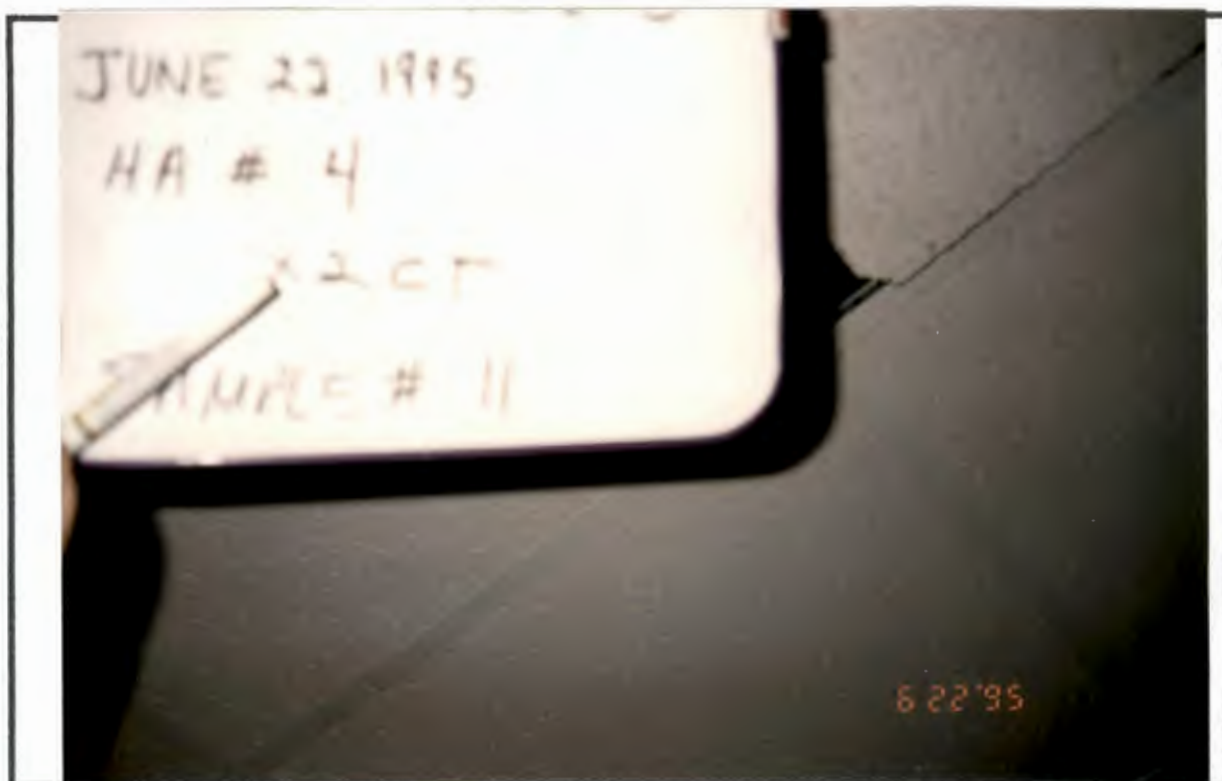


Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 2' drop ceiling panel, HA-4, Sample 10

MATERIAL DESCRIPTION

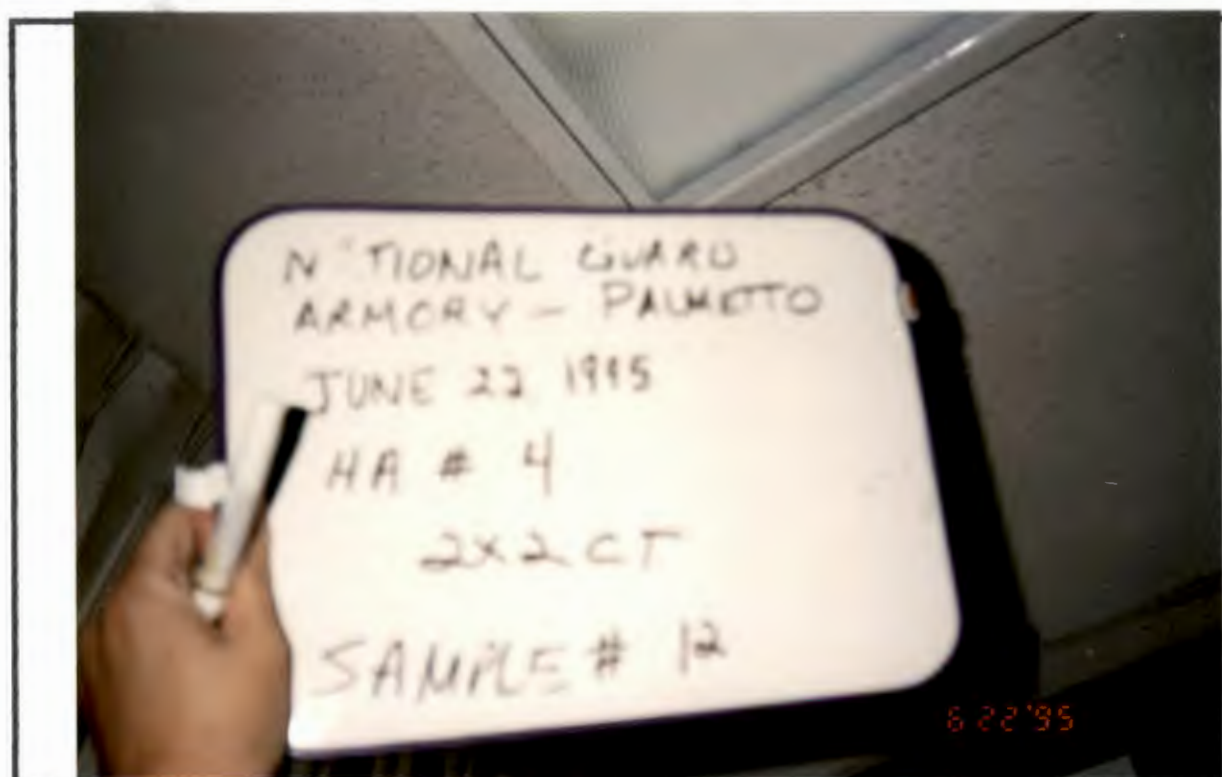


Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 2' drop ceiling panel, HA-4, Sample 11

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 2' drop ceiling panel, HA-4, Sample 12

MATERIAL DESCRIPTION

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
JANUARY 1964
RECEIVED

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
JANUARY 1964
RECEIVED



Department of Military Affairs

National Guard Armory, Palmetto, FL

12" black floor tile, HA-5 , Sample 13

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

12" black floor tile, HA-5 , Sample 14

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

12" black floor tile, HA-5 , Sample 15

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Ceiling surfacing coating, HA-6, Sample 16

MATERIAL DESCRIPTION

1. The first part of the report is devoted to a general description of the project and its objectives.

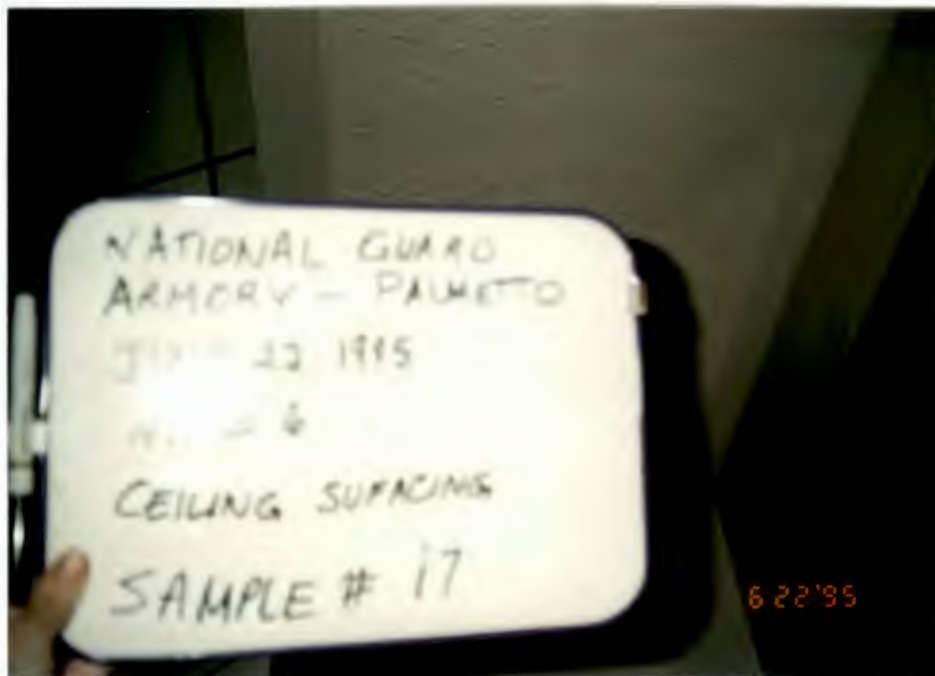
2. The second part of the report is devoted to a detailed description of the project and its objectives.

3. The third part of the report is devoted to a detailed description of the project and its objectives.

4. The fourth part of the report is devoted to a detailed description of the project and its objectives.

5. The fifth part of the report is devoted to a detailed description of the project and its objectives.

6. The sixth part of the report is devoted to a detailed description of the project and its objectives.

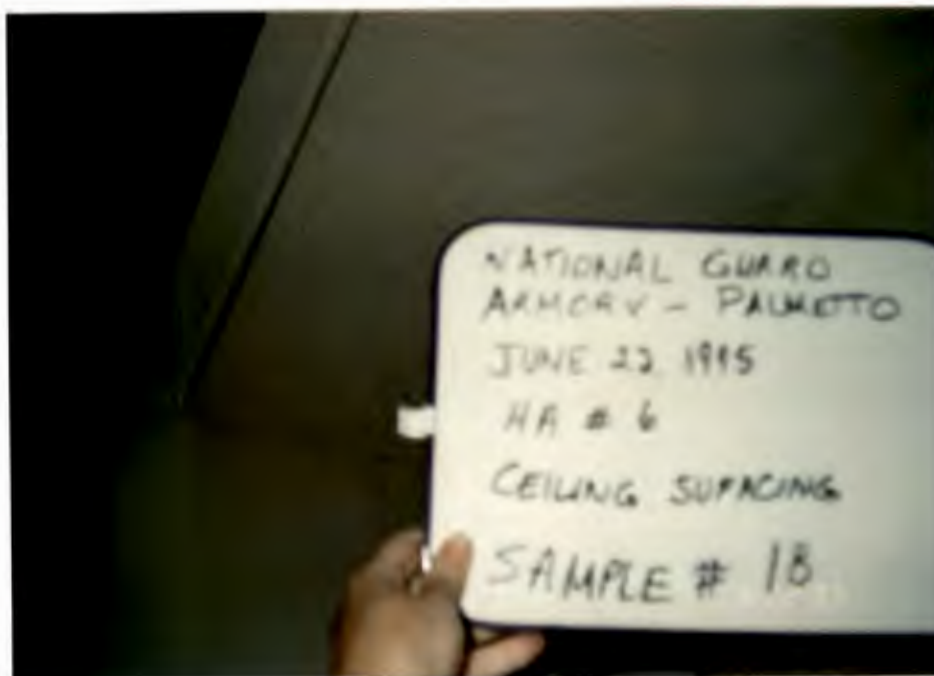


Department of Military Affairs

National Guard Armory, Palmetto, FL

Ceiling surfacing coating, HA-6, Sample 17

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Ceiling surfacing coating, HA-6, Sample 18

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Ceiling popcorn treatment, HA-7, Sample 19

MATERIAL DESCRIPTION

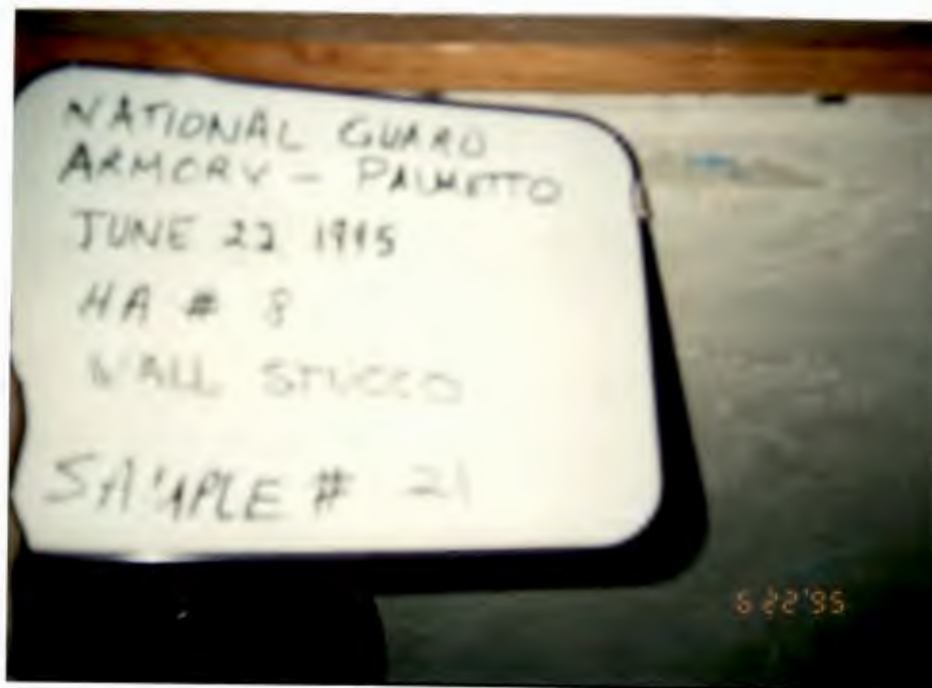


Department of Military Affairs

National Guard Armory, Palmetto, FL

Ceiling popcorn treatment, HA-7, Sample 20

MATERIAL DESCRIPTION

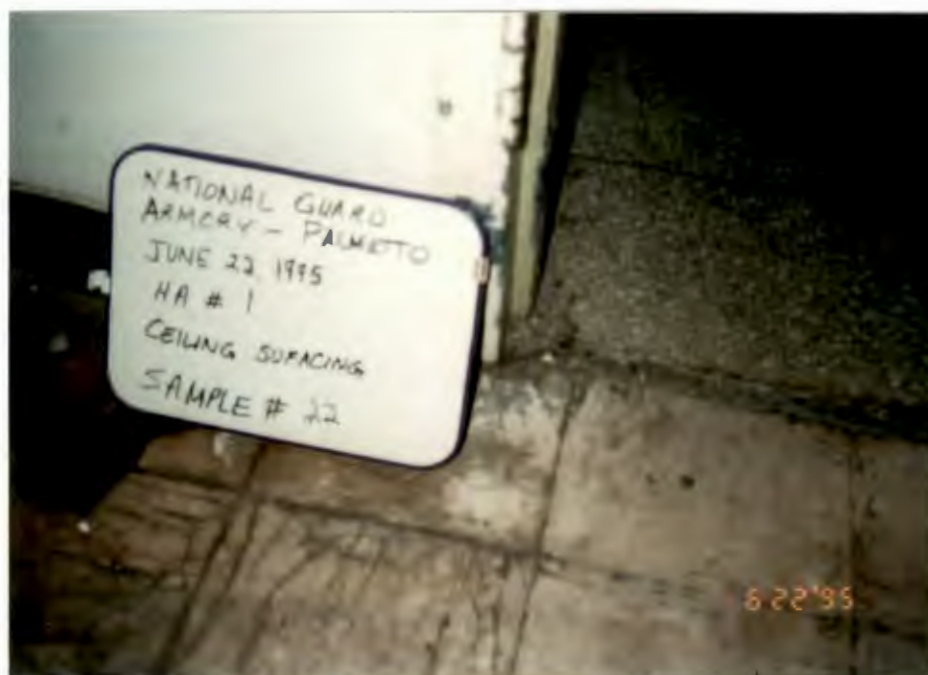


Department of Military Affairs

National Guard Armory, Palmetto, FL

Classroom wall stucco, HA-8, Sample 21

MATERIAL DESCRIPTION



Department of Military Affairs

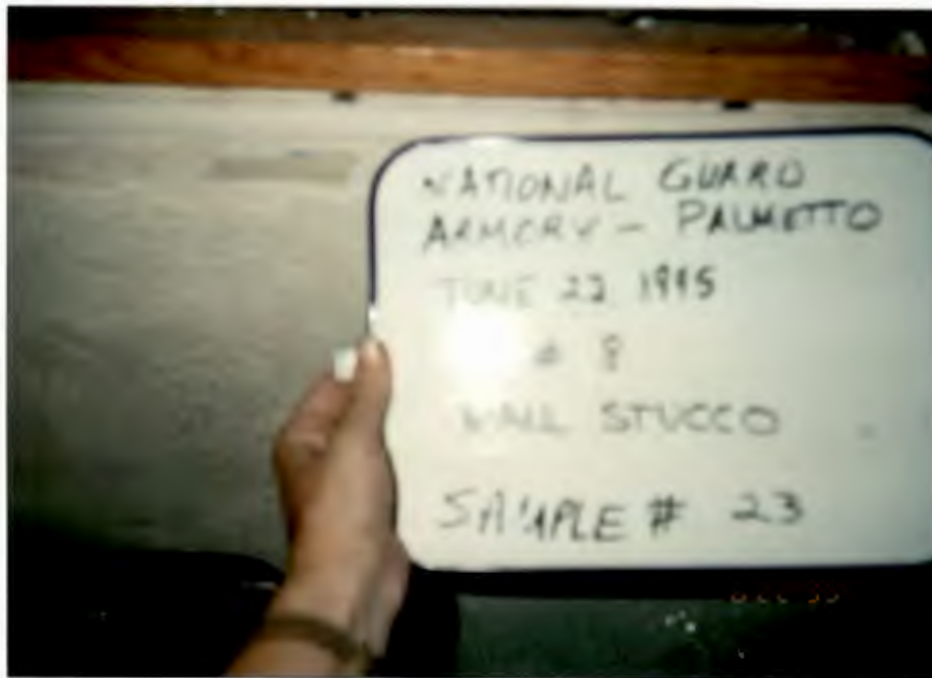
National Guard Armory, Palmetto, FL

9" Tan floor tile, HA-1 , Sample 22

MATERIAL DESCRIPTION

Handwritten text in a cursive script, likely a letter or document. The text is written in dark ink on a light background. The script is dense and fills the upper half of the page.

Handwritten text in a cursive script, likely a letter or document. The text is written in dark ink on a light background. The script is dense and fills the lower half of the page.



Department of Military Affairs

National Guard Armory, Palmetto, FL

Classroom wall stucco, HA-8, Sample 23

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 4' Drop ceiling tile, Pattern #2 Gym, HA-9, Sample 24

MATERIAL DESCRIPTION

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
530 SOUTH EAST ASIAN AVENUE
CHICAGO, ILLINOIS 60607-7070
TEL: 773/936-7000 FAX: 773/936-7001
WWW: WWW.CHEM.UCHICAGO.EDU

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
530 SOUTH EAST ASIAN AVENUE
CHICAGO, ILLINOIS 60607-7070
TEL: 773/936-7000 FAX: 773/936-7001
WWW: WWW.CHEM.UCHICAGO.EDU



Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 4' Drop ceiling tile, Pattern #2 Gym, HA-9, Sample 25

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 4' Drop ceiling tile, Pattern #2 Gym, HA-9, Sample 26

MATERIAL DESCRIPTION

Handwritten text in a cursive script, likely a letter or document. The text is written on a page with horizontal ruling lines. The handwriting is somewhat faded and difficult to decipher, but appears to be a formal or semi-formal communication. The text is arranged in several paragraphs, with some lines indented. The overall appearance is that of an old, possibly 18th or 19th-century, document.

Handwritten text in a cursive script, likely a letter or document. The text is written on a page with horizontal ruling lines. The handwriting is somewhat faded and difficult to decipher, but appears to be a formal or semi-formal communication. The text is arranged in several paragraphs, with some lines indented. The overall appearance is that of an old, possibly 18th or 19th-century, document.

