



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER
DPS1317

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
TARA LYLE 304-558-2544

V E N D O R	RFQ COPY
	TYPE NAME/ADDRESS HERE

S H I P T O	WEST VIRGINIA STATE POLICE
	4124 KANAWHA TURNPIKE
	SOUTH CHARLESTON, WV 25309 304-746-2141

DATE PRINTED
01/22/2013

BID OPENING DATE: 01/29/2013 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 2						
SEE ATTACHED PAGES.						
END OF ADDENDUM NO. 2						
0001	1	JB		968-42		
GENERAL CONSTRUCTION						
***** THIS IS THE END OF RFQ DPS1317 ***** TOTAL:						

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

SOLICITATION NUMBER: DPS1317
Addendum Number: 2

The purpose of this addendum is to modify the solicitation identified as DPS1317 ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- ☐ Modify bid opening date and time
- ☐ Modify specifications of product or service being sought
- ☒ Attachment of vendor questions and responses
- ☐ Attachment of pre-bid sign-in sheet
- ☐ Correction of error
- ☒ Other

Description of Modification to Solicitation: To provide vendor questions and responses, provide the Asbestos Survey and Geotechnical Engineering Report and provide Flush Wood Doors specifications (08211) that were inadvertently omitted from the Project Manual. The bid opening remains 01/29/2013 at 1:30 pm.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

Questions:

- Q1: Is there an asbestos survey available?
- A1: Please refer to the attached Asbestos Survey performed by Triad Environmental Consulting, Inc., dated October 2010. In the event that the GC encounters hazardous materials during construction, please follow the requirements of Article 10.3 Hazardous Materials in AIA Document A201.
- Q2: Has the plaster above the ceilings been tested?
- A2: Please refer to the attached Asbestos Survey performed by Triad Environmental Consulting, Inc., dated October 2010. In the event that the GC encounters hazardous materials during construction, please follow the requirements of Article 10.3 Hazardous Materials in AIA Document A201.
- Q3: Has the black mastic on the floors (where the 9" x 9" tile was removed) been tested?
- A3: Please refer to the attached Asbestos Survey performed by Triad Environmental Consulting, Inc., dated October 2010. In the event that the GC encounters hazardous materials during construction, please follow the requirements of Article 10.3 Hazardous Materials in AIA Document A201.

Clarifications:

PART 1 - CHANGES TO SPECIFICATIONS:

- A. ADD Specification Section 08211 – Flush Wood Doors dated 01/22/13 as attached to this Addendum.

PART 2 - CHANGES TO DRAWINGS:

- A. Sheet A1-1: Electrical Room 127: Revise Door No.125 to a 45-minute fire-rated door.
1. Make corresponding revision to Door No. 125 on Door Schedule Sheet A8-1.
- B. Sheet A1-2: Electrical Room 229: Perimeter partitions need to be 1-hour fire-rated.
- C. Sheet A1-2: Electrical Room 229: Revise Door No. 223 to a 45-minute fire-rated door.
1. Make corresponding revision to Door No. 223 on Door Schedule Sheet A8-1.

The bid opening remains 01/29/2013 at 1:30 pm.

Asbestos Survey

Medical Examiner's Office
701 Jefferson Road
South Charleston, WV

Asbestos Survey

Medical Examiner's Office
701 Jefferson Road
South Charleston, WV

for

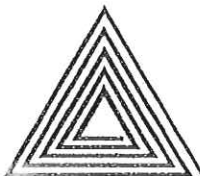
State of WV- General Services Division
1900 Kanawha Boulevard, East, Bldg. #1
Charleston, WV 25302
Attention : Jonathan Trout

prepared by

Triad Environmental Consulting, Inc.
2788 1st Avenue
Huntington, WV 257002

Steven L. Adkins
WV Asbestos Inspector
License # AI005986

October 2010



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701 Phone (304) 523-2195 ▲ Fax (304) 523-2197

To Our Clients:

The square and/or linear footages included in this report are **ESTIMATES ONLY** and are not to be used for bidding purposes. The client may choose to give this report to a contractor or other entity in order to obtain a bid, but these figures should be confirmed by that contractor prior to entering the bid process.

This report is for the client's information solely and should not be considered to be totally accurate where the square and/or linear footages are concerned. Triad includes estimates which are dependent on the material and locations involved, but in no way are to be taken as a final number for a bidding process.

Any discrepancy between the figures involved in this report and a contractor's figures should be resolved between the client and the contractor and **not Triad Environmental Consulting, Inc.**

USER RELIANCE:

This report may be distributed and relied upon by the General Services Division. Reliance on the information and conclusions in this report by any other person or entity is not authorized without the written consent of Triad Environmental Consulting, Inc.

Brian E. Galligan

President

Medical Examiners Office
701 Jefferson Road
South Charleston, WV

000007

Table 1: Material Non-ACM through Visual Inspection

General Location	Non-ACM	Composition
See Building Summary Sheet		

Table 2: Sampled Homogenous Materials

<u>Sample ID #</u>	<u>Homogeneous Material Description</u>	<u>Results</u>
Flooring & Miscellaneous Materials		
01	2 nd Floor- East End Hallway- Cove Molding & Mastic	None Detected
02	2 nd Floor- East End Hallway- 9x9 Floor Tile	10% Chrysotile
03	2 nd Floor- East End Hallway- Mastic	None Detected
07	2 nd Floor- Room #1- 16x16 Floor Tile	9% Chrysotile
08	2 nd Floor- Room #1- Mastic	None Detected
09	2 nd Floor- Room #1- 9x9 Floor Tile	8% Chrysotile
10	2 nd Floor- Room #1- Mastic	None Detected
11	2 nd Floor- Room #5- 9x9 Floor Tile	8% Chrysotile
12	2 nd Floor- Room #5- Mastic	None Detected
13	2 nd Floor- Room #5- Lab Debris- Counter Top	None Detected
14	2 nd Floor- Room #5- Lab- Counter Top	18% Chrysotile
15	2 nd Floor- Room #5- Lab Hood	None Detected
16	2 nd Floor- Room #5- 16x16 Floor Tile	7% Chrysotile
17	2 nd Floor- Room #5- Mastic	None Detected
18	2 nd Floor- Room #6- 9x9 Floor Tile	6% Chrysotile
19	2 nd Floor- Room #6- Mastic	None Detected
20	2 nd Floor- Room #6- West Wall- Counter Top	18% Chrysotile
23	2 nd Floor- Room #7- Center Lab- Table Top	18% Chrysotile
24	2 nd Floor- Room #8- 9x9 Floor Tile	10% Chrysotile
25	2 nd Floor- Room #8- Mastic	None Detected
33	2 nd Floor- Room #2- Horizontal Pipe- Insulation	None Detected
38	2 nd Floor- Northwest Hallway Outside Room #6- Mud	None Detected
39	2 nd Floor- Northwest Hallway Outside Room #6- Insulation	60% Chrysotile
44	1 st Floor- Room #130- 9x9 Floor Tile	8% Chrysotile
45	1 st Floor- Room #130- Mastic	None Detected
46	1 st Floor- Room #129- Floor Tile	10% Chrysotile
47	1 st Floor- Room #129- Mastic	None Detected
48	1 st Floor- Room #138- Floor Tile	10% Chrysotile
49	1 st Floor- Room #138- Mastic	None Detected
50	1 st Floor- Room #138- Pipe- Mud	None Detected
51	1 st Floor- Room #138- Pipe- Mud	None Detected

52	1 st Floor- Room #139- 9x9 Floor Tile	9% Chrysotile
53	1 st Floor- Room #139- Mastic	None Detected
56	1 st Floor- Room #138 Corner by Room #141- Mud & Wrap	None Detected
57	1 st Floor- Room #138 Corner by Room #141- Mud & Wrap	None Detected
58	1 st Floor- Room #141- Pipe Insulation	60% Chrysotile
59	1 st Floor- Room #141- 12x12 Floor Tile	7% Chrysotile
60	1 st Floor- Room #141- Mastic	5% Chrysotile
62	1 st Floor- Room #138 By Hallway Door- Pipe Insulation	30% Chrysotile
63	1 st Floor- Room #133- Top of Stairway- 12x12 Floor Tile	None Detected
64	1 st Floor- Room #133- Top of Stairway- Mastic	None Detected
65	1 st Floor- Room #133- Top of Stairway- 12x12 Floor Tile	6% Chrysotile
66	1 st Floor- Room #133- Top of Stairway- Mastic	5% Chrysotile
69	1 st Floor- Room #127- Insulation	None Detected
70	1 st Floor- Room #127- 90° Off Boiler- Mud	None Detected
71	1 st Floor- Room #127- 90° Off Boiler- Insulation	60% Chrysotile
72	1 st Floor-Room #127-Zone 1 Piping in Boiler Room- Insulation	45% Chrysotile
73	1 st Floor-Room #127-Zone 2 Piping in Boiler Room- Insulation	45% Chrysotile
74	1 st Floor-Room #127-Zone 3 Piping in Boiler Room- Insulation	65% Chrysotile
75	1 st Floor-Rm. #127-Overhead Pipe by Electric Panel-Insulation	65% Chrysotile
76	1 st Floor- Room #127- Debris Next to Exterior Door- Insulation	60% Chrysotile
77	1 st Floor- Room #127- Debris Next to Exterior Door- Insulation	None Detected
78	1 st Floor- Room #127- Horizontal Pipe Next to Water Heater- Insulation	16% Chrysotile
79	1 st Floor- Room #127- Horizontal Pipe Next to Water Heater- Insulation	65% Chrysotile
80	1 st Floor- Room #127- Horizontal Pipe Next to Water Heater- Insulation	45% Chrysotile
81	1 st Floor- Mens Restroom by Window-90°- Mud	None Detected
82	1 st Floor- Mens Restroom by Window-90°- Insulation	None Detected
83	1 st Floor- Room #126 On Piping- Insulation	35% Chrysotile
84	1 st Floor- Room #126 On Piping- Mud	45% Chrysotile
85	1 st Floor- Room #126 On Piping- Insulation	65% Chrysotile
86	1 st Floor- Hallway @ Room #118- Flooring	None Detected
87	1 st Floor- Hallway by Exit Door- Flooring	None Detected
88	1 st Floor- Room #120- 9x9 Floor Tile	10% Chrysotile
89	1 st Floor- Room #120- Mastic	None Detected
96	1 st Floor- Hallway Outside #120- Above Ceiling Tile-Pipe Ins.	65% Chrysotile
97	1 st Floor- Hallway Outside #120-Above Ceiling Tile-Pipe Ins.	65% Chrysotile
98	1 st Floor- Hallway Outside #120-Above Ceiling Tile- 90° Ins.	None Detected
103	1 st Floor- Room #106- 12x12 Floor Tile	6% Chrysotile
104	1 st Floor- Room #106- Mastic	4% Chrysotile
105	1 st Floor- Room #106- 9x9 Floor Tile	8% Chrysotile
106	1 st Floor- Room #106- Mastic	None Detected

107	1 st Floor- Room #103- 9x9 Floor Tile	8% Chrysotile
108	1 st Floor- Room #103- Mastic	None Detected
109	1 st Floor- Room #104- Pipe Insulation	10% Chrysotile
110	1 st Floor- Room #104- Pipe Insulation	30% Chrysotile
111	1 st Floor- Room #104- Pipe Insulation	None Detected
143	1 st Floor- Hallway- Room #101- 12x12 Floor Tile	None Detected
144	1 st Floor- Hallway- Room #101- Mastic	None Detected
145	1 st Floor- Hallway- Room #101- Cove Molding & Mastic	None Detected

Wall & Ceiling Materials

04	2 nd Floor- East End Hallway- Ceiling Tile	None Detected
05	2 nd Floor- East End Hallway- South Wall- Top Coat	None Detected
06	2 nd Floor- East End Hallway- South Wall- Bottom Coat Plaster	None Detected
21	2 nd Floor- Hallway- 2x4 Ceiling Tile	None Detected
22	2 nd Floor- West End Hallway- 2x4 Ceiling Tile	None Detected
26	2 nd Floor- Room #8- Drywall	None Detected
27	2 nd Floor- Room #8- Drywall Tape	None Detected
28	2 nd Floor- Room #8- Drywall Mud	None Detected
29	2 nd Floor- East End Hallway- Ceiling- Top Coat	None Detected
30	2 nd Floor- East End Hallway- Ceiling- Bottom Coat Plaster	None Detected
31	2 nd Floor- Room #2- Ceiling- Top Coat	None Detected
32	2 nd Floor- Room #2- Ceiling- Bottom Coat Plaster	None Detected
34	2 nd Floor- Center Hallway- North Wall- Top Coat	None Detected
35	2 nd Floor- Center Hallway- North Wall- Bottom Coat Plaster	None Detected
36	2 nd Floor- Room #8- Ceiling- Top Coat	None Detected
37	2 nd Floor- Room #8- Ceiling- Bottom Coat Plaster	None Detected
40	1 st Floor- Room #130- Drywall	None Detected
41	1 st Floor- Room #130- Drywall Tape	None Detected
42	1 st Floor- Room #130- Drywall Mud	None Detected
43	1 st Floor- Room #130- Ceiling Tile	None Detected
54	1 st Floor- Room #140- Top Coat	None Detected
55	1 st Floor- Room #140- Bottom Coat Plaster	None Detected
61	1 st Floor- Room #138- Ceiling Tile	None Detected
67	1 st Floor- Room #101- Wall- Top Coat	None Detected
68	1 st Floor- Room #101- Wall- Bottom Coat Plaster	None Detected
90	1 st Floor- Room #120- 2x4 Ceiling Tile	None Detected
91	1 st Floor- Room #120- Top Coat	None Detected
92	1 st Floor- Room #120- Bottom Coat Plaster	None Detected
93	1 st Floor- Hallway Outside #120- 2x4 Ceiling Tile	None Detected
94	1 st Floor- Hallway Outside #120- Above Ceiling Tile-Top Coat	None Detected
95	1 st Floor- Hall Outside #120- Above Ceiling Tile-Bottom Coat Plaster	None Detected
99	1 st Floor- Room #108- Ceiling Tile	None Detected

100	1 st Floor- Room #108- Ceiling- Top Coat	None Detected
101	1 st Floor- Room #108- Ceiling- Bottom Coat Plaster	None Detected
102	1 st Floor- Room #109- Wall- Drywall	None Detected
140	West Entrance Roof- Ceiling- Top Coat	None Detected
141	West Entrance Roof- Ceiling- Bottom Coat Plaster	None Detected
142	2 nd Floor- Room #5- Wall- Mastic	None Detected

Roofing Materials

112	East Roof- Southwest Corner- Roof Decking	None Detected
113	East Roof- Center- Roof Decking	None Detected
114	East Roof- Southeast Corner- Roof Decking	None Detected
115	East Roof- West Side Wall- Flashing- Tar	None Detected
116	East Roof- North Side Wall- Flashing- Tar	None Detected
117	North Low Roof- Cap- Tar	8% Chrysotile
118	North Roof- Center- Roof Decking	None Detected
119	North Roof- Flashing- Tar	None Detected
120	Northeast Entryway Roof- Tar	None Detected
121	Northwest Entryway Roof- Tar	None Detected
122	Main Roof- Northeast- Roof Decking	None Detected
123	Main Roof- Southwest- Roof Decking	None Detected
124	Southeast Entry Roof- Felt Paper	16% Chrysotile
125	Southeast Entry Roof- Tar	None Detected
126	South Center Shed Roof- Center- Tar	None Detected
127	South Center Shed Roof- Center- Felt Paper	18% Chrysotile
128	South Center Shed Roof- Center- Tar	None Detected
129	South Center Shed Roof- Southwest Corner- Tar	None Detected
130	South Center Shed Roof- Southwest Corner- Felt Paper	18% Chrysotile
131	South Center Shed Roof- Southwest Corner- Tar	None Detected
132	South Center Shed Roof- West Side- Flashing- Tar	None Detected
133	South Center Shed Roof- West Side- Flashing- Felt Paper	18% Chrysotile
134	South Center Shed Roof- West Side- Flashing- Tar	None Detected
135	Incinerator Roof- Northeast Corner- Felt Paper	None Detected
136	Incinerator Roof- Northeast Corner- Tar	None Detected
137	Incinerator Roof- Southeast Corner- Felt Paper	None Detected
138	Incinerator Roof- Southeast Corner- Tar	None Detected
139	West Entrance Roof- Flashing- Tar	None Detected

71	1 st Floor- Room #127- 90° Off Boiler	Insulation	*	Friable	5
72	1 st Fl-Rm #127-Zone 1 Pipe-Boiler Rm	Insulation	*	Friable	5
73	1 st Fl-Rm #127-Zone 2 Pipe-Boiler Rm	Insulation	*	Friable	5
74	1 st Fl-Rm #127-Zone 3 Pipe Boiler Rm	Insulation	*	Friable	5
75	1 st Floor-Rm. #127-Overhead Pipe by Electric Panel	Insulation	*	Friable	5
76	1 st Floor- Room #127- Debris Next to Exterior Door	Insulation	*	Friable	5
78	1 st Floor- Room #127- Horizontal Pipe Next to Water Heater	Insulation	*	Friable	5
79	1 st Floor- Room #127- Horizontal Pipe Next to Water Heater	Insulation	*	Friable	5
80	1 st Floor- Room #127- Horizontal Pipe Next to Water Heater	Insulation	*	Friable	5
83	1 st Floor- Room #126 On Piping	Insulation	*	Friable	5
84	1 st Floor- Room #126 On Piping	Mud	*	Friable	5
85	1 st Floor- Room #126 On Piping	Insulation	*	Friable	5
88	1 st Floor- Room #120	9x9 Floor Tile	*	Non-Friable I	N/A
96	1 st Floor- Hallway Outside #120- Above Ceiling Tile	Pipe Insulation	*	Friable	5
97	1 st Floor- Hallway Outside #120- Above Ceiling Tile	Pipe Insulation	*	Friable	5
103	1 st Floor- Room #106	12x12 Floor Tile	*	Non-Friable I	N/A
104	1 st Floor- Room #106	Mastic	*	Non-Friable I	N/A
105	1 st Floor- Room #106	9x9 Floor Tile	*	Non-Friable I	N/A
107	1 st Floor- Room #103	9x9 Floor Tile	*	Non-Friable I	N/A
109	1 st Floor- Room #104	Pipe Insulation	*	Non-Friable I	N/A
110	1 st Floor- Room #104	Pipe Insulation	*	Non-Friable I	N/A
117	North Low Roof- Cap	Tar	157 linear ft	Non-Friable I	N/A
124	Southeast Entry Roof	Felt Paper	96 sq. ft.	Non-Friable I	N/A

127	South Center Shed Roof- Center	Felt Paper	160 sq. ft.	Non-Friable I	N/A
130	South Center Shed Roof- Southwest Corner	Felt Paper	*	Non-Friable I	N/A
133	South Center Shed Roof- West Side-Flashing	Felt Paper	*	Non-Friable I	N/A

** Indicates homogeneous material**

**Square footages are estimates only. The owner should verify them before the bid process begins.*

***ACM material may extend further than the visible areas tested!

Asbestos containing materials must be removed prior to demolition. Friable materials can be easily pulverized and present a significant hazard. See Appendix #3 for clarification of friable rankings. Refer to Appendix #4 for information from the WV Bureau for Public Health. For full clarification please contact both the following offices the WV Department for Environmental Protection, Division of Air Quality at (304) 926-0499 or the WV Bureau for Public Health (Asbestos Compliance Program) at (304) 558-6718.