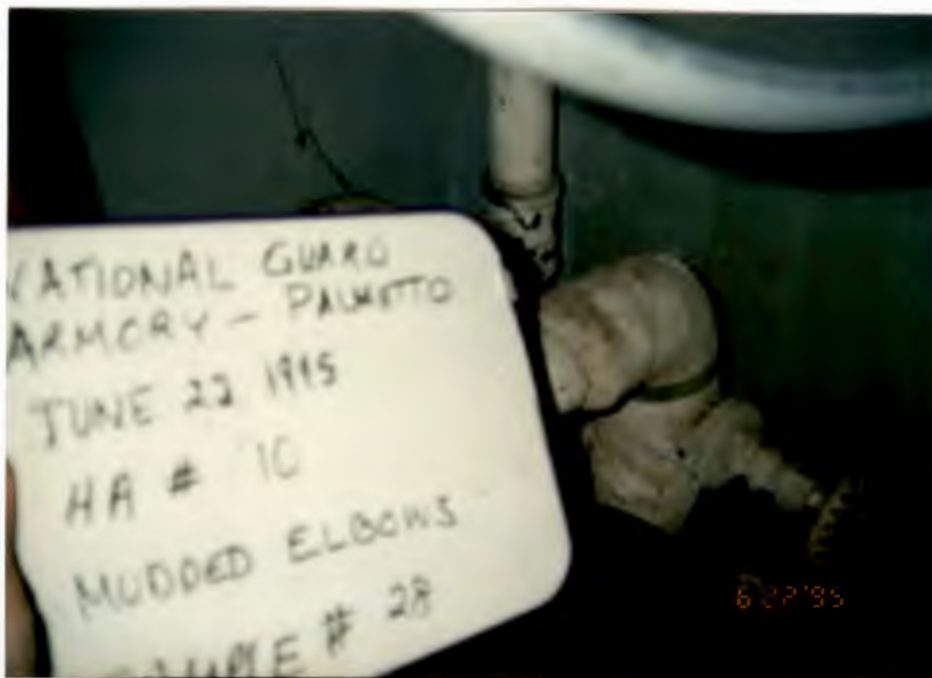


Department of Military Affairs

National Guard Armory, Palmetto, FL

2' x 4' Drop ceiling tile, Pattern #2 Gym, HA-9, Sample 27 QA

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Mudded Pipe Fittings, HA-10, Sample 28

MATERIAL DESCRIPTION

[Faint, illegible handwritten notes]

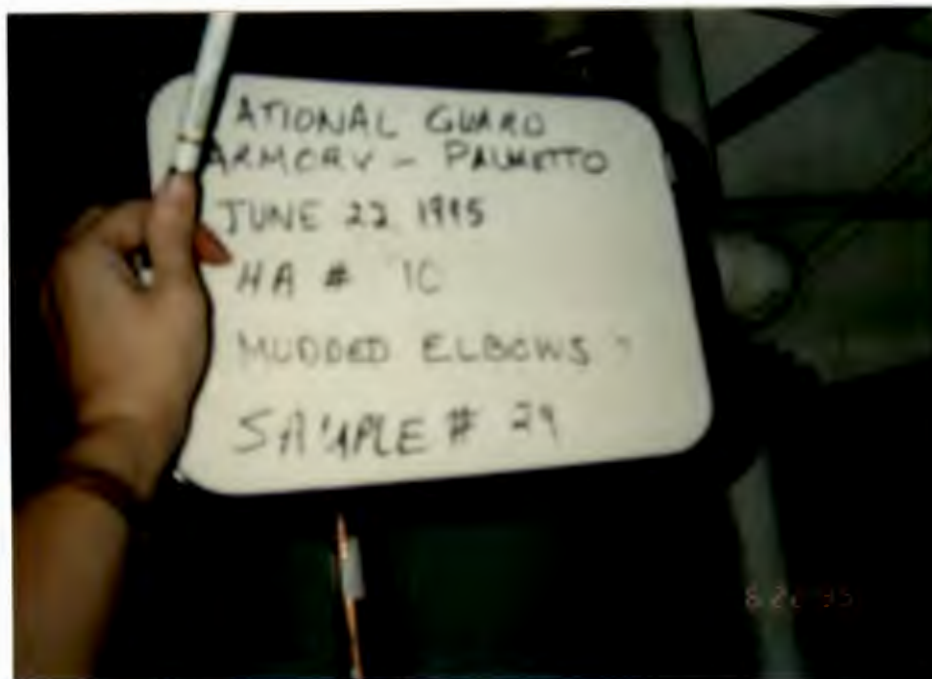
40.5 2007.09 0.8% 0.8%

SECRET

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

29 10 41 46 21 07 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 10

REPORT OF THE

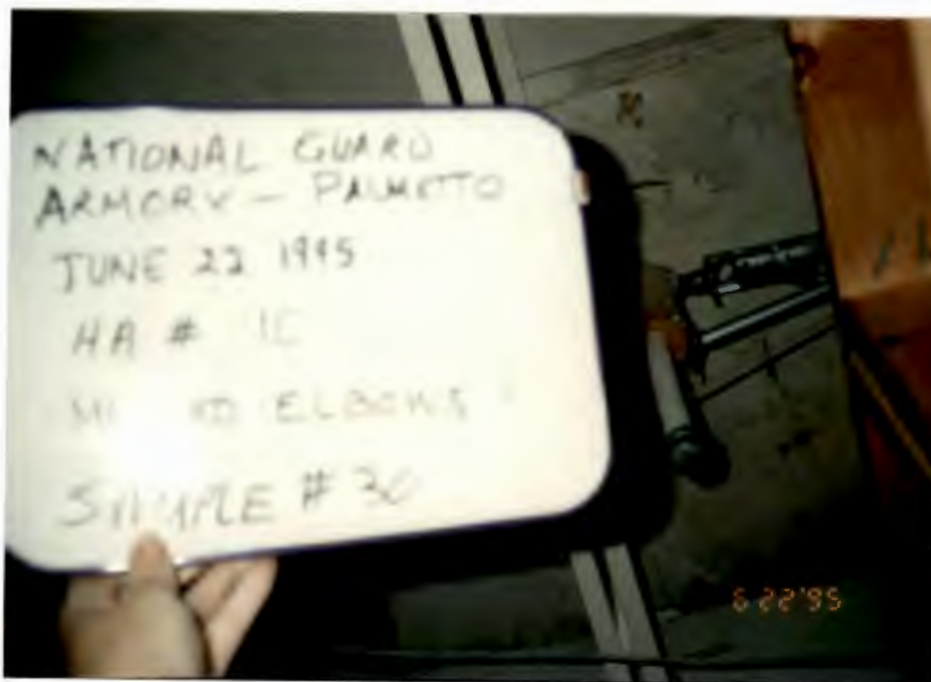


Department of Military Affairs

National Guard Armory, Palmetto, FL

Mudded Pipe Fittings, HA-10, Sample 29

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Mudded Pipe Fittings, HA-10, Sample 30

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

White 9 in Floor tile, HA-11, Sample 31

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

White 9 in Floor tile, HA-11, Sample 32

MATERIAL DESCRIPTION

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
JANUARY 1954
RECEIVED
FROM THE
LIBRARY OF THE
UNIVERSITY OF CHICAGO
LIBRARY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
JANUARY 1954
RECEIVED
FROM THE
LIBRARY OF THE
UNIVERSITY OF CHICAGO
LIBRARY



Department of Military Affairs

National Guard Armory, Palmetto, FL

White 9 in Floor tile, HA-11, Sample 33

MATERIAL DESCRIPTION



Department of Military Affairs

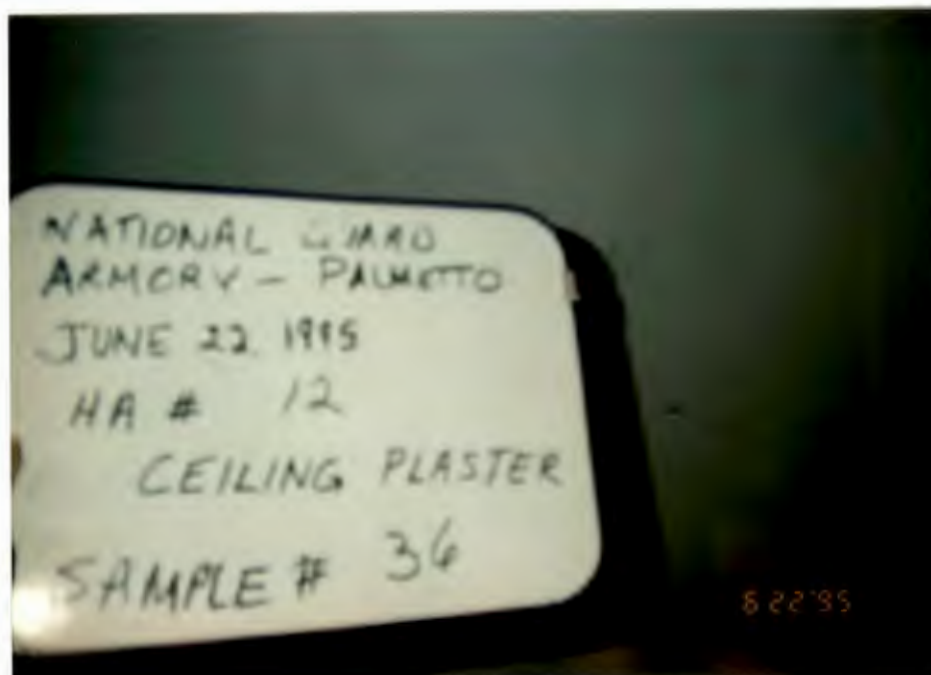
National Guard Armory, Palmetto, FL

Ceiling plaster, HA-12, Sample 34

MATERIAL DESCRIPTION



| | |
|-----------------------------------|-------------------------------------|
| Department of Military Affairs | National Guard Armory, Palmetto, FL |
| Ceiling plaster, HA-12, Sample 35 | |
| MATERIAL DESCRIPTION | |



| | |
|-----------------------------------|-------------------------------------|
| Department of Military Affairs | National Guard Armory, Palmetto, FL |
| Ceiling plaster, HA-12, Sample 36 | |
| MATERIAL DESCRIPTION | |

... ..

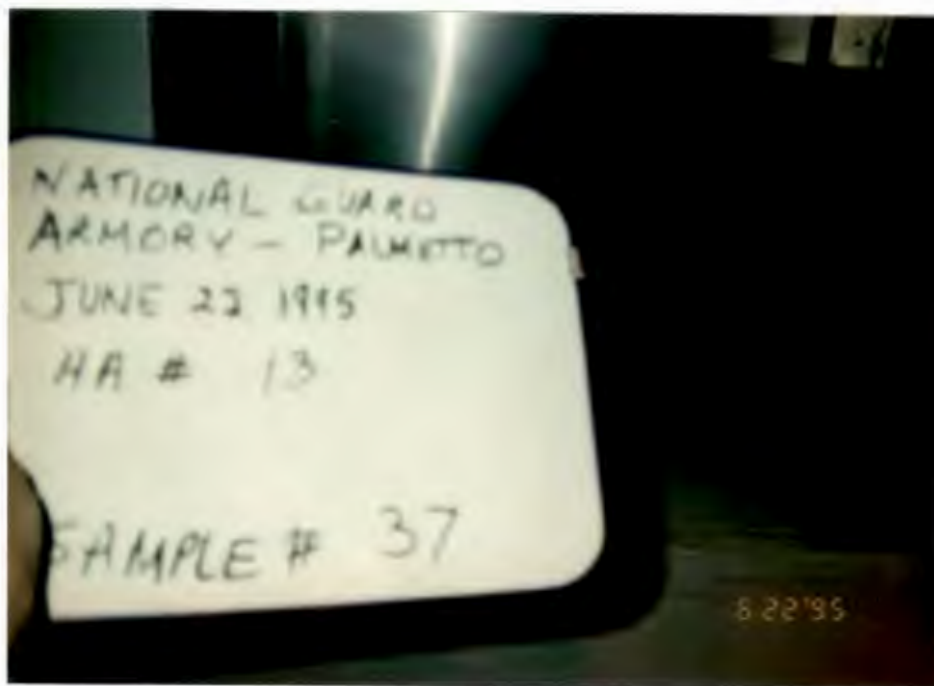
1944-1945

1948

1950-1951

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

1. The first group of people who are interested in the results of the study are the researchers themselves. They want to know if the study was successful in achieving its objectives and if the results are consistent with their expectations.

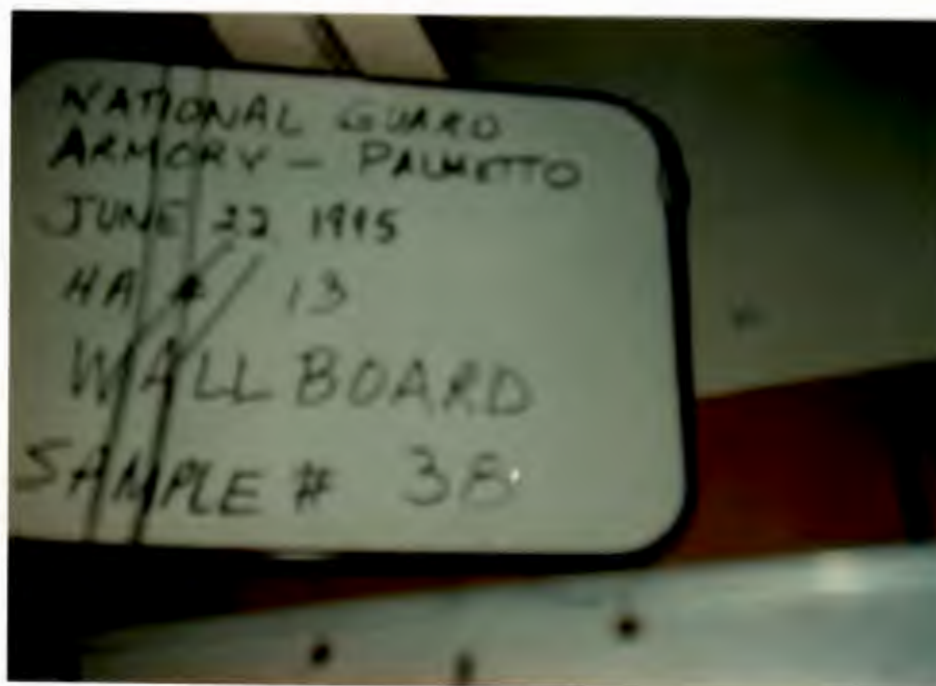


Department of Military Affairs

National Guard Armory, Palmetto, FL

Wallboard, not painted, HA-13 salient area, Sample 37

MATERIAL DESCRIPTION

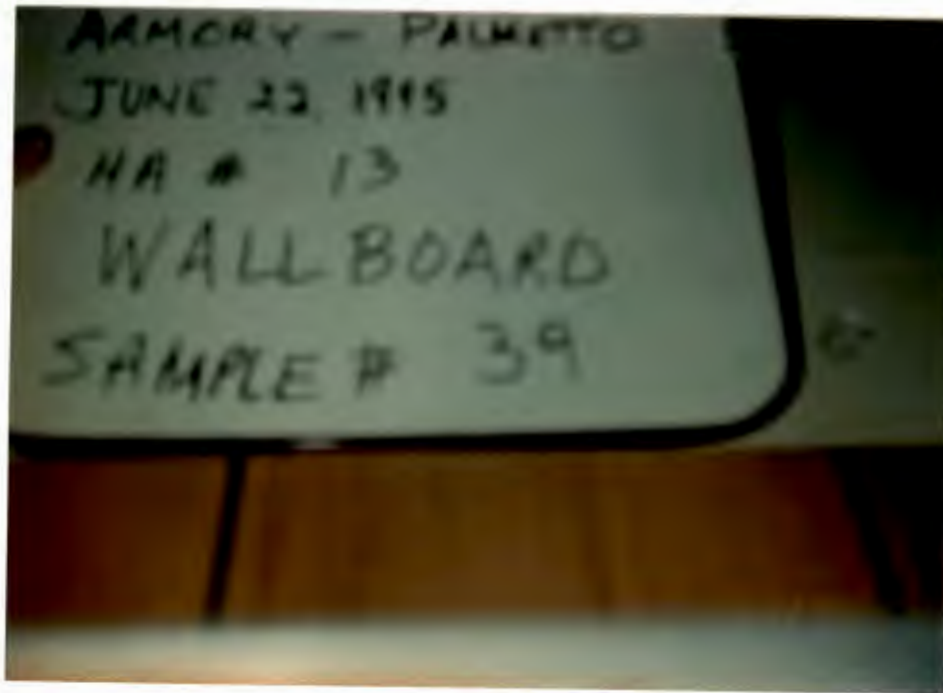


Department of Military Affairs

National Guard Armory, Palmetto, FL

Wallboard, partially painted, HA-13, Sample 38

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Wallboard, partially painted, HA-13, Sample 39

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Exterior window putty, HA-14, Sample 40

MATERIAL DESCRIPTION



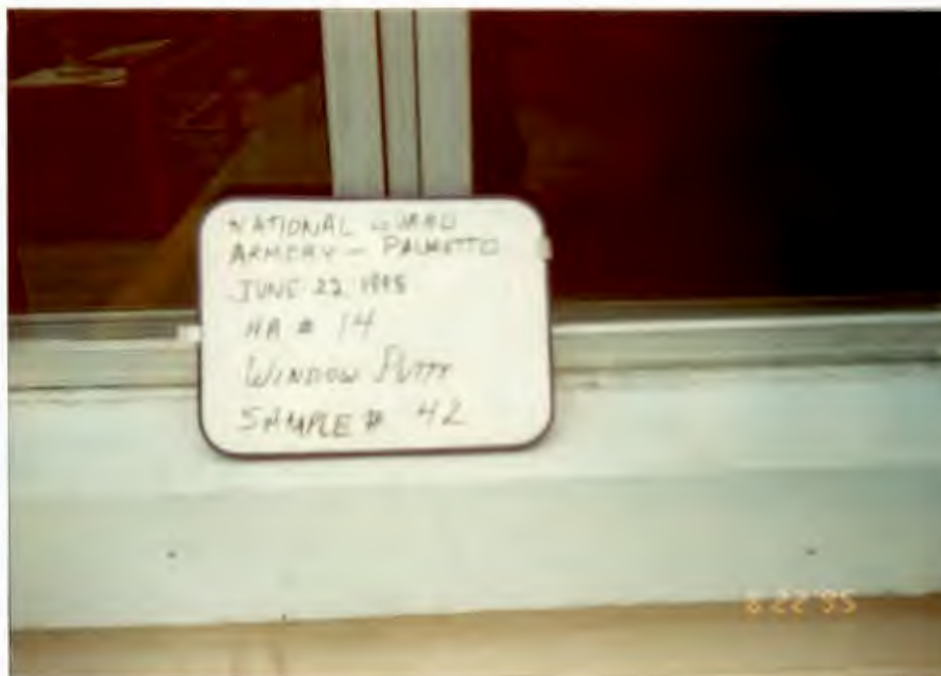


Department of Military Affairs

National Guard Armory, Palmetto, FL

Exterior window putty, HA-14, Sample 41 QC

MATERIAL DESCRIPTION

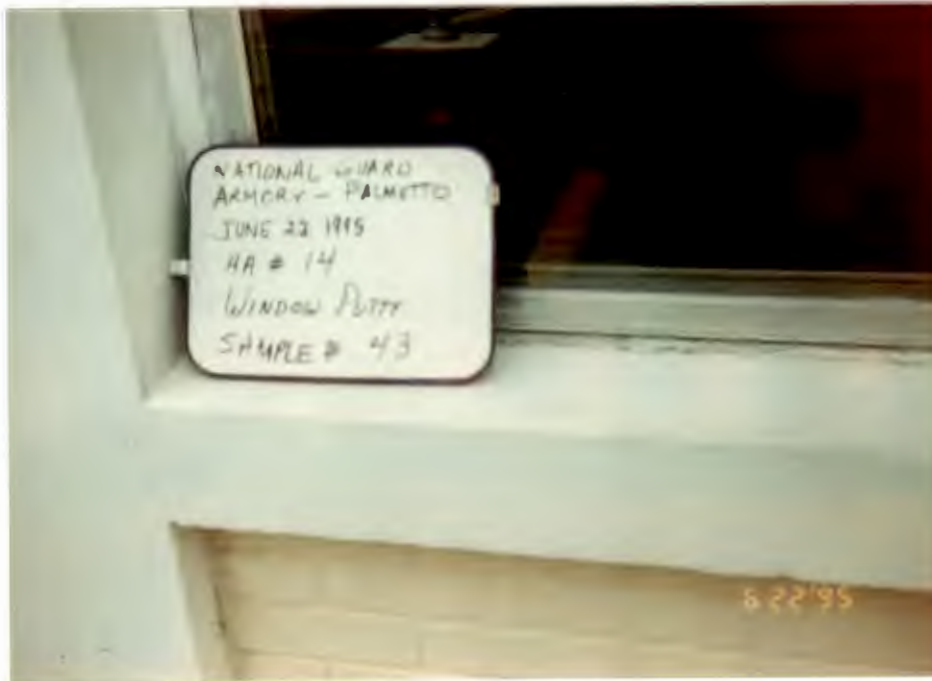


Department of Military Affairs

National Guard Armory, Palmetto, FL

Exterior window putty, HA-14, Sample 42

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Exterior window putty, HA-14, Sample 43

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Gym/Administration Building(100) Built up roof, HA-15, Assumed ACM

MATERIAL DESCRIPTION

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO



Department of Military Affairs

National Guard Armory, Palmetto, FL

Storage Shed, Building 200, Shingle roof, HA-16, Assumed ACM

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Building 300, Flammable Storage Shed

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Building 400, Mobile Equipment Shed

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

Building 500, Truck Canopy

MATERIAL DESCRIPTION

Blank lined paper with horizontal ruling lines.



Department of Military Affairs

National Guard Armory, Palmetto, FL

Building 200, Storage, Window unit

MATERIAL DESCRIPTION



Department of Military Affairs

National Guard Armory, Palmetto, FL

General view of Gym, Building 100, Room 100

MATERIAL DESCRIPTION

THE HISTORY OF THE

... of the ...

THE HISTORY OF THE

... of the ...



Department of Military Affairs

National Guard Armory, Palmetto, FL

Palmetto Armory Sign

MATERIAL DESCRIPTION



Department of Military Affairs

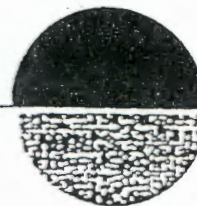
National Guard Armory, Palmetto, FL

MATERIAL DESCRIPTION

THE UNIVERSITY OF CHICAGO
LIBRARY
1100 EAST 58TH STREET
CHICAGO, ILL. 60637
TEL: 773-936-5000
FAX: 773-936-5001
WWW.CHICAGO.EDU

THE UNIVERSITY OF CHICAGO
LIBRARY
1100 EAST 58TH STREET
CHICAGO, ILL. 60637
TEL: 773-936-5000
FAX: 773-936-5001
WWW.CHICAGO.EDU

APPENDIX 2 - SAMPLE CUSTODY SHEET



SAMPLE ANALYSIS REQUEST FORM AND CUSTODY RECORD

AD # - 14356
 Client Name: FLA DEPT OF MILITARY AFFAIRS
 Address: _____
 Phone: _____ FAX _____
 Contact Person: _____
 Project Name: NATIONAL GUARD AR-7001 - PAUQUETTE

Sample(s) Collected By: FRANK RECUPERO
 Date Samples Collected: JUNE 22, 1995

| <u>Type of Analysis</u> | <u># of Samples</u> |
|--|---------------------|
| ☒ PLM - Building Material for Asbestos Content | <u>43</u> |
| ☐ PCM - Air Samples NIOSH 7400 Method or ORM | _____ |
| ☐ TEM - Asbestos in Air | _____ |
| ☐ H2O - TDS, Sulfate, Chloride | _____ |
| ☐ Lead - Atomic Absorption, Lead in Paint, in water, in air | _____ |
| ☐ Other, please list _____ | _____ |

Turn Around Time Requested:

☐ Rush-ASAP ☐ 24 hour ☐ 48 hour ☐ Normal

| | | |
|--------------------------------------|------------------------------------|--|
| Release by:
<u>Frank Recupero</u> | Date/Time:
<u>JUNE 22, 1995</u> | Received By:
<u>Michael L. Williamson</u> |
| Print Name:
<u>FRANK RECUPERO</u> | | Print Name:
<u>Michael L. Williamson</u> |
| Release by: | Date/Time: | Received By: |
| Print Name: | | Print Name: |
| Release by: | Date/Time: | Received By: |
| Print Name: | | Print Name: |

Comments/Notes IS THIS BUG DARK ENOUGH.

APPENDIX 3 - SAMPLE ANALYSIS SHEET

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Hwy 41 South
Gibsonston, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 22, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 001
LABORATORY NUMBER: 952168
SAMPLE/LOCATION: Floor tile (9 inch, tan), and mastic [SEE COMMENTS],
under carpet in Room 101B, Homogeneous Area #1.
SAMPLE DESCRIPTION: Tan carpet adhesive over tan vinyl tile over black
resinous mastic.

| Asbestos Minerals | Estimated Percentage |
|---------------------------------|----------------------|
| Chrysotile | 8 |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = | 8 |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 92 |
| Total | 100 |

Comments: Tile contains 8% chrysotile asbestos. Black mastic contains
10% chrysotile asbestos. No asbestos detected in any other layer.
Overall asbestos content is 8% chrysotile asbestos.

Respectfully submitted, *Michael L. Williamson*

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

It has been established that PLM may miss small percentages of asbestos in bulk samples,
thus negative PLM results cannot be guaranteed.

NVLAP ID #1871

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contained herein may not be published or reproduced pending our written permission.

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Hwy 41 South
Gibsonton, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 22, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 003
LABORATORY NUMBER: 952170
SAMPLE/LOCATION: Sheet vinyl (orange), over tan floor tile, over
black mastic [SEE COMMENTS], from Room 101,
Homogeneous Area #2.
SAMPLE DESCRIPTION: Reddish-brown sheet vinyl over trace of tan adhesive
over tan vinyl tile over black mastic.

| Asbestos Minerals | Estimated Percentage |
|--------------------------|----------------------|
| Chrysotile | 25 |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = | 25 |
| Cellulose | 1 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 74 |
| Total | 100 |

Comments: Backing on sheet vinyl contains 75% chrysotile asbestos. Tan adhesive contains 5% chrysotile asbestos (probably contamination from backing). Tile contains 8% chrysotile asbestos. Black mastic contains 5% chrysotile asbestos. Overall asbestos content is 25% chrysotile asbestos.

Respectfully submitted, *Michael L. Williamson*

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

It has been established that PLM may miss small percentages of asbestos in bulk samples, thus negative PLM results cannot be guaranteed.

NVLAP ID #1871

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APOLLO ENVIRONMENTAL, INC.

11553 U.S. Hwy 41 South
Gibson, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 22, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 006
LABORATORY NUMBER: 952173
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white - Pattern #3),
from Room #101C, Homogeneous Area #3.

SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear-white fibers with white particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 40 |
| Fibrous Glass | 30 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 30 |
| Total | 100 |

Comments: _____

Respectfully submitted, Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

It has been established that PLM may miss small percentages of asbestos in bulk samples,
thus negative PLM results cannot be guaranteed.

NVLAP ID #1871

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APOLLO ENVIRONMENTAL, INC.

11553 U.S. Hwy 41 South
Gibsonston, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 22, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 007
LABORATORY NUMBER: 952174
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white - Pattern #3),
from Room 101C, Homogeneous Area #3.

SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear-white fibers, with white particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 40 |
| Fibrous Glass | 35 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 25 |
| Total | 100 |

Comments: _____

Respectfully submitted, Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

It has been established that PLM may miss small percentages of asbestos in bulk samples,
thus negative PLM results cannot be guaranteed.

NVLAP ID #1871

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APOLLO ENVIRONMENTAL, INC.

11553 U.S. Hwy 41 South
Gibson, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 22, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 008
LABORATORY NUMBER: 952175
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white - Pattern #3),
from Room 101C, Homogeneous Area #3.

SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear-white fibers, with white particulate.

Asbestos Minerals

Estimated Percentage

| | |
|----------------------|---|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|-----------|
| Cellulose | 40 |
| Fibrous Glass | 35 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>25</u> |
| Total | 100 |

Comments: _____

Respectfully submitted,

Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

It has been established that PLM may miss small percentages of asbestos in bulk samples,
thus negative PLM results cannot be guaranteed.

NVLAP ID #1871

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11553 U.S. Hwy 41 South
Gibson, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 22, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 009QC
LABORATORY NUMBER: 952176
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white - Pattern #3),
from Room 101C, Homogeneous Area #3.

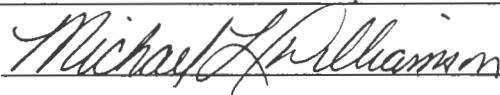
SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear-white fibers, with white particulate.

| Asbestos Minerals | Estimated Percentage |
|----------------------|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|-----|
| Cellulose | 40 |
| Fibrous Glass | 35 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 25 |
| Total | 100 |

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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Gibsonton, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 010
LABORATORY NUMBER: 952177
SAMPLE/LOCATION: Drop ceiling panel (2'x 2', white), from Room #101D,
Homogeneous Area #4.

SAMPLE DESCRIPTION: White particulate over soft aggregate of white and
clear-white fibers with white and clear particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 35 |
| Fibrous Glass | 35 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 30 |
| Total | 100 |

Comments: _____

Respectfully submitted, Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 011
LABORATORY NUMBER: 952178
SAMPLE/LOCATION: Drop ceiling panel (2'x 2', white), from Room #101D,
Homogeneous Area #4.

SAMPLE DESCRIPTION: White particulate over soft aggregate of white and
clear-white fibers, with white and clear particulate.

Asbestos Minerals

Estimated Percentage

| | |
|----------------------|---|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|-----|
| Cellulose | 35 |
| Fibrous Glass | 35 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 30 |
| Total | 100 |

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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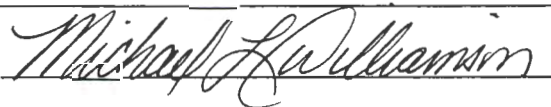
POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 012
LABORATORY NUMBER: 952179
SAMPLE/LOCATION: Drop ceiling panel (2'x 2', white), from Room #101D,
Homogeneous Area #4.

SAMPLE DESCRIPTION: White particulate over soft aggregate of white and
clear-white fibers, with white and clear particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 35 |
| Fibrous Glass | 35 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 30 |
| Total | 100 |

Comments: _____

Respectfully submitted, 

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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Gibsonston, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 013
LABORATORY NUMBER: 952180
SAMPLE/LOCATION: Floor tile (12 inch, black), and adhesive [SEE
COMMENTS], from Room #111, Homogeneous Area #5.

SAMPLE DESCRIPTION: Black vinyl tile with brown adhesive on backside.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted,

Michael L. Williamson

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 014
LABORATORY NUMBER: 952181
SAMPLE/LOCATION: Floor tile (12 inch, black), and adhesive [SEE
COMMENTS], from Room #111, Homogeneous Area #5.

SAMPLE DESCRIPTION: Black vinyl tile with brown adhesive on backside.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted,

Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

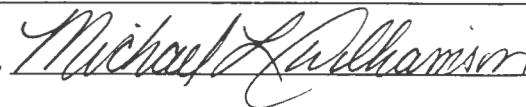
DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 015
LABORATORY NUMBER: 952182
SAMPLE/LOCATION: Floor tile (12 inch, black), and adhesive [SEE
COMMENTS], from Room #111, Homogeneous Area #5.

SAMPLE DESCRIPTION: Black vinyl tile with brown adhesive on backside.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted,



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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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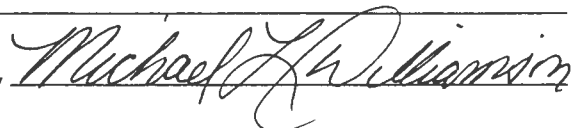
POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 016
LABORATORY NUMBER: 952183
SAMPLE/LOCATION: Surfacing material (beige/white), from entrance ceiling, Room #111B, Homogeneous Area #6.

SAMPLE DESCRIPTION: Pale beige paint over soft white and beige particulate layer with white fiber bundles over hard beige particulate layer.

| Asbestos Minerals | Estimated Percentage |
|---------------------------------|----------------------|
| Chrysotile | 6 |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = | 6 |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 94 |
| Total | 100 |

Comments: Soft white and beige particulate layer under paint contains 6% chrysotile asbestos. No asbestos detected in any other layer. Overall asbestos content is 4% chrysotile asbestos.

Respectfully submitted, 

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 019
LABORATORY NUMBER: 952186
SAMPLE/LOCATION: Popcorn ceiling material (white), over sheetrock,
from Room #108, Homogeneous Area #7.
SAMPLE DESCRIPTION: White particulate with synthetic white foam over
sheetrock.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 20 |
| Fibrous Glass | 2 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 78 |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted,

Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 020
LABORATORY NUMBER: 952187
SAMPLE/LOCATION: Popcorn ceiling material (white), over sheetrock,
from Room #108, Homogeneous Area #7.

SAMPLE DESCRIPTION: White particulate with white synthetic foam over
sheetrock.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 15 |
| Fibrous Glass | 2 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 83 |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted, Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 021
LABORATORY NUMBER: 952188
SAMPLE/LOCATION: Wall stucco (off-white/tan), from Room #108,
Homogeneous Area #8.

SAMPLE DESCRIPTION: Off-white paint over tan and white particulate
layer over blue paint.

| Asbestos Minerals | Estimated Percentage |
|---|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: _____

Respectfully submitted, *Michael L. Williamson*

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 023
LABORATORY NUMBER: 952190
SAMPLE/LOCATION: Wall stucco (beige), from Room #108, Homogeneous Area #8.

SAMPLE DESCRIPTION: Beige paint over tan and white particulate layer over blue paint.

Asbestos Minerals

Estimated Percentage

| | |
|----------------------|---|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|------------|
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |

Total 100

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 024
LABORATORY NUMBER: 952191
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white), from
Gym, Homogeneous Area #9.

SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear fibers with white and clear
particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 40 |
| Fibrous Glass | 30 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>30</u> |
| Total | 100 |

Comments: _____

Respectfully submitted, Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 025
LABORATORY NUMBER: 952192
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white), from Gym,
Homogeneous Area #9.

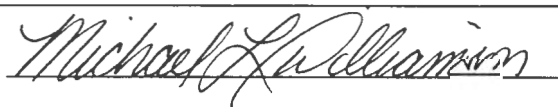
SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear fibers with white and clear
particulate.

| Asbestos Minerals | Estimated Percentage |
|----------------------|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|-----|
| Cellulose | 40 |
| Fibrous Glass | 30 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 30 |
| Total | 100 |

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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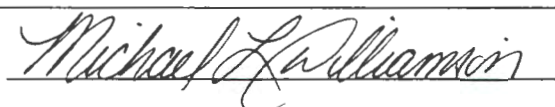
POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 026
LABORATORY NUMBER: 952193
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white), from Gym,
Homogeneous Area #9.

SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear fibers with white and clear particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 40 |
| Fibrous Glass | 30 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 30 |
| Total | 100 |

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

It has been established that PLM may miss small percentages of asbestos in bulk samples,
thus negative PLM results cannot be guaranteed.

NVLAP ID #1871

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Gibson, FL 33534 (813) 671-3999

POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 027QC
LABORATORY NUMBER: 952194
SAMPLE/LOCATION: Drop ceiling panel (2'x 4', white), from Gym,
Homogeneous Area #9.

SAMPLE DESCRIPTION: White particulate over soft fibrous aggregate of
white and clear fibers with white and clear particulate.

Asbestos Minerals

Estimated Percentage

| | |
|----------------------|---|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|-----------|
| Cellulose | 40 |
| Fibrous Glass | 30 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>30</u> |
| Total | 100 |

Comments: _____

Respectfully submitted,

Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 028
LABORATORY NUMBER: 952195
SAMPLE/LOCATION: Pipe elbow insulation (pale gray), from Room #106A,
Homogeneous Area #10.

SAMPLE DESCRIPTION: Off-white paint over fiberglass cloth and amber mastic
over soft fibrous aggregate of clear and white fibers,
with off-white, brown and black particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 25 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 75 |
| Total | 100 |

Comments: _____

Respectfully submitted, *Michael L. Williamson*

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EPA-600/M4-82-020

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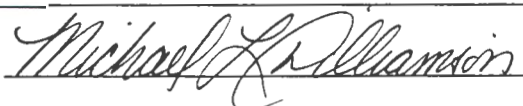
POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 029
LABORATORY NUMBER: 952196
SAMPLE/LOCATION: Pipe elbow insulation (pale gray), from Room #106A,
Homogeneous Area #10.

SAMPLE DESCRIPTION: Off-white paint over fiberglass cloth and amber mastic
over soft fibrous aggregate of clear and white fibers
with off-white, brown and black particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 25 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 75 |
| Total | 100 |

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 030
LABORATORY NUMBER: 952197
SAMPLE/LOCATION: Pipe elbow insulation (pale gray), from Room #106A,
Homogeneous Area #10.
SAMPLE DESCRIPTION: Off-white paint over fiberglass cloth and amber mastic
over soft fibrous aggregate of clear and white fibers,
with off-white, brown and black particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 25 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 75 |
| Total | 100 |

Comments: _____

Respectfully submitted,

Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 031
LABORATORY NUMBER: 952198
SAMPLE/LOCATION: Floor tile (9 inch, white), and mastic [SEE COMMENTS],
from Room #104, Homogeneous Area #11.
SAMPLE DESCRIPTION: White vinyl tile with black resinous mastic on
backside.

| Asbestos Minerals | Estimated Percentage |
|--------------------------|----------------------|
| Chrysotile | 2 |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = | 2 |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 98 |
| Total | 100 |

Comments: Tile contains 2% chrysotile asbestos. Black mastic contains 6%
chrysotile asbestos. Overall asbestos content is 2% chrysotile asbestos.

Respectfully submitted,

Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 034
LABORATORY NUMBER: 952201
SAMPLE/LOCATION: Ceiling plaster (white), from Bathroom, Room #104A,
Homogeneous Area #12.

SAMPLE DESCRIPTION: White paint over hard white plaster over browncoat.

Asbestos Minerals

Estimated Percentage

| | |
|----------------------|---|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|------------|
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted,

Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's,
Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 035
LABORATORY NUMBER: 952202
SAMPLE/LOCATION: Ceiling plaster (white), from Bathroom, Room #104A,
Homogeneous Area #12.

SAMPLE DESCRIPTION: White paint over hard white plaster over browncoat.

Asbestos Minerals

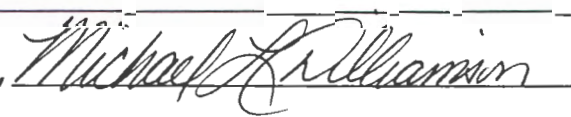
Estimated Percentage

| | |
|----------------------|---|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|------------|
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted, 

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 036
LABORATORY NUMBER: 952203
SAMPLE/LOCATION: Ceiling plaster (white), from Bathroom, Room #104A,
Homogeneous Area #12.

SAMPLE DESCRIPTION: White paint over hard white plaster over browncoat.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: No asbestos detected in any layer.

Respectfully submitted,

Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 037
LABORATORY NUMBER: 952204
SAMPLE/LOCATION: Wallboard (white), from Shower, Homogeneous Area #13.

SAMPLE DESCRIPTION: White paint over typical sheetrock.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 15 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 85 |
| Total | 100 |

Comments: _____

Respectfully submitted, Michael L. Williamson

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 038
LABORATORY NUMBER: 952205
SAMPLE/LOCATION: Wallboard (beige), from Room #101, Homogeneous Area #13.

SAMPLE DESCRIPTION: Beige paint over off-white plaster over typical
sheetrock.

| Asbestos Minerals | Estimated Percentage |
|---------------------------------|----------------------|
| Chrysotile | 2 |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = | 2 |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 98 |
| Total | 100 |

Comments: Plaster contains 2% chrysotile asbestos. No asbestos detected
in any other layer. Overall asbestos content is <1% chrysotile asbestos.

Respectfully submitted, Michael L. Williamson

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Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples,
EPA-600/M4-82-020

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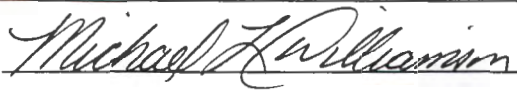
POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 040
LABORATORY NUMBER: 952207
SAMPLE/LOCATION: Window putty (white), from exterior, Homogeneous Area #14.

SAMPLE DESCRIPTION: White paint over damp white chalky particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 041QC
LABORATORY NUMBER: 952208
SAMPLE/LOCATION: Window putty (white), from Room #102, Homogeneous Area #14.

SAMPLE DESCRIPTION: White paint over damp white chalky particulate.

Asbestos Minerals

Estimated Percentage

| | |
|----------------------|---|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |

Total Asbestos Content = None Detected

| | |
|------------------|------------|
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: _____

Respectfully submitted,

Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

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POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 042
LABORATORY NUMBER: 952209
SAMPLE/LOCATION: Window putty (white), from Room #102, Homogeneous Area #14.

SAMPLE DESCRIPTION: White paint over damp white chalky particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | 100 |
| Total | 100 |

Comments: _____

Respectfully submitted,

Michael L. Williamson

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

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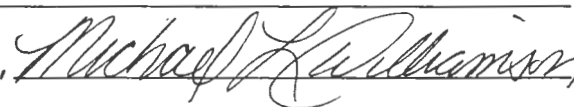
POLARIZED LIGHT MICROSCOPY / BULK SAMPLE ANALYSIS

DATE: June 23, 1995
CLIENT: Florida Department of Military Affairs
PROJECT: National Guard Armory, Palmetto, FL
DATE COLLECTED: June 22, 1995
COLLECTED BY: P. Mitchell and F. Recupero
ANALYST: Michael L. Williamson
PROJECT NUMBER: AD-14356
SAMPLE ID.: 043
LABORATORY NUMBER: 952210
SAMPLE/LOCATION: Window putty (white), from Room #102, Homogeneous Area #14.

SAMPLE DESCRIPTION: White paint over damp white chalky particulate.

| Asbestos Minerals | Estimated Percentage |
|--|----------------------|
| Chrysotile | - |
| Amosite | - |
| Crocidolite | - |
| Anthophyllite | - |
| Tremolite/Actinolite | - |
| Total Asbestos Content = None Detected | |
| Cellulose | 0 |
| Fibrous Glass | 0 |
| Synthetic Fibers | 0 |
| Other | 0 |
| Nonfibrous | <u>100</u> |
| Total | 100 |

Comments: _____

Respectfully submitted, 

The above test report relates only to the items tested. Analyses performed according to EPA's, Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, EPA-600/M4-82-020

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**APPENDIX 4 - DRAWING(S):
SAMPLE LOCATIONS AND HOMOGENEOUS AREA**

CANOPY
500

BUILDING 5
CARPORT

METAL SHED 400

BUILDING 4
STORAGE

STORAGE
200

BUILDING 2

METAL SHED 300 BUILDING 3
STORAGE
FLAMMABLE

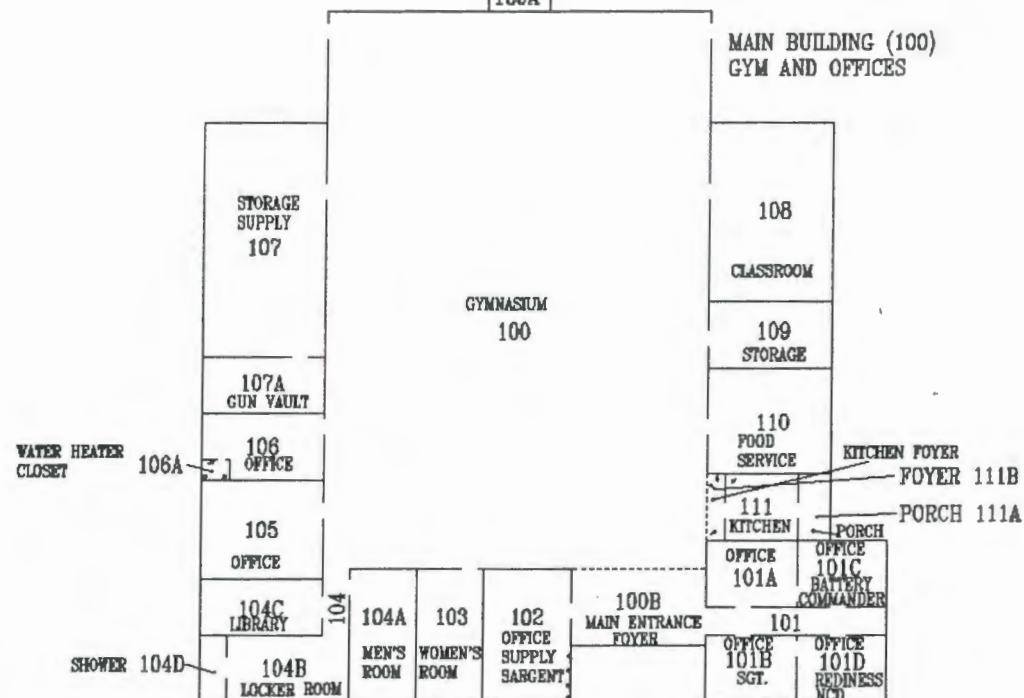
PORTABLE
NOT NUMBERED
NOT INCLUDED
IN SUSPECT
NUMBERS

PORTABLE
HOLDING
CONTAINERS



STORAGE
100A

MAIN BUILDING (100)
GYM AND OFFICES



KEY / NOTES NOT TO SCALE

FUNCTIONAL SPACE DRAWING

FLORIDA DEPARTMENT OF MILITARY AFFAIRS
ASBESTOS SURVEY OF NATIONAL GUARD ARMORY, PALMETTO, FLORIDA

APOLLO ENVIRONMENTAL, INC.
11553 US HWY 41 SOUTH
GIBSONTOWN, FL 33534

DRAWN BY
F.R.R./kh
DATE
8/22/95

HOMOGENEOUS AREA DATA

| HOMOG. AREA # | MATERIAL | SALIENT | SAL. SPACE | HAZ. RANK | PRIORITY RANK | RECOMMENDED RESPONSE | DELINEATION |
|---------------|---------------|---------|------------|-----------|---------------|----------------------|-------------|
| 1 | FLOOR TILE | N | -- | 1 | 7 | O&M | -- |
| 2 | SHEET VINYL | N | -- | 1 | 7 | O&M | -- |
| 6 | SURFACING | N | -- | 2 | 6 | O&M | -- |
| 11 | FLOOR TILE | N | -- | 1 | 7 | O&M | -- |
| 13 | WALLBOARD | Y | 40sf | 1 | 7 | O&M | -- |
| 15 | BUILT-UP ROOF | N | -- | 7 | 1 | O&M | -- |
| 16 | ROOF SHINGLES | N | -- | 1 | 7 | O&M | -- |