Building Summary Sheet

Date of Inspection: October 1, 2010

Inspector: Steven L. Adkins

License #: AI005986

Client Information: State of West Virginia
 Department of Administration
 General Services Division
 1900 Kanawha Boulevard, East
 Building #1, Room MB-68
 Charleston, WV 25305

Building Address: Medical Examiner
 701 Jefferson Rd
 So. Charleston, WV

Phone: (304) 558-2317

Year of Construction: Unknown

Reason for Survey:

Emergency Demo _____ Scheduled Demo _____ Renovation XXX

Type of Construction:

Frame _____ Masonry XXX Steel Beam _____ Other _____

Floors: 2

Approx. 157 x 86 (13502) total sq.ft. per floor

Basement: N/A

Attic: N/A

Crawlspace: N/A

Roof: Rubber & Built Up

Pipe Shafts: Yes

Pipe Tunnels: N/A

Sheds/Barns: N/A

Penthouse: N/A

Total Square Footage: 27,004 (Estimated)

Building History:

Current Use: Storage

Past Use: Lab & Medical Examiners Office

Additions/Renovations: N/A

Exterior:

Vinyl _____ Wood _____ Metal _____ Transite _____ Brick _____ Other Block

Areas Not Sampled	Reason
◇ Locked Rooms	◇ No Access

Visually Eliminated Materials	Reason
◇ Pipe Insulation	◇ Visibly Foam
◇ Pipe Insulation	◇ Visibly Fiberglass
◇ Insulation	◇ Visibly Fiberglass

Miscellaneous Notes:

Assume that materials in the locked rooms are homogeneous to other areas sampled inside the building.

Appendix 1

Sampling Protocol Tables

TABLE 1: SUSPECT ACM LIST

FLOOR AND WALL COVERINGS

Floors

- ☐ 9" x 9" floor tile
- ☐ 12" x 12" floor tile (per each variation)
- ☐ Floor sheeting (per each variation)
- ☐ Stair skids/landing edges

Walls

- ☐ Plaster
- ☐ Wallboard/Gypsum/Drywall
- ☐ Spackling/Joint/Drywall finishing compounds
- ☐ Plaster Soffits
- ☐ Acoustic Blocks/Tiles
- ☐ Molding/Kick strips/Baseboards/Coving strips
- ☐ Vinyl/Fabric wall covering
- ☐ Asbestos Cement (Transite) Panels

impregnated)

- ☐ Textured Paint (asbestos impregnated)

Sprayed-on/Troweled-on Insulation

- ☐ Beams/Ceilings/Walls

Mastics

- ☐ Floor tile to floor
- ☐ Ceiling tile to ceiling
- ☐ Carpet to floor

Ceiling

- ☐ Plaster
- ☐ Ceiling boards (Gypsum/Drywall)
- ☐ Drywall finishing compounds
- ☐ 12" x 12" (per each variation)
- ☐ 2' x 2' (per each variation)
- ☐ 2' x 4' (per each variation)
- ☐ Asbestos Cement (Transite) Panels
- ☐ Textured Paint (asbestos)

THERMAL SYSTEM INSULATION

Block/Batt/Corrugated/Layered Insulation

- ☐ Boiler Insulation
- ☐ Tank Insulation
- ☐ Boiler Breeching
- ☐ Straight Run pipe insulation
- ☐ HVAC Duct insulation

Cementitious

- ☐ Mudded Fittings, elbows, joints & hangers
- ☐ Packing Materials (chimney penetrations/brick boiler)
- ☐ Asbestos Cement (Transite) Pipes/Flues

Other

- ☐ Flexible Fabric Duct Connections
- ☐ Gasket material
- ☐ Duct tape

Blown-in Insulation

- ☐ Attics/Exterior walls

EXTERIOR BUILDING MATERIALS

Roof Material

- ☐ Flashing
- impregnated)
- ☐ Tar material (roof coating)
 - ☐ Felt/Mat
 - ☐ Shingles

Siding and Clapboards

- ☐ Textured Paint (asbestos)
- ☐ Asbestos Cement (Transite) siding

MISCELLANEOUS

Equipment Components

- ☐ Cooling Towers
- ☐ Heating appliances
- ☐ Electric Panel partitions
- ☐ Electrical Wire insulation

Textiles

- ☐ Fire blankets and Fire curtains
- ☐ Welding gloves/Hot pads/ etc.
- ☐ Thermal Paper Products
- ☐ Cord/Rope/Yarn

Building Accessories

- ☐ Chalkboards/Lab table tops
- ☐ Fume hoods/Shelves/Ovens
- ☐ Fire doors

Other

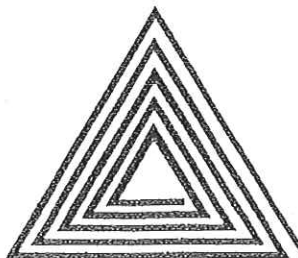
- ☐ Caulking/Putties

Salients - any other suspect material in small isolated quantities

Appendix 2

Sample Identification

The following analytical results were analyzed by Triad Environmental Consulting, Inc. (NVLAP-NIST laboratory number 102073-0) in accordance with EPA method for the determination of asbestos in bulk building materials using Polarized Light Microscopy. Samples composed of separate layers are analyzed separately. Please note that if one layer is found to contain greater than 1% asbestos, the layer will be reported as a separate analyte. Composite materials, such as plaster or drywall with finishing, will have the layers reported by the laboratory as separate results, however one analytical result will be compiled for the composite sample. NVLAP accreditation should not be misconstrued as product endorsement. Due to the variations in percentage by laboratory analysts for materials reported as 10% or less, NESHAP recommends these samples be re-analyzed by point counting.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 1 of 49

Sample: 01 Homogeneous: No		Color: Tan/Brown	Lab No.: 117811
Location: 2nd Floor- East End Hallway			
Comments: Cove Molding & Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

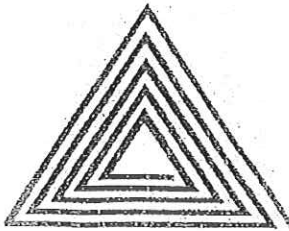
Sample: 02 Homogeneous: Yes		Color: Brown	Lab No.: 117812
Location: 2nd Floor- East End Hallway			
Comments: 9x9 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	9 - 11 %		Non-Fibrous 89 - 91 %

Sample: 03 Homogeneous: Yes		Color: Black	Lab No.: 117813
Location: 2nd Floor- East End Hallway			
Comments: Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

These results relate only to the samples included in this report.

Billie J. Linville
Reviewed by Analyst

Brian E. Galligan
Manager, Asbestos Dept. *BEG*



000019

Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 2 of 49

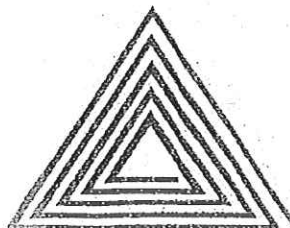
Sample: 04		Homogeneous: Yes		Color: Grey		Lab No.: 117814	
Location: 2nd Floor- East End Hallway							
Comments: Ceiling Tile							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose 29 - 31 %		Non-Fibrous 59 - 61 %	
				Fibrous Glass 9 - 11 %			

Sample: 05		Homogeneous: Yes		Color: White		Lab No.: 117815	
Location: 2nd Floor- East End Hallway- South Wall							
Comments: Top Coat							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected						Non-Fibrous 100%	

Sample: 06		Homogeneous: Yes		Color: Grey		Lab No.: 117816	
Location: 2nd Floor- East End Hallway- South Wall							
Comments: Bottom Coat Plaster							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose 1 - 3 %		Vermiculite 9 - 11 %	
						Non-Fibrous 87 - 89 %	

These results relate only to the samples included in this report.

TEC, Inc. participates in the AIHA PAT program, and our laboratory identification number is 100935. TEC, Inc. is also a participant in the National Voluntary Laboratory Accreditation Program (NVLAP#10273-01); furthermore, we are currently proficient and accredited. In accordance with NVLAP criteria, no product endorsement is given by NVLAP or any other U.S. Government Agency. Bulk analysis Method used: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (49 CFR ch.1 pt. 763, App A to Subpt.F 711.67). This report shall not be reproduced except in full, without the written approval of the laboratory. Percentages are approximations; the detection limit for the test method is 1%.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

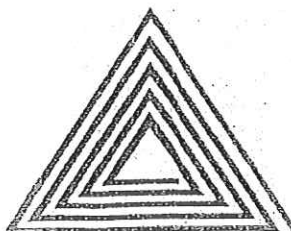
Page 3 of 49

Sample: 07 Homogeneous: Yes		Color: Dark Brown	Lab No.: 117817
Location: 2nd Floor- Room #1			
Comments: 16x16 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	8 - 10 %		Non-Fibrous 90 - 92 %

Sample: 08 Homogeneous: Yes		Color: Black	Lab No.: 117818
Location: 2nd Floor- Room #1			
Comments: Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 09 Homogeneous: Yes		Color: Brown	Lab No.: 117819
Location: 2nd Floor- Room #1			
Comments: 9x9 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	7 - 9 %		Non-Fibrous 91 - 93 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

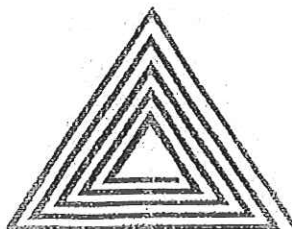
Page 4 of 49

Sample: 10 Homogeneous: Yes		Color: Black	Lab No.: 117820
Location: 2nd Floor- Room #1			
Comments: Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 11 Homogeneous: Yes		Color: Grey	Lab No.: 117821
Location: 2nd Floor- Room #5			
Comments: 9x9 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	7 - 9 %		Non-Fibrous 91 - 93 %

Sample: 12 Homogeneous: Yes		Color: Black	Lab No.: 117822
Location: 2nd Floor- Room #5			
Comments: Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 5 of 49

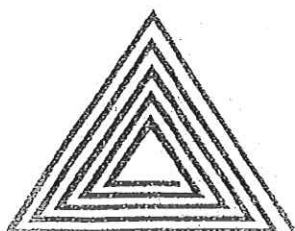
Sample: 13	Homogeneous: Yes	Color: Black	Lab No.: 117823
Location: 2nd Floor- Room #5- Lab- Debris			
Comments: Counter Top			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 14	Homogeneous: Yes	Color: Black	Lab No.: 117824
Location: 2nd Floor- Room #5- Lab			
Comments: Counter Top			
ASBESTOS	FIBROUS	OTHER MATERIALS	
Chrysotile	17 - 19 %	Non-Fibrous	81 - 83 %

Sample: 15	Homogeneous: Yes	Color: White	Lab No.: 117825
Location: 2nd Floor- Room #5- Lab			
Comments: Hood			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Fibrous Glass 29 - 31 %	Non-Fibrous	69 - 71 %

These results relate only to the samples included in this report.

TEC, Inc. participates in the AIHA PAT program, and our laboratory identification number is 100935. TEC, Inc. is also a participant in the National Voluntary Laboratory Accreditation Program (NVLAP#102073-0). Furthermore, we are currently proficient and accredited, in accordance with NVLAP criteria, no product endorsement is given by NVLAP or any other U.S. Government Agency. Bulk analysis Method used: E.P.A. Interim Method for the Determination of Asbestos in Bulk Insulation Samples (40 CFR ch.1 pt. 763, App.A to Subpt.F 711.87). This report shall not be reproduced except in full, without the written approval of the laboratory. Percentages are approximate; the detection limit for the test method is 1%.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

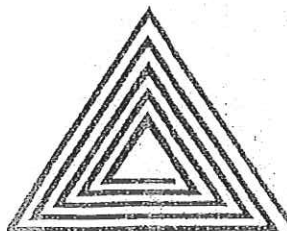
Page 6 of 49

Sample: 16 Homogeneous: Yes Color: Brown Lab No.: 117826 Location: 2nd Floor- Room #5 Comments: 16x16 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	6 - 8 %		Non-Fibrous 92 - 94 %

Sample: 17 Homogeneous: Yes Color: Black Lab No.: 117827 Location: 2nd Floor- Room #5 Comments: Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 18 Homogeneous: Yes Color: Brown Lab No.: 117828 Location: 2nd Floor- Room #6 Comments: 9x9 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	5 - 7 %		Non-Fibrous 93 - 95 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

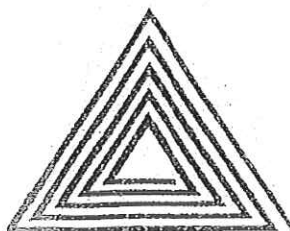
Page 7 of 49

Sample: 19 Homogeneous: Yes		Color: Black	Lab No.: 117829
Location: 2nd Floor- Room #6			
Comments: Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 20 Homogeneous: Yes		Color: Black	Lab No.: 117830
Location: 2nd Floor- Room #6- West Wall			
Comments: Counter Top			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	17 - 19 %		Non-Fibrous 81 - 83 %

Sample: 21 Homogeneous: Yes		Color: Grey	Lab No.: 117831
Location: 2nd Floor- Hallway			
Comments: 2x4 Ceiling Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Cellulose 34 - 36 %	Non-Fibrous 64 - 66 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

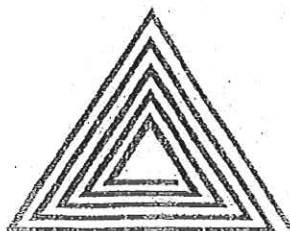
Page 8 of 49

Sample: 22		Homogeneous: Yes		Color: Grey		Lab No.: 117832	
Location: 2nd Floor- West End of Hallway							
Comments: 2x4 Ceiling Tile							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose 34 - 36 %		Non-Fibrous 64 - 66 %	

Sample: 23		Homogeneous: Yes		Color: Black		Lab No.: 117833	
Location: 2nd Floor- Room #7- Center Lab Table							
Comments: Table Top							
ASBESTOS				FIBROUS		OTHER MATERIALS	
Chrysotile 17 - 19 %						Non-Fibrous 81 - 83 %	

Sample: 24		Homogeneous: Yes		Color: Grey		Lab No.: 117834	
Location: 2nd Floor- Room #8							
Comments: 9x9 Floor Tile							
ASBESTOS				FIBROUS		OTHER MATERIALS	
Chrysotile 9 - 11 %						Non-Fibrous 89 - 91 %	

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

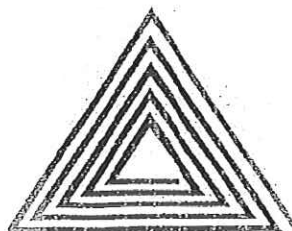
Page 9 of 49

Sample: 25 Homogeneous: Yes		Color: Black	Lab No.: 117835
Location: 2nd Floor- Room #8			
Comments: Mastic			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 26 Homogeneous: Yes		Color: White	Lab No.: 117836
Location: 2nd Floor- Room #8			
Comments: Drywall			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Fibrous Glass 9 - 11 %	Non-Fibrous	89 - 91 %

Sample: 27 Homogeneous: Yes		Color: White	Lab No.: 117837
Location: 2nd Floor- Room #8			
Comments: Drywall Tape			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Cellulose 64 - 66 %	Non-Fibrous	34 - 36 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

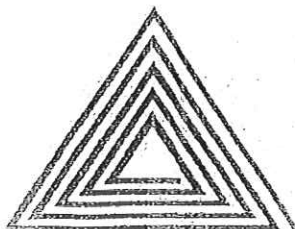
Page 10 of 49

Sample: 28	Homogeneous: Yes	Color: White	Lab No.: 117838
Location: 2nd Floor- Room #8			
Comments: Drywall Mud			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 29	Homogeneous: Yes	Color: White	Lab No.: 117839
Location: 2nd Floor- East End Hallway- Ceiling			
Comments: Top Coat			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 30	Homogeneous: Yes	Color: Grey	Lab No.: 117840
Location: 2nd Floor- East End Hallway- Ceiling			
Comments: Bottom Coat Plaster			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Vermiculite	9 - 11 %
		Non-Fibrous	89 - 91 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

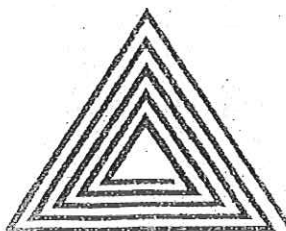
Page 11 of 49

Sample: 31 Homogeneous: Yes Color: White Lab No.: 117841 Location: 2nd Floor- Room #2- Ceiling Comments: Top Coat		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Non-Fibrous 100%

Sample: 32 Homogeneous: Yes Color: Grey Lab No.: 117842 Location: 2nd Floor- Room #2- Ceiling Comments: Bottom Coat Plaster		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Vermiculite 9 - 11 % Non-Fibrous 89 - 91 %

Sample: 33 Homogeneous: Yes Color: Black Lab No.: 117843 Location: 2nd Floor- Room #2- Horizontal Piping Comments: Insulation		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Non-Fibrous 100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

000029

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

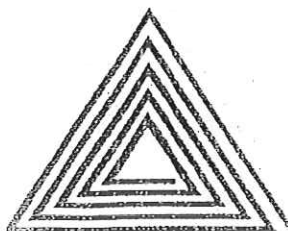
Page 12 of 49

Sample: 34 Homogeneous: Yes Color: White Lab No.: 117844 Location: 2nd Floor- Center Hallway- North Wall Comments: Top Coat		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Non-Fibrous 100%

Sample: 35 Homogeneous: Yes Color: Grey Lab No.: 117845 Location: 2nd Floor- Center Hallway- North Wall Comments: Bottom Coat Plaster		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected	Cellulose 1 - 3 %	Vermiculite 9 - 11 % Non-Fibrous 87 - 89 %

Sample: 36 Homogeneous: Yes Color: White Lab No.: 117846 Location: 2nd Floor- Room #8- Ceiling Comments: Top Coat		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Non-Fibrous 100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