SAMPLE RESULTS

| SAMPLE NUMBER | ASBESTOS TYPE | TOTAL % ASBESTOS |
|---------------|---------------|------------------|
| 1,2,22 | CHRY | 18% |
| 3,4,5 | CHRY | 75% |
| 16,17,18 | CHRY | 6% |
| 31,32,33 | CHRY | 8% |
| 37,38,39 | CHRY | <1% |
| -- | -- | ASSUMED |
| -- | -- | ASSUMED |

NOTES & LEGEND

SAMPLE LOCATIONS

③⑦ - SAMPLE NUMBERS

SCALE

NONE

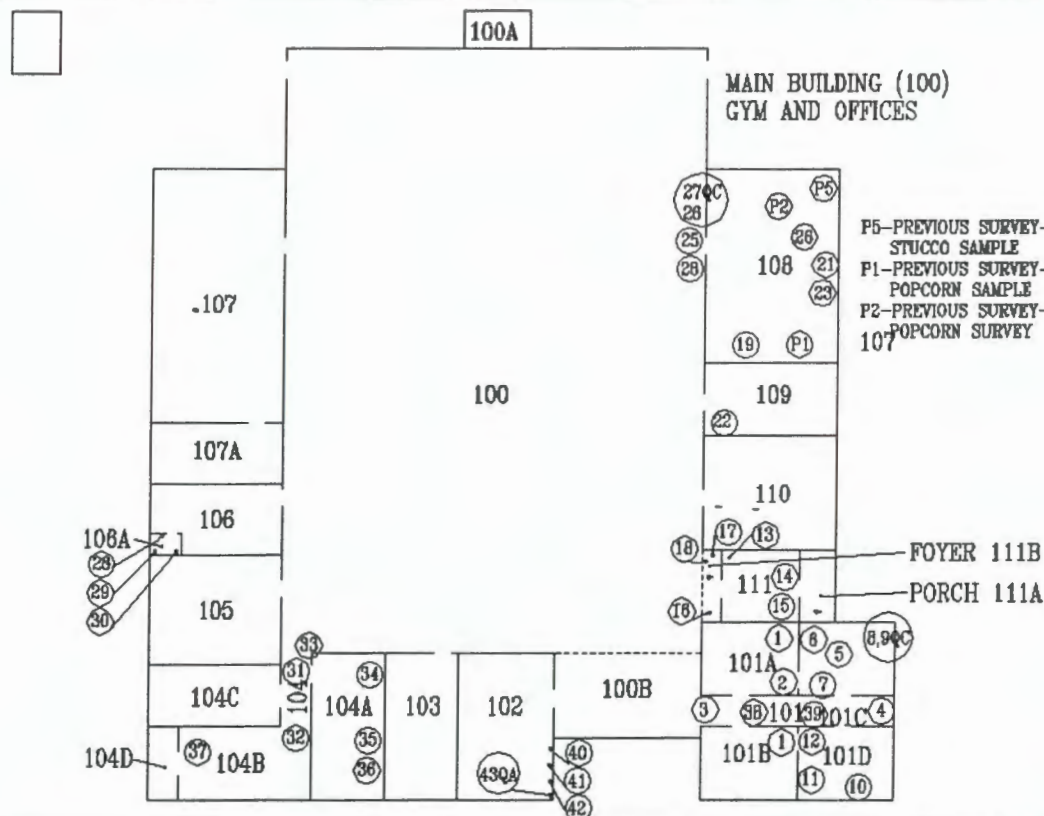


FIGURE NO.

STATE OF FLORIDA - DEPARTMENT OF MILITARY AFFAIRS
ST. AUGUSTINE, FLORIDA

ASBESTOS SURVEY AND ASSESSMENT DATA

NATIONAL GUARD ARMORY - BUILDING 100
PALMETTO, FLORIDA

APOLLO ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS

11553 U.S. HIGHWAY 41 SOUTH
GIBSONTON, FLORIDA 33534-0239
(813) 671-3999 FAX: (813) 677-3422

PROJECT NUMBER:

DRAWN BY:

DATE:

kh

6/29/95

HOMOGENEOUS AREA DATA

| HOMOG. AREA # | MATERIAL | SALIENT | SAL. SPACE | HAZ. RANK | PRIORITY RANK | RECOMMENDED RESPONSE | DELINEATION |
|---------------|---------------|---------|------------|-----------|---------------|----------------------|-------------|
| 1 | FLOOR TILE | N | -- | 1 | 7 | O&M | -- |
| 2 | SHEET VINYL | N | -- | 1 | 7 | O&M | -- |
| 6 | SURFACING | N | -- | 2 | 6 | O&M | -- |
| 11 | FLOOR TILE | N | -- | 1 | 7 | O&M | -- |
| 13 | WALLBOARD | Y | 40sf | 1 | 7 | O&M | -- |
| 15 | BUILT-UP ROOF | N | -- | 7 | 1 | O&M | -- |
| 16 | ROOF SHINGLES | N | -- | 1 | 7 | O&M | -- |

SAMPLE RESULTS

| SAMPLE NUMBER | ASBESTOS TYPE | TOTAL % ASBESTOS |
|---------------|---------------|------------------|
| 1,2,22 | CHRY | 18% |
| 3,4,5 | CHRY | 75% |
| 16,17,18 | CHRY | 6% |
| 31,32,33 | CHRY | 8% |
| 37,38,39 | CHRY | <1% |
| -- | -- | ASSUMED |
| -- | -- | ASSUMED |

NOTES & LEGEND

ASBESTOS CONTAINING HOMOGENOUS AREAS

- HA#1 =  9' TAN FLOOR TILE
- HA#2 =  ORANGE SHEET VINYL OVER TAN FLOOR TILE
- HA#6 =  SURFACING
- HA#11 =  WHITE 9' FLOOR TILE
- HA#13 =  WALLBOARD BEHIND PANELING AND ABOVE DROP CEILING
- HA#15-BUILT-UP ROOF-BLDG 100
- HA#16-ROOF SHINGLES-BLDG 200

SCALE

NONE

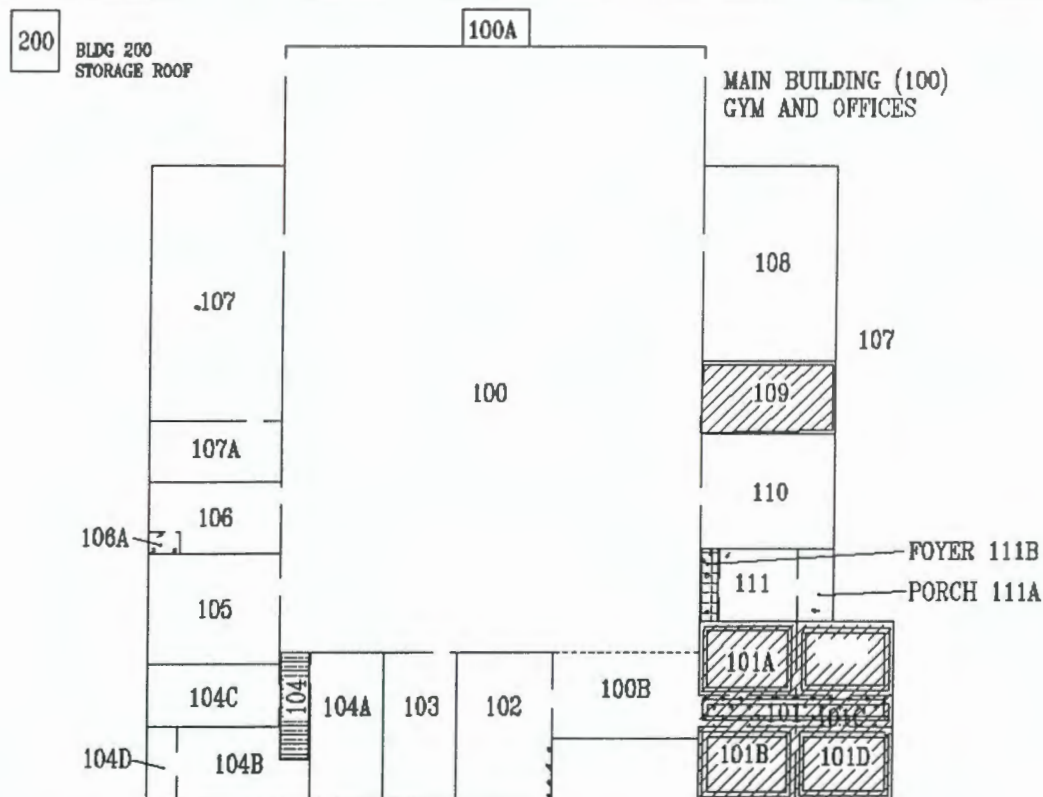


FIGURE NO.

STATE OF FLORIDA - DEPARTMENT OF MILITARY AFFAIRS
ST. AUGUSTINE, FLORIDA
ASBESTOS SURVEY AND ASSESSMENT DATA
NATIONAL GUARD ARMORY - BUILDING 100
PALMETTO, FLORIDA

APOLLO ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
11553 U.S. HIGHWAY 41 SOUTH
GIBSONTON, FLORIDA 33534-0239
(813) 671-3989 FAX: (813) 677-3422

PROJECT NUMBER:

DRAWN BY:
kh

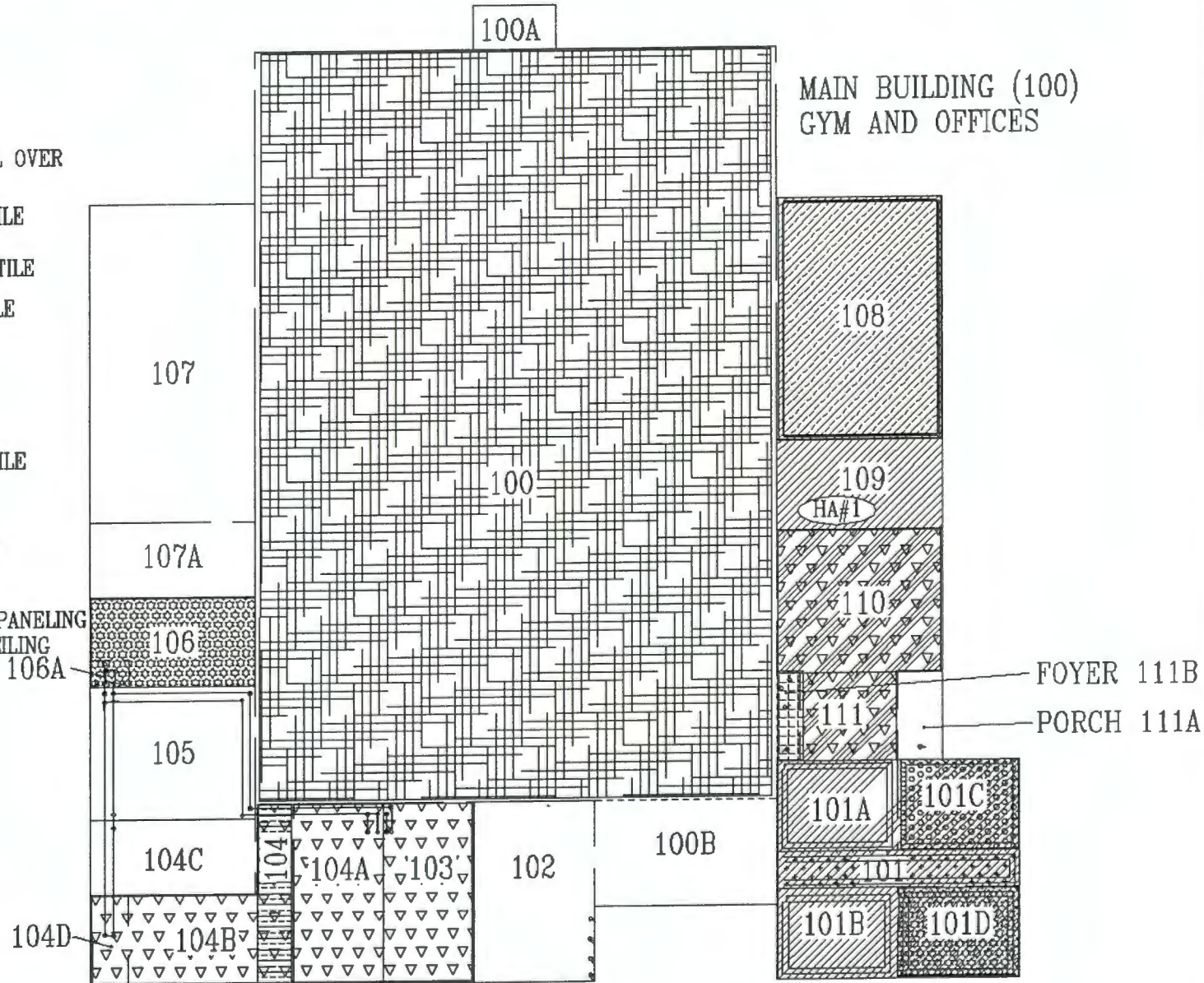
DATE:

6/29/95

SHT 4 OF 4

BLDG. 200

- HA#1 = 9" TAN FLOOR TILE
- HA#2 = ORANGE SHEET VINYL OVER TAN FLOOR TILE
- HA#3 = 2'X4'DROP CEILING TILE PATTERN 3
- HA#4 = 2'X2' DROP CIELING TILE
- HA#5 = 12" BLACK FLOOR TILE
- HA#6 = SURFACING
- HA#7 = POPCORN
- HA#8 = WALL STUCCO
- HA#9 = 2'X4'DROP CEILING TILE PATTERN 2
- HA#10 = MUDDIED ELBOWS
- HA#11 = WHITE 9' FLOOR TILE
- HA#12 = CEILING PLASTER
- HA#13 = WALLBOARD BEHIND PANELING AND ABOVE DROP CEILING
- HA#14-WINDOW PUTTY
ALL WINDOW EXTERIORS
- HA#15-BUILT-UP ROOF-BLDG 100
- HA#16-ROOF SHINGLES-BLDG 200



KEY/NOTES NOT TO SCALE

IDENTIFIED HOGENOUS AREAS

FLORIDA DEPARTMENT OF MILITARY AFFAIRS
ASBESTOS SURVEY OF NATIONAL GUARD ARMORY, PALMETTO, FLORIDA

APOLLO ENVIRONMENTAL, INC.
11553 US HWY 41 SOUTH
GIBSONTON, FL 33534

DATE BY F.R.R.
8/22/95

APPENDIX 5 - CERTIFICATES AND LICENSES

AC# 3316370

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS

| DATE | LICENSE NO. | BATCH NO. |
|----------|-------------|-----------|
| 03/29/95 | AX 0000005 | 94024673 |

THE ASBESTOS CONSULTANT
NAMED BELOW IS LICENSED
UNDER THE PROVISIONS OF CHAPTER 469 F.S., FOR THE YEAR
EXPIRING NOV 30, 1996

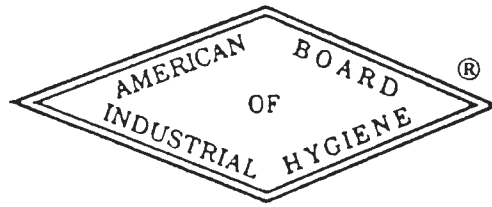
MITCHELL, PATRICIA CRAIG
1013 BAL HARBOUR DR.
APOLLO BEACH FL 33572


LAWTON CHILES
GOVERNOR

DISPLAY IN A CONSPICUOUS PLACE


GEORGE STUART, JR.
SECRETARY, D.B.P.R.

The
American Board of Industrial Hygiene®
ABIH®



organized to improve the practice of Industrial Hygiene
proclaims that

Patricia Craig Mitchell

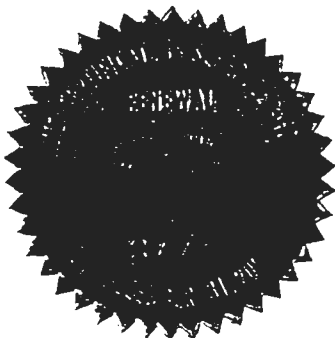
having met all requirements through
education, experience, and examination,
is hereby certified in the

**COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE**

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH



July 22, 1994

date

Chair ABIH

6441

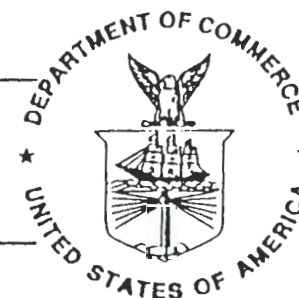
certificate
number

Secretary ABIH

United States Department of Commerce
National Institute of Standards and Technology



ISO/IEC GUIDE 25:1990
ISO/IEC GUIDE 58:1993
ISO 9002:1994



APOLLO ENVIRONMENTAL, INC.
GIBSONTOWN, FL

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

BULK ASBESTOS FIBER ANALYSIS

October 1, 1995

Effective until

For the National Institute of Standards and Technology



LAW COMPANIES ENVIRONMENTAL TRAINING CENTER

This is to certify that
Patricia C. Mitchell

has attended and satisfactorily passed an examination covering the contents of an
EPA-approved course entitled:

"Asbestos-in-Buildings: Inspector Refresher Course"

February 4, 1995
Course Dates

February 4, 1995
Examination Date

February 4, 1996
Expiration Date

St. Petersburg, Florida
Course Location

Law Companies Environmental Training Center
114 TownPark Drive, Suite 300
Kennesaw, Georgia 30144
404-499-6700

George Boué
George Boué, Course Instructor

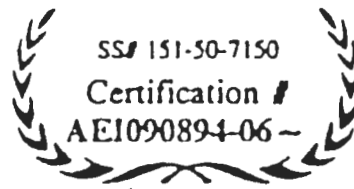
David W. Mayer
David Mayer, Course Director

10510
Certificate Number

Apollo Environmental Incorporated

Hereby certifies that
Patricia Mitchell
has successfully completed
the course of instruction:

**Refresher: Facility Survey and Building Systems
(Reaccreditation for Inspector under AHERA)
Thursday, September 8, 1994**



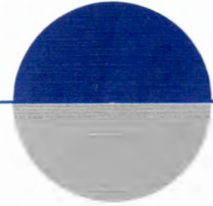
Expiration: 09-08-95



Dr. Robert Mitchell
LAC DD0000007

Environmental Asbestos Related Expenditures

| No. | Facility | Survey | Abatement | | | | Re-Construction | Facility Total |
|------------------|----------------------------|------------|-----------|------------|----------|----------|-----------------|----------------|
| | | | Spec.'s | Monitoring | Removal | Disposal | | |
| 1 | Eustis NGA | \$1,800 | \$3,000 | \$2,800 | \$4,700 | N/A | N/A | \$12,300 |
| 2 | Clearwater NGA | \$1,800 | \$3,500 | \$2,900 | \$4,700 | N/A | N/A | \$12,900 |
| 3 | Ft. Lauderdale (FHP Bldg) | \$1,850 | \$1,250 | \$1,500 | \$3,500 | \$500 | N/A | \$8,600 |
| 4 | Palmetto NGA - Phase One | \$2,000 | N/A | N/A | \$1,950 | N/A | N/A | \$3,950 |
| 5 | Palmetto NGA - Phase Two | \$1,500 | \$1,250 | \$1,500 | \$4,000 | N/A | N/A | \$8,250 |
| 6 | Jax - Cedar Hills | <Complete> | \$1,200 | +A:F9 | N/A | +A:H9 | N/A | \$1,200 |
| 7 | Orlando NTC (MIPR to Navy) | \$2,500 | N/A | N/A | N/A | N/A | N/A | \$2,500 |
| 8 | Cocoa NGA | +A:D11 | +A:E11 | | | | | \$0 |
| 9 | Pensacola (Gregory) | | | | | | | \$0 |
| 10 | Crestview | | | | | | | \$0 |
| 11 | Defuniak Springs | | | | | | | \$0 |
| 12 | Bonifay | | | | | | | \$0 |
| 13 | Chipley | | | | | | | \$0 |
| 14 | Marianna | | | | | | | \$0 |
| 15 | Appalachicola | | | | | | | \$0 |
| 16 | Live Oak | | | | | | | \$0 |
| 17 | Lake City | | | | | | | \$0 |
| 18 | Miami | | | | | | | \$0 |
| 19 | Hollywood | | | | | | | \$0 |
| 20 | Belle Glade | | | | | | | \$0 |
| 21 | North Miami | | | | | | | \$0 |
| 22 | Ft Myers | | | | | | | \$0 |
| 23 | Ft. Pierce | | | | | | | \$0 |
| 24 | Lakeland | | | | | | | \$0 |
| 25 | Haines City | \$2,576 | +A:E28 | | | | | \$2,576 |
| 26 | Bartow | | | | | | | \$0 |
| 27 | Sarasota | | | | | | | \$0 |
| 28 | Bradenton | | | | | | | \$0 |
| 29 | Dade City | \$2,002 | | | | | | \$2,002 |
| 30 | Winter Haven | \$3,432 | +A:E33 | | | | | \$3,432 |
| 31 | St. Petersburg | | | | | | | \$0 |
| 32 | Lake Wales | \$2,470 | | | | | | \$2,470 |
| 33 | Orlando(FC) | | | | | | | \$0 |
| 34 | Leesburg | \$1,677 | | | | | | \$1,677 |
| 35 | Starke | | | | | | | \$0 |
| 36 | Arcadia | | | | | | | \$0 |
| 37 | Jax - Snyder | | | | | | | \$0 |
| 38 | Jax - Crg Fld | | | | | | | \$0 |
| 39 | Belle Glade | | | | | | | \$0 |
| 40 | Dade City | | | | | | | \$0 |
| 41 | Palatka | | | | | | | \$0 |
| 42 | Sanford | | | | | | | \$0 |
| 43 | Deland | | | | | | | \$0 |
| 44 | | | | | | | | \$0 |
| 45 | | | | | | | | \$0 |
| 46 | | | | | | | | \$0 |
| 47 | | | | | | | | \$0 |
| Obligated | | \$11,450 | \$8,950 | \$7,200 | \$14,850 | \$500 | \$0 | \$42,950 |
| Unfunded | | \$12,157 | \$1,250 | \$1,500 | \$4,000 | \$0 | \$0 | \$18,907 |
| Totals | | \$23,607 | \$10,200 | \$8,700 | \$18,850 | \$500 | \$0 | \$61,857 |
| \$1,800 - Funded | | | | | | | | |



August 22, 1995

FAX: (904) 823-0189

Lt. Jim Wood
Department of Military Affairs
2305 State Road 207
St. Augustine, Florida 32085

Re: Quote to Provide Florida Licensed Asbestos Consultant Services for the
Abatement of known ACM from the Florida National Guard Armory in
Palmetto, Florida

Dear Lt. Wood:

Apollo Environmental, Inc., offers these abatement services for the lump sum of
\$6,700.00.

These services include:

Technical Specifications

Contract Compliance Supervision

Air Monitoring both OSHA Compliance and Area Surveillance

Clearance Sampling and Analysis in Conformance with State of Florida
Procedures. Two (2) sets of TEM's will be required.

Very respectfully,

Dr. Robert D. Mitchell
Licensed Asbestos Consultant
#DD 0000007

RECEIVED

AUG 25 1995

FACILITY MGT. OFFICE
ST. AUGUSTINE, FLORIDA 32084



Florida Department of Labor and Employment Security

Division of Safety
9215 N. Florida Ave., Suite 105
Tampa, FL 33612-7905
PHONE: (813) 930-7625

FAX: (813) 930-7649

Lawton Chiles
Governor

Doug Jamerson
Secretary

July 10, 1995

Lt. James Wood
Engineer
National Guard Armory
P.O. Box 1008
St. Augustine, FL 32083

RE: Asbestos Survey Review
National Guard Armory
1107 14th Avenue West
Building 100
Palmetto, Florida

Lt. Wood:

The referenced Asbestos submitted by Apollo Environmental, Inc., was received on July 7, 1995 and reviewed.

The Asbestos Survey for the National Guard Armory building 100 located at 1107 14th Avenue West, Palmetto, Florida is hereby approved.

Sincerely,

A handwritten signature in black ink, appearing to read "D. C. Milak".

Dennis C. Milak
Region V Asbestos Program Manager

cc: R. Mitchell, APOLLO
J. Chandler, DLES
T. Ramsden, DLES

RECEIVED

JUL 18 1995

**FACILITY MGT. OFFICE
ST. AUGUSTINE, FLORIDA 32084**

Westmont, NJ
609-858-4800

Piscataway, NJ
908-981-0550

Carle Place, NY
516-997-7251

Smyrna, GA
404-333-6066

Melbourne, FL
407-725-5223

Ann Arbor, MI
313-668-6810

San Mateo, CA
415-570-5401

EMSL

Apollo Environmental, Inc.
11553 U.S. Highway 41 South
Gibsonton, FL 33534

Tuesday, October 24, 1995

Ref Number: GA952485

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM), Selective Area Electron Diffraction (SAED), and Energy Dispersive X-Ray Microanalysis (EDX) - Performed by EPA Level II Method.

Project: #AD-14675/National Guard Armory, Palmetto, FL

Basic TEM Summary Report

| SAMPLE | VOLUME
(liters) | ASBESTOS
TYPE(S) | # STRUCTURES | | CONCENTRATION OF
ASBESTOS STRUCTURES | | DETECTION
LIMIT |
|--------|--------------------|---------------------|--------------|--------|---|---------------------|--------------------|
| | | | ASB | NONASB | AFP/cc | AFP/mm ² | |
| #1 | 1620.00 | None Detected | 0 | 0 | <0.0037 | <15.7000 | 0.0037 |
| #4 | 1620.00 | None Detected | 0 | 0 | <0.0037 | <15.7000 | 0.0037 |

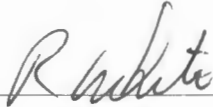
Comments: AFP - Asbestos Fibrous Particulates.

Number under AFP/cc are detection limits for "None Detected" samples.

AFP/cc - Concentration of Asbestos in AFP/cc; for blank sample, AFP/cc represents number of AFP in millions of Fibers/Filer.

* NVLAP PLM/TEM Accredited #1048-01

Peter Frasca, Ph.D.
Director


Laboratory
Supervisor

Other Approved
Signatory

AIR SAMPLE ANALYSIS

| | |
|---|---|
| Client: <i>Dept of Military Affairs</i> | 11553 U.S. Highway 41 South
Gibsonton, Florida 33534-9720
Telephone (813) 671-3999
FAX: 677-3422 |
| Project: <i>National Guard Armory Palmetto</i> | |
| Test Method: ☐ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
☒ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy. | |
| Lab ID: AD- <i>14675</i> | Date: <i>X</i> |
| Collected by: <i>AEI</i> | Date Collected: <i>10-21-95</i> |
| Analyst: <i>X</i> | NIOSH Lab ID: 33570-001 |

| # | Sample Collection Information | Time (min) | Flow Rate | Volume (l) | Fiber Count | Field Count | Conc (f/cc) |
|---|--|------------|-----------|------------|-------------|-------------|-------------|
| | <i>Area One - RM 101-101A-101B-101C</i>
<i>TEM FINAL AIRS Bld one</i> | — | — | — | — | — | — |
| | <i>Area Two - RM 111 B Foyer</i>
<i>TEM FINAL AIRS Bld one</i> | — | — | — | — | — | — |
| 1 | <i>RM 101</i>
<i>High Volume area one</i> | 180 | 9.0 | 1620 | — | — | — |
| 2 | <i>RM 101 A</i>
<i>High Volume area one</i> | 180 | 9.0 | 1620 | — | — | — |
| 3 | <i>RM 101 D</i>
<i>High Volume area one</i> | 180 | 9.0 | 1620 | — | — | — |
| 4 | <i>RM 111 B</i>
<i>High Volume area two</i> | 180 | 9.0 | 1620 | — | — | — |
| 5 | <i>field Blank NOT OPENED</i> | — | — | — | — | — | — |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Apollo Rep Sig:

Contractor Rep Sig:

Contractor Rep (print name)

| | | |
|---------------------|--|------------------------|
| <i>F. Mike With</i> | <i>Katay Roman</i>
<i>10-23-95 / 11:45 Am</i> | <i>DAVID PENDLETON</i> |
|---------------------|--|------------------------|

Comments:

M.F.A. = *X*

All reports are the confidential property of clients. Information contained may not be published or reproduced without approval.

APOLLO ENVIRONMENTAL, INC

October 23, 1995

EMSL of Georgia
1600 Roswell Street SE
Suite One
Smyrna, GA 30080

Dear EMSL

In reference to the five samples received today from the National Guard Armory - Palmetto (sampled 10-21-95, Project Number AD-14675), please only analyze samples #1 (Room 101) and #4 (Room 111B) via the Yamate Methodology (EPA Level II). Please retain the remaining samples for possible analysis if Samples 1 & 4 turn out high.

Thanks for your cooperation.

Sincerely,



Michael L. Williamson
Laboratory Manager

Dear EMSL,

Saturday 10-21-95

Please phone Apollo Environmental Inc. before analyzing any samples.

Apollo Env. 813 671 3999 or 1-800-348 3181

Samples 1-2-3-4 will be analyzed as per EPA level 11 at this time.
Sample 5 Field Blank not to analyzed at this time.

Thank You
Apollo Contact
Mike Williamson

RECEIVED
NOV 09 1995

FACILITY MGT. OFFICE
ST. AUGUSTINE, FLORIDA 32084

**STATE OF FLORIDA
DEPARTMENT OF MILITARY AFFAIRS**

**Asbestos Survey of the
National Guard Armory
Battery C 3BN ADA
Palmetto, Florida**

Asbestos Inspection Survey performed on June 22, 1995

Patricia Mitchell

Date 6/29/95

Patricia Mitchell
Licensed Asbestos Consultant

#AX 000 0005

ASBESTOS SURVEY AND ASSESSMENT - FORM 2

Building Name and No. 100, Admin/Gym
 Survey Date: June 22, 1995
 Contract No.:

Consultant: Patricia Mitchell, Apollo Environmental, Inc.
 Agency: State of Florida, Department of Military Affairs
 Bldg Contact Person: Sgt. Jeff Cook

| Room # | Sample # | Material | Ha # | Func Space | Sal Area | Quantity | Frable (y/n) | Asb. Type | Cond | Damg Pot | Haz Ass mt | Reep Pri | Airs | COST \$ (in thousands) | | | Recom mend |
|--------|----------|----------------------------------|------|---------------|----------|----------|--------------|---------------------------------|------|----------|------------|----------|------|------------------------|--------|---------|------------|
| | | | | | | | | | | | | | | Reep \$ | Air \$ | Repl \$ | |
| 101B | 1 | 9" tan floor tile | 1 | office | | 1,200 sf | n | 8% chry- tile, 10% chry- mastic | good | low | 1 | 7 | | 2 | 1 | N/A | O&M |
| 101A | 2 | | 1 | office | | | | " | | | | | | inc | inc | | |
| 101 | 3 | Orange sheet vinyl over tan tile | 2 | Hall | | 160 sf | n | 75% chry in backing | good | low | 1 | 7 | | inc | inc | | O&M |
| 101 | 4 | " | 2 | Hall | | | | " | | | | | | | | | |
| 101 | 5 | | 2 | Hall | | | | " | | | | | | | | | |
| 101C | 6 | 2x4 drop CT, pattern 3 | 3 | office | | 192 sf | y | ND | good | | | | | | | | |
| 101C | 7 | | 3 | office | | | | | | | | | | | | | |
| 101C | 8 | | 3 | office | | | | | | | | | | | | | |
| 101D | 9(QC) | | 3 | office | | | | | | | | | | | | | |
| 101D | 10 | 2x2 drop CT | 4 | office | | 192 | y | ND | fair | | | | | | | | |
| 101D | 11 | | 4 | office | | | | | | | | | | | | | |
| 101D | 12 | | 4 | office | | | | | | | | | | | | | |
| 111 | 13 | 12 black floor tile | 5 | Kitchen | | 432 | n | ND | good | | | | | | | | |
| 111 | 14 | | 5 | Kitchen | | | | | | | | | | | | | |
| 111 | 15 | | 5 | Kitchen | | | | | | | | | | | | | |
| 111B | 16 | ceiling surfacing | 6 | Kitchen foyer | | 36 sf | y | 6% chry | good | low | 2 | 6 | | inc | inc | | O&M |

National Guard Armory
 Palmetto, Florida
 C:\SURVEY\AMPALB1.BT

ASBESTOS SURVEY AND ASSESSMENT - FORM 2

Building Name and No. 100, Admin/Gym
 Survey Date: June 22, 1995
 Contract No.:

Consultant: Patricia Mitchell, Apollo Environmental, Inc.
 Agency: State of Florida, Department of Military Affairs
 Bldg Contact Person: Sgt. Jeff Cook

| Room # | Sample # | Material | Ha # | Func Space | Sal Area | Quantity | Friable (y/n) | Asb. Type | Cond | Dang Pot | Haz Asmnt | Reep Pri | Airs | COST \$ (in thousands) | | | Recom mend |
|--------|----------|--|------|---------------|----------|-----------|---------------|---------------------------------------|-------|----------|-----------|----------|------|------------------------|--------|---------|------------|
| | | | | | | | | | | | | | | Reep \$ | Air \$ | Repl \$ | |
| 111B | 17 | | 6 | Kitchen foyer | | 36 sf | y | 6% chrys | good | low | 2 | 6 | | inc | inc | | O&M |
| 111B | 18 | | 6 | Kitchen foyer | | | | | | | | | | | | | |
| 108 | 19 | *Popcorn coating | 7 | classroom | | 704 sf | y | ND | good | | | | | inc | inc | | O&M |
| 108 | 20 | | 7 | classroom | | | | | | | | | | | | | |
| 108 | 21 | **Wall stucco | 8 | classroom | | 880 sf | n | ND | good | | | | | | | | |
| 109 | 22 | 9 tan floor tile | 1 | storage | | 1,200 sf | n | 8% Chrys in tile, 10% Chrys in mastic | fair | mod | 3 | 5 | | inc | inc | | O&M |
| 108 | 23 | **Wall stucco | 8 | classroom | | 880 sf | n | ND | good | | | | | | | | |
| 100 | 24 | Gym 2 x 4 drop ceiling tile, pattern 2 | 9 | gym | | 4,940 sf | y | ND | excel | | | | | | | | |
| 100 | 25 | | 9 | gym | | | | | | | | | | | | | |
| 100 | 26 | | 9 | gym | | | | | | | | | | | | | |
| 100 | 27(QC) | | 9 | gym | | | | | | | | | | | | | |
| 108A | 28 | mudded pipe elbows | 10 | closet | | 50 joints | y | ND | fair | | | | | | | | |
| 108A | 29 | | 10 | closet | | | | | | | | | | | | | |

ASBESTOS SURVEY AND ASSESSMENT - FORM 2

Building Name and No. 100, Admin/Gym
 Survey Date: June 22, 1995
 Contract No.:
 Consultant: Patricia Mitchell, Apollo Environmental, Inc.
 Agency: State of Florida, Department of Military Affairs
 Bldg Contact Person: Sgt. Jeff Cook

| Room # | Sample # | Material | Ha # | Func Space | Sal Area | Quantity | Frable (y/n) | Asb. Type | Cond | Dang Pot | Haz Assmt | Resp Pri | Airs | COST \$ (in thousands) | | | Recom mend |
|--------|----------|-------------------------|------|-----------------|----------|-------------|--------------|--|------|----------|-----------|----------|------|------------------------|--------|---------|------------|
| | | | | | | | | | | | | | | Resp \$ | Air \$ | Repl \$ | |
| 106A | 30 | | 10 | closet | | 50 fittings | | ND | good | | | | | | | | |
| 104 | 31 | 9 white floor tile | 11 | Hall | | 45 sf | n | 2% chry - tile, 6% chry-mastic | good | low | 1 | 7 | | inc | inc | | O&M |
| 104 | 32 | | 11 | Hall | | | | | | | | | | | | | |
| 104 | 33 | | 11 | Hall | | | | | | | | | | | | | |
| 104A | 34 | ceiling plaster | 12 | bathroom | | 980 sf | n | ND | good | | | | | | | | |
| 104A | 35 | | | | | | | | | | | | | | | | |
| 104A | 36 | | | | | | | | | | | | | | | | |
| 104B | 37 | Wall board, not painted | 13 | locker room | 40 sf | 3,000 sf | n | 2% Chry in joint compound, <1% overall | good | low | 1 | 7 | | inc | inc | | O&M |
| 101 | 38 | Wallboard, painted | 13 | Hall | | 3,000 sf | | | good | | | | | | | | |
| 101 | 39 | Wallboard, painted | 13 | Hall | | 3,000 sf | | | | | | | | | | | |
| 101 | 40 | Exterior window putty | 14 | Exterior window | | 200 sf | y | ND | fair | | | | | | | | |
| 101 | 41(QC) | | 14 | Exterior window | | | n | | | | | | | | | | |
| 101C | 42 | | 14 | Exterior window | | | | | | | | | | | | | |
| 101C | 43 | | 14 | Exterior window | | | | | | | | | | | | | |
| Roof | --- | Built-up roof | 15 | Roof | | 11,700 sf | n | Assumed | fair | low | 1 | 7 | | inc | inc | | O&M |

Consultant: Patricia Mitchell, Apollo Environmental, Inc.
Agency: State of Florida, Department of Military Affairs
Bldg Contact Person: Sgt. Jeff Cook

[illegible]

The recommended response action is O & M. Note, normal occupancy is only 4 persons. The popcorn in the classroom previously sampled and no asbestos detected. The classroom stucco previously sampled and no asbestos detected. The main foyer surfacing was removed and replaced with cellulose drop ceiling tiles.

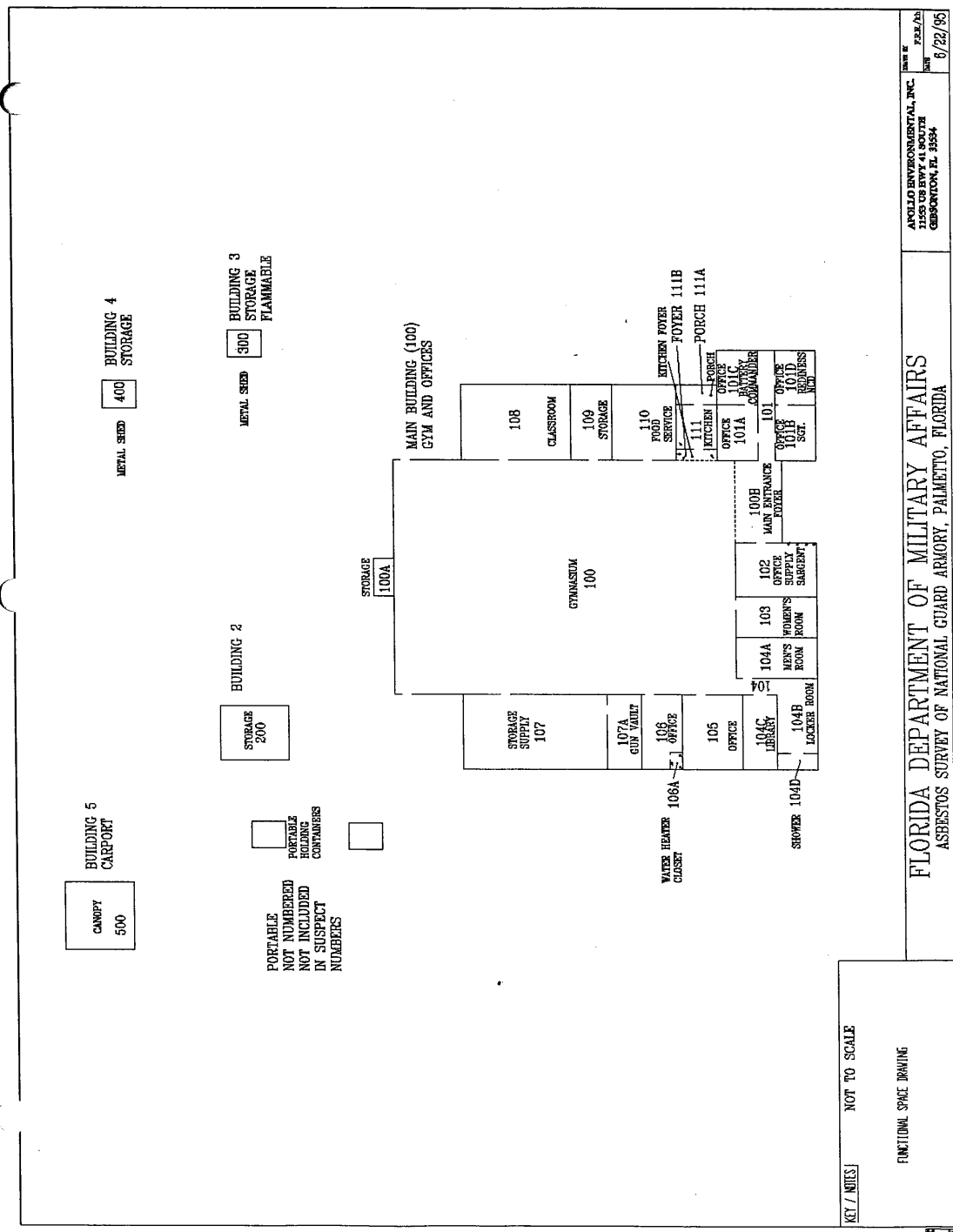
The price includes the fees for O & M development and air monitoring