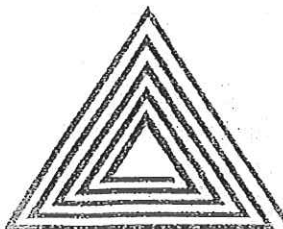
Page 13 of 49

Sample: 37 Homogeneous: Yes		Color: Grey	Lab No.: 117847
Location: 2nd Floor- Room #8- Ceiling			
Comments: Bottom Coat Plaster			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Vermiculite	9 - 11 %
		Non-Fibrous	89 - 91 %

Sample: 38 Homogeneous: Yes		Color: Grey	Lab No.: 117848
Location: 2nd Floor- Northwest Hallway Outside Room #6			
Comments: Mud			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Mineral Wool	11 - 13 %	Non-Fibrous
			87 - 89 %

Sample: 39 Homogeneous: No		Color: Grey/Black	Lab No.: 117849
Location: 2nd Floor- Northwest Hallway Outside Room #6			
Comments: Insulation & Felt			
ASBESTOS	FIBROUS	OTHER MATERIALS	
Chrysotile	Cellulose	29 - 31 %	Non-Fibrous
59 - 61 %			9 - 11 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

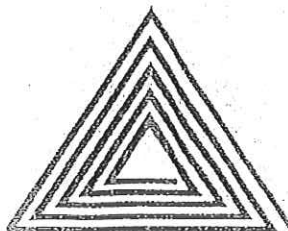
Page 14 of 49

Sample: 40		Homogeneous: Yes		Color: White		Lab No.: 117850	
Location: 1st Floor- Room #130							
Comments: Drywall							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose	9 - 11 %	Non-Fibrous	89 - 91 %

Sample: 41		Homogeneous: Yes		Color: White		Lab No.: 117851	
Location: 1st Floor- Room #130							
Comments: Drywall Tape							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose	64 - 66 %	Non-Fibrous	34 - 36 %

Sample: 42		Homogeneous: Yes		Color: White		Lab No.: 117852	
Location: 1st Floor- Room #130							
Comments: Drywall Mud							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected						Non-Fibrous	100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

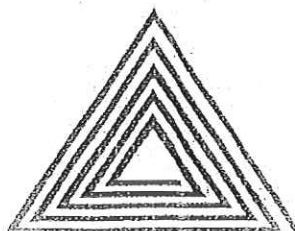
Page 15 of 49

Sample: 43		Homogeneous: Yes		Color: Grey		Lab No.: 117853	
Location: 1st Floor- Room #130, Ceiling							
Comments: Ceiling Tile							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose 34 - 36 %		Non-Fibrous 64 - 66 %	

Sample: 44		Homogeneous: Yes		Color: Grey		Lab No.: 117854	
Location: 1st Floor- Room #130, Floor							
Comments: 9x9 Floor Tile							
ASBESTOS				FIBROUS		OTHER MATERIALS	
Chrysotile 7 - 9 %						Non-Fibrous 91 - 93 %	

Sample: 45		Homogeneous: Yes		Color: Black		Lab No.: 117855	
Location: 1st Floor- Room #130, Floor							
Comments: 9x9 Floor Tile Mastic							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected						Non-Fibrous 100%	

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

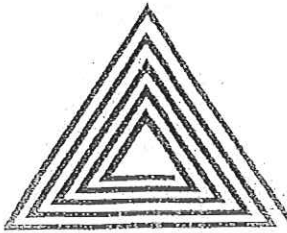
Page 16 of 49

Sample: 46 Homogeneous: Yes		Color: Grey	Lab No.: 117856
Location: 1st Floor- Room #129, Floor			
Comments: Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	9 - 11 %		Non-Fibrous 89 - 91 %

Sample: 47 Homogeneous: Yes		Color: Black	Lab No.: 117857
Location: 1st Floor- Room #129, Floor			
Comments: Floor Tile Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 48 Homogeneous: Yes		Color: Grey	Lab No.: 117858
Location: 1st Floor- Room #138, Floor			
Comments: Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	9 - 11 %		Non-Fibrous 89 - 91 %

These results relate only to the samples included in this report.



000034

Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 17 of 49

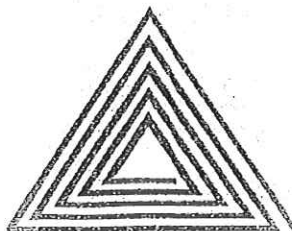
Sample: 49 Homogeneous: Yes		Color: Black	Lab No.: 117859
Location: 1st Floor- Room #138, Floor			
Comments: Floor Tile Mastic			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 50 Homogeneous: Yes		Color: Grey	Lab No.: 117860
Location: 1st Floor- Room #138			
Comments: Pipe Mud			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Fibrous Glass 9 - 11 %	Non-Fibrous	89 - 91 %

Sample: 51 Homogeneous: Yes		Color: Grey	Lab No.: 117861
Location: 1st Floor- Room #138			
Comments: Pipe Mud			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Fibrous Glass 11 - 13 %	Non-Fibrous	87 - 89 %

These results relate only to the samples included in this report.

TEC, Inc. participates in the AIHA PAT program, and our laboratory identification number is 100395. TEC, Inc. is also a participant in the National Voluntary Laboratory Accreditation Program (NVLAP #102073-01); furthermore, we are currently proficient and accredited. In accordance with NVLAP criteria, no product endorsement is given by NVLAP or any other U.S. Government Agency. Bulk analysis Method used: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (40 CFR ch.1 pt. 763, App A to Subpt.F 771.167). This report shall not be reproduced except in full without the written approval of the laboratory. Percentages are approximations; the detection limit for the test method is 1%.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

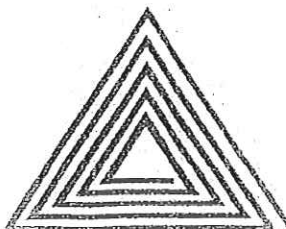
Page 18 of 49

Sample: 52 Homogeneous: Yes		Color: Grey	Lab No.: 117862
Location: 1st Floor- Room #139, Floor			
Comments: 9x9 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	8 - 10 %		Non-Fibrous 90 - 92 %

Sample: 53 Homogeneous: Yes		Color: Black	Lab No.: 117863
Location: 1st Floor- Room #139, Floor			
Comments: 9x9 Floor Tile Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 54 Homogeneous: Yes		Color: White	Lab No.: 117864
Location: 1st Floor- Room #140			
Comments: Top Coat			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

000036

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 19 of 49

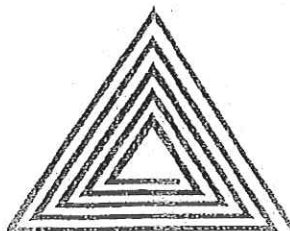
Sample: 55 Homogeneous: Yes Color: Grey Lab No.: 117865 Location: 1st Floor- Room #140 Comments: Bottom Coat			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Vermiculite 11 - 13 % Non-Fibrous 87 - 89 %

Sample: 56 Homogeneous: No Color: Grey Lab No.: 117866 Location: 1st Floor- Room #138, Corner by Room 141 Comments: Pipe Mud/Wrap			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Fibrous Glass 11 - 13 % Synthetics 9 - 11 %	Non-Fibrous 77 - 79 %

Sample: 57 Homogeneous: No Color: Grey Lab No.: 117867 Location: 1st Floor- Room #138, Corner by Room 141 Comments: Pipe Mud/Wrap			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Fibrous Glass 9 - 11 % Synthetics 9 - 11 %	Non-Fibrous 79 - 81 %

These results relate only to the samples included in this report.

TEC, Inc. participates in the AIHA PAT program, and our laboratory identification number is 100935. TEC, Inc. is also a participant in the National Voluntary Laboratory Accreditation Program (NVLAP#102673-0). Furthermore, we are currently proficient and accredited. In accordance with NVLAP criteria, no product endorsement is given by NVLAP or any other U.S. Government Agency. Bulk analysis Method used: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (40 CFR ch.1 pt. 765, App A to Subpt.F 711.87). This report shall not be reproduced except in full, without the written approval of the laboratory. Percentages are approximations; the detection limit for the test method is 1%.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

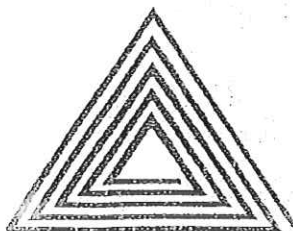
Page 20 of 49

Sample: 58 Homogeneous: Yes		Color: Tan	Lab No.: 117868
Location: 1st Floor- Room #141			
Comments: Pipe Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	59 - 61 %		Non-Fibrous 39 - 41 %

Sample: 59 Homogeneous: Yes		Color: White	Lab No.: 117869
Location: 1st Floor- Room #141, Floor			
Comments: 12x12 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	6 - 8 %		Non-Fibrous 92 - 94 %

Sample: 60 Homogeneous: Yes		Color: Black	Lab No.: 117870
Location: 1st Floor- Room #141, Floor			
Comments: 12x12 Floor Tile Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	4 - 6 %		Non-Fibrous 94 - 96 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

000038

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

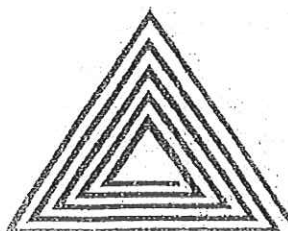
Page 21 of 49

Sample: 61 Homogeneous: Yes Color: Grey Lab No.: 117871 Location: 1st Floor- Room #138, Ceiling Comments: Ceiling Tile			
ASBESTOS		FIBROUS	
None Detected		Cellulose 39 - 41 %	Non-Fibrous 59 - 61 %

Sample: 62 Homogeneous: Yes Color: Grey Lab No.: 117872 Location: 1st Floor- Room #138, Pipe by Hallway Door Comments: Pipe Insulation			
ASBESTOS		FIBROUS	
Chrysotile	29 - 31 %	Non-Fibrous 69 - 71 %	

Sample: 63 Homogeneous: Yes Color: Cream Lab No.: 117873 Location: 1st Floor- Room #133, Top Stairway, Floor Comments: 12x12 Floor Tile			
ASBESTOS		FIBROUS	
None Detected		Synthetics 1 - 3 %	Non-Fibrous 97 - 99 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 22 of 49

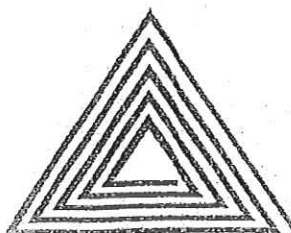
Sample: 64	Homogeneous: Yes	Color: Tan	Lab No.: 117874
Location: 1st Floor- Room #133, Top Stairway, Floor			
Comments: 12x12 Floor Tile Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 65	Homogeneous: Yes	Color: White	Lab No.: 117875
Location: 1st Floor- Room #133, Top Stairway, Floor			
Comments: 12x12 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	5 - 7 %		Non-Fibrous 93 - 95 %

Sample: 66	Homogeneous: Yes	Color: Black	Lab No.: 117876
Location: 1st Floor- Room #133, Top Stairway, Floor			
Comments: 12x12 Floor Tile Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	4 - 6 %		Non-Fibrous 94 - 96 %

These results relate only to the samples included in this report.

TEC, Inc. participates in the AIHA PAT program, and our laboratory identification number is 100935. TEC, Inc. is also a participant in the National Voluntary Laboratory Accreditation Program (NVLAP #132073-0). Furthermore, we are currently proficient and accredited. In accordance with NVLAP criteria, no product endorsement is given by NVLAP or any other U.S. Government Agency. Bulk analysis Method used: EPA-Intim Method for the Determination of Asbestos in Bulk Insulation Samples (40 CFR ch.1 pt. 763, App A to Subpt F 771/87). This report shall not be reproduced except in full, without the written approval of the laboratory. Percentages are approximations; the detection limit for the test method is 1%.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

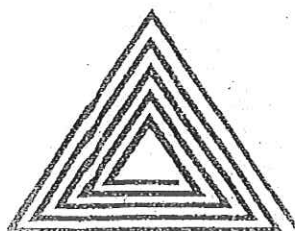
Page 23 of 49

Sample: 67 Homogeneous: Yes		Color: White	Lab No.: 117877
Location: 1st Floor- Room #101, Wall			
Comments: Top Coat			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 68 Homogeneous: Yes		Color: Grey	Lab No.: 117878
Location: 1st Floor- Room #101, Wall			
Comments: Bottom Coat			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Cellulose 2 - 4 %	Vermiculite	9 - 11 %
		Non-Fibrous	86 - 88 %

Sample: 69 Homogeneous: Yes		Color: Black	Lab No.: 117879
Location: 1st Floor- Room #127			
Comments: Insulation			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 24 of 49

Sample: 70	Homogeneous: Yes	Color: Grey	Lab No.: 117880
Location: 1st Floor- Room #127, 90 Off Boiler			
Comments: Mud			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Fibrous Glass 11 - 13 %	Non-Fibrous	87 - 89 %

Sample: 71	Homogeneous: Yes	Color: Grey	Lab No.: 117881
Location: 1st Floor- Room #127, 90 Off Boiler			
Comments: Insulation			
ASBESTOS	FIBROUS	OTHER MATERIALS	
Chrysotile 59 - 61 %		Non-Fibrous	39 - 41 %

Sample: 72	Homogeneous: Yes	Color: Grey	Lab No.: 117882
Location: 1st Floor- Room #127, Zone 1, Piping in Boiler Room			
Comments: Insulation			
ASBESTOS	FIBROUS	OTHER MATERIALS	
Chrysotile 44 - 46 %		Non-Fibrous	54 - 56 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

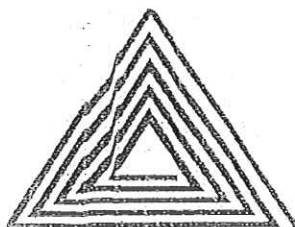
Page 25 of 49

Sample: 73	Homogeneous: Yes	Color: Grey	Lab No.: 117883
Location: 1st Floor- Room #127, Zone 2, Piping in Boiler Room			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	44 - 46 %		Non-Fibrous 54 - 56 %

Sample: 74	Homogeneous: Yes	Color: Grey	Lab No.: 117884
Location: 1st Floor- Room #127, Zone 3, Piping in Boiler Room			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	64 - 66 %		Non-Fibrous 34 - 36 %

Sample: 75	Homogeneous: Yes	Color: Grey	Lab No.: 117885
Location: 1st Floor- Room #127, Over Head Pipe by Electrical Panel			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	64 - 66 %		Non-Fibrous 34 - 36 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

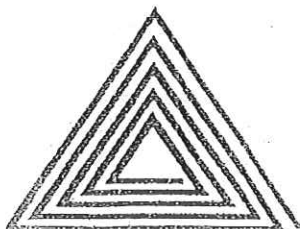
Page 26 of 49

Sample: 76	Homogeneous: Yes	Color: Grey	Lab No.: 117886
Location: 1st Floor- Room #127, Debris Next to Exterior Door			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	59 - 61 %		Non-Fibrous 39 - 41 %

Sample: 77	Homogeneous: Yes	Color: Grey	Lab No.: 117887
Location: 1st Floor- Room #127, Debris Next to Exterior Door			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Fibrous Glass 17 - 19 %	Non-Fibrous 81 - 83 %

Sample: 78	Homogeneous: Yes	Color: Grey	Lab No.: 117888
Location: 1st Floor- Room #127, Horizontal Pipe Next to Water Heater			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	15 - 17 %		Non-Fibrous 83 - 85 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

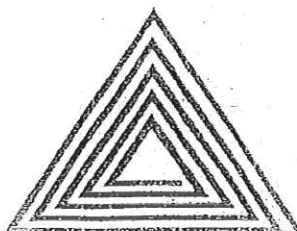
Page 27 of 49

Sample: 79	Homogeneous: Yes	Color: Grey	Lab No.: 117889
Location: 1st Floor- Room #127, Horizontal Pipe Next to Water Heater			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	64 - 66 %		Non-Fibrous 34 - 36 %

Sample: 80	Homogeneous: Yes	Color: Grey	Lab No.: 117890
Location: 1st Floor- Room #127, Horizontal Pipe Next to Water Heater			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	44 - 46 %		Non-Fibrous 54 - 56 %

Sample: 81	Homogeneous: Yes	Color: Grey	Lab No.: 117891
Location: 1st Floor- Men's Restroom, By Window, Pipe 90			
Comments: Mud			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Fibrous Glass 9 - 11 %	Non-Fibrous 89 - 91 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

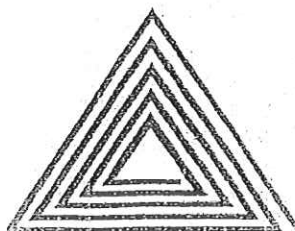
Page 28 of 49

Sample: 82		Homogeneous: Yes		Color: Yellow		Lab No.: 117892	
Location: 1st Floor- Men's Restroom, By Window, Pipe 90							
Comments: Insulation							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Fibrous Glass 69 - 71 %		Non-Fibrous 29 - 31 %	

Sample: 83		Homogeneous: Yes		Color: Grey		Lab No.: 117893	
Location: 1st Floor- Room 126, On Piping							
Comments: Insulation							
ASBESTOS				FIBROUS		OTHER MATERIALS	
Chrysotile 34 - 36 %						Non-Fibrous 64 - 66 %	

Sample: 84		Homogeneous: Yes		Color: Grey		Lab No.: 117894	
Location: 1st Floor- Room 126, On Piping							
Comments: Mud							
ASBESTOS				FIBROUS		OTHER MATERIALS	
Chrysotile 44 - 46 %						Non-Fibrous 54 - 56 %	

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701

Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

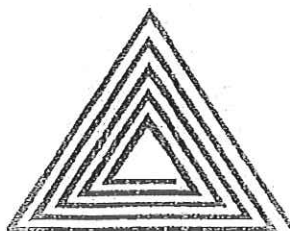
Page 29 of 49

Sample: 85	Homogeneous: Yes	Color: Grey	Lab No.: 117895
Location: 1st Floor- Room 126, On Piping			
Comments: Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	64 - 66 %		Non-Fibrous 34 - 36 %

Sample: 86	Homogeneous: Yes	Color: Teal	Lab No.: 117896
Location: 1st Floor- Hallway @ Room 118, Floor			
Comments: Flooring			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 87	Homogeneous: Yes	Color: Teal	Lab No.: 117897
Location: 1st Floor- Hallway 124 @ Exit Door, Floor			
Comments: Flooring			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