Page 4 of 4

National Guard Armory
Palmetto, Florida
C:\SURVEY\ARMPAL.RPT

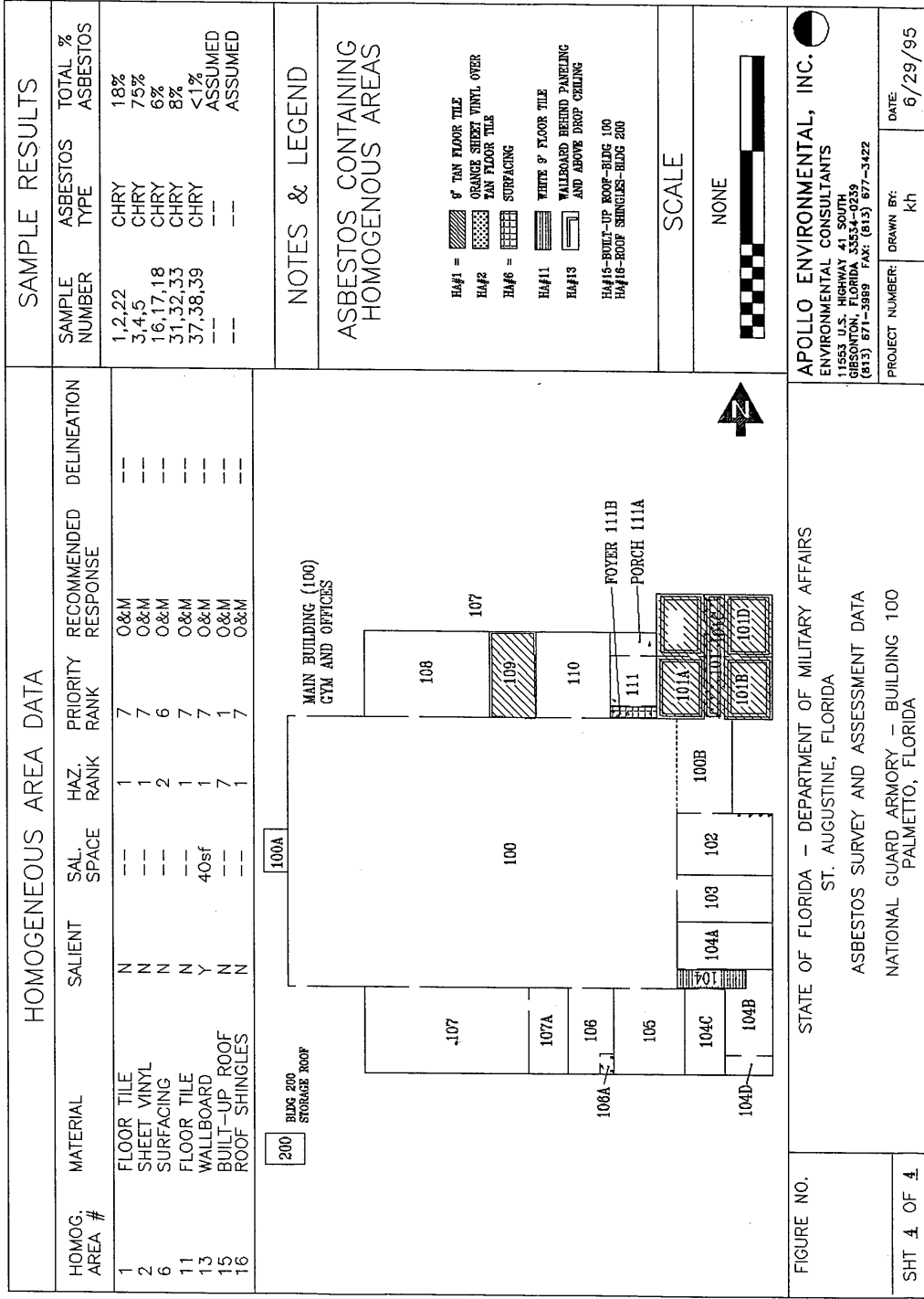
12

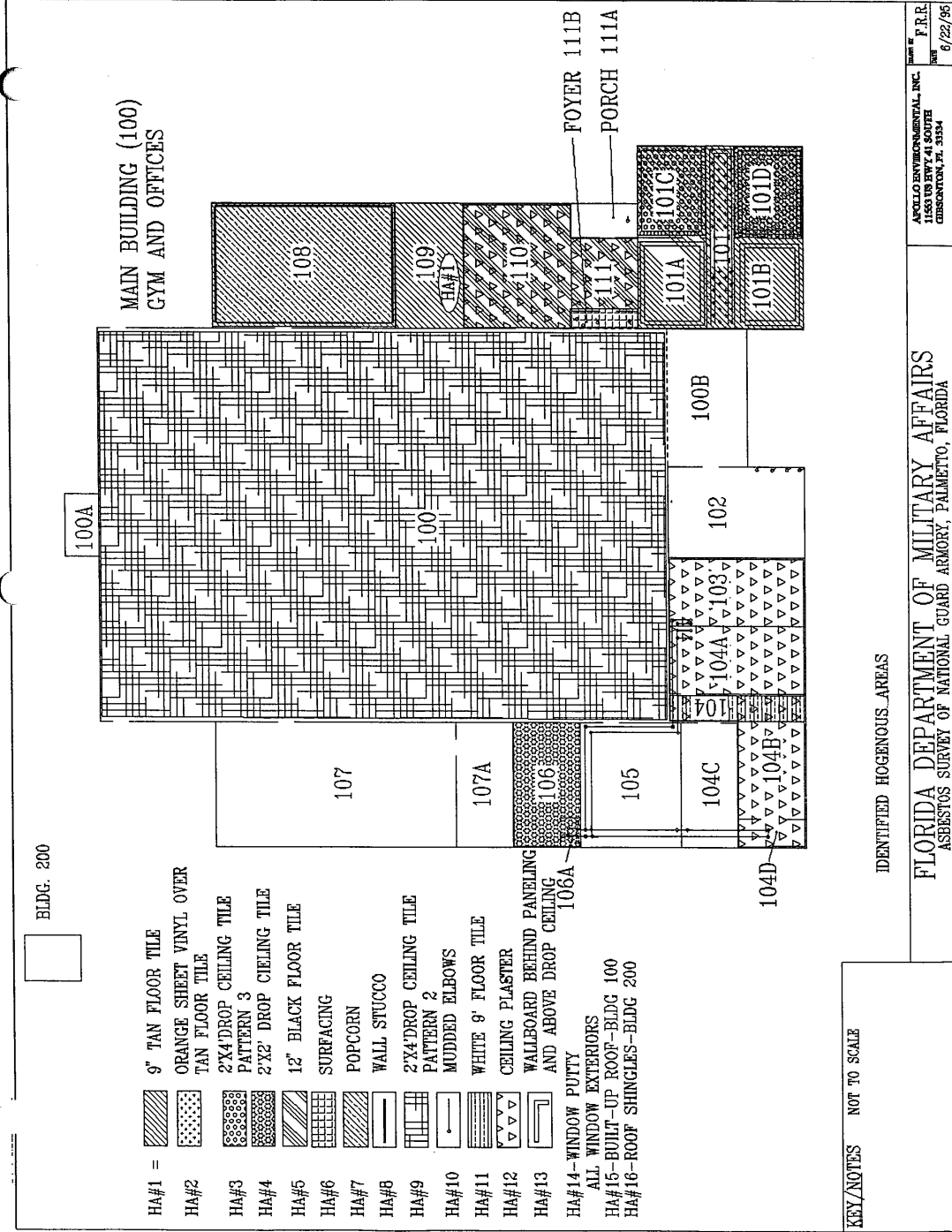
6/22/195



FLORIDA DEPARTMENT OF MILITARY AFFAIRS
ASBESTOS SURVEY OF NATIONAL GUARD ARMORY, PALMETTO, FLORIDA

APOLLO ENVIRONMENTAL, INC.
10000 W. BAYVIEW BLVD.
SUITE 100
CORPORATE CENTER
DALLAS, TEXAS 75244
6/22/95

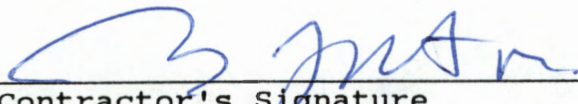




CONTRACTORS
CERTIFICATE OF SPECIFICATION
OF NO ASBESTOS-CONTAINING MATERIALS

I certify that no materials containing asbestos were specified for use in the construction of the REROOFING OF NATIONAL GUARD ARMORIES

project located in PLANT CITY/PALMETTO/TAMPA/CLEARWATER/WINTER HAVEN
Florida, DMS Project No. MA-91025010.


Contractor's Signature

7-28-93
Date

George J. Peterson, President
Contractor's Name (Typed)

Firm Name Southern Roofing Co., Inc.

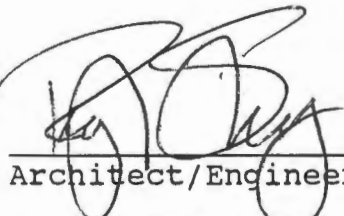
Address 900 Hawkins Street

Clearwater, Florida 34616

ARCHITECT/ENGINEER
CERTIFICATE OF SPECIFICATION
OF NO ASBESTOS-CONTAINING MATERIALS

I certify that no materials containing asbestos were specified for
use in the construction of the PEROOFING OF NATIONAL GUARD
ARMORIES.

project located in PLANT CITY / PALMETTO / TAMPA / CLEARWATER / WINTER HAVEN
Florida, DMS Project No. MA - 91025010.



Architect/Engineer's Signature

Ralph Salgado Jr.

Architect/Engineer's Name (Typed)

Firm Name ARKITEX 2

Address 1000 N. Ashley Drive, Suite 602

Tampa, Florida 33602

7/30/93
Date

Department of Military Affairs

**National Guard Armory, Palmetto
Asbestos Removal**

October 20-24, 1995

Patricia Mitchell

Date 10/27/95

Patricia Mitchell,
LAC # AX 0000005

**APOLLO ENVIRONMENTAL, INC.
P. O. BOX 239
GIBSONTON, FLORIDA 33534**

TEL: 813-671-3999

FAX 813-6773422

Table of Contents

| | |
|---|----------|
| Executive Summary | 3 |
| 1.0 Scope of Services | 3 |
| 2.0 Inspection, Sample Collection and Analysis Protocol | 3 |
| 3.0 Work Summary | 4 |

Appendix 1: Sample Analysis Sheets

Appendix 2: Daily Inspection and Narrative Logs

Appendix 3: Certifications: LAC, CIH, Supervisor, 582E

APOLLO ENVIRONMENTAL INC.

| Abatement Summary Table | | | |
|-------------------------|-----------------------------|-----------------------|----------|
| Date | Location | Material | Quantity |
| 10/20-24/95 | Rooms 101, 101A-D, 104, 109 | Floor tile and Mastic | 1,500 SF |
| | Room 111B | Surfacing | 36 SF |

Executive Summary

At the request of Capt. James Wood, Florida Department of Military Affairs, Apollo Environmental, Inc., provided abatement specifications, bidding coordination, project administration and PCM/TEM air monitoring services during the removal of floor tile and surfacing materials. Abatement was provided by Bradco, Inc., October 20-24, 1995 at the Palmetto Armory.

The asbestos containing materials were removed according to the project asbestos abatement specifications titled Technical Specifications for Department of Military Affairs for the Asbestos Abatement of the Palmetto National Guard Armory, 1107 Fourteenth Avenue West, Palmetto, Florida, dated September 5, 1995.

Personal air monitoring levels did not exceed the OSHA 8 hour TWA of 0.1 f/cc or the OSHA 30 minute excursion level of 1.0 f/cc.

1.0 Scope of Services

The scope of work was to provide technical specifications, bidding assistance, submittal review, and an IH technician for project administration and on-site PCM air monitoring during the removal of the above asbestos containing materials.. Final clearance was by PCM/TEM air monitoring and by visual inspection.

2.0 Inspection, Sample Collection and Analysis Protocol

The general inspections for work practices and removal process are performed according to general industry guidelines including ASTM, EPA and OSHA and the technical specification for this project. Final visual inspection is performed according to State of Florida/ASTM. The work of the Consultant and/or IH technician in no way relieves the abatement contractor from his responsibility to perform his work in accordance with purchase orders, contract documents, regulations and provide for the safety of his employees.

APOLLO ENVIRONMENTAL INC.

PCM sample collection and analysis is in accordance with OSHA Reference Method, OSHA 1926.1101 and/or NIOSH 7400, as revised and State of Florida.

Project supervision will consist of two major activities: (1) air monitoring and (2) compliance monitoring (i.e., contractor adherence to project specifications). Air monitoring is performed to ensure minimal fiber release in both the asbestos abatement work areas and in surrounding spaces. In general, air monitoring will be conducted prior to the initiation of abatement activities to establish background levels (prevalent sampling); continuously during the abatement; and after abatement (clearance). Clearance monitoring is per State of Florida/ASTM.

The IH technician maintains a daily inspection log and narrative. The log contains information on the person sampled, areas sampled, staging in progress, inspections, work phases, personal protective equipment and events.

Apollo industrial hygiene technicians performing project monitoring have successfully completed a State of Florida approved "Supervision of Asbestos Abatement Projects" and NIOSH 582 or equivalent course. On site phase contrast microscopy readings are provided by American Board of Industrial Hygienist Asbestos Analytical Registry (AAR) participants. The technicians participate in Apollo's extensive medical monitoring program and wear personal protective equipment appropriate to the task.

3.0 Work Summary

The floor tile and mastic, and the surfacing material were abated in accordance with the specifications which included full containment and three stage decontamination unit.

Bradco, Inc., was the abatement contractor and Mr. David Pendelton the abatement contractor supervisor. Total crew was approximately 3 men and the supervisor. Containment and work practices were in accordance with the project specifications. Personal protective equipment included ½ mask negative pressure respirator and coveralls. GFI, first aid equipment, fire extinguishers and adequate lighting was in use or available.

The PCM personal air monitoring did not exceed the OSHA 8 hour TWA of 0.1 f/cc or the OSHA 30 minute excursion level of 1.0 f/cc. Area monitoring yielded less than 0.01 f/cc.

Approximately 50 bags of waste were removed. Bayside of Marion is the scheduled waste disposal site. Waste manifests will be provided with the close-out submittals by the abatement contractor.

Appendix 1

Sample Analysis Sheets

Westmont, NJ
609-858-4800

Piscataway, NJ
908-981-0550

Carle Place, NY
516-997-7251

Smyrna, GA
404-333-6066

Melbourne, FL
407-725-5223

Ann Arbor, MI
313-668-6810

San Mateo, CA
415-570-5401

EMSL

Apollo Environmental, Inc.
11553 U.S. Highway 41 South
Gibsonton, FL 33534

Tuesday, October 24, 1995

Ref Number: GA952485

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM), Selective Area Electron Diffraction (SAED), and Energy Dispersive X-Ray Microanalysis (EDX) - Performed by EPA Level II Method.

Project: #AD-14675/National Guard Armory, Palmetto, FL

Basic TEM Summary Report

| SAMPLE | VOLUME
(liters) | ASBESTOS
TYPE(S) | # STRUCTURES | | CONCENTRATION OF
ASBESTOS STRUCTURES | | DETECTION
LIMIT |
|--------|--------------------|---------------------|--------------|--------|---|---------------------|--------------------|
| | | | ASB | NONASB | AFP/cc | AFP/mm ² | |
| #1 | 1620.00 | None Detected | 0 | 0 | <0.0037 | <16.7000 | 0.0037 |
| #4 | 1620.00 | None Detected | 0 | 0 | <0.0037 | <16.7000 | 0.0037 |

Comments: AFP - Asbestos Fibrous Particulates.

Number under AFP/cc are detection limits for "None Detected" samples.

AFP/cc - Concentration of Asbestos in AFP/cc; for blank sample, AFP/cc represents number of AFP in millions of Fibers/Fiber.

* NVLAP PLM/TEM Accredited #1048-01

Peter Frasca, Ph.D.
Director


Laboratory
Supervisor

Other Approved
Signatory

AIR SAMPLE ANALYSIS

| | | |
|---|---------------------------------------|---|
| Client: | <i>Dept. of Military Affairs</i> | 11553 U.S. Highway 41 South
Gibsonton, Florida 33534-9720
Telephone (813) 671-3999
FAX: 677-3422 |
| Project: | <i>Palmetto National Guard Armory</i> | |
| Test Method: ☒ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
☐ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy. | | |
| Lab ID: AD- | <i>14673</i> | Date: <i>10-20-95</i> |
| Collected by: | <i>AEI</i> | Date Collected: <i>10-20-95</i> |
| Analyst: | <i>Mike With</i> | NIOSH Lab ID: 33570-001 |

| # | Sample Collection Information | Time (min) | Flow Rate | Volume (l) | Fiber Count | Field Count | Conc (f/cc) |
|---|--|------------|-----------|------------|-------------|-------------|-------------|
| - | <i>First Day Removal of floor tile and Sheet Vinyl</i> | — | — | — | — | — | — |
| A | <i>field Blank</i> | — | — | — | 100 | 0 | — |
| B | <i>field Blank</i> | — | — | — | 100 | 0 | — |
| 1 | <i>Inside of Bld High Volume Background</i> | 120 | 9.9 | 1188 | 100 | 4 | 0.003 |
| 2 | <i>High Volume DLeon 101</i> | 120 | 9.9 | 1188 | 100 | 5 | 0.003 |
| 3 | <i>High Volume Air Exhaust</i> | 120 | 9.9 | 1188 | 100 | 0 | 0.003 |
| 4 | <i>Personnel ^{RM} 101 - Robert Martin</i> | 180 | 2.0 | 360 | 100 | 11 | 0.015 |
| 5 | <i>Personnel ^{RM} 109 - Jerry Bradley</i> | 60 | 2.0 | 120 | 100 | 3 | 0.033 |
| 6 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Apollo Rep Sig:

Contractor Rep Sig:

Contractor Rep (print name)

| | | |
|---------------------|---------------------------|-----------------|
| <i>T. Mike With</i> | <i>David W. Pendleton</i> | DAVID PENDLETON |
|---------------------|---------------------------|-----------------|

Comments:

M.F.A. = 0.00785

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AIR SAMPLE ANALYSIS

| | | |
|---|---------------------------------|---|
| Client: | <i>Dept of Military Affairs</i> | 11553 U.S. Highway 41 South
Gibsonton, Florida 33534-9720
Telephone (813) 671-3999
FAX: 677-3422 |
| Project: | <i>N.S.R. Palmetto</i> | |
| Test Method: ☒ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
☐ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy. | | |
| Lab ID: AD- <i>14674</i> | Date: | <i>10-21-95</i> |
| Collected by: <i>AEI</i> | Date Collected: | <i>10-21-95</i> |
| Analyst: <i>Mike With</i> | NIOSH Lab ID: 33570-001 | |

| # | Sample Collection Information | Time (min) | Flow Rate | Volume (l) | Fiber Count | Field Count | Conc (f/cc) |
|----------|--|------------|------------|-------------|-------------|-------------|-------------------|
| <i>A</i> | <i>field Blank</i> | | | | ϕ | <i>100</i> | |
| <i>B</i> | <i>field Blank</i> | | | | ϕ | <i>100</i> | |
| <i>1</i> | <i>Area one High Volume - Exhaust</i> | <i>120</i> | <i>9.9</i> | <i>1188</i> | ϕ | <i>100</i> | <i>< 0.003</i> |
| <i>2</i> | <i>High Volume - Area Background</i> | <i>120</i> | <i>9.9</i> | <i>1188</i> | <i>4</i> | <i>100</i> | <i>< 0.003</i> |
| <i>3</i> | <i>High Volume - Exhaust III B</i> | <i>120</i> | <i>9.9</i> | <i>1188</i> | ϕ | <i>100</i> | <i>< 0.003</i> |
| <i>4</i> | <i>High Volume - Decon III B</i> | <i>120</i> | <i>9.9</i> | <i>1188</i> | <i>5</i> | <i>100</i> | <i>< 0.003</i> |
| <i>5</i> | <i>265-61 7918 POM - Jerry Bradley III B</i> | <i>30</i> | <i>2.0</i> | <i>60</i> | <i>7</i> | <i>100</i> | <i>< 0.065</i> |
| | | | | | | | |
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| | | |
|---------------------|-----------------------|------------------------------|
| Apollo Rep Sig: | Contractor Rep Sig: | Contractor Rep (print name): |
| <i>F. Mike With</i> | <i>David Pendeton</i> | <i>DAVID PENDETON</i> |

Comments: *ABOTEMENT*

M.F.A. = *0.00785*

AIR SAMPLE ANALYSIS

| | |
|---|---|
| Client: <i>Dept of Military affairs</i> | 11553 U.S. Highway 41 South
Gibsonton, Florida 33534-9720
Telephone (813) 671-3999
FAX: 677-3422 |
| Project: <i>Palmetto N.G.A.</i> | |
| Test Method: ☒ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
☐ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy. | |
| Lab ID: AD- <i>14674</i> | Date: <i>10-21-95</i> |
| Collected by: <i>DEF</i> | Date Collected: <i>10-21-95</i> |
| Analyst: <i>Mike With</i> | NIOSH Lab ID: 33570-001 |

| # | Sample Collection Information | Time (min) | Flow Rate | Volume (l) | Fiber Count | Field Count | Conc (f/cc) |
|---|-------------------------------|------------|-----------|------------|-------------|-------------|-------------|
| - | PCM FINAL AIRS | | | | | | |
| A | field Blank | | | | Ø | 100 | |
| 1 | High Volume 104 | 120 | 9.9 | 1188 | Ø | 100 | < 0.003 |
| 2 | High Volume 104 | 120 | 9.9 | 1188 | Ø | 100 | < 0.003 |
| 3 | High Volume 104 | 120 | 9.9 | 1188 | 1 | 100 | < 0.003 |
| 4 | High Volume 109 | 120 | 9.9 | 1188 | 1 | 100 | < 0.003 |
| 5 | High Volume 109 | 120 | 9.9 | 1188 | 3 | 100 | < 0.003 |
| 6 | High Volume 109 | 120 | 9.9 | 1188 | Ø | 100 | < 0.003 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| | | |
|-------------------------------------|---------------------|--|
| Apollo Rep Sig: <i>F. Mike With</i> | Contractor Rep Sig: | Contractor Rep (print name): <i>DAVID PENNINGTON</i> |
|-------------------------------------|---------------------|--|

Comments:

M.F.A. = 0.00785

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AIR SAMPLE ANALYSIS

| | |
|---|---|
| Client: <i>Dept. of Military Affairs</i> | 11553 U.S. Highway 41 South
Gibsonton, Florida 33534-9720
Telephone (813) 671-3999
FAX: 677-3422 |
| Project: <i>National Guard Armory Palmetto</i> | |
| Test Method: ☐ Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
☒ Quantitative & qualitative analysis of airborne samples by Transmission Electron Microscopy. | |
| Lab ID: AD- <i>14675</i> | Date: <i>X</i> |
| Collected by: <i>AEI</i> | Date Collected: <i>10-21-95</i> |
| Analyst: <i>X</i> | NIOSH Lab ID: 33570-001 |

| # | Sample Collection Information | Time (min) | Flow Rate | Volume (l) | Fiber Count | Field Count | Conc (f/cc) |
|---|---|------------|-----------|------------|-------------|-------------|-------------|
| | <i>Area One - RM 101-101A-101B-101C</i>
<i>TEMPINAL AIRS Bld one</i> | — | — | — | — | — | — |
| | <i>Area Two - RM 111B Foyer</i>
<i>TEMPINAL AIRS Bld one</i> | — | — | — | — | — | — |
| 1 | <i>High Volume RM 101 area one</i> | 180 | 9.0 | 1620 | — | — | — |
| 2 | <i>High Volume RM 101 A area one</i> | 180 | 9.0 | 1620 | — | — | — |
| 3 | <i>High Volume RM 101 D area one</i> | 180 | 9.0 | 1620 | — | — | — |
| 4 | <i>High Volume RM 111B area two</i> | 180 | 9.0 | 1620 | — | — | — |
| 5 | <i>field Blank NOT OPENED</i> | — | — | — | — | — | — |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

| | | |
|-------------------------------------|--|---|
| Apollo Rep Sig: <i>F. Mike Witt</i> | Contractor Rep Sig: <i>DAVID PENDLETON</i> | Contractor Rep (print name): <i>DAVID PENDLETON</i> |
|-------------------------------------|--|---|