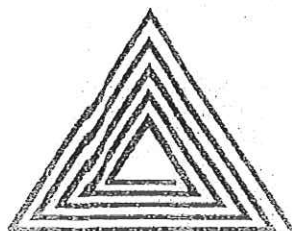
Page 30 of 49

Sample: 88 Homogeneous: Yes Color: Brown Lab No.: 117898 Location: 1st Floor- Room 120, Floor Comments: 9x9 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	9 - 11 %		Non-Fibrous 89 - 91 %

Sample: 89 Homogeneous: Yes Color: Black Lab No.: 117899 Location: 1st Floor- Room 120, Floor Comments: 9x9 Floor Tile Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 90 Homogeneous: Yes Color: Grey Lab No.: 117900 Location: 1st Floor- Room 120, Ceiling Comments: 2x4 Ceiling Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Cellulose 34 - 36 %	Non-Fibrous 64 - 66 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue - ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

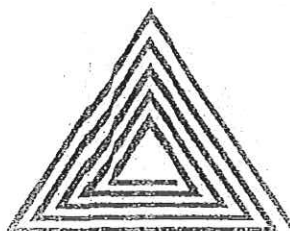
Page 31 of 49

Sample: 91 Homogeneous: Yes		Color: White	Lab No.: 117901
Location: 1st Floor- Room 120, Ceiling			
Comments: Top Coat			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 92 Homogeneous: Yes		Color: Grey	Lab No.: 117902
Location: 1st Floor- Room 120, Ceiling			
Comments: Bottom Coat			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Cellulose 2 - 4 %	Vermiculite	9 - 11 %
		Non-Fibrous	86 - 88 %

Sample: 93 Homogeneous: Yes		Color: Grey	Lab No.: 117903
Location: 1st Floor- Room 120, Hallway Ceiling			
Comments: 2x4 Ceiling Tile			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Cellulose 39 - 41 %	Non-Fibrous	59 - 61 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout

Job Location: 701 Jefferson Rd. - South Charleston, WV

Method: PLM with Dispersion Staining

Project Number: 117-1052

Triad Report No: 10873

Date Received: 10/1/2010

Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 32 of 49

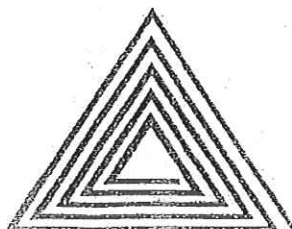
Sample: 94 Homogeneous: Yes Color: White Lab No.: 117904 Location: 1st Floor- Room 120, Hallway Ceiling Above Ceiling Tile Comments: Top Coat			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 95 Homogeneous: Yes Color: Grey Lab No.: 117905 Location: 1st Floor- Room 120, Hallway Ceiling Above Ceiling Tile Comments: Bottom Coat			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Cellulose 1 - 3 %	Vermiculite 7 - 9 % Non-Fibrous 89 - 91 %

Sample: 96 Homogeneous: Yes Color: Grey Lab No.: 117906 Location: 1st Floor- Room 120, Hallway Ceiling Above Ceiling Tile Comments: Pipe Insulation			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	64 - 66 %		Non-Fibrous 34 - 36 %

These results relate only to the samples included in this report.

TEC, Inc. participates in the AIHA PAT program and our laboratory identification number is 100935. TEC, Inc. is also a participant in the National Voluntary Laboratory Accreditation Program (NVLAP #162073-0). Furthermore, we are currently proficient and accredited, in accordance with NVLAP criteria, no product endorsement is given by NVLAP or any other U.S. Government Agency. Bulk analysis Method used: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (40 CFR ch.1 pt. 763, App.A to Subpt.F 7/1/87). This report shall not be reproduced except in full without the written approval of the laboratory. Percentages are approximations; the detection limit for the test method is 1%.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout

Job Location: 701 Jefferson Rd. - South Charleston, WV

Method: PLM with Dispersion Staining

Project Number: 117-1052

Triad Report No: 10873

Date Received: 10/1/2010

Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

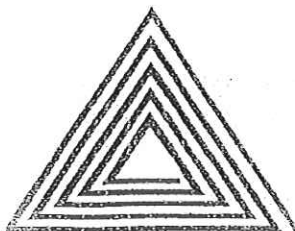
Page 33 of 49

Sample: 97		Homogeneous: Yes	Color: Grey	Lab No.: 117907
Location: 1st Floor- Room 120, Hallway Ceiling Above Ceiling Tile				
Comments: Pipe Insulation				
ASBESTOS		FIBROUS		OTHER MATERIALS
Chrysotile	64 - 66 %			Non-Fibrous 34 - 36 %

Sample: 98		Homogeneous: Yes	Color: Grey	Lab No.: 117908
Location: 1st Floor- Room 120, Hallway Ceiling Above Ceiling Tile, 90				
Comments: Pipe Insulation				
ASBESTOS		FIBROUS		OTHER MATERIALS
None Detected		Fibrous Glass	11 - 13 %	Non-Fibrous 87 - 89 %

Sample: 99		Homogeneous: Yes	Color: Grey	Lab No.: 117909
Location: 1st Floor- Room 108, Ceiling				
Comments: Ceiling Tile				
ASBESTOS		FIBROUS		OTHER MATERIALS
None Detected		Cellulose	34 - 36 %	Non-Fibrous 64 - 66 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

Page 34 of 49

Sample: 100 Homogeneous: Yes		Color: White	Lab No.: 117910
Location: 1st Floor- Room 108, Ceiling			
Comments: Top Coat			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 101 Homogeneous: Yes		Color: Grey	Lab No.: 117911
Location: 1st Floor- Room 108, Ceiling			
Comments: Bottom Coat			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Vermiculite	9 - 11 %
		Non-Fibrous	89 - 91 %

Sample: 102 Homogeneous: Yes		Color: White	Lab No.: 117912
Location: 1st Floor- Room 109, Wall			
Comments: Drywall			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Cellulose	9 - 11 %	Non-Fibrous 89 - 91 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

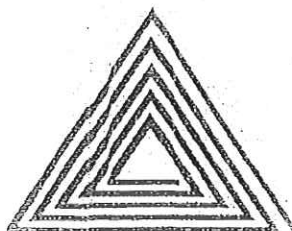
Page 35 of 49

Sample: 103 Homogeneous: Yes		Color: Brown	Lab No.: 117913
Location: 1st Floor- Room 106, Floor			
Comments: 12x12 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	5 - 7 %		Non-Fibrous 93 - 95 %

Sample: 104 Homogeneous: Yes		Color: Black	Lab No.: 117914
Location: 1st Floor- Room 106, Floor			
Comments: 12x12 Floor Tile Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	3 - 5 %		Non-Fibrous 95 - 97 %

Sample: 105 Homogeneous: Yes		Color: Brown	Lab No.: 117915
Location: 1st Floor- Room 106, Floor			
Comments: 9x9 Floor Tile			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	7 - 9 %		Non-Fibrous 91 - 93 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

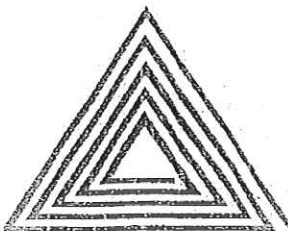
Page 38 of 49

Sample: 112		Homogeneous: Yes		Color: Black		Lab No.: 117922	
Location: East Roof - Southwest Corner							
Comments: Roof Decking							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose	39 - 41 %	Non-Fibrous	59 - 61 %

Sample: 113		Homogeneous: No		Color: Black/Yellow		Lab No.: 117923	
Location: East Roof - Center							
Comments: Roof Decking							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose	44 - 46 %	Non-Fibrous	54 - 56 %

Sample: 114		Homogeneous: No		Color: Black/Yellow		Lab No.: 117924	
Location: East Roof - Southeast Corner							
Comments: Roof Decking							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose	44 - 46 %	Non-Fibrous	54 - 56 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

000054

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

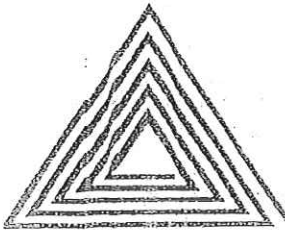
Page 39 of 49

Sample: 115 Homogeneous: Yes Color: Black Lab No.: 117925 Location: East Roof - West Side Wall Flashing Comments: Tar			
ASBESTOS		FIBROUS	
None Detected		Cellulose 9 - 11 %	Non-Fibrous 89 - 91 %

Sample: 116 Homogeneous: Yes Color: Black Lab No.: 117926 Location: East Roof - North Side Wall Flashing Comments: Tar			
ASBESTOS		FIBROUS	
None Detected		Cellulose 9 - 11 %	Non-Fibrous 89 - 91 %

Sample: 117 Homogeneous: Yes Color: Black Lab No.: 117927 Location: North Low Roof, Cap Comments: Tar			
ASBESTOS		FIBROUS	
Chrysotile	7 - 9 %		Non-Fibrous 91 - 93 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

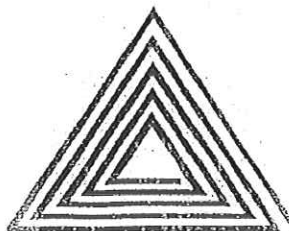
Page 40 of 49

Sample: 118		Homogeneous: No		Color: Grey/Black		Lab No.: 117928	
Location: North Roof, Center							
Comments: Roof Decking							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose 24 - 26 %		Non-Fibrous 74 - 76 %	

Sample: 119		Homogeneous: Yes		Color: Black		Lab No.: 117929	
Location: North Roof, Flashing							
Comments: Tar							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected						Non-Fibrous 100%	

Sample: 120		Homogeneous: Yes		Color: Black		Lab No.: 117930	
Location: Northeast Entryway Roof							
Comments: Tar							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected						Non-Fibrous 100%	

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Project Number: 117-1052
Triad Report No: 10873

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

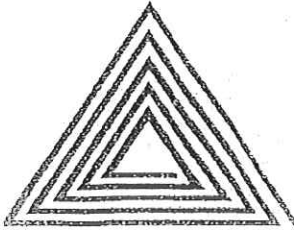
Page 41 of 49

Sample: 121		Homogeneous: Yes		Color: Black		Lab No.: 117931	
Location: Northwest Entryway Roof							
Comments: Tar							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Cellulose	9 - 11 %	Non-Fibrous	89 - 91 %

Sample: 122		Homogeneous: No		Color: Black/Yellow		Lab No.: 117932	
Location: Main Roof, Northeast							
Comments: Decking							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Synthetics	19 - 21 %	Non-Fibrous	79 - 81 %

Sample: 123		Homogeneous: No		Color: Black/Yellow		Lab No.: 117933	
Location: Main Roof, Southwest							
Comments: Decking							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected				Synthetics	19 - 21 %	Non-Fibrous	79 - 81 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

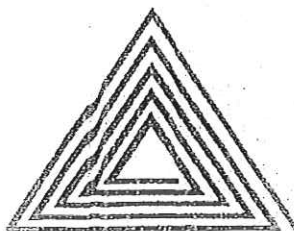
Page 43 of 49

Sample: 127	Homogeneous: Yes	Color: Black	Lab No.: 117937
Location: South Center Shed Roof, Center			
Comments: Felt Paper			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	17 - 19 %		Non-Fibrous 81 - 83 %

Sample: 128	Homogeneous: Yes	Color: Black	Lab No.: 117938
Location: South Center Shed Roof, Center			
Comments: Tar			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 129	Homogeneous: Yes	Color: Black	Lab No.: 117939
Location: South Center Shed Roof, Southwest Corner			
Comments: Tar			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P.O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

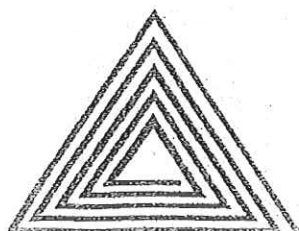
Page 44 of 49

Sample: 130		Homogeneous: Yes		Color: Black		Lab No.: 117940	
Location: South Center Shed Roof, Southwest Corner							
Comments: Felt Paper							
ASBESTOS				FIBROUS		OTHER MATERIALS	
Chrysotile				17 - 19 %		Non-Fibrous 81 - 83 %	

Sample: 131		Homogeneous: Yes		Color: Black		Lab No.: 117941	
Location: South Center Shed Roof, Southwest Corner							
Comments: Tar							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected						Non-Fibrous 100%	

Sample: 132		Homogeneous: Yes		Color: Black		Lab No.: 117942	
Location: South Center Shed Roof, West Side Flashing							
Comments: Tar							
ASBESTOS				FIBROUS		OTHER MATERIALS	
None Detected						Non-Fibrous 100%	

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701

Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division

1900 Kanawha Blvd. East Bldg. 1

Charleston, WV 25305

P. O. #: 17706

Report for: Jonathan R. Trout

Job Location: 701 Jefferson Rd. - South Charleston, WV

Method: PLM with Dispersion Staining

Project Number: 117-1052

Triad Report No: 10873

Date Received: 10/1/2010

Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

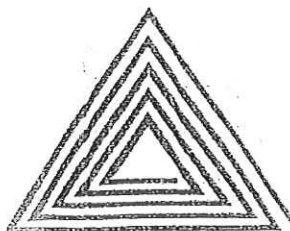
Page 45 of 49

Sample: 133	Homogeneous: Yes	Color: Black	Lab No.: 117943
Location: South Center Shed Roof, West Side Flashing			
Comments: Felt Paper			
ASBESTOS		FIBROUS	OTHER MATERIALS
Chrysotile	17 - 19 %		Non-Fibrous 81 - 83 %

Sample: 134	Homogeneous: Yes	Color: Black	Lab No.: 117944
Location: South Center Shed Roof, West Side Flashing			
Comments: Tar			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

Sample: 135	Homogeneous: Yes	Color: Black	Lab No.: 117945
Location: Incinerator Roof, Northeast Corner			
Comments: Felt Paper			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected		Cellulose 9 - 11 %	Non-Fibrous 89 - 91 %

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706
Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

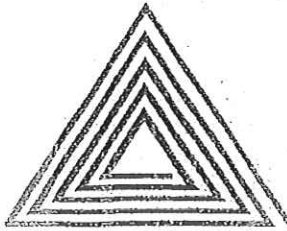
Page 46 of 49

Sample: 136 Homogeneous: Yes		Color: Black	Lab No.: 117946
Location: Incinerator Roof, Northeast Corner			
Comments: Tar			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

Sample: 137 Homogeneous: Yes		Color: Black	Lab No.: 117947
Location: Incinerator Roof, Southeast Corner			
Comments: Felt Paper			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected	Cellulose 9 - 11 %	Non-Fibrous	89 - 91 %

Sample: 138 Homogeneous: Yes		Color: Black	Lab No.: 117948
Location: Incinerator Roof, Southeast Corner			
Comments: Tar			
ASBESTOS	FIBROUS	OTHER MATERIALS	
None Detected		Non-Fibrous	100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

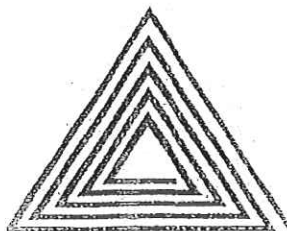
Page 47 of 49

Sample: 139		Homogeneous: Yes		Color: Black		Lab No.: 117949	
Location: West Entrance Roof, Flashing							
Comments: Tar							
ASBESTOS		FIBROUS		OTHER MATERIALS			
None Detected		Cellulose 4 - 6 %		Non-Fibrous		94 - 96 %	

Sample: 140		Homogeneous: Yes		Color: White		Lab No.: 117950	
Location: West Entrance, Ceiling							
Comments: Top Coat							
ASBESTOS		FIBROUS		OTHER MATERIALS			
None Detected				Non-Fibrous		100%	

Sample: 141		Homogeneous: Yes		Color: Grey		Lab No.: 117951	
Location: West Entrance, Ceiling							
Comments: Bottom Coat							
ASBESTOS		FIBROUS		OTHER MATERIALS			
None Detected				Vermiculite		7 - 9 %	
				Non-Fibrous		91 - 93 %	

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

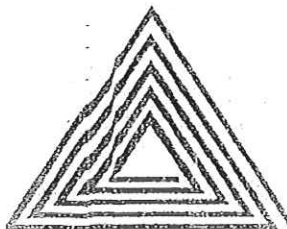
Page 48 of 49

Sample: 142 Homogeneous: Yes Color: Grey Lab No.: 117952 Location: 2nd Floor - Room 5, Wall Comments: Mastic		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Non-Fibrous 100%

Sample: 143 Homogeneous: Yes Color: White Lab No.: 117953 Location: 1st Floor - Hallway 101, Floor Comments: 12x12 Floor Tile		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Non-Fibrous 100%

Sample: 144 Homogeneous: Yes Color: Black Lab No.: 117954 Location: 1st Floor - Hallway 101, Floor Comments: 12x12 Floor Tile Mastic		
ASBESTOS	FIBROUS	OTHER MATERIALS
None Detected		Non-Fibrous 100%

These results relate only to the samples included in this report.



Triad Environmental Consulting, Inc.

Corporate Office ▲ 309 3rd Avenue ▲ Huntington, WV 25701
Phone (304) 523-2195 ▲ Fax (304) 523-2197

REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

Tested for: State of WV General Services Division
1900 Kanawha Blvd. East Bldg. 1
Charleston, WV 25305
P. O. #: 17706

Report for: Jonathan R. Trout
Job Location: 701 Jefferson Rd. - South Charleston, WV
Method: PLM with Dispersion Staining

Project Number: 117-1052
Triad Report No: 10873

Date Received: 10/1/2010
Date Analyzed: 10/5/2010

Analyst: Billie J. Linville

Partial duplication strictly forbidden.

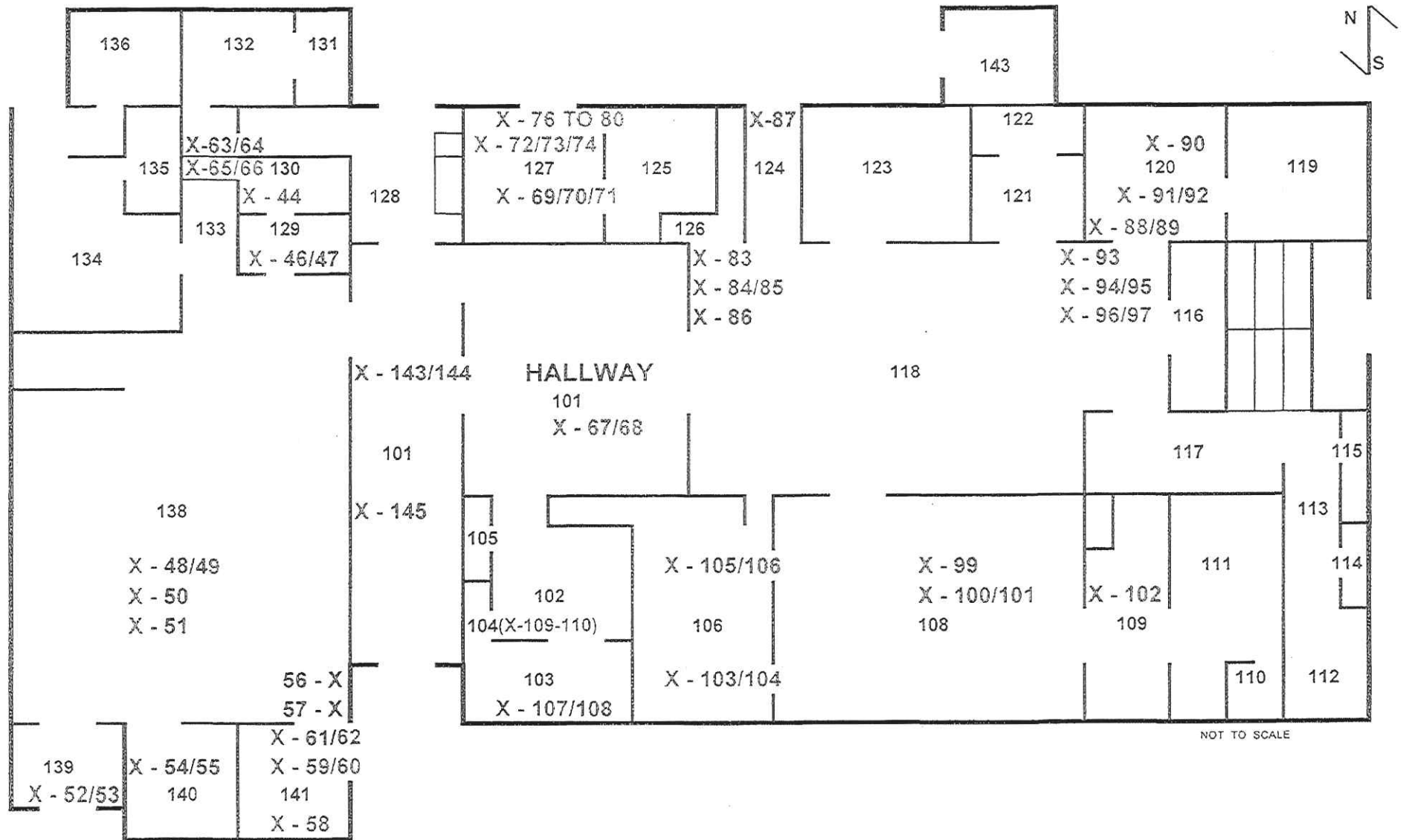
Page 49 of 49

Sample: 145 Homogeneous: No		Color: Grey/Brown	Lab No.: 117955
Location: 1st Floor - Hallway 101, Floor			
Comments: Cove Molding/Mastic			
ASBESTOS		FIBROUS	OTHER MATERIALS
None Detected			Non-Fibrous 100%

These results relate only to the samples included in this report.

TEC, Inc. participates in the AIHA PAT program, and our laboratory identification number is 100935. TEC, Inc. is also a participant in the National Voluntary Laboratory Accreditation Program (NVLAP #102073-0). Furthermore, we are currently proficient and accredited. In accordance with NVLAP criteria, no product endorsement is given by NVLAP or any other U.S. Government Agency. Bulk analysis Method used: E.P.A. Interim Method for the Determination of Asbestos in Bulk Insulation Samples (40 CFR ch. I pt. 763, App A to Subpt.F 7/1/87). This report shall not be reproduced except in full, without the written approval of the laboratory. Percentages are approximations; the detection limit for the test method is 1%.

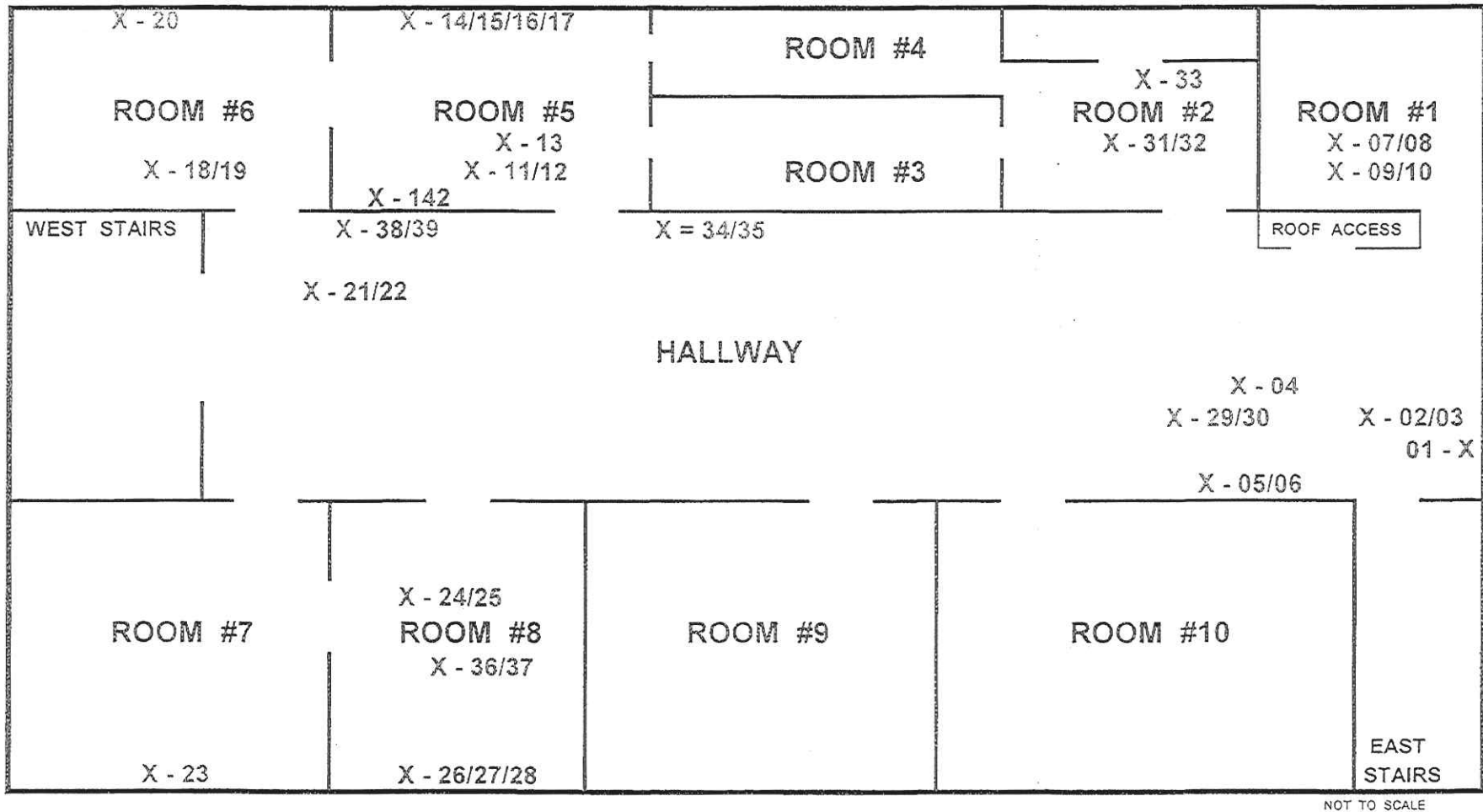
000064



1st FLOOR

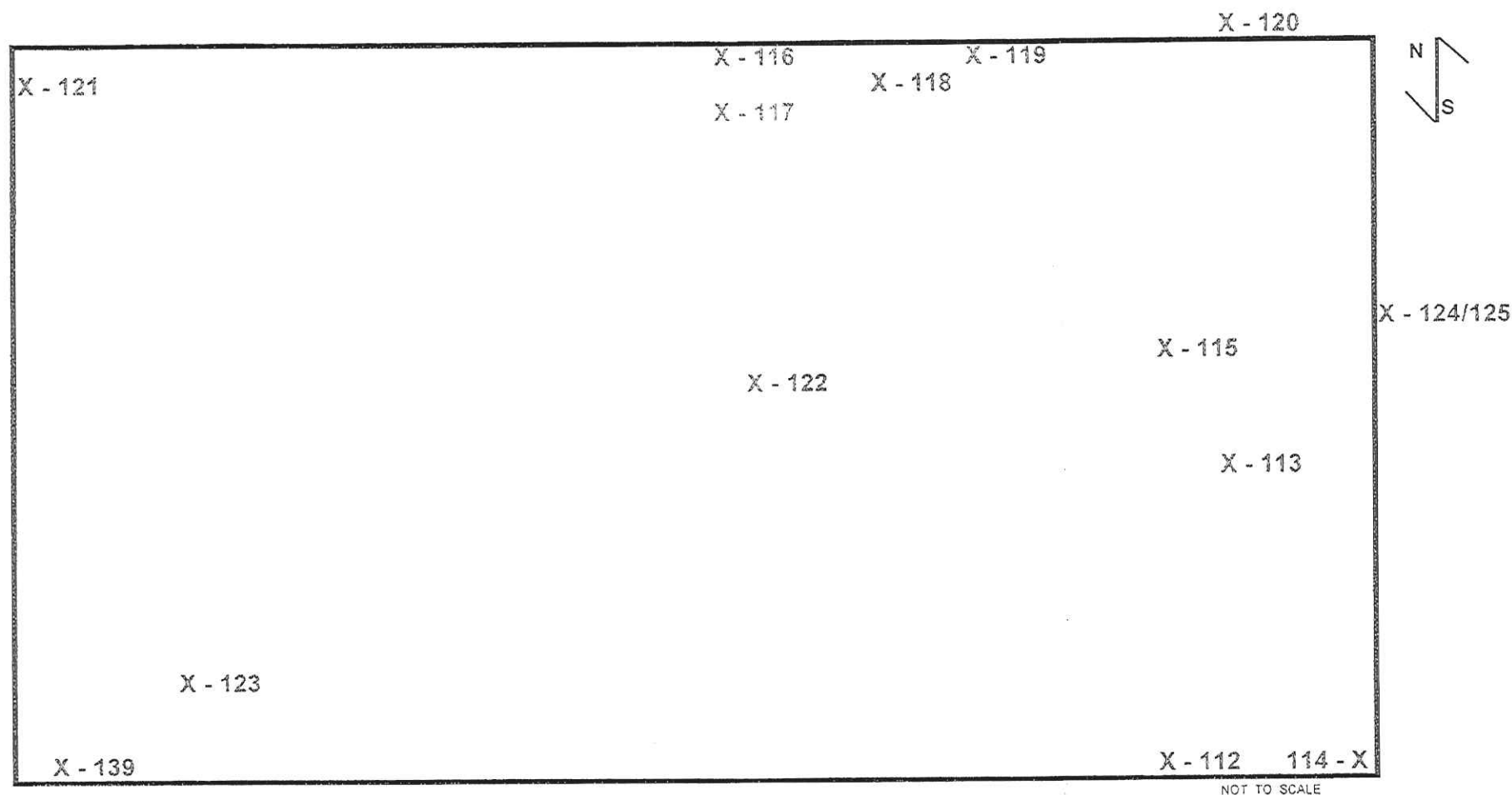
701 Jefferson Road - South Charleston, WV

000065



2nd FLOOR

701 Jefferson Road - South Charleston, WV



X - 127, 130 & 133 (SHED ROOF)

X - 125 TO 138 (INCINERATOR ROOF)

ROOF

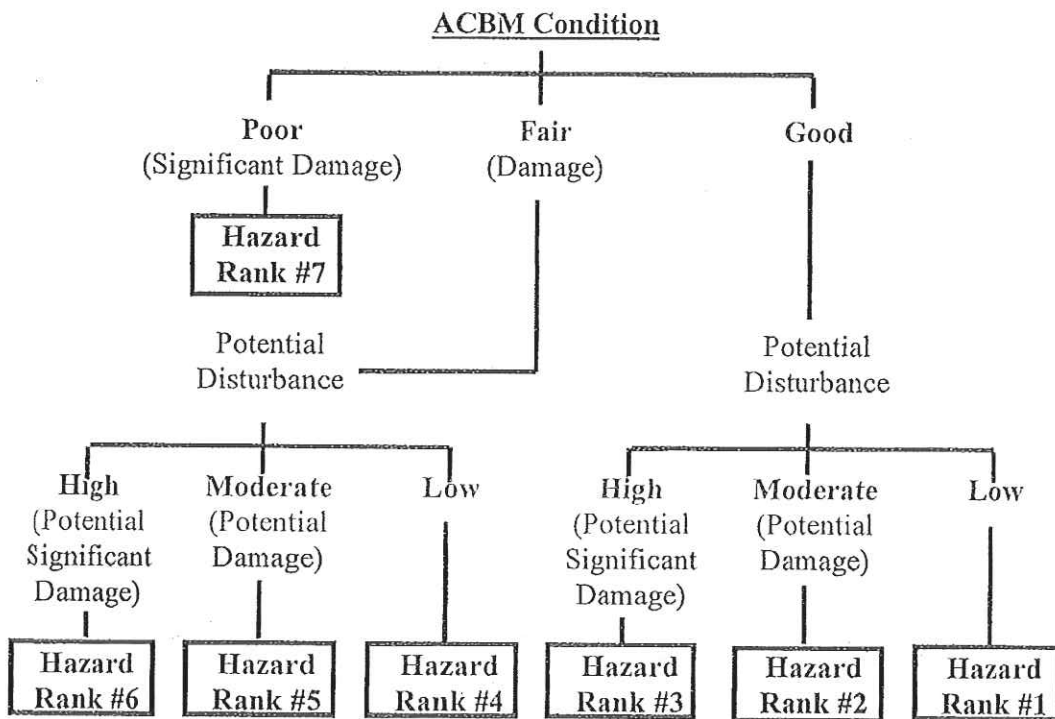
701 Jefferson Road - South Charleston, WV

Appendix 3

Condition Ranking

THE SEVEN AHERA ASSESSMENT CATEGORIES

CLASSIFICATIONS FOR HAZARD POTENTIAL



RESPONSE ACTION BASED ON AHERA HAZARD RANKING

Hazard Rank	Removal Priority	AHERA Categories	Response Actions Required by AHERA
7	1	Significantly Damaged	Evacuate or isolate the area if needed. Remove the ACBM (or enclose or encapsulate if sufficient to contain fibers). Repair of Thermal System Insulation is allowed if feasible and safe. O & M required for all friable ACBM
6	2	Damaged and Potential for Significant Damage	Evacuate or isolate the area if needed. Remove, enclose, encapsulate or repair to correct damage. Take steps to reduce potential for disturbance. O & M required for all friable ACBM.
5	3	Damaged and Potential for Damage	Remove, enclose, encapsulate or repair to correct damage. O & M required for all friable ACBM.
4	4	Damaged	Same as hazard rank 5
3	5	Potential for Significant Damage	Evacuate or isolate the area if needed. Take steps to reduce potential for disturbance. O & M required for all friable ACBM.
2	6	Potential for Damage	O & M required for all friable ACBM.
1	7	No Problem	O & M required for all friable ACBM, but measures need not be as extensive as above.

Appendix 4

WV Department of Health and Human Resources



000071

STATE OF WEST VIRGINIA
DEPARTMENT OF HEALTH AND HUMAN RESOURCES

Cecil H. Underwood
Governor

Jean B. Ohi
Secretary

To:

From: Paul D. Gallagher, Chief
Asbestos Compliance Program
Radiation, Toxics and Indoor Air Division

Subject: Removal of asbestos containing materials (ACM) from a single family dwelling

Date:

The following is required by this office to determine if a homeowner may remove asbestos containing materials for his or her single family owner/occupied dwelling. The submittal of this information does not guarantee a homeowner the right or approval to conduct any type of ACM abatement. Remember that these steps apply only to single family, owner occupied dwelling renovations, demolitions, or to an adjoining single family dwelling or out building that is to be demolished to enlarge their yard, build a new house, addition, or garage. This does not apply to commercial or rental property.

Prior to sending a letter and commencement of the demolition or renovation activity, have the affected house or building or that part of the house or building where the renovation or demolition activity, thoroughly inspected by a West Virginia licensed asbestos inspector for the presence of asbestos, including Category I and Category II nonfriable ACM. The asbestos inspection report will provide some of the information required when submitting a request for a waiver.

1. Send a legibly written, printed, or typed letter to this office addressed to Mr. Randy C. Curtis, P.E., Director, of the Radiation Toxics and Indoor Air Division with the following information:

a. Type of building to be abated (e.g., house, garage, utility building, etc.), and its location. The name, address and phone number of the owner.

b. The reason for abating the ACM.

c. The type of ACM to be abated, e.g., siding, roofing shingles, pipe insulation, ceiling tile, wall or ceiling plaster, etc., and the present condition of the ACM.

BUREAU FOR PUBLIC HEALTH
Office of Environmental Health Services
815 Quarrier Street, Suite 418
Charleston, West Virginia 25301-2616
Telephone: (304) 358-2981

Page 2

- d. The amount of ACM to be abated.
 - e. The planned dates for the abatement to take place.
 - f. A list of people who will be doing the abatement and relationship to the requester. Only immediate family members may assist with the abatement
2. This office will process the request reserving the right to approve or disapprove.
 3. This office will send information and instructions that must be followed during the abatement project.
 4. This office reserves the right to rescind at any time our approval if any abatement violations occur such as but not limited to; improper work practices, creating a health hazard, improper packaging, improper disposal, misleading or false information.
 5. This office will be available to answer any questions the individual may have before, during, or after their abatement project.

State of West Virginia

Bureau for Public Health
Office of Environmental Health Services
Radiation, Toxics and Indoor Air Division

This is to certify that

Triad Environmental Consulting, Inc.

**2788 First Avenue
Huntington, WV 25702**


Has complied with Chapter 16, Article 32, of the Asbestos Abatement
Licensing Rules and Regulations and is hereby licensed as an Asbestos
Air and Bulk Sample Analytical Laboratory.