Comments:

M.F.A. = *X*

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Appendix 2

Daily Inspection and Narrative Logs

| | | |
|----------------|--------------------------------|-------------------------|
| Site | Palmetto National Guard Armory | |
| Client | Dept. of Military Affairs | |
| Contractor | Bradley Inc. | |
| Ctr Supervisor | David Pennington | |
| Apollo Rep | Mike With | Signature: F. Mike With |

[illegible]

*Attach additional pages with typed daily narrative log.
Turn in once weekly and upon completion with project data sheet.*

Day: Thursday Date: 10-21-95
 Arrived: 7:00 PM Left: 5:00 PM

DAILY INSPECTION LOG

see air part & test time

| | | | |
|----------------|---------------------------------------|------------|---------------------|
| Site | <i>Palmetto National Guard Armory</i> | | |
| Client | <i>Dept of Military Affairs</i> | | |
| Contractor | <i>Bradco Inc.</i> | | |
| Ctr Supervisor | <i>David Pennington</i> | | |
| Apollo Rep | <i>Mike With</i> | Signature: | <i>F. Mike With</i> |

WORKERS ONSITE (indicate proper training/release documentation with ✓)

| | | | | | |
|------------------|--|--|--|--|--|
| <i>3 workers</i> | | | | | |
| <i>1 Supt</i> | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| STAGING IN PROGRESS | ✓ | NA | WORK PHASES IN PROGRESS | ✓ | NA |
|-------------------------------|---|----|----------------------------|---|----|
| full containment w/decon | ✓ | | demolition | ✓ | |
| mini-enclosure | ✓ | | pre-clean | ✓ | |
| negative air (#units-) | 3 | | job prep | ✓ | |
| smoke test | | ✓ | build decon | ✓ | |
| manometer in use ("H2O) | ✓ | | gross removal | ✓ | |
| area samples (#) | 4 | | glovebagging | | |
| personnel samples (#) | 1 | | bagging out | ✓ | |
| final airs PCM (#) | 6 | | final clean | ✓ | |
| final airs TEM (#) | 5 | | clearance | ✓ | |
| agressive clearance sampling | ✓ | | | | |
| INSPECTIONS | ✓ | NA | INSPECTIONS | ✓ | NA |
| first aid equioment | ✓ | | adequate negative pressure | ✓ | |
| emergency lights | ✓ | | wet methods used properly | ✓ | |
| fire extinguisher | ✓ | | water on floor | ✓ | |
| walkie-talkies | | ✓ | ACM kept off floor | ✓ | |
| fire sprinklers | | ✓ | ACM bagged properly | ✓ | |
| floor drains sealed | ✓ | | amended H2O in use | ✓ | |
| HVAC deactivated | ✓ | | respirators used properly | ✓ | |
| extension cords removed | ✓ | | coveralls, suits used | ✓ | |
| adequate lighting | ✓ | | adequate equipment overall | ✓ | |
| visible emissions out of area | ✓ | | warning signs placed | ✓ | |
| water leakage out of area | ✓ | | GFI in use | ✓ | |
| decon clean, shower clean | ✓ | | scaffolding used properly | ✓ | |
| soap/shampoo | ✓ | | all air filters clean | ✓ | |
| hot/cold water | ✓ | | | | |
| poly secure | ✓ | | | | |
| critical barriers secure | ✓ | | | | |

*Attach additional pages with typed daily narrative log.
 Turn in once weekly and upon completion with project data sheet.*

AD 14673

Apollo Environmental Inc.

EC Mike Witt
Client Dept. of Military Affairs
Cont. Bardco Inc.
Job National Guard Armory (PALMETTO)
1107 Fourteenth Avenue West

Date Friday 10-20-95

7:30 am EC arrives on the job site.
BRADCO INC. on the job site.
Supt. David W. Pendleton
work crew: Berald Lane
Robert Martin
Jerry Bradley

This is an ASBESTOS ABATEMENT PROJECT.
Bradco will be abating approx. 1405 sf of floortile and
sheetvinyl and mastic glue.
(rooms 101,101A,101B,101C,101D and 104.)
Crew will be removing popcorn ceiling material room 111B FOYER.
(36 sf).
All abatement will be conducted under full poly containment,
negative air, 3 stage Decon, wet removal and splash guards.
Crew will wear Hepa respirators and disposable coveralls.
Crew will shower out each time when leaving work area.
ACM DANGER SIGNS and barrier tape will be posted.
Five micron shower filter will be used.

Crew begins preclean and poly prep of first work area.
Work area one is rooms 101,101A,101B,101C 101D all under
one common containment and common negative air.

8:00 am Start air sample one at cal 9.9 lpm High Volume pump
Pre Background Gym area

10:00 am Stop air sample one at cal 9.9 lpm
EC mounts and reads air sample.

11:50 am Crew breaks for 30 minute lunch.

12:30 pm Crew suits up and begins abatement of Area One, after EC
inspected poly prep.

12:45 pm Start air sample 2 at cal 9.9 lpm High Volume pump-Decon area one
Start air sample 3 at cal 9.9 lpm High Volume pump-Air Exhaust
Start air sample 4 at cal 2.0 lpm Personnel pump area one
Crew prewetting work area and material .
There are no visible emissions.

2:45 pm Stop air sample two at cal 9.9 lpm
Stop air sample 3 at cal 9.9 lpm
Stop air sample 4 at cal 2.0 lpm
Crew bagging up as they finish each room.

AD 14673

Apollo Environmental Inc.

| | |
|--------|---------------------------|
| EC | Mike Witt |
| Client | Dept. of Military Affairs |
| Job | N.G.A. PALMETTO |
| Date | Friday 10-20-95 |

Jerry Bradley doing preclean and poly prep of (area two) area two is room 109 floortile and mastic. This area is less than 160 sf.

3:30 am Jerry begins abatement of room 109 after EC inspected poly and Jerry donned Hepa respirator.
Jerry pre wets material.
3:30 pm Start air sample five at cal 2.0 lpm Personnel pump on Jerry Bradley room 109

There are no visible emissions.

4:30 pm Stop air sample five at cal 2.0 lpm
5:00 pm Crew has secured work areas and showered out.
Bradco leaves the job site for the day.
5:00 pm EC leaves the job site for the lab.....

NOTE: National Guard personnel are locking up building at this time.

AD 14674 PCM
14675 TEM

Apollo Environmental Inc.
EC Mike Witt
Client Dept. of Military Affairs
Cont. Bardco Inc.
Job N.G.A. PALMETTO
DATE Saturday 10-21-95

7:00 am EC arrives on the job site.
Bradco arrives on the job site. David Pendleton supt.
Crew of 3 workers.
work areas: area one (101A,101B,101C,101D) remove mastic.
Foyer 111B abate ceiling.
109 remove mastic.
104 remove mastic.
All critical barriers in tact. Negative air machines running.
Crew suits up in paper suits and Hepa respirators.
Crew removing mastic from area one, and abating 111B.

7:30 am Start air sample one at cal 9.9 lpm Air Exhaust
Start air sample two at cal 9.9 lpm area sample
Start air sample at cal 9.9 lpm Decon 111B
Start air sample at cal 9.9 lpm Exhaust 111B
Start air sample 5 at cal 2.0 lpm Jerry Bradley room 111B

8:00 am Stop air sample 5 at cal 2.0 lpm
Kitty litter being used to soak up liquid mastic.

10:00 am Stop air sample 1-2-3-4 at cal 9.9 lpm

NOTE: Capt. Wood on the job site. There are no problems to report.
Ec inspected area one-111B-109 and 104.
Crew encapsulated these areas.

12:30 pm Bradco leaves the job site. Will return 10:00 am Tuesday.

1:30 pm EC set up PCM pumps in 104 Final Airs
Start sample 1-2-3 at cal 9.9 lpm
EC set up PCM pumps in 109 Final Airs
EC set up TEM pumps in area one and 111B for FINAL AIRS

2:00 pm Start air sample 1 at cal 9.0 lpm rm 101
Start air sample 2 at cal 9.0 lpm rm 101A
Start air sample 3 at cal 9.0 lpm rm 101D
Start air sample 4 at cal 9.0 lpm rm 111B

3:30 pm Stop PCM Final Airs
Stop sample 1-2-3 at cal 9.9 lpm

AD 14674 PCM
AD 14675 TEM

Apollo Environmental Inc.
EC Mike Witt
National Guard Armory Palmetto
Saturday 10-21-95

2:30 pm Start PCM Final air pumps in room 109
Start sample 4-5-6 at cal 9.9 lpm

3:30 pm Stop pcm final air samples 1-2-3 rm 104 at cal 9.9 lpm

5:00 pm Stop TEM FINAL AIR samples 1-2-3-4 at cal 9.0 lpm

5:00 pm Stop PCM Final Air samples 4-5-6 at cal 9.9 lpm rm 109.

Ec secures area and leaves the job site for the Airport.

EC going to Apollo Lab to mount and read PCM samples.
Mount and read time 1.5 hours.

AD none

Apollo Environmental Inc.

EC Mike Witt

Client Dept. of Military Affairs

Job Palmetto N.G.A.

Date Tuesday 10-24-95

Today's work is post abatement cleanup and removal of poly.
Bradco scheduled to be on site at 10:00 am.

9:35 am

EC arrives on the job site. EC phoned Apollo.
Bradco has completed post abatement cleanup
and on site Guard personnel have no complaints.

EC inspects all areas.
Carpets begin laying carpeting.

1:35 am

EC leaves the job site for the lab.....

| | | | |
|---|--|-----------|----------|
| Air Monitoring Technician Call-In Form | | Mike Witt | 10-20-95 |
| Site | Palmetto National Guard Armory | | |
| Work Areas | Foyer
Rm 109, 104, 111B, 101, 101A,
101B, 101C, 101D | | |
| Type of Material Being Abated | Floor Tile / Sheet Vinyl / Popcorn Ceiling | | |
| Quantity of Material Being Abated | 1,405 SF 36 SF | | |
| Number of Waste Bags Removed | 20 Bags | | |
| Contractor | BRADCO | | |
| Contractor's Supervisor's Name | David Pendellton | | |
| Number of crew in addition to supervisor | 3 | | |
| Name of Landfill | WYBURN Bayside of Marion | | |
| Any Construction activities in adjacent areas | None | | |

Respiratory Protection - 1/2 Mask - Floor Tile

Saturday 10-21-95

| | |
|---|--|
| Air Monitoring Technician Call-In Form | |
| Site | <i>National Guard Armory
Palmetto</i> |
| Work Areas | <i>104-109-111B-101A-101B-101C-101D</i> |
| Type of Material Being Abated | <i>floor tile - Mastic
ceiling popcorn</i> |
| Quantity of Material Being Abated | <i>1405 SF
36 SF</i> |
| Number of Waste Bags Removed | <i>20</i> |
| Contractor | <i>BRADCO</i> |
| Contractor's Supervisor's Name | <i>David Pendleton</i> |
| Number of crew in addition to supervisor | <i>3</i> |
| Name of Landfill | <i>Marion</i> |
| Any Construction activities in adjacent areas | <i>No</i> |

Tuesday 10-24-95

Air Monitoring Technician Call-In Form

| | |
|---|--|
| Site | Palmetto N.Y.S. |
| Work Areas | 104-109-14B Fayer
101A-101B-101C-101D |
| Type of Material Being Abated | none - post abatement clean up |
| Quantity of Material Being Abated | none - |
| Number of Waste Bags Removed | 10 - poly only |
| Contractor | Bradco |
| Contractor's Supervisor's Name | David Pendleton |
| Number of crew in addition to supervisor | 3 |
| Name of Landfill | Marion |
| Any Construction activities in adjacent areas | NO |

Appendix 3

Certifications: LAC, Supervisors, 582E

AC# 3316370

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS

| DATE | LICENSE NO. | BATCH NO. |
|----------|-------------|-----------|
| 03/29/95 | AX 0000005 | 94024673 |

THE ASBESTOS CONSULTANT
NAMED BELOW IS LICENSED
UNDER THE PROVISIONS OF CHAPTER 469 F.S., FOR THE YEAR
EXPIRING NOV 30, 1996

MITCHELL, PATRICIA CRAIG
1013 BAL HARBOUR DR.
APOLLO BEACH FL 33572


LAWTON CHILES
GOVERNOR

DISPLAY IN A CONSPICUOUS PLACE

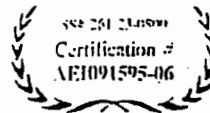

GEORGE STUART, JR.
SECRETARY, D.B.P.R.

Apollo Environmental Incorporated

Hereby certifies that
F. MICHAEL WITT
has successfully completed
the course of instruction:

Refresher: Supervision of Asbestos Abatement Projects

September 15, 1995



Patricia Mitchell

Patricia Milneil
Licensed Asbestos Consultant # AX 0000005

Apurko Environmental, Inc. • 115511 • 511 5th Ave • Columbus, Indiana 45511 • 4043 6721 • 200

Mayhew Environmental Training Associates

Case Number
7ME027489009N

This is to certify that

Michael F. Wit

הכרזת המלכות

Sampling and Analysis of Airborne Asbestos Dust, NIOSH 5821

and passed the associated examination

February 20-24, 1989 in Ruston, Florida

INSTRUCO

Course Grade: 79

Conducted by

MENTA

Address: Environmental Planning Associates
11400 C-4-P-O Box 241 Y 2 2

三、關於「中國」的定義

1:30 P.M. MET.

J. B. Williams



Ruberoid®/GAFGLAS® Diamond Pledge™ NDL Roof Guarantee



Armory Board State of Florida

OWNER OF BUILDING

Palmetto National Guard Armory

NAME OF BUILDING

1107 14th Avenue West Palmetto FL USA 34221

ADDRESS OF BUILDING

180

AREA OF ROOF (SQUARES)

RF Lusa & Sons Sheet Metal Inc

APPLIED BY

G2024-0001391-001-001

GUARANTEE NUMBER

25

PERIOD OF COVERAGE

4/15/2024

DATE OF COMPLETION

4/15/2049

GUARANTEE EXPIRATION DATE

I0325HGPFR

ROOF SPECIFICATION

THE GUARANTEE/SOLE AND EXCLUSIVE REMEDY

GAF guarantees to you, the owner of the building described above, that GAF will provide "Edge To Edge" protection by repairing leaks through the GAF roofing membrane, liquid-applied membrane or coating, base flashing, high wall waterproofing flashing, insulation, expansion joint covers, prefashed accessories, and metal flashings used by the contractor of record that were designed and installed in accordance with an appropriate ES-1 certified edge detail (the "GAF Roofing Materials") resulting from a manufacturing defect, ordinary wear and tear, or workmanship in applying the GAF Roofing Materials. There is no dollar limit on covered repairs. Leaks caused by any non-GAF materials, such as the roof deck or non-GAF insulation, are not covered.

GUARANTEE PERIOD

This guarantee ends on the expiration date listed above. **NOTE:** Lexsuo® and uncoated M-Curb™ flashings are covered by this guarantee **ONLY** for the first ten years.

OWNER RESPONSIBILITIES

Notification of Leaks

In the event of a leak through the GAF Roofing Materials, you **MUST** make sure that GAF is notified directly about the leak, in writing, within **30 days** either online at leakreporting.gaf.com, by email at guarantee@gaf.com, or by postal mail to GAF Warranty Claims Department, 1 Campus Drive, Parsippany, NJ 07054, or GAF will have no responsibility for making repairs. **NOTE:** The roofing contractor is **NOT** an agent of GAF; notice to the roofing contractor is **NOT** notice to GAF.

By notifying GAF, you authorize GAF to investigate the cause of the leak. If the investigation reveals that the leak is not covered by this guarantee, you agree to pay an investigation cost of \$500. This guarantee will be cancelled if you fail to pay this cost within 30 days of receipt of an invoice for it.

Preventative Maintenance and Repairs

- You must perform regular inspections and maintenance and keep records of this work.
- To keep this guarantee in effect, you must repair any conditions in the building structure or roofing system that are not covered by this guarantee but that GAF concludes may be threatening the integrity of the GAF Roofing Materials. Any such repairs must be performed by a GAF-certified roofing contractor. Failure to make timely repairs may jeopardize guarantee coverage.
- You may make temporary repairs to minimize damage to the building or its contents in an emergency, at your sole expense. These repairs will not result in cancellation of the guarantee as long as they are reasonable and customary and do not result in permanent damage to the GAF Roofing Materials.
- Any equipment or material that impedes any inspection or repair must be removed at your expense so that GAF can perform inspections or repairs.

EXCLUSIONS FROM COVERAGE

(e.g., items that are not "ordinary wear and tear" or are beyond the control of GAF)

This guarantee does **NOT** cover conditions other than leaks. This guarantee also does **NOT** cover leaks caused by any of the following:

- Inadequate roof maintenance, that is, the failure to follow the Scheduled Maintenance Checklists provided with this guarantee (extra copies available by calling Guarantee Services at 1-877-GAF-ROOF) or the failure to repair owner responsibility items.
- Unusual weather conditions or natural disasters including, but not limited to, winds in excess of 55 miles per hour, hail, floods, hurricanes, lightning, tornados, and earthquakes, unless specifically covered by an addendum to this guarantee.
- Impact of foreign objects or physical damage caused by any intentional or negligent acts, accidents, misuse, abuse, or the like.
- Damage to the roof constructed of the GAF Roofing Materials due to: (a) movement, cracking, or other failure of the roof deck or building; (b) improper installation or failure of any non-GAF insulation or materials; (c) condensation or infiltration of moisture through or around the walls, copings, building structure, or surrounding materials except where high wall GAF waterproofing flashings are installed; (d) chemical attack on the membrane, including, but not limited to, exposure to grease or oil; (e) the failure of wood nailers to remain attached to the structure; (f) moisture migration from the building interior or any building component other than the GAF Roofing Materials; (g) use of materials that are incompatible with the GAF Roofing Materials; or (h) architectural, engineering, or design defects or flaws.
- Traffic of any nature on the roof unless using GAF walkways applied in accordance with GAF published application instructions.
- Blisters in the GAF Roofing Materials that have not resulted in leaks unless (a) the blister is between the base sheet and insulation and a Stratavent® Venting Base Sheet is installed directly over isocyanurate insulation, or (b) the blister is in a seam and may affect the watertight integrity of the GAF Roofing Materials.
- Changes in the use of the building or any repairs, installation of any overburden, modifications, or additions to the GAF Roofing Materials after the roof is completed, unless prior written approval is obtained from GAF.
- Conditions that prevent positive drainage or result from ponding water.

No representative, employee, or agent of GAF, or any other person, has the authority to assume any additional or other liability or responsibility for GAF, unless it is in writing and signed by an authorized GAF Field Services Manager or Director. GAF does not practice engineering or architecture. Neither the issuance of this guarantee, nor any review of the roof constructed of the GAF Roofing Materials (or the plans for the roof), by GAF shall constitute any warranty of such plans, specifications or construction, or the suitability or code compliance of the GAF Roofing Materials for any particular structure. **NOTE:** Any inspections made by GAF are limited to a surface inspection only, are for the sole benefit of GAF, and do not constitute a waiver or extension of any of the terms and conditions of this guarantee.

This guarantee MAY BE SUSPENDED OR CANCELLED IF THE ROOF IS DAMAGED BY any cause listed above as AN EXCLUSION FROM COVERAGE that may affect the integrity or watertightness of the roof.

TRANSFERABILITY

You may transfer or assign this guarantee to a subsequent owner of this building for the remaining term only if: 1) the request is in writing to GAF at the address listed below within 60 days after ownership transfer; 2) you make any repairs to the GAF Roofing Materials or other roofing or building components that are identified by GAF after an inspection as necessary to preserve the integrity of the GAF Roofing Materials; and 3) you pay an assignment fee of \$500. This guarantee is NOT otherwise transferable or assignable by contract or operation of law, either directly or indirectly.

LIMITATION OF DAMAGES; MEDIATION; JURISDICTION; CHOICE OF LAW

THIS GUARANTEE IS EXPRESSLY IN LIEU OF ANY OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, and of any other obligations or liability of GAF, whether any claim against it is based upon negligence, breach of warranty, or any other theory. In **NO** event shall GAF be liable for any CONSEQUENTIAL OR INCIDENTAL DAMAGES of any kind, including, but not limited to, interior or exterior damages and/or mold growth.

The parties agree that, as a condition precedent to litigation, any controversy or claim relating to this guarantee shall be first submitted to mediation before a mutually acceptable mediator unless GAF, at its sole option, elects to waive said requirement. In the event that mediation is unsuccessful, or is waived by GAF, the parties agree that neither one will commence or prosecute any lawsuit or proceeding other than before the appropriate state or federal court in the State of New Jersey. This guarantee shall be governed by the laws of the State of New Jersey, without regard to principles of conflicts of laws. Each party irrevocably consents to the jurisdiction and venue of the above identified courts.

NOTE: GAF shall have no obligation under this guarantee unless and until all bills for installation and supplies have been paid in full to the roofing contractor and materials suppliers, and the guarantee charge has been paid to GAF.