- Asbestos Laboratory License Number:

LT000367

Issued: 1/13/2010

Expires: 1/31/2011



Randy C. Curtis, P.E., Director

Radiation, Toxics and Indoor Air Division

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 102073-0

Triad Environmental Consulting, Inc.
Huntington, WV

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

BULK ASBESTOS FIBER ANALYSIS

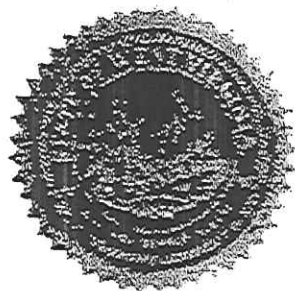
*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2010-07-01 through 2011-06-30

Effective dates



Sally S. Bruce
For the National Institute of Standards and Technology



WEST VIRGINIA

Asbestos Program

Steven L. Adkins

IS LICENSED AS AN
ASBESTOS INSPECTOR

License # AI005986

Issued: 7/26/2010

Expires: 7/31/2011

Randy C. Curtis Dir., WV RTIA DIV

Geotechnical Engineering Report

West Virginia State Police Headquarters
New Garage Structure and Two Story Building Addition
South Charleston, Kanawha County, West Virginia

January 23, 2012

Terracon Project No. N2115084

Prepared for:
West Virginia State Police
South Charleston, West Virginia

Prepared by:
Terracon Consultants, Inc.

Offices Nationwide
Employee-Owned

Established in 1965
terracon.com

Terracon

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	i
1.0 INTRODUCTION.....	1
2.0 PROJECT INFORMATION.....	1
2.1 Project Description.....	1
2.2 Site Location and Description	2
3.0 SUBSURFACE CONDITIONS.....	2
3.1 Geology	2
3.2 Typical Profile	2
3.3 Groundwater.....	3
4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION.....	4
4.1 Geotechnical Considerations.....	4
4.2 Site Preparation and Earthwork.....	5
4.3 Foundation Design Recommendations – New Garage and Building Addition	7
4.4 Floor Slabs – New Garage and Building Addition	8
4.5 Seismic Considerations	9
5.0 GENERAL COMMENTS	9
 Appendix A – Field Exploration	
Boring Location Diagrams.....	Exhibit A-1 and A-2
Boring Logs	Exhibit A-3 through A-10
Field Exploration Description	Exhibit A-11
 Appendix B – Supporting Information	
Laboratory Testing	Exhibit B-1
 Appendix C – Supporting Documents	
General Notes	Exhibit C-1
General Notes – Description of Rock Properties	Exhibit C-2
Unified Soil Classification	Exhibit C-3

January 23, 2012

Terracon

West Virginia State Police
4124 Kanawha Turnpike
South Charleston, WV 25309

Attn: Mr. Jonathan Nottingham
P: (304) 746-2457
F: (304) 746-2239
E: janottingham@wvsp.state.wv.us

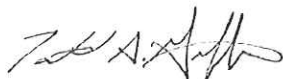
Regarding: Geotechnical Engineering Report
West Virginia State Police Headquarters
Building Addition and New Structure
South Charleston, West Virginia
Terracon Project No. N2115084

Dear Mr. Nottingham:

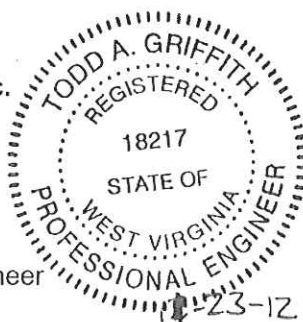
Terracon Consultants, Inc. has completed the geotechnical engineering services for the above referenced project. This study was performed in general accordance with our proposal number PN2110274. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations and slabs for the proposed new structure and building addition.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.



Todd A. Griffith, P.E.
Project Geotechnical Engineer




Yogesh S. Rege, P.E.
Senior Associate – Department Manager
Geotechnical Services

Enclosures
cc: 3 – Above

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084

Terracon**EXECUTIVE SUMMARY**

A geotechnical engineering report has been completed for the proposed two story building addition and the proposed new garage building at the West Virginia State Police Headquarters located in South Charleston, West Virginia. A total of eight (8) borings were performed for this project. Six (6) borings, designated as B-1 through B-6, were performed within the footprint of the proposed new garage structure, and two (2) borings, designated B-7 and B-8, were drilled at the site of the proposed building addition. The borings were extended to depths ranging from about 20 to 25 feet below the existing ground surface.

Based on the information obtained from our subsurface exploration, the following geotechnical considerations were identified:

- Uncontrolled existing man placed fill was encountered at the ground surface in all borings performed for both the proposed new garage and building addition. This fill predominantly consisted of coal fragments and coal waste that extended to depths ranging from about 5 to 17 feet. Underlying this existing fill material is medium stiff to stiff sandy silty clay to sandy lean clay material. The existing fill material is not considered suitable for direct foundation or floor slab bearing for either the two story addition or the proposed new garage structure.
- Since it is our opinion that the existing fill soils encountered at this site are not suitable for direct foundation or floor slab bearing, we recommend that site improvement measures be implemented for both building sites.
- We recommend the use of shallow foundations for building support and slab-on-grade floors after the underlying uncontrolled existing fill material has been improved using rammed aggregate-pier foundation elements or vibro-stone aggregate columns.
- Support of footings, floor slabs, and pavements on or above existing fill soils is discussed in this report. However, even with the recommended ground improvement, the use of shallow bearing, spread footing foundations involves an inherent risk for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered during construction. The recommendations offered in this report reduce the risk of adverse foundation settlements and cracking but does not completely eliminate it. This risk of unforeseen conditions cannot be eliminated for shallow bearing foundations without completely removing and replacing the uncontrolled fill or extending the building foundations to bear on bedrock but can be reduced by improving the soil and site conditions using rammed aggregate-pier foundation elements or vibro-stone aggregate columns.

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084



- We recommend that the proposed new garage structure footprint be located at least 10 feet from the crest of the approximate 10 to 15 feet high existing 2.5:1V slope located near the north western corner of the proposed new garage structure. It must be noted that slope stability analyses for this slope was not within the scope of this study. It is also understood that the 100 year flood elevation is 593 feet which is near the top of the slope. Therefore, slope instability due to rapid drawdown after a large flood event can be a concern.

This summary should be used in conjunction with the entire report for design purposes. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **GENERAL COMMENTS** should be read for an understanding of the report limitations.

**GEOTECHNICAL ENGINEERING REPORT
WEST VIRGINIA STATE POLICE HEADQUARTERS
NEW GARAGE STRUCTURE AND TWO STORY BUILDING ADDITION
SOUTH CHARLESTON, KANAWHA COUNTY, WEST VIRGINIA**

Terracon Project No. N2115084

January 23, 2012

1.0 INTRODUCTION

A geotechnical engineering report has been completed for the proposed two story building addition and the proposed new garage building at the West Virginia State Police Headquarters located in South Charleston, West Virginia. A total of eight (8) borings were performed for this project. Six (6) borings, designated as B-1 through B-6, were performed within the footprint of the proposed new garage structure, and two (2) borings, designated B-7 and B-8, were drilled at the site of the proposed two story building addition. The borings were extended to depths ranging from about 20 to 25 feet below the existing ground surface. Logs of the borings along with a boring location diagram are included in Appendix A of this report.

The purpose of this report is to provide information and geotechnical engineering recommendations relative to:

- subsurface soil conditions
- foundation design and construction
- groundwater conditions
- slab design and construction
- earthwork

2.0 PROJECT INFORMATION

2.1 Project Description

Item	Description
Structures	Proposed new one story garage structure Proposed two-story building addition
Finished floor elevation	Estimated to be approximately 594 feet for both
Building Construction	New garage structure – Masonry with steel columns Building addition – Masonry with steel columns
Maximum loads	New garage structure: Columns – 25 kips Walls – 3.5 kips per lineal foot (klf) Building addition: Columns – 175 kips Walls – 7.5 kips per lineal foot (klf)

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084



Item	Description
Maximum allowable settlement	Columns: 1-inch (assumed) Walls: ¾ inch over 40 feet (assumed)

2.2 Site Location and Description

Item	Description
Location	Existing West Virginia State Police Headquarters Campus
Existing improvements	Existing buildings, parking areas, other development.
Current ground cover	Grass, pavement, gravel
Existing topography	Ground surface elevation of 594 within building areas with an existing 10 to 15 feet tall 2.5H:1V slope in the northwestern corner of the project site.

3.0 SUBSURFACE CONDITIONS**3.1 Geology**

According to the West Virginia Geologic and Economic Survey's Geologic Map of West Virginia, the project site is comprised of Quaternary-aged alluvium associated with the floodplain of the Kanawha River overlying Pennsylvanian-aged sedimentary bedrock comprised of the Conemaugh Group. The Conemaugh Group can be divided into the Casselman and Glenshaw Formations. These formations can be considered basically two different lithologies, the upper Casselman composed of soft red marly shales, and the lower Glenshaw is comprised of massive pebbly sandstones. The project area is situated within the Appalachian Plateau physiographic province. The Appalachian Plateau is characterized as being underlain by relatively flat lying, coal bearing strata with a few broad wavelength / low amplitude folds.

3.2 Typical Profile

Based on the results of the borings, subsurface conditions on the project site can be generalized as follows:

3.2.1 General Encountered Conditions – New Garage Structure (B-1 to B-6)

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Consistency/Density/Hardness
Surface	½ foot in all borings	Asphalt and gravel	N/A
Stratum 1	5 to 17 feet	Fill: Predominantly coal fragments and coal waste with some sandy lean clay	N/A

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084



Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Consistency/Density/Hardness
Stratum 2	17 feet in Boring B-4 and undetermined in all other borings (terminated within this material)	Sandy silty to lean clay	Medium stiff to stiff (soft to stiff in Boring B-3)
Stratum 3	Undetermined: Boring B-4 terminated within this material	clayey sand	loose

3.2.2 General Encountered Conditions – Building Addition (B-7 and B-8)

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Consistency/Density/Hardness
Surface	½ foot in all borings	Asphalt and gravel	N/A
Stratum 1	6 to 8 feet	Fill: Predominantly coal fragments and coal waste with some sandy lean clay	N/A
Stratum 2	12 feet in Boring B-8 and undetermined Boring B-7 (terminated within this material)	Lean clay trace sand	Medium stiff to stiff
Stratum 3	Undetermined: Boring B-8 terminated within this material	Silty sand to sandy silt	Very loose to loose

Conditions encountered at each boring location are indicated on the individual boring logs. Stratification boundaries on the boring logs represent the approximate location of changes in soil/bedrock types; in-situ, the transition between materials may be gradual. Details for each of the borings can be found on the boring logs in Appendix A of this report.

3.3 Groundwater

The boreholes were observed while drilling and after completion for the presence and level of groundwater. Water was encountered in three (3) of the eight (8) borings performed at this site. In borings where water was observed during drilling, it was encountered around 12 to 13 feet below the existing ground surface. After drilling completion, the water was noted to be from about 8 to 12 feet below the existing ground surface.

Groundwater level fluctuations can occur due to seasonal variations in the amount of rainfall, runoff and other factors such as flooding from nearby Davis Creek and the Kanawha River, which were not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

4.1 Geotechnical Considerations

Uncontrolled existing man placed fill was encountered at the ground surface in all borings performed for both the proposed new garage and building addition. This fill predominantly consisted of coal fragments and coal waste that extended to depths ranging from about 5 to 17 feet. Underlying this existing fill material is medium stiff to stiff sandy silty clay to sandy lean clay material. The existing fill material is not considered suitable for direct foundation or floor slab bearing for either the two story addition or the proposed new garage structure.

Since it is our opinion that the existing fill soils encountered at this site are not suitable for direct foundation or floor slab bearing, we recommend that site improvement measures be implemented for both building sites.

We recommend the use of shallow foundations for building support and slab-on-grade floors after the underlying uncontrolled existing fill material has been improved using rammed aggregate-pier foundation elements or vibro-stone aggregate columns.

Support of footings, floor slabs, and pavements on or above existing fill soils is discussed in this report. However, even with the recommended ground improvement, the use of shallow bearing, spread footing foundations involves an inherent risk for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered during construction. The recommendations offered in this report reduce the risk of adverse foundation settlements and cracking but does not completely eliminate it. This risk of unforeseen conditions cannot be eliminated for shallow bearing foundations without completely removing and replacing the uncontrolled fill or extending the building foundations to bear on bedrock but can be reduced by improving the soil and site conditions using rammed aggregate-pier foundation elements or vibro-stone aggregate columns.

We recommend that the proposed new garage structure footprint be located at least 10 feet from the crest of the approximate 10 to 15 feet high existing 2.5:1V slope located near the north western corner of the proposed new garage structure. It must be noted that slope stability analyses for this slope was not within the scope of this study. It is also understood that the 100

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084

Terracon

year flood elevation is 593 feet which is near the top of the slope. Therefore, slope instability due to rapid drawdown after a large flood event can be a concern.

4.2 Site Preparation and Earthwork

The following section presents recommendations for site preparation, excavation, subgrade preparation and placement of engineered fills on the project. The recommendations presented for design and construction of earth supported elements are contingent upon following the recommendations outlined in this section.

Site preparation should begin with stripping and removal of all existing pavements, demolition debris, unsuitable and deleterious material. This material should be removed from the construction areas and wasted off site.

The existing fill material encountered at this site is not considered suitable for direct support of the proposed garage structure or two story addition foundations. Therefore, recommendations provided below should be implemented depending upon the option selected for site improvement.

4.2.1 Soil and Site Improvement Option with Aggregate Piers

The existing fill encountered within the footprint of both the proposed new garage structure and the two story building addition could be improved using a system of rammed aggregate-pier foundation elements or vibro-stone aggregate columns to support shallow foundation, as well as slab-on-grade floor slabs.

The compacted aggregate piers produce high lateral stresses within the surrounding soil matrix, thereby stiffening the reinforced composite soil/aggregate mass. This results in significant strengthening and stiffening of the soil to support footings and new structural fill so that settlement of proposed structures is within the project's tolerances.

Rammed-aggregate-pier foundation elements, such as Geopiers®, are usually designed and installed by a specialty contractor. Therefore, the subsurface exploration information contained in this report should be provided to the specialty foundation contractors for detailed analysis and design and cost information.

Geopier® elements typically consist of 30-inch diameter drilled shafts that are filled in thin lifts with highly compacted, well-graded aggregate to form very stiff, high-density aggregate piers. Vibro-stone columns typically consist of a 22 to 24-inch diameter vibroflotted hole that is charged with clean aggregate. The Vibroflot compacts this aggregate resulting in very stiff, high density aggregate piers.

4.2.2 Material Requirements

Compacted structural fill should meet the following material property requirements:

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084

Terracon

Fill Type ¹	USCS Classification	Acceptable Location for Placement
Lean clay	CL (LL<40)	All locations and elevations
Lean to fat clay	CL/CH (40<LL<50)	>24 inches below building finished grade
Well graded granular	GW, GM ²	All locations and elevations
Existing fill materials	CL, GC	The existing fill materials encountered in the borings were variable but some of the fill appeared to be suitable for reuse as structural fill. Coal fragments and coal waste are not suitable for use as structural fill and should be wasted off site. Due to the inconsistent nature of the fill, it is possible that fill containing topsoil, organics, rubble, debris and other deleterious material may be encountered and should be removed from the site when encountered.

1. Compacted structural fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Terracon for evaluation.
2. Similar to crushed limestone aggregate. If frost heave is not a concern, limestone screenings or granular material such as sand, gravel or crushed stone may also be used. Material should be approved by the geotechnical engineer.

4.2.4 Compaction Requirements

Item	Description
Fill Lift Thickness	9 inches or less in loose thickness when heavy, self-propelled compaction equipment is used 4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used
Compaction Requirements ¹	98% of the material's maximum dry density value as determined by ASTM Standard Test Method D 698 (Cohesive Soil)
Moisture Content – Cohesive Soil	Generally -2% to +3% of optimum as determined by ASTM Standard Test Method D 698
Moisture Content – Granular Material	Workable moisture levels ²

1. We recommend that compacted structural fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.
2. Specifically, moisture levels should be maintained low enough to allow for satisfactory compaction to be achieved without the cohesionless fill material pumping when proofrolled.

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084

Terracon**4.2.5 Construction Considerations**

Even with the recommended ground improvement method, the use of shallow bearing, spread footing foundations involves an inherent risk for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered during construction. The recommendations offered in this report reduce the risk of adverse foundation settlements and cracking but does not completely eliminate it. This risk of unforeseen conditions cannot be eliminated for shallow bearing foundations without completely removing and replacing the uncontrolled fill or extending the building foundations to bear on bedrock but can be reduced by improving the soil and site conditions with rammed aggregate piers or vibro-stone columns.

Upon completion of earthwork and site improvement methods, care should be taken to maintain the subgrade moisture content prior to construction of floor slabs and pavements. Construction traffic over the completed subgrade should be avoided to the extent practicable. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted prior to floor slab and pavement construction. Consideration could be given to providing a layer of crushed stone over the prepared building subgrade to provide a working mat in order to help expedite construction.

As a minimum, all temporary excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations will probably be required during grading operations. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

The geotechnical engineer and/or their authorized representative should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation; proof-rolling; placement and compaction of controlled compacted fills; backfilling of excavations into the completed subgrade, and just prior to construction of building floor slabs.

4.3 Foundation Design Recommendations – New Garage and Building Addition

Provided recommendations in Section 4.2 – Site Preparation and Earthwork are followed, the proposed new garage structure and the two story building addition can be supported on shallow foundations bearing on the improved site.

Design and construction recommendations for foundations for the proposed structures are presented in the following paragraphs.

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084



DESCRIPTION	COLUMN	WALL
Net allowable bearing pressure ¹	2,000 psf	2,000 psf
Minimum dimensions	30 inches	18 inches
Minimum embedment below finished grade for frost protection ²	36 inches	36 inches
Approximate total settlement ³	1 inch	1 inch
Estimated differential settlement ³	½ inch between columns	½ inch over 40 feet

1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation.
2. For exterior foundations beneath continuously heated structures, depth below the lowest adjacent exterior grade. The minimum depth for interior footings of continuously heated structures is 18 inches.
3. The foundation settlement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of compacted fill, and the quality of the earthwork operations. Assumes that site and soil improvement has been performed as per Section 4.2.

4.4 Floor Slabs – New Garage and Building Addition

A slab-on-grade floor slab can be considered for both the new garage structure and the two story building addition with either site improvement option presented in this report.

4.4.1 Slab-on-grade Floor Slab Design Recommendations

Item	Description
Floor slab support	Newly placed structural fill material or special subgrade preparation ¹
Modulus of subgrade reaction	100 pounds per square inch per inch (psi/in) for point loading conditions
Aggregate base course/capillary break ²	6 inches of free draining granular material

1. The floor slab should be structurally independent of any building footings or walls to reduce the possibility of floor slab cracking caused by differential movement between the slab and foundation.
We recommend subgrades be maintained in a relatively moist condition until the floor slab is constructed. If the subgrade should become desiccated prior to construction of floor slab, the affected material should be removed or the materials scarified, moistened, and recompacted. Upon completion of grading operations in the building areas, care should be taken to maintain the recommended subgrade moisture content and density until construction of the building floor slab.
2. The floor slab design should include a capillary break, comprised of free-draining, compacted, granular material, at least 6 inches thick. Free-draining granular material should have less than 5 percent fines (material passing the #200 sieve). Other design considerations such as cold temperatures and condensation development could warrant more extensive design provisions.

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084



Where appropriate, saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or any cracks that develop should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

The use of a vapor retarder should be considered beneath concrete slabs on grade that will be covered with wood, tile, carpet or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

4.5 Seismic Considerations

Code Used	Site Classification
2006 International Building Code (IBC) ¹	D ²
<ol style="list-style-type: none"> 1. In general accordance with the <i>2006 International Building Code</i>, Table 1613.5.2. 2. The 2006 International Building Code (IBC) requires a site soil profile determination extending a depth of 100 feet for seismic site classification. The current scope requested does not include the required 100 foot soil profile determination. Borings for this project were extended to a maximum depth of approximately 25 feet. Additional exploration to deeper depths could be performed to confirm the conditions below the current depth of exploration. Alternatively, a geophysical exploration could be utilized in order to attempt to justify a higher seismic site class. 	

5.0 GENERAL COMMENTS

The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

Support of footings, floor slabs, and pavements on or above existing fill soils is discussed in this report. However, even with the recommended ground improvement options, the use of shallow bearing, spread footing foundations involves an inherent risk for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered during construction. The recommendations offered in this report reduce the risk of adverse foundation settlements and cracking but does not completely eliminate it. This risk of unforeseen conditions cannot be eliminated for shallow bearing foundations without completely removing and replacing the

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084

000050

Terracon

uncontrolled fill or extending the building foundations to bear on bedrock but can be reduced by over-excavation and replacement of the fill as outlined in this report.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDIX A FIELD EXPLORATION

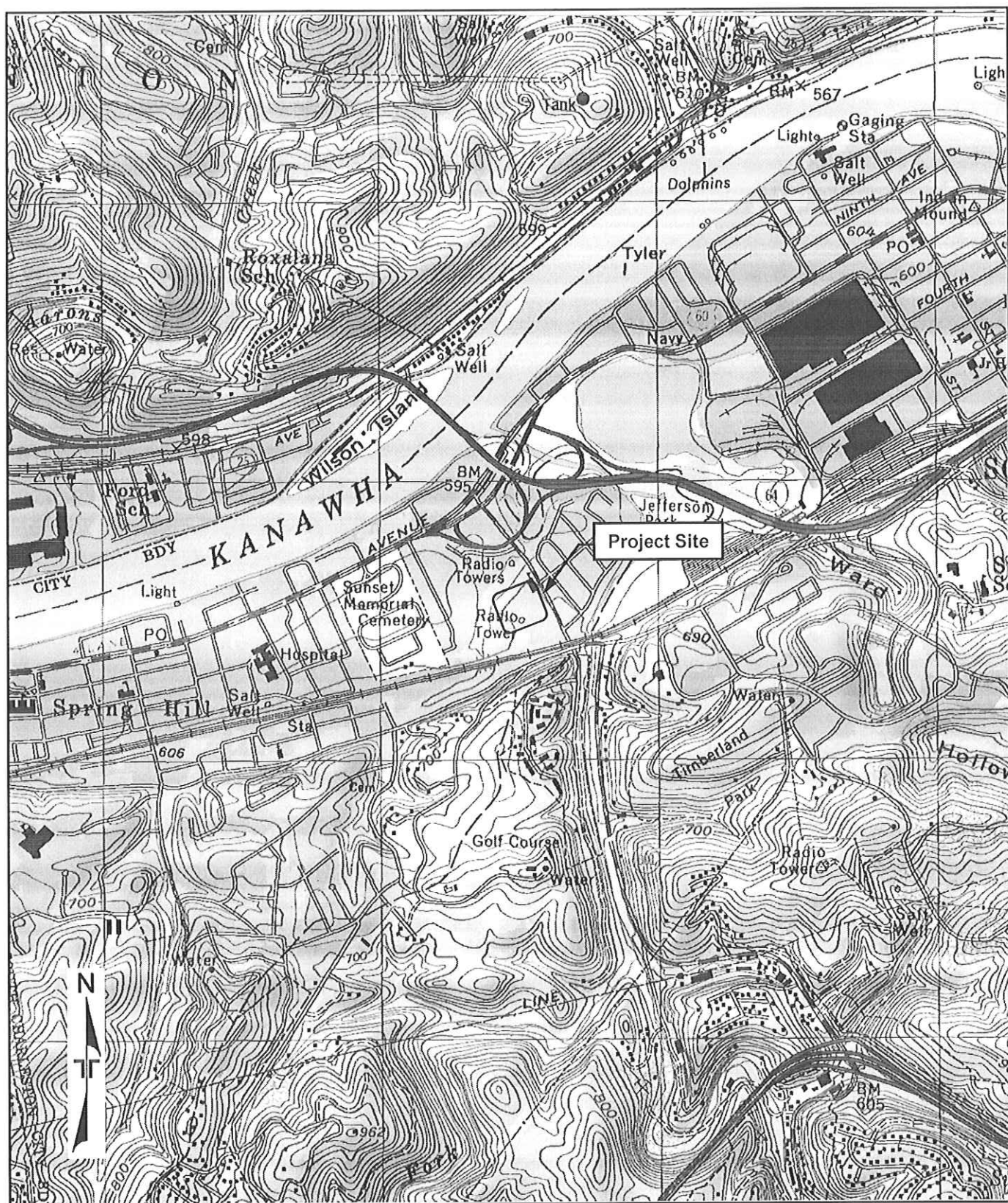


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT
INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	TAG	Project No.	N2115084
Drawn by:	TAG	Scale:	N.T.S.
Checked by:	YSR	File Name:	SLP-N2115084
Approved by:	YSR	Date:	1-4-2012

Terracon
Consulting Engineers & Scientists

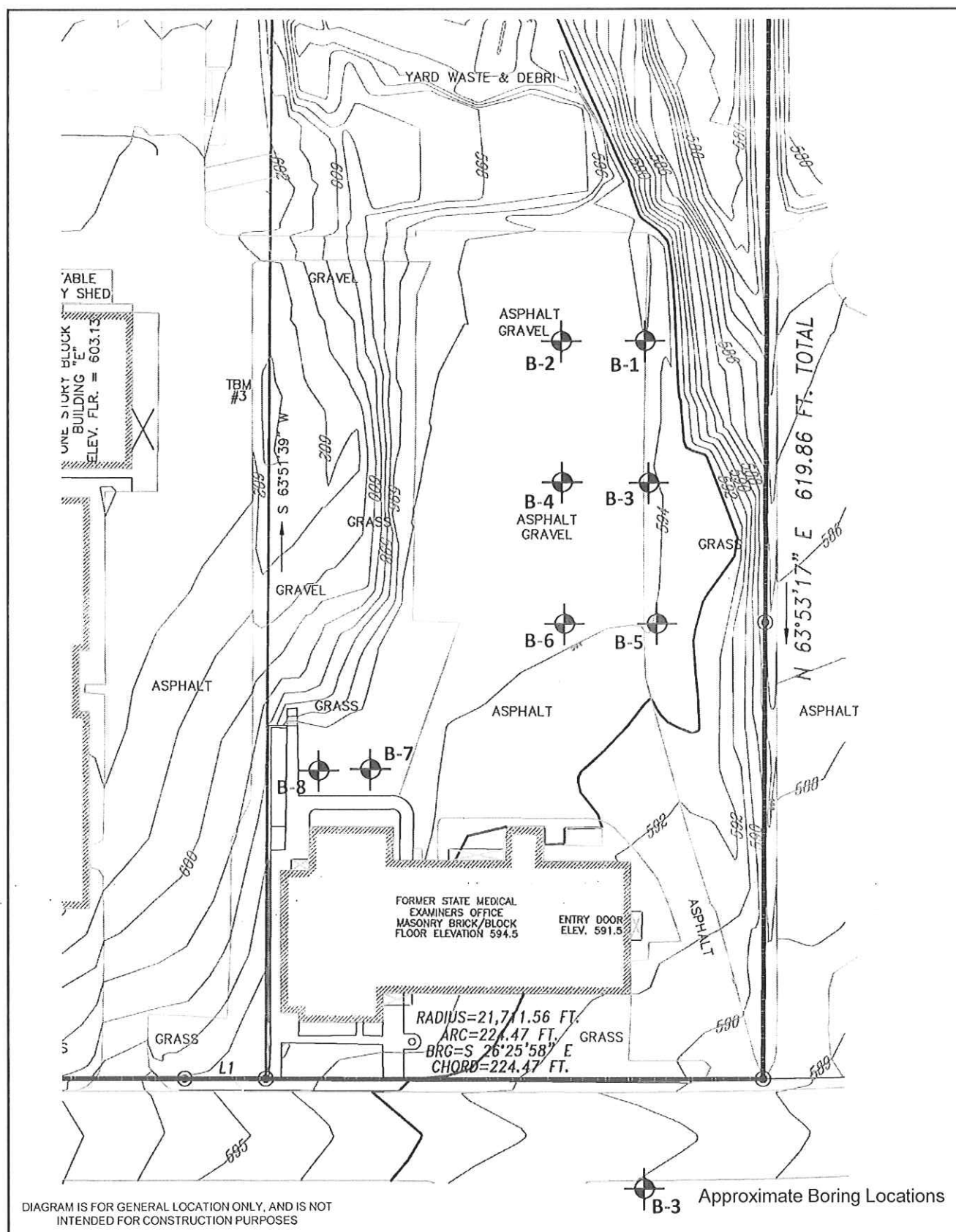
912 Morris Street Charleston, West Virginia 25301
PH: (304) 344-0021 FAX: (304) 342-4711

SITE LOCATION PLAN

WV STATE POLICE HEADQUARTERS
BUILDING ADDITION AND NEW STRUCTURE
SOUTH CHARLESTON, WEST VIRGINIA

EXHIBIT

A-1



Project Manager:	Project No.
TAG	N2115084
Drawn by:	Scale:
TAG	N.T.S.
Checked by:	File Name:
YSR	BLP-N2115084
Approved by:	Date:
TAG	1-19-2012

Terracon
Consulting Engineers & Scientists

912 Morris Street Charleston, West Virginia 25301
PH (304) 344-0821 FAX (304) 342-4711

BORING LOCATION PLAN

WEST VIRGINIA STATE POLICE
NEW BUILDING / ADDITION
SOUTH CHARLESTON, WEST VIRGINIA

EXHIBIT

A-2

LOG OF BORING NO. B-1

Page 1 of 1

CLIENT WV State Police										
SITE South Charleston, West Virginia		PROJECT WV State Police Headquarters								
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan		DEPTH, ft.	USCS SYMBOL	SAMPLES				TESTS	
	DESCRIPTION				NUMBER	TYPE	RECOVERY, in.	SPT - N** BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf
	Approx. Surface Elev.: 594 ft									
	0.5	<u>ASPHALT AND GRAVEL</u>	593.5							
		<u>FILL</u> , silty clay, brown		1	SS	5	3			
	2.5	<u>FILL / COAL FRAGMENTS</u> , black, trace silt	591.5							
				2	SS	9	5			
				3	SS	8	2			
				4	SS	12	2			
				5	SS	3	4			
	17	<u>LEAN CLAY</u> , brown to reddish brown, stiff	577							
	20	<u>SILTY CLAY</u> , brown and light brown, mottled, stiff	574	CL	6	SS	11	10		6000*
	25	<u>BORING COMPLETED</u>	569	CL ML	7	SS	13	11		8500*

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

▽ NE	WD	▽ NE	AB
▽		▽	

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

LOG OF BORING NO. B-2

Page 1 of 1

CLIENT		WV State Police	
SITE		PROJECT	
South Charleston, West Virginia		WV State Police Headquarters	
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan		
	DESCRIPTION		
	Approx. Surface Elev.: 595 ft		
	0.5	594.5	ASPHALT AND GRAVEL
			FILL / COAL FRAGMENTS, black, trace silt, gravel
	5	590	LEAN CLAY WITH SAND, brown, stiff, slightly micaceous
	12	583	SANDY SILTY CLAY, brown with light gray, medium stiff
20	575	BORING COMPLETED	

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

NE WD NE AB

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

LOG OF BORING NO. B-3

Page 1 of 1

CLIENT		WV State Police									
SITE		PROJECT									
South Charleston, West Virginia		WV State Police Headquarters									
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan		DEPTH, ft.	USCS SYMBOL	SAMPLES				TESTS		
	DESCRIPTION				NUMBER	TYPE	RECOVERY, in.	SPT - N** BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf
	Approx. Surface Elev.: 594 ft										
	0.5	ASPHALT AND GRAVEL			593.5						
	FILL, sandy lean clay, trace coal fragments, brown to black										
	6	FILL / COAL FRAGMENTS, black, trace silt			588						

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

NE WD NE AB

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

LOG OF BORING NO. B-4

Page 1 of 1

CLIENT		WV State Police	
SITE		PROJECT	
South Charleston, West Virginia		WV State Police Headquarters	
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan	SAMPLES	
	DESCRIPTION	TESTS	
	Approx. Surface Elev.: 594 ft	DEPTH, ft.	USCS SYMBOL
	0.5 <u>ASPHALT AND GRAVEL</u> 593.5		NUMBER
	<u>FILL</u> , lean clay with sand, brown, micaceous 591.5		TYPE
	<u>FILL / COAL FRAGMENTS</u> , black		RECOVERY, in.
	6 588		SPT - N** BLOWS / ft.
	8 586		WATER CONTENT, %
	<u>SANDY SILTY CLAY</u> , brown, some thin sand lenses, medium stiff		DRY UNIT WT pcf
			UNCONFINED STRENGTH, psf
	17 577	CL ML	
	<u>CLAYEY SAND</u> , light gray, loose		
	20 574	CL ML	
	<u>BORING COMPLETED</u>	SC	

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

▽ NE	WD	▽ NE	AB
▽		▽	

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

LOG OF BORING NO. B-5

Page 1 of 1

CLIENT		WV State Police	
SITE		PROJECT	
South Charleston, West Virginia		WV State Police Headquarters	
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan	SAMPLES	
	DESCRIPTION	TESTS	
	Approx. Surface Elev.: 594 ft	DEPTH, ft.	USCS SYMBOL
		NUMBER	TYPE
		RECOVERY, in.	SPT - N** BLOWS / ft.
		WATER CONTENT, %	DRY UNIT WT pcf
		UNCONFINED STRENGTH, psf	
0.5	<u>TOPSOIL</u>	593.5	
3	<u>FILL</u> , sandy lean clay, trace coal fragments	591	
	<u>FILL / COAL FRAGMENTS</u> , black, brown, silty with slag fragments, sandstone fragments, coal fragments, masonry brick fragments		
12	<u>LEAN CLAY</u> , grayish brown with gray, vertical streaks, medium stiff	582	
17	<u>LEAN CLAY</u> , brown mottled with light brown, stiff to very stiff	577	
20	<u>BORING COMPLETED</u>	574	

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

▽ 13 WD ▽ 8 AB

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

LOG OF BORING NO. B-6

Page 1 of 1

CLIENT		WV State Police									
SITE		South Charleston, West Virginia									
PROJECT		WV State Police Headquarters									
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES				TESTS		
					NUMBER	TYPE	RECOVERY, in.	SPT - N** BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf
	0.5	ASPHALT AND GRAVEL	593.5								
		FILL, sandy lean clay, brown, trace gravel			1	SS	10	2			2500*
					2	SS	8	5			1500*
	6	SANDY LEAN CLAY, brown, trace gravel, trace gray, soft to medium stiff	588								
					3	SS	10	2			3000*
					4	SS	12	4			2000*
	12	LEAN CLAY, trace sand, brown, light brown and orangish brown, stiff	582								
					5	SS	14	13			8000*
					6	SS	16	12			8500*
	20	BORING COMPLETED	574								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

▽ 13 WD ▽ 8 AB

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

LOG OF BORING NO. B-7

Page 1 of 1

CLIENT		WV State Police	
SITE		PROJECT	
South Charleston, West Virginia		WV State Police Headquarters	
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan	SAMPLES	
	DESCRIPTION	TESTS	
	Approx. Surface Elev.: 594 ft	DEPTH, ft.	USCS SYMBOL
	0.5 <u>ASPHALT AND GRAVEL</u> 593.5		
	<u>FILL / COAL FRAGMENTS</u> , black, trace silt	1	SS 9 11
		2	SS 8 3
	6 588	3	SS 12 2 2500*
	8 586	CL 4	SS 10 5 3500*
	<u>LEAN CLAY</u> , brown and gray, trace sand, medium stiff		
	12 582	CL 5	SS 13 10
	<u>LEAN CLAY</u> , trace sand, brown and light brown, mottled, stiff		
	20 574	CL 6	SS 12 9
	<u>BORING COMPLETED</u>		

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

NE	WD	NE	AB

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

LOG OF BORING NO. B-8

Page 1 of 1

CLIENT		WV State Police	
SITE		PROJECT	
South Charleston, West Virginia		WV State Police Headquarters	
GRAPHIC LOG	Boring Location: As shown on Boring Location Plan		
	DESCRIPTION		
	Approx. Surface Elev.: 594 ft	DEPTH, ft.	USCS SYMBOL
	0.5 <u>ASPHALT AND GRAVEL</u> 593.5		NUMBER
	<u>FILL / COAL FRAGMENTS</u> , sandy silty clay, black, some coal and slag fragments, sandstone fragments 591		TYPE
	3 <u>FILL</u> , sandy lean clay, brown, trace organic 588		RECOVERY, in.
	6 <u>LEAN CLAY</u> , brown, medium stiff to stiff 582		SPT - N** BLOWS / ft.
	12 <u>SILTY SAND</u> , brown, gray and orange with trace of silt and clay, medium dense 577		WATER CONTENT, %
	17 <u>SANDY SILT</u> , gray with black horizontal streaks, very soft to soft 569		DRY UNIT WT pcf
	25 <u>BORING COMPLETED</u>		UNCONFINED STRENGTH, psf

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
 **CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

12	WD	13	AB

Terracon

BORING STARTED 12-12-11

BORING COMPLETED 12-12-11

RIG FOREMAN TS

TG JOB # N2115084

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084

**Field Exploration Description**

The boring locations were selected and staked in the field by WVSP personnel. The approximate boring locations are indicated on the attached Boring Location Diagram. The ground surface elevations indicated on the boring logs were interpolated from provided topographical information. The elevations shown on the boring logs are rounded to the nearest ½ foot. The locations and elevations of the borings should be considered accurate only to the degree implied by the means and methods used to define them.