By: _____

Authorized Signature

4/15/2024 13:25:10

GAF
1 CAMPUS DRIVE
PARSIPPANY, NJ 07054

Visit gaf.com

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We protect what matters most™



STANDARD FORM ROOF GUARANTEE

Owner Armory Board State of Florida
Location Palmetto National Guard Armory 1107 14th Ave W, Palmetto, FL 34221
Type of Roof GAF Mod Bit Roof Under Guarantee (if less the entire roof) _____
Date of Completion April 15th 2024

COVERAGE

The roof applied to the building described above is guaranteed for 2 years from the date of completion shown above. Under this guarantee, the roofing contractor will at its own expense make any repairs necessary to correct roof leaks resulting from the following causes:

1. Failure of roofing felts or base flashing resulting from usual and ordinary effects of wear and weather.
2. Poor workmanship of roofing contractor in applying roofing and flashing materials.

EXCLUSIONS

This guarantee does not cover:

1. Leaks or other damaged caused by:
 - a. Natural disasters including but not limited to floods, lightning, hurricanes, hail, windstorms, tornadoes, earthquakes, dry rot, etc.
 - b. Structural failures such as cracks in decks, walls, partitions, foundations, windows, stoppage of roof drains or gutters, etc.
 - c. Changes in original principle usage to which building is put unless approved in advance in writing.
 - d. Erection or construction of any additional installation on or through the roofing felt after date of completion.
 - e. Roof or flashing repairs by others, painting or coating without approval.
 - f. Riots or vandalism
 - g. Termites or other insects
 - h. Penetration of roof from beneath by rising nails.
2. Damage to the building or its contents, roof insulation, roof deck, or other base over which roofing felt is applied.
3. If at any term of this guarantee, the subject property shall be exposed to windstorms or hurricanes of tornadic force, this guarantee shall be void and cancelled.

ACTION

In the event leaks from the roofing should occur, owner shall notify the contractor promptly, confirming such notice in writing. Contractor will inspect the roof, and if cause of the leak is within the coverage as stated above, the contractor will arrange for repairs to be made at no cost to the owner. If cause of leak is not covered, contractor will not be responsible for cost of any repairs.

In the event leaks are not covered under the terms of this guarantee, a service charge will be invoiced to the owner, the guarantee will become null and void if payment of service charge is not made within 30 days of the billing date.

**WE MAKE NO GUARANTEES OF ANY KIND, EXPRESSED OR IMPLIED,
EXCEPT HEREIN STATED.**



In Witness thereof the said Company has caused this instrument to be executed by its duly authorized officers this 15th day of April, 2024

By Robert F. Lusa Jr.

1724 Fairbanks St. • Lakeland, FL 33805 • 863-682-0798 • Fax: 863-688-2172
Mailing Address: P.O. Box 8068 • Lakeland, FL 33802

THE STATE OF FLORIDA DEPARTMENT of MILITARY AFFAIRS / CFMO Project # 224004
100% CONSTRUCTION DOCUMENT SPECIFICATIONS – ADDENDUM # 02
PALMETTO ESP RENOVATION

Project Manual and Specifications Table of Contents

| Division | Section Title | Pages |
|---|--|--------------|
| SPECIFICATIONS GROUP | | |
| COVER..... | | 2 |
| TABLE OF CONTENTS..... | | 4 |
| NON-TECHNICAL SPECIFICATION SECTIONS of DIVISION 1 | | 7 |
| Supplementary Terms and Conditions | | |
| Notice to Bidders | | |
| General Terms and Conditions | | |
| DMA Levels 4 & 5 Requirements (June 2023) | | 32 |
| General Requirements Subgroup | | |
| DIVISION 01 - GENERAL REQUIREMENTS | | |
| 01 1000..... | SUMMARY | 5 |
| 01 2100..... | ALLOWANCES | 2 |
| 01 2300..... | ALTERNATE BID ITEMS | 2 |
| 01 3300..... | SUBMITTAL PROCEDURES..... | 12 |
| 01 7419..... | CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL | 8 |
| Facility Construction Subgroup | | |
| DIVISION 02 - EXISTING CONDITIONS | | |
| 02 4119..... | SELECTIVE DEMOLITION | 6 |
| DIVISION 03 - CONCRETE | | |
| 03 3000..... | CAST-IN-PLACE CONCRETE..... | 8 |
| DIVISION 04 - MASONRY | | |
| 00 0000..... | NOT USED | |
| DIVISION 05 - METALS | | |
| 00 0000..... | NOT USED | |
| DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES | | |
| 06 1000..... | MISCELLANEOUS ROUGH CARPENTRY | 4 |
| DIVISION 07 - THERMAL AND MOISTURE PROTECTION | | |
| 07 1600..... | UNDERSLAB VAPOR RETARDER..... | 4 |
| 07 9200..... | JOINT SEALANTS | 8 |
| DIVISION 08 - OPENINGS | | |
| 08 3113 | ACCESS DOORS AND FRAMES | 2 |
| 08 5114..... | ALUMINUM WINDOWS THERMALLY FIXED / GLAZING PROFILES..... | 10 |
| 08 7100..... | DOOR HARDWARE | 16 |
| 08 8713..... | SAFETY AND SECURITY FILM..... | 6 |
| DIVISION 09 - FINISHES | | |
| 09 2216..... | NON-STRUCTURAL METAL FRAMING | 6 |
| DMA CFMO Project # 224004 CONTRACT SPECIFICATIONS Table of Contents..... | | |
| ..Page 1 of 4 | | |

THE STATE OF FLORIDA DEPARTMENT of MILITARY AFFAIRS / CFMO Project # 224004
100% CONSTRUCTION DOCUMENT SPECIFICATIONS – ADDENDUM # 02
PALMETTO ESP RENOVATION

| | |
|--|----|
| 09 2900.....GYPSUM BOARD..... | 6 |
| 09 3100.....CERAMIC TILE..... | 8 |
| 09 4010.....CEMENTITIOUS TERRAZZO - RESTORATION | 4 |
| 09 5113.....ACOUSTICAL PANEL CEILINGS | 6 |
| 09 6513RESILIENT FLOOR BASE AND ACCESSORIES..... | 6 |
| 09 6519RESILIENT TILE – (LVT) | 4 |
| 09 6723RESINOUS FLOORING..... | 8 |
| 09 9113.....EXTERIOR PAINTING..... | 14 |
| 09 9123.....INTERIOR PAINTING..... | 8 |

DIVISION 10 - SPECIALTIES

| | |
|---|---|
| 10 2113.....TOILET COMPARTMENTS..... | 4 |
| 10 2800.....TOILET AND BATH ACCESSORIES | 4 |
| 10 4413.....FIRE PROTECTION SPECIALTIES | 4 |

DIVISION 12 - SPECIALTIES

| | |
|---------------------------------------|---|
| 12 2413.....ROLLER WINDOW SHADES..... | 4 |
|---------------------------------------|---|

DIVISION 14 – CONVEYING EQUIPMENT

| | |
|---------------------------|--|
| 00 0000.....NOT USED..... | |
|---------------------------|--|

DIVISION 21 – WET PIPE SPRINKLER SYSTEMS

| | |
|---------------------------|--|
| 00 0000.....NOT USED..... | |
|---------------------------|--|

DIVISION 22 - PLUMBING

| | |
|--|----|
| 22 0500.....COMMON WORK RESULTS FOR PLUMBING | 9 |
| 22 0523.....GENERAL DUTY VAVLES FOR PLUMBING | 3 |
| 22 0529.....HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT | 8 |
| 22 1113.....FACILITY WATER DISTRIBUTION PIPING | 11 |
| 22 1116.....DOMESTIC WATER PIPING..... | 13 |
| 22 1316.....SANITARY WASTE AND VENT PIPING | 7 |
| 22 1319.....SANITARY WASTE PIPING SPECIALTIES..... | 8 |
| 22 3336.....COMMERCIAL STORAGE ELECTRIC WATER HEATERS | 5 |
| 22 4000.....PLUMBING FIXTURES | 11 |
| 22 4700.....DRINKING FOUNTAINS AND WATER COOLERS | 4 |

DIVISION 23 – HVAC

| | |
|--|----|
| 23 0500.....COMMON WORK RESULTS FOR HVAC | 9 |
| 23 0700.....HVAC INSULATION..... | 18 |
| 23 2300.....REFRIDGERANT PIPING | 8 |
| 23 3113.....METAL DUCTS..... | 11 |
| 23 3423.....HVAC POWER VENTILATORS..... | 7 |
| 23 6200.....PACKAGED COMPRESSOR AND CONDENSER UNITS | 5 |
| 23 7313.....MODULAR INDOOR CENTRAL STATION AIR HANDLER | 7 |
| 23 7433.....PACKAGED MAKE-UP AIR UNIT WITH HEATING..... | 5 |
| 23 8126.....SPLIT SYSTEM AIR CONDITIONERS..... | 4 |
| 23 8419.....DESICCANT DEHUMIDIFICATION UNITS | 10 |

THE STATE OF FLORIDA DEPARTMENT of MILITARY AFFAIRS / CFMO Project # 224004
100% CONSTRUCTION DOCUMENT SPECIFICATIONS – ADDENDUM # 02
PALMETTO ESP RENOVATION

**DIVISION 26 – ELECTRICAL
COVER**

| | |
|-----------------------------------|----|
| 26 0500.....ELECTRICAL | 29 |
| 26 2300.....ELECTRICAL GEAR | 11 |

DIVISION 27 – TELECOMMUNICATIONS

| | |
|--|----|
| G6G6 BASIC TELEPHONE AND INTERNET TECHNOLOGY CABLING STANDARDS
.....NOVEMBER 2024 | 26 |
|--|----|

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

| | |
|--|----|
| 28 3176.....INTERIOR FIRE ALARM AND MASS NOTIFICATION SYSTEM / ADDRESSABLE.... | 72 |
|--|----|

APPENDIX –

| | |
|---|---|
| DMA PALMETTO ESP Renovation - LEED Checklist V4 | 1 |
|---|---|

APPENDIX – N/A

END OF TABLE OF CONTENTS

**THE STATE OF FLORIDA DEPARTMENT of MILITARY AFFAIRS / CFMO Project # 224004
100% CONSTRUCTION DOCUMENT SPECIFICATIONS – **ADDENDUM # 02**
PALMETTO ESP RENOVATION**

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SECTION 01 1000 – SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Access to site.
4. Coordination with occupants.
5. Work restrictions.
6. Specification and drawing conventions.

1.3 PROJECT INFORMATION

A. **Project Identification:**

RENOVATIONS to the PALMETTO ESP / CFMO #224004

1. **Project Location:** City of PALMETTO, FLORIDA

a. **Project Address:**

- 1) **1107 14TH AVENUE WEST,
PALMETTO, FLORIDA, 34221-0000**

B. **Owner:** State of Florida Department of Military Affairs / CFMO

C. **Facility Management:** PALMETTO ESP

1.4 WORK COVERED BY CONTRACT DOCUMENTS – 95% Final Bid Document Submittal

- A. The Work generally consists of the following to Include but not limited to:

THE STATE OF FLORIDA DEPARTMENT of MILITARY AFFAIRS / CFMO Project # 224004
100% CONSTRUCTION DOCUMENT SPECIFICATIONS – **ADDENDUM # 02**
PALMETTO ESP RENOVATION

SCOPE OF WORK - BASE BID

CIVIL: parking area - Reseal and restripe THE NORTH & EAST POV PARKING LOT AS INDICATED IN THE ATTACHED CIVIL DRAWINGS.

MECHANICAL: IN-KIND OR BETTER REPLACEMENT OF ALL SELECT MECHANICAL EQUIPMENT INCLUDING EXHAUST FANS / MAKEUP AIR ETC.

LATRINES - REPLACE EXHAUST AIR / FIXTURE REFRESH / NEW TRENCH DRAINS IN SHOWERS.

ELECTRICAL: PROVIDE SUPPORT FOR HVAC EQUIPMENT IN-KIND REPLACEMENT.

REPLACE STARTERS IN ALL EXHAUST FAN REPLACEMENT SOW.

INTERIOR ELECTRICAL OUTLETS - PROVIDE NEW FACEPLATES ONLY.

EXTERIOR ELECTRICAL OUTLETS - GFI / REPLACE RECEPTACLES AND WEATHERPROOF ENCLOSURES WHERE EXISTING ARE BROKEN. COLOR MATCH EISTING.

COMM ROOM 109 - NEW (HOFFMAN) FLOOR MOUNTED DATA CABINET PURCHASED / INSTALLED BY CONTRACTOR.

NEW FIRE ALARM SYSTEM.

PLUMBING: REPLACE EXTERIOR HOSE BIBS CONFIRM FUNCTIONALITY.

PROVIDE NEW FLUSH VALVES & FAUCETS AT ALL EXISTING PLUMBING FIXTURES - REFRESH.

ARCHITECTURAL: ROOM 107B MENS /105 WOMENS LATRINES - INSTALL FUNCTIONAL ADA SHOWER SEATS - POSTIVELY RE-ATTACH TO WALL AND PROVIDE FULL FUNCTION.

PROVIDE IN MEN'S SHOWER AREA NEW OVERHEAD BRACED HDPE SHOWER PARTITIONS INCLUDING CURTAIN RAIL AND CURTAINS TO MATCH EXISTING IN WOMEN'S SHOWER.

UNIT SIGN - RENOVATE / PATCH STUCCO REFINISH AND REPAINT.

FLAG POLE - PROVIDE CONCRETE BASE FOR UPLIGHTING INSTALLATION / 10' DIA 6"THK CONCRETE SLAB. PROTECT EXISTING MEMORIAL STRUCTURE. IF ABI #4 & #5 ARE NOT SELECTED, PROVIDE THE FOLLOWING ON THE BASE BID.

WINDOWS / WATERPROOFING - RE-CAULK - WET SEAL PERIMETER OF ALL WINDOW FRAMES TO STUCCO FACE IN ADDITION TO WET SEALING GLAZING TO WINDOW FRAME AS REQUIRED. EXISTING WINDOW AND GLAZING SYSTEMS TO REMAIN / TINT GLAZING AT DRILL HALL CLERESTORY LEVEL.

ALL EXTERIOR BOLLARDS - REFINISH AND REPAINT WITH TRAFFIC YELLOW EPOXY / INCLUDING @ 10 BAY STORAGE BUILDING.

SIGNAGE - EXISTING TO REMAIN / PROTECT.

ROOM FINISHES: ACOUSTICAL PANEL CEILING TILES - 100% APC TILE REPLACEMENT IN DRILL HALL 131 ONLY GRID TO REMAIN / OLD DRILL HALL TILE TO BE USED TO REPLACE OLD SOILED TILE IN REMAINDER OF BUILDING.

ALL EXISTING WINDOWS TO REMAIN - NEW ROLLER SHADES / 100% BLACKOUT FUNTION.

ROOM 101 ENTRY VESTIBULE - PROVIDE NEW WAINSCOT AT WALL FINISH TO MATCH RECRUITERS OFFICE / CLEAN, WAX, AND BURNISH EXIST. TERRAZZO FLOOR FINISH.

THE STATE OF FLORIDA DEPARTMENT of MILITARY AFFAIRS / CFMO Project # 224004
100% CONSTRUCTION DOCUMENT SPECIFICATIONS – **ADDENDUM # 02**
PALMETTO ESP RENOVATION

ROOM 102 / 103 RECRUITERS OFFICE - INTERIOR PAINTING ONLY. INSTALL MISSING WAINSCOT AND CHAIR RAIL.

MAIL / COPY ROOM 108 - EPOXY FLOORING / BASE.

MAIL / COPY ROOM 108 - AT EAST WALL: REMOVE AND DISPOSE OF ALL 4" STUD AND WALL FINISHES FOR THIS WALL TO THE FOLLOWING CONSTRAINTS. REMOVE 10'-0" WIDTH OF WALL CENTERED ON THE CORROSION AND 10'-0" HIGH FROM BOTTOM TRACK TO TOP TRACK. EXISTING 4" STUD WALL HAS FINISHES ON 1 SIDE ONLY. COORDINATE AND PROVIDE ELECTRICAL OUTLET REMOVAL AND SALVAGE ALL COMPONENTS FOR REINSTALLATION FOR DEMOLISHED PORTION OF THE WALL. / PROVIDE AND INSTALL NEW 4" GALV. STUDS WALL SYSTEM @ 16" O.C. WITH MRGWB PAINTED FINISH. NEW STUD WALL APPROX 10'-0" WIDE CENTERED ON THE CORRODED AREA. PROVIDE NEW FULL HEIGHT WALL WITH NEW TOP AND BOTTOM TRACK. PROVIDE NEW MRGWB PAINTED FINISH FOR THE REMAINING FULL LENGTH OF THE WALL APPROX. 23'-0" IN WIDTH X 2'-0" HIGH.

ROOM 109 MECH/ELECTRICAL/COMM - NEW EPOXY FLOOR / BASE.

VAULT ROOM 110/111 - NEW EPOXY FLOOR / BASE.

EQUIPMENT AREAS ROOM 112/113 - NEW EPOXY FLOOR / BASE.

TABLES & CHAIRS ROOM 114 - NEW EPOXY FLOOR / BASE.

VESTIBULE VENDING ROOM 115 - CLEAN, WAX, AND BURNISH EXIST. TERRAZZO FLOOR FINISH.

MECH 1 / ROOM 116 - REPAINT / SEALED COCRETE W/ / BASE.

OFFICE 1 - ROOM 117 - REPAINT / LVT & BASE TO REMAIN / PROTECT.

OFFICE 2 - ROOM 118 - REPAINT / LVT & BASE TO REMAIN / PROTECT.

TRAINING ROOM 2 - ROOM 119 - REPAINT / VCT & BASE TO REMAIN / PROTECT. INSTALL RAF OVER EXIST. VCT.

TRAINING ROOM 1 - ROOM 120 - REPAINT / VCT & BASE TO REMAIN / PROTECT. INSTALL RAF OVER EXIST. VCT.

MECH 2 / ROOM 121 - REPAINT / VCT & BASE TO REMAIN / PROTECT.

COMM/1ST SG OFFICE / ROOM 122 / 123 - REPAINT / LVT & BASE TO REMAIN / PROTECT.

ROOM 124 MESS KITCHEN - CLEAN RESEAL GROUT @ EXISTING QUARRY TILE.

ROOM 125 MESS PORCH - NEW SCREEN ENCLOSURE.

BATTERY OFFICE AREA ROOM 126 - 130 - REPAINT / LVT & BASE TO REMAIN / PROTECT.

ROOM 131 DRILL HALL - CLEAN & SEAL EXIST. TERRAZZO FLOOR FINISH.

DOOR HARDWARE: - PROVIDE NEW WEATHER SEALS ON ALL EXTERIOR DOORS.

SEE SPECIFICATION **SECTION 01 2300 ALTERNATE BID ITEMS** FOR FULL LIST OF ALL ABI'S

General Services:

All required building background drawings and/or sketches shall be provided by Renker, Eich, Parks Architects.

All work shall comply with the 2023 Florida Building Code.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.5 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 1. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving areas as indicated clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.

1.6 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing adjacent building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 1. Site Access Adjacent to Building: Coordinate with Owner specific site locations around the building structure needed to be used to perform the work. Notify Armory Manger not less than 14 days in advance of proposed site areas displacement.

1.7 WORK RESTRICTIONS

- A. On-Site Work Hours: Work shall be generally performed during normal business working hours except as otherwise indicated.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Armory Manger not less than 4 days in advance of proposed utility interruptions.

2. Do not proceed with utility interruptions without Armory Manager's written permission.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 1000

SECTION 01 2300 – ALTERNATE BID ITEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A.** Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A.** Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

- B.** Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

- C.** Execute accepted alternates under the same conditions as other work of the Contract.

- D.** Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. ALTERNATE BID ITEM NO. 1:

PARKING AREA - STORMWATER MITIGATION, ASPHALT MILLING **AND RESURFACE**. CONNECT MAIN ARMORY ROOF DRAINS TO UNDERGROUND STORM DRAIN SYSTEM.

B. ALTERNATE BID ITEM NO. 2:

UPGRADE MAIN ARMORY BUILDING INTERIOR AND EXTERIOR LIGHTING TO LED TO INCLUDE UNIT SIGN AND FLAGPOLE.

C. ALTERNATE BID ITEM NO. 3:

REFINISH AND REPAINT COMPLETE EXTERIOR STUCCO / BRICK FACADE WITH UP TO 4 COLOR SCHEME. **INCLUDE THE PAINTING OF ALL EXTERIOR HM DOORS AND FRAMES INCLUDING ALL INSIDE AND OUTSIDE FACES.**

D. ALTERNATE BID ITEM NO. 4:

COMPLETE GLAZING REPLACEMENT OF ALL EXISTING LAMINATED IMPACT GLAZING IN EXISTING ALUMINUM WINDOW FRAME SYSTEMS AT THE EXTERIOR CLERESTORY LEVEL.

E. ALTERNATE BID ITEM NO. 5:

COMPLETE GLAZING REPLACEMENT OF ALL EXISTING LAMINATED IMPACT GLAZING IN ALL EXISTING ALUMINUM WINDOW FRAME SYSTEMS AT ALL THE EXTERIOR 1ST FLOOR LEVEL GLAZED OPENINGS EXCEPT NEW EXTERIOR FIXED WINDOWS & IMPACT GLAZING FOR KITCHEN ONLY.

F. ALTERNATE BID ITEM NO. 6:

PROVIDE NEW 20'-0" WIDE (K-8 FORCE PROTECTION) FENCE SYSTEM) **DOUBLE SWING GATE** WITH MANUAL FUNCTION TO SOUTH SIDE OF POV PARKING. EXISTING DEAD MAN ANCHOR LAYOUT TO BE RE-CONFIGURED FOR NEW GATE. COMPLETE FUNCTIONAL INSTALLATION REQUIRED.

G. ALTERNATE BID ITEM NO. 7:

PROVIDE ASPHALT MILLING AND OVERLAY OF THE FRONT POV PARKING LOT AS INDICATED IN THE ATTACHED CIVIL DRAWINGS.

H. ALTERNATE BID ITEM NO. 8:

PROVIDE NEW DEHUMIDIFIER AND MECHANICAL AIR INSTALLED INTO THE TO
THE EXISTING VAULT ROOM # 110 & #111.

END OF SECTION 01 2300

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