The borings were drilled with a truck-mounted rotary drill rig using continuous flight hollow-stem augers to advance the boreholes. Samples of the soil encountered in the boring were obtained using the split barrel sampling procedures.

In the split-barrel sampling procedure, the number of blows required to advance a standard 2-inch O.D. split-barrel sampler the last 12 inches of the typical total 18-inch penetration by means of a 140-pound CME auto-hammer with a free fall of 30 inches, is the standard penetration resistance value (SPT-N). This value is used to estimate the in-situ relative density of cohesionless soils and consistency of cohesive soils.

A CME automatic SPT hammer was used to advance the split-barrel sampler in the borings performed on this site. A significantly greater efficiency is achieved with the automatic hammer compared to the conventional safety hammer operated with a cathead and rope. This higher efficiency has an appreciable effect on the SPT-N value.

The soil samples were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification. Information provided on the boring log attached to this report includes soil descriptions, consistency evaluations, boring depths, sampling intervals, and groundwater conditions. The boring was backfilled with auger cuttings prior to the drill crew leaving the site.

Field logs of the borings were prepared by the drill crew. The logs included visual classifications of the materials encountered during drilling, as well as, the driller's interpretation of the subsurface conditions between samples. Final boring logs included with this report represent the engineer's interpretation of the field logs and include modifications based on laboratory observation and tests of the samples.

APPENDIX B
SUPPORTING INFORMATION

Geotechnical Engineering Report

West Virginia State Police Headquarters ■ South Charleston, West Virginia
January 23, 2012 ■ Terracon Project No. N2115084

Terracon**Laboratory Testing**

As a part of the laboratory testing program, the soil samples were classified in the laboratory based on visual observation, texture, and the limited laboratory testing described above. Unconfined compressive strength was estimated using a pocket penetrometer. The soil descriptions presented on the boring logs for native soils and bedrock are in accordance with our attached General Notes, and Unified Soil Classification System (USCS). The estimated group symbol for the USCS is also shown on the boring logs, and a brief description of the Unified System is included in this report.

APPENDIX C
SUPPORTING DOCUMENTS

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1- $\frac{3}{8}$ " I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
ST:	Thin-Walled Tube - 2" O.D., 3" O.D., unless otherwise noted	PA:	Power Auger (Solid Stem)
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
DB:	Diamond Bit Coring - 4", N, B	RB:	Rock Bit
BS:	Bulk Sample or Auger Sample	WB:	Wash Boring or Mud Rotary

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

WATER LEVEL MEASUREMENT SYMBOLS:

WL:	Water Level	WS:	While Sampling	BCR:	Before Casing Removal
WCI:	Wet Cave in	WD:	While Drilling	ACR:	After Casing Removal
DCI:	Dry Cave in	AB:	After Boring	N/E:	Not Encountered

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

<u>Unconfined Compressive Strength, Q_u, psf</u>	<u>Standard Penetration or N-value (SS) Blows/Ft.</u>	<u>Consistency</u>
< 500	0 - 1	Very Soft
500 - 1,000	2 - 4	Soft
1,000 - 2,000	4 - 8	Medium Stiff
2,000 - 4,000	8 - 15	Stiff
4,000 - 8,000	15 - 30	Very Stiff
8,000+	> 30	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

<u>Standard Penetration or N-value (SS) Blows/Ft.</u>	<u>Relative Density</u>
0 - 3	Very Loose
4 - 9	Loose
10 - 29	Medium Dense
30 - 50	Dense
> 50	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term(s) of other constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 15
With	15 - 29
Modifier	≥ 30

GRAIN SIZE TERMINOLOGY

<u>Major Component of Sample</u>	<u>Particle Size</u>
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75mm)
Sand	#4 to #200 sieve (4.75 to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

<u>Descriptive Term(s) of other constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

<u>Term</u>	<u>Plasticity Index</u>
Non-plastic	0
Low	1-10
Medium	11-30
High	> 30

GENERAL NOTES

Description of Rock Properties

WEATHERING

Fresh	Rock fresh, crystals bright, few joints may show slight staining. Rock rings under hammer if crystalline.
Very slight	Rock generally fresh, joints stained, some joints may show thin clay coatings, crystals in broken face show bright. Rock rings under hammer if crystalline.
Slight	Rock generally fresh, joints stained, and discoloration extends into rock up to 1 in. Joints may contain clay. In granitoid rocks some occasional feldspar crystals are dull and discolored. Crystalline rocks ring under hammer.
Moderate	Significant portions of rock show discoloration and weathering effects. In granitoid rocks, most feldspars are dull and discolored; some show clayey. Rock has dull sound under hammer and shows significant loss of strength as compared with fresh rock.
Moderately severe	All rock except quartz discolored or stained. In granitoid rocks, all feldspars dull and discolored and majority show kaolinization. Rock shows severe loss of strength and can be excavated with geologist's pick.
Severe	All rock except quartz discolored or stained. Rock "fabric" clear and evident, but reduced in strength to strong soil. In granitoid rocks, all feldspars kaolinized to some extent. Some fragments of strong rock usually left.
Very severe	All rock except quartz discolored or stained. Rock "fabric" discernible, but mass effectively reduced to "soil" with only fragments of strong rock remaining.
Complete	Rock reduced to "soil". Rock "fabric" not discernible or discernible only in small, scattered locations. Quartz may be present as dikes or stringers.

HARDNESS (for engineering description of rock – not to be confused with Moh's scale for minerals)

Very hard	Cannot be scratched with knife or sharp pick. Breaking of hand specimens requires several hard blows of geologist's pick.
Hard	Can be scratched with knife or pick only with difficulty. Hard blow of hammer required to detach hand specimen.
Moderately hard	Can be scratched with knife or pick. Gouges or grooves to ¼ in. deep can be excavated by hard blow of point of a geologist's pick. Hand specimens can be detached by moderate blow.
Medium	Can be grooved or gouged 1/16 in. deep by firm pressure on knife or pick point. Can be excavated in small chips to pieces about 1-in. maximum size by hard blows of the point of a geologist's pick.
Soft	Can be gouged or grooved readily with knife or pick point. Can be excavated in chips to pieces several inches in size by moderate blows of a pick point. Small thin pieces can be broken by finger pressure.
Very soft	Can be carved with knife. Can be excavated readily with point of pick. Pieces 1-in. or more in thickness can be broken with finger pressure. Can be scratched readily by fingernail.

Joint, Bedding and Foliation Spacing in Rock^a

Spacing		Joints		Bedding/Foliation	
Less than 2 in.		Very close		Very thin	
2 in. – 1 ft.		Close		Thin	
1 ft. – 3 ft.		Moderately close		Medium	
3 ft. – 10 ft.		Wide		Thick	
More than 10 ft.		Very wide		Very thick	
Rock Quality Designator (RQD) ^b			Joint Openness Descriptors		
RQD, as a percentage		Diagnostic description	Openness		Descriptor
Exceeding 90		Excellent	No Visible Separation		Tight
90 – 75		Good	Less than 1/32 in.		Slightly Open
75 – 50		Fair	1/32 to 1/8 in.		Moderately Open
50 – 25		Poor	1/8 to 3/8 in.		Open
Less than 25		Very poor	3/8 in. to 0.1 ft.		Moderately Wide
			Greater than 0.1 ft.		Wide

- a. Spacing refers to the distance normal to the planes, of the described feature, which are parallel to each other or nearly so.
b. RQD (given as a percentage) = length of core in pieces 4 in. and longer/length of run.

References: American Society of Civil Engineers. Manuals and Reports on Engineering Practice - No. 56. Subsurface Investigation for Design and Construction of Foundations of Buildings, New York: American Society of Civil Engineers, 1976.
U.S. Department of the Interior, Bureau of Reclamation, Engineering Geology Field Manual.

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests^A

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A					Soil Classification		
					Group Symbol	Group Name ^B	
Coarse Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines ^C	Cu ≥ 4 and 1 ≤ Cc ≤ 3 ^E		GW	Well-graded gravel ^F	
			Cu < 4 and/or 1 > Cc > 3 ^E		GP	Poorly graded gravel ^F	
		Gravels with Fines More than 12% fines ^C	Fines classify as ML or MH		GM	Silty gravel ^{F,G,H}	
			Fines classify as CL or CH		GC	Clayey gravel ^{F,G,H}	
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines ^D	Cu ≥ 6 and 1 ≤ Cc ≤ 3 ^E		SW	Well-graded sand ^I	
			Cu < 6 and/or 1 > Cc > 3 ^E		SP	Poorly graded sand ^I	
		Sands with Fines More than 12% fines ^D	Fines classify as ML or MH		SM	Silty sand ^{G,H,I}	
			Fines Classify as CL or CH		SC	Clayey sand ^{G,H,I}	
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silt and Clays Liquid limit less than 50	inorganic	PI > 7 and plots on or above "A" line ^J		CL	Lean clay ^{K,L,M}	
			PI < 4 or plots below "A" line ^J		ML	Silt ^{K,L,M}	
		organic	Liquid limit - oven dried	< 0.75	OL	Organic clay ^{K,L,M,N}	
			Liquid limit - not dried			Organic silt ^{K,L,M,O}	
		Silt and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line		CH	Fat clay ^{K,L,M}
				PI plots below "A" line		MH	Elastic Silt ^{K,L,M}
		organic	Liquid limit - oven dried	< 0.75	OH	Organic clay ^{K,L,M,P}	
			Liquid limit - not dried			Organic silt ^{K,L,M,Q}	
Highly organic soils	Primarily organic matter, dark in color, and organic odor				PT	Peat	

^ABased on the material passing the 3-in. (75-mm) sieve

^BIf field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^CGravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

^DSands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

$$^E Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^FIf soil contains $\geq 15\%$ sand, add "with sand" to group name.

^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^HIf fines are organic, add "with organic fines" to group name.

^IIf soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^JIf Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^KIf soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^LIf soil contains $\geq 30\%$ plus No. 200 predominantly sand, add "sandy" to group name.

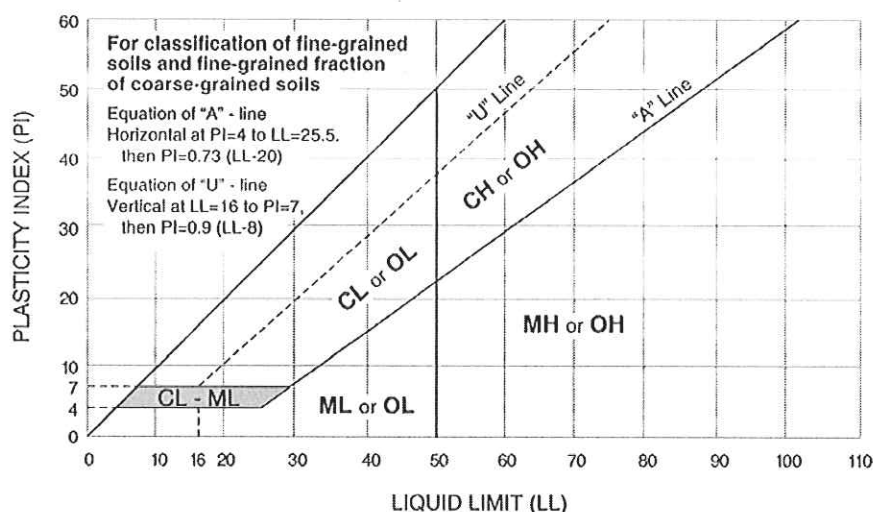
^MIf soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.



SECTION 08211 - FLUSH WOOD DOORS**PART 1 - GENERAL****1.1 SUMMARY**

- A. This Section includes the following:
 - 1. Solid core doors with wood veneer faces.
 - 2. Shop priming of flush wood doors.
 - 3. Factory finishing of flush wood doors.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 8 Section "Steel Doors and Frames for metal door frames in flush wood doors.
 - 2. Division 8 Section "Door Hardware".

1.2 SUBMITTALS

- A. Product data for each type of door, including details of core and edge construction, trim for openings and louvers, and factory-finishing specifications.
- B. Shop drawings indicating location and size of each door, elevation of each kind of door, pocket door frame, details of construction, location and extent of hardware blocking, fire ratings, requirements for veneer matching and factory finishing and other pertinent data.
 - 1. Indicate dimensions and locations of mortises and holes for hardware.
 - 2. Indicate dimensions and locations of cutouts.
 - 3. Indicate requirements for veneer matching.
 - 4. Indicate doors to be factory finished and finish requirements.
 - 5. Indicate fire-protection ratings for fire-rated doors.
- C. Samples for initial selection in the form of color charts consisting of actual materials in small sections for faces of factory-finished doors with transparent finish. Show the full range of colors available for stained finishes.
- D. Samples for verification in the form and size indicated below:
 - 1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches, for each material and finish.
 - a. For each wood species and transparent finish, provide set of three samples showing typical range of color and grain to be expected in the finished work.
 - 2. Corner sections of doors, approximately 8 by 10 inches, with door faces and edges representing actual materials to be used.
 - a. Provide samples for each species of veneer and solid lumber required.
 - b. Provide samples for each color, texture, and pattern of plastic laminate required.

- c. Finish veneer-faced door samples with same materials proposed for factory-finished doors.
- 3. Louver blade and frame sections, 6 inches long, for each material and finish specified.
- 4. Frames for light openings, 6 inches long, for each material, type, and finish required.

1.3 QUALITY ASSURANCE

- A. Quality Standard: In addition to requirements specified, comply with WDMA I.S.1-A, "Architectural Wood Flush Doors."
 - 1. Door core is to have no formaldehyde.
- B. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C Category A.
 - 1. Temperature-Rise Limit: At vertical exit enclosures and exit passageways, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F above ambient after 30 minutes of standard fire-test exposure.
- C. Single-Source Responsibility: Obtain doors from one source and by a single manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Package doors individually in cardboard cartons and wrap bundles of doors in plastic sheeting.
- C. Handle doors with clean hands or gloves.
- D. Do not drag doors across one another.
- E. Mark each door on bottom rail with opening number used on Shop Drawings.
- F. Maintain door protection until date of final acceptance.

1.5 PROJECT CONDITIONS

- A. Conditioning: Do not deliver or install doors until conditions for temperature and relative humidity have been stabilized and will be maintained in storage and installation areas during the remainder of the construction period to comply with AWI quality standard Section 100-S-11 "Relative Humidity and Moisture Content."

1.6 WARRANTY

- A. General Warranty: Door manufacturer's warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

- B. Door Manufacturer's Warranty: Submit written agreement on door manufacturer's standard form signed by manufacturer, Installer, and Contractor, agreeing to repair or replace defective doors that have warped (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section or that show telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span, or do not conform to tolerance limitations of referenced quality standards.
1. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors where defect was not apparent prior to hanging.
 2. Warranty shall be in effect during the following period of time after date of Substantial Completion.
 - a. Solid Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide as a Basis Of Design, flush wood door products as manufactured by VT Industries, or products by one of the following:
1. Solid Core Doors:
 - a. Algoma Hardwoods, Inc.(Basis Of Design)
 - b. Chappell Door Co.
 - c. Eggers Industries.
 - d. Graham; an Assa Abloy Group company.
 - e. Marshfield Door Systems, Inc.

2.2 INTERIOR FLUSH WOOD DOORS

- A. Low-Emitting Materials: Provide doors made with adhesives and composite wood products that do not contain urea formaldehyde.
- B. WDMA I.S.1-A Performance Grade: Heavy Duty.
- C. Solid Core Doors: Comply with the following requirements:
1. Faces: White Birch, plain sliced, Premium Grade.
 2. Construction: 5 plies.
 3. Slip-match veneer.
 4. Core: Particleboard: ANSI A208.1, Grade LD-1, made with binder containing no urea-formaldehyde resin.
- D. Fire-Rated Solid Core Doors: Comply with the following requirements:
1. Faces and Grade: Provide faces and grade to match non-fire-rated doors, unless otherwise indicated.
 2. Construction: Core construction as indicated in 2.2.C.4 above and as required to provide fire-resistance rating indicated.

3. Blocking: Provide composite blocking designed to maintain fire resistance of door but with improved screw-holding capability of same thickness as core and with minimum dimensions as follows:
 - a. 5-inch top rail blocking.
 - b. 5-inch bottom rail blocking.
 - c. 5-by-18-inch lock blocks.
 - d. 5-inch mid-rail blocking.
4. Edge Construction: Provide manufacturer's standard laminated-edge construction for improved screw-holding capability and split resistance as compared to edges composed of a single layer of treated lumber.
5. Pairs: Where possible, provide fire-rated pairs with fire-retardant stiles that are labeled and listed for kinds of applications indicated without formed-steel edges and astragals.

2.3 FABRICATION

- A. Fabricate flush wood doors to comply with following requirements:
 1. Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels:
 - a. Comply with clearance requirements of referenced quality standard for fitting. Comply with requirements of NFPA 80 for fire-resistance-rated doors.
 2. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame shop drawings, DHI A115-W series standards, and hardware templates.
 - a. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before proceeding with factory machining.
 - b. Metal Astragals (Where Necessary): Pre-machine astragals and formed-steel edges for hardware for pairs of fire-rated doors.

2.4 FACTORY FINISHING

- A. General: Finish wood doors at factory. Comply with referenced quality standard's requirements for factory finishing.
- B. Transparent Finish: Comply with requirements indicated for grade, finish system, staining effect, and sheen.
 1. Grade: Premium.
 2. Finish: VT Industries: "Clear".
 - a. WDMA System TR-6 premium grade catalyzed polyurethane.

- b. Stain and sealer coatings applied and numbered as per manufacturer's specifications.
- 3. Effect: Filled finish.
- 4. Sheen: Satin.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine installed door frames prior to hanging door:
 - 1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with plumb jambs and level heads.
 - 2. Reject doors with defects. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: Refer Division 8 Section "Door Hardware".
- B. Manufacturer's Instructions: Install wood doors to comply with manufacturer's instructions and referenced quality standard and as indicated.
 - 1. Install fire-rated doors in corresponding fire-rated frames according to requirements of NFPA 80.
- C. Factory-Finished Doors: Restore finish before installation, if fitting or machining is required at the job site.

3.3 ADJUSTING AND PROTECTION

- A. Operation: Re-hang or replace doors that do not swing or operate freely.
- B. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DPS1317

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

<input type="checkbox"/> Addendum No. 1	<input type="checkbox"/> Addendum No. 6
<input type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input type="checkbox"/> Addendum No. 4	<input type="checkbox"/> Addendum No. 9
<input type="checkbox"/> Addendum No. 5	<input type="checkbox"/> Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Company

Authorized Signature

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.